

Image:



Drawing List:

Sheet Number	Key:		DD	
	O	= Current Issue	04/18/2014	100% CD
	P	= Previously Issued	05/23/2014	50% CD
		= Not Issued (blank)	10/02/2014	95% CD
	i	= For information only	Current Revision	
Sheet Name				

G	GENERAL				
G001	COVER SHEET	P	P	O	
G101	LIFE SAFETY PLAN	P	P	O	

A	ARCHITECTURAL				
A100	GROUND LEVEL PLAN	P	P	O	
A101	MAIN LEVEL PLAN	P	P	O	
A102	ROOF PLAN	P	P	O	
A200	BUILDING ELEVATIONS	P	P	O	
A201	BUILDING ELEVATIONS	P	P	O	
A202	ENLARGED ELEVATIONS			O	
A203	ENLARGED ELEVATIONS			O	
A210	BUILDING SECTIONS	P	P	O	
A211	TYPICAL WALL SECTION & ELEVATION	P	P	O	
A220	WALL SECTIONS	P	P	O	
A300	ENLARGED SPIRAL STAIRS			O	
A400	GROUND LEVEL RCP			O	
A401	MAIN LEVEL RCP	P	P	O	
A502	DETAILS			P	O
A900	INTERIOR PERSPECTIVES			P	O

S	STRUCTURAL				
S1.1	Foundation Plan	P	P	O	
S1.2	Column Location Plan			O	
S2.1	Floor Framing Plan	P	P	O	
S2.2	Main Roof / Tower Floor Framing Plan	P	P	O	
S2.3	Tower Framing Plan	P	P	O	
S4.1	Sections	P	P	O	
S4.2	Sections	P	P	O	
S4.3	Sections			O	
S5.1	General Notes & Typical Details			O	

M	MECHANICAL				
M1.0	Mechanical Legend and General Notes	P	P	O	
M2.0	Mechanical Floor Plan	P	P	O	
M3.0	Mechanical Schedules	P	P	O	
M4.0	Mechanical Details	P	P	O	

E	ELECTRICAL				
E1.0	Electrical Symbols & legends	P	P	O	
E2.0	Electrical Site Plan	P	P	O	
E3.0	Electrical Lighting Plan	P	P	O	
E4.0	Electrical Classroom Power and Systems Plan	P	P	O	
E5.0	Electrical One-Line Riser Diagram and Feeder Schedules	P	P	O	
E6.0	Electrical Details	P	P	O	

P	PLUMBING				
P1.0	Plumbing Legend and General Notes	P	P	O	
P2.0	Plumbing Floor Plan	P	P	O	
P3.0	Plumbing Schedules And Details	P	P	O	

FP	FIRE PROTECTION				
FP1.0	FIRE PROTECTION LEGEND AND GENERAL NOTES			P	O
FP2.0	FIRE PROTECTION FLOOR PLAN			P	O
FP2.1	FIRE PROTECTION FLOOR PLAN				O

Project Name:

ROBINSON PRESERVE CLASSROOM BUILDING

Bradenton, FL

Project Team:

95% CONSTRUCTION DOCUMENTS

ARCHITECT:
Houser Walker Architecture
1819 Peachtree Rd. NE, Ste 102
Atlanta, GA 30309
404.633.4264

CIVIL ENGINEER:
Stantec
6900 Professional Pkwy, Suite 100
Sarasota, FL 34240
941.720.3483

STRUCTURAL ENGINEER:
Stirling & Wilbur Engineering Group
7085 South Tamiami Trail
Sarasota, FL 34231
941.929.1552

MEP ENGINEER:
ATP Engineering South
5227 Office Park Blvd
Bradenton, FL 34203
941.751.6439

Project Information:

Occupancy Type:
Group B- Business

Construction Type:
Type VB- Sprinklered

Allowable Building Height and Area:
Area per Floor = 9,000sf
Height = 40'
Number of Stories = 2

Actual Building Height and Area:
Main Level = 1,473sf
Second Level = 170sf
Actual Height = 34'
Actual Stories = 2

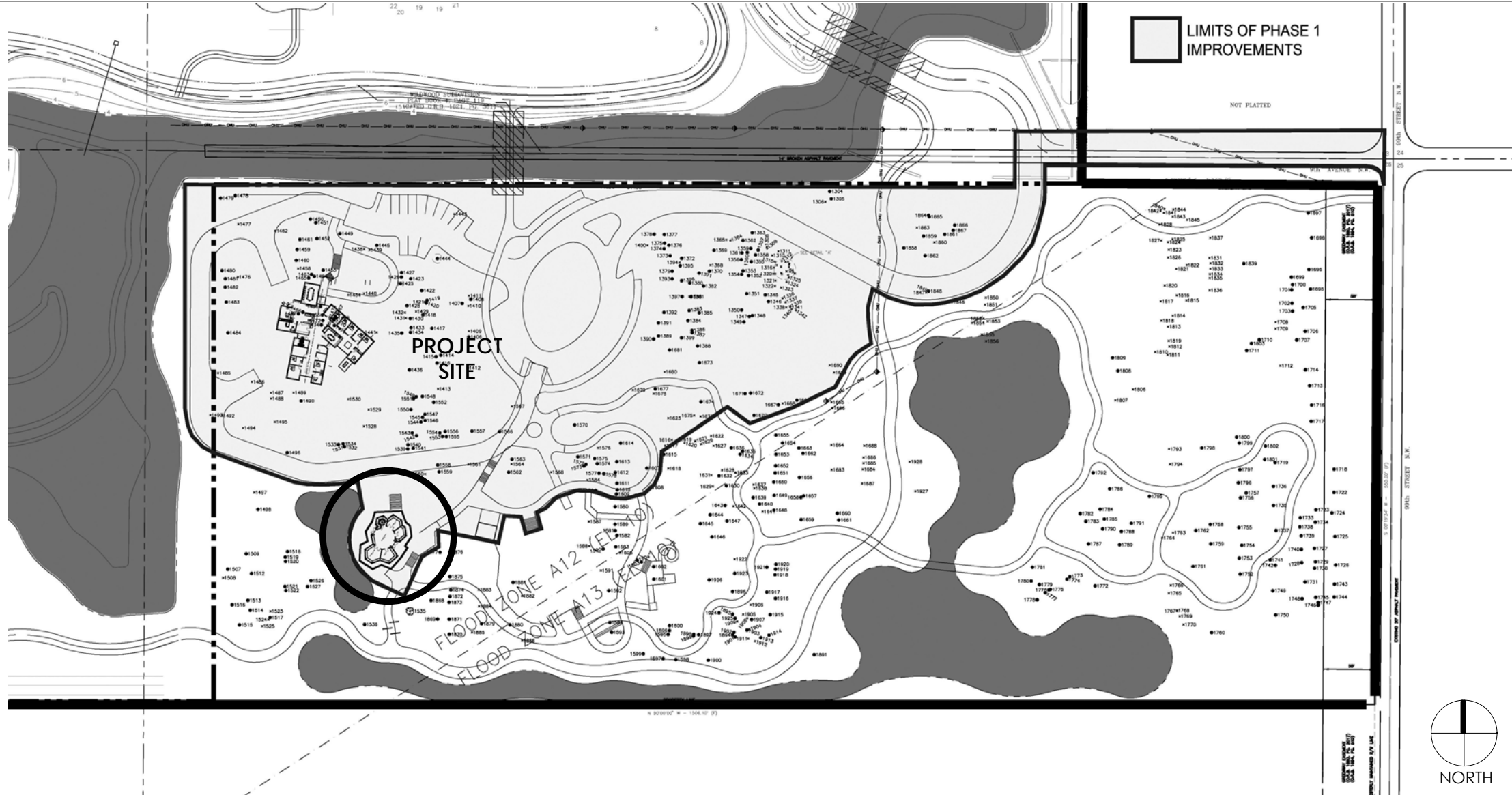
Applicable Codes:

- 2010 Florida Fire Prevention Code (NFPA 1, FIRE CODE, FLORIDA 2010 EDITION; NFPA 101, LIFE SAFETY CODE, FLORIDA 2010 EDITION)
- 2010 Florida Building Code- Building
- 2010 Florida Building Code/Fuel Gas
- 2010 Florida Building Code/Mechanical
- 2010 Florida Building Code/Energy Conservation
- 2008 National Electric Code
- 2010 Florida Building Code/Plumbing
- 2002-01 Building Accessibility Construction Administrative Code Ordinance
- 2010 Florida Building Code/Accessibility

Revision Schedule:

REV. # DATE DESCRIPTION

Project Map:



Location Map:



HOUSER
WALKER
ARCHITECTURE

ATP ENGINEERING SOUTH,
PL
BRADENTON, FLORIDA
ENGR. BUSINESS #8908
941-751-6485
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ATP

REV. # DATE DESCRIPTION

ROBINSON PRESERVE EXPANSION OFFICE
MANATEE CO WA #18, IFAS #W1300220
MANATEE COUNTY, FLORIDA

COVER SHEET

DRAWING TITLE

DATE: 10/02/2014

DWG SCALE:

DRAWN BY:

CHECKED BY:

SHEET No.:

G001

Code Summary:

1. GENERAL PROJECT INFORMATION

A. Project Information Summary

NAME OF PROJECT: Robinson Preserve Classroom Building
PROPOSED USE: Administrative Offices
LOCATION: Robinson Preserve, Manatee County

B. Owner Information

OWNER: Manatee County Parks and Natural Resources Department
CONTACT PERSON: Charlie Hunsicker, 941-748-4501

C. Design Team Information

DISCIPLINE	NAME	CONTACT	PHONE NUMBER
MECHANICAL	ATP Engineering	John Camden	941.751.6485
ELECTRICAL	ATP Engineering	Matt Camden	941.751.6485
PLUMBING/FP	ATP Engineering		
CIVIL	Stantec	Michael Bell	941.907.6900
LANDSCAPE	Stantec	Scott Butfari	941.907.6900 x263
SRUCTURAL	Sterling & Wilbur	Steve Wilbur	941.929.1552
ARCHITECTURAL	Houser Walker	Greg Walker	404.633.4264

D. Applicable Codes

1. 2010 Florida Fire Prevention Code
- NFPA 1, FIRE CODE, FLORIDA 2010 EDITION:
- NFPA 101, LIFE SAFETY CODE, FLORIDA 2010 EDITION
2. 2010 Florida Building Code- Building
3. 2010 Florida Building Code/Fuel Gas
4. 2010 Florida Building Code/Mechanical
5. 2010 Florida Building Code/Energy Conservation
6. 2008 National Electric Code
7. 2010 Florida Building Code/Plumbing
8. 2002-01 Building Construction Administrative Code Ordinance
9. 2012 FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION

E. Occupancy/Construction Type

OCCUPANCY CLASSIFICATION: Space is sprinklered				
Code	Size	Occupancy	Construction Type	Comments
FFPC	10,500 sf	Business	Type V (OOO)	Single Story
FBC-B	10,500 sf	Business	VB	Single Story

F. Height and Area Limitations

Allowable Area= 6,000 x 200% increase = 12,000sf
Area Modification: Sprinkler Increase: 200%
Allowable height= 40'+ 20' increase = 60'
Allowable Stories = 1 + 1 increase = 2

G. Occupancy Load Factors

Business Use: 100 gross
Storage/Mechanical 300 gross

Floor Level	Occupancy	Floor Area/Occ Load	Net/Gross	Area	Occ
Lower	Storage	300	gross	270	1
Main	Business Storage/Mech	100 300	gross gross	5000 433	50 2

Building Total

53

II. FIRE RESISTANCE REQUIREMENTS

A. Building Components

Structural Elements	TYPE VB RATING (hrs)	CODE REFERENCE
Structural Frame, including columns, girders, trusses	0	FBC Table 601
Bearing Walls: Exterior Interior	0 0	FBC Table 601
Nonbearing walls and partitions	0	FBC Table 602
Floor Construction	0	FBC Table 601
Roof Construction	0	FBC Table 601
Exterior Walls	0	FBC Table 601

Egress Capacity: (LSC 7.3.3)

Stairs: 0.3" / person
Level components and ramps: 0.22"/per

Maximum Travel Distance: (LSC 7.6.1)

Assembly: 150 ft
Business: 200 ft
Storage: NA

Maximum Dead End Limit: (LSC 7.6.1)

Assembly: 0 ft / 20 ft dead-end aisle
Business: 20 ft
Storage: NA

Maximum Common Path of Travel: (LSC 7.6.1)

Assembly: 20 ft
Business: 75 ft
Storage: NA

LSC 7.3.1.2

General Notes:

Contract Documents

1. The Contractor shall maintain at the site for the Owner one copy of the Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and one copy of approved Shop Drawings, Product Data, Samples, and similar required submittals.
2. The Contractor shall perform work in accordance with the Contract Documents.
3. The drawings and specifications are complementary and are to be understood comprehensively. Organization and arrangement of the drawings and/ or specifications into divisions, sections and articles shall not control the Contractor in dividing the work among subcontractors or in establishing the extent of Work to be performed by any trade.
4. Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any condition at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents. However, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as request for information.
5. Drawings are not to be scaled for information.

Other General Requirements

1. The Contractor shall supervise and direct the work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof, and shall be fully responsible for the jobsite safety associated with such instructions. If the Contractor determines that such instructions may not be safe, the Contractor shall give timely written notice to the Owner and Architect and shall not proceed with that portion of the Work without further written instructions from the Architect.
2. The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor and communications given the superintendent shall be binding as if given to the Contractor.
3. Demolition debris shall be removed from the site daily. Contractor shall clean jobsite daily, maintain a clean workplace and keep construction debris and dust away from adjacent building occupants.
4. Install blocking in all walls indicated to receive wall mounted devices and/ or cabinetry.
5. All wood blocking shall be fire retardant treated.
6. Provide double studs at all openings in walls.
7. Fur in all fire extinguisher cabinets so as to afford proper fit and to maintain the integrity of any rated walls in which they occur.
8. All vertical rated mechanical chase assemblies shall extend from floor finish to structure above.
10. All exposed electrical, fire protection, and mechanical devices shall be centered on or align with architectural features as shown on the Reflected Ceiling Plans.
11. Openings created in slabs, smoke partitions, or fire rated partitions by this work shall be repaired using techniques and materials to maintain the rating of the wall, including but not limited to, smoke dampers, fire dampers, firestopping, and fire safing, penetrations of masonry walls and concrete floors shall be stopped to minimum 2 hour rating.
12. Contractor is to coordinate with Owner provided materials & services, including: Security, A/V, TV, Tel/data cabeling, and whiteboards.
13. All dimensions are to face of finished surfaces, unless noted otherwise.

MATERIAL KEYNOTES

GENERAL NOTES

SHEET SPECIFIC NOTES

Legend:

<div>Room name</div> <div>101</div> <div>ROOM INDICATOR</div> <div># OF ROOM OCCUPANTS</div> <div>ROOM OCCUPANCY TYPE</div> <div>SLOPE INDICATOR</div> <div>DETAIL INDICATOR</div> <div>BUILDING SECTION INDICATOR</div> <div>WALL SECTION INDICATOR</div> <div>WALL SECTION INDICATOR</div> <div>INTERIOR ELEVATION INDICATOR</div> <div>EXTERIOR ELEVATION INDICATOR</div> <div>CALLOUT INDICATOR</div>	<div>WALL TYPE TAG INDICATOR</div> <div>WINDOW TYPE TAG INDICATOR</div> <div>KEYNOTE INDICATOR (SEE PROJECT MANUAL)</div> <div>DOOR TAG INDICATOR</div> <div>ELEVATION INDICATOR</div> <div>CENTER LINE</div> <div>NORTH INDICATOR</div> <div>DIMENSION LINE</div> <div>GRID LINE</div> <div>GRAPHIC SCALE, 1/8" = 1'-0"</div> <div>View Name</div> <div>1/8" = 1'-0"</div> <div>DRAWING TITLE</div>	<div>SECURITY KEYPAD</div> <div>SECURITY CAMERA</div> <div>CARD READER ACCESS</div> <div>FIRE EXTINGUISHER CABINET TO BE RECESSED IN WALL, UNLESS OTHERWISE NOTED.</div> <div>EXIT SIGN</div> <div>PANIC HARDWARE</div> <div>FIRE/HORN STROBE</div> <div>MOTION DETECTOR</div>	<div>TO BE REMOVED (DEMO SHEETS)</div> <div>EXISTING TO REMAIN</div> <div>NEW</div> <div>HIDDEN FEATURES LINE</div> <div>CENTER LINE</div> <div>2 HOUR RATED WALL LINE</div> <div>1 HOUR RATED WALL</div> <div>PATH OF EGRESS</div> <div>EGRESS DOOR</div> <div>BREAK LINE INDICATOR</div>
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ROBINSON PRESERVE EXPANSION CLASSROOM TREE HOUSE
MANATEE CO WA #18, IFAS #W1300220
MANATEE COUNTY, FLORIDA

Drawing List, General Notes & Keynote List

DATE: 10/02/2014

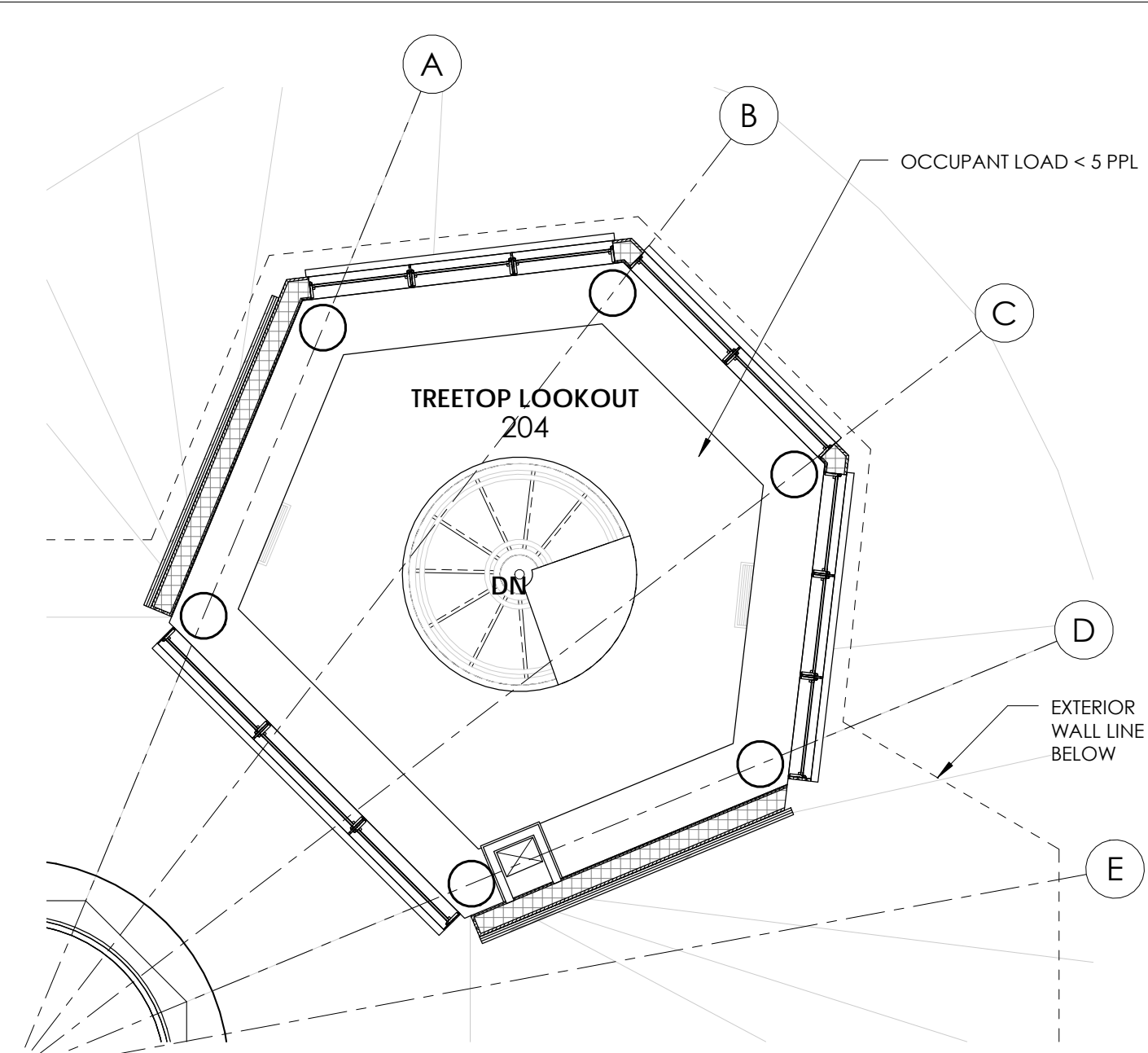
DWG SCALE: 1"= 1'-0"

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CHECKED BY:

SHEET No.:

G002



Room Number	Room Name	Area	OL FACTOR	OL #	OL
101	LARGE CLASSROOM	472 SF	BUSINESS (15SF)	15 SF	32
102	SMALL CLASSROOM 1	249 SF	BUSINESS (15SF)	15 SF	17
103	SMALL CLASSROOM 2	177 SF	BUSINESS (15SF)	15 SF	12
104	STAIR	167 SF	BUSINESS (15SF)	15 SF	12

A circular compass rose divided into four quadrants by a vertical and a horizontal line. The top quadrant is shaded black and labeled "NORTH" below it.

02 LOOKOUT LIFE SAFETY PLAN

SHEET SPECIFIC NOTES

HOUSER
WALKER
ARCHITECTURE

941-751-6485
www.atnengineeringnsouth.com

DATE :	10/02/2014
DWG SCALE:	1/4" = 1'-0"
DRAWN BY:	DE
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SHEET No.:	

LIFE SAFETY PLAN

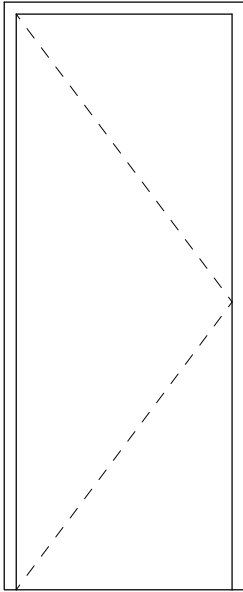
ON PRESERVE EXPANSION CLASSROOM
HOUSE
MANATEE CO WA #18, IFAS #W1300220
MANATEE COUNTY, FLORIDA

EXPANSION CLASSROOM TREE HOUSE

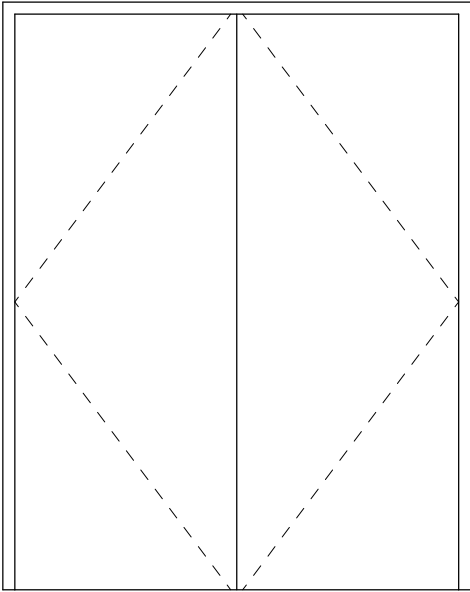
G101

Door Schedule:													
Door Number	Type	Door			Frame	Fire Rating	Hardware Set	Access Control	Door Position Monitoring	Request to Exit	Integrated w/ Fire Alarm	Automatic Door Operator	Comments
		Width	Height	Material	Material								
101a	GL2	6' - 0"	7' - 0"	FIBERGLASS	METAL		PANIC						
101b	GL2	6' - 0"	7' - 0"	FIBERGLASS	METAL		PANIC						
103	GL2	6' - 0"	7' - 0"	WOOD	METAL		CLASSROOM						
106	F2	6' - 0"	7' - 0"	WOOD	METAL		STORAGE						
106f	F2	6' - 0"	7' - 0"	WOOD	METAL		STORAGE						
107	F1	3' - 6"	7' - 0"	FIBERGLASS	METAL		STORAGE						

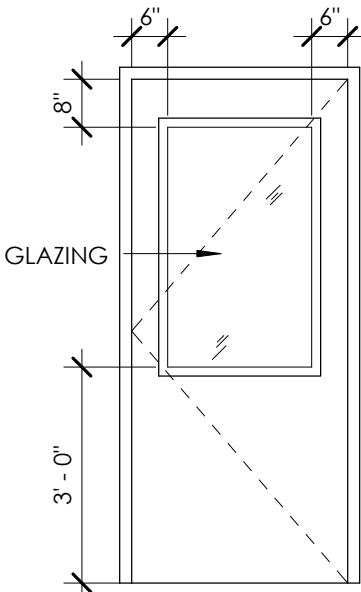
Door Types:



TYPE F1
SINGLE FLUSH DOOR

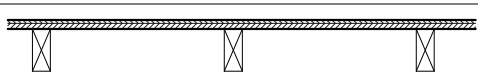
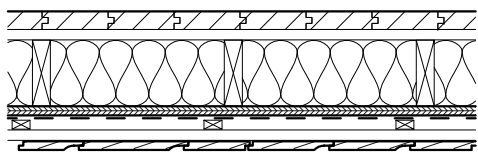
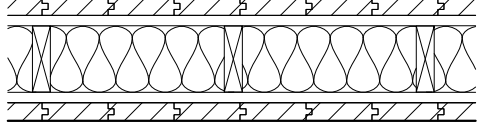


TYPE F2
DOUBLE FLUSH DOOR

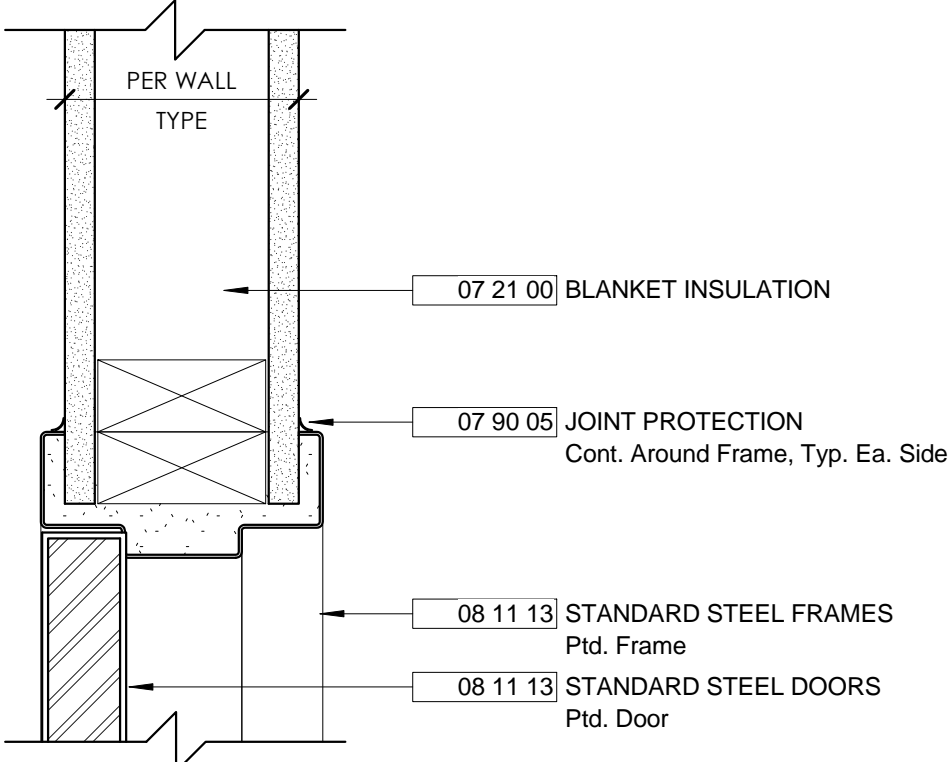


TYPE GL2
SINGLE DOOR W/ HALF GLASS

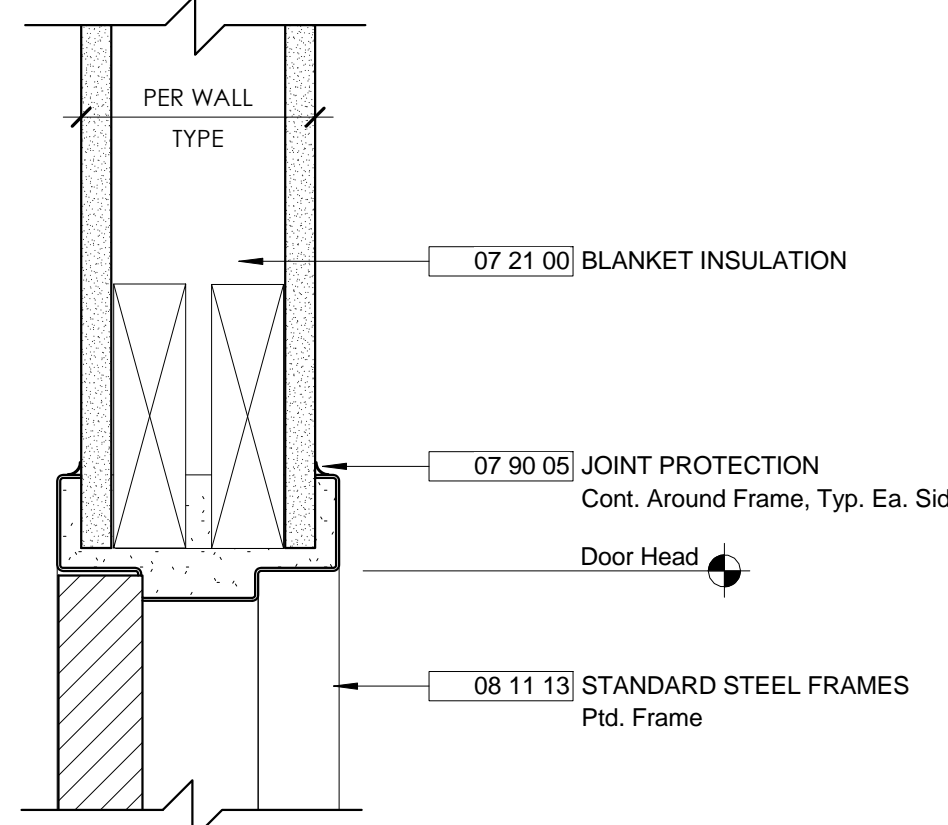
Window Schedule:							Window Types:	
Type Mark	Window Material	Height	Width	Finish	Glazing Type	Comments		
S1	08 62 00.AUS	11"	7' - 0"		Clear Acrylic			
S2	08 62 00.AUS	11"	8' - 0"		Clear Acrylic			
F1	08 50 00.AL1	1' - 11"	13/4"					
F2	08 50 00.AL1	1' - 11"	1' - 9"					
F3	08 50 00.AL1	1' - 11"	1' - 10"					
F4	08 50 00.AL1	1' - 11"	2' - 1 1/2"					
F5	08 50 00.AL1	1' - 11"	2' - 2"					
F6	08 50 00.AL1	1' - 11"	2' - 3"					
F7	08 50 00.AL1	1' - 11"	2' - 4 1/2"					
F8	08 50 00.AL1	1' - 11"	2' - 5 1/2"					
F9	08 50 00.AL1	1' - 11"	2' - 7"					
F10	08 50 00.AL1	1' - 11"	2' - 7 1/2"					
F11	08 50 00.AL1	1' - 11"	2' - 8"					
F12	08 50 00.AL1	1' - 11"	2' - 10"					
F13	08 50 00.AL1	1' - 11"	3' - 0"					
F14	08 50 00.AL1	1' - 11"	3' - 1"					
F15	08 50 00.AL1	1' - 11"	3' - 1 1/2"					
F16	08 50 00.AL1	1' - 11"	3' - 2 1/4"					
F17	08 50 00.AL1	1' - 11"	3' - 4 1/2"					
F18	08 50 00.AL1	1' - 11"	3' - 5 1/4"					
F19	08 50 00.AL1	1' - 11"	3' - 9"					
F20	08 50 00.AL1	1' - 11"	4' - 1"					
F21	08 50 00.AL1	1' - 11"	4' - 2 3/4"					
F22	08 50 00.AL1	3' - 4"	3' - 5"					
F23	08 50 00.AL1	4' - 5 1/2"	2' - 7"					
F24	08 50 00.AL1	4' - 5 1/2"	3' - 5 1/4"					
F25	08 50 00.AL1	4' - 11"	1' - 7 1/4"					
F26	08 50 00.AL1	4' - 11"	2' - 5 1/2"					
F27	08 50 00.AL1	4' - 11"	2' - 7"					
F28	08 50 00.AL1	4' - 11"	2' - 9 1/2"					
F29	08 50 00.AL1	4' - 11"	2' - 10"					
F30	08 50 00.AL1	4' - 11"	3' - 0"					
F31	08 50 00.AL1	4' - 11"	3' - 1 1/2"					
F32	08 50 00.AL1	4' - 11"	3' - 2 1/4"					
F33	08 50 00.AL1	4' - 11"	3' - 2 1/2"					
F34	08 50 00.AL1	4' - 11"	3' - 5 1/4"					
F35	08 50 00.AL1	4' - 11"	3' - 5 3/4"					

Partition Schedule:						
Type Mark	Width	Graphic	Rating	UL#	Description	Comments
S2	3 1/8"				Interior: 3 1/2" wood stud @ 16" o.c. w/ 1 layer of 3/4" plywood.	
TE	7"				Exterior: 5 1/2" wood stud @ 16" o.c., with 3/4" plywood sheathing, weather barrier, 1x2 vertical and horizontal wood battens and 5/4 wood siding.	Typical Exterior wall assembly; siding type varies.
TI	7 1/2"				Interior: 3 1/2" wood stud @ 16" o.c. w/ 1x2 horizontal wood furring strips @ 16" o.c. w/ 1x6 T&G wood siding.	Typical Interior wall assembly

Typical Door Details:



TYPICAL JAMB DETAIL @ METAL FRAME



TYPICAL HEAD DETAIL @ METAL FRAME

MATERIAL KEYNOTES

GENERAL NOTES

- A. Hardware shown on door types are for location purposes. See specifications for required hardware.
- B. See door schedule for material of door types.
- C. See Finish Schedule for finish of door frames.
- D. Window sizes are to be confirmed with field verification in order to comply with architectural intent indicated in the window details.

SHEET SPECIFIC NOTES

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ATP

ROBINSON PRESERVE EXPANSION CLASSROOM TREE HOUSE
MANATEE CO WA #18, IFAS #W1300220
MANATEE COUNTY, FLORIDA

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ENGINEERING GROUP
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SWW

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f. 404. 870. 7337
www.houserwalker.com

REV. # DESCRIPTION

DATE

DRAWING TITLE

DATE : 10/02/2014

DWG SCALE: As indicated

DRAWN BY: DE

CHECKED BY:

SHEET No.:

SCHEDULES

A020

SEAL

TO THE BEST OF THE ARCHITECT'S OR ENGINEER'S KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE CODES AND STANDARDS.



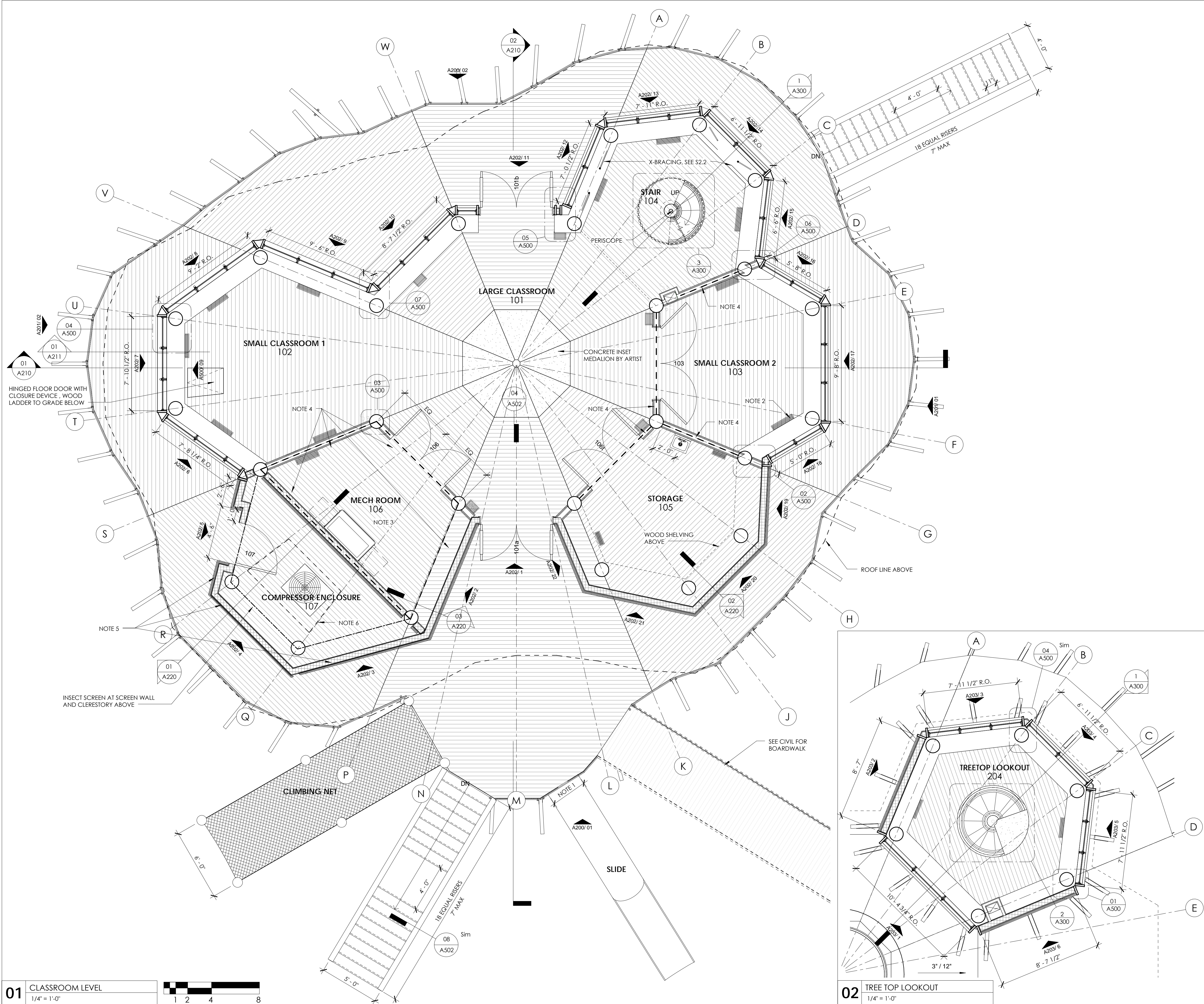
SHEET SPECIFIC NOTES

DATE :	10/02/2014
DWG SCALE:	1/4" = 1'-0"
DRAWN BY:	DE
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ROBINSON PRESERVE EXPANSION CLASSROOM TREE
HOUSE
MANATEE CO WA #18, IFAS #W1300220
MANATEE COUNTY, FLORIDA

GROUND LEVEL PLAN

A100



01

CLASSROOM LEVEL

1/4" = 1'-0"

1

2

4

8

02

TREE TOP LOOKOUT

1/4" = 1'-0"

01

A210

02

A210

03

A500

04

A500

05

A500

06

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07

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08

A502

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A220

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A220

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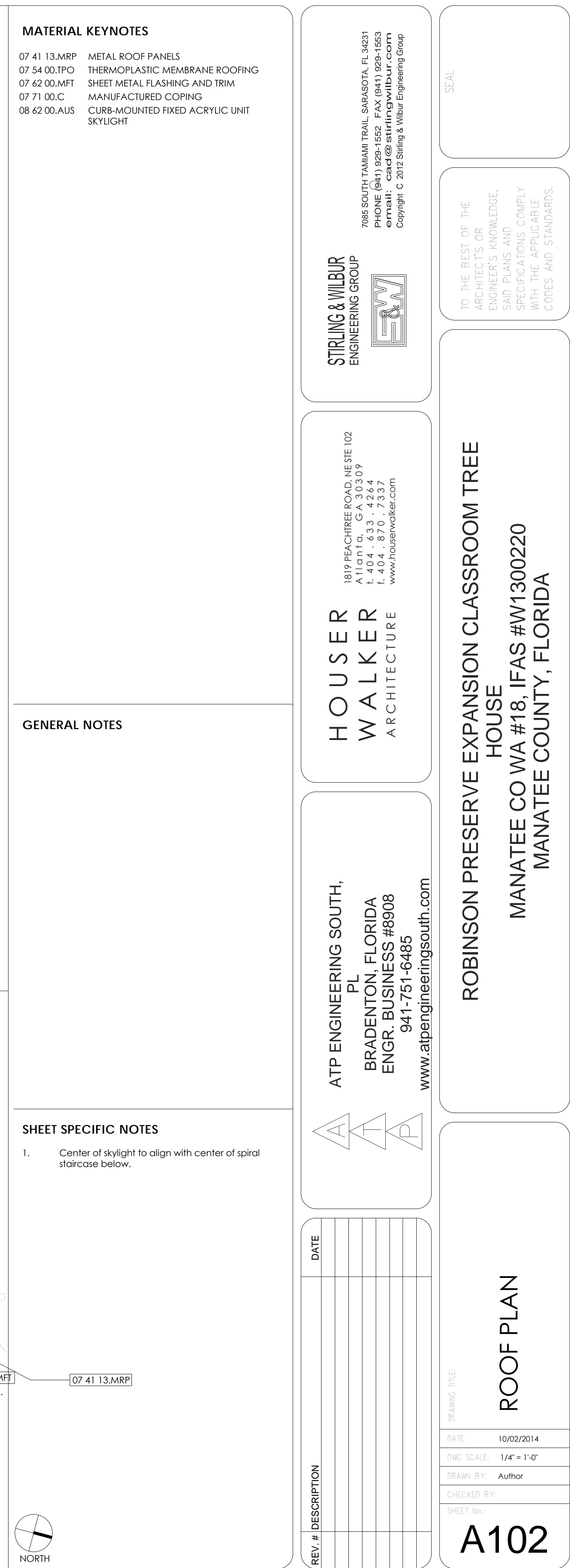
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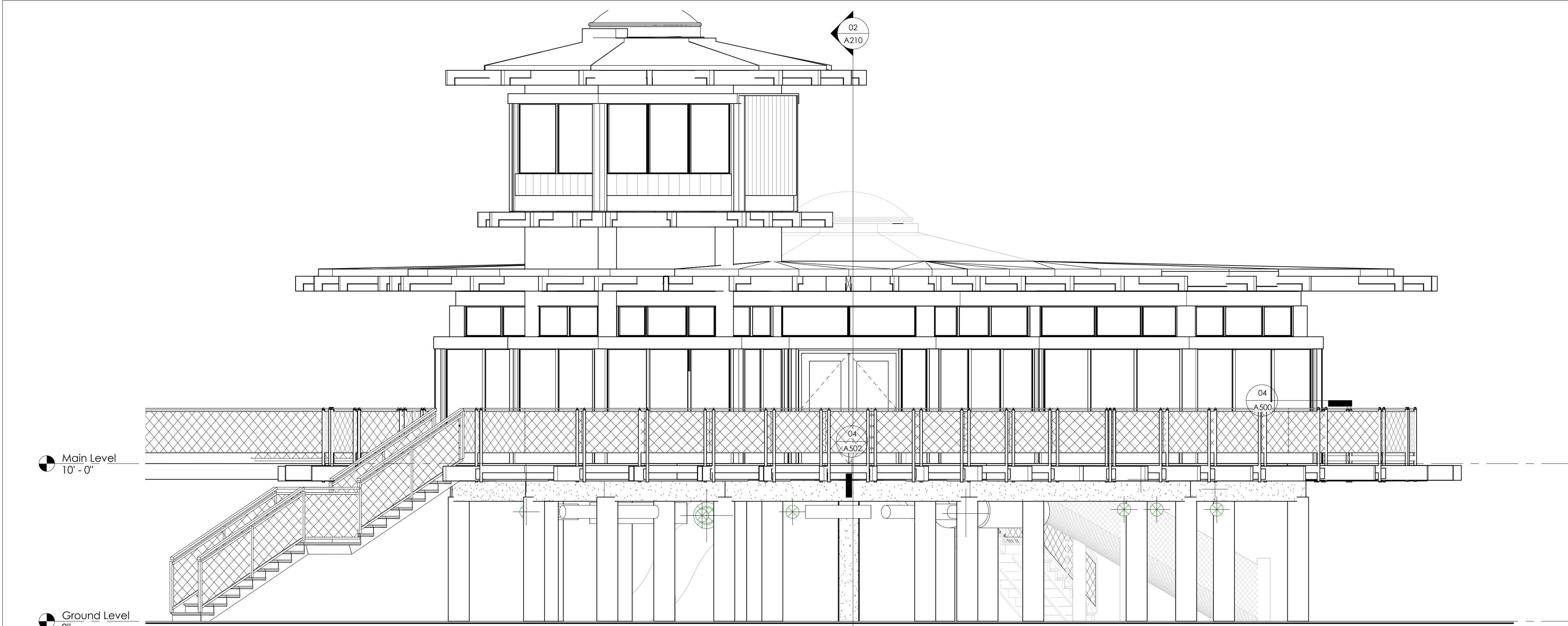
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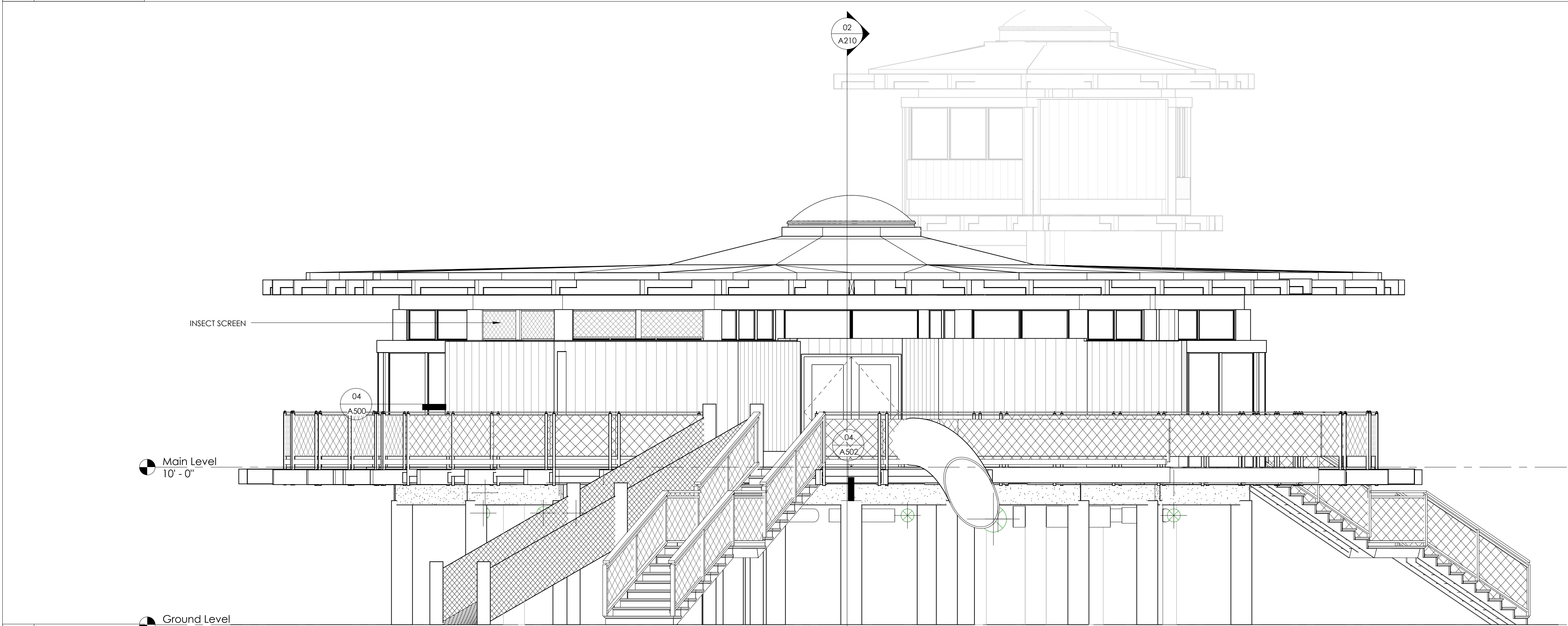
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609





02 WEST ELEVATION
1/4" = 1'-0"



01 EAST ELEVATION
1/4" = 1'-0"

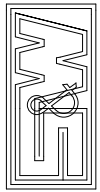
MATERIAL KEYNOTES

GENERAL NOTES

A. See enlarged elevations for each face of building.

SHEET SPECIFIC NOTES

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HOUSE
MANATEE CO WA #18, IFAS #W1300220
MANATEE COUNTY, FLORIDA

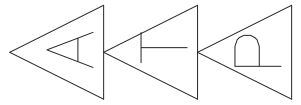
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BUILDING ELEVATIONS

DRAWING TITLE

DATE: 10/02/2014

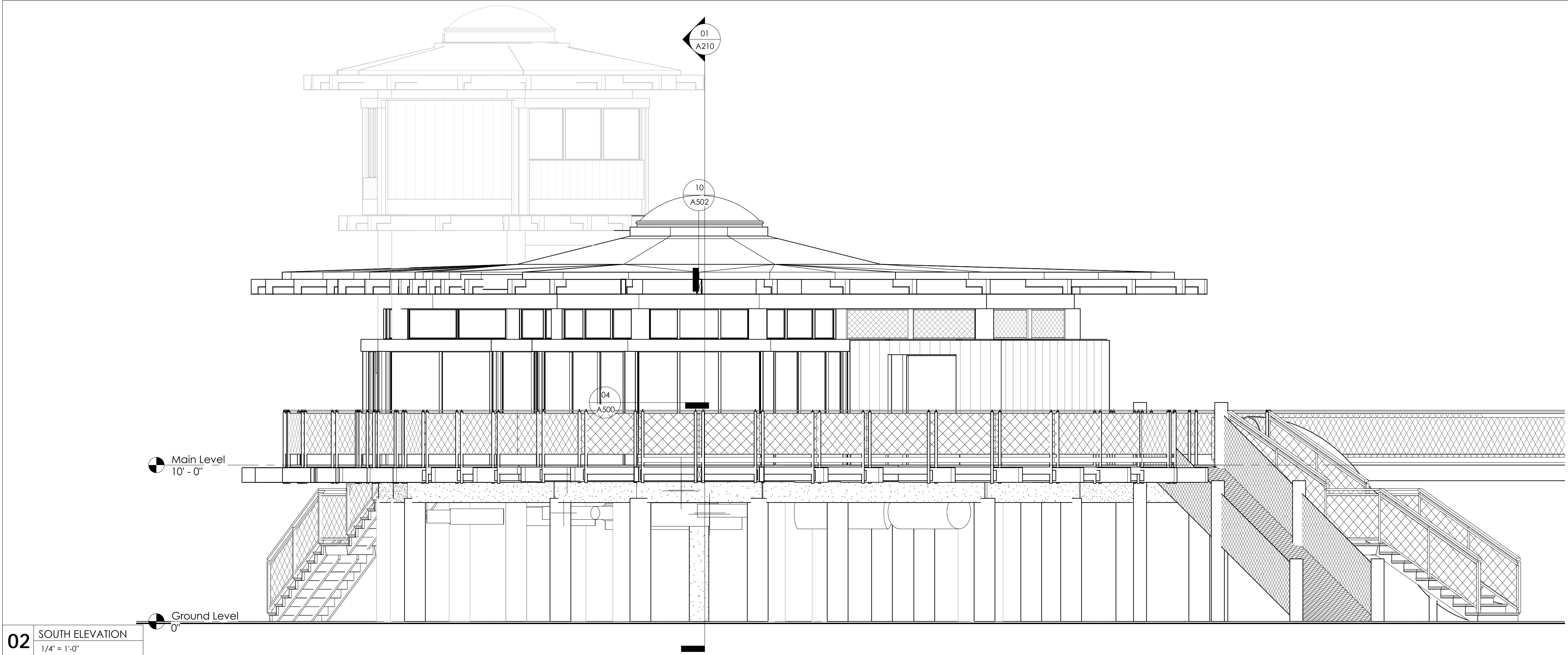
DWG SCALE: 1/4" = 1'-0"

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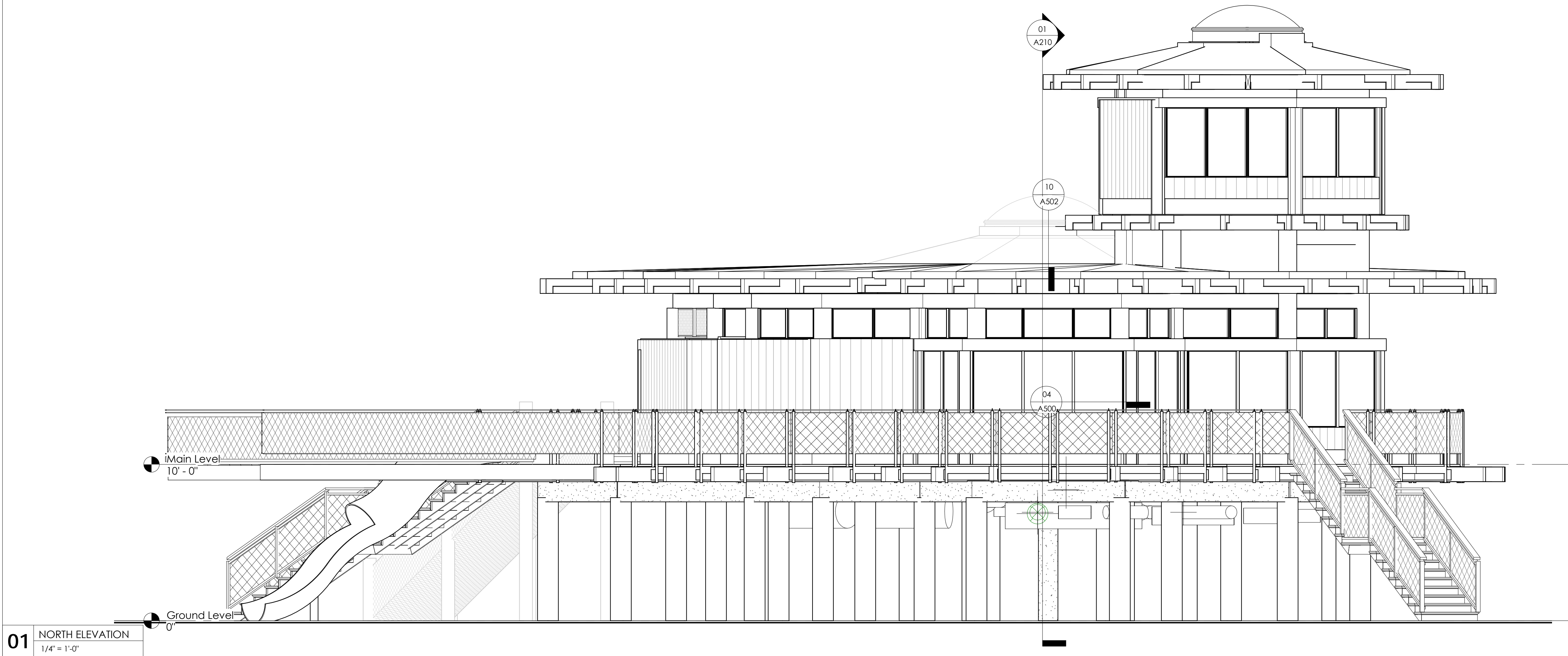
CHECKED BY:

SHEET No:

A200



02 SOUTH ELEVATION
1/4" = 1'-0"



01 NORTH ELEVATION
1/4" = 1'-0"

MATERIAL KEYNOTES

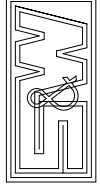
GENERAL NOTES

A. See enlarged elevations for each face of building.

SHEET SPECIFIC NOTES

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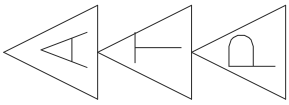
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SEAL

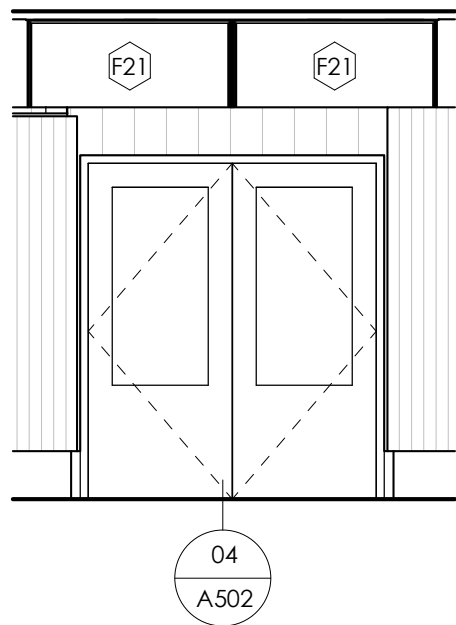
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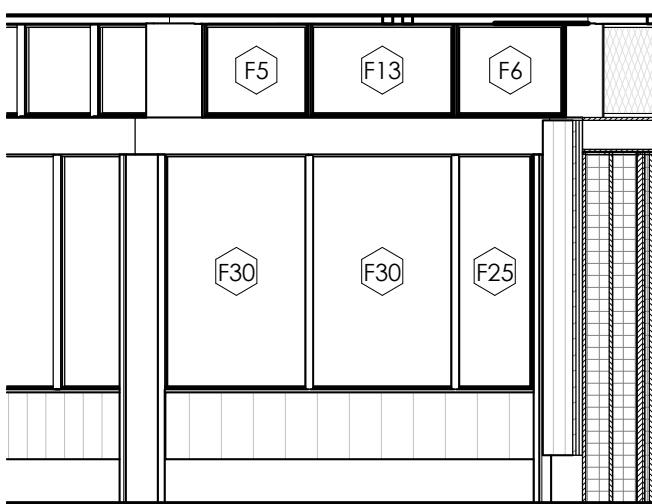
BUILDING ELEVATIONS

DRAWING TITLE
DATE: 10/02/2014
DWG SCALE: 1/4" = 1'-0"
DRAWN BY: Author
CHECKED BY:
SHEET No.:

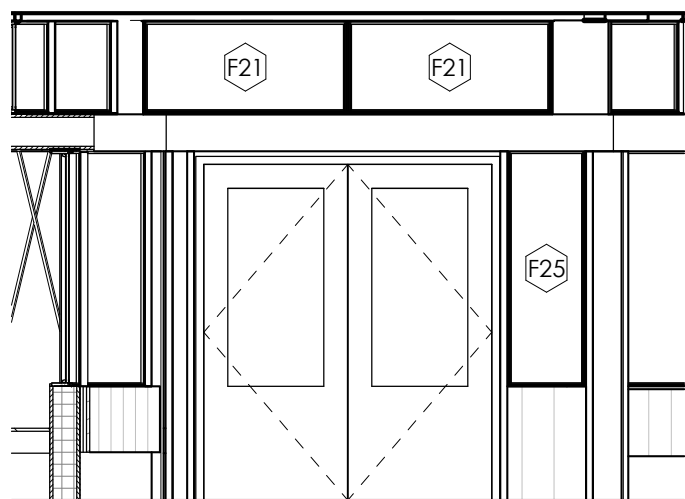
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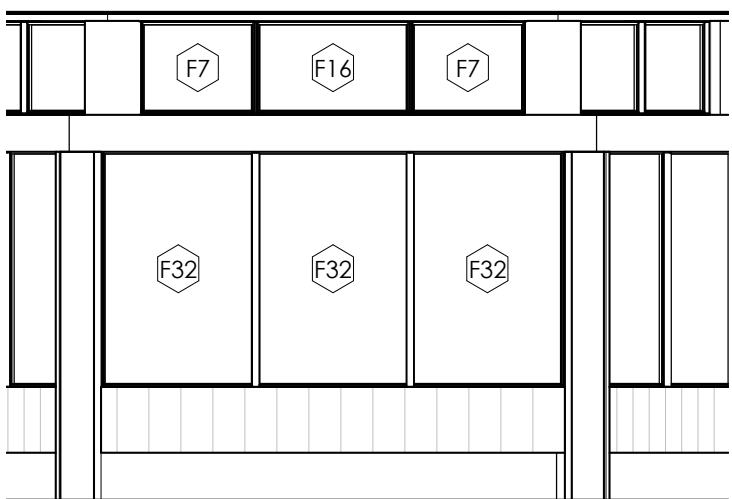
1	1
	$1/4'' = 1'-0''$



6	6
	$1/4^{\text{th}} = 1^{\text{st}} - 0^{\text{th}}$



11	11
	$1/4'' = 1'-0''$



17	17
	$1/4" = 1'-0"$

1. Vertical siding at Compressor Enclosure to be spaced 1" apart to allow for air flow from the room. Wall assembly should not have sheathing or weather barrier.

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

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A202

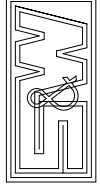


MATERIAL KEYNOTES

GENERAL NOTES

SHEET SPECIFIC NOTES

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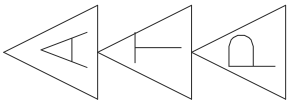
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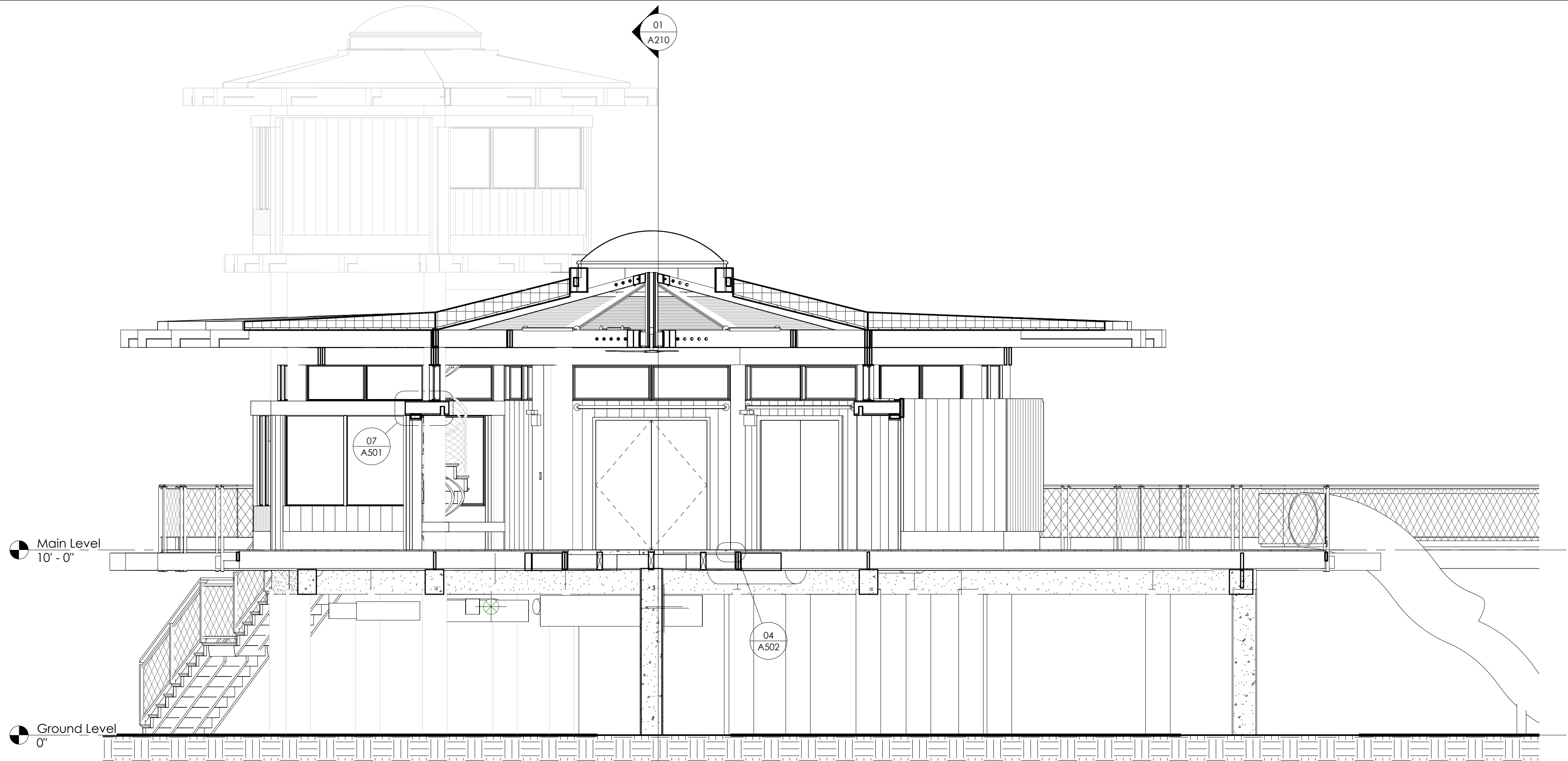
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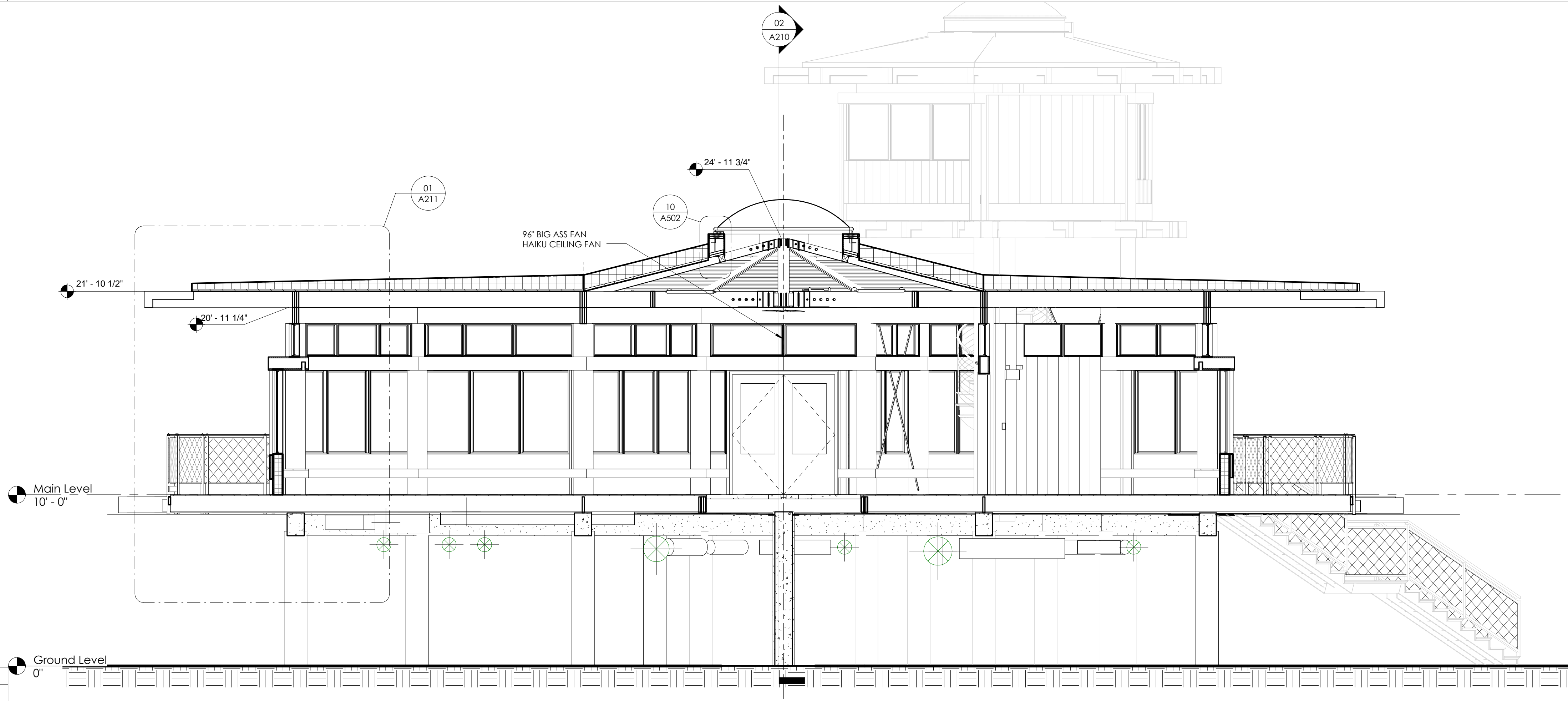
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A203

02 Section 3
1/4" = 1'-0"



01 Section 2
1/4" = 1'-0"

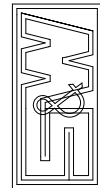


MATERIAL KEYNOTES

GENERAL NOTES

SHEET SPECIFIC NOTES

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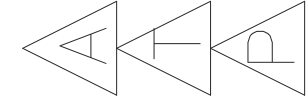
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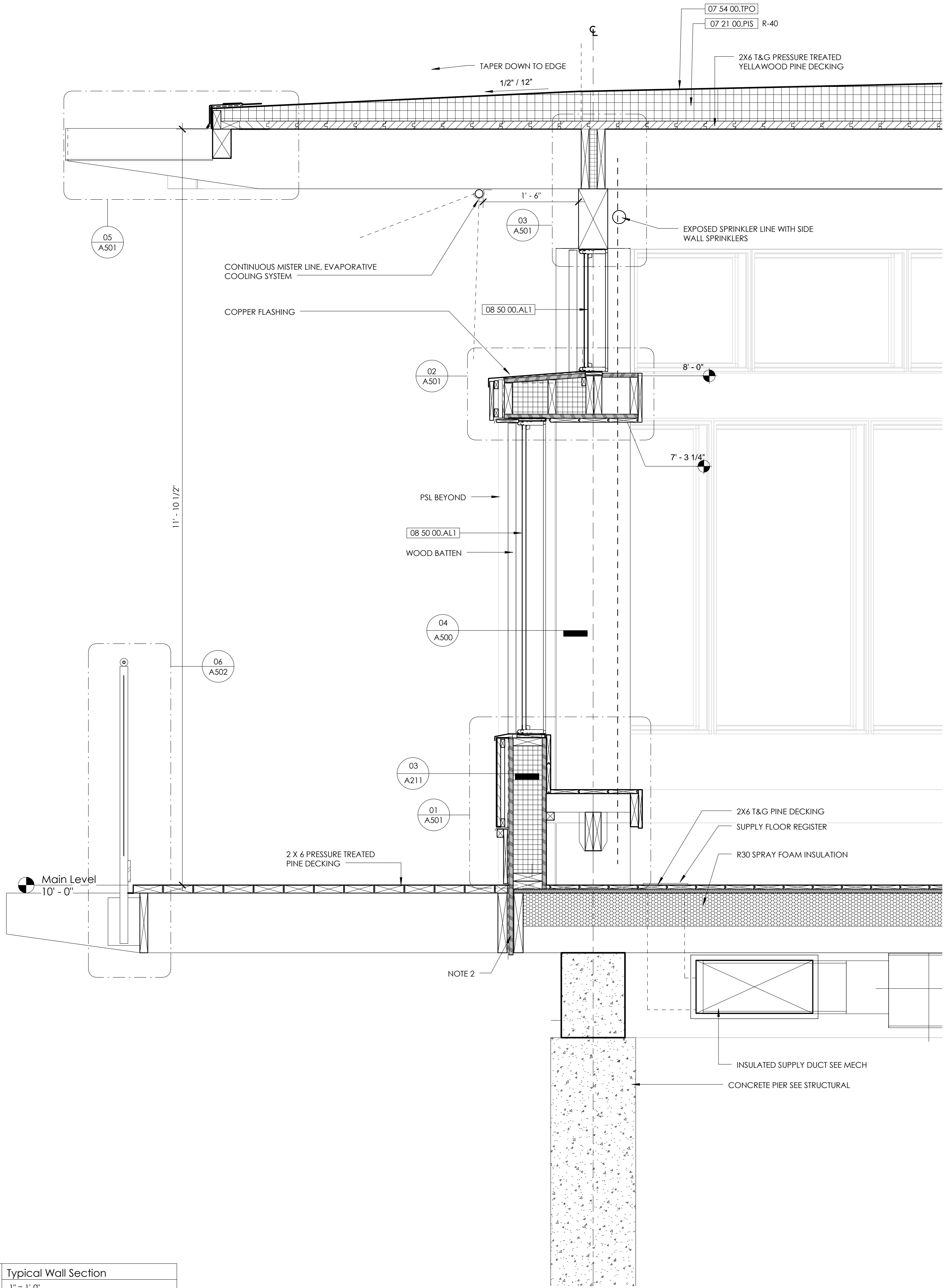


REV. #	DESCRIPTION	DATE

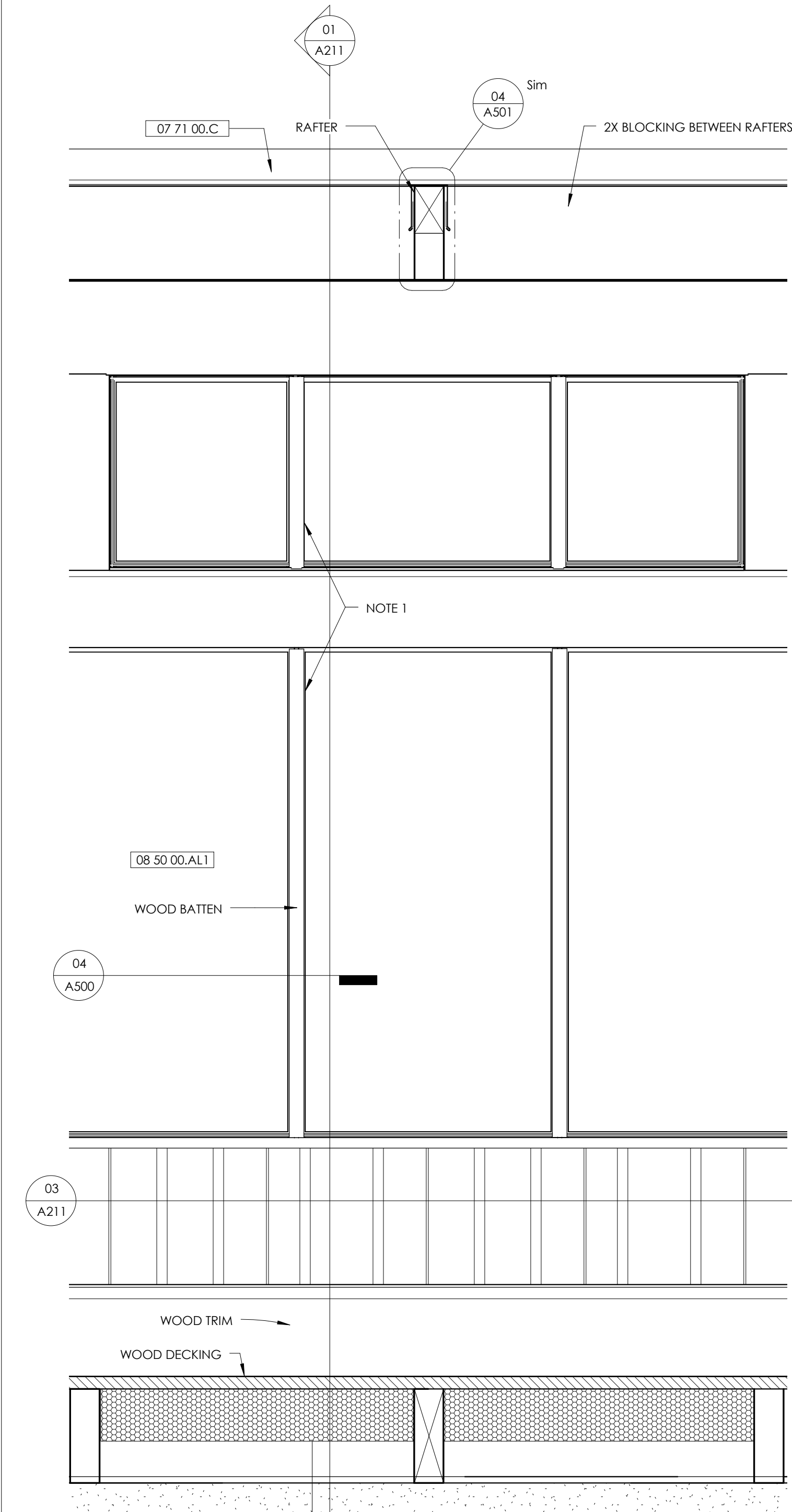
DRAWING TITLE
DATE: 10/02/2014
DWG SCALE: 1/4" = 1'-0"
DRAWN BY: Author
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A210

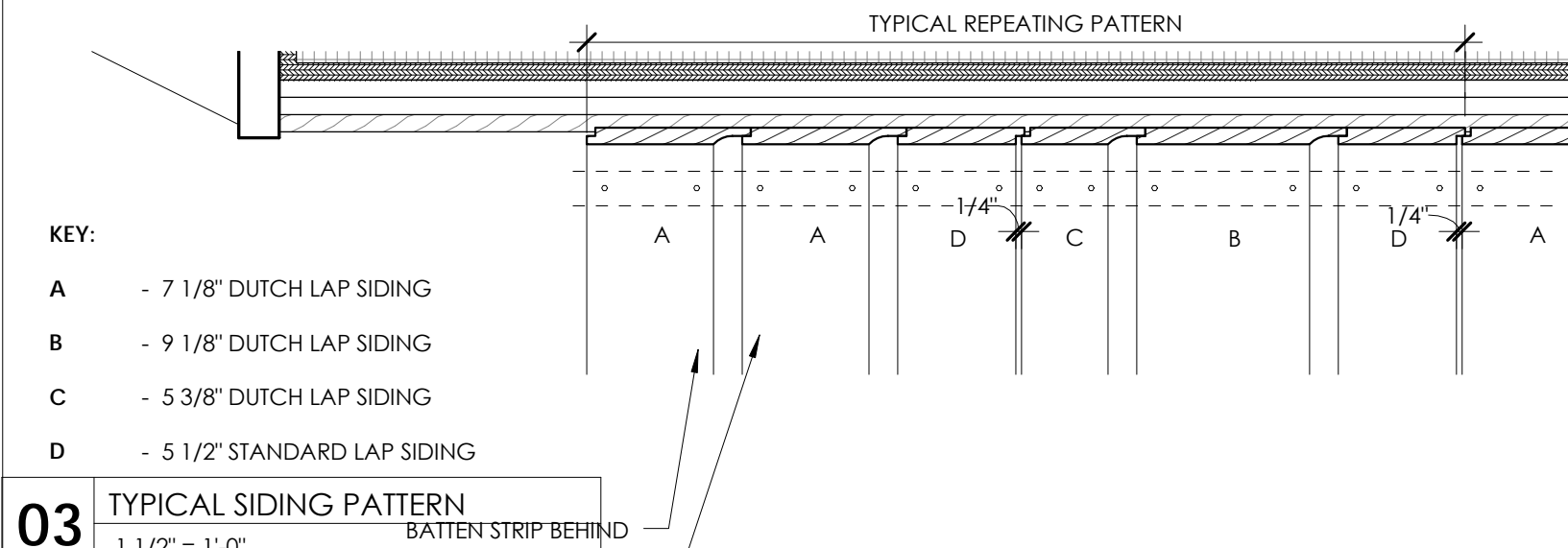
01 Typical Wall Section
1" = 1'-0"



02 Enlarged Typical Elevation
1" = 1'-0"



03 TYPICAL SIDING PATTERN
1 1/2" = 1'-0"



MATERIAL KEYNOTES

07 21 00.PIS POLYISOCYANURATE BOARD INSULATION
07 54 00.TPO THERMOPLASTIC MEMBRANE ROOFING
07 71 00.C MANUFACTURED COPING
08 50 00.AL1 ALUM-CLAD WOOD WINDOWS

GENERAL NOTES

SHEET SPECIFIC NOTES

1. Window frames are to align.
2. It is the intent to have the sheathing and the weather barrier continue down past the floor line, in order to allow the water to flow away from the interior.

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**TYPICAL WALL SECTION
& ELEVATION**

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DWG SCALE: As Indicated
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CHECKED BY:
SHEET No:

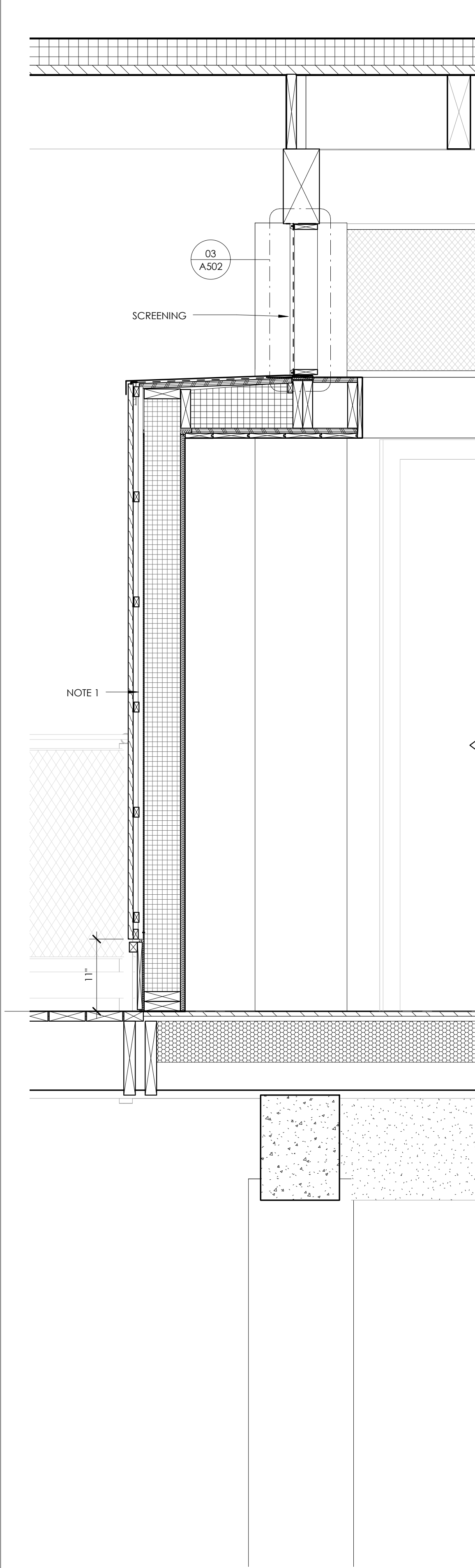
A211

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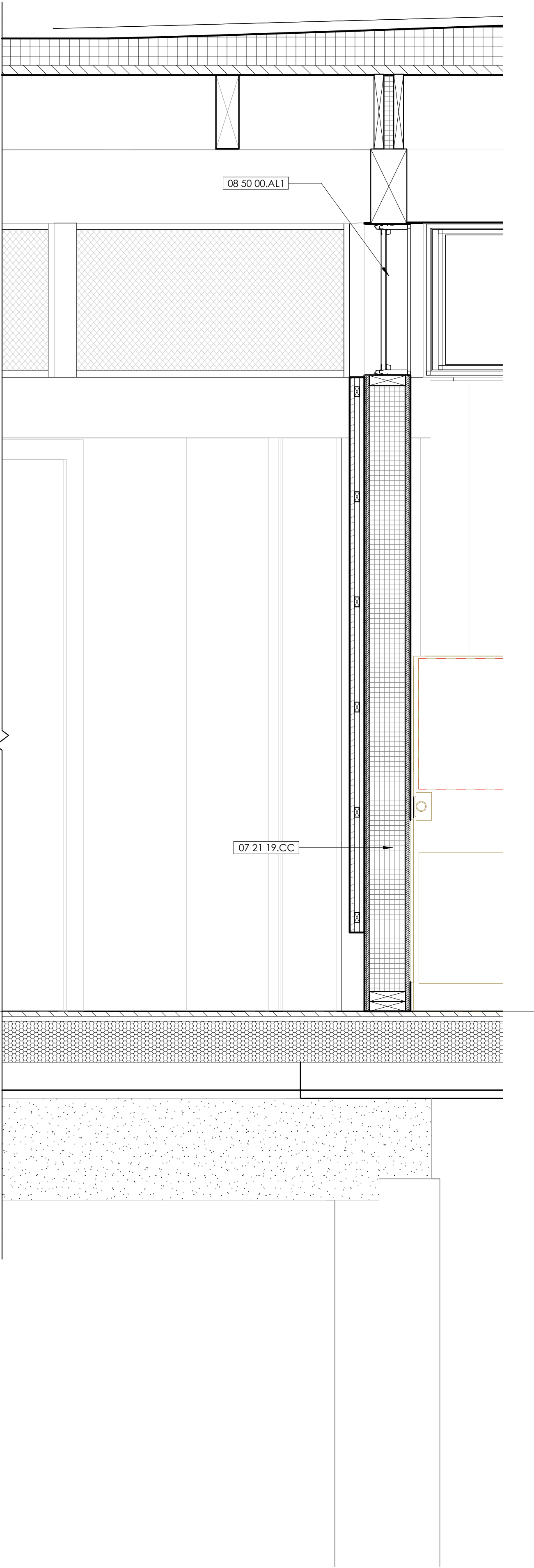
**ROBINSON PRESERVE EXPANSION CLASSROOM TREE
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SEAL

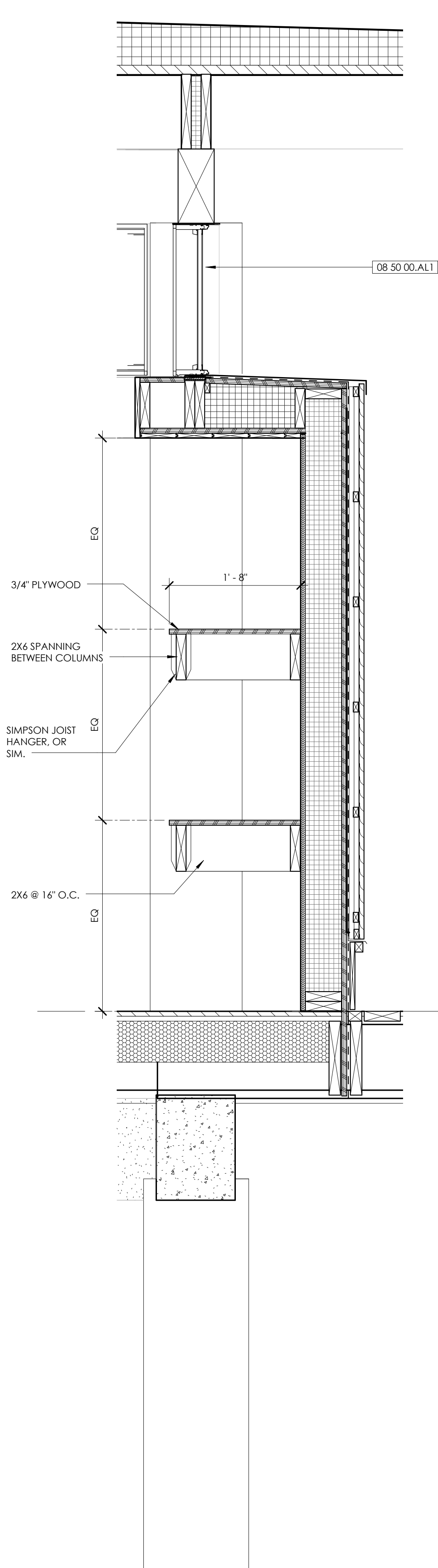
01 WALL SECTION @ ENCLOSURE
1" = 1'-0"



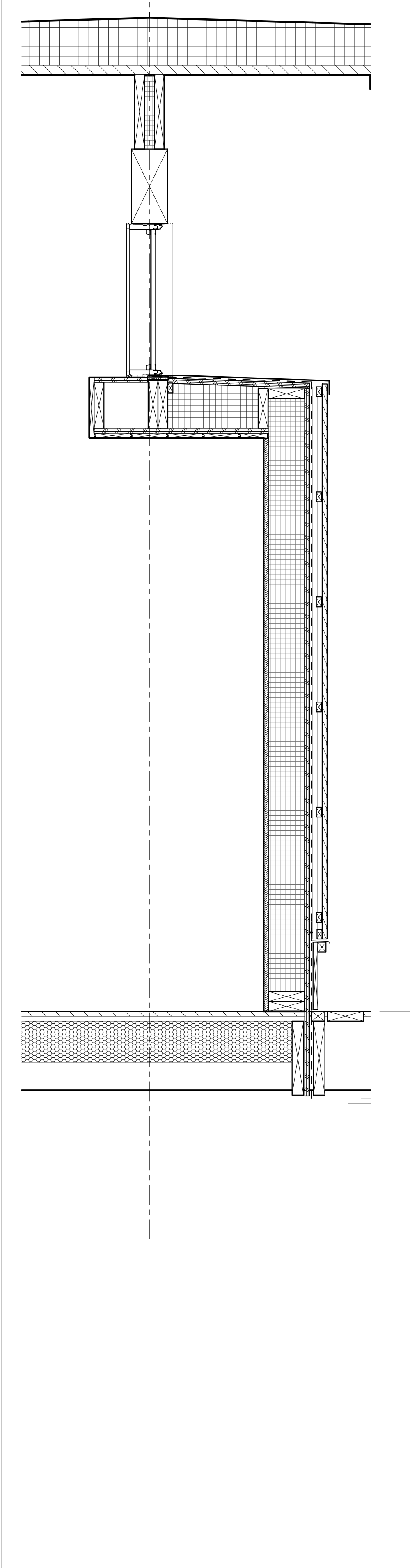
02 WALL SECTION @ SHELVES
1" = 1'-0"



03 WALL SECTION WITH WINDOW
1" = 1'-0"



03 WALL SECTION WITH WINDOW
1" = 1'-0"



MATERIAL KEYNOTES
07 21 19.CC FOAMED INSULATION - CLOSED CELL
08 50 00.AL1 ALUM-CLAD WOOD WINDOWS

GENERAL NOTES
A. See sheet A211 for typical notes.

SHEET SPECIFIC NOTES
1. Wall assembly at exterior perimeter of Compressor Enclosure room is not to have plywood sheathing or weather barrier. The intent is for wood vertical siding to be spaced apart to create a slot system to allow air flow from the room.

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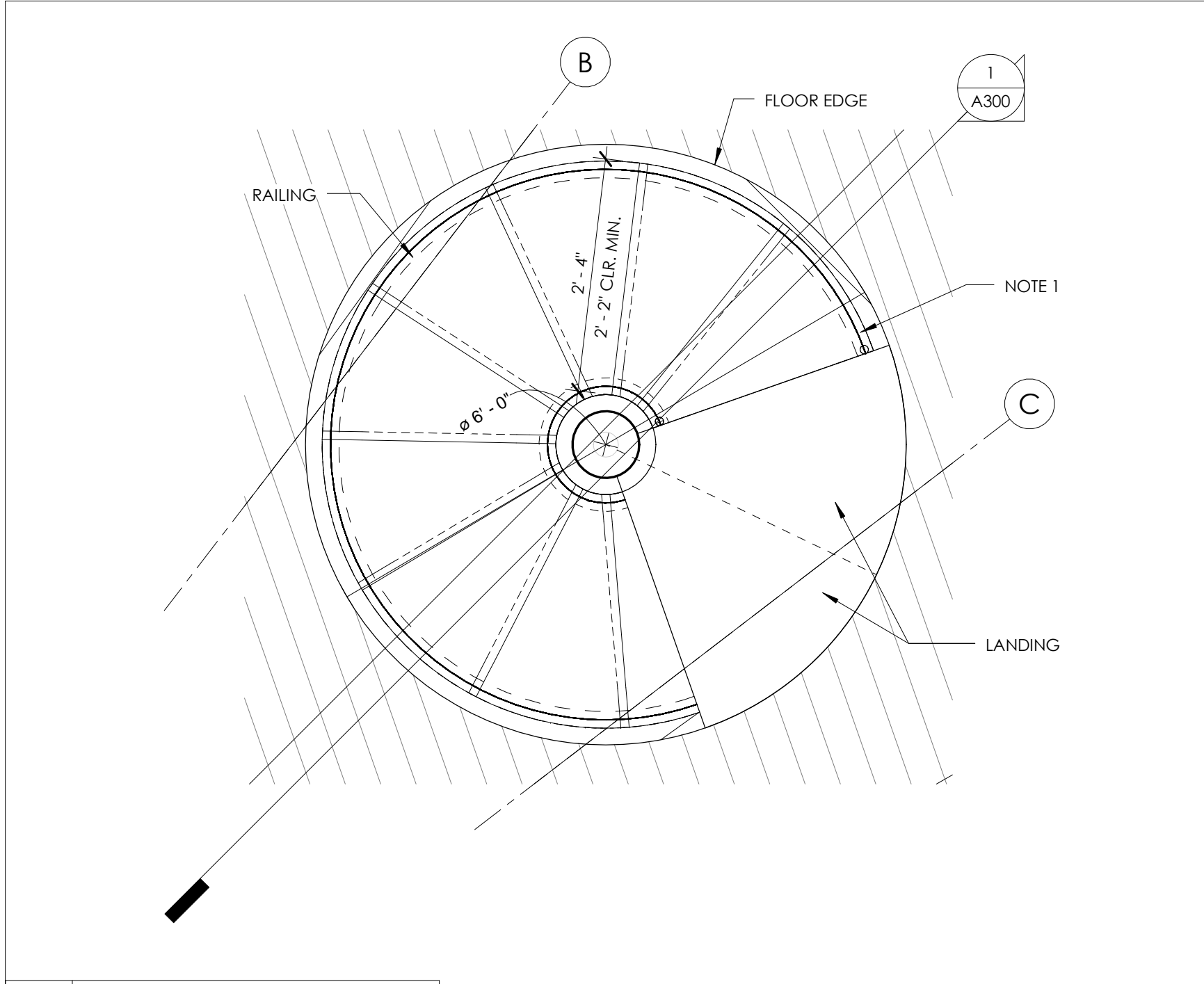
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DRAWING TITLE
WALL SECTIONS
DATE : 10/02/2014
DWG SCALE: 1" = 1'-0"
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SHEET No.:
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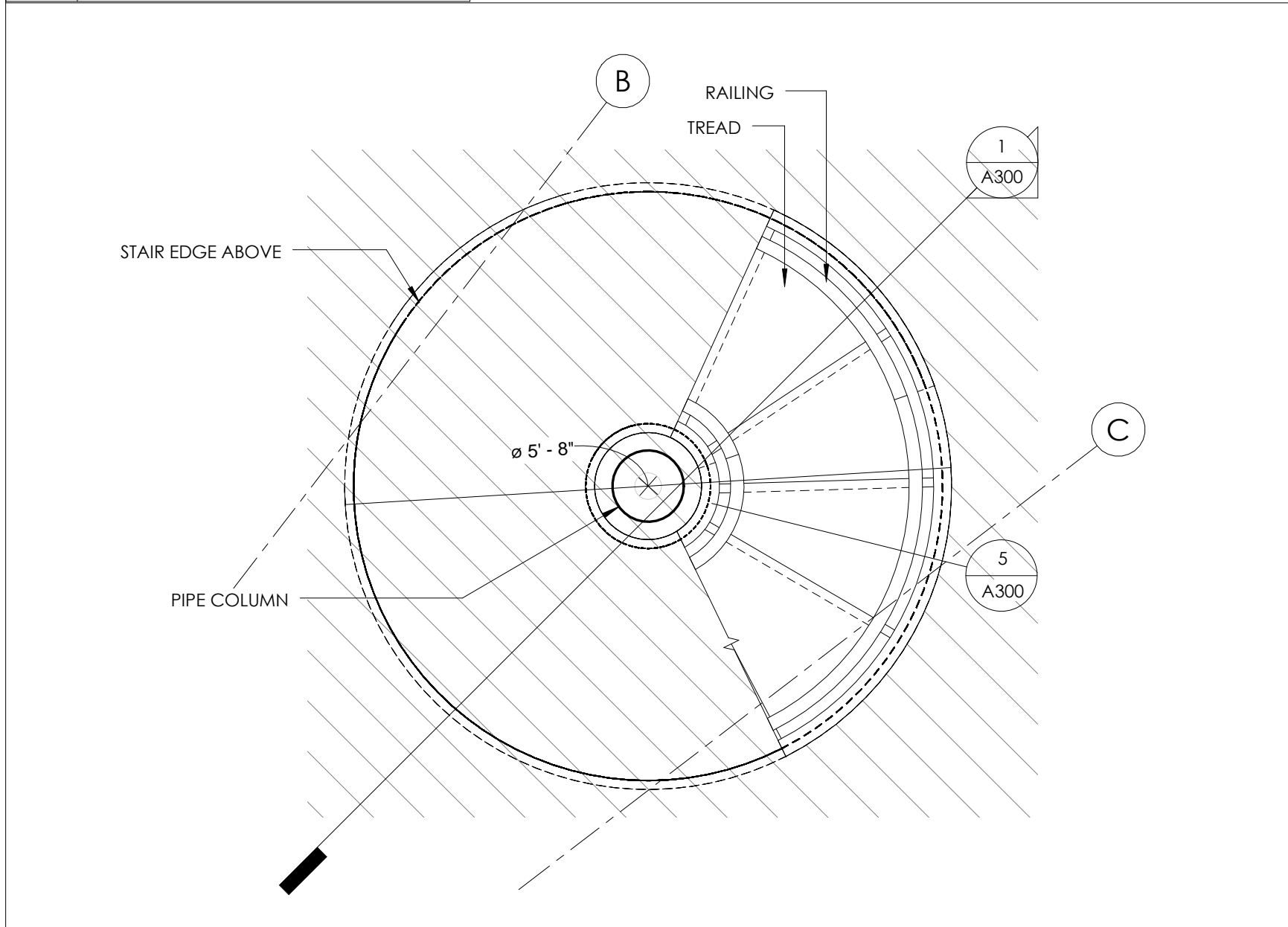
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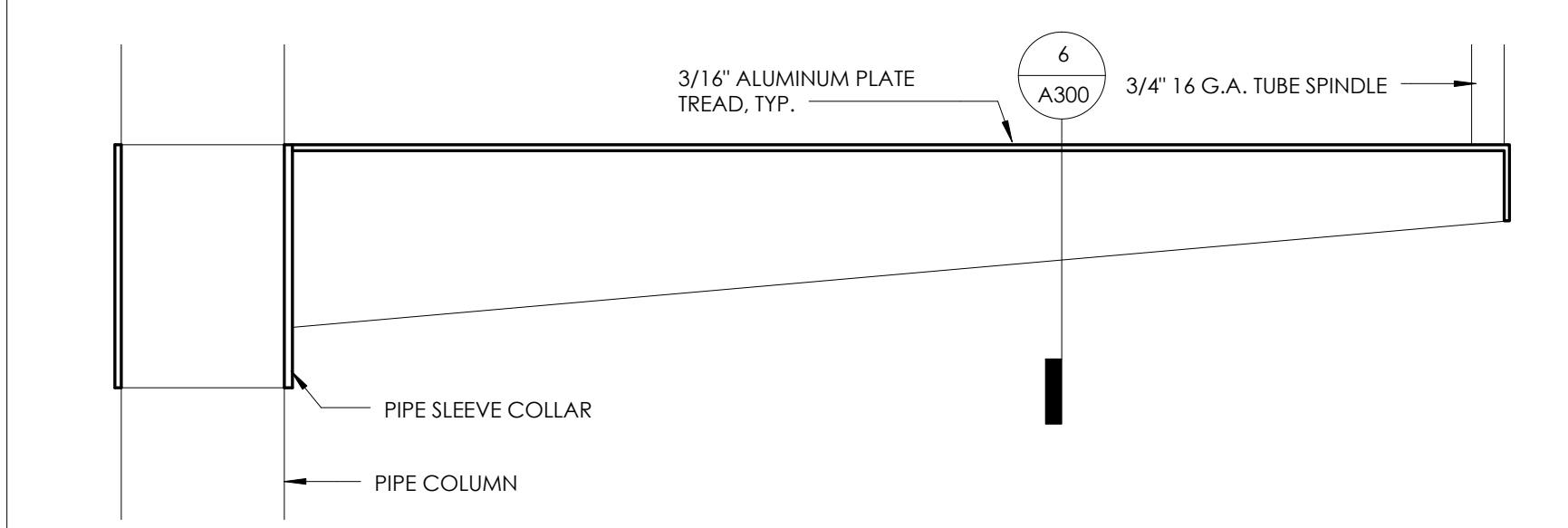
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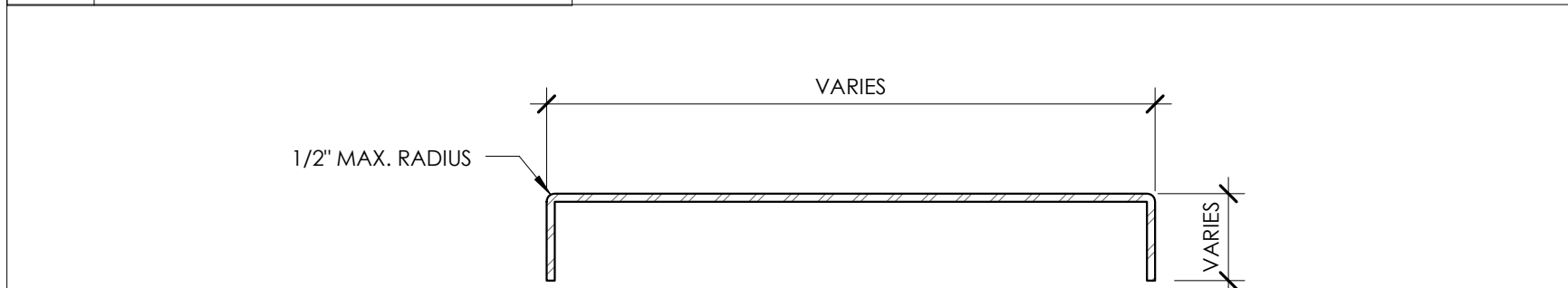
2 SPIRAL STAIR PLAN @ LOOKOUT
3/4" = 1'-0"



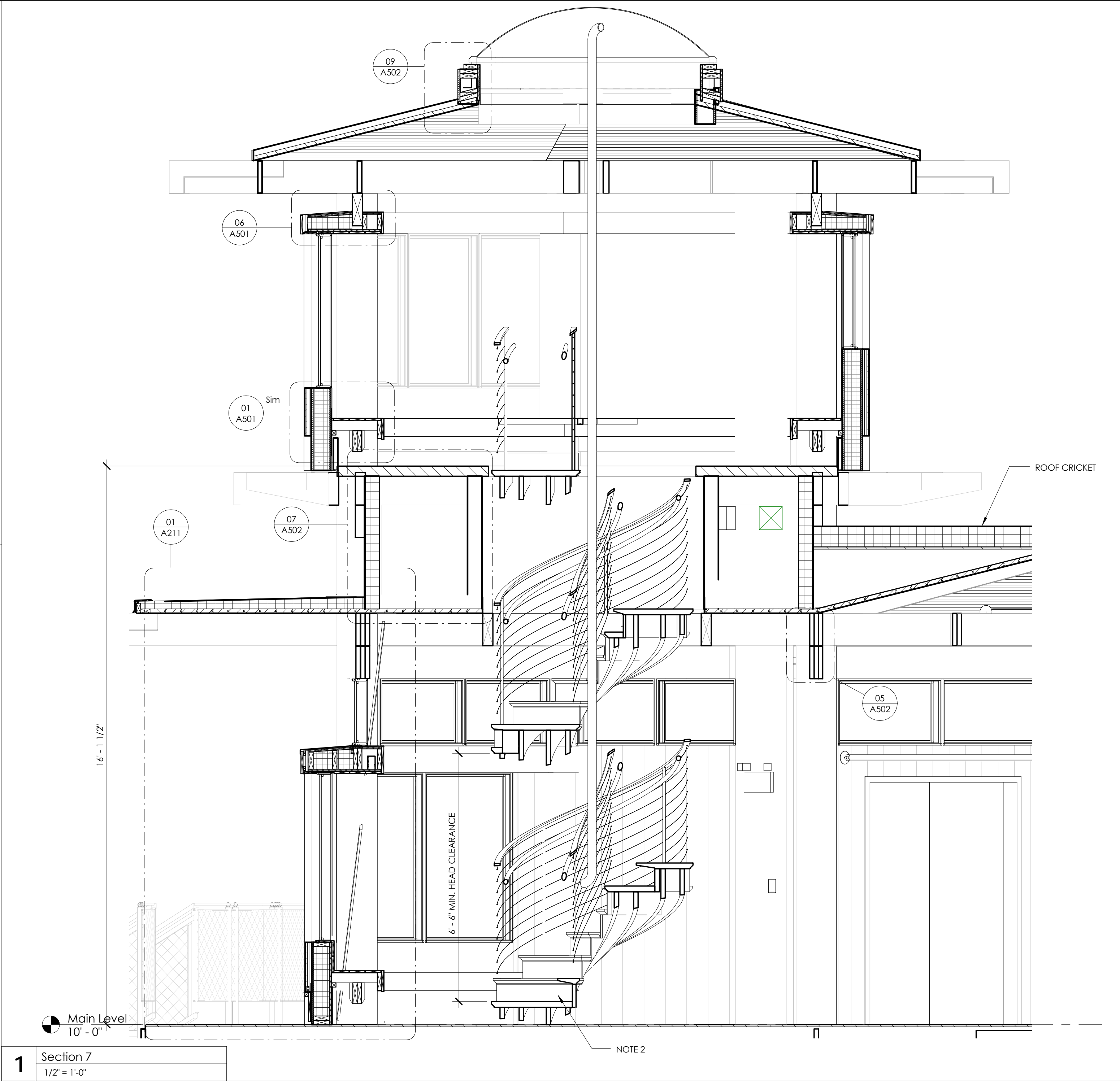
3 SPIRAL STAIR PLAN @ MAIN LVL
3/4" = 1'-0"



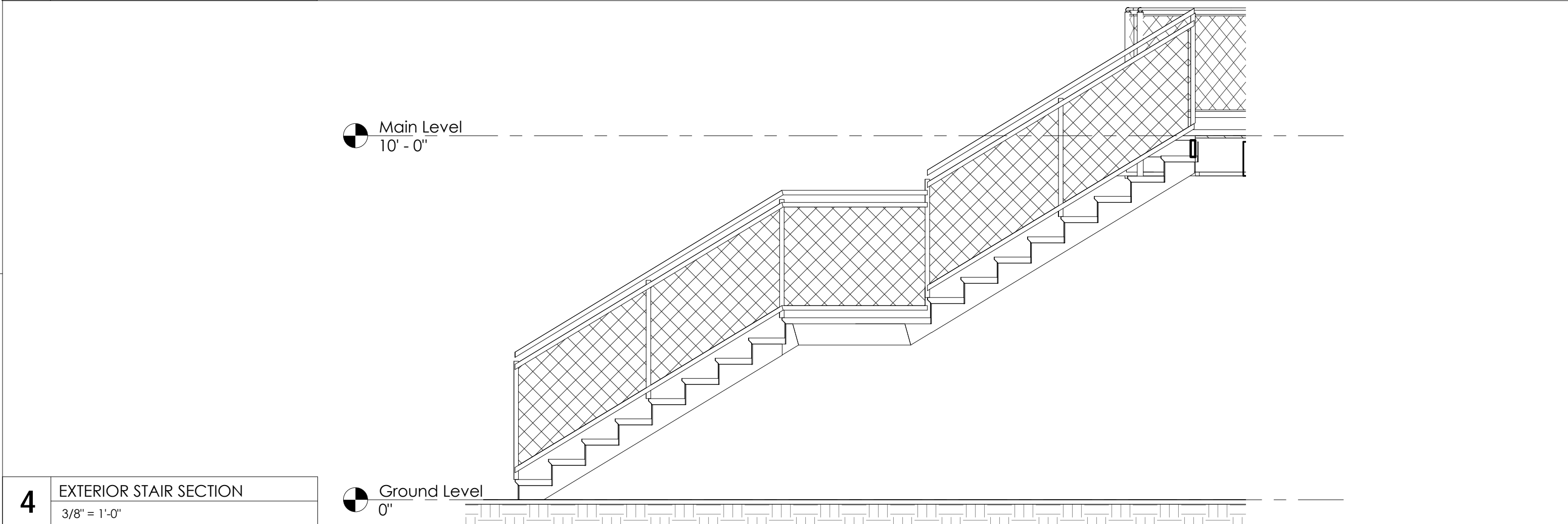
5 TYPICAL TREAD SECTION
3" = 1'-0"



6 TYPICAL TREAD
3" = 1'-0"



1 Section 7
1/2" = 1'-0"



4 EXTERIOR STAIR SECTION
3/8" = 1'-0"

MATERIAL KEYNOTES

GENERAL NOTES

SHEET SPECIFIC NOTES

1. All risers to be equal dimensions to achieve minimum head clearance of 6'-6" and maximum riser height of 9 1/2".
2. Provide closed risers to prevent passage of 4" dia. sphere.

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ENLARGED SPIRAL
STAIRS

DRAWING TITLE

DATE: 10/02/2014

DWG SCALE: As Indicated

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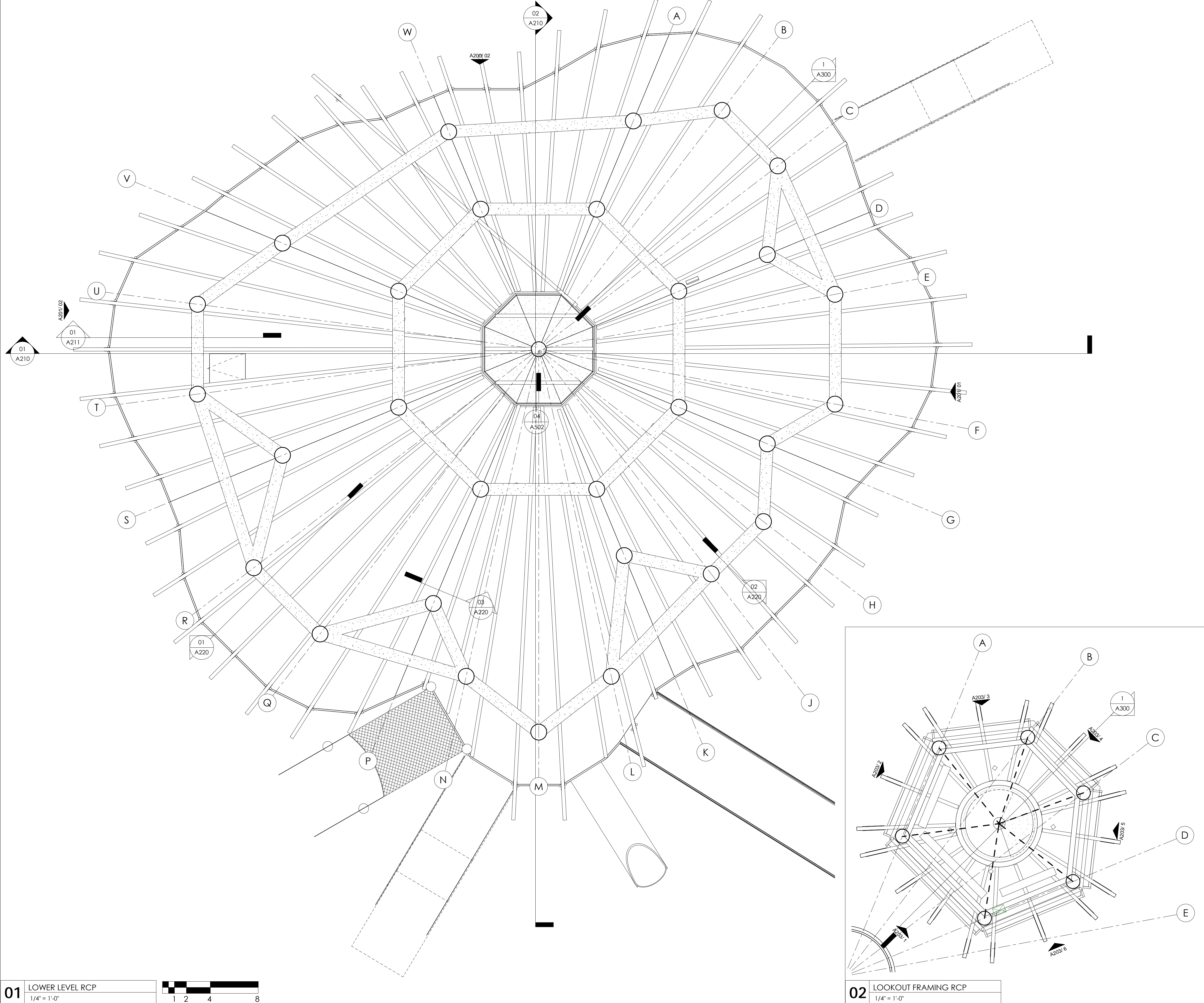
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01	LOWER LEVEL RCP	
	1/4" = 1'-0"	

MATERIAL KEYNOTES	
GENERAL NOTES	
SHEET SPECIFIC NOTES	
NORTH	

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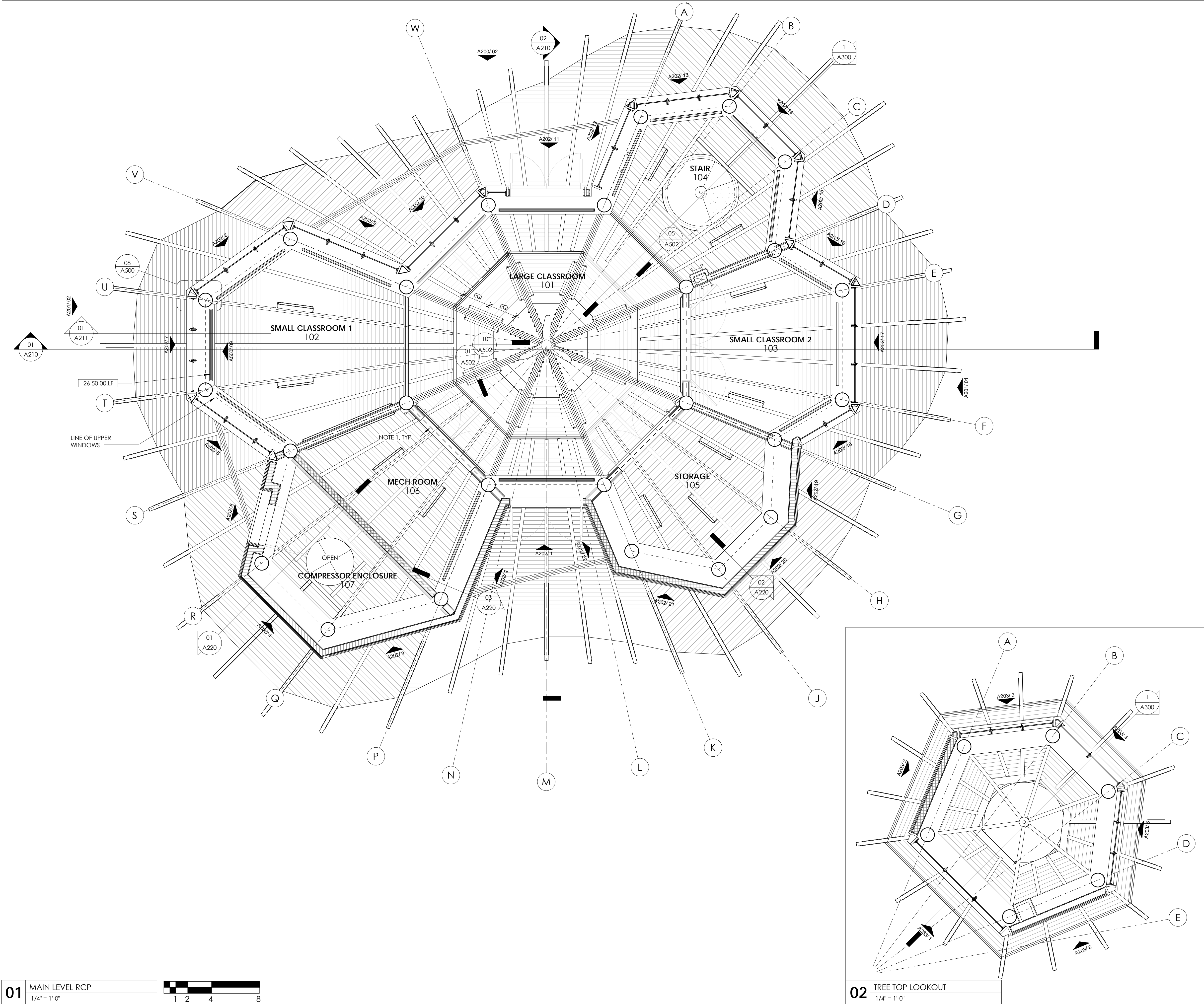
GROUND LEVEL RCP
A400

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DWG SCALE: 1/4" = 1'-0"
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MATERIAL KEYNOTES

GENERAL NOTES

SHEET SPECIFIC NOTES

1. See note #4 on sheet A101.

01
MAIN LEVEL RCP
1/4" = 1'-0"

02
TREE TOP LOOKOUT
1/4" = 1'-0"

1 2 4 8

10/02/2014
1/4" = 1'-0"
DE
6

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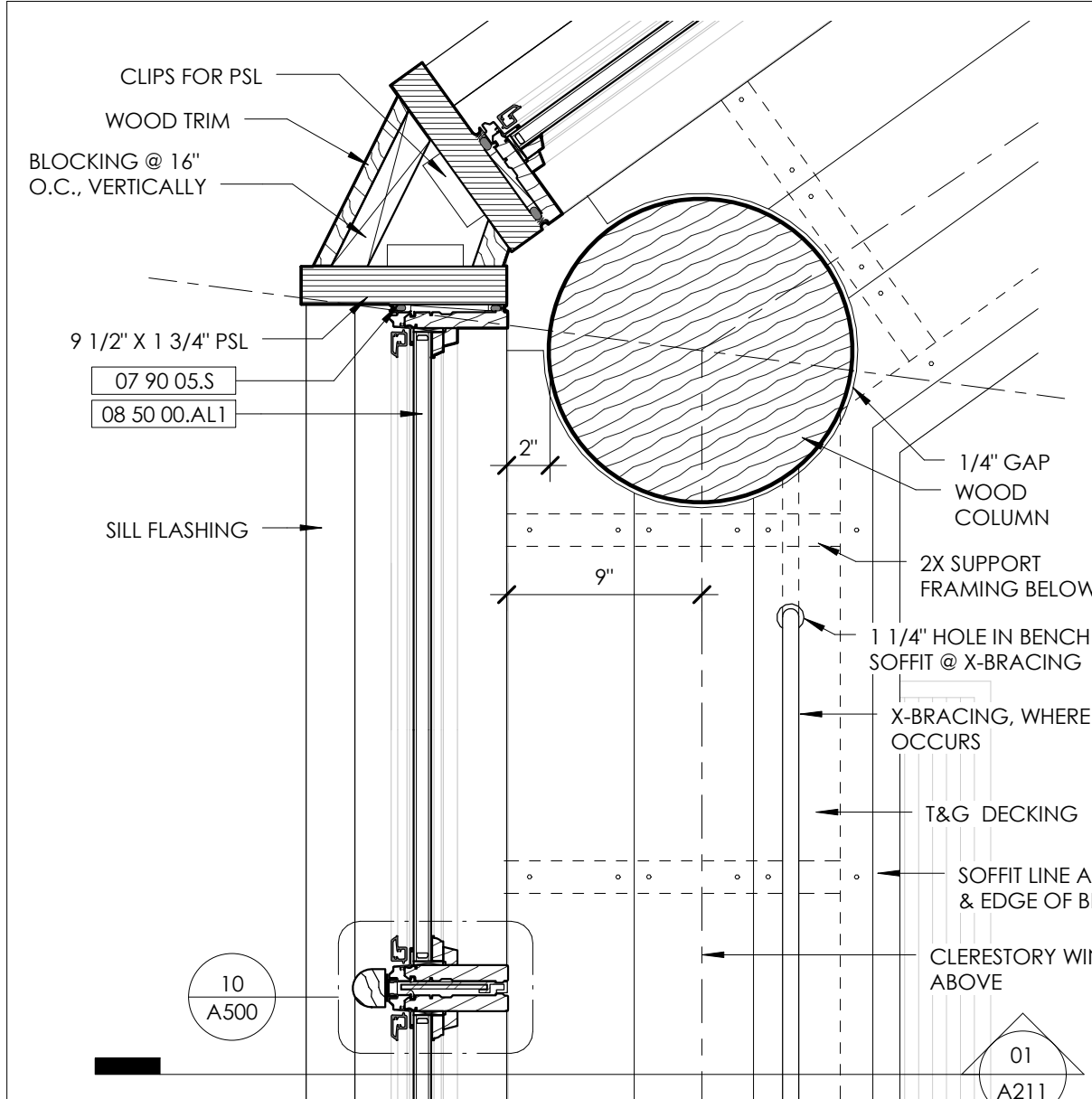
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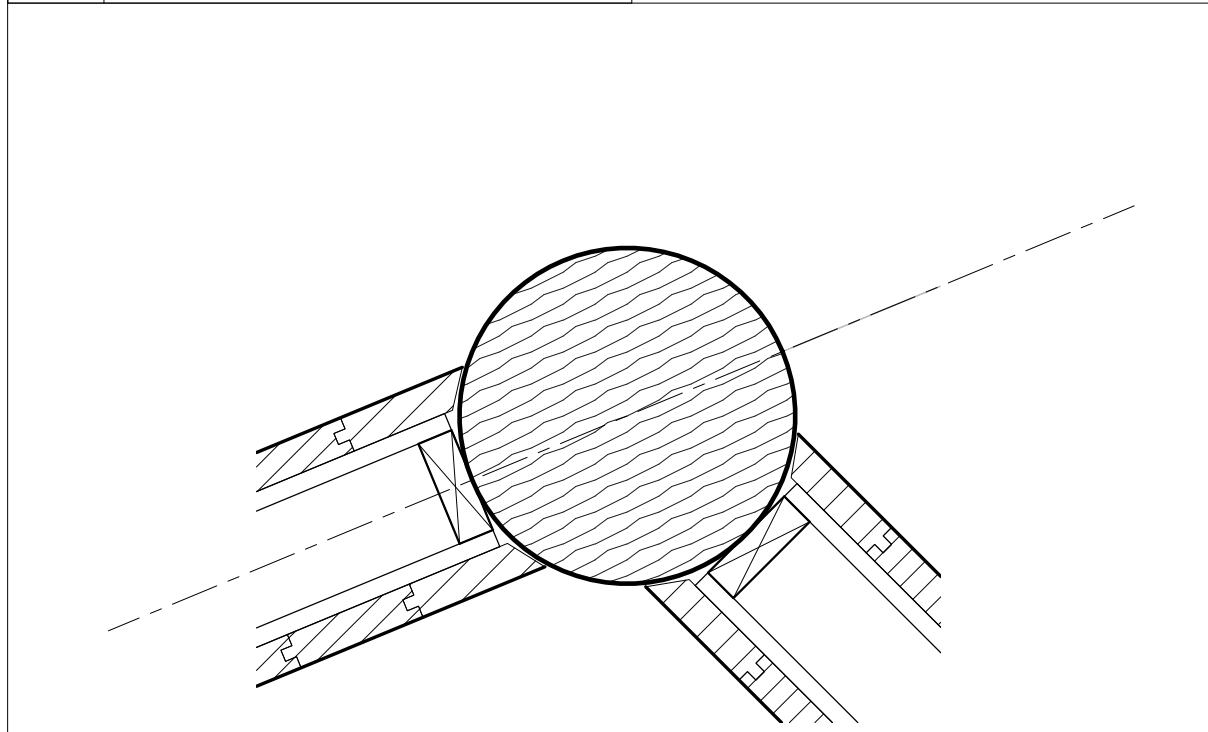
MAIN LEVEL RCP
A401

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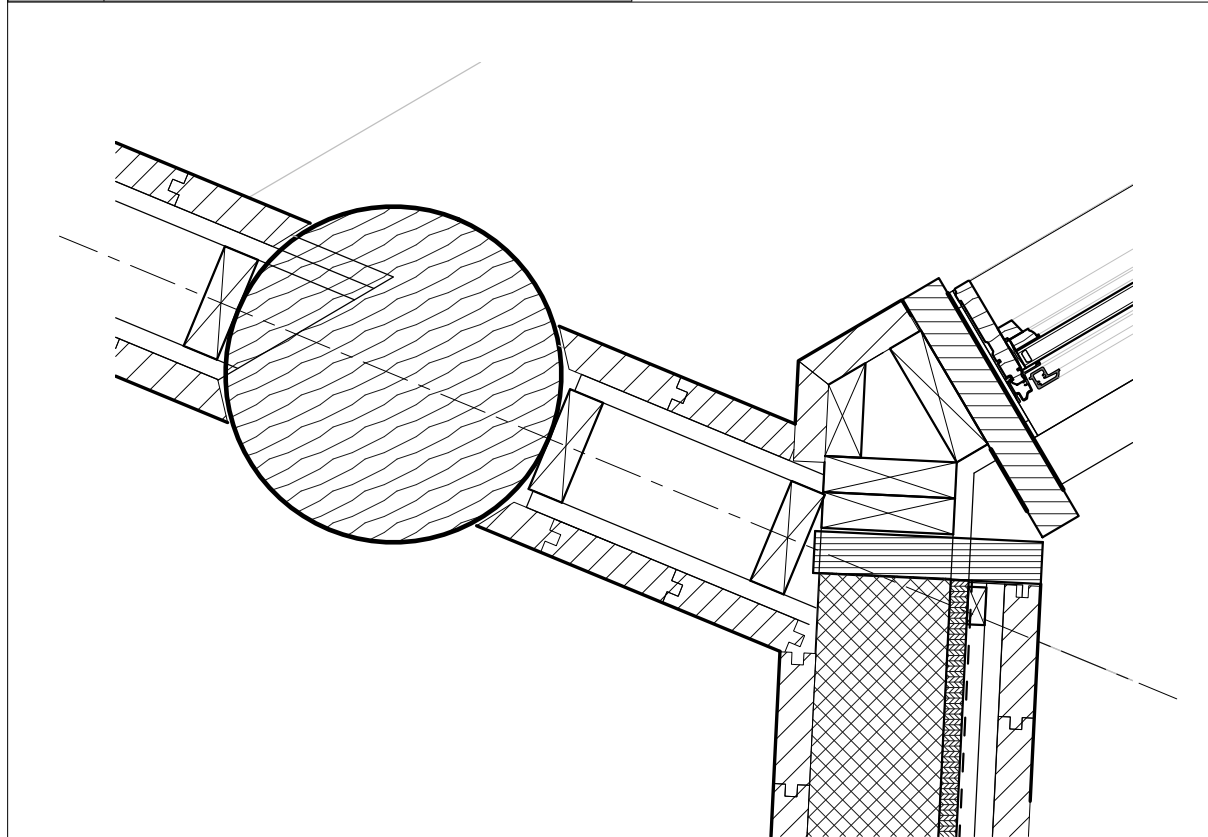
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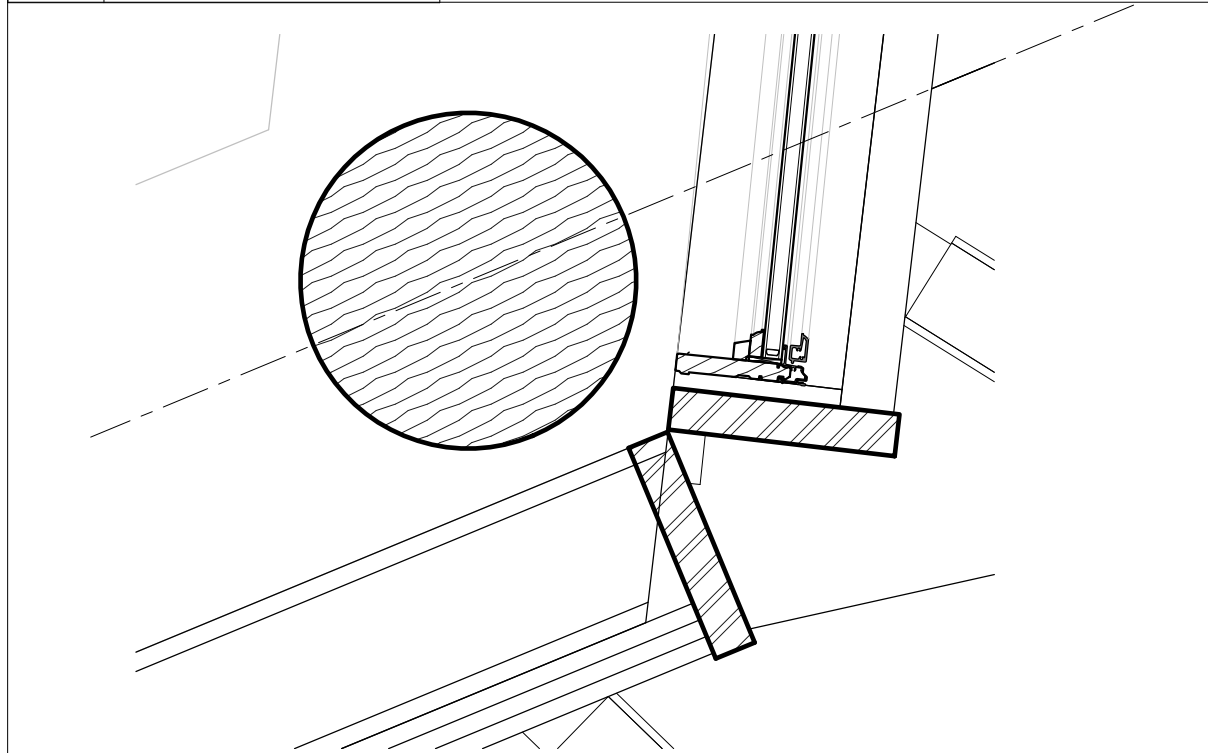
04 TYPICAL WINDOW PLAN DETAIL
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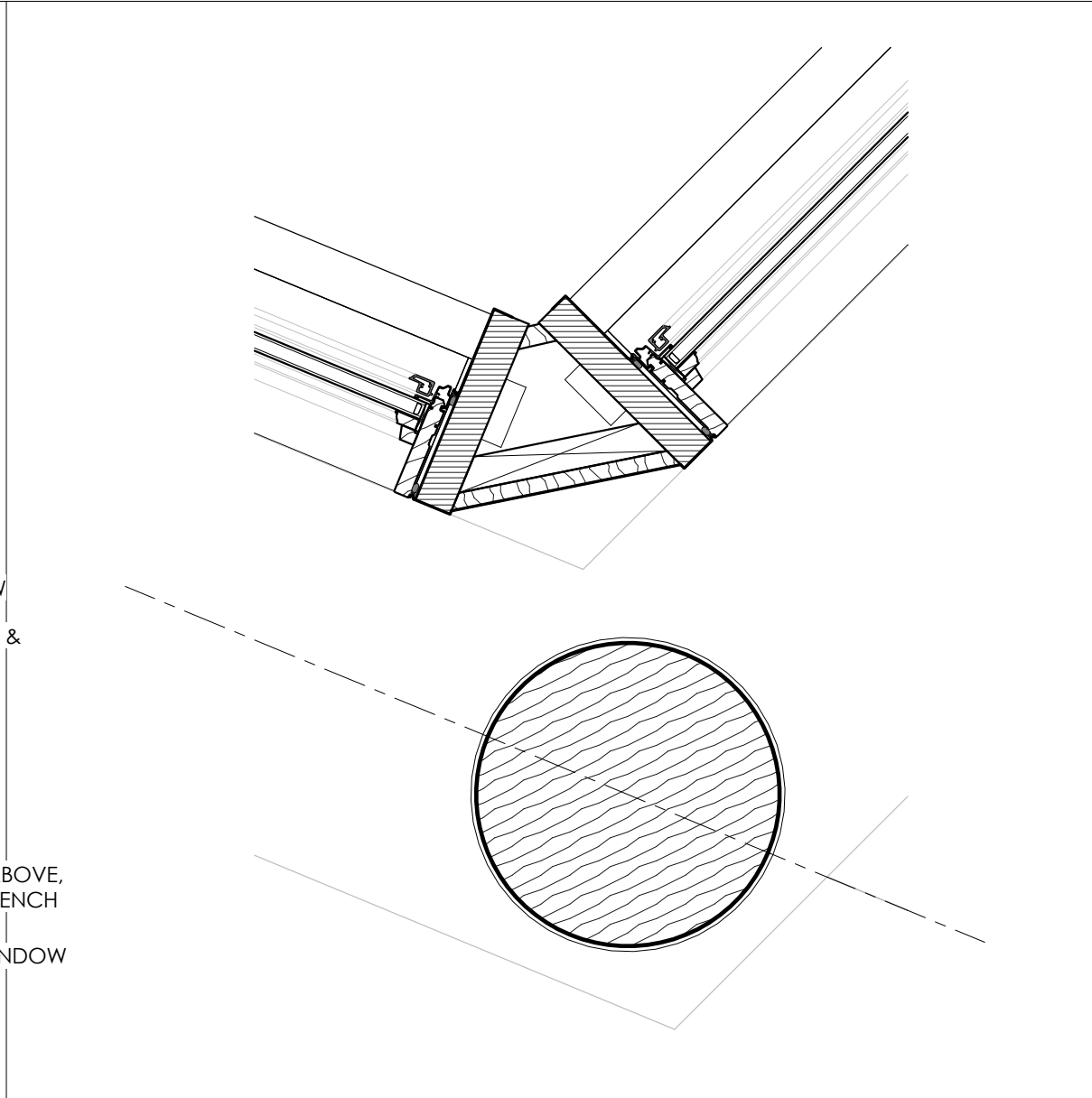
03 TYP. INTERIOR WALLS @ COLUMN
1 1/2" = 1'-0"



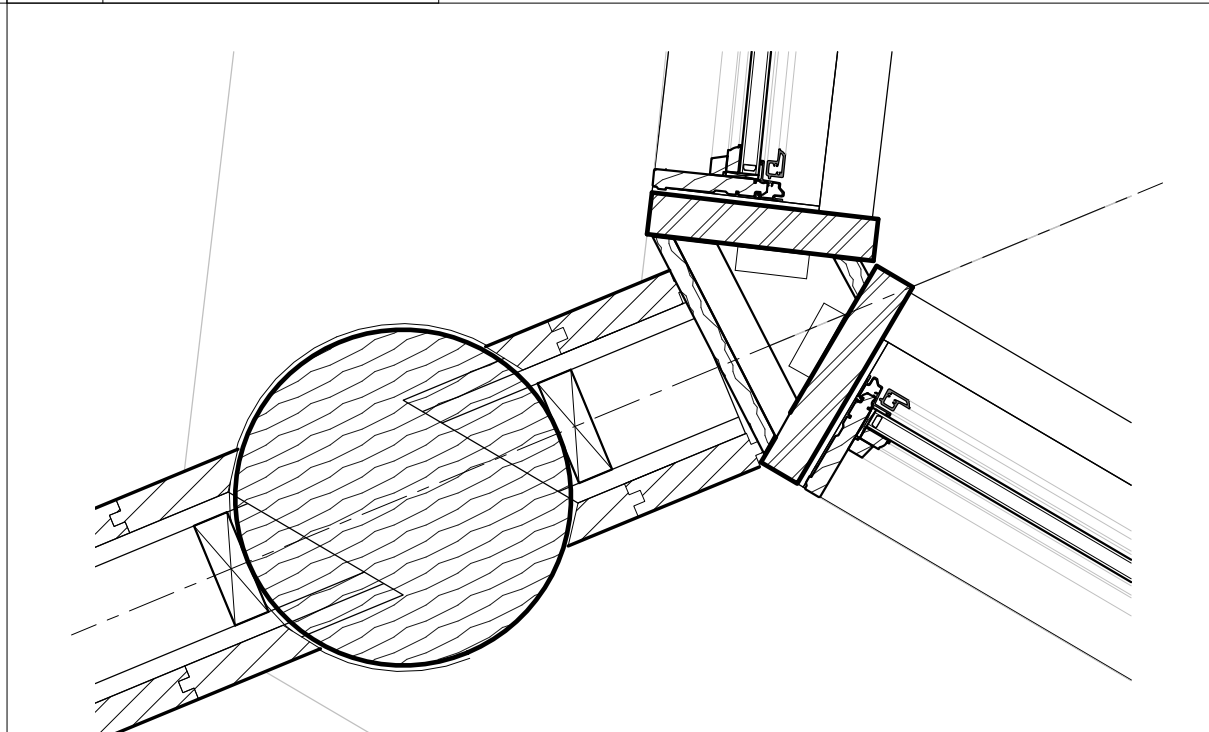
02 DETAIL 4
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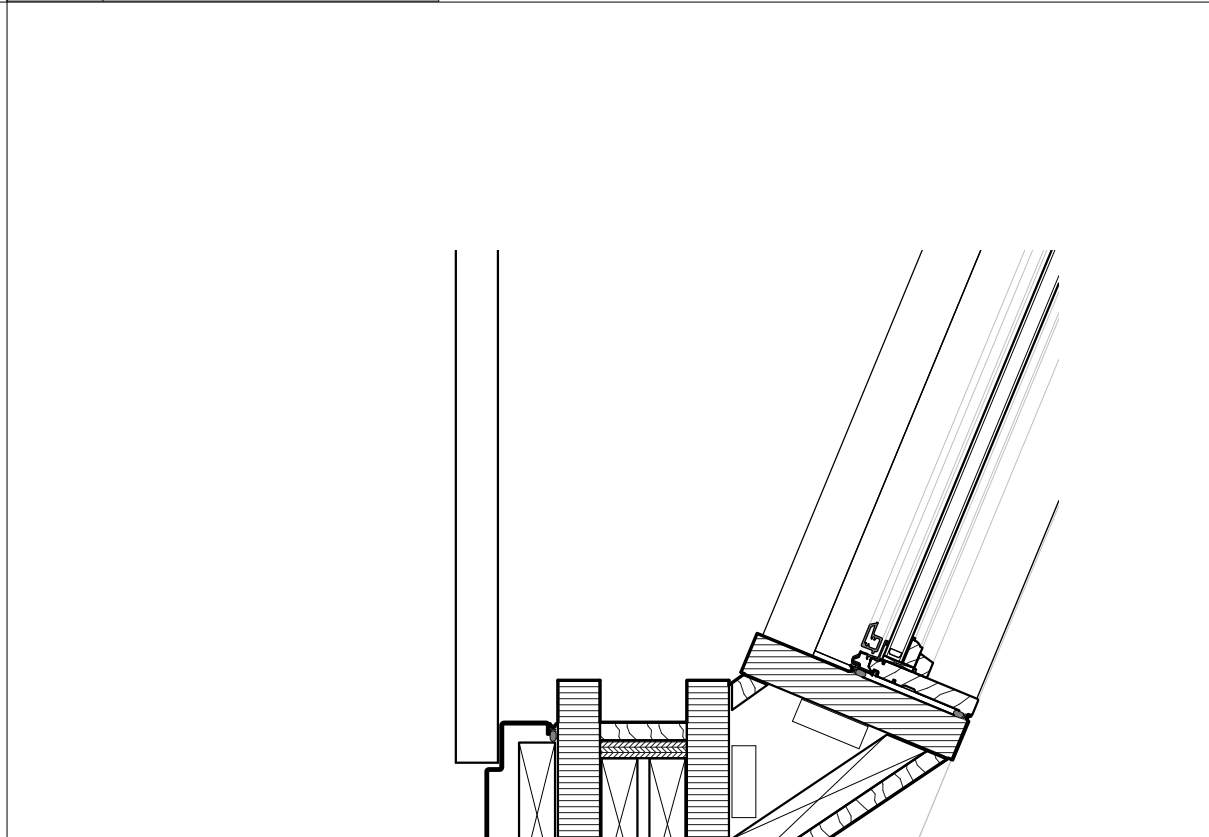
01 DETAIL 5
1 1/2" = 1'-0"



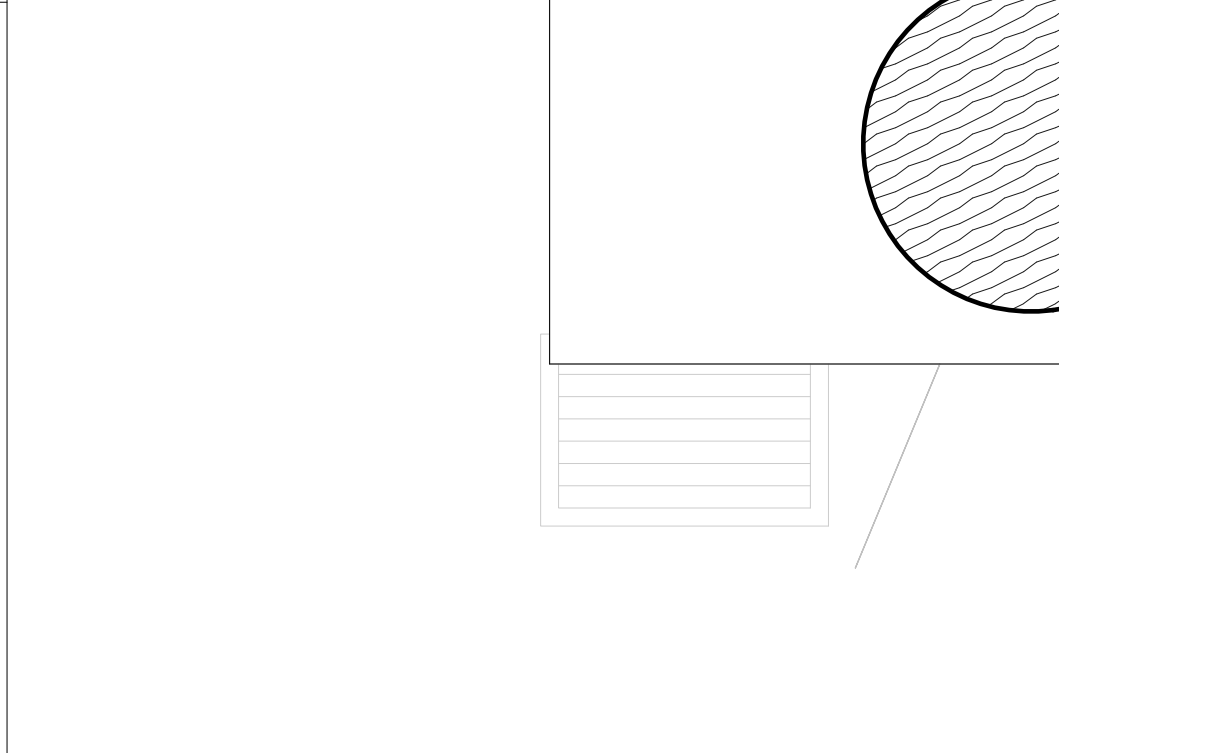
07 DETAIL 1
1 1/2" = 1'-0"



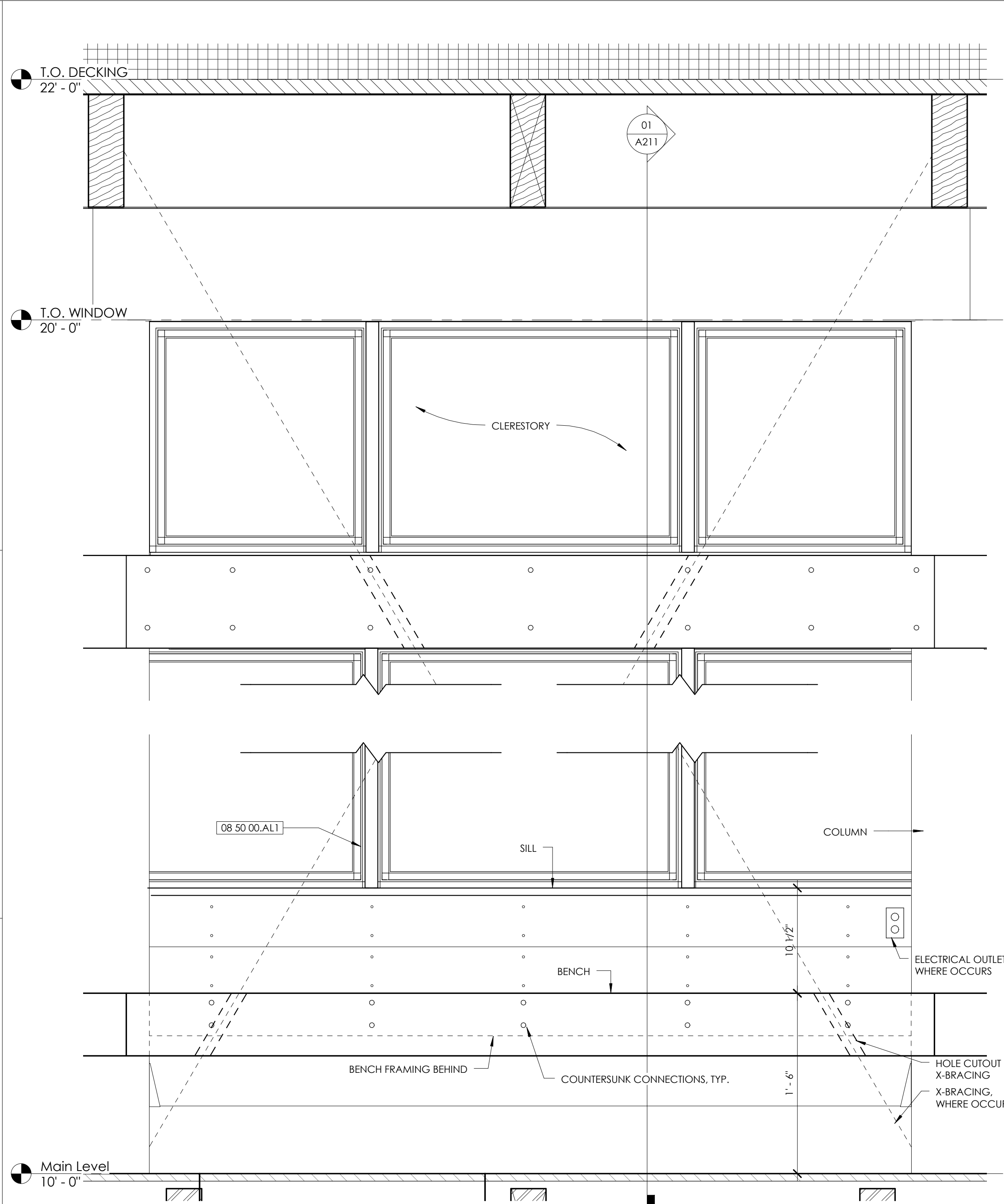
06 DETAIL 3
1 1/2" = 1'-0"



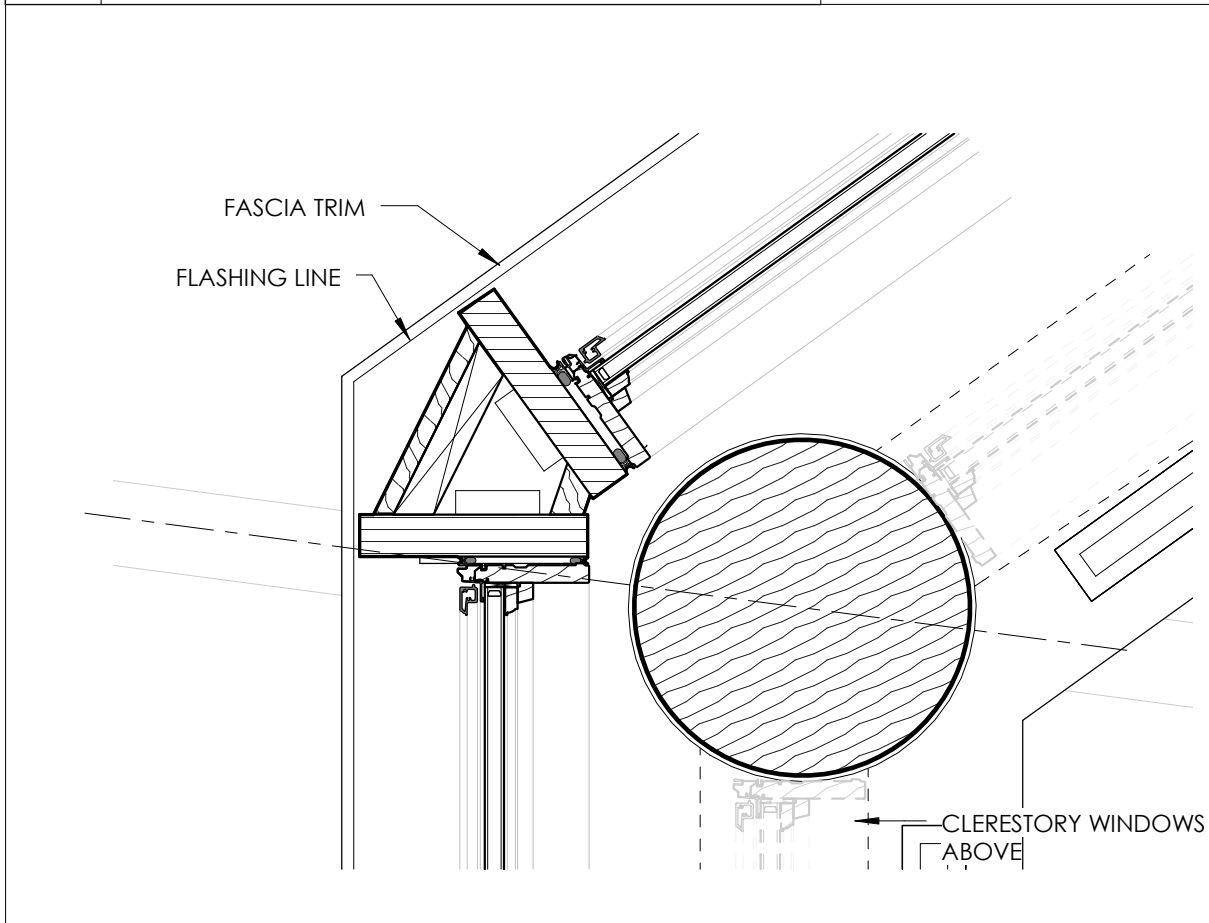
02 DETAIL 4
1 1/2" = 1'-0"



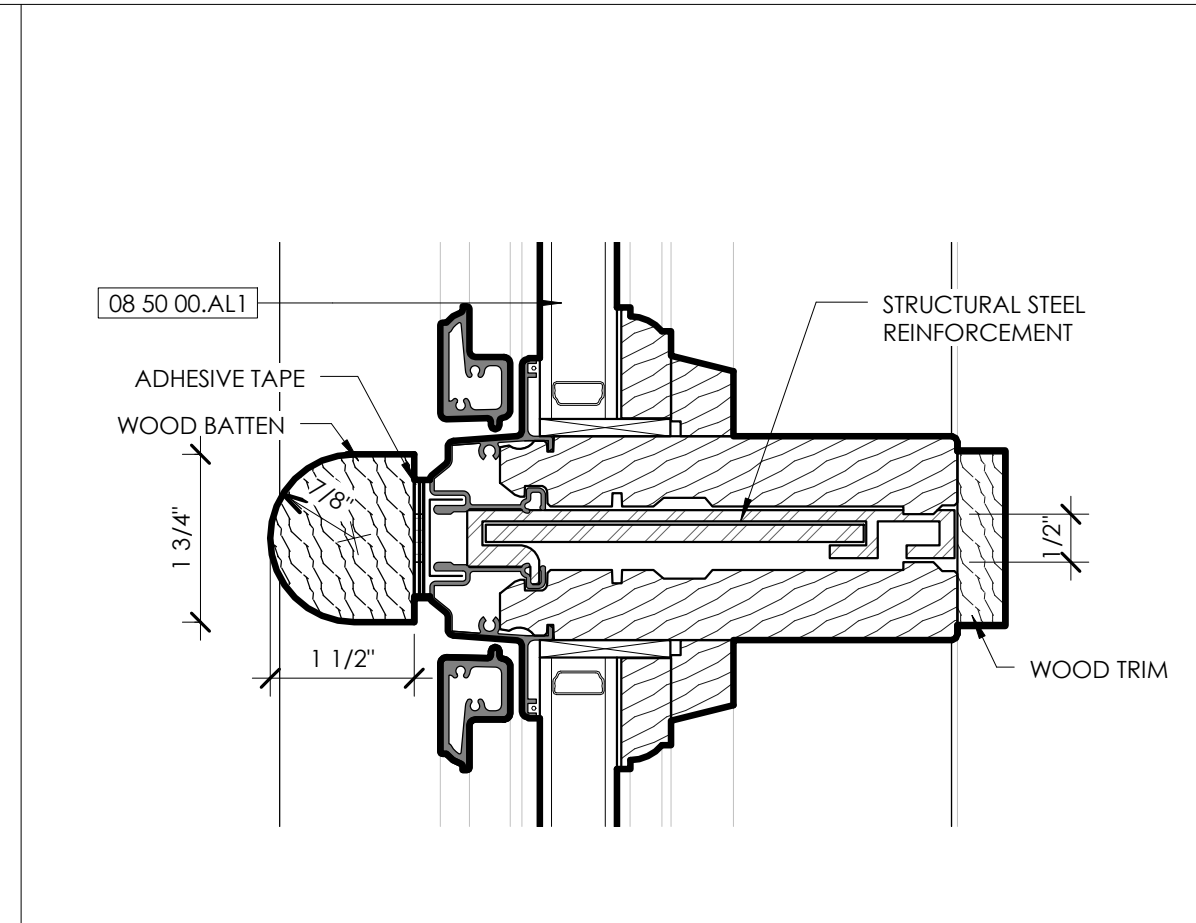
05 DETAIL @ DOOR
1 1/2" = 1'-0"



09 TYPICAL INTERIOR ELEVATION @ WINDOWS
1 1/2" = 1'-0"



08 DETAIL @ SOFFIT
1 1/2" = 1'-0"



10 TYPICAL GANG WINDOW DETAIL
6" = 1'-0"

MATERIAL KEYNOTES

07 90 05.S	SEALANT
08 11 13.MF	METAL FRAME
08 50 00.AL1	ALUM-CLAD WOOD WINDOWS

GENERAL NOTES

SHEET SPECIFIC NOTES

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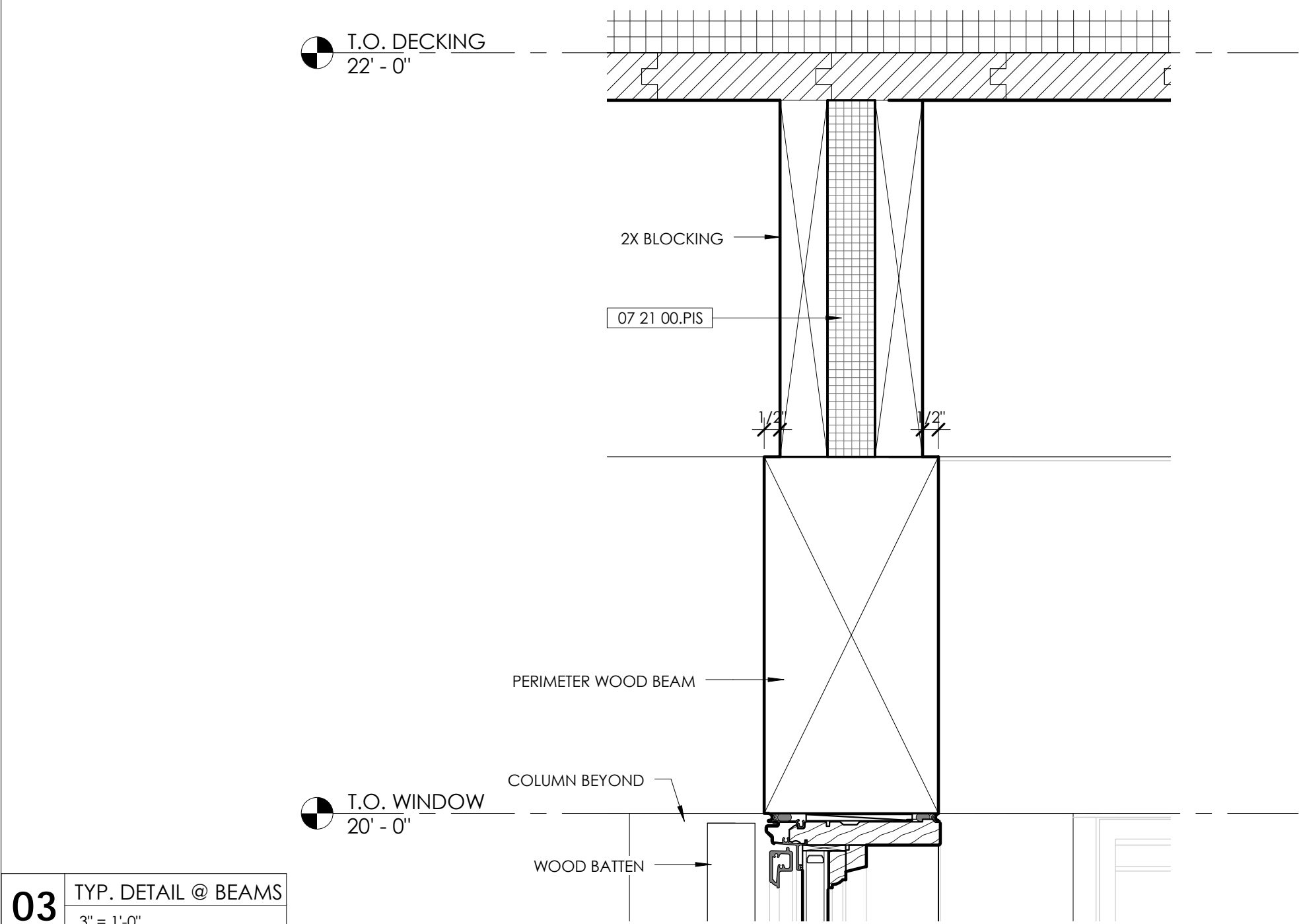
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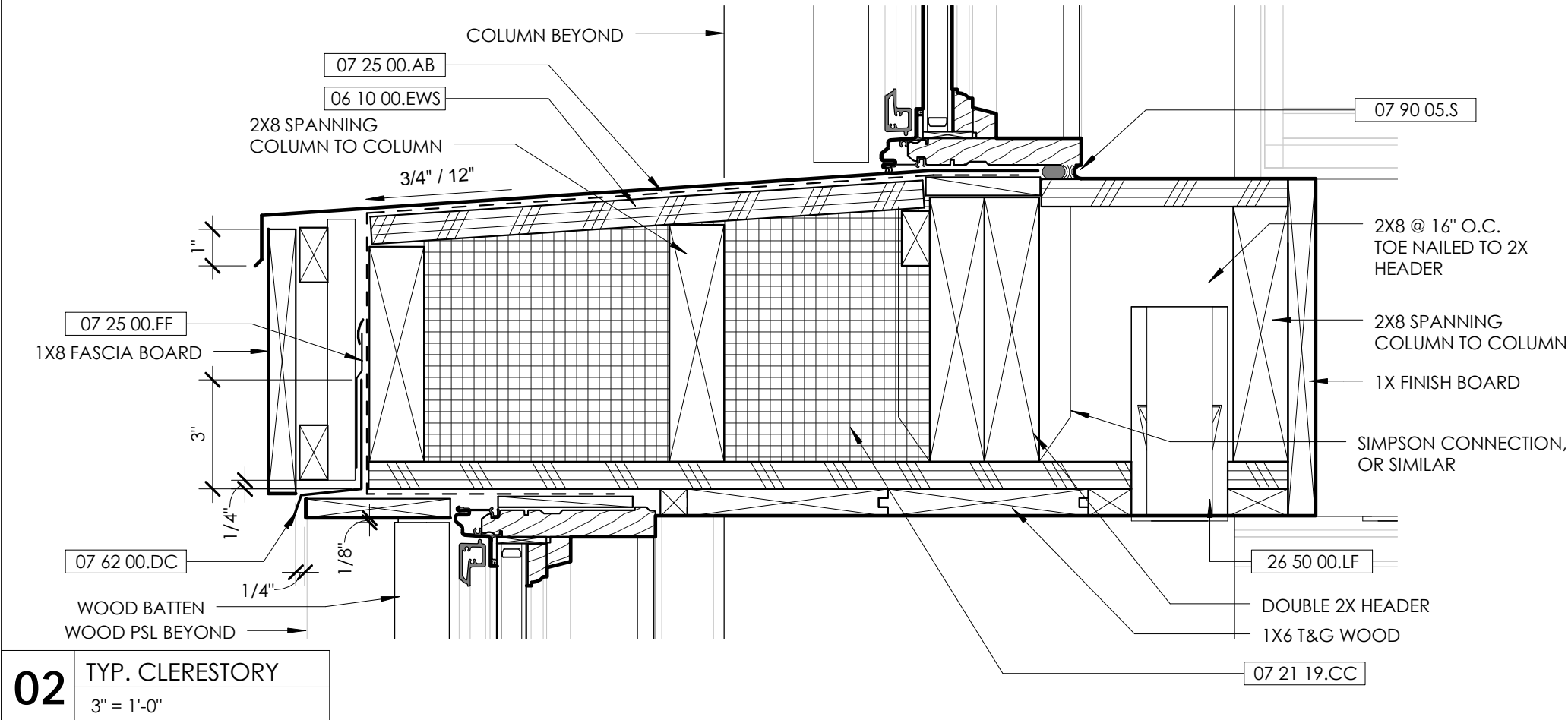
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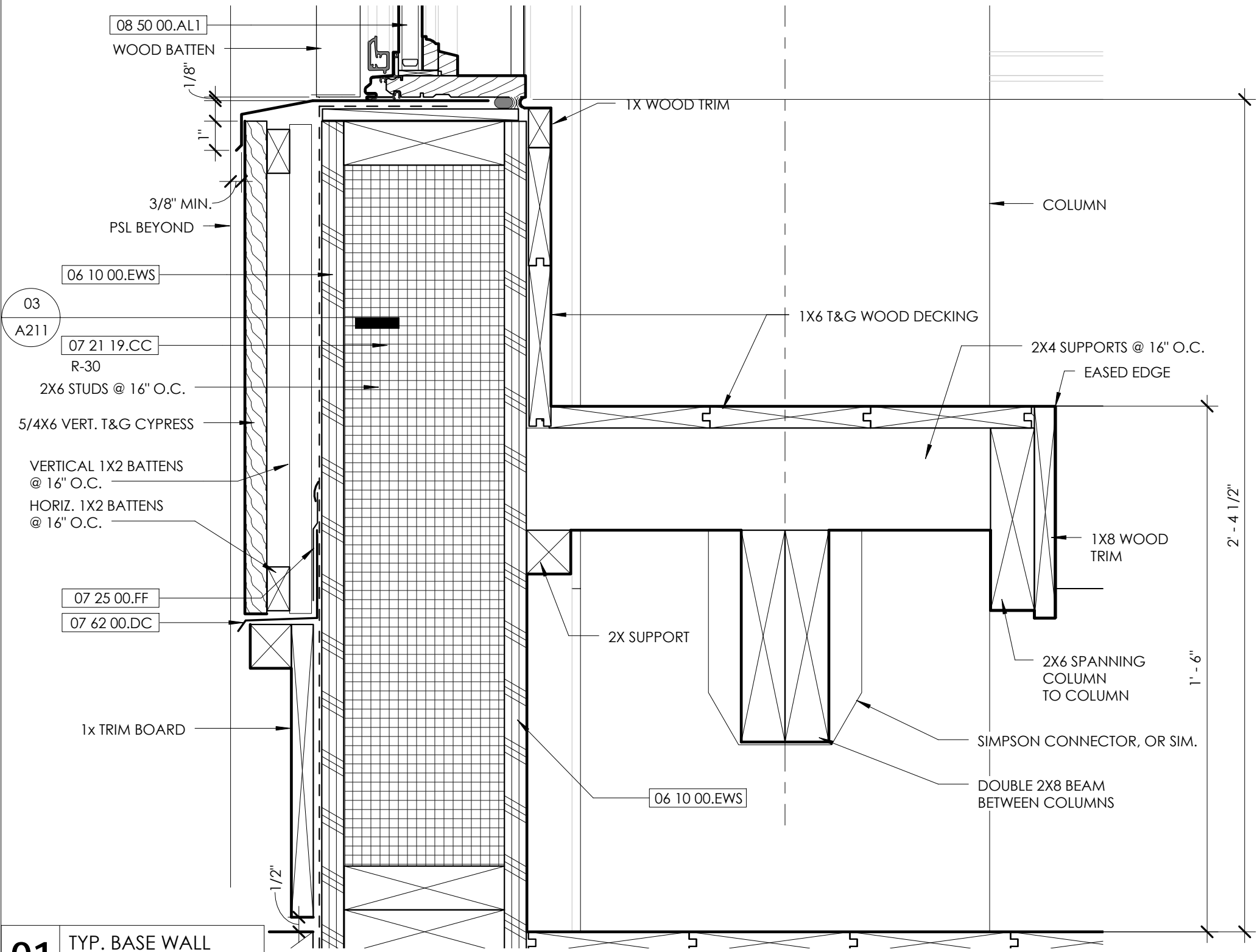
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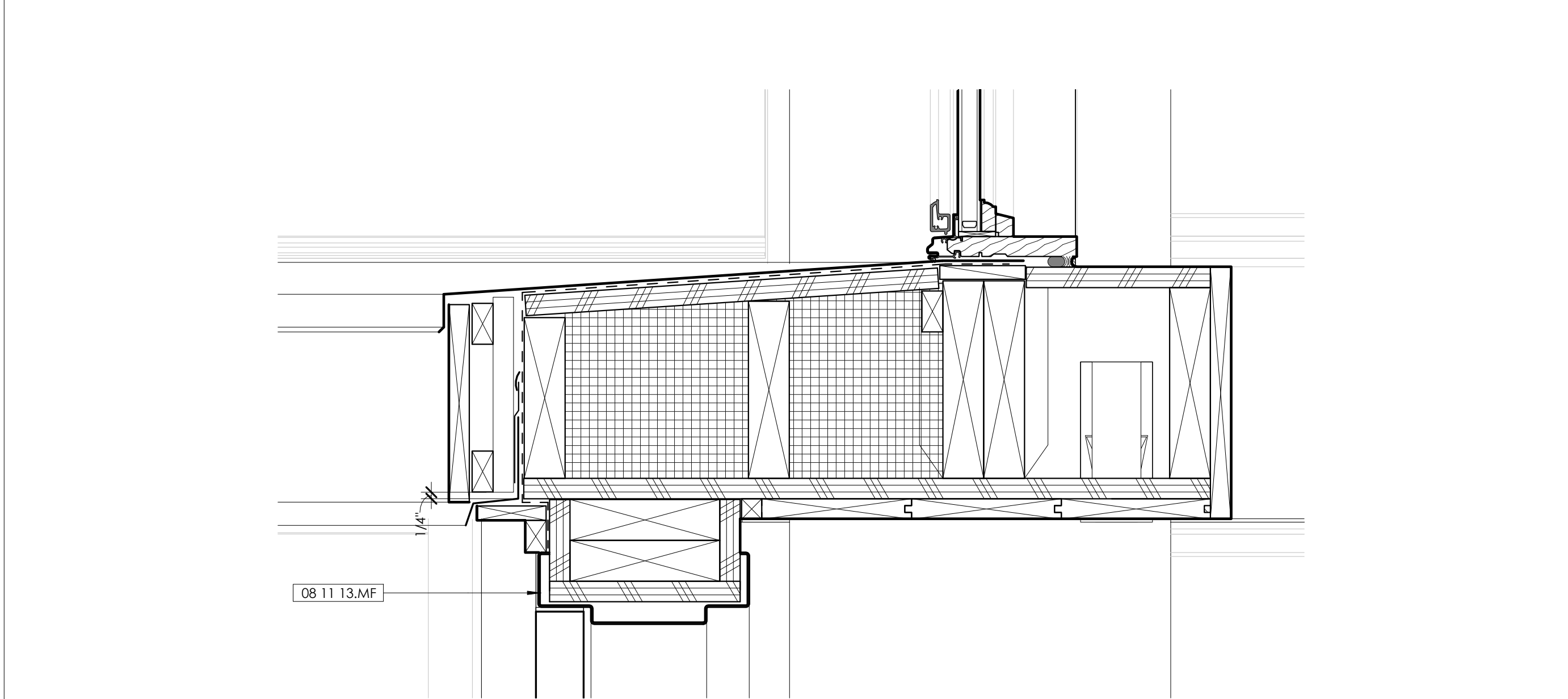
03 TYP. DETAIL @ BEAMS
3" = 1'-0"



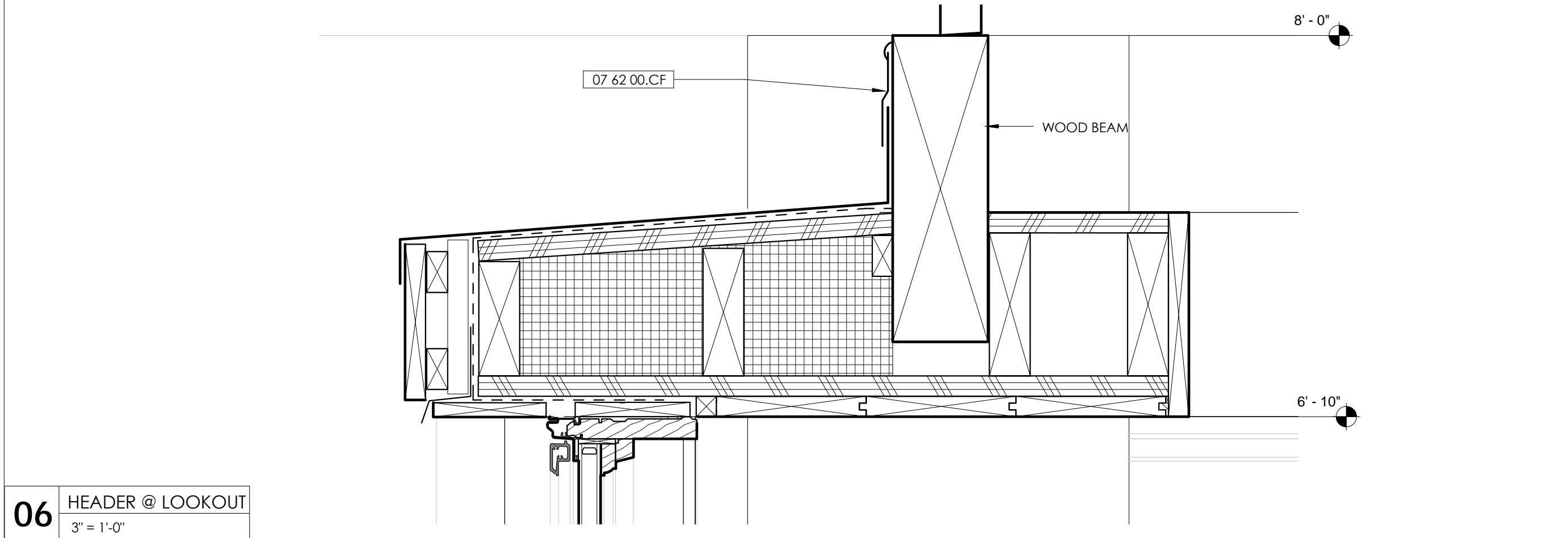
02 TYP. CLERESTORY
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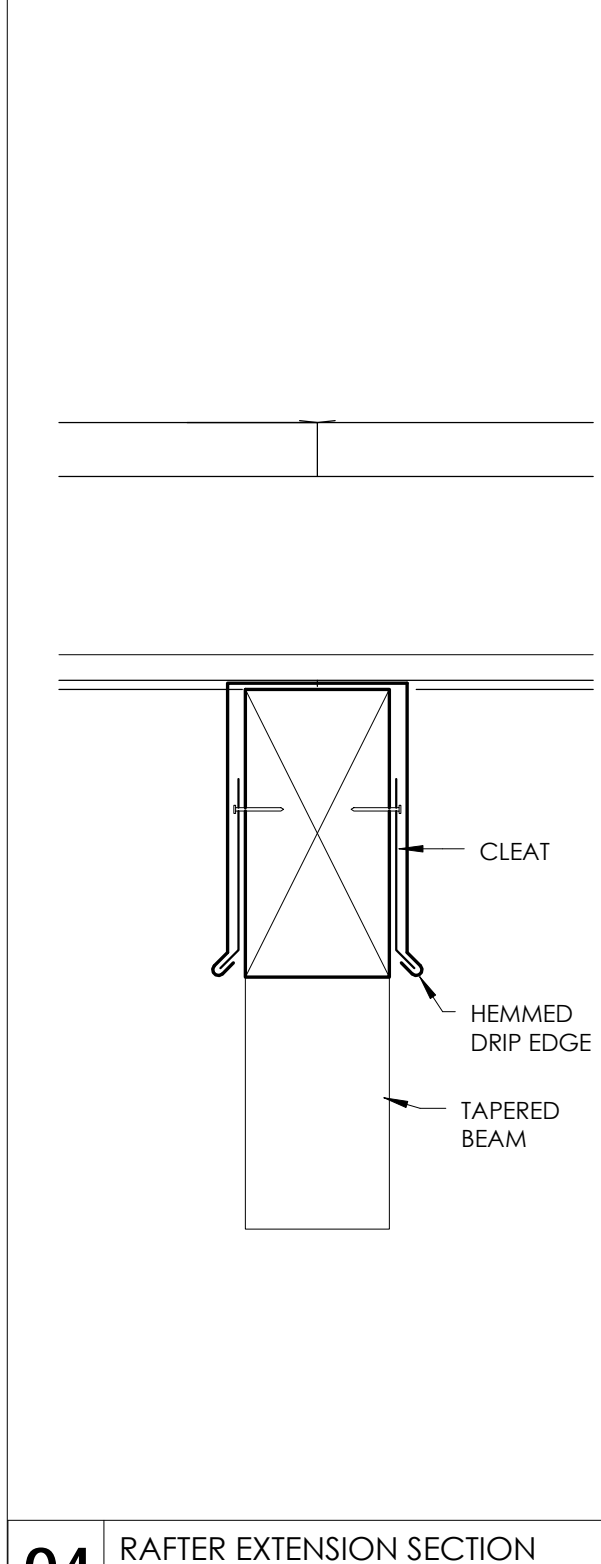
01 TYP. BASE WALL
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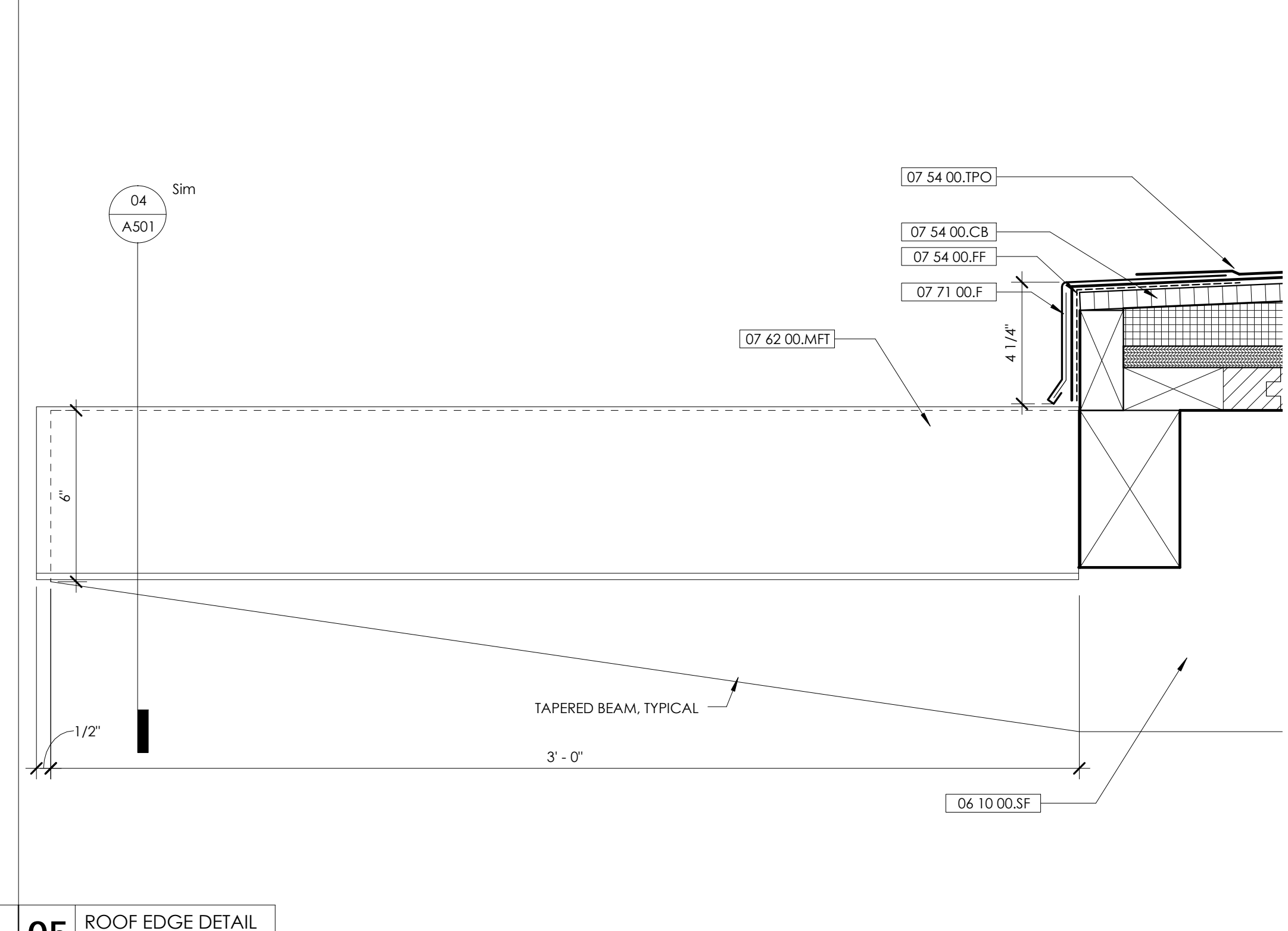
07 Detail 19
3" = 1'-0"



06 HEADER @ LOOKOUT
3" = 1'-0"



04 RAFTER EXTENSION SECTION
3" = 1'-0"



05 ROOF EDGE DETAIL
3" = 1'-0"

MATERIAL KEYNOTES	
06 10 00.EWS	EXTERIOR WOOD SHEATHING
06 10 00.SF	STRUCTURAL FRAMING
07 21 00.PIS	POLYISOCYANURATE BOARD INSULATION
07 21 19.CC	FOAMED INSULATION - CLOSED CELL
07 25 00.AB	AIR BARRIER
07 25 00.FF	FLEXIBLE FLASHING
07 54 00.CB	COVERBOARD
07 54 00.FF	FLEXIBLE FLASHING
07 54 00.TPO	THERMOPLASTIC MEMBRANE ROOFING
07 62 00.CF	COUNTERFLASHING
07 62 00.DC	SHEET METAL DRIP CAP
07 62 00.MFT	SHEET METAL FLASHING AND TRIM
07 71 00.F	MANUFACTURED FASCIA
07 90 05.S	SEALANT
08 11 13.MF	METAL FRAME
08 50 00.AL1	ALUM-CLAD WOOD WINDOWS

GENERAL NOTES

SHEET SPECIFIC NOTES

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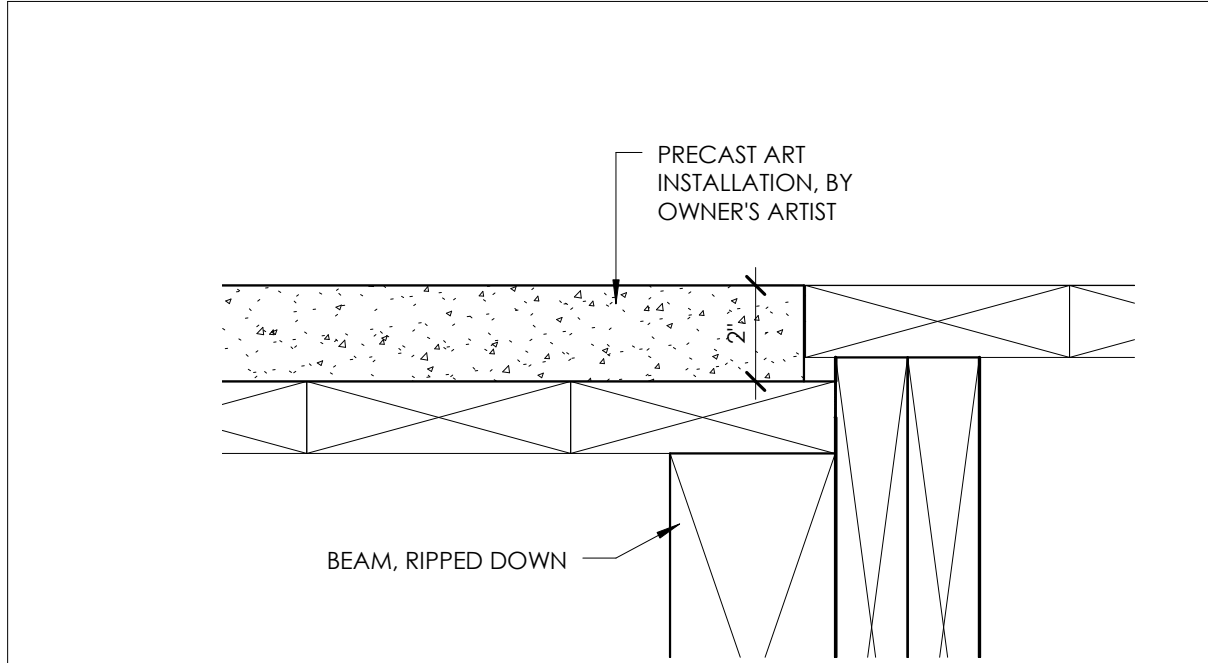
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A501

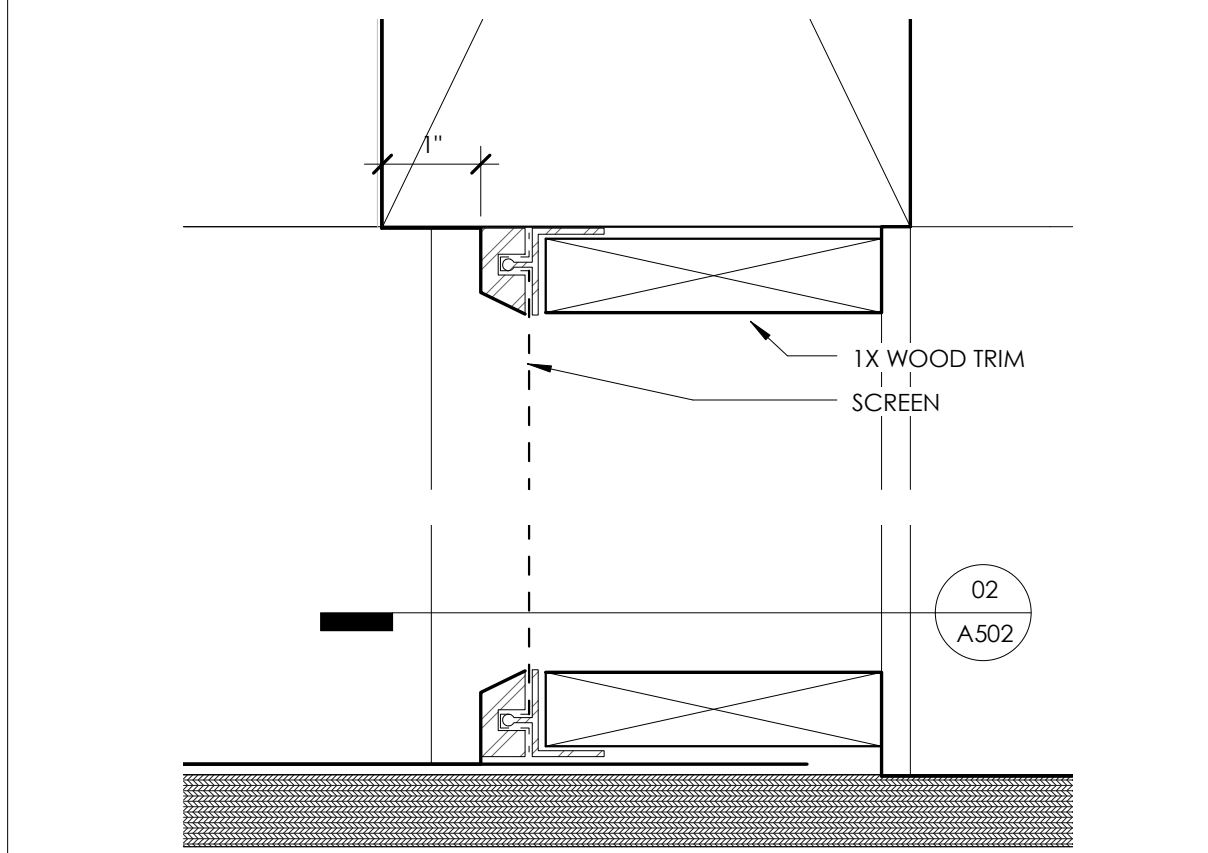
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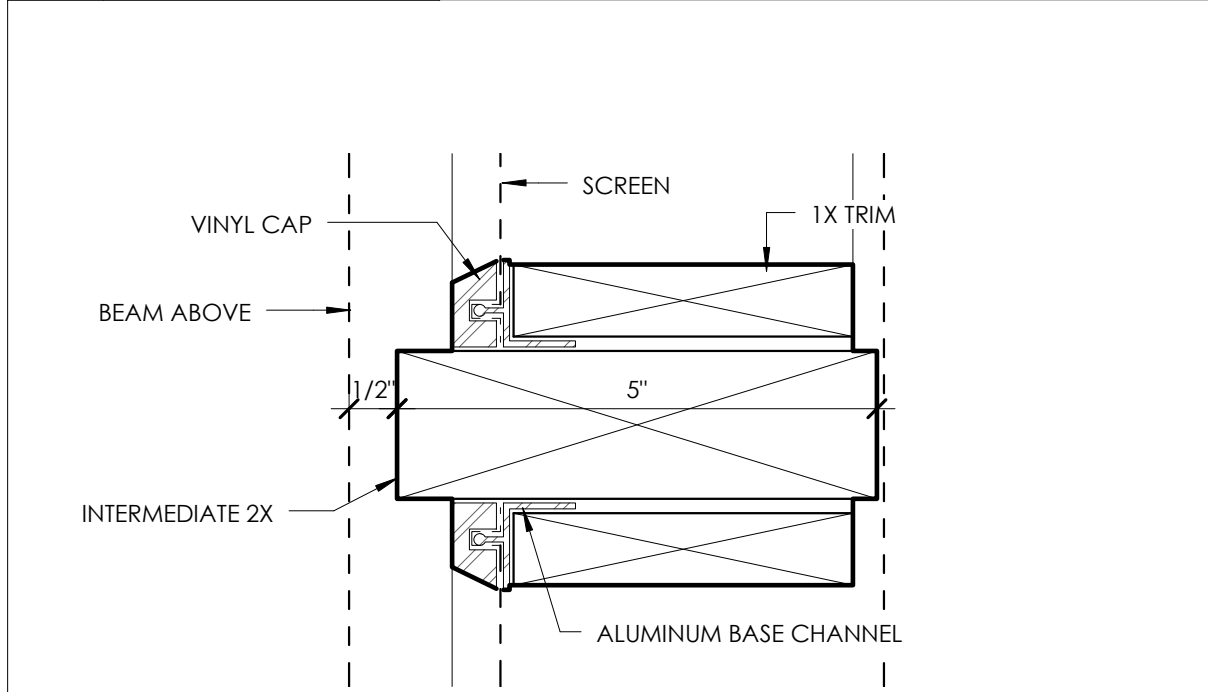
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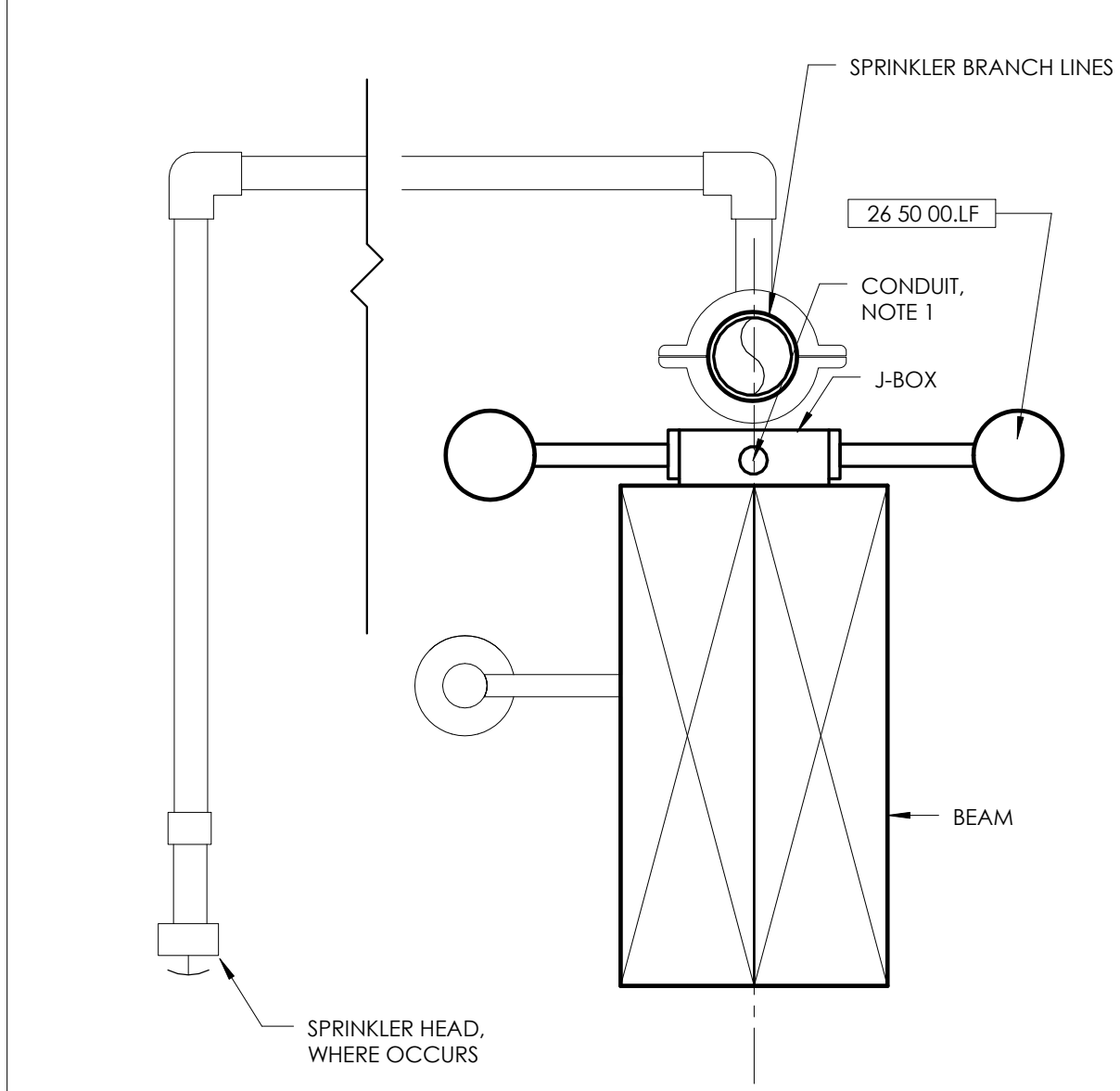
04 FLOOR INSET DETAIL
3" = 1'-0"



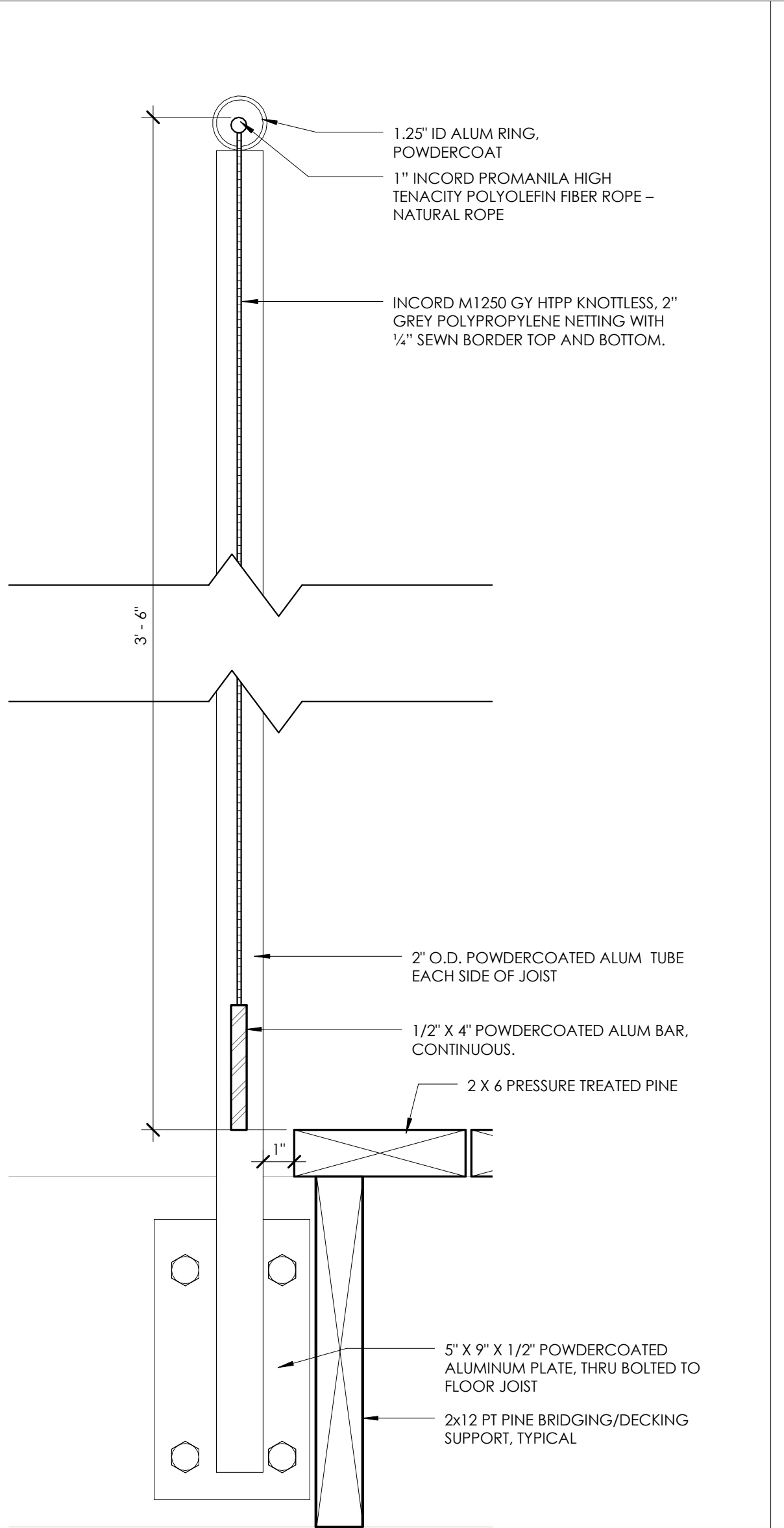
03 SCREEN DETAIL
6" = 1'-0"



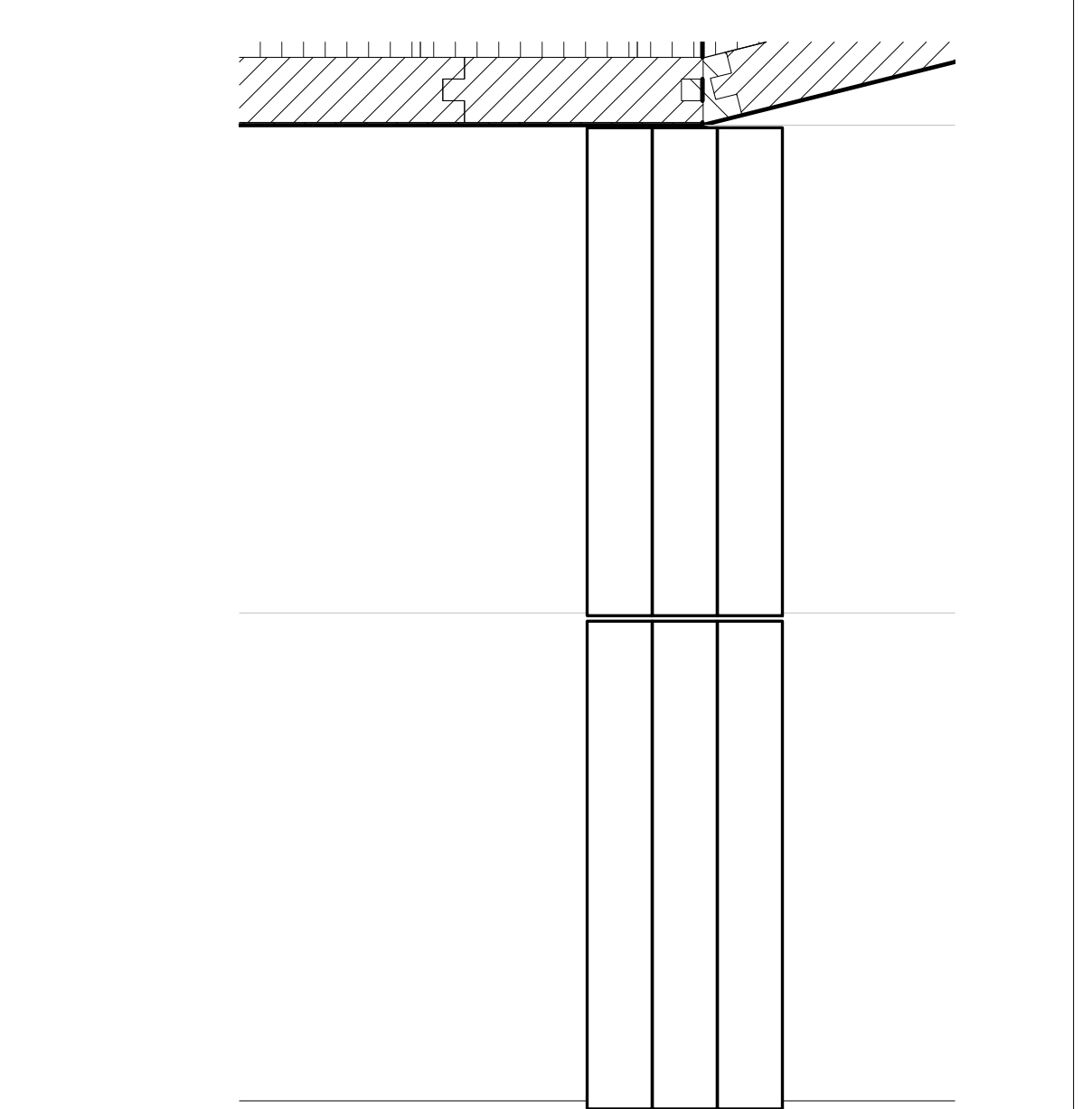
02 SCREEN PLAN DETAIL
6" = 1'-0"



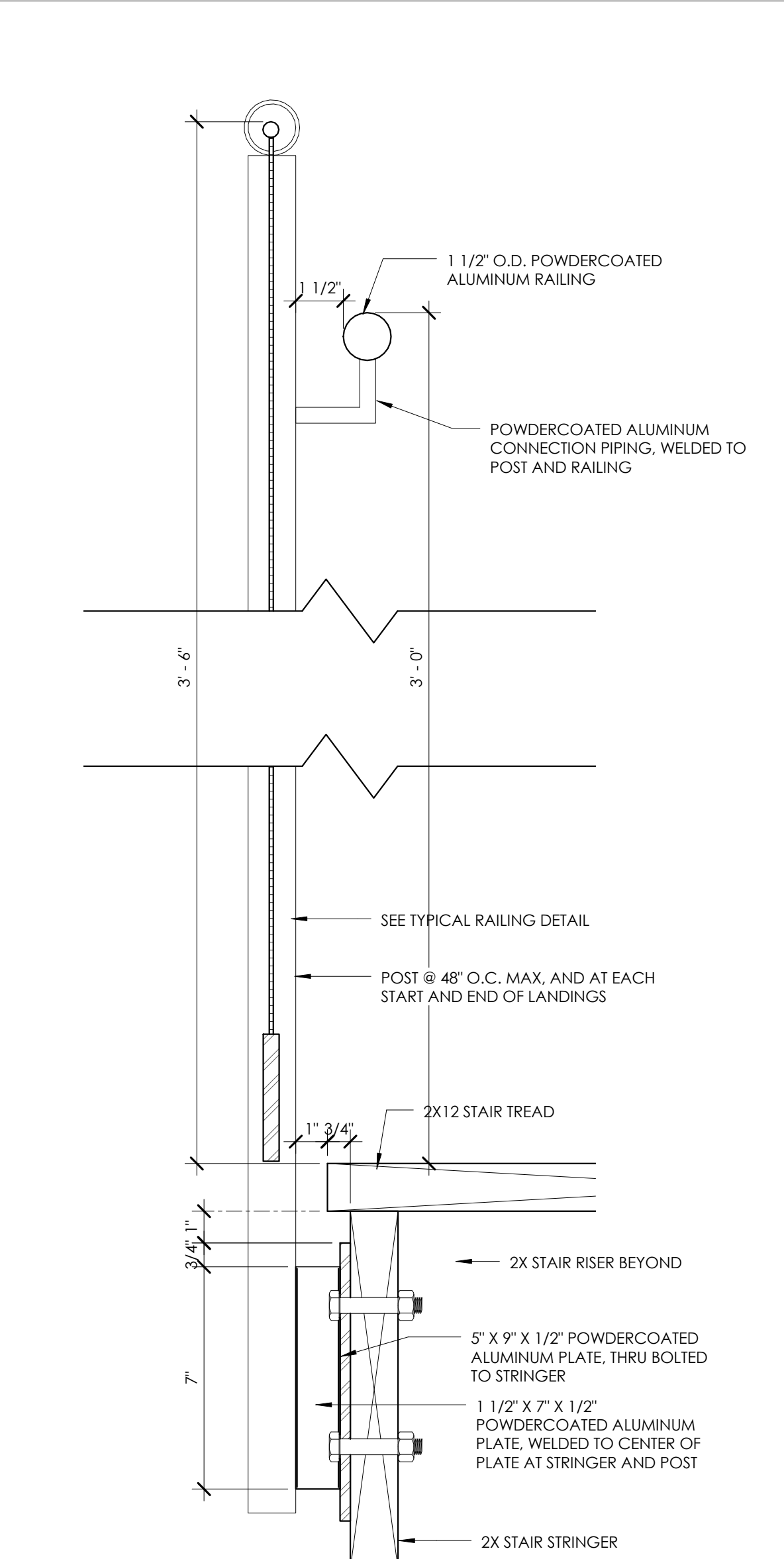
01 Detail 24
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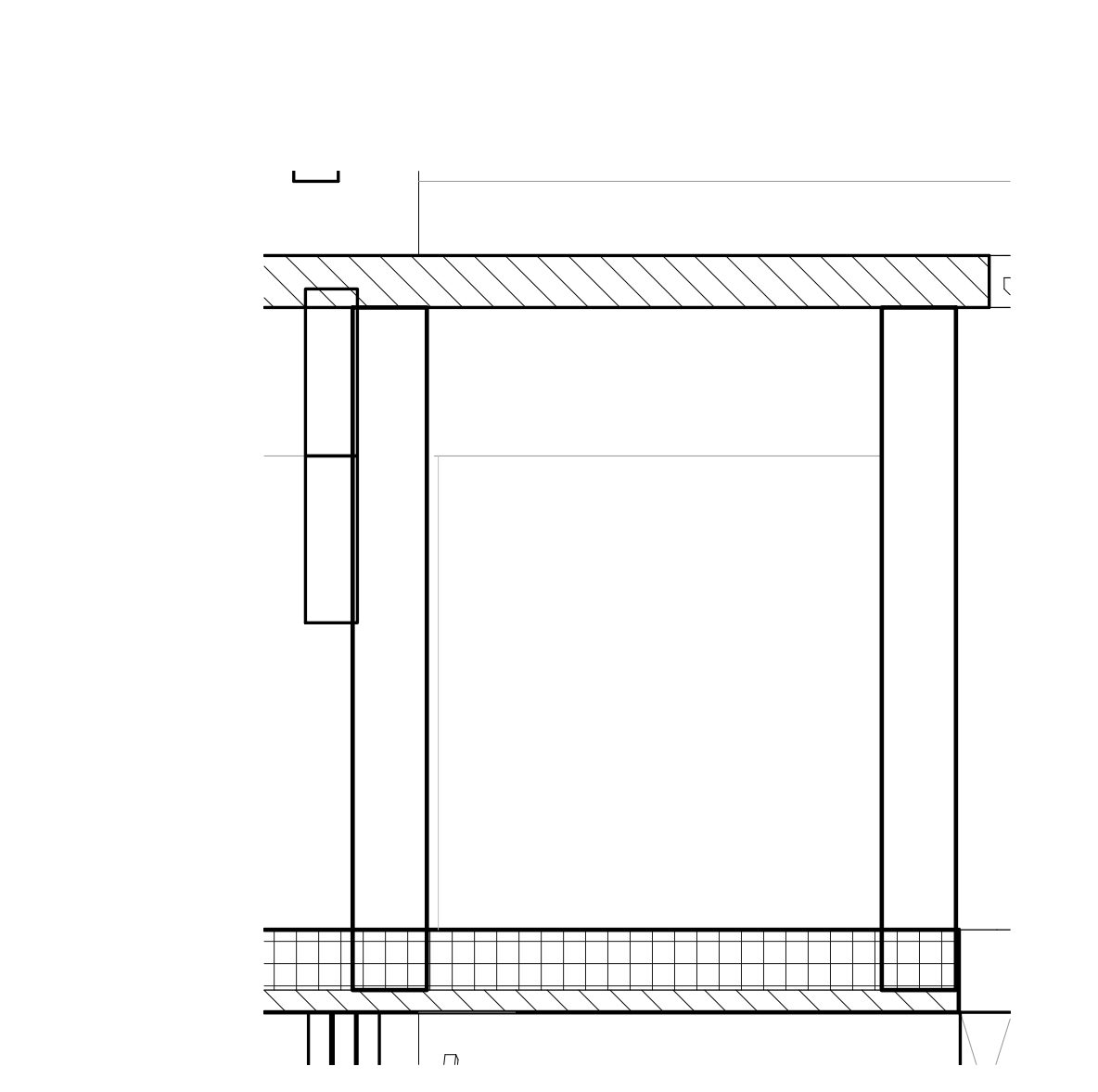
06 TYPICAL RAILING DETAIL
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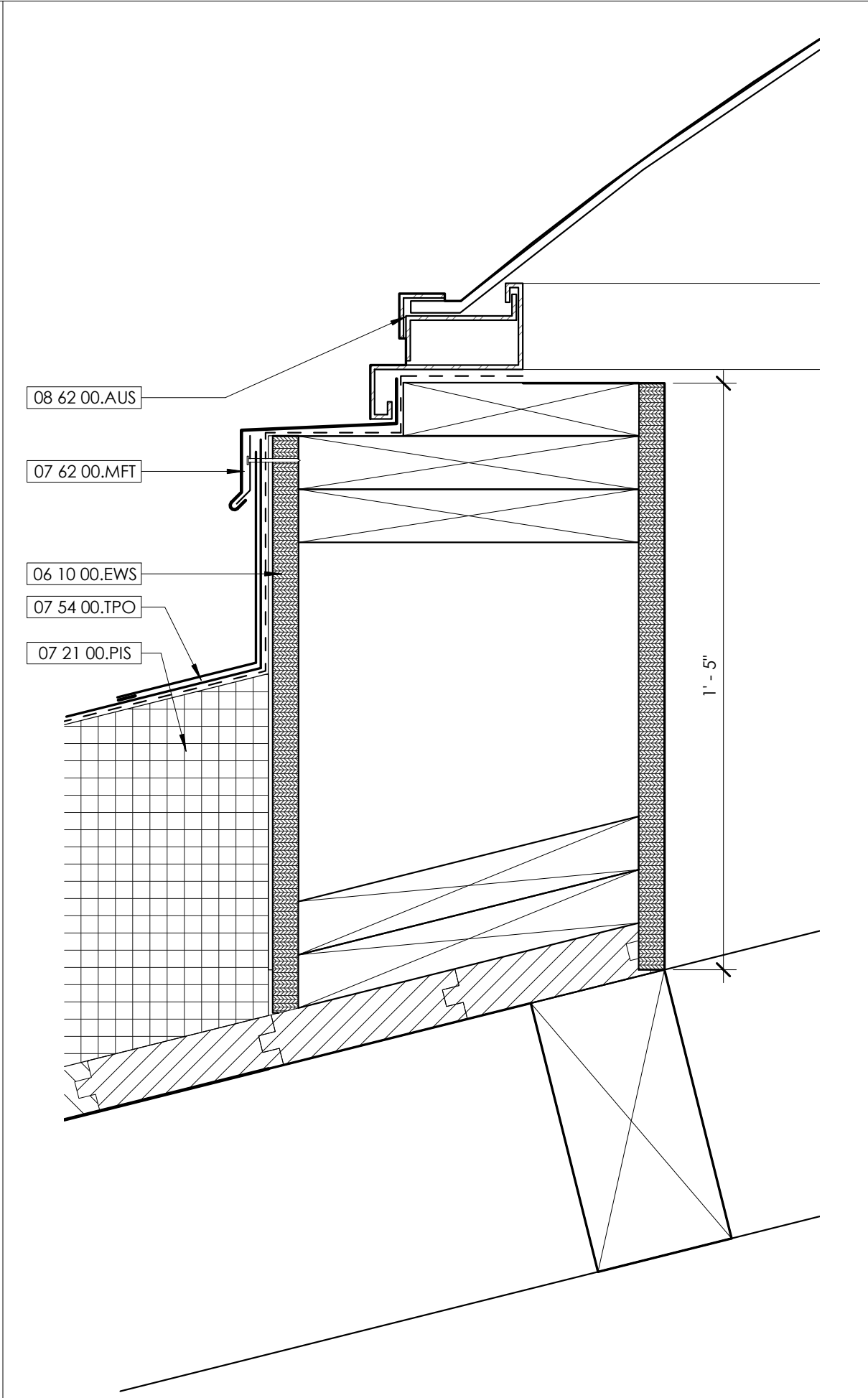
05 Detail 26
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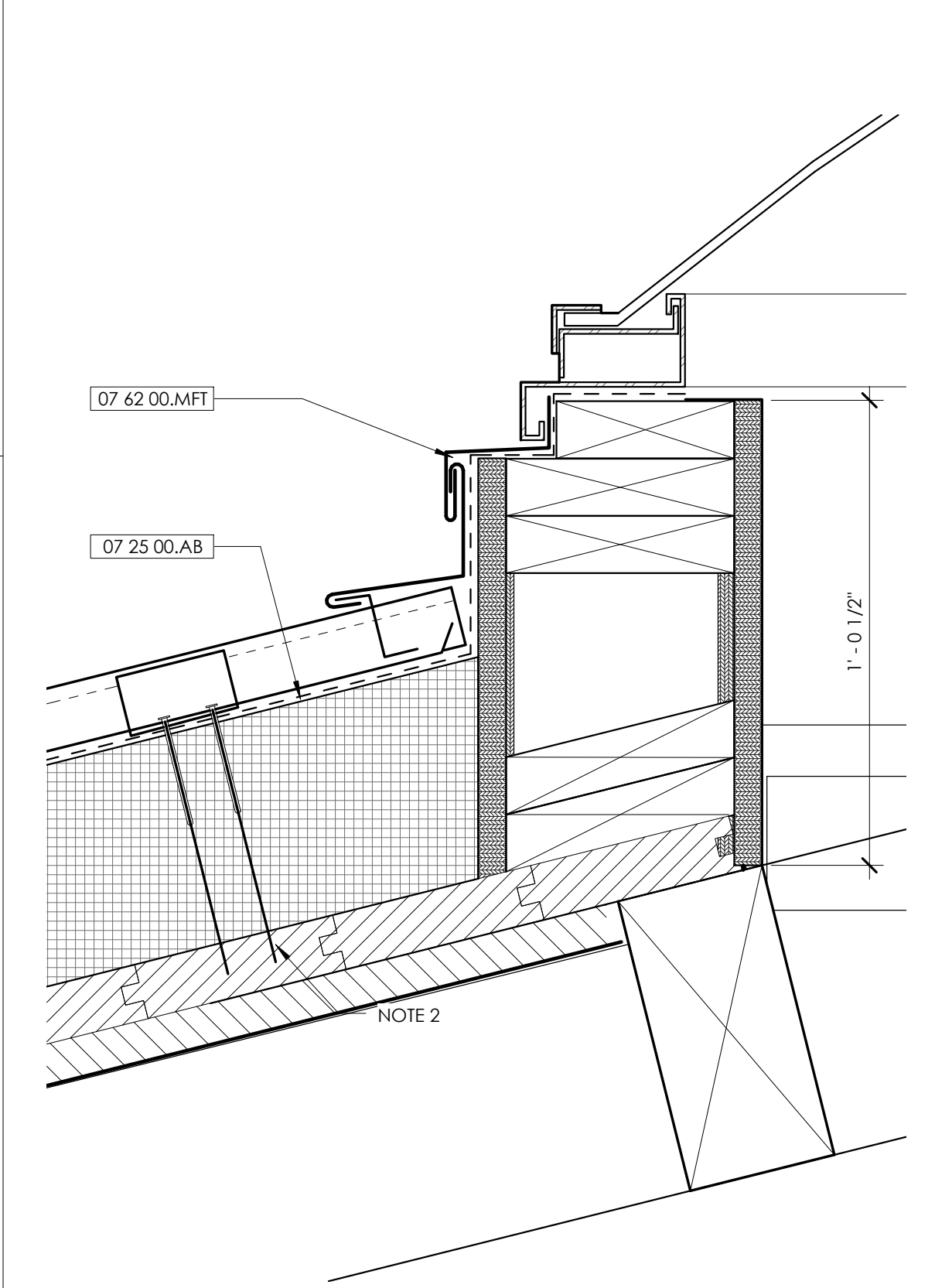
08 RAILING @ STAIRS
3" = 1'-0"



07 Detail 22
1" = 1'-0"



10 TYPICAL SKYLIGHT CURB DETAIL
3" = 1'-0"



09 LOOKOUT SKYLIGHT CURB DETAIL
3" = 1'-0"

- MATERIAL KEYNOTES**
- | | |
|--------------|--|
| 06 10 00.EWS | EXTERIOR WOOD SHEATHING |
| 07 21 00.PIS | POLYISOCYANURATE BOARD |
| 07 25 00.AB | INSULATION |
| 07 41 13.MRP | AIR BARRIER |
| 07 54 00.TPO | METAL ROOF PANELS |
| 07 62 00.MFT | THERMOPLASTIC MEMBRANE ROOFING |
| 08 62 00.AUS | SHEET METAL FLASHING AND TRIM |
| | CURB-MOUNTED FIXED ACRYLIC UNIT SKYLIGHT |

GENERAL NOTES

- SHEET SPECIFIC NOTES**
- Conduit is to be routed neatly and organized along the centerline
 - Coordinate depth of roof fasteners so they don't penetrate through the entire roof decking.

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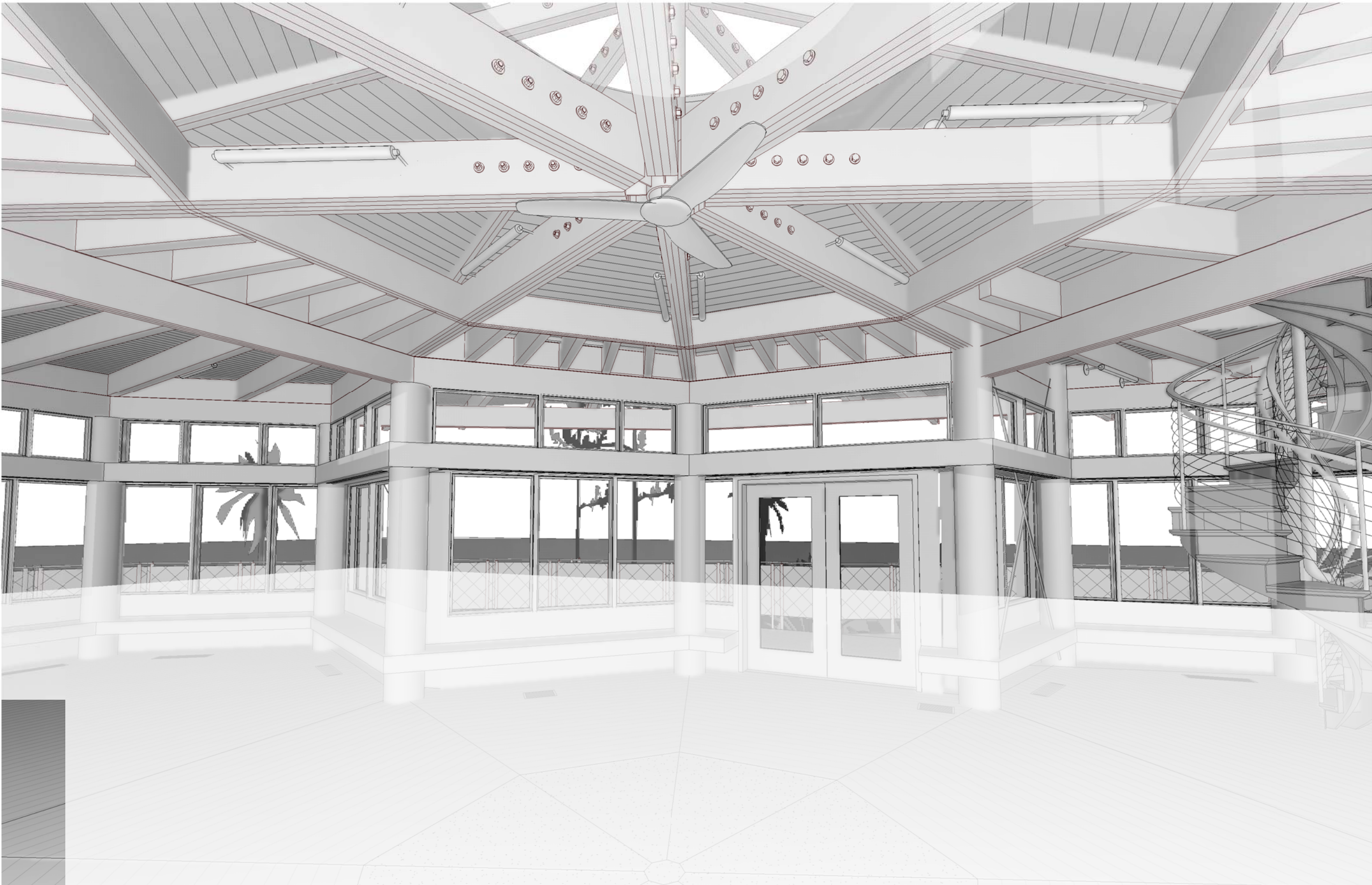
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2	Interior View 3
---	-----------------



1	Interior View 1
---	-----------------

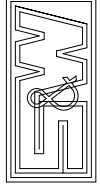
MATERIAL KEYNOTES

GENERAL NOTES

SHEET SPECIFIC NOTES

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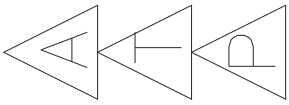
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INTERIOR PERSPECTIVES

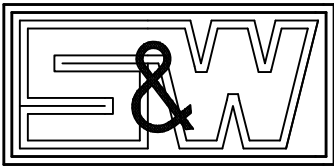
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EB6482

PROJECT NAME

ROBINSON PRESERVE
EXPANSION
TREEHOUSE CLASSROOM
MANATEE COUNTY, FLORIDA

ISSUED FOR

95%
CONSTRUCTION
DOCUMENTS

10-10-14

PROJECT NUMBER

W2013-064B

SIGN/SEAL

STEPHEN WILBUR, P.E. #2119

REVISIONS

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PLOT SCALE 1/4"=1'-0"
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SHEET TITLE

FOUNDATION PLAN

SHEET NUMBER

S1.1

PRELIMINARY
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CONCRETE COLUMN SCHEDULE			
MARK	SIZE	REINF.	REMARKS
CC1	12"Ø	4#6 VERTICALS #3Ø TIES @ 10" O/C	
CC2	16"Ø	4#6 VERTICALS #3Ø TIES @ 10" O/C	

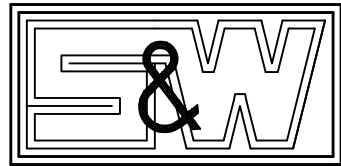
CC1, CC2

FOUNDATION SCHEDULE				
MARK	SIZE	DEPTH	REINF.	REMARKS
A	24" x CONTIN.	12'	3#5 B. CONTINUOUS #5 @ 18" B., TRANSVERSE	
B	3'-0" x 3'-0"	12'	4#5 BEW	
C	4'-0" x 4'-0"	12'	5#5 BEW	
D	5'-0" x 5'-0"	12'	6#5 BEW	

- FOUNDATION PLAN NOTES:
2013064B / NOTES - FNDN
- ALL ELEVATIONS ON THE STRUCTURAL DRAWINGS ARE REFERENCED TO NAVD.
 - TOP OF FOOTINGS IS AT ELEVATION +2'-0" NAVD, UNLESS NOTED.
 - CENTERLINES OF COLUMNS AND FOOTINGS ARE COINCIDENT UNLESS NOTED.
 - MINIMUM 28-DAY CONCRETE COMPRESSIVE STRENGTH (FC):
FOOTINGS: 3000 PSI
COLUMNS AND BEAMS: 5000 PSI
 - REINFORCING STEEL: GRADE 60 KSI. SUBMIT SHOP DRAWINGS FOR ALL REINFORCEMENT FOR REVIEW BY THE ENGINEER.
 - MINIMUM CONCRETE COVER TO REINFORCING STEEL:
CAST AGAINST EARTH: 3"
 - BEAMS AND COLUMNS: 1-1/2" TO STIRRUPS AND TIES.
 - PROVIDE 48 HOURS MINIMUM NOTICE TO THE ENGINEER PRIOR TO ANY POUR OF STRUCTURAL CONCRETE.
 - FOUNDATIONS SHALL BE FOUNDED ON SOIL CAPABLE OF SUSTAINING 2000 POUNDS PER SQUARE FOOT. SOIL OF THIS VALUE IS ASSUMED TO BE FOUND AT THE ELEVATIONS SHOWN.
 - REFER TO GEOTECHNICAL INVESTIGATION REPORT NO. 13-7414, DATED 03-27-14, PREPARED BY ARDAMAN AND ASSOCIATES, INC.
 - PREPARE SUBGRADE SOIL IN ACCORDANCE WITH PROCEDURE INCLUDED IN THE GEOTECHNICAL INVESTIGATION REPORT NOTED ABOVE.
 - SOIL AT THE UNDERSIDE OF FOOTINGS SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL CONSULTANT PRIOR TO THE POURING OF FOOTINGS.
 - REFER ALSO TO GENERAL NOTES AND TYPICAL DETAILS ON DRAWING S5.1.

FOUNDATION PLAN
1/4"=1'-0"

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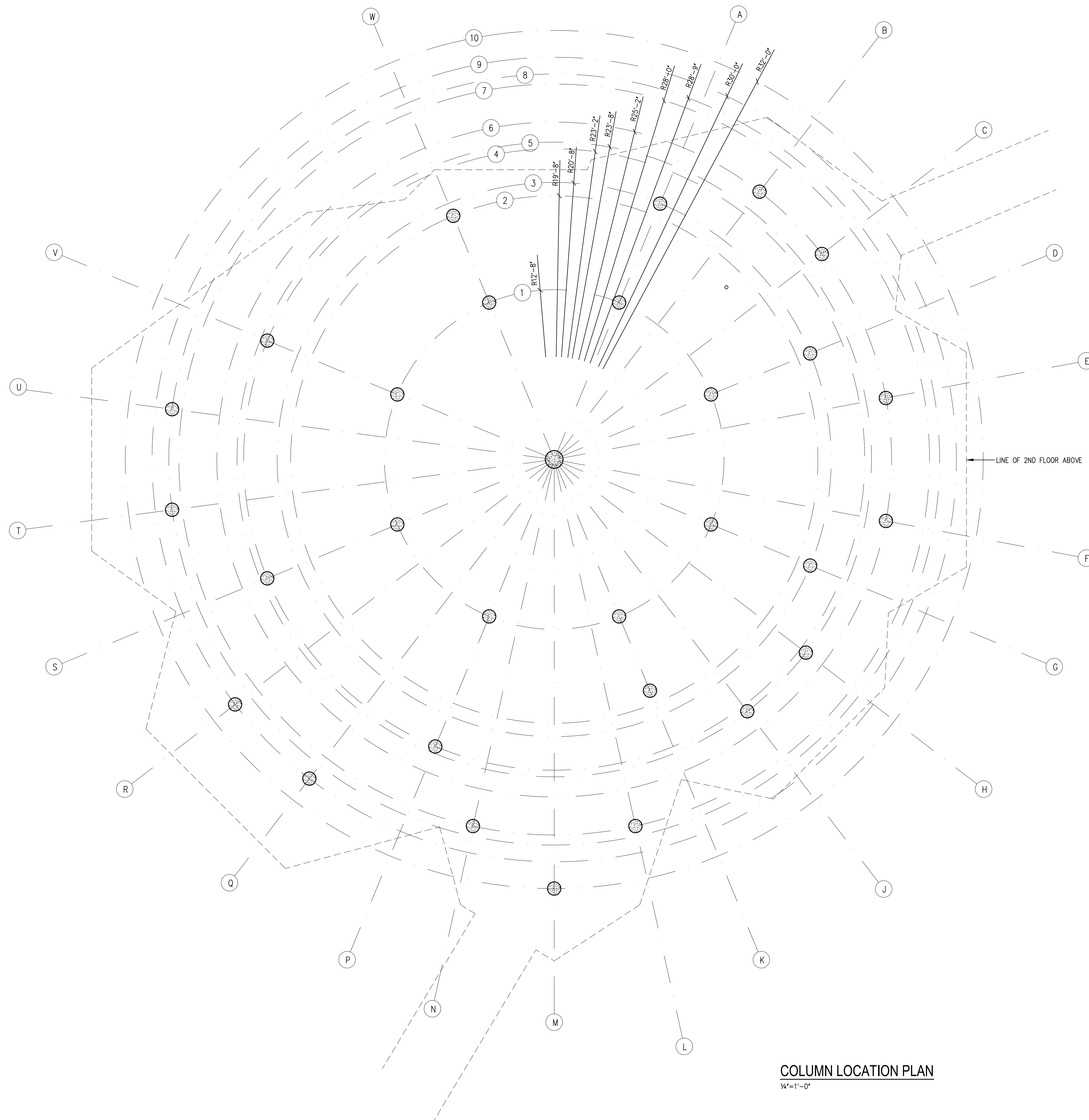
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SHEET TITLE

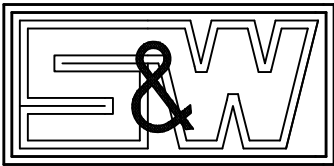
COLUMN LOCATION PLAN

SHEET NUMBER

S1.2



COLUMN LOCATION PLAN
1/4"=1'-0"



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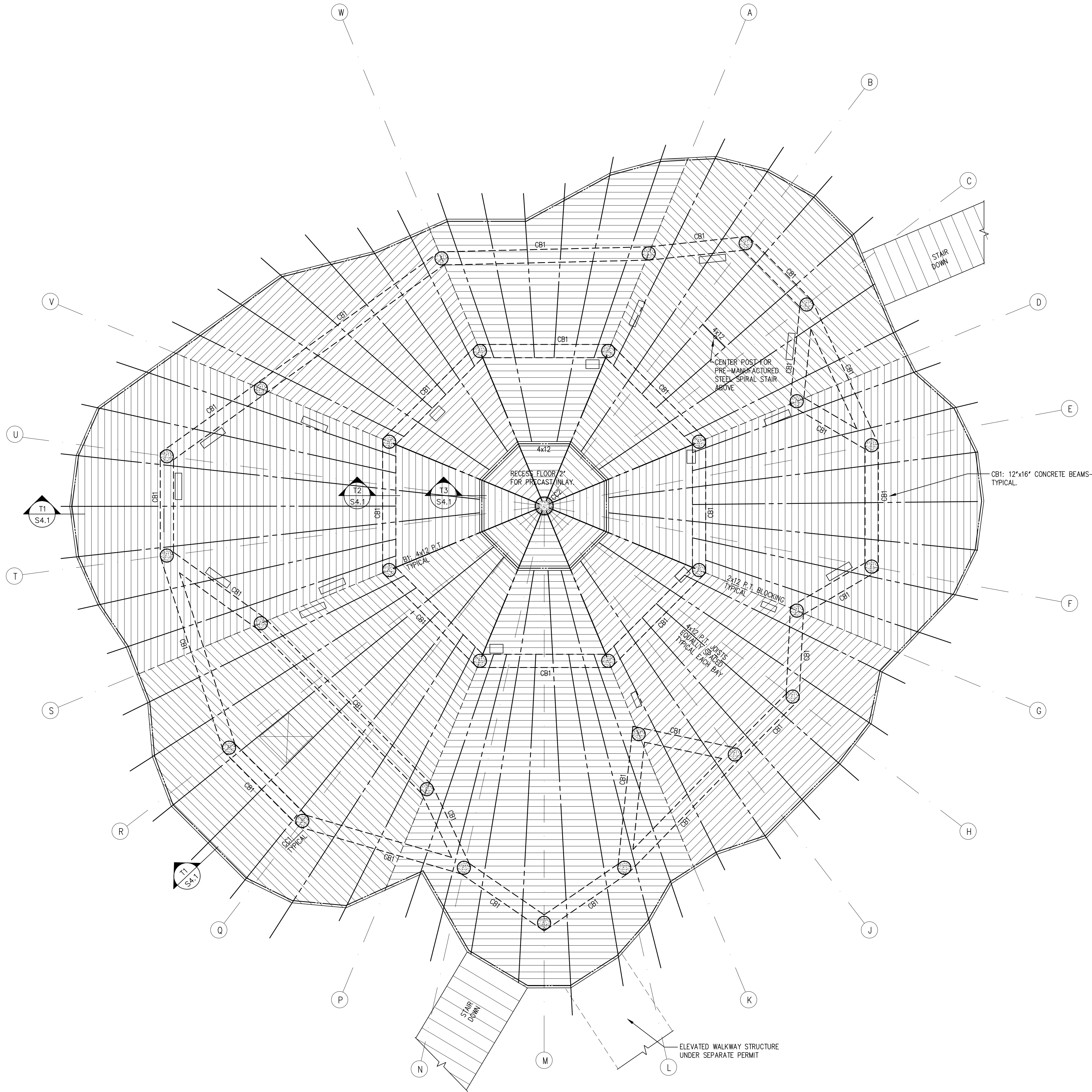
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SHEET TITLE

FLOOR FRAMING PLAN

SHEET NUMBER

S2.1



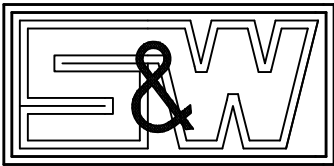
FLOOR FRAMING NOTES:
2013064B / NOTES - FLOOR

- ALL ELEVATIONS GIVEN ON THE STRUCTURAL DRAWINGS ARE REFERENCED TO NAVD.
- TOP OF MAIN FLOOR DECKING IS AT DATUM ELEVATION 0'-0" (+13'-4" NAVD).
- TOP OF LOOKOUT FLOOR DECKING IS AT +16'-0" ABOVE MAIN FLOOR DATUM ELEVATION.
- DESIGN LIVE LOAD IS 100 PSF.
- MINIMUM 28-DAY CONCRETE COMPRESSIVE STRENGTH (FC):
COLUMNS AND BEAMS: 5000 PSI.
- REINFORCING STEEL GRADE: 60 KSI. SUBMIT SHOP DRAWINGS FOR ALL REINFORCEMENT FOR REVIEW BY THE ENGINEER PRIOR TO FABRICATION OR PLACEMENT.
- CONCRETE COVER TO REINFORCING STEEL:
BEAMS AND COLUMNS: 1 1/2" TO STIRRUPS AND TIES.
- PROVIDE 48 HOURS MINIMUM NOTICE TO ENGINEER FOR REVIEW PRIOR TO ANY POUR OF STRUCTURAL CONCRETE.
- INTERIOR FLOOR DECKING: 2x6 TONGUE AND GROOVE PINE DECKING. GLUE JOINTS AND FASTEN TO FRAMING WITH #12 x 3" STAINLESS STEEL SCREWS (2 PER BOARD).
- EXTERIOR DECKING: 2x6 PT BOARDS LAID FLAT, GAPPED FOR DRAINAGE. FASTEN TO FRAMING WITH #3 x 3" STAINLESS STEEL SCREWS (2 PER BOARD).
- WALL SHEATHING SHALL BE 5/8" THICK APA SPAN-RATED PLYWOOD SHEATHING. FASTEN SHEATHING TO SUPPORTING FRAMING USING 100 NAILS AT 4" O.C. THROUGHOUT. BLOCK ALL PANEL EDGES.
- APPROVAL MUST BE OBTAINED FROM ENGINEER FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS.
- REFER ALSO TO GENERAL NOTES AND TYPICAL DETAILS ON DRAWING SS.1.

FLOOR FRAMING PLAN
1/4"=1'-0"

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RTR

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SW

DATE

10-10-14

PLOT SCALE

1/4"=1'-0"

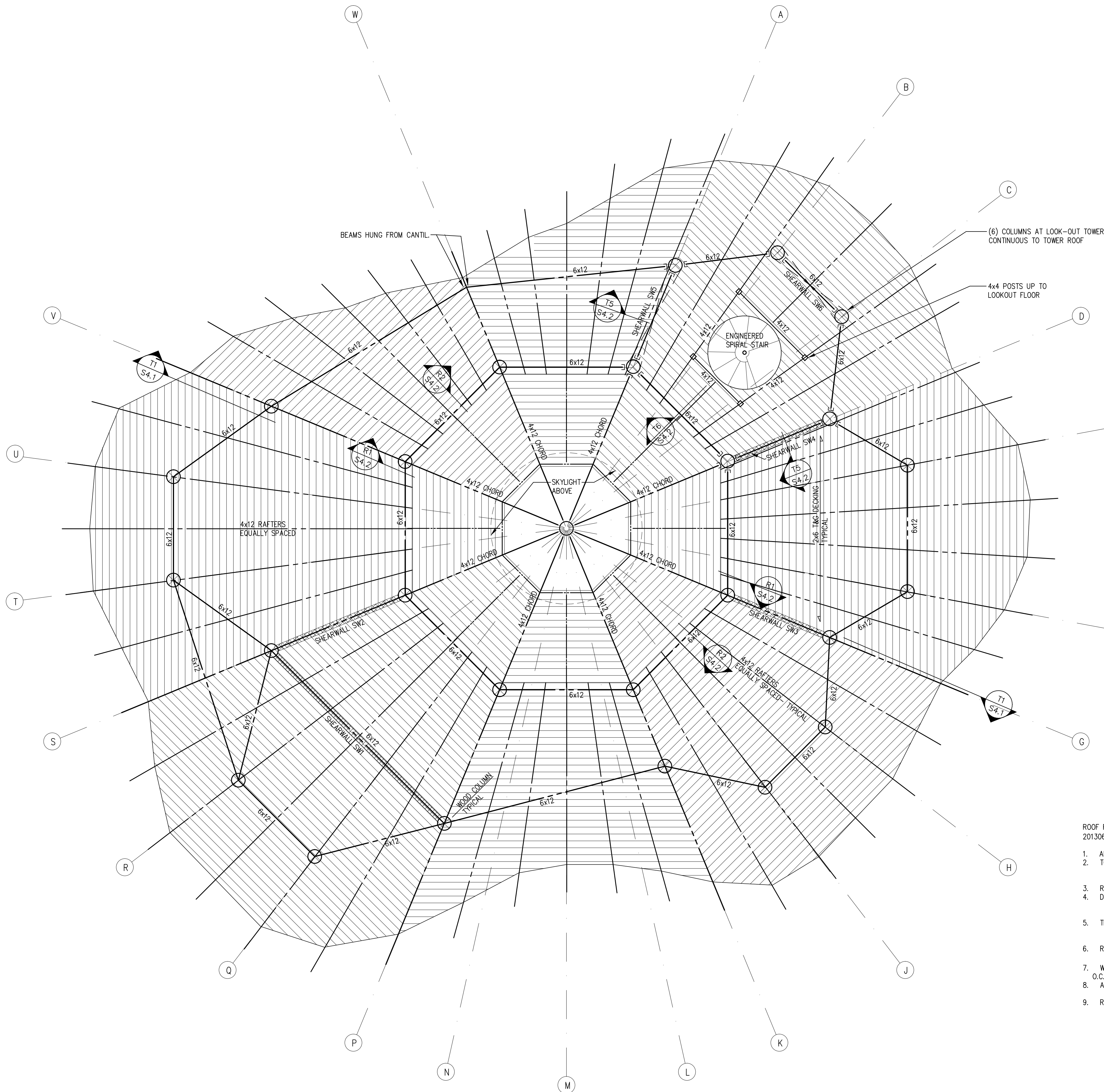
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SHEET TITLE

MAIN ROOF / TOWER
FLOOR FRAMING PLAN

SHEET NUMBER

S2.2



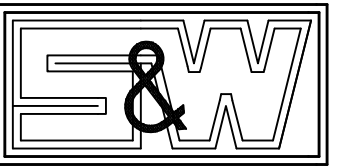
ROOF FRAMING NOTES:
2013064B / NOTES - ROOF

1. ALL ELEVATIONS ON THE STRUCTURAL DRAWINGS ARE REFERENCED TO NAVD.
2. TOP OF ROOF DECKING VARIES AS FOLLOWS:
TOP OF DECK AT MAIN ROOF = 12'-0" ABOVE MAIN FLOOR DATUM ELEVATION.
TOP OF DECK AT LOOKOUT ROOF = 25'-8" ABOVE MAIN FLOOR DATUM ELEVATION.
3. ROOF SLOPES AT SKY LIGHTS: SEE SECTIONS.
4. DESIGN LOADS FOR THE ROOF STRUCTURE ARE LIVE LOAD OF 20 PSF AND DEAD LOAD OF 20 PSF. DESIGN WIND LOADS ARE IN ACCORDANCE WITH THE 2010 FLORIDA BUILDING CODE USING V = 150 MPH, EXPOSURE D, BUILDING HT = 30', AND ENCLOSED STRUCTURE.
5. THE STRUCTURE HAS BEEN DESIGNED BASED ON THE FRAMING LAYOUT AND CONFIGURATION SHOWN ON PLAN. ANY DEVIATIONS MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD AND SHALL BE CLEARLY MARKED ON THE SHOP DRAWINGS.
6. ROOF DECKING: 2x6 TONGUE AND GROOVE PINE DECKING, GLUE JOINTS AND FASTEN TO FRAMING WITH #12 X 3" STAINLESS STEEL SCREWS (2 PER BOARD).
7. WALL SHEATHING: 5/8" THICK APA SPAN-RATED PLYWOOD SHEATHING, FASTEN WITH 10D NAILS AT 4' O.C. THROUGHOUT, BLOCK ALL PANEL JOINTS.
8. APPROVAL MUST BE OBTAINED FROM THE ENGINEER OF RECORD FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS.
9. REFER ALSO TO GENERAL NOTES AND TYPICAL DETAILS ON DRAWING S5.1.

MAIN ROOF/TOWER FLOOR FRAMING PLAN

1/4"=1'-0"

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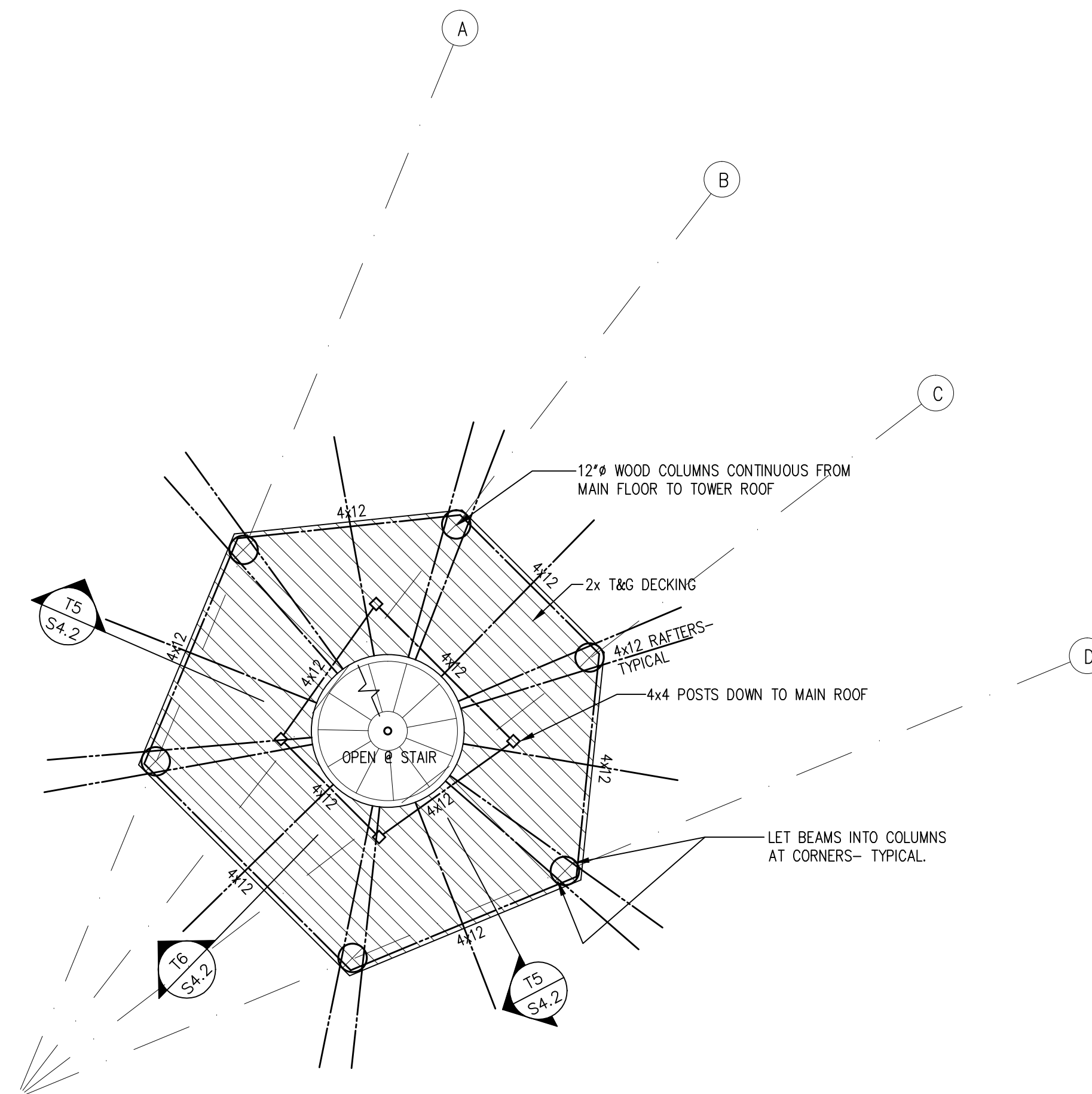
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SHEET TITLE

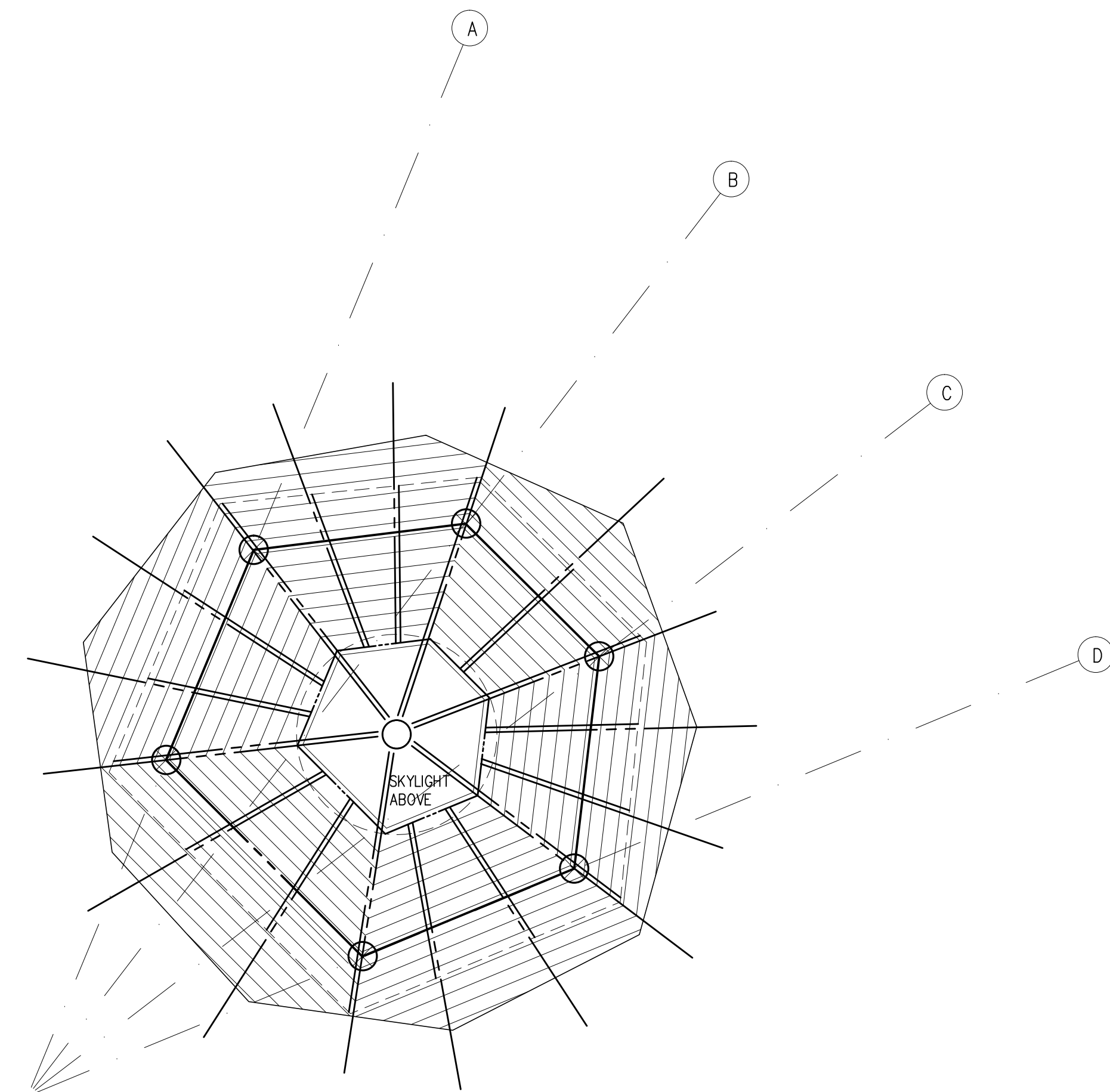
LOOK OUT TOWER FRAMING PLANS

SHEET NUMBER

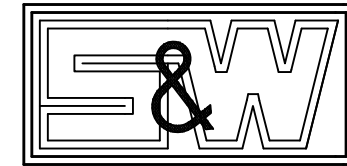
S2.3



LOOK OUT TOWER FLOOR FRAMING PLAN
 $\frac{1}{4}" = 1' - 0"$



LOOK OUT TOWER ROOF FRAMING PLAN
 $\frac{1}{4}" = 1' - 0"$



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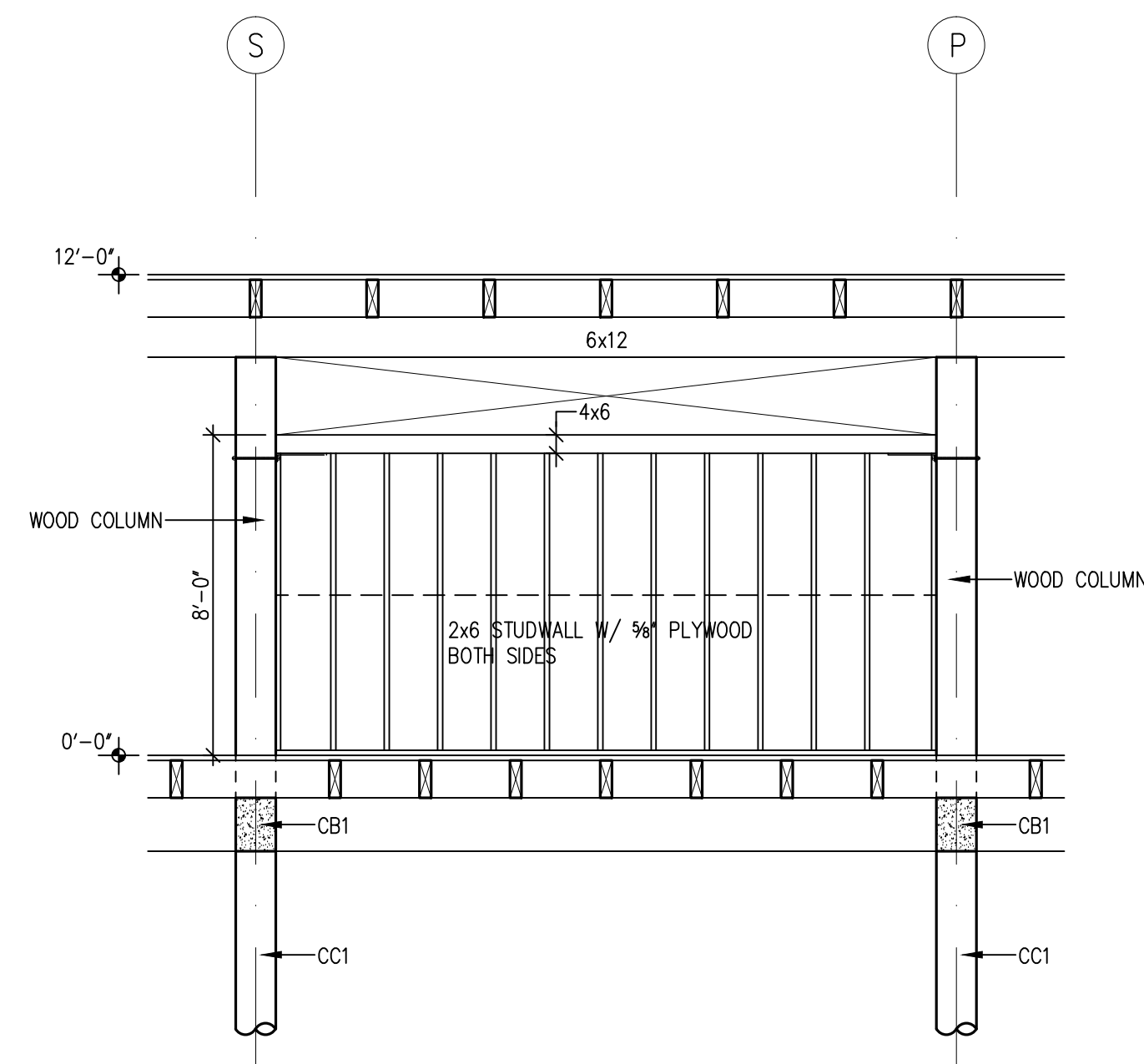
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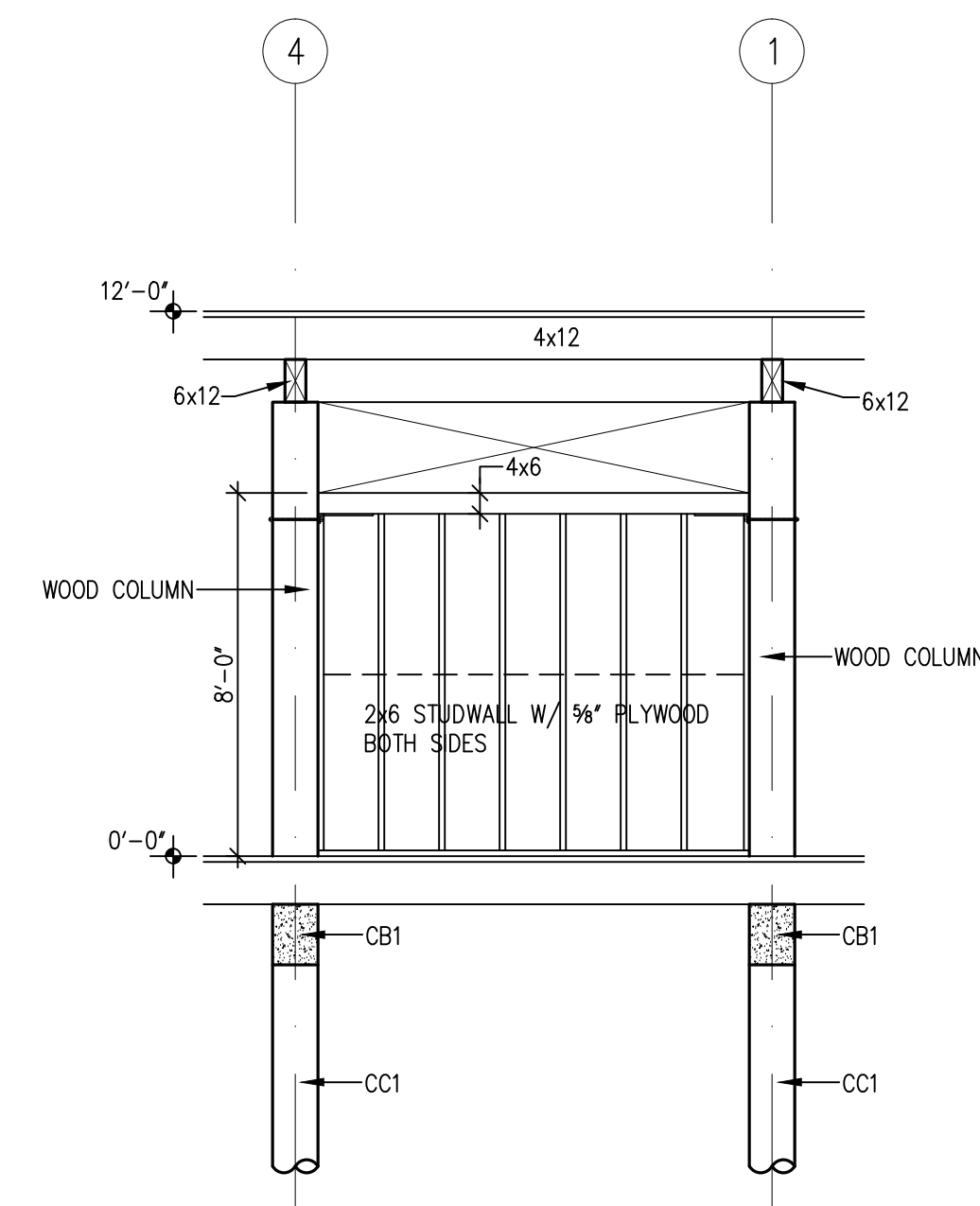
SHEARWALL ELEVATIONS

SHEET NUMBER

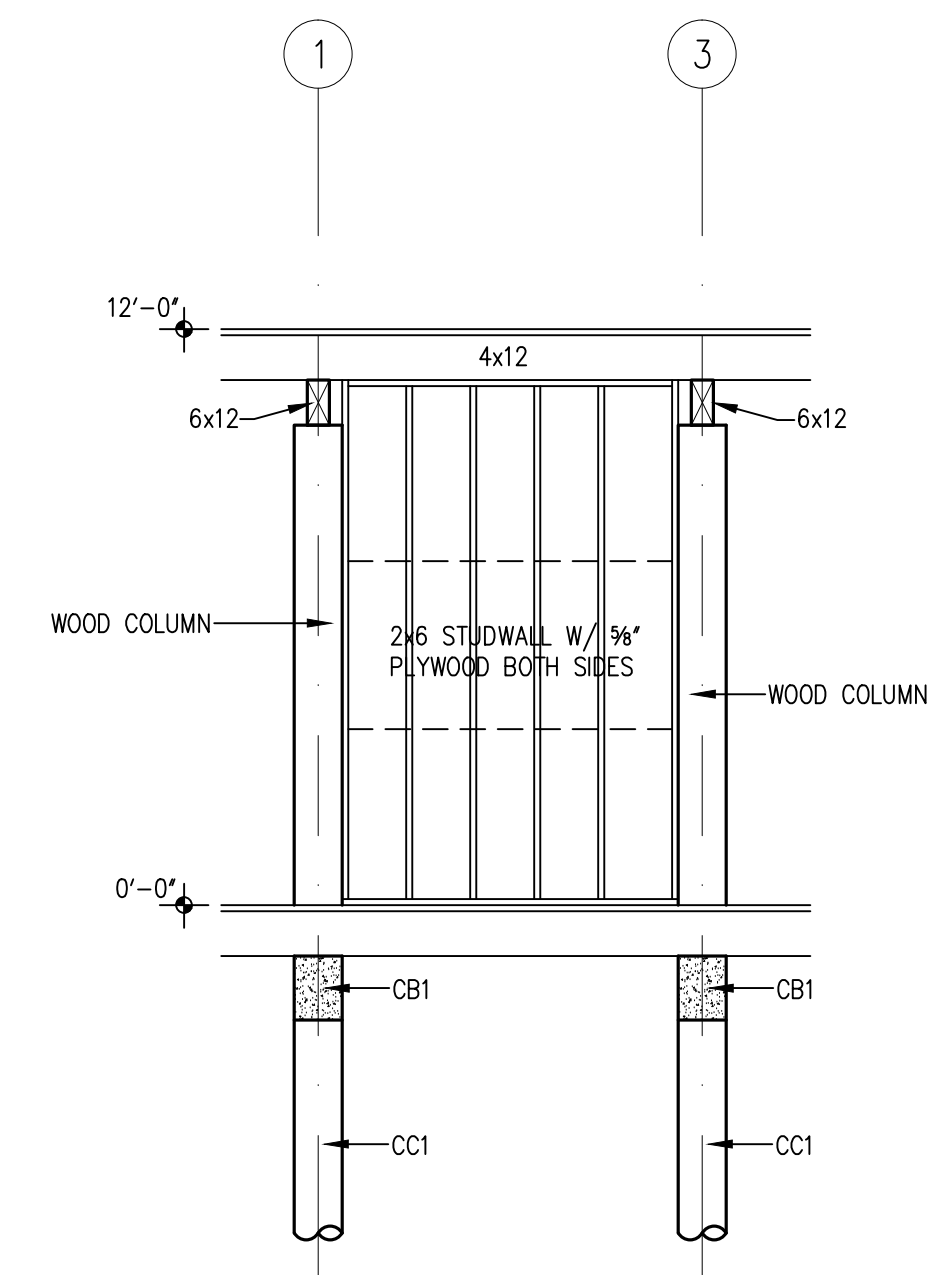
S2.4



SW1 SHEARWALL SW1:
S2.4 ELEVATION @ LINE 4
1/4"=1'-0"



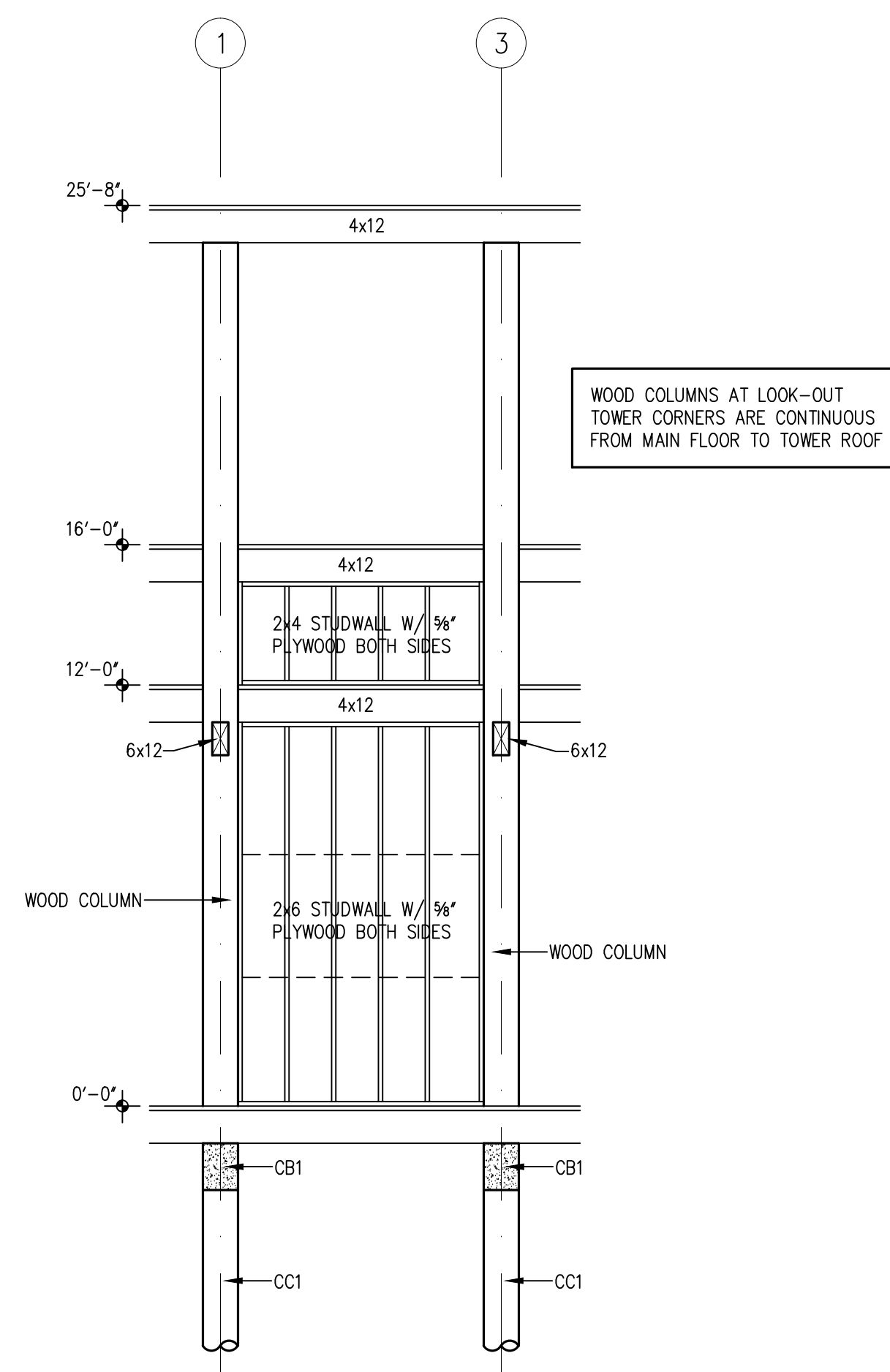
SW2 SHEARWALL SW2:
S2.4 ELEVATION @ LINE 5



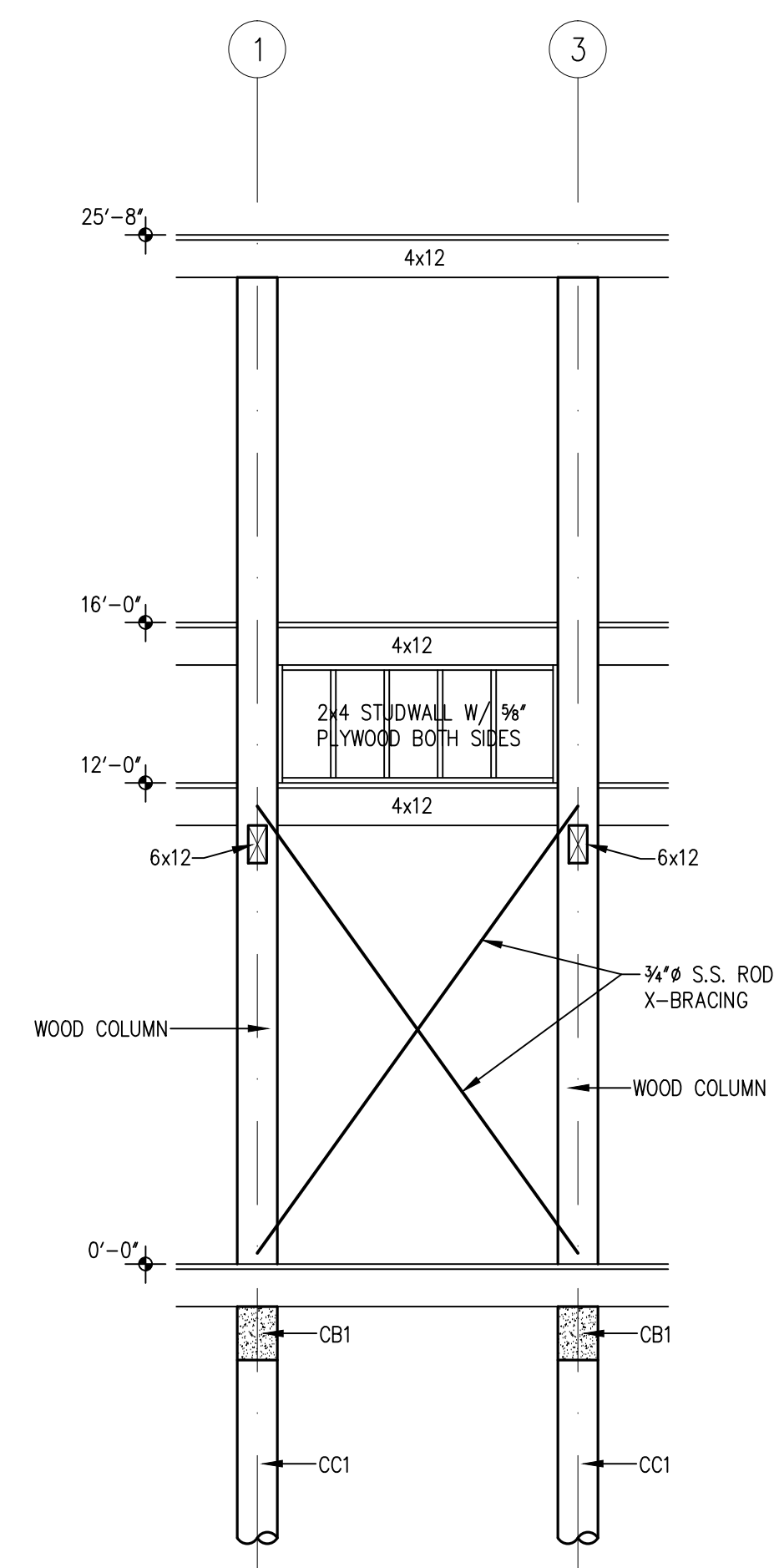
SW3
S2.4

SHEARWALL SW3:
ELEVATION @ LINE 6

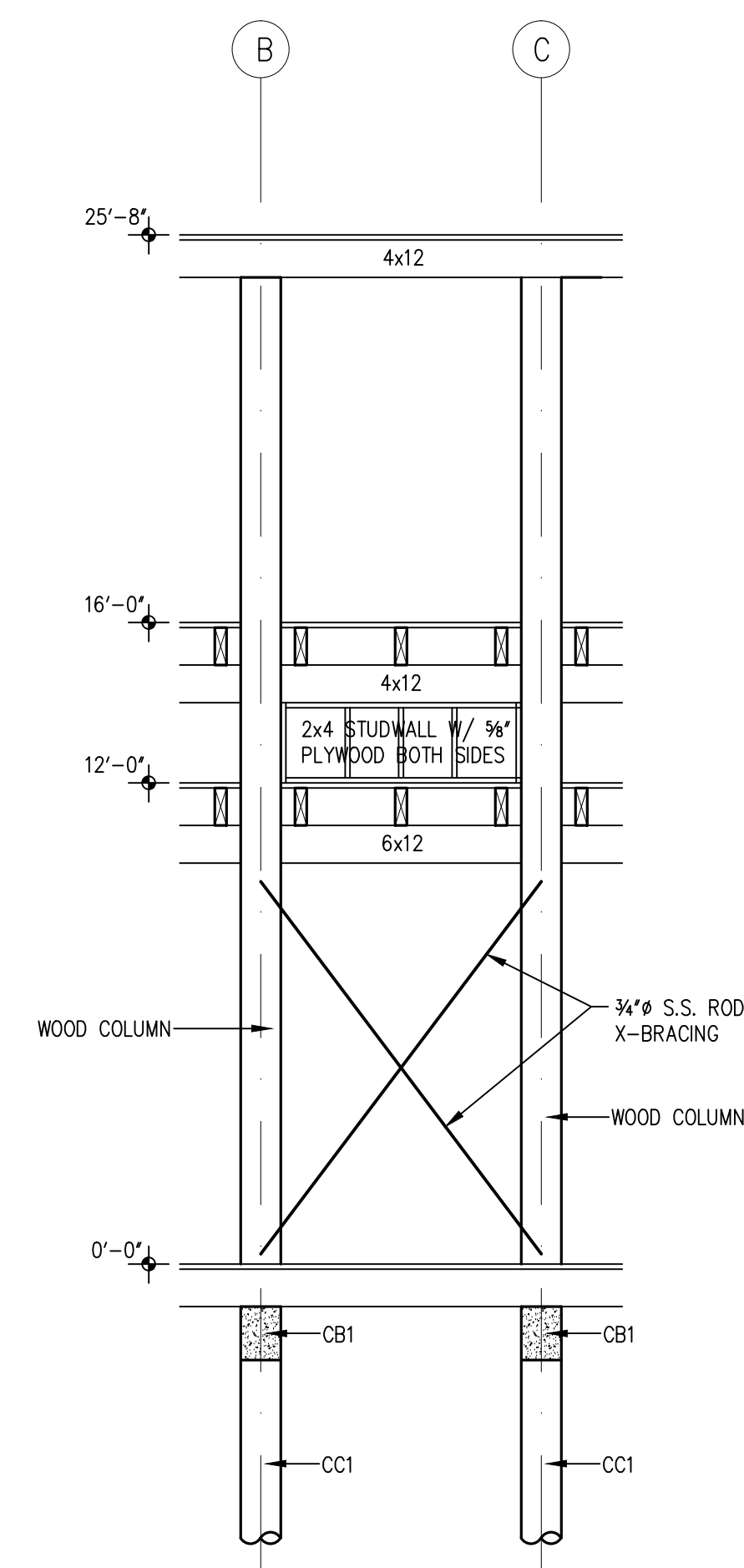
1/4"=1'-0"



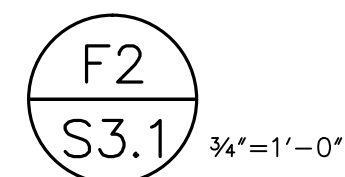
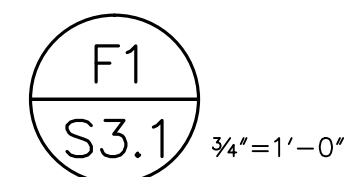
SW4 SHEARWALL SW4:
S2.4 ELEVATION @ LINE (D)



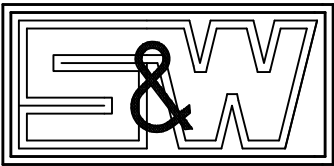
SW5 SHEARWALL SW5:
S2.4 ELEVATION @ LINE A



SW6 SHEARWALL SW6:
S2.4 ELEVATION @ LINE 6



S3.1



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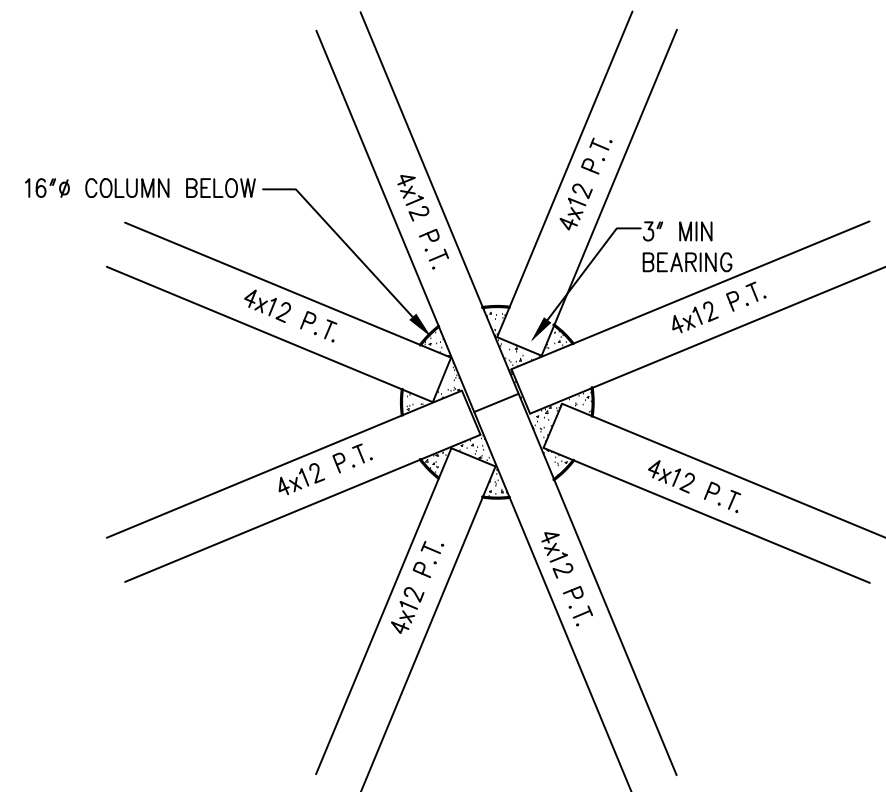
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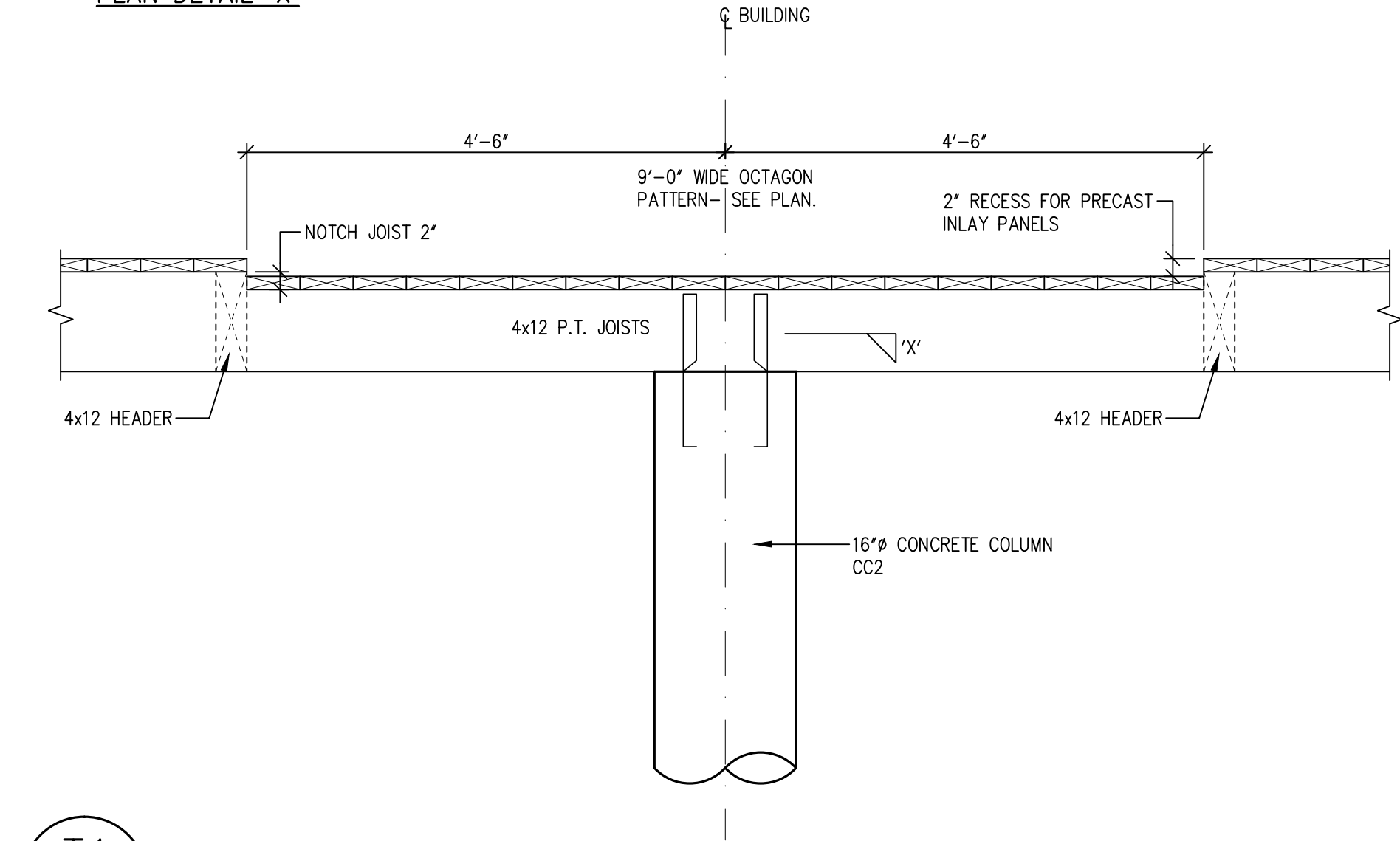
SECTIONS

SHEET NUMBER

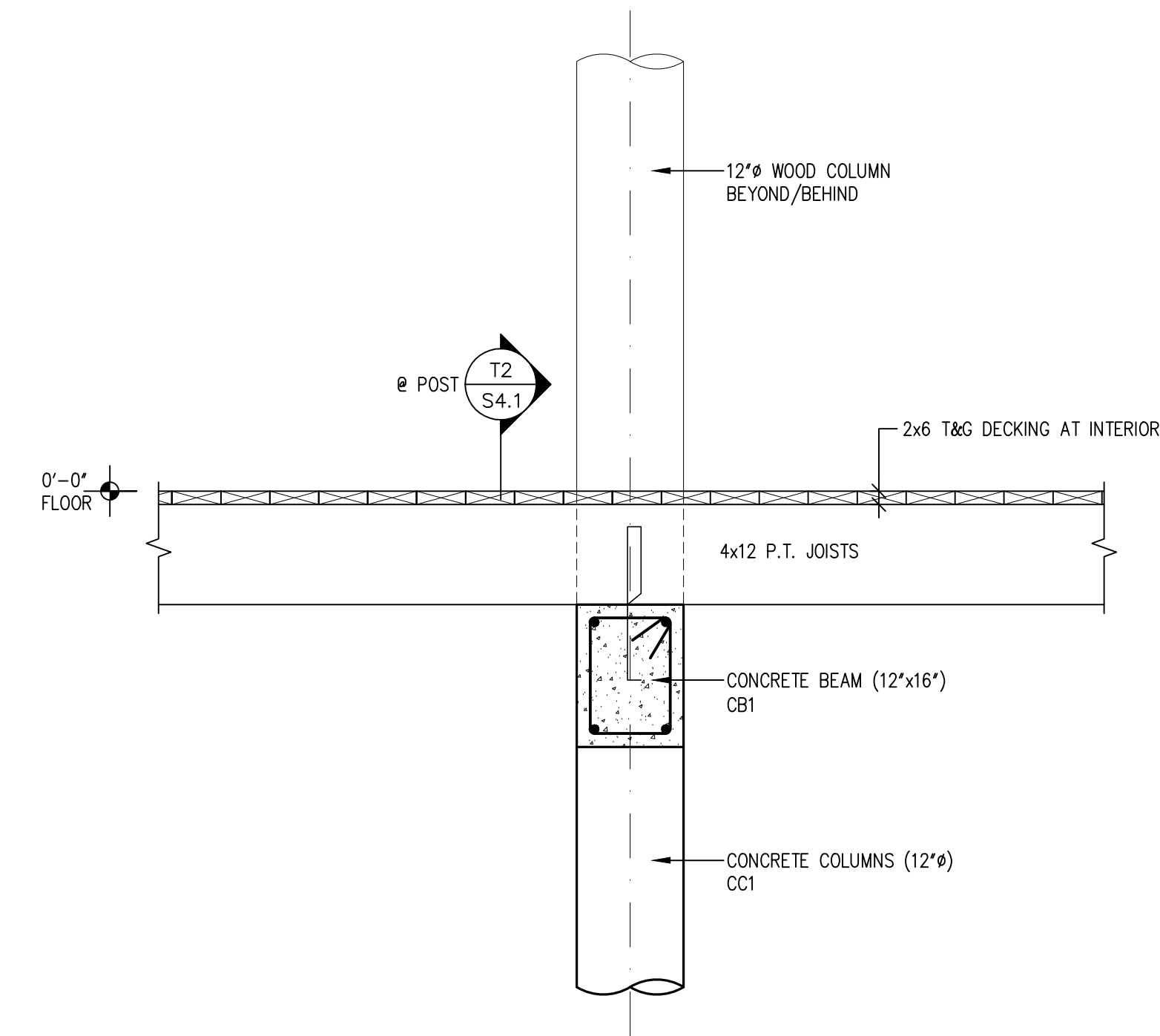
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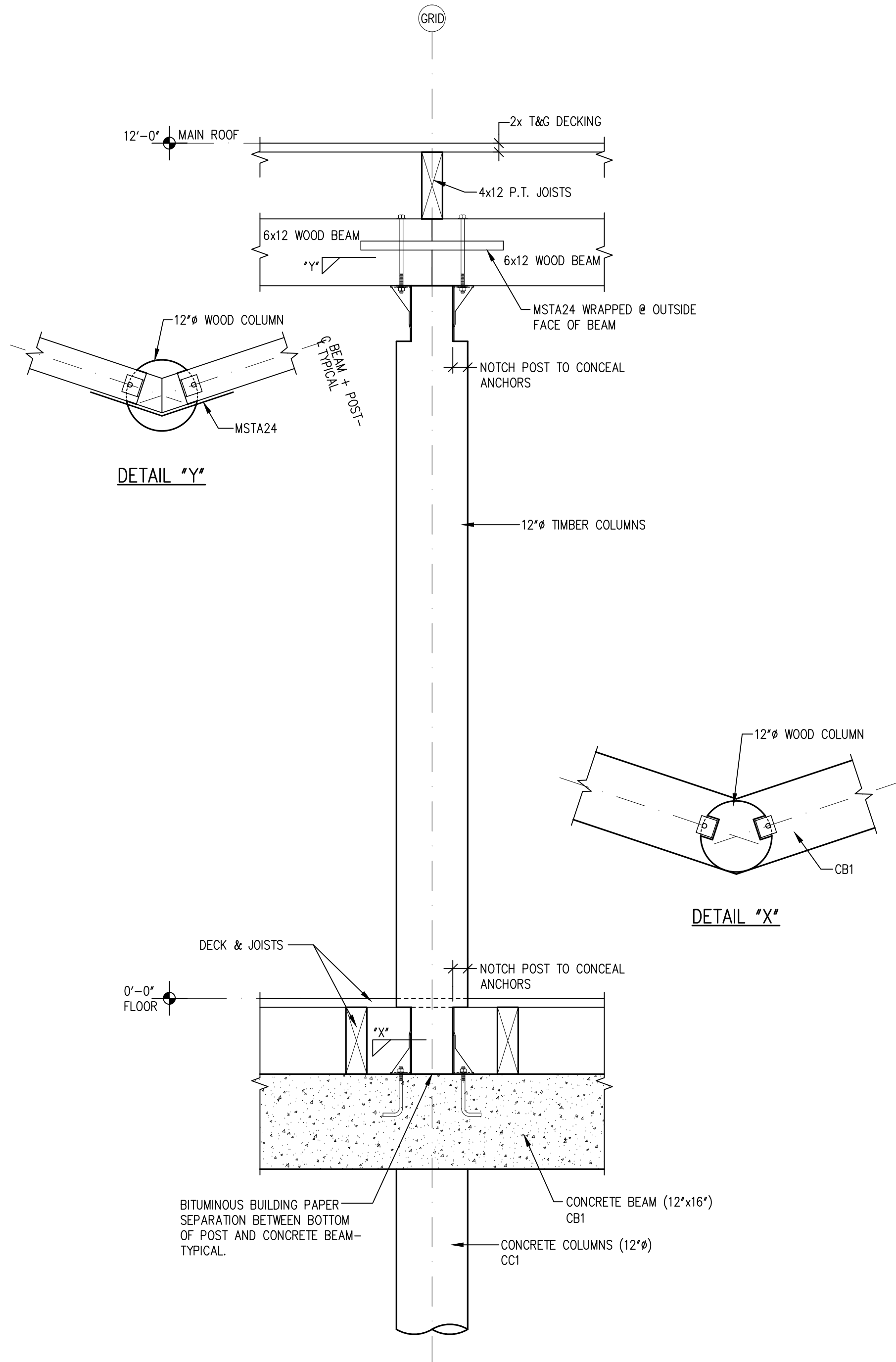
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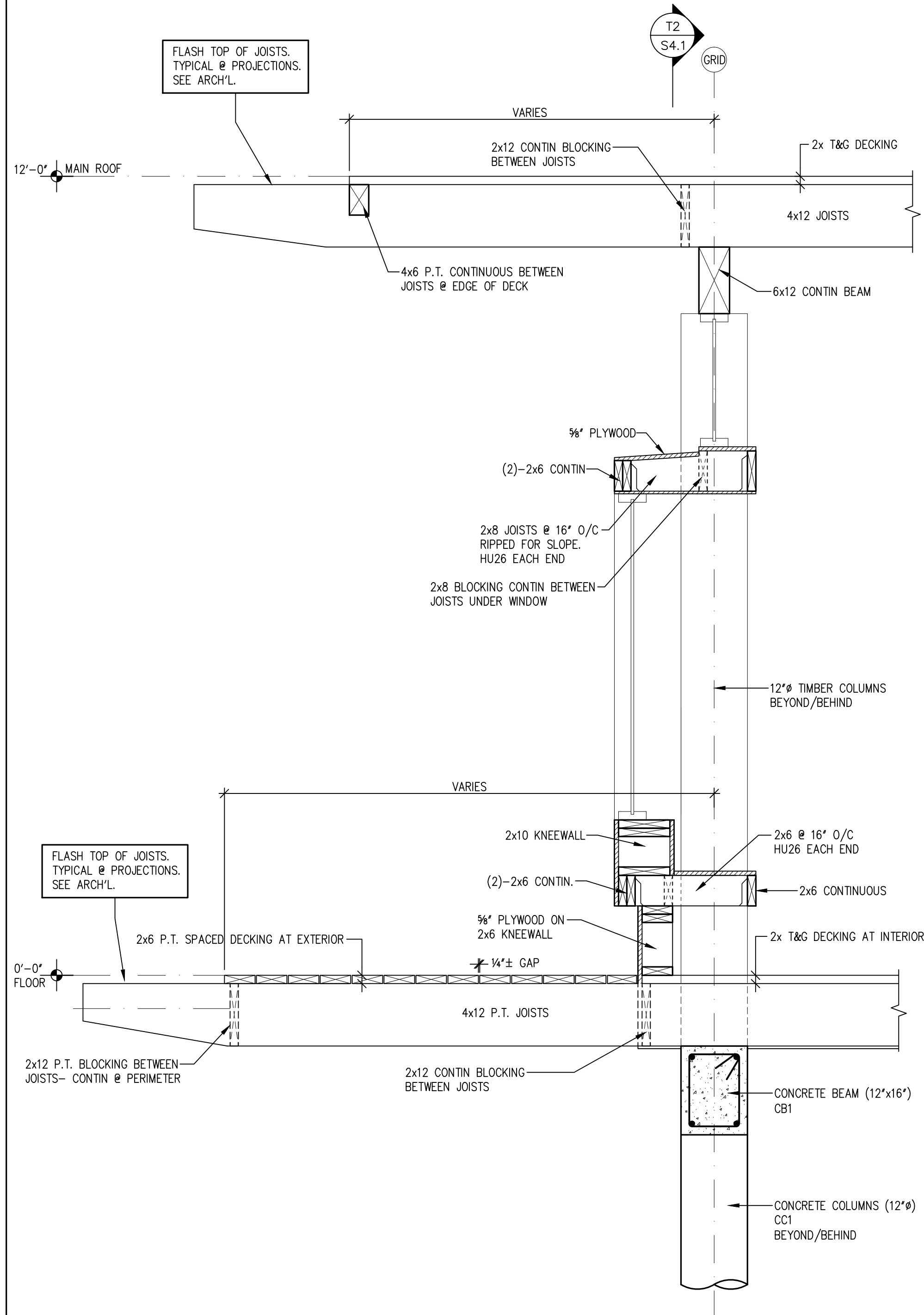
T4
S4.1 3/4"=1'-0"



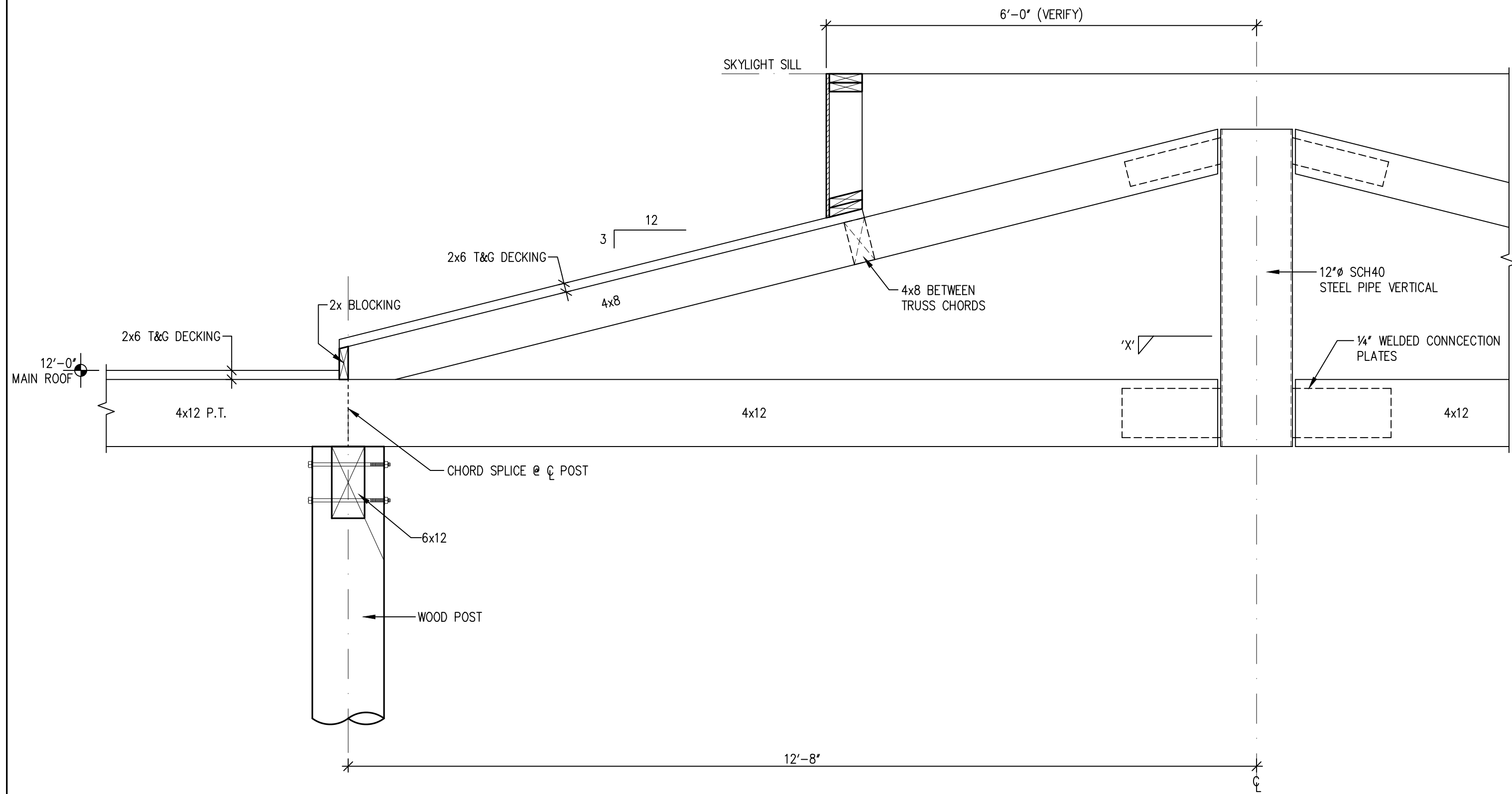
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S4.1 3/4"=1'-0"



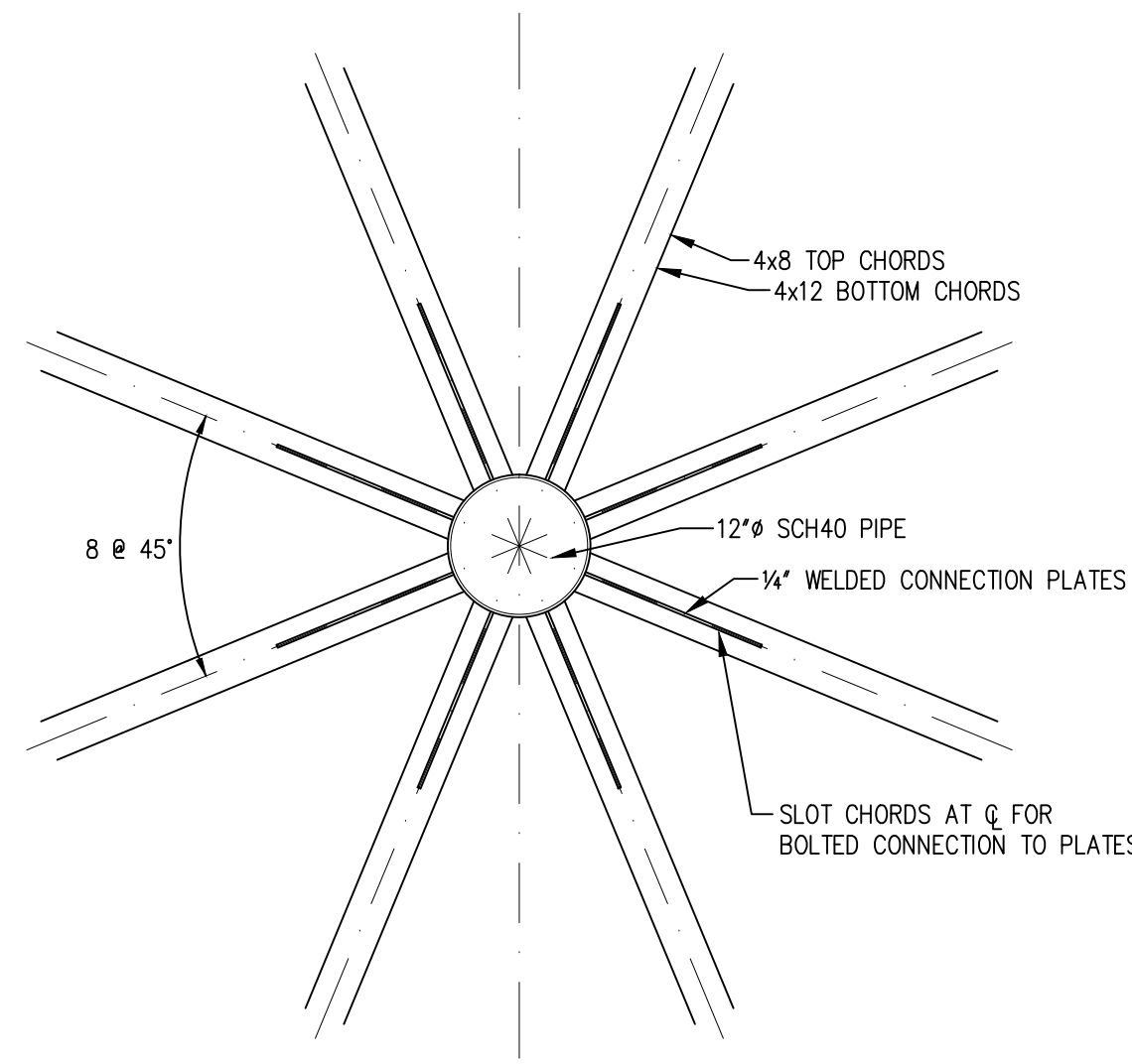
T2
S4.1 3/4"=1'-0"



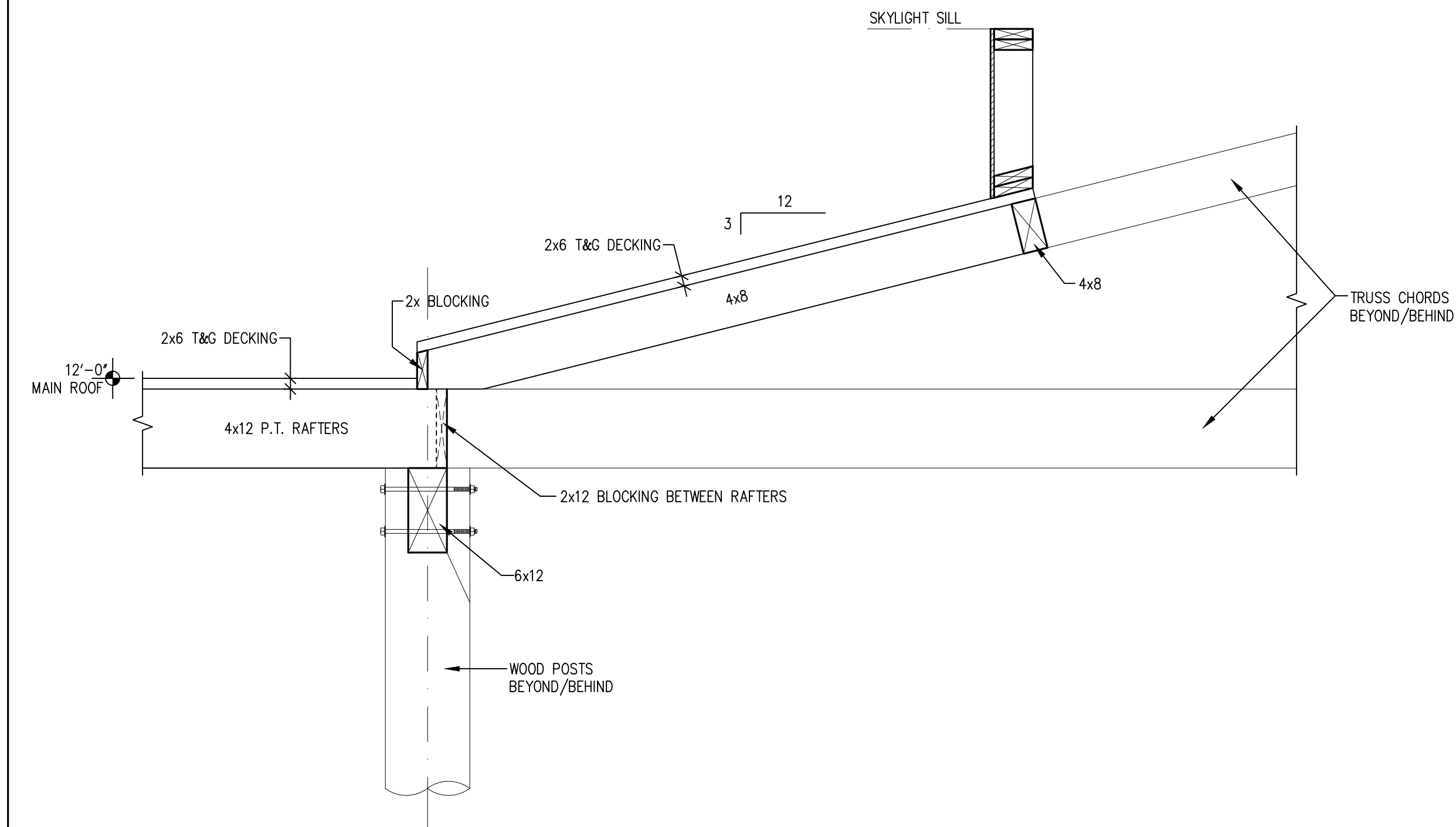
T1
S4.1 3/4"=1'-0"



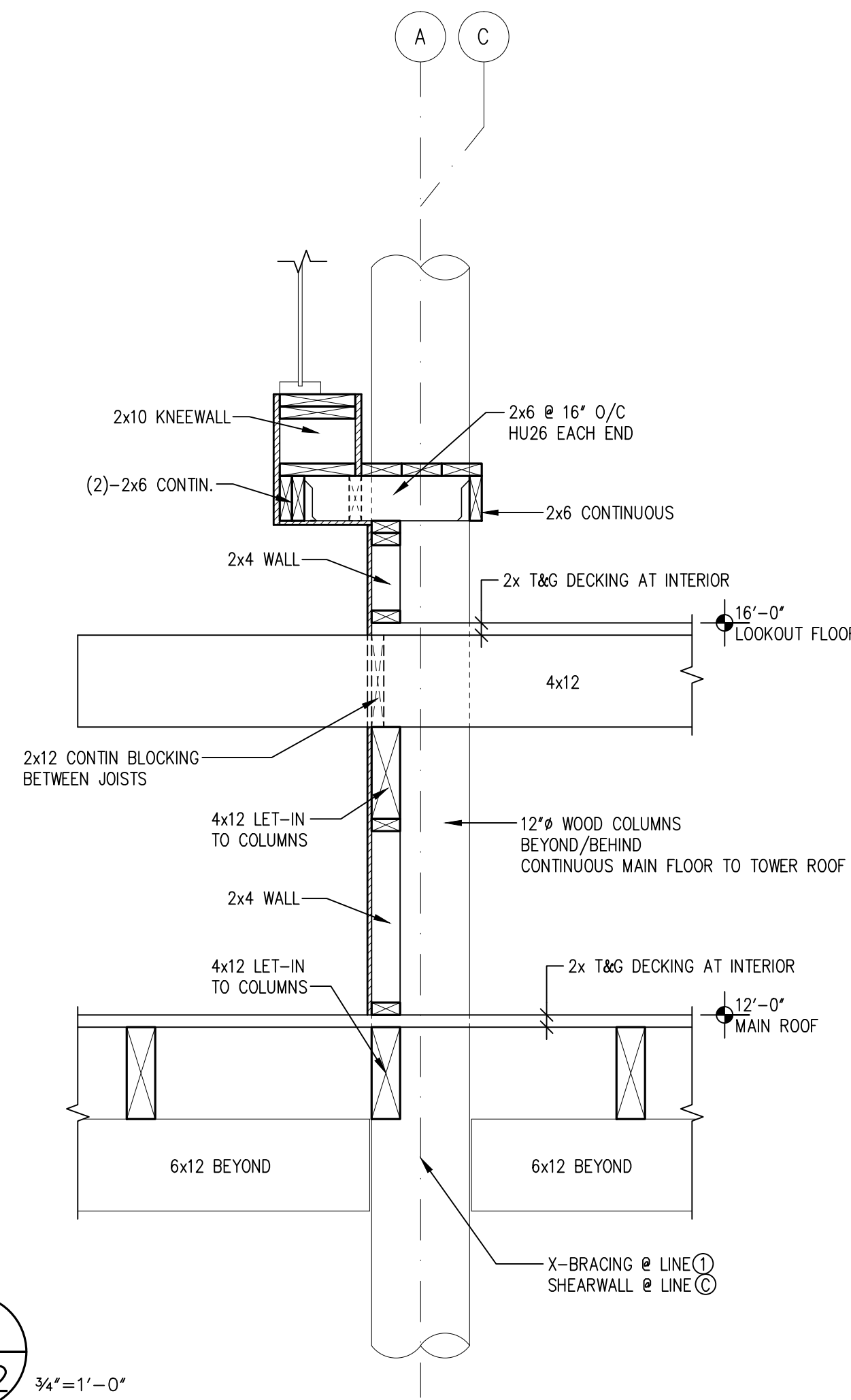
R1
S4.2
3/4"=1'-0"



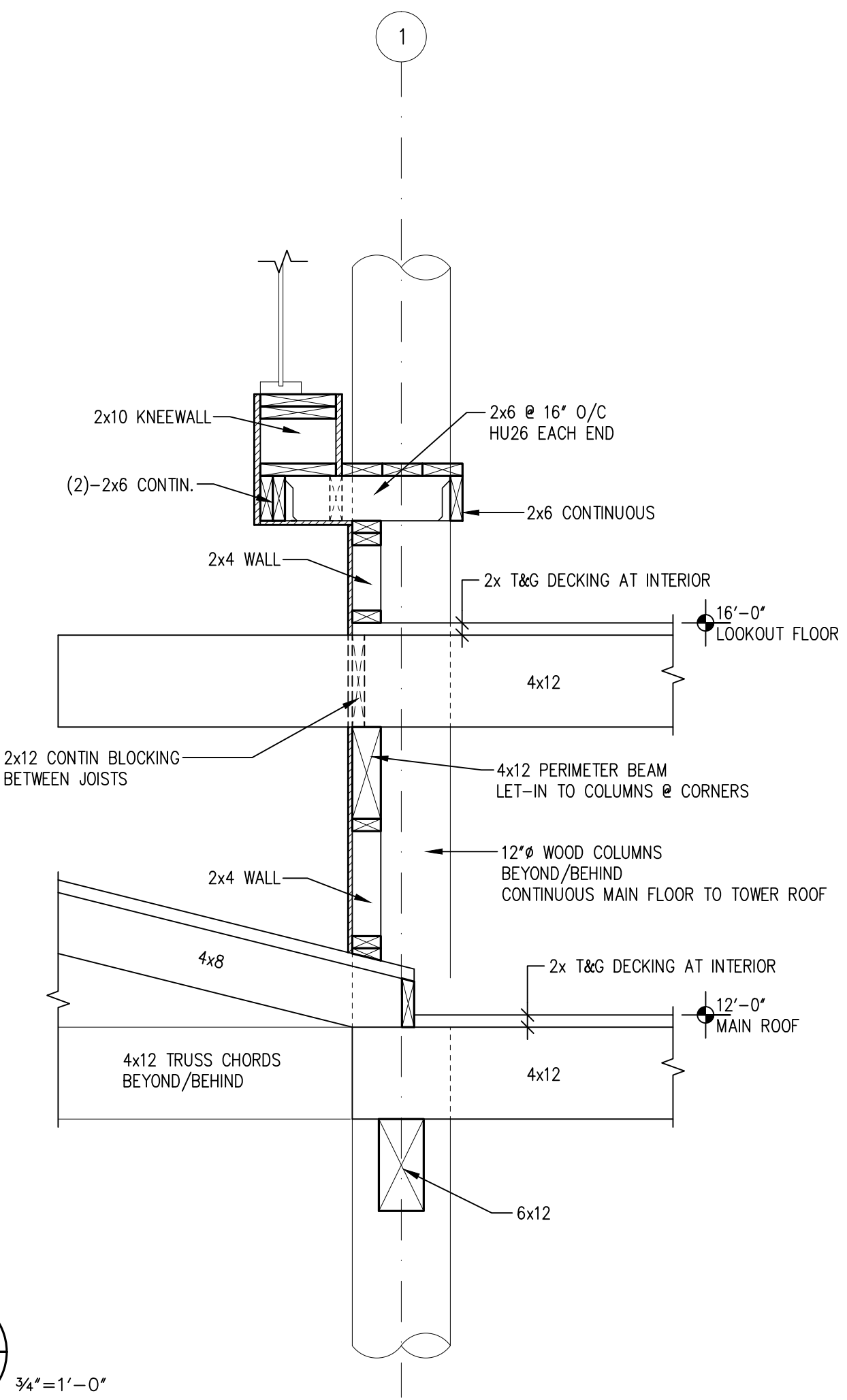
DETAIL 'X'



R2
S4.2
3/4"=1'-0"



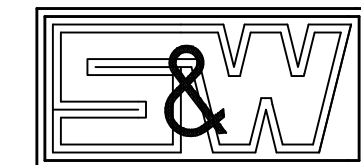
T5
S4.2
3/4"=1'-0"



T6
S4.2
3/4"=1'-0"

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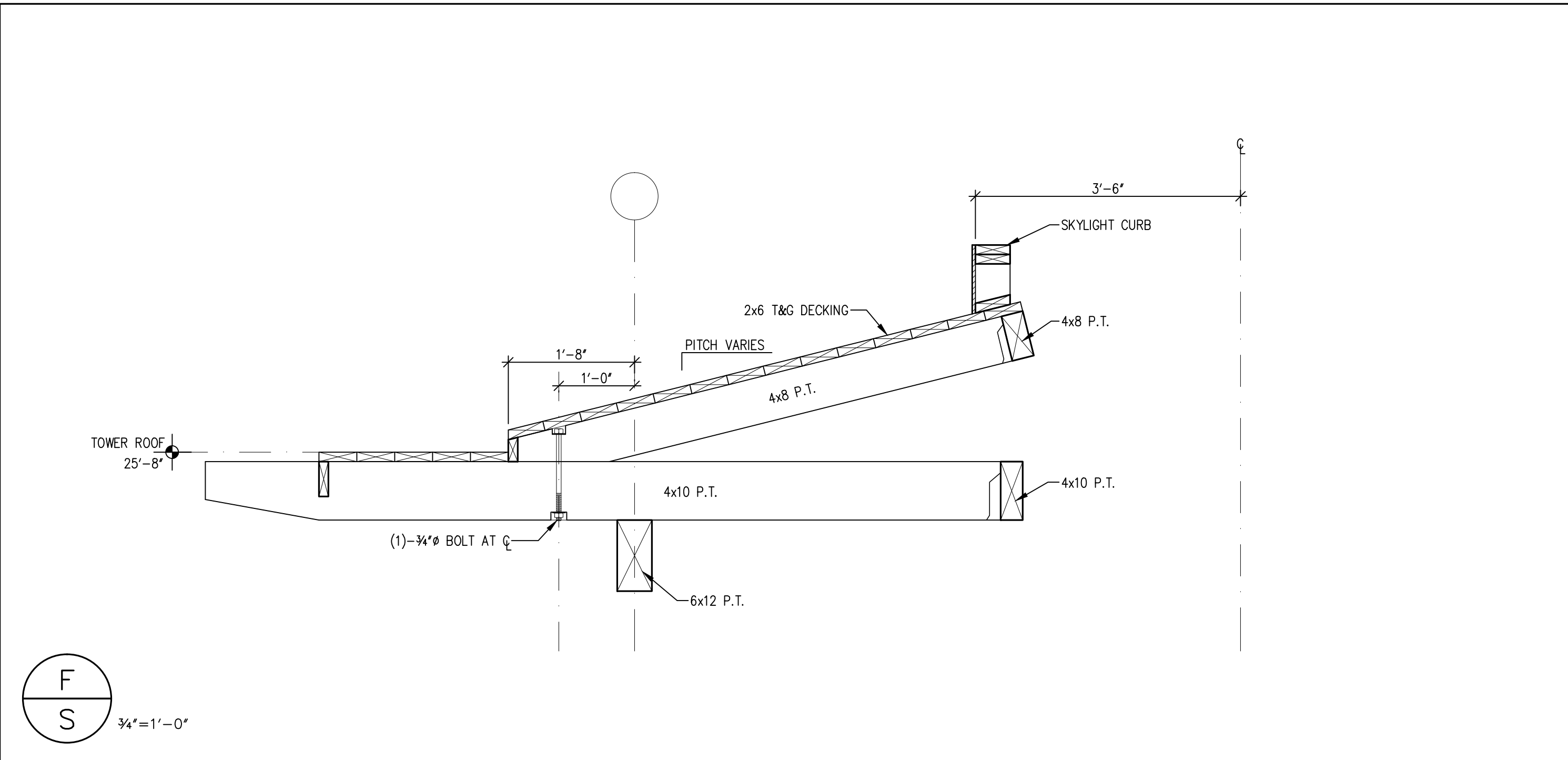
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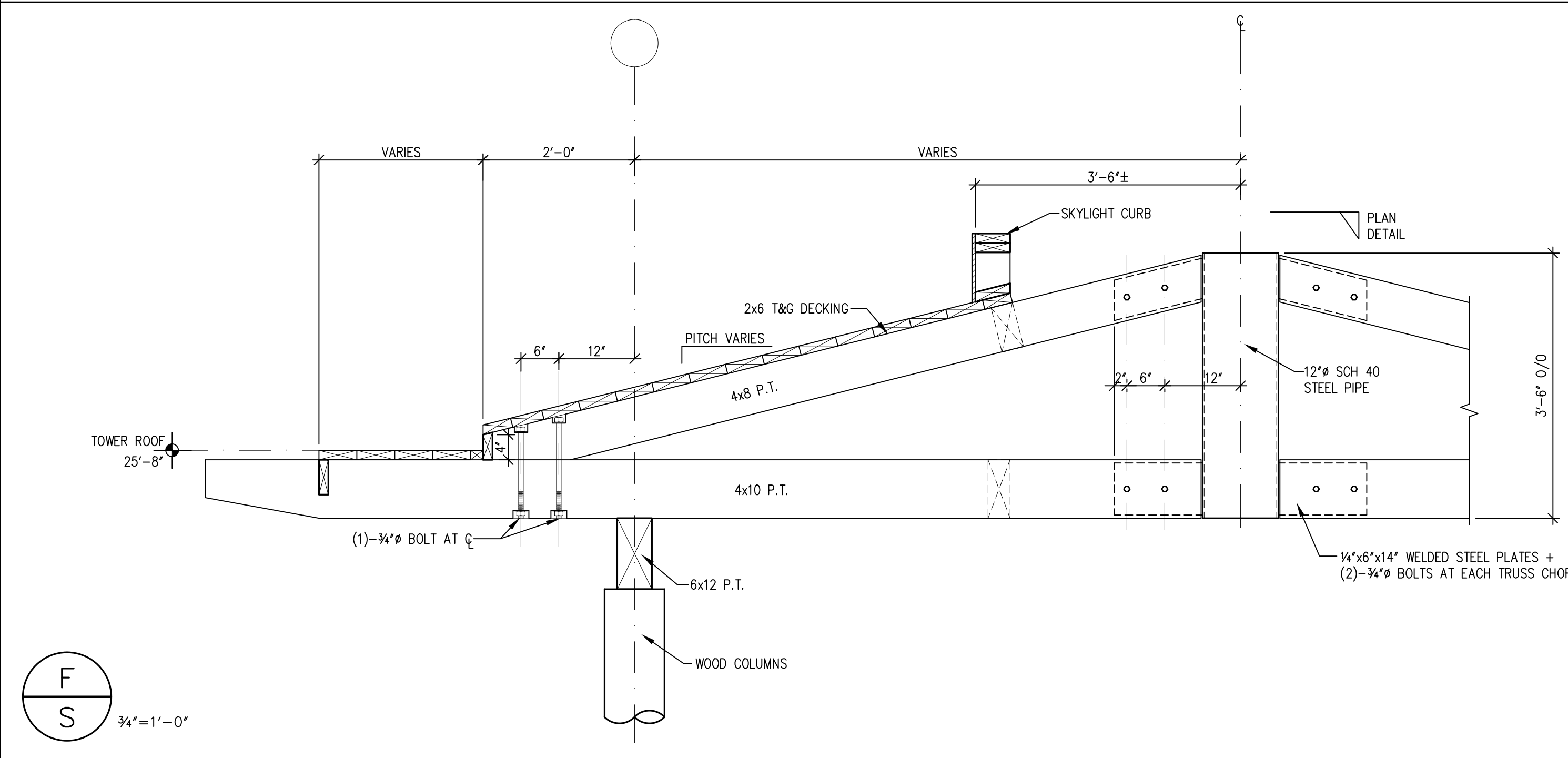
SECTIONS

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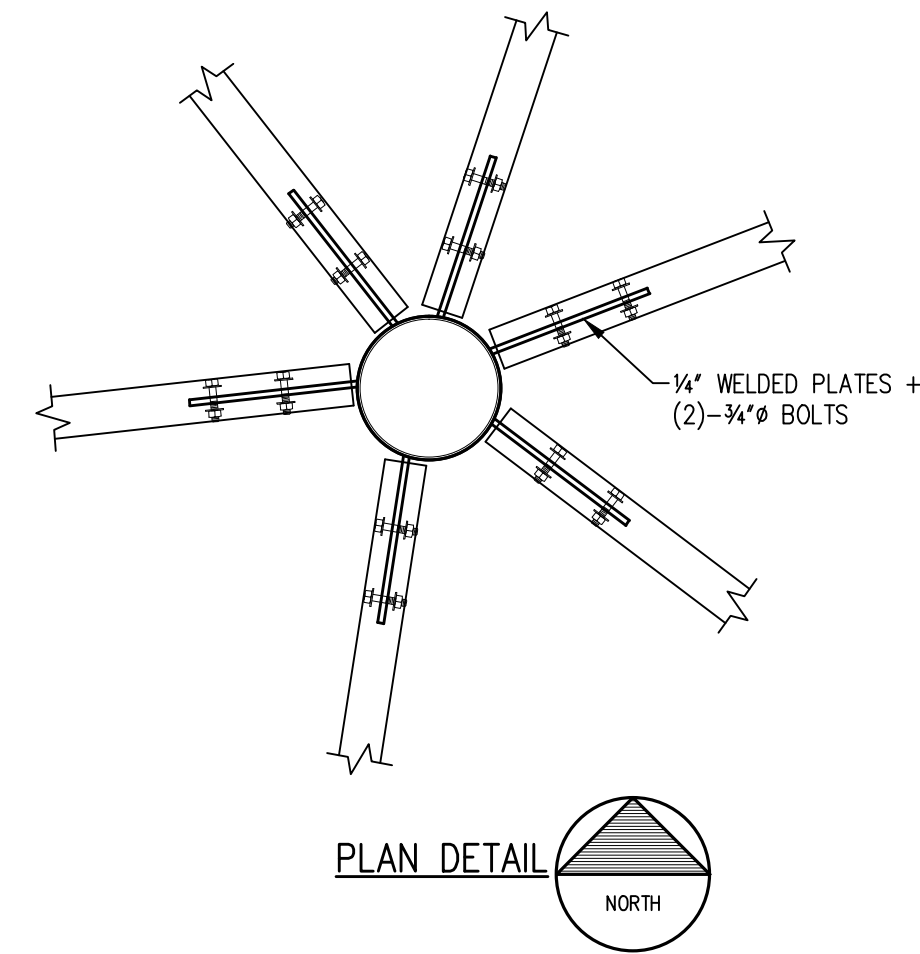
S4.2



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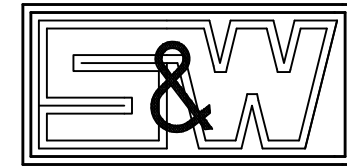
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3/4"=1'-0"



PLAN DETAIL
NORTH

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SHEET TITLE

SECTIONS

SHEET NUMBER

S4.3

LEGENDS, GENERAL NOTES AND ABBREVIATIONS

ABBREVIATIONS

AC	AIR CONDITIONING
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
AO	ANALOG OUTPUT
AP	ACCESS PANEL
BFF	BELOW FINISHED FLOOR
BHP	BRAKE HORSE POWER
BOT	BOTTOM
CC	COOLING COIL
CD	CONDENSATE DRAIN
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CLG	CEILING
CO	CLEANOUT
CT	COOLING TOWER
CU	CONDENSING UNIT
CW	COLD WATER
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
DB	DRY BULB
DCC	DIRECT DIGITAL CONTROL
DG	DOOR GRILLE
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
DP	DEW POINT
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
ECC	ENERGY CONTROL CENTER
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
ET	EXPANSION TANK
EL	ELEVATION
EQUIP	EQUIPMENT
EWIC	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EXIST	EXISTING
F DPR	FIRE DAMPER
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FL	FLOOR
FPI	FINS PER INCH
FPF	FINS PER FOOT
FPM	FEET PER MINUTE
G	GUARD
GC	GENERAL CONTRACTOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
H	HUMIDITY
HB	HOSE BIBB
HC	HEATING COIL
HE	HEAT EXCHANGER
HP	HORSE POWER
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MC	MECHANICAL CONTRACTOR
MD	MOTORIZED DAMPER
MAX	MAXIMUM
MIN	MINIMUM
NC	NORMALLY CLOSED
NO	NORMALLY OPENED
OA	OUTSIDE AIR
OS&Y	OUTSIDE SCREW & YOKE
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PRESS	PRESSURE
RA	RETURN AIR
RD	ROOF DRAIN
RL	RAIN LEADER
RTU	ROOF TOP UNIT
S	SANITARY
SDPR	SMOKE DAMPER
SA	SUPPLY AIR
SP	STATIC PRESSURE
TCC	TEMPERATURE CONTROL CONTRACTOR
T	TEMPERATURE
TYP	TYPICAL
UC	UNDERCUT
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UV	UNIT VENTILATOR
V	VENT
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
VSD	VARIABLE SPEED DRIVE
VTR	VENT THRU ROOF
W	WASTE
WB	WET BULB
WCO	WALL CLEANOUT

NOTE:

THESE ARE STANDARD SYMBOLS AND MAY NOT ALL APPEAR ON THE PROJECT DRAWINGS; HOWEVER WHEREVER THE SYMBOL APPEARS ON THE PROJECT DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED.

DUCTWORK

	UP		DN	SUPPLY DUCT (UP & DOWN)
	UP		DN	EXHAUST DUCT (UP & DOWN)
	UP		DN	RETURN AIR DUCT (UP & DOWN)
				CEILING DIFFUSERS
				SIDE WALL REGISTER OR GRILLE
				RETURN OR EXHAUST CEILING GRILLE
				EXHAUST OR RETURN WALL MTD GRILLE
	10x8			NEW DUCT – WIDTH X DEPTH
				(SINGLE LINE)
				EXISTING DUCT TO REMAIN
				(SINGLE LINE)
				EXISTING DUCT TO BE REMOVED
				(SINGLE LINE)
				FLEXIBLE DUCTWORK (INSULATED)
				(SINGLE LINE)
				SPIN-IN FITTING
				(SINGLE LINE)
				DUCT SIZE TRANSITION (CONCENTRIC)
				(SINGLE LINE)
				DUCT SIZE TRANSITION (ECCENTRIC)
				(SINGLE LINE)
				DUCT TRANSITION (RECTANGULAR TO ROUND)
				(SINGLE LINE)
				ACOUSTICALLY LINED DUCT
				INCLINED RISE, IN DIRECTION OF AIR FLOW
				INCLINED DROP, IN DIRECTION OF AIR FLOW
				FLEXIBLE CONNECTION
				LOUVER
				MANUAL VOLUME DAMPER
				FIRE DAMPER
				SMOKE DAMPER
				FIRE / SMOKE DAMPER
				SMOKE DETECTOR
				DUCT HEATER
				VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
				VANED ELBOW (SHORT RADIUS)
				STANDARD RADIUS ELBOW
				VANE TURN ELBOW & AIR SPLIT TYPE DUCT TAKE-OFF
				THERMOSTAT / TEMPERATURE SENSOR
				HUMIDISTAT / HUMIDITY SENSOR
				UNDERCUT (1" U.O.N.)
				DOOR GRILLE (18"x12" U.O.N.)
	A			AIR DEVICE TYPE
	100			AIR FLOW CFM
	6"			NECK SIZE
				4-WAY AIR FLOW
				3-WAY AIR FLOW
				2-WAY AIR FLOW
				1-WAY AIR FLOW

PIPING

	CWS	CONDENSER WATER SUPPLY
	CWR	CONDENSER WATER RETURN
	CHWS	CHILLED WATER SUPPLY
	CHWR	CHILLED WATER RETURN
	CD	CONDENSATE LINE
	RL	REFRIGERANT LIQUID
	RS	REFRIGERANT SUCTION
	RHG	REFRIGERANT HOT GAS
	HWS	HOT WATER SUPPLY
	HWR	HOT WATER RETURN
		DOMESTIC WATER
		GATE VALVE
		GLOBE VALVE
		CHECK VALVE
		BALL VALVE
		PLUG VALVE
		PRESSURE REDUCING VALVE
		2-WAY CONTROL VALVE
		3-WAY MODULATING CONTROL VALVE
		SAFETY OR PRESSURE RELIEF VALVE
		MANUAL AIR VENT
		BUTTERFLY VALVE
		HOSE BIBB
		ANGLE GLOBE VALVE
		MOTOR OPERATED GATE VALVE
		MOTOR OPERATED GLOBE VALVE
		TEST PLUG (PRESSURE / TEMPERATURE)
		OUTSIDE SCREW & YOKE (O S & Y)
		DIRECTION OF FLOW
		ANCHOR
		REDUCER OR INCREASER
		ECCENTRIC REDUCER
		TOP CONNECTION, 45 OR 90 DEG.
		BOTTOM CONNECTION, 45 OR 90 DEG.
		SIDE CONNECTION
		CAPPED OUTLET
		RISE OR DROP IN PIPE
		UNION
		STRAINER
		THERMOMETER
		PRESSURE GAGE
		WATER FLOW MEASURING DEVICE
		EXISTING PIPE TO BE REMOVED

DRAWING SYMBOLS

	2	DETAIL NUMBER
	FP5	DRAWING NUMBER WHERE DRAWN
	A	SECTION LETTER
	FP5	DRAWING NUMBER WHERE DRAWN
	P.O.C	POINT OF INTERFACE BETWEEN NEW & EXISTING P.O.C.
	P.O.D	POINT OF DEMOLITION P.O.D.
		POINT OF INTERFACE BETWEEN CONTRACTORS

GENERAL NOTES

- HVAC WORK CONSISTS OF PROVIDING AND INSTALLING AIR CONDITIONING SYSTEMS FOR A COMPLETE OPERATING SYSTEM AND AS INDICATED ON THE DRAWINGS. ALL WORK SHALL COMPLY WITH APPLICABLE CODES IN SPECIFICATIONS. IT IS THE INTENTION OF THE CONTRACT DRAWINGS AND SPECIFICATIONS TO CALL FOR COMPLETE, FINISHED WORK, TESTED, AND READY FOR OPERATION.
- TEST AND BALANCE SHALL BE PROVIDED BY A COMPANY SPECIALIZING IN THE TESTING AND BALANCING OF HVAC SYSTEMS AS SUBCONTRACTOR TO THE HVAC CONTRACTOR, OR GENERAL CONTRACTOR. THE TEST AND BALANCE CONTRACTOR SHALL BE A MEMBER OF EITHER AABC OR NEBB.
- DUCT DIMENSIONS SHOWN ON THE DRAWINGS ARE CLEAR INSIDE AIR PASSAGE DIMENSIONS.
- PROVIDE SPIN-IN FITTINGS AT ALL FLEXIBLE DUCT RUNOUTS TO DIFFUSERS WITH AIR EXTRACTOR AND DAMPER.
- MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL BE 6'-0".
- ALL PIPING SUBJECT TO THERMAL EXPANSION AND/OR CONTRACTION THAT PENETRATES A SMOKE, FIRE, OR FIRE/SMOKE WALL, PARTITION, OR FLOOR SLAB SHALL BE SUITABLY SLEEVED AND FIRE SAFED.
- METAL DUCTS WHICH PENETRATE 1 HOUR RATED FIRE WALLS AND ARE LESS THAN 100 SQUARE INCHES SHALL EXTEND A MINIMUM OF 5 FEET ON BOTH SIDES OF THE WALL WITHOUT AN OPENING (TO PRECLUDE THE REQUIREMENT OF A FIRE DAMPER). DUCTWORK SHALL IN NO CASE BE LIGHTER (TO PRECLUDE THE REQUIREMENT OF A FIRE DAMPER). DUCTWORK SHALL IN NO CASE BE LIGHTER THAN 24 GAUGE STEEL.
- PROVIDE IDENTIFICATION OF THE LOCATION OF ALL FIRE AND BALANCING DAMPERS. IDENTIFICATION TAGS SHALL BE AFFIXED TO THE WALLS OR CEILINGS AND SHALL BE VISIBLE FROM THE OCCUPIED SPACE.
- ALL PIPING SHALL BE SUPPORTED WITH COMMERCIAL MANUFACTURED CLAMPS. PROVIDE ISOLATION SLEEVES TO PREVENT CONTACT OF DISSIMILAR METALS.
- INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURERS' INSTRUCTIONS AND RECOMMENDATIONS.
- CONTRACTOR TO PROVIDE ALL SUPPLEMENTARY STEEL REQUIRED TO SUSPEND MECHANICAL EQUIPMENT AND MATERIALS.
- PENETRATIONS THROUGH FIRE RATED ASSEMBLIES, PENETRATIONS FOR PIPES, CONDUITS, OR OTHER PURPOSES THROUGH ASSEMBLIES (FLOORS, ROOF, WALLS, PARTITIONS, ETC.) WITH A REQUIRED FIRE RESISTANCE RATING FIRE STOP MATERIAL. FIRE STOP SEALANTS SHALL BE UL LISTED. APPLY FIRE STOP AS RECOMMENDED BY THE MANUFACTURER AND IN ACCORDANCE WITH ITS LISTING TO MEET OR EXCEED THE FIRE RATING OF THE ASSEMBLY IN WHICH IT IS INSTALLED.
- ALL INSULATION SHALL BE FIRE RATED IN ACCORDANCE WITH ASHRAE 90A 50/25 SMOKE DEVELOPMENT AND FLAME SPREAD REQUIREMENTS. INSULATION "R" VALUES SHALL COMPLY WITH THE FLORIDA ENERGY CODE. R 6.0 MIN.
- MOUNT ALL SPACE THERMOSTATS AND/OR SENSORS 4 FEET ABOVE THE FLOOR, UNLESS OTHERWISE NOTED.
- INSTALL DUCT MOUNTED SMOKE DETECTORS (FURNISHED BY DIVISION 16) IN SUPPLY AIR DUCTWORK CONNECTED TO THE A/C UNIT. WIRE THE DUCT MOUNTED SMOKE DETECTOR SUCH THAT ACTIVATION WILL DE-ENERGIZE AIR HANDLING UNIT FAN. LOCATE DUCT MOUNTED SMOKE DETECTORS THE REQUIRED DISTANCE DOWNSTREAM FROM BENDS OR INLETS AS RECOMMENDED BY THE MANUFACTURER.
- AIR HANDLING UNITS SHALL BE SHUT DOWN BY THE FIRE ALARM SYSTEM. WIRE THROUGH FIRE ALARM RELAY CONTACT (PROVIDED BY THE FIRE ALARM CONTRACTOR) TO SHUT DOWN AIR HANDLING UNITS UPON FIRE ALARM ACTIVATION. COORDINATE WITH FIRE ALARM CONTRACTOR ACCORDINGLY.
- SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL AIR DEVICES LOCATED IN THE CEILING.
- SEE ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS OF MECHANICAL EQUIPMENT.
- UNLESS OTHERWISE NOTED, INSTALL ALL DUCTWORK UNDER FLOOR DOUBLE WALL, TIGHT TO THE BOTTOM OF THE STRUCTURE. COORDINATE ELEVATION AND LOCATION WITH RAIN LEADERS, WATER PIPING, PLUMBING VENTS, AND MAJOR ELECTRICAL CONDUITS.
- PROVIDE MOTORIZED DAMPERS IN ALL OUTSIDE AIR DUCTS.
- PROVIDE DRAIN P-TRAPS IN THE CONDENSATE LINES AT ALL AIR HANDLING UNITS.
- ROUTE FULL SIZE (MIN. 1") COPPER DRAIN PIPE FROM EACH AHU DRAIN PAN TO RESPECTIVE FLOOR DRAIN. INSULATE WITH 3/4" ARMSTRONG "ARMAFLEX" INSULATION.TERMINATE THE CONDENSATE IN A DRY WELL ON SITE OR STORM LINE.
- THE WORK INDICATED ON THESE DRAWINGS IS GENERALLY DIAGRAMMATIC AND IS INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE THE GENERAL ARRANGEMENT OF DUCTWORK AND EQUIPMENT, ETC.
- ALL WORK IS TO BE FREE OF DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF THREE (3) YEARS FROM DATE OF FINAL ACCEPTANCE. ALL DEFECTS WHICH DEVELOP OR ARE DISCOVERED WITHIN THIS PERIOD SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
- UPON COMPLETION OF THE WORK UNDER THIS CONTRACT, THE CONTRACTOR SHALL REMOVE ALL TOOLS, APPLIANCES, SURPLUS MATERIALS, AND SCRAP. ALL IDENTIFIED EXISTING EQUIPMENT TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER.
- WHEN CONFLICTS OCCUR IN SPECIFICATIONS OR IN THE DRAWINGS, OR BETWEEN EITHER, THE ITEMS OF GREATER QUANTITY OR HIGHER COST SHALL BE PROVIDED.
- THE CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES IN ORDER TO AVOID CONFLICTS.
- PROVIDE BALANCING DAMPER IN EACH BRANCH CONNECTION.
- ALL DUCTWORK INSTALLED ON THIS PROJECT SHALL BE OF SHEET METAL CONSTRUCTION AND DOUBLEWALL. DUCTWORK SHALL BE FABRICATED AND CONSTRUCTED IN ACCORDANCE WITH SMACNA REQUIREMENTS.
- ALL SUPPORT ATTACHED EQUIPMENT AND APPURTENANCES INCLUDED IN THE SCOPE OF THIS PROJECT ARE REQUIRED TO BE SECURED TO THE UNDERLYING BUILDING STRUCTURE. THE FASTENING SYSTEMS SHALL BE DESIGNED TO WITHSTAND A 160 MPH WIND LOAD.
- CONTRACTOR SHALL PROVIDE TO LOCAL AHJ OR PERMITTING AGENCY A COPY OF ALL MAJOR EQUIPMENT CUTS SHEETS AT TIME OF APPLICATION.

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REV#	DESCRIPTION	DATE

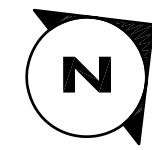
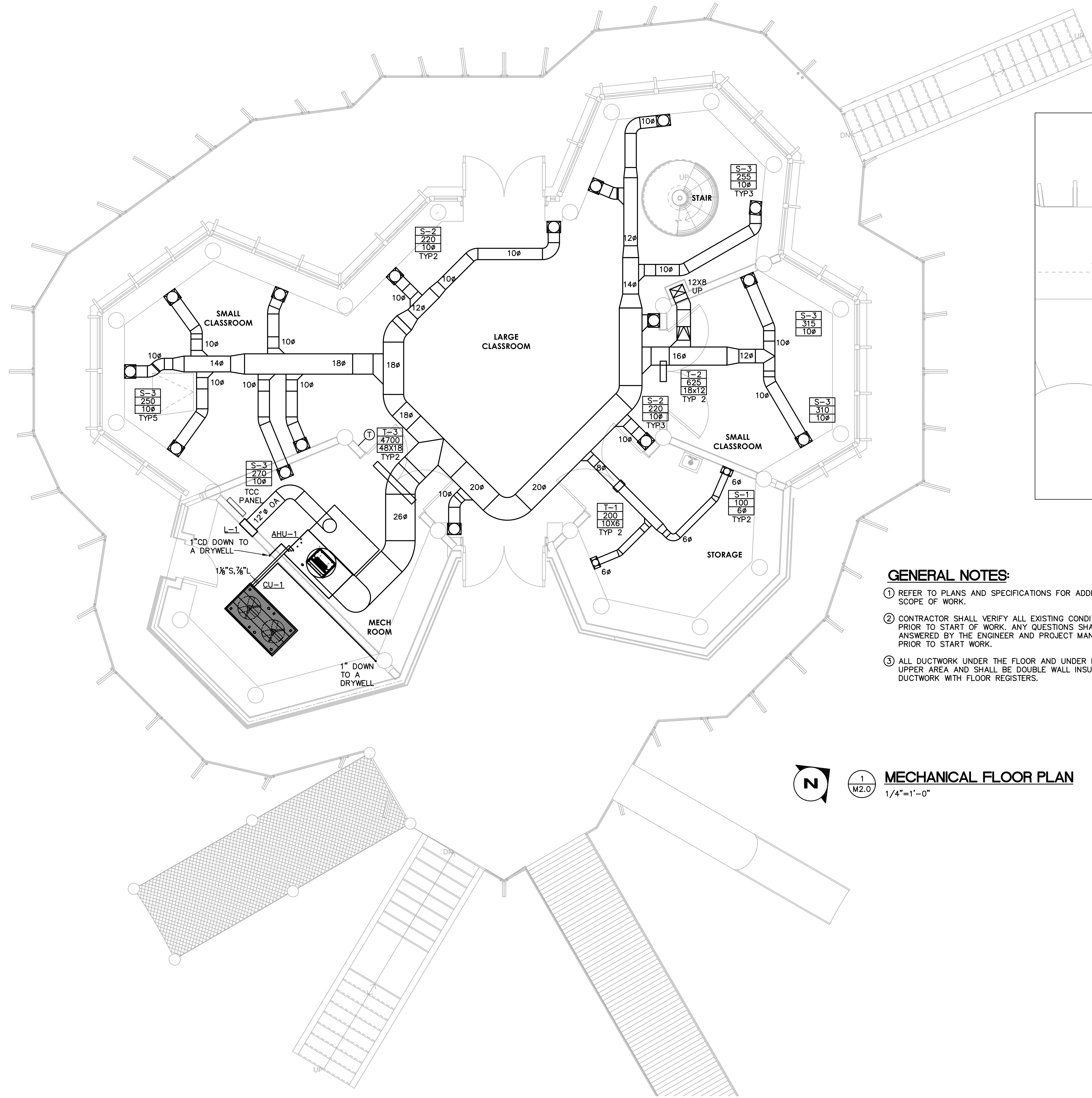
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TO THE BEST OF THE
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SAID PLANS AND
SPECIFICATIONS COMPLY
WITH THE APPLICABLE
CODES AND STANDARDS.

ROBINSON PRESERVE EXPANSION CLASSROOM TREE HOUSE
MANATEE CO WA #18, IFAS #W1300220
MANATEE COUNTY, FLORIDA

DRAWING TITLE:
MECHANICAL LEGEND AND
GENERAL NOTES

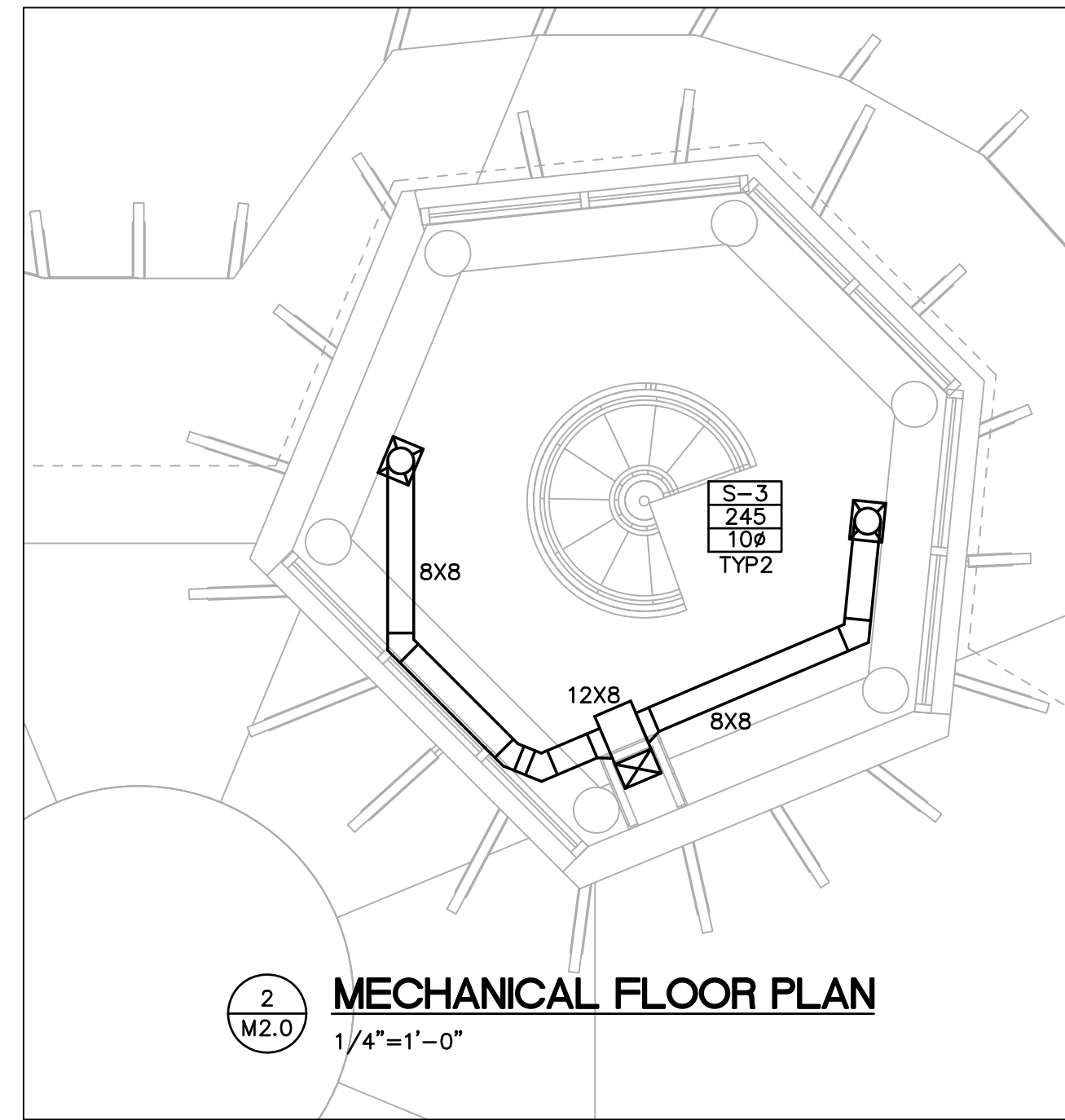
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1
M2.0
MECHANICAL FLOOR PLAN
1/4"=1'-0"

GENERAL NOTES:

- 1 REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
- 2 CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE ENGINEER AND PROJECT MANAGER PRIOR TO START WORK.
- 3 ALL DUCTWORK UNDER THE FLOOR AND UNDER FLOOR AT UPPER AREA AND SHALL BE DOUBLE WALL INSULATED DUCTWORK WITH FLOOR REGISTERS.



2
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MECHANICAL FLOOR PLAN
1/4"=1'-0"

REV#	DESCRIPTION	DATE

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SWW

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MECHANICAL FLOOR PLAN

DATE : 10/02/2014
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SHEET No.:
M2.0

ROBINSON PRESERVE EXPANSION CLASSROOM TREE HOUSE
MANATEE CO WA #18, IFAS #W1300220
MANATEE COUNTY, FLORIDA

TO THE BEST OF THE
ARCHITECT'S OR
ENGINEER'S KNOWLEDGE,
SAID PLANS AND
SPECIFICATIONS COMPLY
WITH THE APPLICABLE
CODES AND STANDARDS.

SEAL

SPLIT SYSTEM A/C SCHEDULE		
CONDENSING UNIT	---	CU-1
CAPACITY	TONS	11.1
NO. OF COMPRESSORS	---	2
COMPRESSOR RLA/LRA	AMPS	15.6/110
NO. OF CONDENSER FANS	---	2
CONDENSER FAN MOTOR	HP	---
ELECTRICAL	V/PH/HZ	240/3/60
MCA/MOCP	AMPS	41.2/50
E.E.R.	---	11.4
WEIGHT	LBS.	499
MANUFACTURER	---	YORK
MODEL NO.	---	YC120C00A2
AIR HANDLING UNIT	---	AHU-1
COOLING CAPACITY	MBH	133.2
SENSIBLE CAPACITY	MBH	87.2
SUPPLY AIR	CFM	4700
OUTSIDE AIR	CFM	488
ENTERING AIR (DB/WB)	F/F	76/66.7
LEAVING AIR (DB/WB)	F/F	58/57
FAN MOTOR	HP	3
STATIC PRESS. (EXTERNAL/TOTAL)	---	1.34/1.40
ELECTRICAL	V/PH/HZ	240/3/60
MCA/MOCP	AMPS	41.8/50
ELECTRIC HEAT	KW	10
FILTER TYPE	---	2" TA MERV 8
WEIGHT	LBS.	573
MANUFACTURER	---	YORK
MODEL NO.	---	NC120C00D6
NOTES: 1. ALL ELECTRIC HEAT IS APPLIED HEAT FOR VOLTAGE OF SYSTEM ON SCHEDULE. ALL REFRIGERATION CIRCUITS ARE TO BE CHECKED BY MFR DUE TO RUNS LENGTH AND R410A.(2) 1½"S, ¾"L, 1 "CD. 2. AIR HANDLER WITH ELECTRIC HEAT, CONTRACTOR, PROGRAMMABLE TEMPERATURE/HUMIDITY CONTROL MASTER THERMOSTAT/HUMIDSTAT SENSOR, REFRIGERANT VALVES, FILTER DRIER, LINESETS,STRUCTURAL HANGARS, SMOKE DETECTOR BY EC, RELAY PROVIDED BY MC, VIBRATION ISOLATION ON CONDENSING UNIT, BY MANUFACTURER, DISCONNECT BY EC. MOTORIZED DAMPER FOR OUTSIDE AIR. PIPE & UNIT SUPPORTS FOR UNIT BY M.C., DRAIN PAN UNDER UNIT BY M.C., CONDENSATE CUT OFF SWITCH BY MC, PROVIDE AND INSTALL RAWAL VALVE ON THE SYSTEM FOR MPART LOAD CONDITIONS SET AT 55.5° F. 3. PROVIDE TIME DELAY IN RESTART OF SYSTEM ON POWER OUTAGES OF MIN. 5 MINUTES. COAT BOTH CONDENSER AND EVAPORATOR COILS WITH LUVATA SYSTEM. 4. TIE NEW UNIT TO BACNET MASTER PROGRAM CONTROLLER WITH PROGRAM INTERFACE. BACNET COMPUTER LOCATED IN MECH. ROOM AND TIED TO COUNTY ALC SYSTEM.		

GRILLE, REGISTER AND DIFFUSER SCHEDULE											
TAG NO.	PATTERN	NECK SIZE	MODULE SIZE	FRAME STYLE	MATERIAL	FINISH	CFM RANGE	ACCESSORIES	MANUFACTURER	MODEL NO.	REMARKS
S-1	0 DEFLECT	NOTE 5	12X6	FLOOR	ALUM	NOTE 1	0-110	OBD	METALAIRE	2200F	1-5
S-2	0 DEFLECT	NOTE 5	12X8	FLOOR	ALUM	NOTE 1	170-250	OBD	METAIAIRE	2200F	1-5
S-3	0 DEFLECT	NOTE 5	12X10	FLOOR	ALUM	NOTE 1	223-400	OBD	METALAIRE	2200F	1-5
S-4	0 DEFLECT	NOTE 5	12X12	FLOOR	ALUM	NOTE 1	268-500	OBD	METALAIRE	2200F	1-5
T-1	30 DEFLECT	9 3/4X5 3/4	10X6	WALL	ALUM	NOTE 1	150-250	OBD	METALAIRE	RH	1,3
T-2	30 DELFECT	173/4X113/4	18X12	WALL	ALUM	NOTE 1	300-650	OBD	METALIARE	RH	1,3
T-3	30 DEFLECT	473/4X173/4	48X18	WALL	ALUM	NOTE 1	1600-4800	OBD	METALIARE	RH	1,3
---	---	---	---	---	---	---	---	---	---	---	---

NOTES:
1. COORDINATE GRILLE FINISH AND MATERIAL FRAMES WITH WALL, CEILING, AND FLOOR TYPE ON ARCHITECTURAL PLANS UNLESS NOTED. COLOR AS SELECTED BY ARCHITECT.
2. OPPOSED BLADE DAMPER, ADJUSTABLE AT DUCT.
3. REVIEW REFLECTED CEILING PLAN AND FLOOR PLAN FROM ARCHITECTURAL PLANS, AND ELEVATIONS FOR FINAL LOCATIONS.
4. INSULATED PLENUM BOX BY CONTRACTOR WITH ROUND INLET AS INDICATED ON PLANS.
5. FRAMES ⅙" AND ⅜" SMALLER THAN LISTED LENGTH.

LOUVER SCHEDULE										
TAG NO.	LOCATION	MAX CFM	S.P.	INTAKE RELIEF EXHAUST	OPENING		NO. OF PANELS	MANUFACTURER	MODEL NO.	REMARKS
					WIDTH IN.	HEIGHT IN.				
L-1	MECH RM	488	.1	INTAKE	16	16	1	GREENHECK	ESD435X	1,2

NOTES:
1. COORDINATE FRAME, KYNAR, AND COLOR TYPES WITH ARCHITECT. INSECT SCREEN AND DRIP EDGE REQUIRED. FLORIDA APPROVAL #FL 6876.3, 15718
2. ALL LOUVERS SHALL MEET FBC HURRICANE REQUIREMENTS FOR 160 MPH. FRAME BOLT IN AS RECOMMENDED IN MANUFACTURER'S INSTALLATION INSTRUCTIONS.


HVAC LOAD CALCULATIONS SUMMARY	
	ZONE 1
SIZING METHOD	CARRIER E20II
AREA (SQ. FEET)	1487.5
TOTAL COOLING REQUIRED W/ OUTSIDE AIR (MBH)	113.0
OUTDOOR DRY BULB USED	93
OUTDOOR WET BULB USED	79
RELATIVE HUMIDITY %	57
INDOOR DRY BULB	74
TOTAL HEATING REQUIRED W/ OUTSIDE AIR (MBH)	44.7
TOTAL SENSIBLE GAIN (MBH)	81.9
TOTAL LATENT GAIN (MBH)	31.1
LB. / LB. SPECIFIC HUMIDITY ACROSS COIL	.0014

Reference: 503.2, 2010 FLORIDA BUILDING CODE – ENERGY

OUTDOOR AIR LOAD CALCULATIONS

(FMC TABLE 403.3 AND ASHRAE 62 2010)
1041 SF. X 10 CFM/PERSON X 25 / 1000 + .18 CFM /SF CLASSROOM =447.63 CFM
446 SF X .06 CFM /SF STORAGE , STAIR , MECH SPACE = 26.76 CFM
SPACE OA = 474.39 CFM TOTAL
SPACE OA INSTALLED = 488 CFM TOTAL
(Voz = Vbz/1.0)

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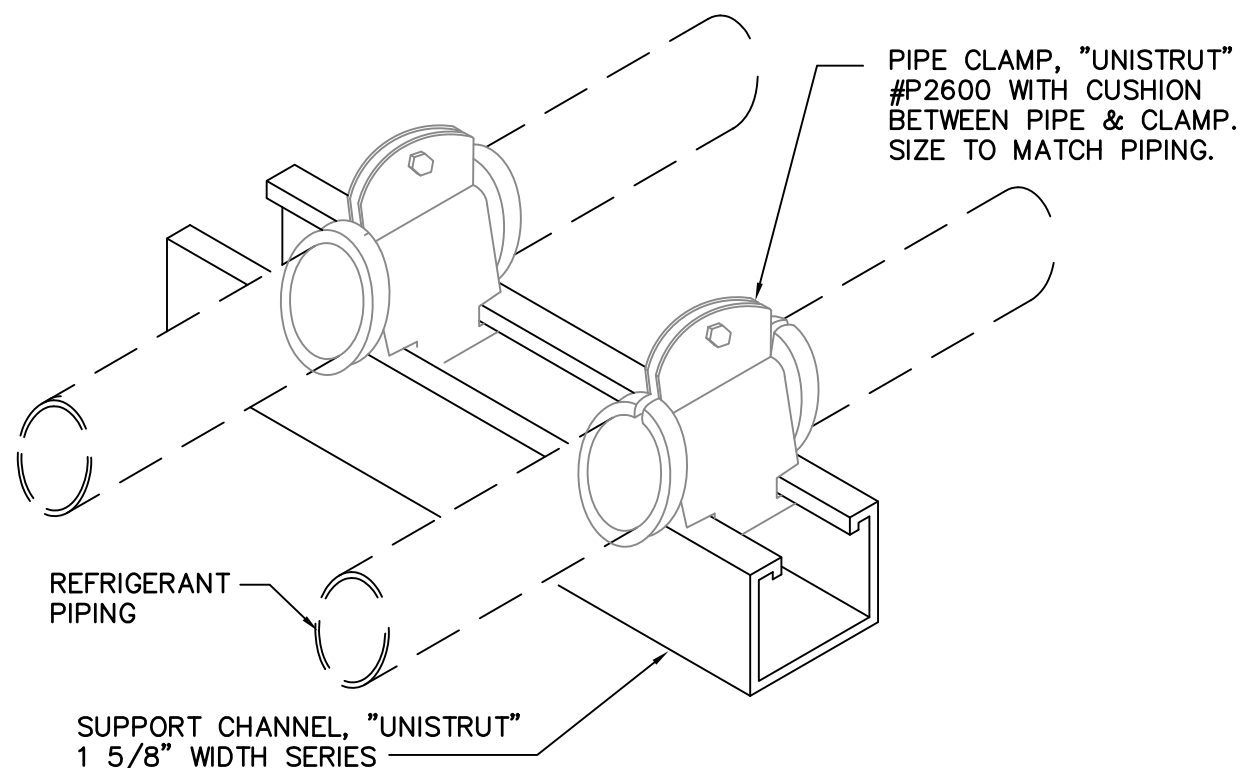
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DRAWING TITLE:
MECHANICAL SCHEDULES

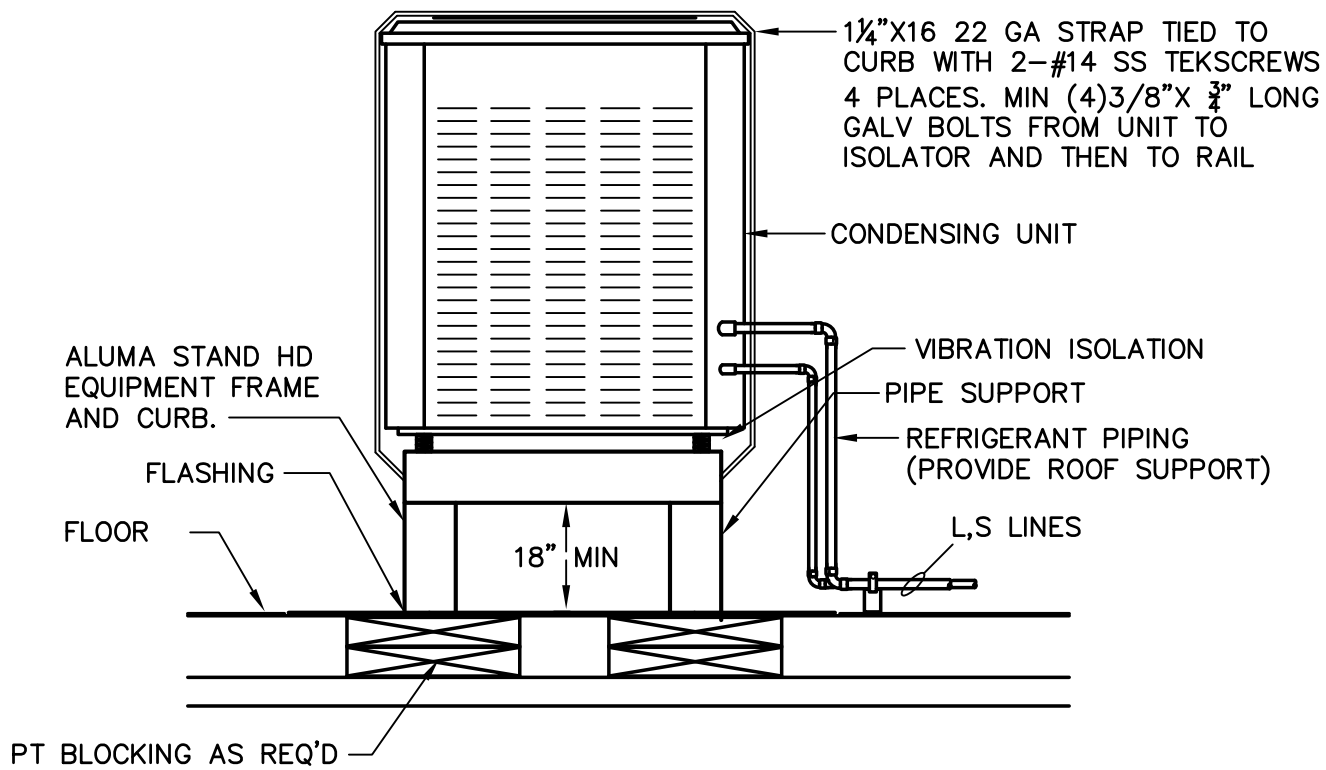
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MANATEE COUNTY, FLORIDA



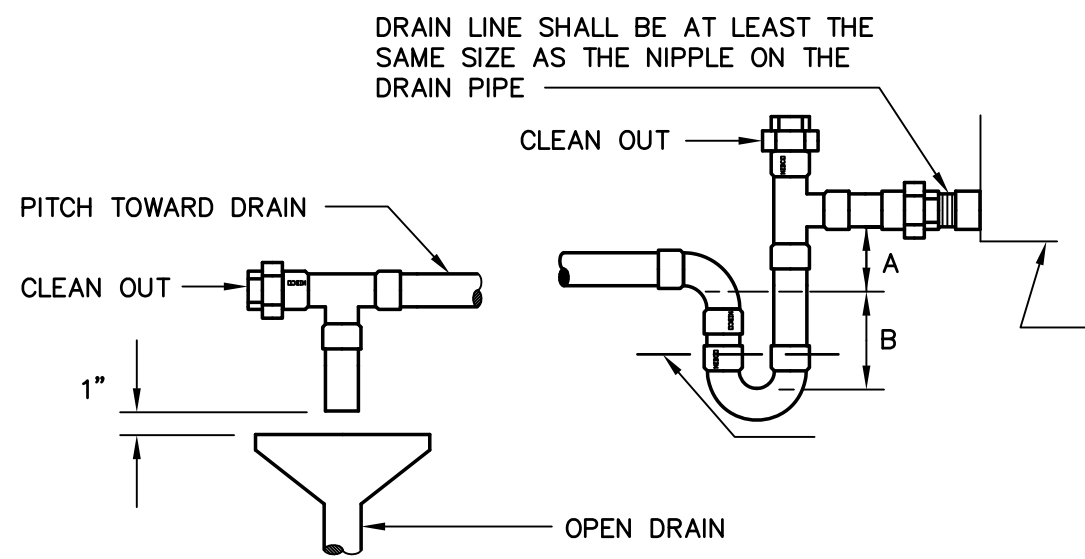
- ALL REFRIGERANT PIPING SHALL BE HARD COPPER, TYPE "L" WITH LONG RADIUS ELBOWS.
- TRAPS SHALL BE SINGLE PIECE, WROUGHT COPPER.
- INSULATE SUCTION LINE WITH 5/8" ARMAFLEX INSULATION FULL LENGTH. DO NOT SPLIT DURING INSULATION BUTT JOINTS WITH ARMAFLEX SEALANT, AND APPLY ARMAFLEX PRESERVATIVE ON ALL INSULATION ABOVE THE ROOF LINE. WHERE REFRIGERANT OR CONDENSATE PIPING RUNS THROUGH RETURN AIR PLENUMS, INSULATION SHALL BE FIRE-RATED ARMAFLEX "AP" 25/50.
- ROUTING OF ALL REFRIGERANT PIPING SHALL BE PLUMB AND SHALL RUN TRUE WITH THE BUILDING LINES. HORIZONTAL RUNS OF SUCTION LINES OVER 25' SHALL BE PITCHED "ONE-HALF" BUBBLE TOWARD THE COMPRESSOR, FOR OIL RETURN.
- SUPPORT OF ALL PIPING AT COMPRESSORS, CONDENSERS, AND AIR HANDLING UNITS SHALL BE AS SHOWN ABOVE. SUPPORT OF PIPING IN BETWEEN THE UNITS SHALL BE WITH STRAP MATERIAL, USING ARMAFLEX INSULATION AS SADDLES. NO METAL-TO-METAL CONTACT.
- BRAZE REFRIGERANT PIPING WITH FLOW OF DRY NITROGEN DURING BRAZING.
- SOLDER SHALL BE 15% SILVER "SIL-FOS" OR EQUAL.
- CHANGE FILTER-DRIER CORES AFTER 30 DAYS OF OPERATION.

1
M4.0
REFRIGERANT DETAIL
NOT TO SCALE



BOLT UNIT TO STAND IN ACCORDANCE WITH STRUCTURAL ENGINEER'S AND ARCHITECT'S DETAILS. (MFR DWG COMPLIES WITH 160 MPH) (PRECISION ALUMINUM PRODUCTS, ALUMA STAND HD)

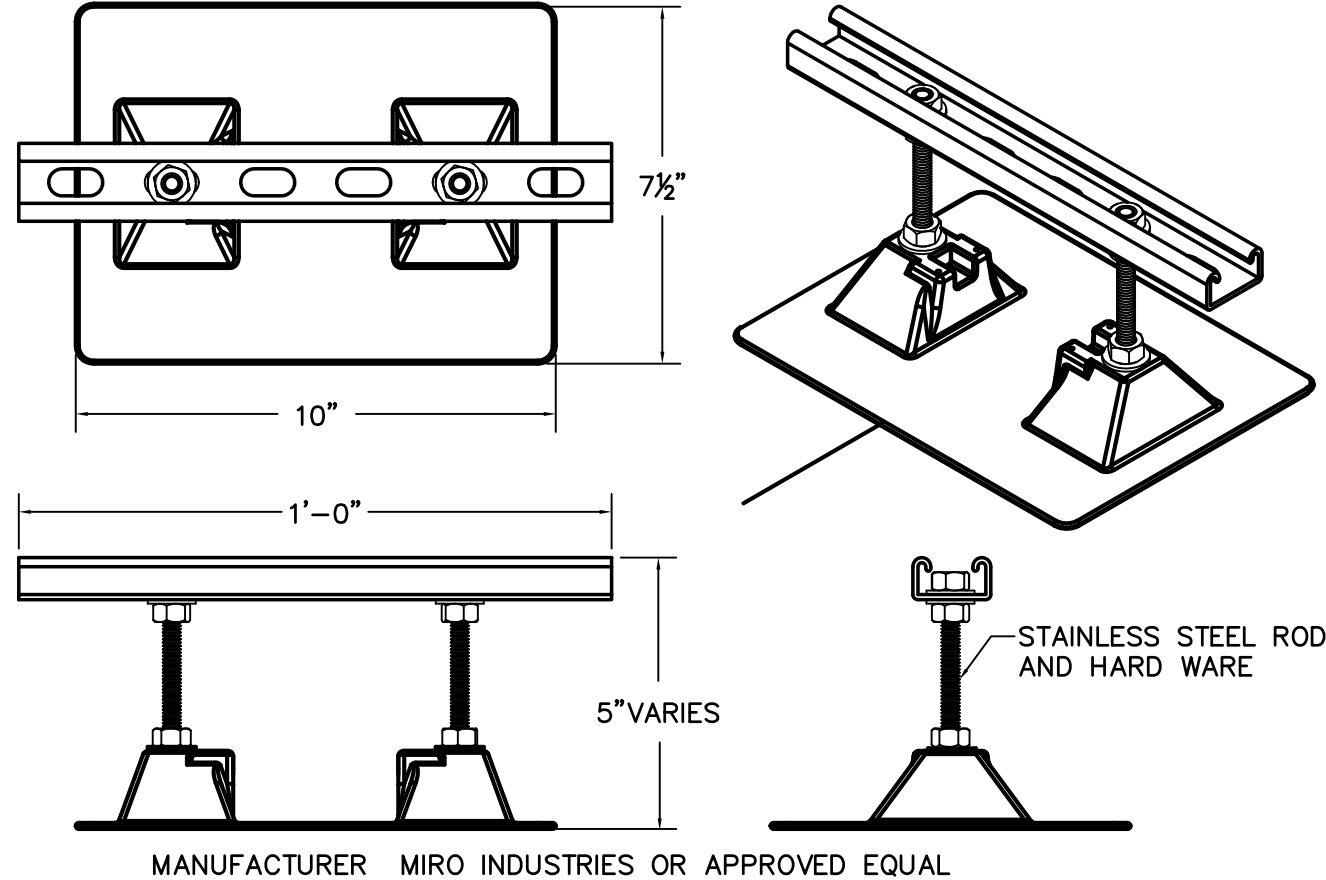
2
M4.0
CONDENSING UNIT ON ROOF DETAIL
NOT TO SCALE
FOR CU MIN. HT PER FBC IS 30".



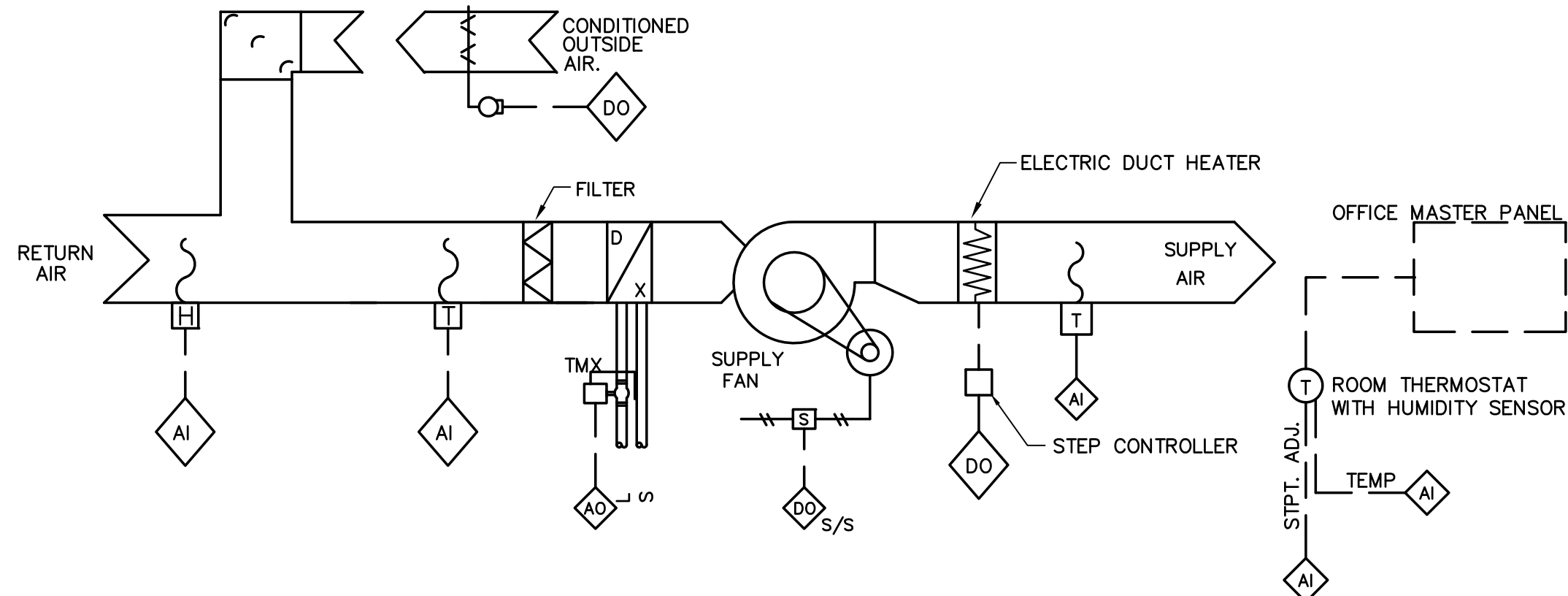
UNIT TYPE	INSTALLING TRAP.	
	A	B
DRAW THRU	X + 1"	2"
BLOW THRU	1" MIN.	2.0 X

WHERE X = STATIC PRESSURE IN PAN

3
M4.0
AIR HANDLING UNIT CONDENSATE TRAP DETAIL
NOT TO SCALE



4
M4.0
PIPE SUPPORT CONDENSATE + REFRIG. PIPING DETAIL
NOT TO SCALE
SUPPORT 10 FEET ON CENTER ALL PIPING SLOPING TOWARDS DRAIN, SUPPORT SHALL BE MASTICKED AND FASTENED TO THE FLOOR IN ACCORDANCE WITH SUPPORT MFR'S REQUIREMENTS.



X
XX
TYPICAL CONSTANT VOLUME AIR HANDLING UNIT DETAIL
NOT TO SCALE

SEQUENCE OF OPERATION

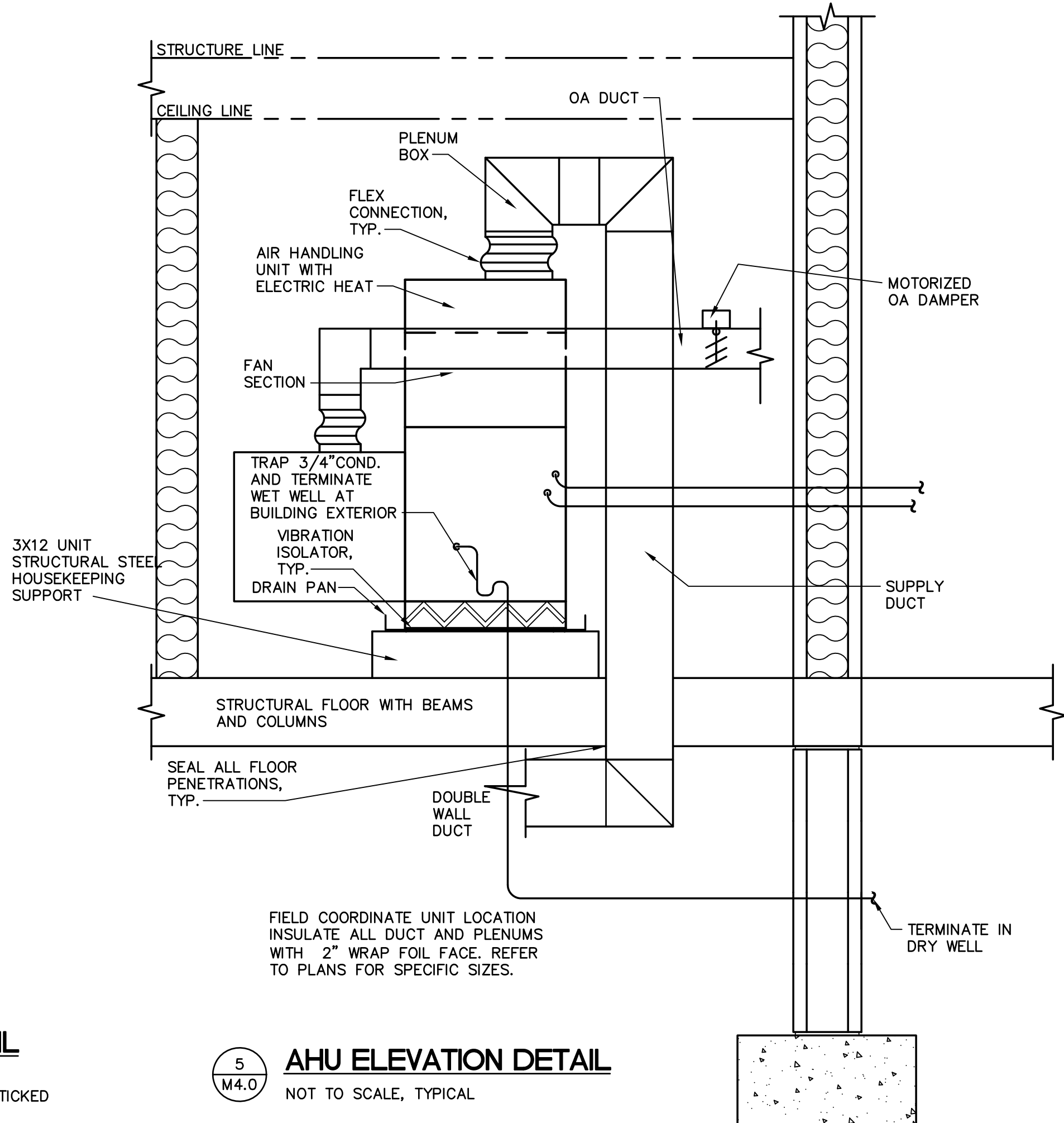
FOR THE SYSTEM, THE TMX VALVE SHALL BE MODULATED TO MAINTAIN THE COOLING ROOM TEMPERATURE SETPOINT. PROVIDE A SPACE TEMPERATURE INPUT TO THE DDC. MAINTAIN THE SPACE COOLING COOLING TEMPERATURE SETPOINT (75°F ± .5°F – SOFTWARE ADJUSTABLE).

FOR A ROOM SPACE TEMPERATURE BETWEEN 71.5°F AND 74.5°F (SOFTWARE ADJUSTABLE) A DEAD BAND IS TO EXIST IN WHICH THE TMX VALVE IS CLOSED AND THE ELECTRIC HEAT IS INACTIVE. DURING THIS DEAD BAND NO CONTROL ACTION IS TO OCCUR.

UPON A DROP IN THE ROOM SPACE TEMPERATURE BELOW THE HEATING SETPOINT (71°F – SOFTWARE ADJUSTABLE) THE ELECTRIC HEATING SHALL BE ENERGIZED AND STAGED TO MAINTAIN THE ROOM HEATING SETPOINT ± .5° F.

HUMIDITY OVERRIDE SEQUENCE SHALL BE INITIATED WHEN RETURN AIR HUMIDITY EXCEEDS 60%, FOR THIS SEQUENCE, THE LAT SHALL BE RESET TO 60° F (ADJUSTABLE). THE CHILLED WATER VALVE SHALL GO FULL OPEN AND THE ELECTRIC HEAT SHALL BE STAGED TO MAINTAIN THE ROOM SET POINT AND THE FRONT END COMPUTER SHALL DISPLAY "HUMIDITY OVERRIDE" FOR EACH APPLICABLE UNIT. WHEN RETURN AIR HUMIDITY REACHES SETPOINT OF 55% RETURN TO NORMAL OPERATION. A RAWAL VALVE SYSTEM SHALL CONTROL HUMIDITY IN PART LOAD CONDITIONS.

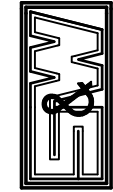
THE UNIT'S FAN SHALL OPERATE AS PER THE USER PROGRAMMABLE SCHEDULE. THE OUTSIDE AIR DAMPER SHALL BE CLOSED WHEN THE BUILDING IS NOT SCHEDULED FOR OCCUPANCY.



5
M4.0
AHU ELEVATION DETAIL
NOT TO SCALE, TYPICAL

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REV#	DESCRIPTION	DATE

DRAWING TITLE:

MECHANICAL DETAILS

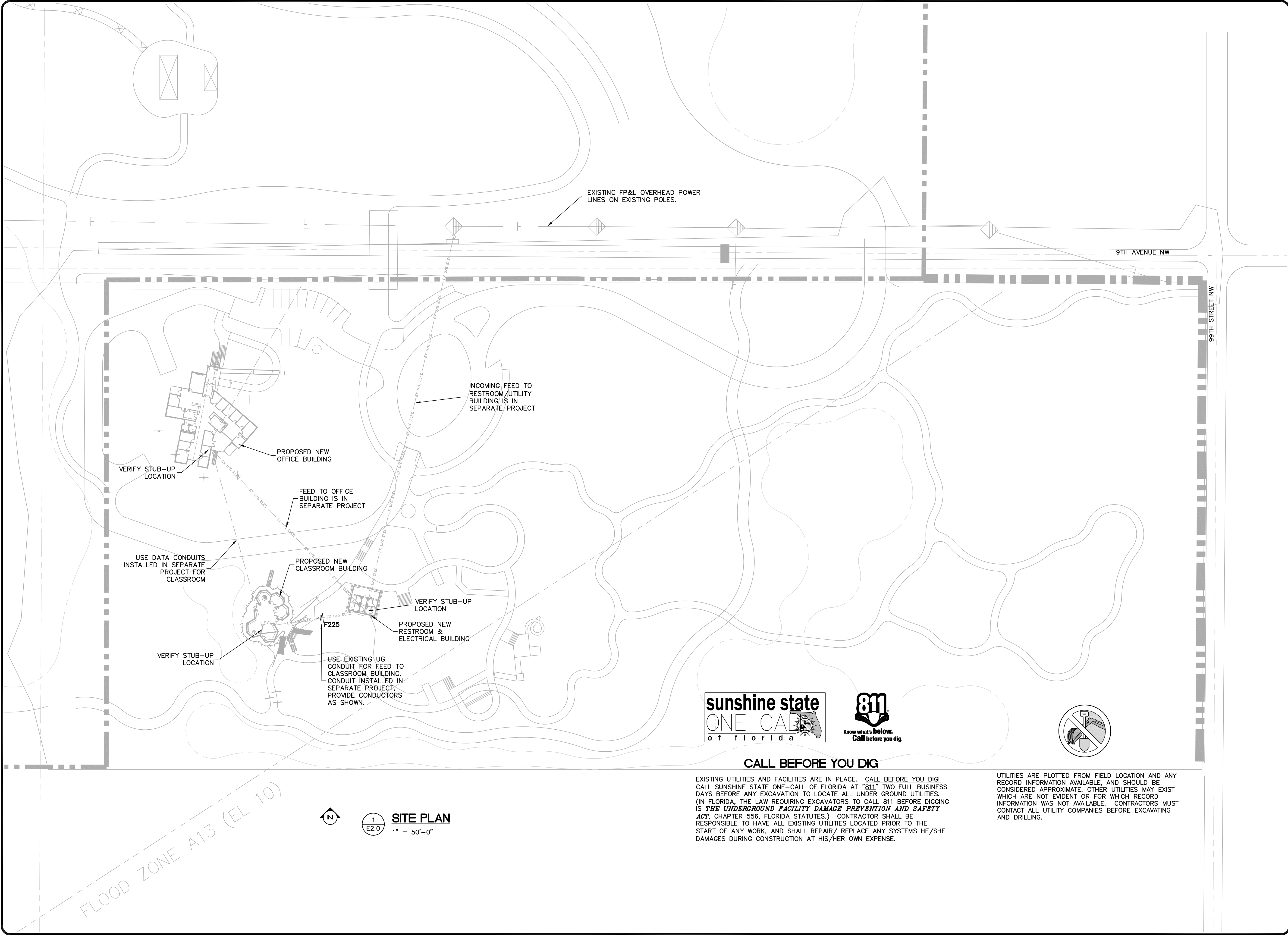
DATE : 10/02/2014
DWG SCALE: NOT TO SCALE
DRAWN BY: DC
CHECKED BY: JDC
SHEET No.:

M4.0

ROBINSON PRESERVE EXPANSION CLASSROOM TREE HOUSE
MANATEE CO WA #18, IFAS #W1300220
MANATEE COUNTY, FLORIDA

TO THE BEST OF THE
ARCHITECT'S OR
ENGINEER'S KNOWLEDGE,
SAID PLANS AND
SPECIFICATIONS COMPLY
WITH THE APPLICABLE
CODES AND STANDARDS.

SEAL



1
E2.0

SITE PLAN
1" = 50'-0"

CALL BEFORE YOU DIG

EXISTING UTILITIES AND FACILITIES ARE IN PLACE. **CALL BEFORE YOU DIG!** CALL SUNSHINE STATE ONE-CALL OF FLORIDA AT "811" TWO FULL BUSINESS DAYS BEFORE ANY EXCAVATION TO LOCATE ALL UNDER GROUND UTILITIES. (IN FLORIDA, THE LAW REQUIRING EXCAVATORS TO CALL 811 BEFORE DIGGING IS **THE UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT**, CHAPTER 556, FLORIDA STATUTES.) CONTRACTOR SHALL BE RESPONSIBLE TO HAVE ALL EXISTING UTILITIES LOCATED PRIOR TO THE START OF ANY WORK, AND SHALL REPAIR/ REPLACE ANY SYSTEMS HE/SHE DAMAGES DURING CONSTRUCTION AT HIS/HER OWN EXPENSE.

UTILITIES ARE PLOTTED FROM FIELD LOCATION AND ANY RECORD INFORMATION AVAILABLE, AND SHOULD BE CONSIDERED APPROXIMATE. OTHER UTILITIES MAY EXIST WHICH ARE NOT EVIDENT OR FOR WHICH RECORD INFORMATION WAS NOT AVAILABLE. CONTRACTORS MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING.

REV#	DESCRIPTION	DATE

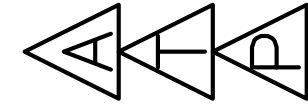
DRAWING TITLE:

**ELECTRICAL CLASSROOM
TREEHOUSE SITE PLAN**

DATE : 10/02/2014
DWG SCALE: 1"=50'-0"
DRAWN BY: CMD
CHECKED BY: JDC
SHEET No.:

E2.0

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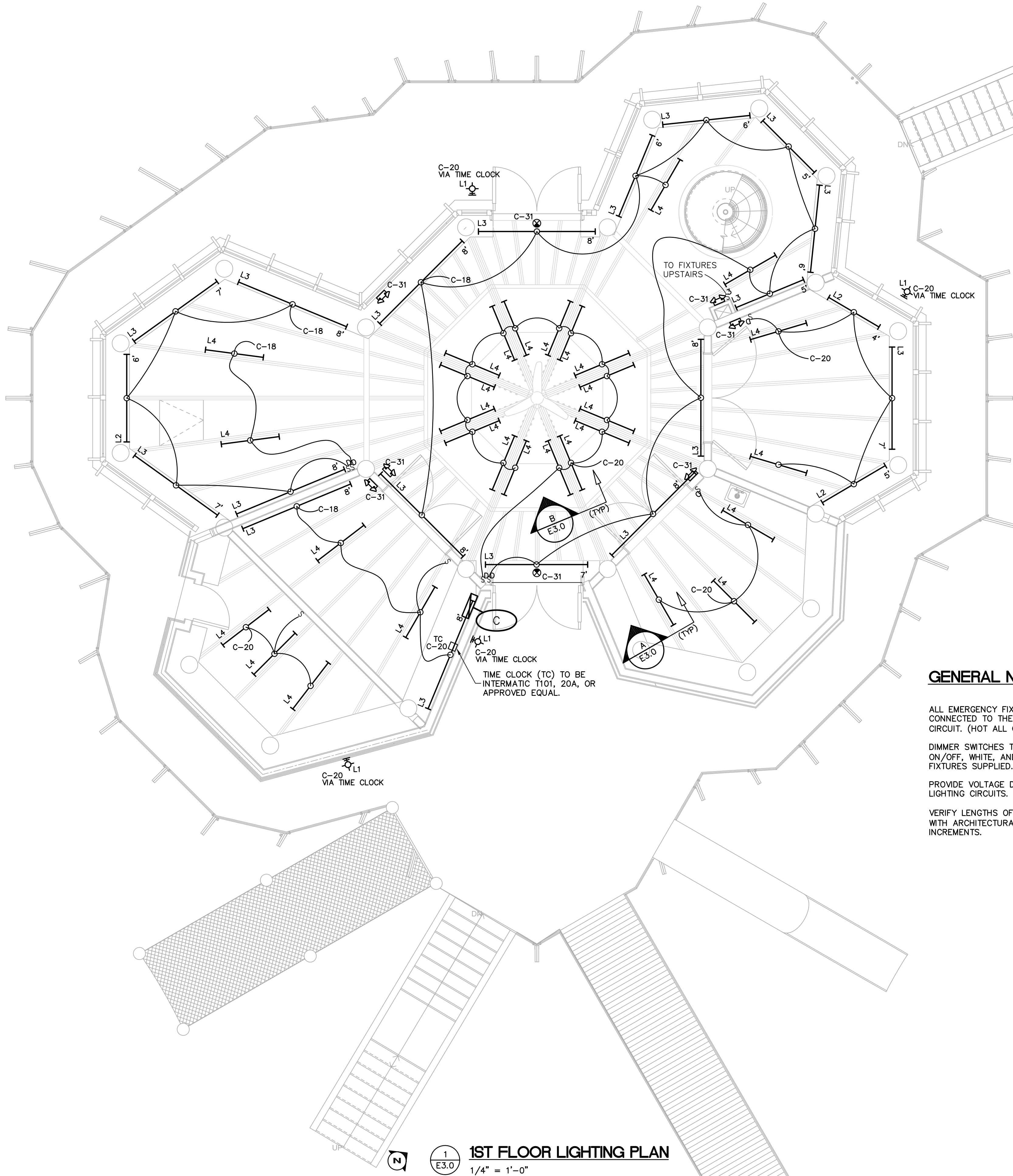


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MANATEE CO WA #18, IFAS #W1300220
MANATEE COUNTY, FLORIDA

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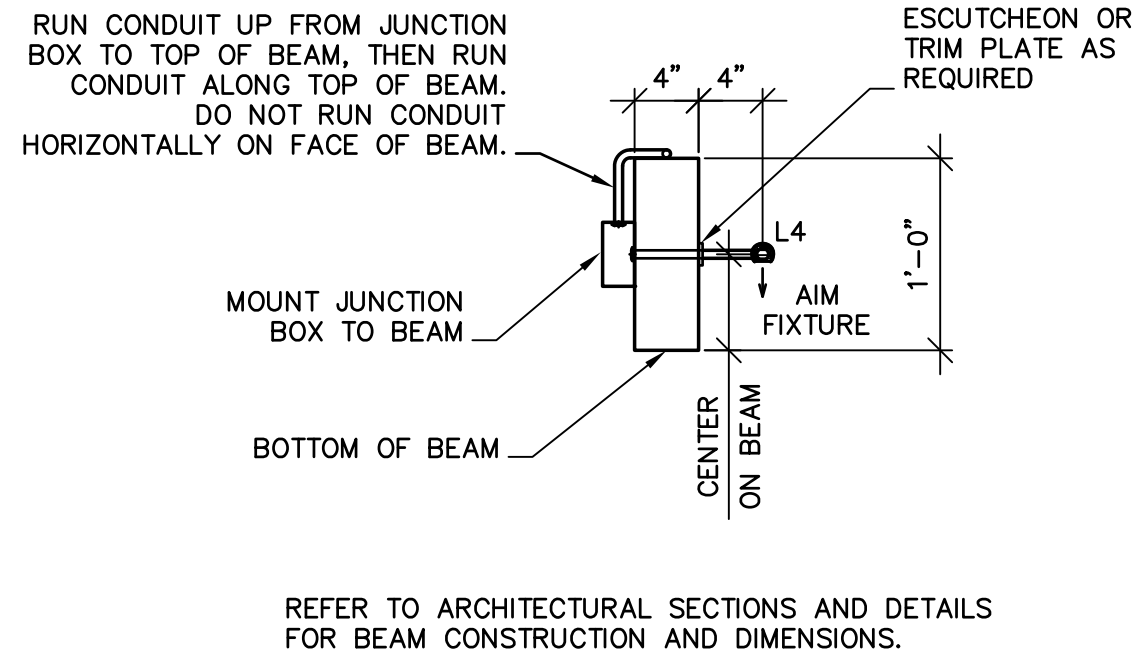
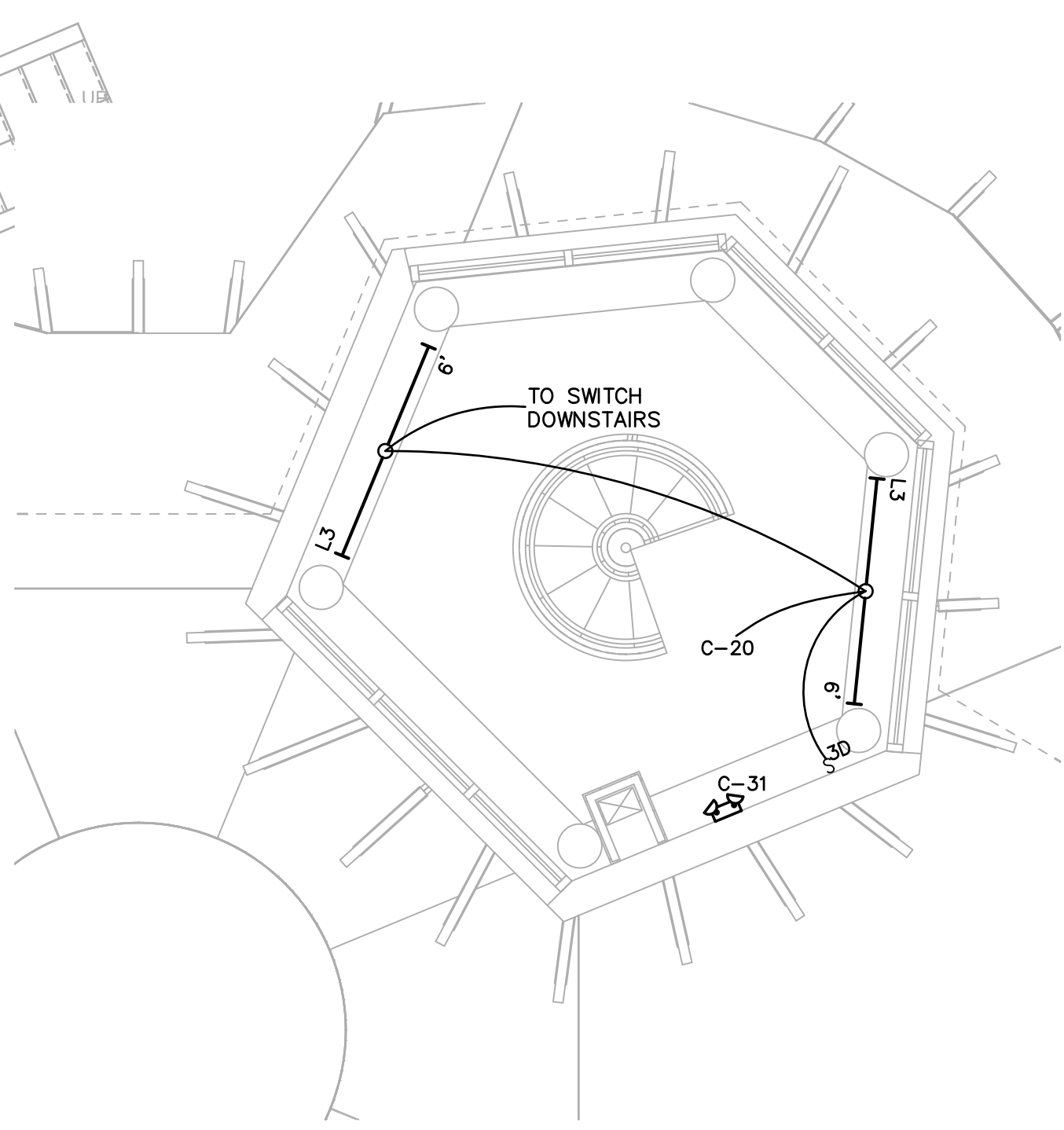


1ST FLOOR LIGHTING PLAN
1/4" = 1'-0"

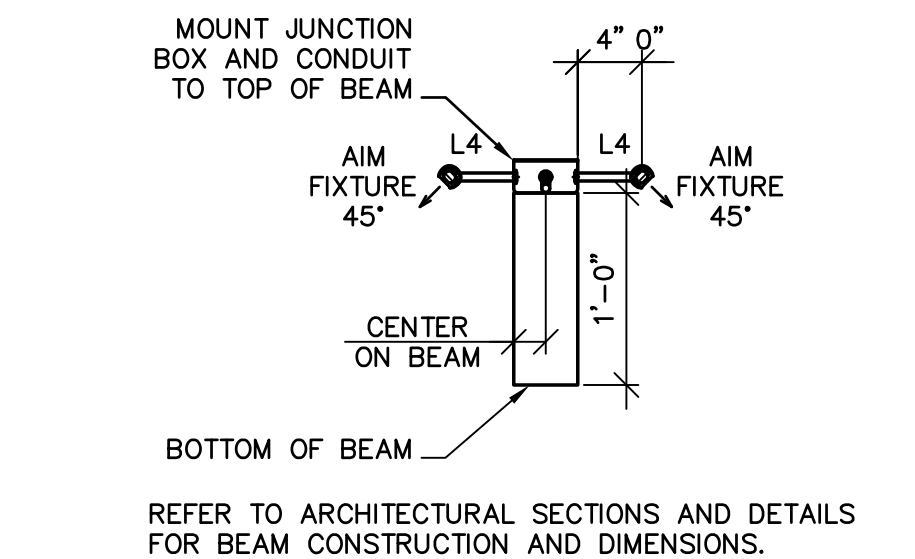
GENERAL NOTES:

- ALL EMERGENCY FIXTURES, AND EXIT LIGHTS SHALL BE CONNECTED TO THE UN-SWITCHED PORTION OF THE CIRCUIT. (HOT ALL OF THE TIME).
- DIMMER SWITCHES TO BE 2000W, SLIDE TYPE WITH MANUAL ON/OFF, WHITE, AND SHALL BE COMPATIBLE WITH FIXTURES SUPPLIED.
- PROVIDE VOLTAGE DROP CALCULATIONS FOR EXTERIOR LIGHTING CIRCUITS.
- VERIFY LENGTHS OF FIXTURES FOR "L2" & "L3" FIXTURES WITH ARCHITECTURAL PLANS. FIXTURE IS AVAILABLE IN 1' INCREMENTS.

LOOK-OUT LIGHTING PLAN
1/4" = 1'-0"



"L4" FIXTURE MOUNTING DETAIL
1" = 1'-0"



"L4" FIXTURE MOUNTING DETAIL
1" = 1'-0"

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ATP

DATE

DESCRIPTION

ROBINSON PRESERVE EXPANSION CLASSROOM TREE HOUSE
MANATEE CO WA #18, IFAS #W1300220
MANATEE COUNTY, FLORIDA

DRAWING TITLE:
ELECTRICAL CLASSROOM
LIGHTING PLAN

DATE : 10/02/2014
DWG SCALE: 1/4" = 1'-0"
DRAWN BY: CMD
CHECKED BY: JDC
SHEET No.: E3.0

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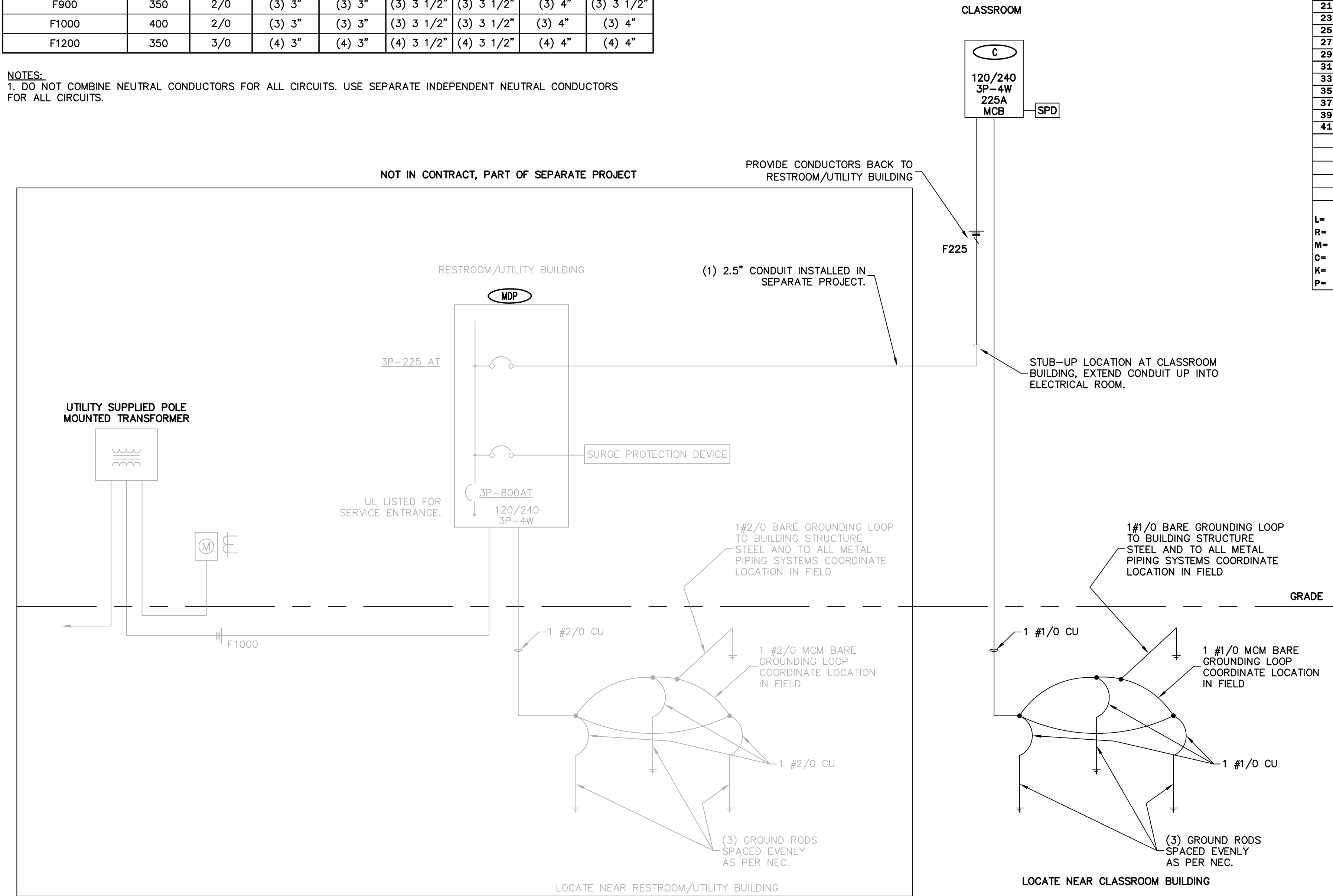
SEAL

FEEDER AND BRANCH CIRCUIT SCHEDULE								
FEEDER/BRANCH CIRCUIT DESIGNATION	COPPER CONDUCTOR THHN, THWN, & THWN-2		CONDUIT SIZE AND QUANTITY [QUANTITY IS 1, UNLESS NOTED IN ()]					
	PHASE & NEUTRAL	EQUIPMENT GROUND	1P, 1N, 1G, 2P, 1G	2P, 1N, 1G, 3P, 1G	3P, 1N, 1G	3P, 2N, 1G	3P, 3N, 1G	3P, 1N, 2G
F20	12	12	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
F30	10	10	3/4"	3/4"	3/4"	1"	1"	1"
F40-50	8	10	3/4"	1"	1"	1 1/4"	1 1/4"	1 1/4"
F60	6	10	1"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
F70-F80	4	8	1"	1 1/4"	1 1/4"	1 1/2"	1 1/2"	1 1/2"
F90-F100	3	8	1 1/4"	1 1/4"	1 1/2"	1 1/2"	2"	1 1/2"
F110	2	6	1 1/4"	1 1/2"	1 1/2"	2"	2"	2"
F125	1	6	1 1/2"	2"	2"	2"	2 1/2"	2"
F150	1/0	6	1 1/2"	2"	2"	2 1/2"	2 1/2"	2 1/2"
F175	2/0	6	2"	2"	2 1/2"	2 1/2"	3"	2 1/2"
F200	3/0	6	2"	2 1/2"	2 1/2"	3"	3"	3"
F225	4/0	4	2"	2 1/2"	3"	3"	3"	3"
F250	250	4	2 1/2"	3"	3"	3 1/2"	3 1/2"	3-1/2"
F300	350	4	3"	3"	3 1/2"	3 1/2"	4"	3 1/2"
F350	2/0	3	(2) 2"	(2) 2 1/2"	(2) 2 1/2"	(2) 2 1/2"	(2) 3"	(2) 2 1/2"
F400	3/0	3	(2) 2"	(2) 2 1/2"	(2) 2 1/2"	(2) 3"	(2) 3"	(2) 2 1/2"
F450	4/0	2	(2) 2"	(2) 2 1/2"	(2) 2 1/2"	(2) 3"	(2) 3"	(2) 3"
F500	250	2	(2) 2 1/2"	(2) 3"	(2) 3"	(2) 3"	(2) 3 1/2"	(2) 3 1/2"
F600	350	1	(2) 2 1/2"	(2) 3"	(2) 3"	(2) 3"	(2) 3 1/2"	(2) 3"
F800	300	1/0	(3) 2 1/2"	(3) 3"	(3) 3"	(3) 3 1/2"	(3) 3 1/2"	(3) 3 1/2"
F900	350	2/0	(3) 3"	(3) 3"	(3) 3 1/2"	(3) 3 1/2"	(3) 4"	(3) 3 1/2"
F1000	400	2/0	(3) 3"	(3) 3"	(3) 3 1/2"	(3) 3 1/2"	(3) 4"	(3) 4"
F1200	350	3/0	(4) 3"	(4) 3"	(4) 3 1/2"	(4) 3 1/2"	(4) 4"	(4) 4"

NOTES:
1. DO NOT COMBINE NEUTRAL CONDUCTORS FOR ALL CIRCUITS. USE SEPARATE INDEPENDENT NEUTRAL CONDUCTORS FOR ALL CIRCUITS.

VOLTAGE DROP FOR 1ϕ, 20A BRANCH CIRCUITS			
FEEDER SIZE TO USE	DISTANCE ALLOWED		
	120V	208V	
F20	0 – 45 FEET	0 – 79 FEET	
F30	45 – 72 FEET	79 – 126 FEET	
F40-50	72 – 115 FEET	126 – 201 FEET	
F60	115 – 183 FEET	201 – 318 FEET	
F70-80	183 – 292 FEET	318 – 506 FEET	
F90-100	292 – 367 FEET	506 – 637 FEET	
F110	367 – 464 FEET	637 – 804 FEET	
F125	464 – 584 FEET	804 – 1013 FEET	
F150	584 – 738 FEET	1013 – 1279 FEET	

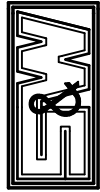
- NOTES:
- 20 A BRANCH CIRCUITS SHALL BE SIZED FOR VOLTAGE DROP. WIRE SIZES ARE NOT INDICATED ON THE DRAWINGS TO COMPENSATE FOR VOLTAGE DROP FOR THESE CIRCUITS. CONTRACTOR SHALL UTILIZE WIRE SIZE SHOWN ABOVE FOR DISTANCES LISTED ABOVE.
 - VOLTAGE DROP WIRE SIZES WILL BE STRICTLY ENFORCED. CONTRACTOR SHALL SUBMIT A LIST OF CIRCUITS THAT WILL EXCEED THE DISTANCES ALLOWED AND INDICATE WIRE SIZE TO BE USED PRIOR TO ANY WIRE BEING INSTALLED.



1
E5.0
NTS
ONE-LINE RISER DIAGRAM

POWER DISTRIBUTION PANELBOARD SCHEDULE		DESIGNATION: LOCATION: VOLTAGE: PHASE:		C Classroom Mechanical Room 240/120 3 PHASE, 4 WIRE W/ HIGH LEG					MAINS: BUS SIZE: PANEL MOUNTING: ALL BREAKERS:		225 A MCB 225 AMP SURFACE AWAITING UTILITY INFORMATION FOR KAIC / SHORT CIRCUIT CALC'S			
CKT NO.	LOAD DESCRIPTION	LOAD CODE	CONN. KVA	BREAKER AMPS	POLE	CONNECTED LOAD			BREAKER AMPS	POLE	CONN. KVA	LOAD CODE	LOAD DESCRIPTION	CKT NO
1	AHU-1	M	5.02	50	3	10.63			60	3	5.61	M	CU-1	2
3	"	M	5.02				10.63				5.61	M	"	4
5	"	M	5.02					10.63			5.61	M	"	6
7	Exterior Receptacles	R	0.90	20	1	1.44			20	1	0.54	R	North 5m Classroom Rcpts	8
9	<<BLANK>>						0.00						<<BLANK>>	10
11	Exterior Receptacles	R	0.90	20	1			1.44	20	1	0.54	R	Storage Rcpts	12
13	Rcpts Mech areas	R	0.36	20	1	0.72			20	1	0.36	R	Look-out Rcpts	14
15	<<BLANK>>						0.00						<<BLANK>>	16
17	Telephone board Recept	R	0.90	20	1			2.06	20	1	1.16	L	Lighting	18
19	South 5m Classroom Rcpts	R	0.72	20	1	1.98			20	1	1.26	L	Lighting	20
21	<<BLANK>>						0.00						<<BLANK>>	22
23	FACP	P	0.50	20	1			2.01	20	1	1.51	L	Lighting	24
25	LG Classroom Rcpts	R	1.08	20	1	2.19			20	1	1.11	L	Lighting	26
27	<<BLANK>>						0.00						<<BLANK>>	28
29	Spare			20	1			0.00	20	1			Spare	30
31	EM & Exit signs	L	0.50	20	1	1.00			20	1	0.50	P	Temp. Control Center (TCC)	32
33	<<BLANK>>						0.00						<<BLANK>>	34
35	Spare			20	1			0.00	20	1			Spare	36
37	Spare			20	1	0.00			30	3			SPD	38
39	Water Heater	M	1.75	20	2		1.75						"	40
41	"	M	1.75					1.75					"	42
						17.96	12.38	17.88	KVA					
TOTAL CONNECTED AMPS:						149.67	103.13	149.01	AMPS					
TOTAL CONNECTED LOAD:						48.22 KVA								
TOTAL DEMAND AMPS:						111.25 AMPS								
TOTAL DEMAND LOAD:						35.67 KVA								
LOAD CODES:														
L= LIGHTING														
R= RECEPTACLES														
M= MECHANICAL														
C= COMPUTER														
K= KITCHEN														
P= PANELBOARD														

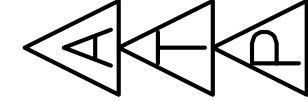
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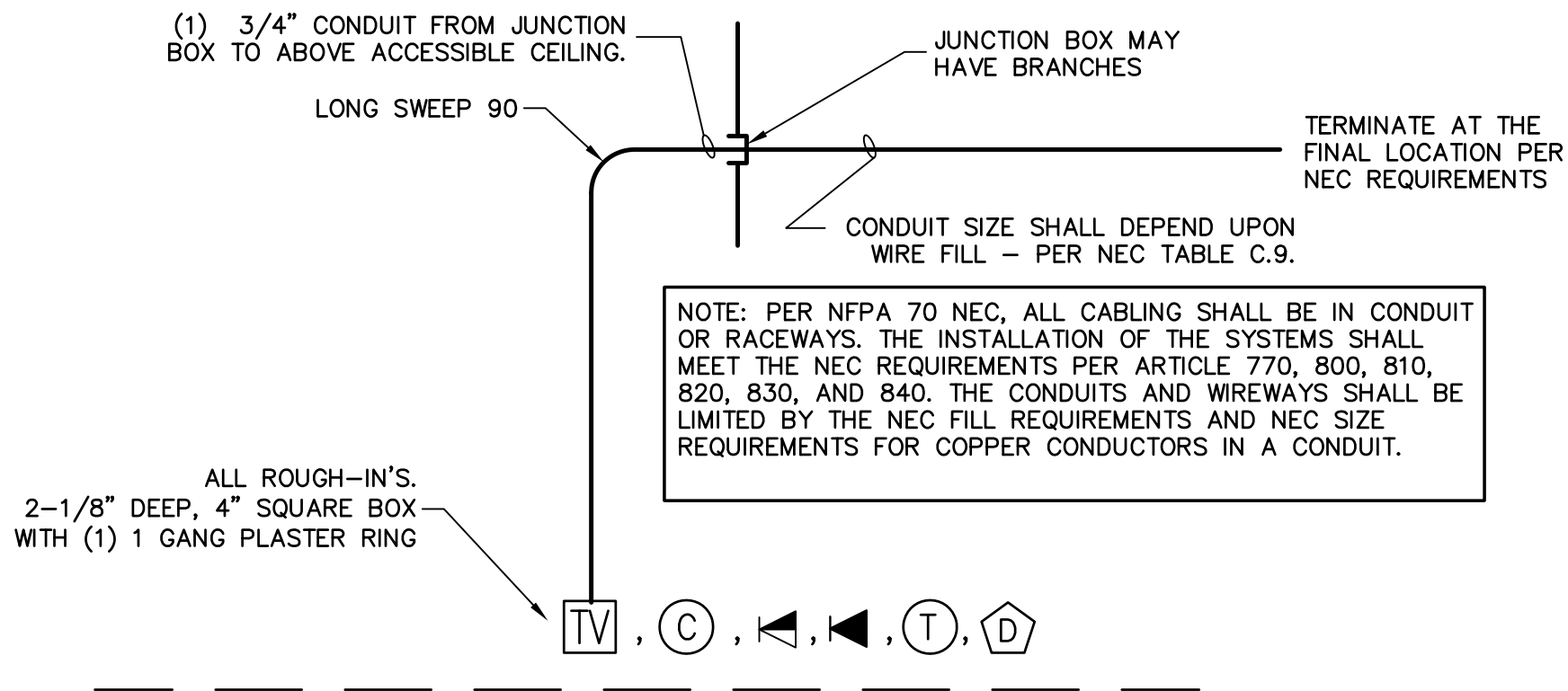


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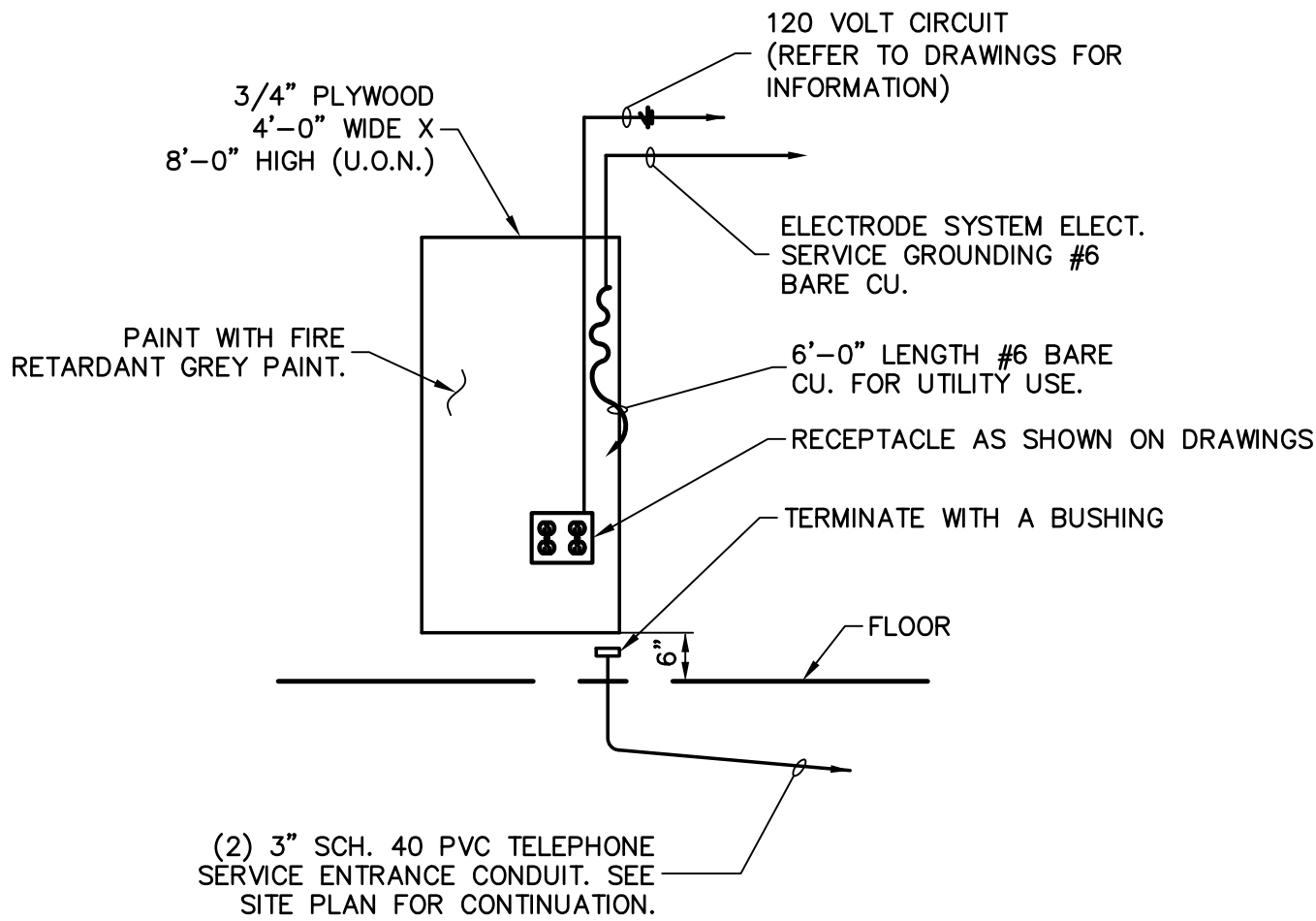
DRAWING TITLE:
ELECTRICAL ONE-LINE RISER
DIAGRAM

DATE : 10/02/2014
DWG SCALE: 1/8" = 1'-0"
DRAWN BY: CMD
CHECKED BY: JDC
SHEET No.:

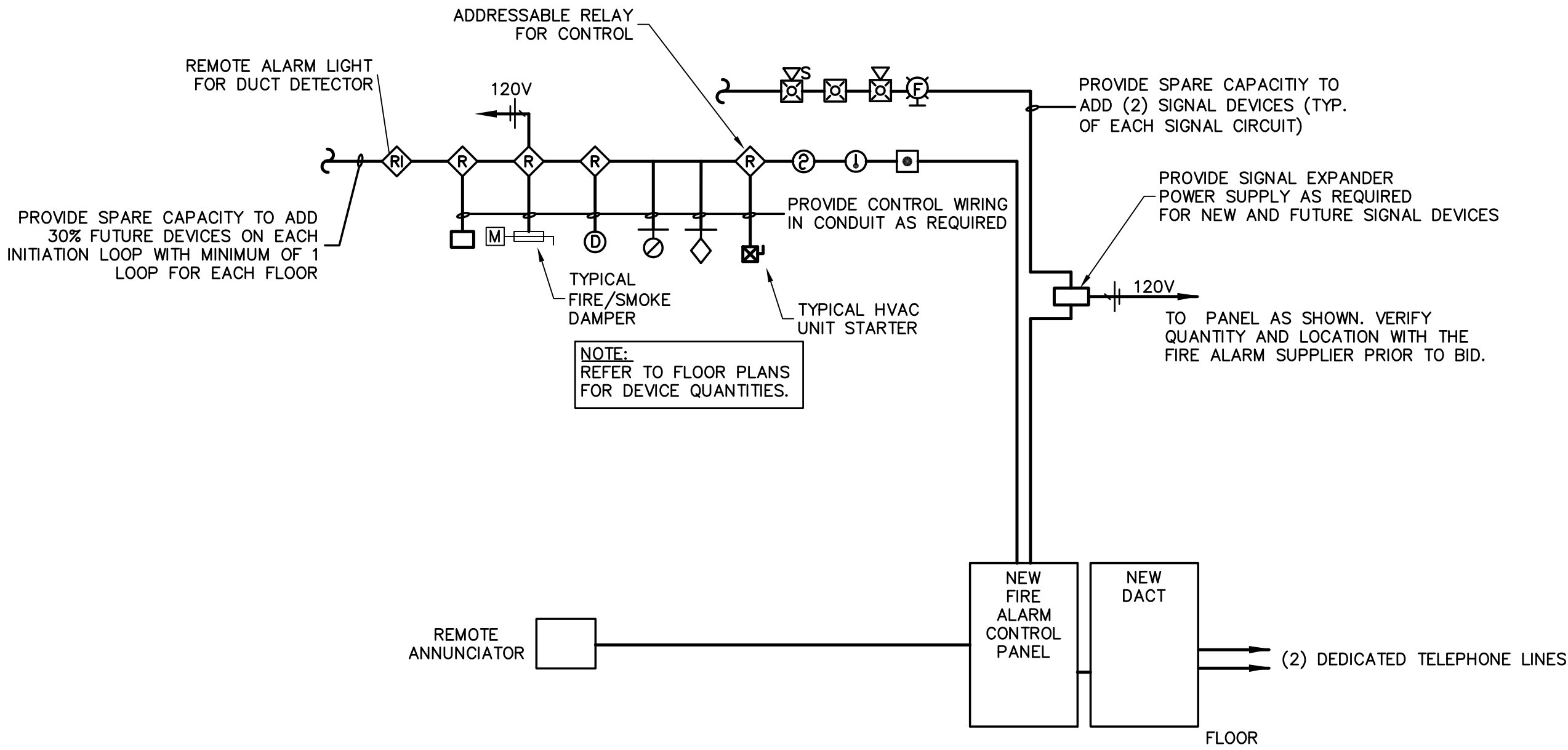
E5.0



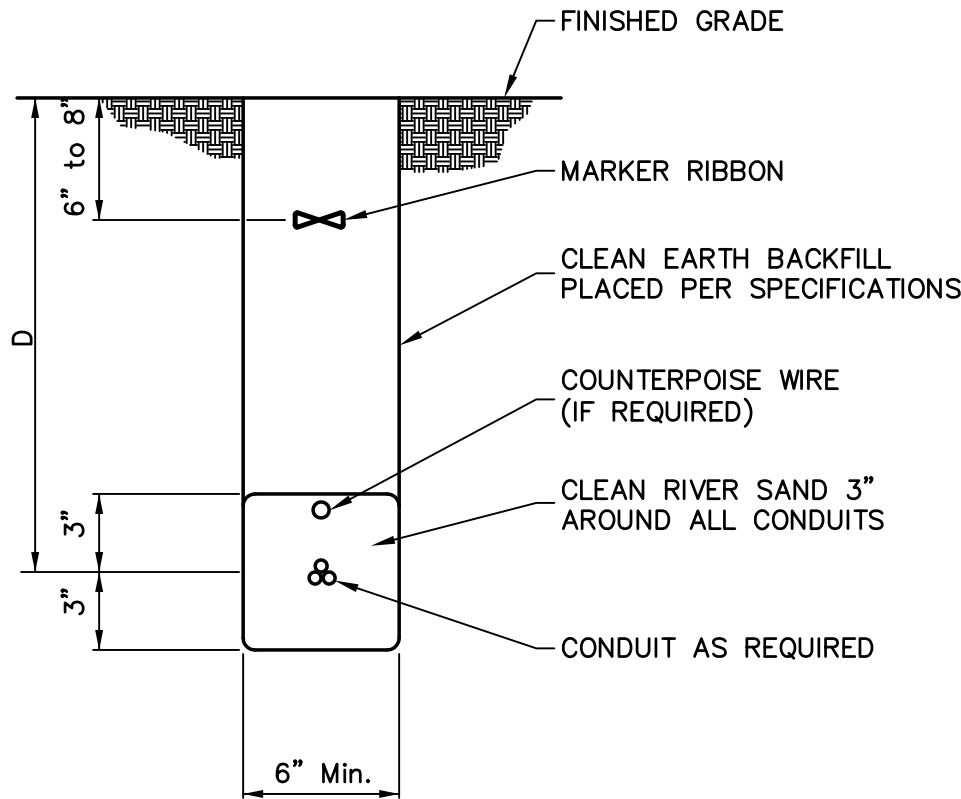
2 E6.0 LOW VOLTAGE ROUGH-IN



1 E6.0 TELEPHONE EQUIPMENT BACKBOARD DETAIL



3 E6.0 ADDRESSABLE FIRE ALARM SYSTEM SCHEMATIC

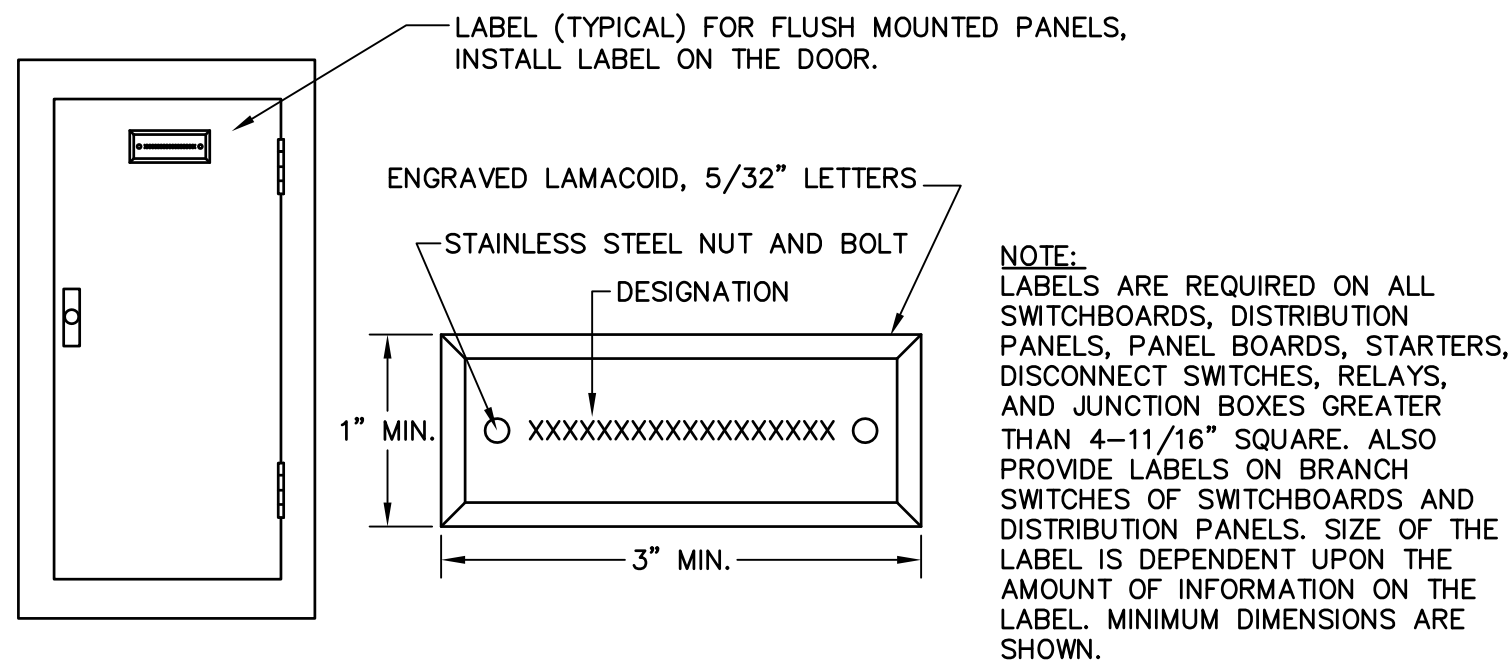


BURIAL DEPTH	
SERVICE	"D"
CCTV cable	1'-6"
Telephone	2'-0"
Power under 600V	3'-0"
Medium voltage power	3'-0"

NOTE: USE BURIAL DEPTHS SHOWN ON TABLE UNLESS NOTED OTHERWISE IN SPECIFICATIONS OR ON DRAWINGS. BURIAL DEPTHS FOR UTILITY COMPANY CABLES SHALL BE AS DIRECTED BY THE UTILITY COMPANY.

4 E6.0 CONDUIT BURIAL DETAIL

LIGHT FIXTURE SCHEDULE								
TYPE	DESCRIPTION	VOLT	LAMP NUMBER AND TYPE	MOUNT	LENS	SERIES	ACCEPTABLE MANUFACTURERS	REMARKS
L1	LED WALL MOUNTED EXTERIOR FIXTURE. DIE-CAST ALUMINUM HOUSING, FULL CUTOFF, SOW, CARBON BRONZE FINISH.	120	3000 LUMEN LED MODULE, 3500K	WALL	N/A	XTOR5A	LUMARK	ELECTRONIC BALLAST
L2	LED RECESSED LINEAR FIXTURES. ONE PIECE EXTRUDED ALUMINUM HOUSING WITH POLYESTER POWDER COAT FINISH. CONTINUOUS EXTRUDED ACRYLIC LENS. TRIMLESS.	120	625 LUMENS PER FOOT LED 3000K	CEILING RECESSED	FROSTED ACRYLIC	SEEM 2	FOCAL POINT	0-10V DIMMING LENGTHS AS SHOWN
L3	LED RECESSED LINEAR FIXTURES. ONE PIECE EXTRUDED ALUMINUM HOUSING WITH POLYESTER POWDER COAT FINISH. CONTINUOUS EXTRUDED ACRYLIC LENS. TRIMLESS.	120	250 LUMENS PER FOOT LED 3000K	CEILING RECESSED	FROSTED ACRYLIC	SEEM 2	FOCAL POINT	0-10V DIMMING LENGTHS AS SHOWN
L4	4' LED ARM MOUNTED LINEAR FIXTURES. ONE PIECE EXTRUDED ALUMINUM HOUSING, CLEAR ROUND ACRYLIC LENS.	120	9W PER FOOT LED, 3000K	ARM MOUNT	CLEAR ACRYLIC	BAM-XLS8290	BARTCO LIGHTING	0-10V DIMMING
⚡	EMERGENCY BATTERY PACK WITH ALUMINUM HOUSING, SEALED NICKEL-CADMIUM BATTERY AND TEST SWITCH FRONT MOUNTED HEADS. UL LISTED FOR DAMP LOCATIONS.	120	LED	WALL	N/A	AEL2	SURE-LITES	UL LISTED FIVE YEAR WARRANTY.
⚡	LED EDGE/EXIT LIGHT, SINGLE OR DOUBLE FACE AS INDICATED ON DRAWINGS. UNIVERSAL SURFACE MOUNTING CANOPY, END, BACK OR TOP MOUNT, DIRECTIONAL ARROW PANEL, STROKE STENCIL FACE RED LETTERS "EXIT". BATTERY BACKUP W/ NICKEL-CADMIUM BATTERY. PUSH TO TEST FEATURE.	120	LED	SURFACE/CEILING		ELX	SURE-LITES	WHITE TRIM
NOTES: 1. ALL LIGHT FIXTURES TO BE SUPPLIED WITH LAMPS. LAMPS SHALL BE GE, PHILLIPS, OR OSRAM/SLYVANIA, NO EXCEPTIONS. 2. FLUORESCENT LAMP COLOR SHALL B3000 DEGREES K. 3. MANUFACTURERS SHOWN ARE BASIS OF DESIGN AND "OR EQUAL" FIXTURES MAY BE PROVIDED. "OR EQUAL" FIXTURES SHALL BE PRE-APPROVED DURING BIDDING.								



STANDARD COLORS:
1. NORMAL POWER- BLACK BACKGROUND, WHITE LETTERS
2. EMERGENCY POWER- RED BACKGROUND, WHITE LETTERING
3. IN ADDITION TO THE FUNCTION LABELS, PROVIDE LABELS IDENTIFYING ALL "MAIN SERVICE LABEL DISCONNECTS"- RED BACKGROUND, WHITE LETTERING

5 E6.0 EQUIPMENT LABELING DETAIL

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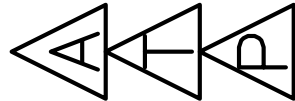
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DRAWING TITLE:

ELECTRICAL DETAILS

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E6.0

ROBINSON PRESERVE EXPANSION CLASSROOM TREE HOUSE
MANATEE CO WA #18, IFAS #W1300220
MANATEE COUNTY, FLORIDA

SEAL

TO THE BEST OF THE ARCHITECT'S OR ENGINEER'S KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE CODES AND STANDARDS.

ABBREVIATIONS, LEGENDS AND GENERAL NOTES

ABBREVIATIONS

AC	AIR CONDITIONING
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
AO	ANALOG OUTPUT
AP	ACCESS PANEL
BFF	BELOW FINISHED FLOOR
BHP	BRAKE HORSE POWER
BTUH	BRITISH THERMAL UNIT PER HOUR
BOT	BOTTOM
CC	COOLING COIL
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHWS	CHILLED WATER RETURN
CHWR	CHILLED WATER SUPPLY
CLG	CEILING
CO	CLEANOUT
CT	COOLING TOWER
CU	CONDENSING UNIT
CW	COLD WATER
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
DB	DRY BULB
DCC	DIRECT DIGITAL CONTROL
DG	DOOR GRILLE
DI	DIGITAL INPUT
DN	DIGITAL OUTPUT
DO	DOWN
DP	DEW POINT
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
ECC	ENERGY CONTROL CENTER
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
ET	EXPANSION TANK
EL	ELEVATION
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EXIST	EXISTING
F DPR	FIRE DAMPER
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FL	FLOOR
FIPI	FINS PER INCH
FPF	FINS PER FOOT
FPM	FEET PER MINUTE
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
H	HUMIDITY
HB	HOSE BIBB
HC	HEATING COIL
HE	HEAT EXCHANGER
HP	HORSE POWER
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MD	MOTORIZED DAMPER
MAX	MAXIMUM
MIN	MINIMUM
NC	NORMALLY CLOSED
NO	NORMALLY OPENED
OA	OUTSIDE AIR
OS&Y	OUTSIDE SCREW & YOKE
PD	PRESSURE DROP
PRESS	PRESSURE
RA	RETURN AIR
RD	ROOF DRAIN
RL	RAIN LEADER
RTU	ROOF TOP UNIT
S	SANITARY
SEER	SEASONAL ENGINEERING EFFICIENCY RATIO
SD	SMOKE DAMPER
SA	SUPPLY AIR
SP	STATIC PRESSURE
T	TEMPERATURE
TYP	TYPICAL
UC	UNDERCUT
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UV	UNIT VENTILATOR
V	VENT
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
VSD	VARIABLE SPEED DRIVE
VTR	VENT THRU ROOF
W	WASTE
WB	WET BULB
WCO	WALL CLEANOUT

SYMBOLS

	VALVE – SEE SPECIFICATIONS FOR TYPE, GATE VALVE WHEN NOT SPECIFIED.
	GATE VALVE
	GLOBE VALVE
	PRESSURE REDUCING VALVE
	OS&Y VALVE
	CHECK VALVE
	BACK WATER VALVE
	BACK FLOW PREVENTER
	UNION
	BUTTERFLY VALVE
	BALL VALVE
	GAS COCK
	STRAINER
	EXPANSION JOINT
	GRADE CLEANOUT IN–LINE
	CONCENTRIC REDUCER
	ECENTRIC REDUCER
	PIPE ANCHOR
	FLOW DIRECTION
	PRESSURE GAUGE
	HAMMER ARRESTOR (PDI SIZE INDICATED)
	TEMPERATURE GAUGE
	SAFETY OR PRESSURE RELIEF VALVE
	ANGLE GLOBE VALVE
	MANUAL AIR VENT
	CLEANOUT EXPOSED
	FLOOR CLEANOUT
	GRADE CLEANOUT END–LINE
	CAPPED OUTLET
	VALVE IN RISER
	GATE VALVE W/ ADAPTER TO 3/4" HOSE THREAD
	P–TRAP
	HOSE BIBB W/ VACUUM BREAKER
	WALL HYDRANT W/ VACUUM BREAKER
	FLOOR DRAIN
	ROOF DRAIN

NOTE:

THESE ARE STANDARD SYMBOLS AND MAY NOT ALL APPEAR ON THE PROJECT DRAWINGS; HOWEVER WHEREVER THE SYMBOL APPEARS ON THE PROJECT DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED.

PIPING AND CONNECTIONS

	NEW SOIL OR WASTE PIPING
	EXISTING PIPING TO REMAIN
	EXISTING PIPING TO BE REMOVED
	VENT PIPING
	COLD WATER PIPING
	HOT WATER PIPING
	HOT WATER RETURN PIPING
	CHEMICAL RESISTANT PIPING
	FIRE PROTECTION PIPING
	GAS PIPING
	OXYGEN PIPING
	AIR PIPING
	NITROGEN PIPING
	VACUUM PIPING
	NITROUS OXIDE PIPING
	IN–LINE UP CONNECTION
	IN–LINE DOWN/UP CONNECTION
	END–LINE UP
	END–LINE DOWN CONNECTION
	BOTTOM CONNECTION, 45 OR 90 DEG.
	TOP CONNECTION, 45 OR 90 DEG.
	CROSSING BOTTOM CONNECTION
	SIDE CONNECTION
	Y–1/8 BEND

DRAWING SYMBOLS

	DETAIL NUMBER
	DRAWING NUMBER WHERE DRAWN
	SECTION LETTER
	DRAWING NUMBER WHERE DRAWN
	POINT OF INTERFACE BETWEEN NEW & EXISTING P.O.C.
	POINT OF DEMOLITION P.O.D.
	POINT OF INTERFACE BETWEEN CONTRACTORS

GENERAL NOTES

- CONTRACTOR SHALL PROVIDE COMPLETE PLUMBING SYSTEMS AS DETAILED ON THESE DRAWINGS. WORK CONSISTS OF FURNISHING ALL MATERIALS, EQUIPMENT, AND SERVICES REQUIRED FOR COMPLETE SYSTEMS. INCLUDE ANY INCIDENTAL APPARATUS, APPLIANCES, MATERIAL LABOR AND SERVICES NECESSARY TO MAKE NEW WORK COMPLETE IN ALL RESPECTS AND FULLY READY FOR OPERATION.
- ALL PLUMBING WORK SHALL BE DESIGNED, INSTALLED, TESTED, AND CLEANED IN ACCORDANCE WITH FLORIDA PLUMBING CODE REQUIREMENTS.
- VERIFY THE EXACT LOCATION OF EXISTING SANITARY AND COLD WATER PIPING MAINS FROM THE ACTUAL JOB SITE AND CIVIL PLANS. ALL NEW LINES ARE TO BE ROUTED TO AND/OR FROM VERIFIED LOCATIONS. TAPS, WHEN NOT PROVIDED BY THE CIVIL INSTALLER, ARE TO BE PROVIDED BY THIS INSTALLER.
- MAKE SUCH OFFSETS AND DEVIATIONS FROM WORK SHOWN ON THE DRAWINGS, AS MAY BE NECESSARY TO FIT THE ACTUAL SPACE CONDITIONS.
- WHERE VALVES OCCUR ABOVE DRYWALL OR PLASTER OR ARE CONCEALED BEHIND WALLS, THIS CONTRACTOR SHALL FURNISH AND INSTALL ACCESS PANELS. PANELS SHALL MATCH EXISTING.
- THE INSTALLER SHALL VISIT THE JOB SITE AND INSPECT ALL EXISTING CONDITIONS AFFECTING THE WORK. SUBMISSION OF HIS PROPOSAL SHALL BE CONSTRUED AS INDICATING SUCH KNOWLEDGE. NO ADDITIONAL PAYMENT WILL BE MADE ON CLAIMS THAT ARISE FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT.
- THE PLANS AND DIAGRAMS OF PLUMBING PIPING ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED. INSTALLER SHALL COORDINATE AT SITE WITH ALL PLUMBING, HVAC, FIRE PROTECTION, AND ELECTRICAL WORK SO AS NOT TO CONFLICT IN LOCATION WITH OTHER WORK UNDER THIS CONTRACT OR THAT MAY BE EXISTING.
- PROVIDE AND MAINTAIN TEMPORARY CONNECTIONS TO KEEP EXISTING UTILITIES IN SERVICE. ANY SHUT DOWNS ARE TO BE APPROVED BY OWNER'S REPRESENTATIVE.
- EXACT LOCATION NUMBER AND TYPE OF PLUMBING FIXTURES SHALL BE DETERMINED FROM ARCHITECTURAL DRAWINGS. VERIFY SUCH LOCATIONS BEFORE PROCEEDING ROUGH–IN.
- INSTALLER SHALL NOT CUT ANY STRUCTURAL MEMBERS WITHOUT FIRST SECURING WRITTEN APPROVAL FROM THE ARCHITECT.
- PROVIDE DIELECTRIC UNIONS AT ALL CONNECTIONS BETWEEN DISSIMILAR PIPING METALS.
- FIELD VERIFY ALL EXISTING PIPE SIZES PRIOR TO INSTALLATION.
- NO VENT THRU ROOF SHALL TERMINATE CLOSER THAN 10 FT. TO ANY OUTSIDE AIR INTAKE.
- ALL SANITARY AND WATER PIPING UNDERGROUND SHALL BE A MINIMUM OF 18" BELOW GRADE OR FINISHED FLOOR UNLESS NOTED OTHERWISE. ALL PIPING UNDER THE FLOOR SHALL BE SUPPORTED ON HANGARS.
- PROVIDE ALL SINKS AND LAVATORIES WITH SLIP JOINT TRAP FITTINGS FOR CLEANOUT.
- ALL WORK IS TO BE FREE OF DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF THREE (3) YEARS FROM DATE OF FINAL ACCEPTANCE. ALL DEFECTS WHICH DEVELOP OR ARE DISCOVERED WITHIN THIS PERIOD SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
- UPON COMPLETION OF THE WORK UNDER THIS CONTRACT, THE CONTRACTOR SHALL REMOVE ALL TOOLS, APPLIANCES, SURPLUS MATERIALS, AND SCRAP. ALL IDENTIFIED EXISTING EQUIPMENT TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER.
- WHEN CONFLICTS OCCUR IN SPECIFICATIONS OR IN THE DRAWNGS, OR BETWEEN EITHER, THE ITEMS OF GREATER QUANTITY OR HIGHER COST SHALL BE PROVIDED.
- THE CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES IN ORDER TO AVOID CONFLICTS.
- CONTRACTOR SHALL PROVIDE TO LOCAL AHJ OR PERMITTING AGENCY A COPY OF ALL MAJOR EQUIPMENT CUTS SHEETS AT TIME OF APPLICATION TO THE BUILDING DEPARTMENT.

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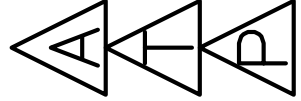
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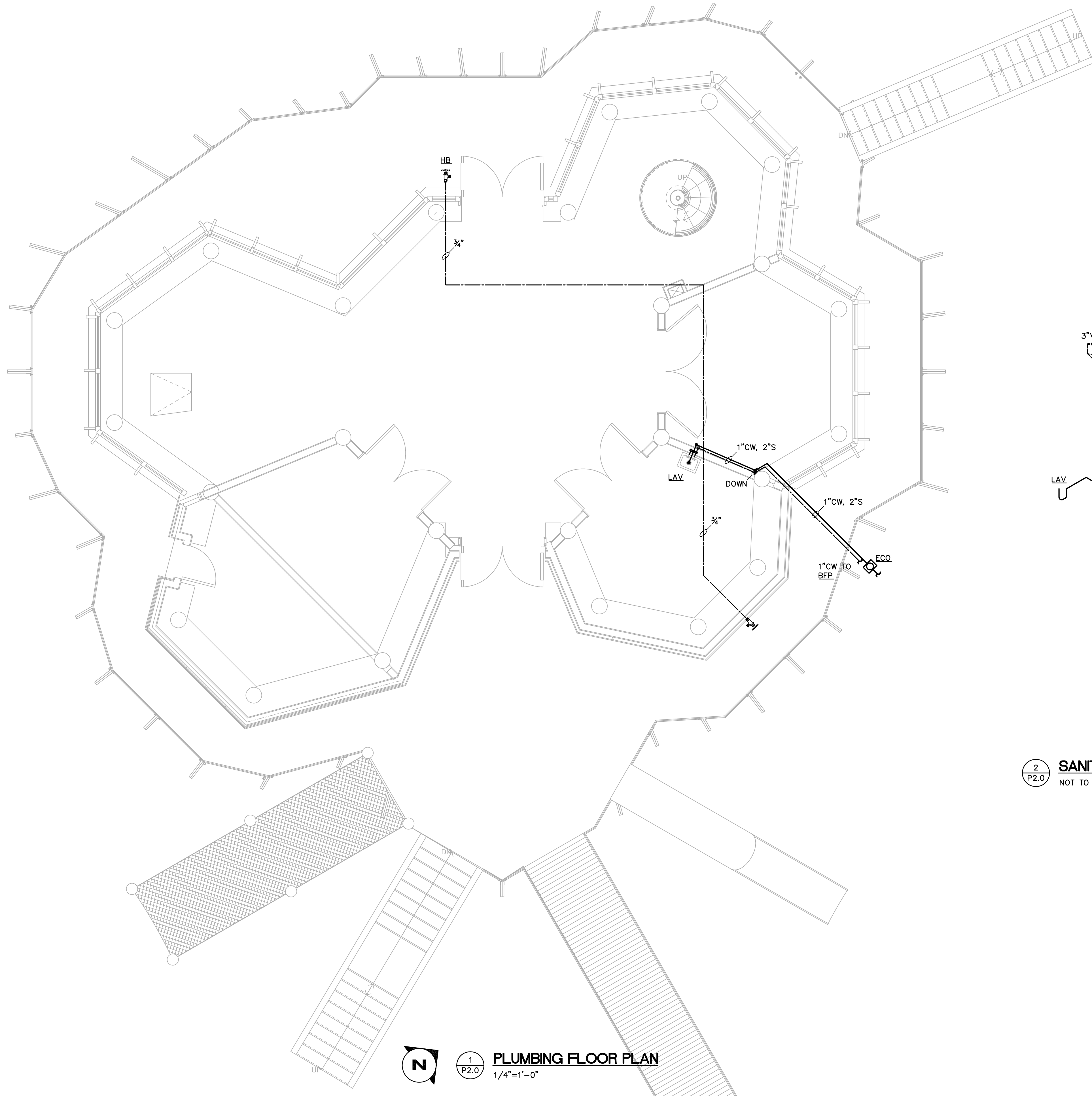


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DRAWING TITLE:
PLUMBING LEGEND AND
GENERAL NOTES

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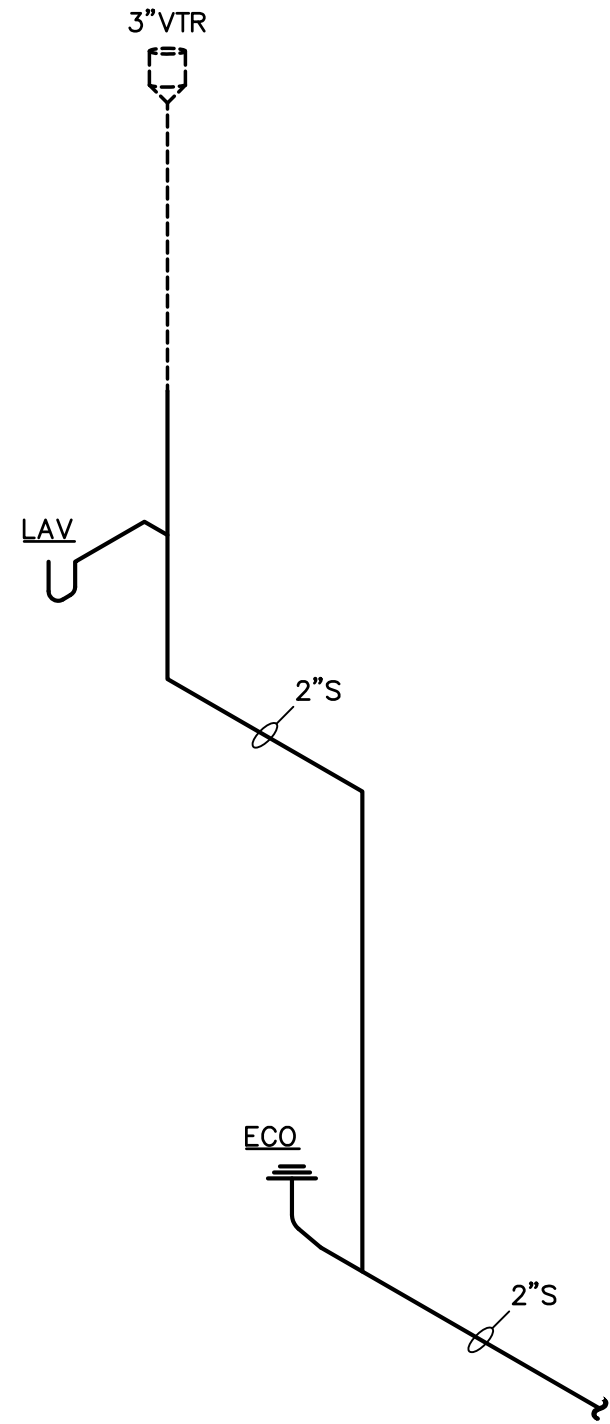


1
P2.0

PLUMBING FLOOR PLAN
1/4"=1'-0"

2
P2.0

SANITARY ISOMETRIC PIPING DETAIL
NOT TO SCALE



REV#	DESCRIPTION	DATE

DRAWING TITLE:
PLUMBING FLOOR PLAN

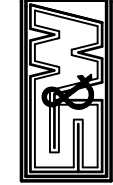
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SEAL

PLUMBING FIXTURE SCHEDULE											
MARK	DESCRIPTION	COMPONENTS PROVIDED BY P.C.			FIXTURE	FIXTURE RUNOUT SIZE					REMARKS
			BASIC FIXTURE	TRIM AND ACCESSORIES		DRAIN WASTE	VENT	C.W.	H.W.	OTHER	
ECO	EXTERIOR CLEANOUT	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	WATTS HEAVY DUTY MODEL# CO-260	ACCESSORIES: VANDAL PROOF SCREWS, COUNTER SUNK BRASS PLUG AND COVER .		----	----	----	----	----	VERIFY SIZE REQUIRED AT POINT OF APPLICATION. SET IN CONCRETE PAD PER DRAWINGS.
FCO	INTERIOR CLEANOUT	COMPLETE UNIT WITH ALL TRIM	WATTS MODEL #CO-200 HEAVY DUTY	ACCESSORIES: ADJUSTABLE ROUND TOP, VANDAL PROOF SCREWS .		----	----	----	----	----	VERIFY SIZE REQUIRED AT POINT OF APPLICATION.
WHA	WATER HAMMER ARRESTER	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	J.R. SMITH "HYDROITROL" MODEL# 5005-5020. JOSAM SERIES-75000. ZURN "SHOKSTOP" MODEL# Z-1700.	SEE P.D.I. SIZES. P.D.I. SIZE PIPE SIZE FIXTURE UNIT ZURN JOSAM J.R. SMITH A 3/4" 1-11 100 75001 5005 B 1" 12-32 200 75002 5010 C 1" 33-60 300 75003 5020							SIZES TO MATCH MAINS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. SEE WATER DISTRIBUTION DIAGRAM FOR LOCATION.
LAV	VITREOUS CHINA WALL HUNG LAVATORY, WHITE, 21"x18", 4" CENTER SETS WITH CENTER HOLE	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	AMERICAN STANDARD "LUCENRE" MODEL # 0355.012, WALL SUPPORT	FAUCET: T&S BRASS MODEL # B-0890, 4" CTR. TWO WING ADA HANDLES, ROSE SPRAY OUTLET, GRID STRAINER DRN. ASSEMBLY 1.5 GPM FLOW RATE TRAP COVER: PROFLO #PF202WH SUPPORT: CONCEALED FL. MTD. SUPPORT SMITH FIG. 0700, CW & HW SHUTOFF VALVES @ WALL.		1 1/4"	1 1/2"	1/2"	1/2"	----	CAULK AT WALL CONTACT WITH WHITE SILICONE SEALANT. SEE ARCHITECTURAL PLANS FOR MOUNTING HEIGHT TO COMPLY WITH ADA REQUIREMENTS. PROVIDE INSULATION ON DRN. AND WATER PIPING. COORDINATE LOCATIONS WITH ARCHITECT.
WH-1	WALL HYDRANT VACUUM BREAKER, 3/4" MALE HOSE CONNECTION.	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	WOODFORD B75-BR WITH TEE KEY UP 3/4" INLET, POLISHED BRASS WALL COVER, RECESSED IN WALL	COLOR: ROUGH BRONZE.		----	----	3/4"	----	----	COORDINATE WITH GC FOR ROUGH IN.

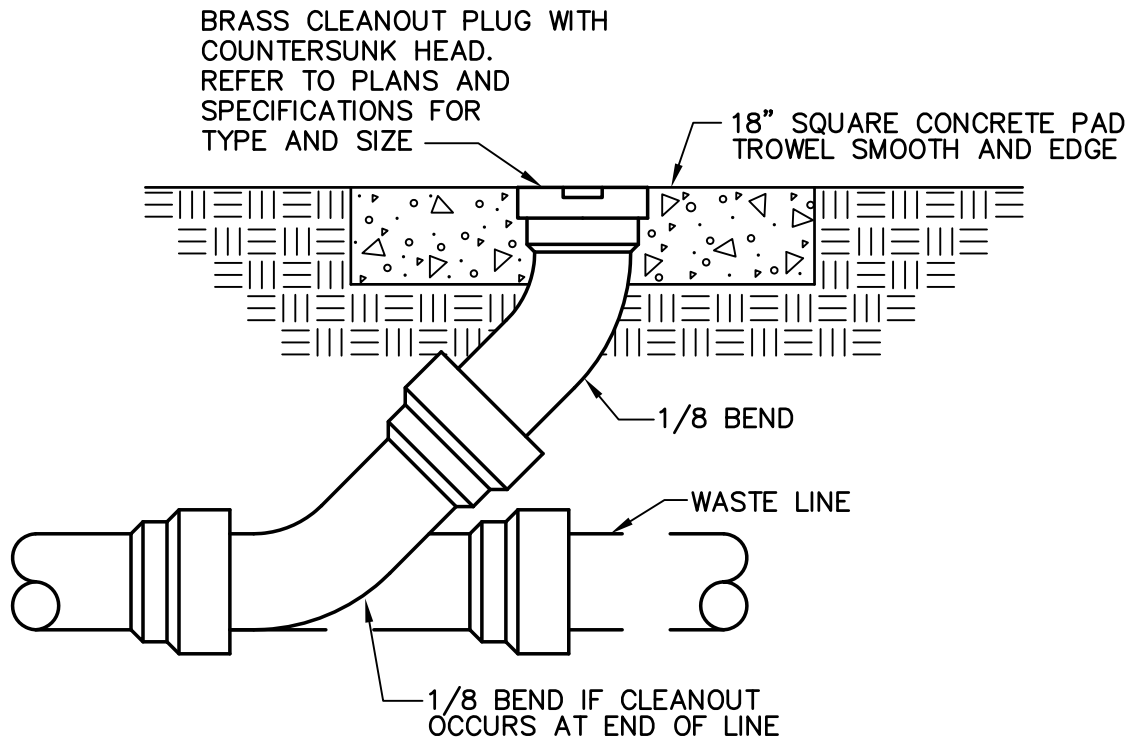
PLUMBING FIXTURE SCHEDULES NOTES:
1. ALL FIXTURES SHALL BE SUPPLIED WITH MCGUIRE SUPPLY KITS WITH BRASS STEMS, AND CHROME PLATED BRASS STOPS. PROVIDE AND INSTALL BRAIDED FLEXIBLE CONNECTION LINES, AND ESCUTCHEONS.
2. ALL ADA FIXTURES(LAV) SHALL HAVE PROVIDED PLUMBEREX OR PROFLO PTRAP COVERS AND VALVE SUPPLY COVERS.

ELECTRIC WATER HEATER SCHEDULE												
TAG NO.	LOCATION	STORAGE CAPACITY GALLONS	RECOVERY GPH	TEMP. RISE °F	KW	ELECTRICAL CHARACTERISTICS			MANUFACTURER	MODEL NO.	WEIGHT	REMARKS
						VOLTS	PH	HZ				
EWH-1	STORAGE	1	30	48	3.5	240	1	60	EEMAX	EX35	5	1

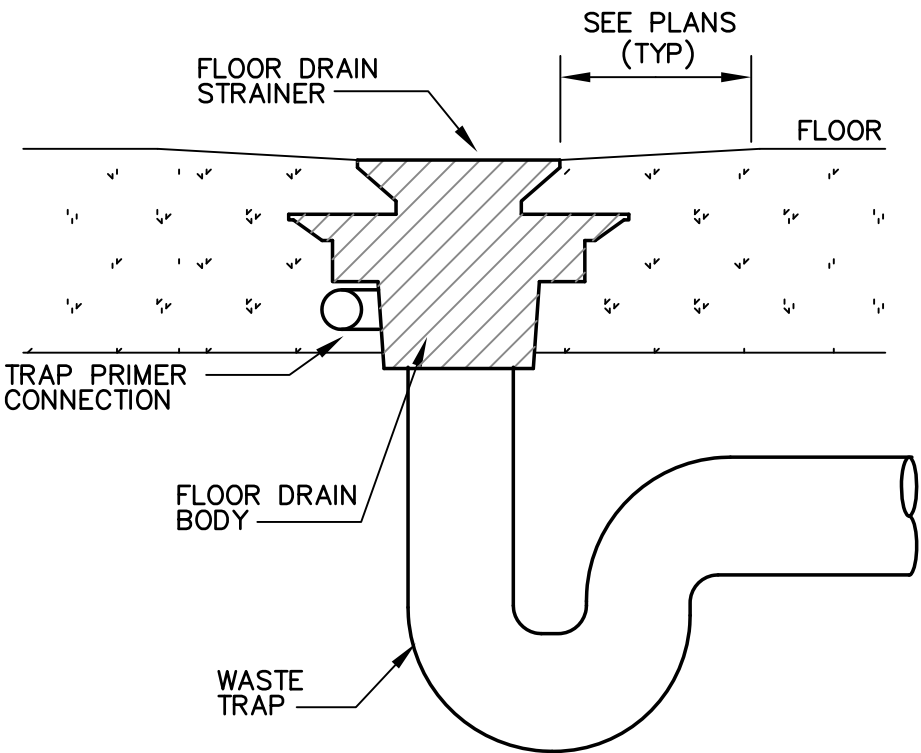
NOTES:
1. LAV INSTANTANEOUS WH, ISOLATION VALVES , AND DIELECTRIC COUPLINGS. UNIT SET AT 105 DEGREES F. WALL MOUNT

4.0 CWFU = 8.0 GPM MAX. FOR ONE SINK IN BLDG.
6.0 DFU FOR CLASS ROOM SINK AND FLOOR DRAIN IN BLDG.

BACKFLOW PREVENTER SCHEDULE		
ITEM NO.		BFP-1
TOTAL CAPACITY	GPM	0-12
PRESSURE DROP	PSI	10
QTR. TURN BALL SHUT OFFS		----
BRONZE STRAINER		----
STAINLESS STEEL CHECK VALVE		X
NON RISING STEM GATE VALVE SHUTOFF		X
INTEGRAL BODY UNIONS		----
OPERATING WEIGHT	LBS.	1.5
FLANGED ADAPTOR ENDS		X
LOCATION	----	EXTERIOR.
MANUFACTURER	----	WATTS
MODEL NO.	----	909QT-3/4"
NOTES: 1. DRAIN FUNNEL AND FULL SIZE LINE TO SITE		

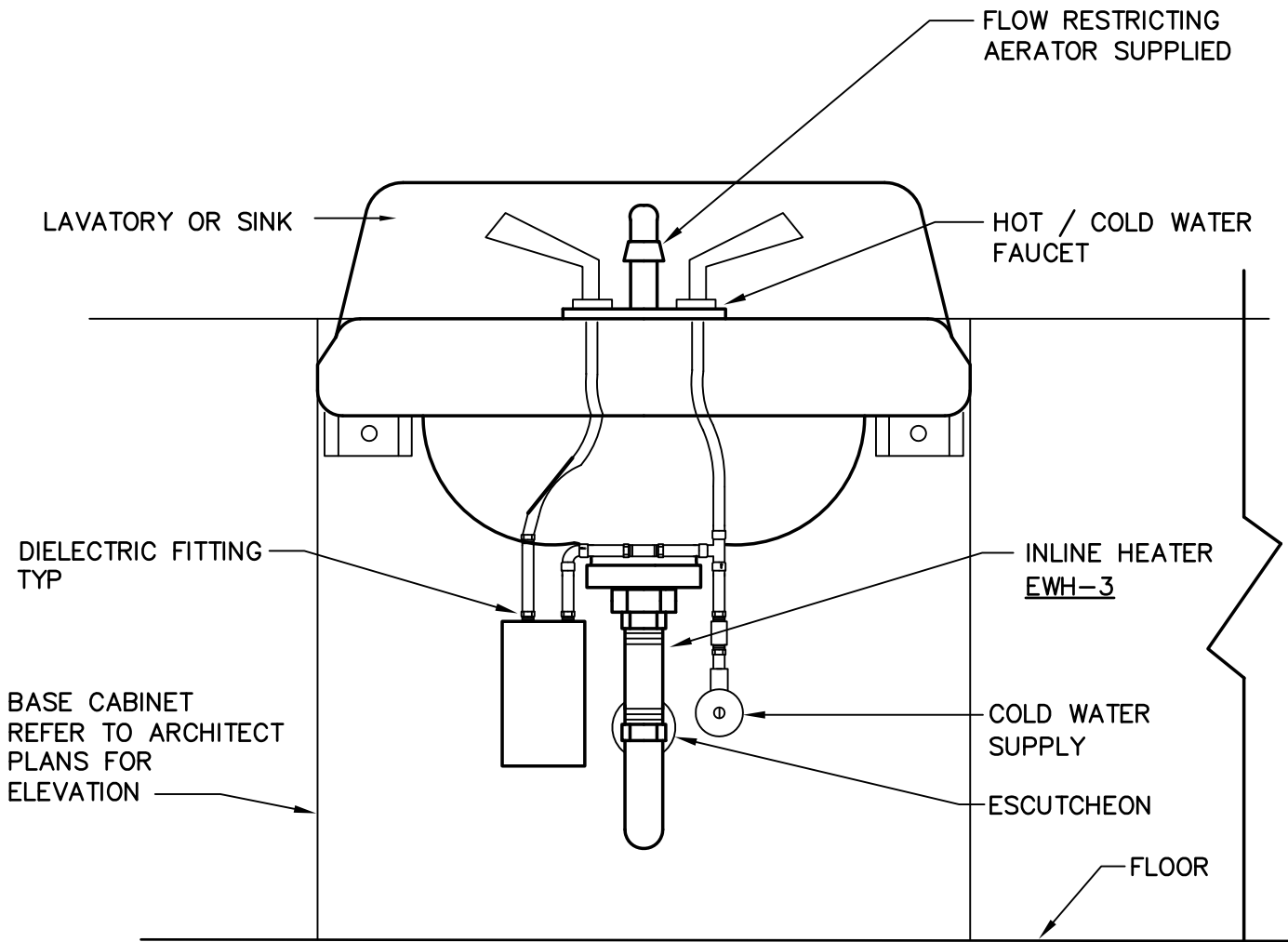


1 P3.0 EXTERIOR CLEANOUT DETAIL
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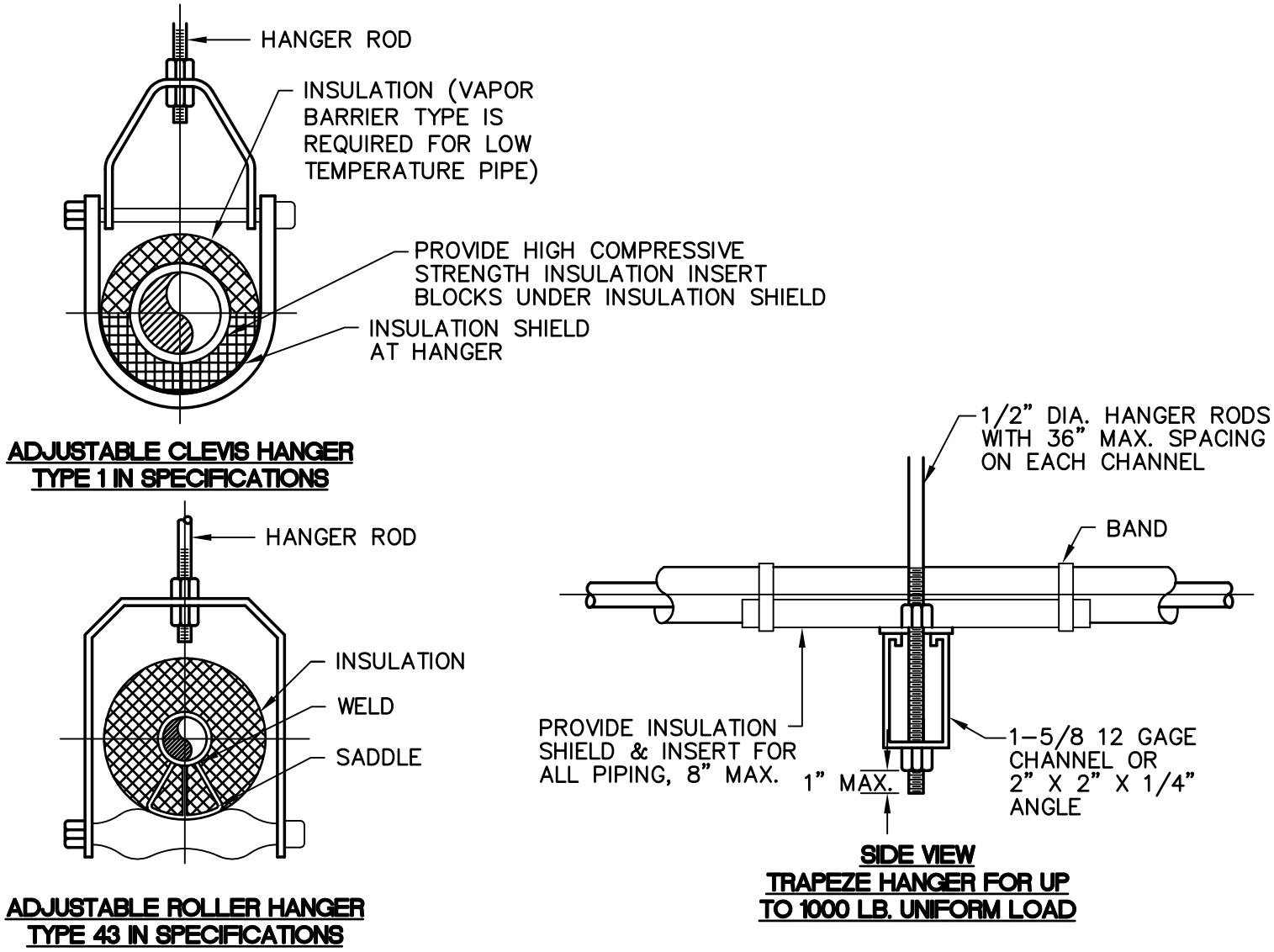


2 P3.0 FLOOR DRAIN INSTALLATION DETAIL
NOT TO SCALE

REFR TO CIVIL PLANS FOR BACKFLOW DETAIL



4 P3.0 INLINE WATER HEATER DETAIL
NOT TO SCALE

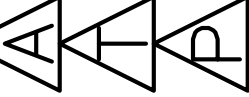


MAXIMUM PIPE SUPPORT SPACING, FEET																							
NOM. SIZE	THRU 3/4"	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24					
PIPE	7 FT	7	7	9	10	11	12	14	16	17	19	22	23	25	27	28	30	32					
NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.																							

3 P3.0 TYPICAL PIPE HANGERS
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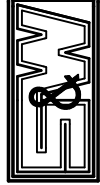
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ABBREVIATIONS, LEGENDS AND GENERAL NOTES

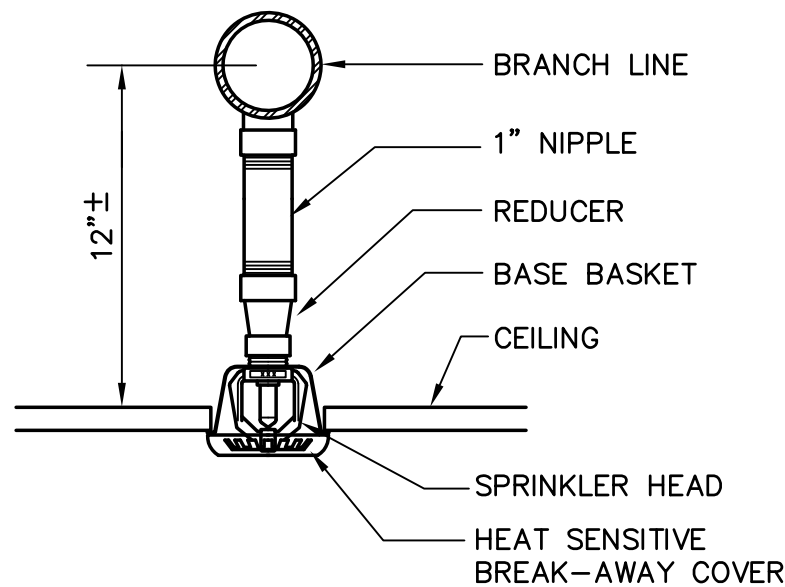
ABBREVIATIONS

AD	ACCESS DOOR
AF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
BFF	BELOW FINISHED FLOOR
BOT	BOTTOM CEILING
CLG	CLEANOUT
CO	COLD WATER
CW	DUCTILE IRON PIPE
DIP	ELEVATION
EL	EQUIPMENT
EQUIP	EXISTING
EXIST	FIRE SERVICE
F	FLOOR DRAIN
FD	FIRE DEPARTMENT
FDC	CONNECTIONS
FDV	FIRE DEPARTMENT VALVE
FH	FIRE HYDRANT
FL	FLOOR
FSP	FIRE STANDPIPE RISER
HB	HOSE BIBB
OS&Y	OUTSIDE SCREW & YOKE
SPK	SPRINKLER
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
W/TS	WITH TAMPER SWITCH

FIRE PROTECTION SYSTEM SERVES

TOTAL AREA - XXXX S.F.
CLASSIFICATION - LIGHT HAZARD
WET PIPE SYSTEM
DENSITY - XX GPM
COVERAGE PER SPRINKLER 225 SF MAX
NO. OF SPRINKLER HEADS CALCULATED - XX
SPRINKLER "K" FACTOR - 5.5
HMD MINIMUM RESIDUAL PRESSURE - 7.0 PSI
HOSE STREAM ALLOWANCE - XXX GPM
SCHEDULE 40 STEEL PIPE -
SCREWED AND GROOVED CONNECTIONS

FIRE HAZARD - LIGHT
TEST STATIC PRESSURE - XX PSI
TEST FLOW - XXXX GPM
RESIDUAL PRESSURE - XX PSI
DEMAND FLOW - XXX GPM + XXX HOSE STREAM = XXX GPM
REQUIRED PRESSURE - XX PSI
AVAILABLE PRESSURE - XX PSI

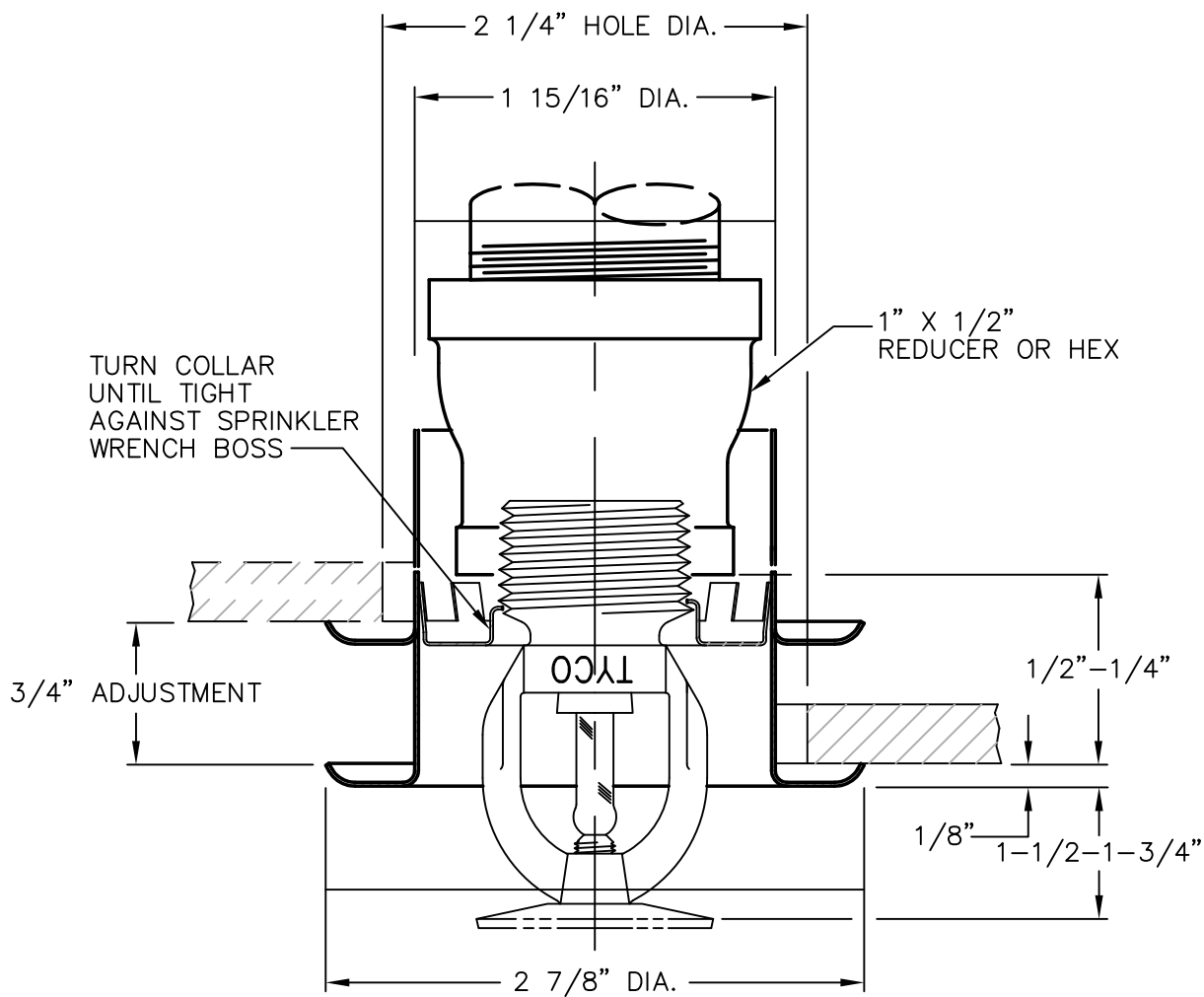


RECESSED PENDENT SPRINKLER HEAD

NOT TO SCALE

FIRE PROTECTION

	SPRINKLER HEAD - UPRIGHT
	SPRINKLER HEAD - PENDENT
	SPRINKLER HEAD - SPECIAL
	SPRINKLER HEAD - SIDEWALL
	VALVE IN RISER
	FIRE DEPARTMENT CONNECTION
	DIRECTION OF PIPE PITCH (DOWN)
	DIRECTION OF FLOW
	ANCHOR
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
	TOP CONNECTION, 45 OR 90 DEG.
	BOTTOM CONNECTION, 45 OR 90 DEG.
	SIDE CONNECTION
	CAPPED OUTLET
	RISE OR DROP IN PIPE
	UNION
	ORIFICE UNION
	STRAINER
	PRESSURE GAGE
	EXISTING PIPE TO BE REMOVED
	GATE VALVE
	GLOBE VALVE
	CHECK VALVE
	BALL VALVE
	BUTTERFLY VALVE
	GATE VALVE W/ ADAPTER TO 3/4\"/>
	ANGLE GLOBE VALVE
	OUTSIDE SCREW & YOKE (O S & Y)



RECESSED

SPRINKLER HEAD PENETRATION DETAIL

NOT TO SCALE

TYCO TY-FRL 165 DEGREE F SPRINKLER, QUICK RESPONSE, 1/2 INCH, K=5.6
VERIFY PRIOR TO PURCHASE AND INSTALLATION, CENTRAL RECESSED UNITS,
CHROME PLATED SPRINKLER, AND ESCUTCHEON MATCHING EXISTING.
USE BRASS SPRINKLER AND BRASS ESCUTCHEON ON MRI AREAS.

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DRAWINGS; HOWEVER WHEREVER THE SYMBOL APPEARS ON THE PROJECT
DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED.

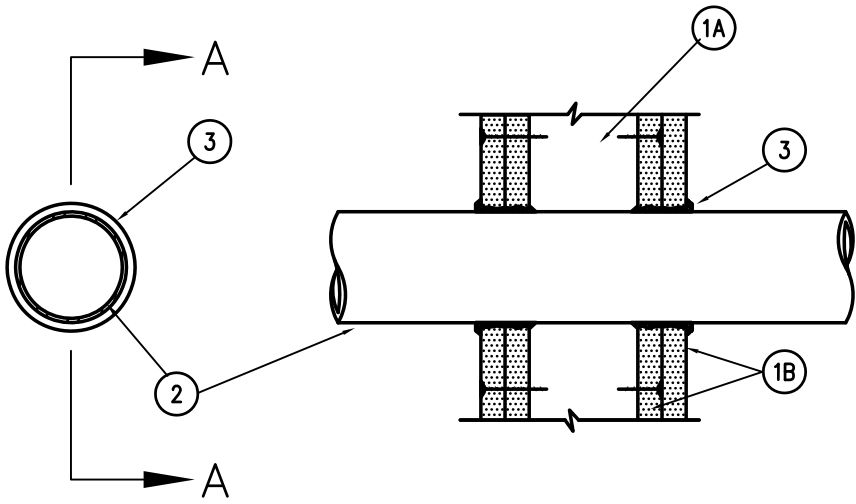
DRAWING SYMBOLS

	DETAIL NUMBER
	DRAWING NUMBER WHERE DRAWN
	SECTION LETTER
	DRAWING NUMBER WHERE DRAWN
	POINT OF INTERFACE BETWEEN NEW & EXISTING P.O.C.
	POINT OF DEMOLITION P.O.D.
	POINT OF INTERFACE BETWEEN CONTRACTORS

SYSTEM NO. WL1001

(Formerly System No. 147)

F Ratings- 1, 2, 3 and 4Hr. (See item 2 and 3)
T Ratings- 0, 1, 2, 3, and 4 Hr. (See item 3)



SECTION A-A

1. WALL ASSEMBLY - THE 1,2,3 OR 4 HOUR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS CONSIST OF NOMINAL 2 BY 4 IN. LUMBER SPACED 16 INCHES OC WITH NOMINAL 2 BY 4 IN. LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN. 3-5/8 IN. WIDE BY 1-3/8 IN. DEEP CHANNELS SPACED MAX. 24 IN. OC.

B. WALL BOARD GYPSUM* - 1/2 IN. OR 5/8 IN. THICK 4 FOOT WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX. DIAM OF OPENING IS 13-1/2 IN.

2. PIPE OR CONDUIT - NOMINAL 12 IN. DIAM. (OR SMALLER) SCHEDULE 10 (OR HEAVIER STEEL CONDUIT, NOM. 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL CONDUIT MECHANICAL OR TYPE L OR (HEAVIER) COPPER TUBING OR MON. 1 IN. DIAM (OR SMALLER) FLEXIBLE STEEL CONDUIT.

3. FILL, VOID OR CAVITY MATERIAL* - CAULK - CAULK FILL MATERIAL INSTALLED TO COMPLETELY FILL ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND GYPSUM WALLBOARD AND W/ A MIN. 1/4 IN. DIAM BEAD OF CAULK APPLIED TO PERIMETER OF PIPE OR CONDUIT AT ITS EGRESS FROM THE WALL. CAULK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY F RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE HOURLY F RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW:

MAX. PIPE OR CONDUIT DIAM. in.	ANNULAR SPACE	F RATING	T RATING
1 in.	0 to 3/16 in.	1 or 2	0+, 1 or 2
1 in.	1/4 to 1/2	3 or 4	3 or 4
4 in.	0 to 1 1/2	1 or 2	0
6 in.	1/4 to 1/2	3 or 4	0
12 in.	3/16 to 3/8	1 or 2	0

+WHEN COPPER PIPE IS USED, T RATING IS 0 H.

MINNESOTA MINING & MANUFACTURING CO. - TYPES CP-25 S/L, CP-25 N/S, CP-25 WB, CP-25 WB+

*BEARING THE UL CLASSIFICATION MARKING

UL PENETRATION DETAILS

NOT TO SCALE

GENERAL NOTES

- FIRE PROTECTION WORK SHALL BE DESIGNED, INSTALLED, AND TESTED IN ACCORDANCE WITH NFPA 13 NFPA 14 AND 25 LATEST EDITION OR AS ADOPTED BY THE AUTHORITY HAVING JURISDICTION.
- INCLUDE ANY INCIDENTAL APPARATUS, APPLIANCES, MATERIAL LABOR AND SERVICES NECESSARY TO MAKE NEW WORK COMPLETE IN ALL RESPECTS AND FULLY READY FOR OPERATION.
- MAKE SUCH OFFSETS AND DEVIATIONS FROM WORK SHOWN ON THE DRAWINGS, AS MAY BE NECESSARY TO FIT THE ACTUAL SPACE CONDITIONS.
- THE INSTALLER SHALL VISIT THE JOB SITE, INSPECT ALL EXISTING CONDITIONS AFFECTING THE WORK. SUBMISSION OF HIS PROPOSAL SHALL BE CONSTRUED AS INDICATING SUCH KNOWLEDGE. NO ADDITIONAL PAYMENT WILL BE MADE ON CLAIMS THAT ARISE FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT. THE CONTRACTOR SHALL ALSO REVIEW ALL CIVIL PLANS FOR FIRE MAIN AND UTILITY LOCATIONS.
- INSTALLER SHALL COORDINATE AT SITE WITH ALL PLUMBING, HVAC, FIRE PROTECTION, AND ELECTRICAL WORK SO AS NOT TO CONFLICT IN LOCATION WITH OTHER WORK UNDER THIS CONTRACT OR THAT MAY BE EXISTING. CONTRACTOR SHALL ADJUST PIPE ROUTING AS NECESSARY TO AVOID CONFLICTS WITH EXISTING DUCTWORK, EQUIPMENT, LIGHTING, ETC.
- INSTALLER SHALL NOT CUT ANY STRUCTURAL MEMBERS WITHOUT FIRST SECURING WRITTEN APPROVAL FROM THE ARCHITECT AND STRUCTURAL ENGINEER.
- ALL FIRE DEPARTMENT CONNECTIONS SHALL HAVE AN AUTOMATIC BALL DRIP.
- PROVIDE TAMPER SWITCHES ON ALL VALVES THAT CAN SHUT OFF FLOW IN MAINS OR BRANCHES. CHAINS AND LOCKS IN LIEU OF TAMPER SWITCHES MAY BE USED AT OUTDOOR BACKFLOW PREVENTERS ONLY IF APPROVED BY THE AUTHORITY HAVING JURISDICTION.
- PIPE SIZED, GENERAL ROUTING, AND CONFIGURATION IN SYSTEMS REQUIRED TO BE HYDRAULICALLY CALCULATED SHALL BE INSTALLED PER THIS ENGINEER'S CONSTRUCTION DOCUMENTS. ANY DEVIATION SUBMITTED BY THE CONTRACTOR SHALL BE RE-DESIGNED BY THIS ENGINEER WITH RELATED RE-DESIGN FEES BORN BY THE CONTRACTOR.
- CONTRACTOR SHALL ARRANGE FOR, OBTAIN AND BEAR THE COST OF NECESSARY PERMITS, BONDS, AND FEES.
- ALL MATERIALS SHALL BE U.L. LISTED AND BEAR THE U.L. LABEL.
- CONDITIONS SHOWN AS EXISTING (LOCATIONS, MATERIALS, ELEVATIONS, SIZED, ETC.) ARE BASED ON AVAILABLE EXISTING DATA AND SHOULD BE INTERPRETED TO BE APPROXIMATE. CONTRACTOR SHALL VERIFY CONDITIONS IN THE FIELD. EXISTING CONDITIONS FOUND TO DEVIATE FROM THOSE SHOWN SHALL BE REPORTED TO THE ENGINEER.
- PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. PENETRATIONS FOR PIPES, CONDUITS, OR OTHER PURPOSES THROUGH ASSEMBLIES (FLOORS, ROOF, WALLS, PARTITIONS, ETC.) WITH A REQUIRED FIRE STOP MATERIAL FIRE STOP MATERIAL SHALL BE U.L. LISTED AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS TO MEET OR EXCEED THE FIRE RATING OF THE PENETRATED ASSEMBLY.
- BEFORE SHUTTING OFF ANY SECTION OF THE FIRE PROTECTION SYSTEM TO MAKE ADJUSTMENTS OR ADDITIONAL CONNECTIONS, COORDINATE WITH THE OWNER AND NOTIFY THE AUTHORITY HAVING JURISDICTION. PLAN THE WORK CAREFULLY AND ASSEMBLE ALL MATERIALS TO ENABLE COMPLETION IN THE SHORTEST POSSIBLE TIME. WORK SHALL BE USED TO COMPLETION WITHOUT INTERRUPTION, AND PROTECTION SHALL BE RESTORED AS PROMPTLY AS POSSIBLE.
- WHERE ELECTRICAL PANELS EXIST, PROVIDE DEFLECTORS ON ELECTRICAL EQUIPMENT TO PREVENT WETTING PANELS. SPRINKLER PIPING SHALL NOT BE INSTALLED DIRECTLY ABOVE ELECTRIC PANELS.
- PROVIDE FLUSHING CONNECTION AT END OF SPRINKLER SYSTEM WHERE LAY-IN CEILING OCCURS. ALL SPRINKLER PIPING THAT REQUIRES CHANGE IN ELEVATION DUE TO COORDINATION ROUTING OF PIPING SHALL HAVE FLUSH CONNECTION AT ALL LOWER ELEVATION. THE SPRINKLER SYSTEM SHALL BE INSTALLED WITH COMPLETE DRAINABLE SYSTEM.
- VERIFY THE EXACT LOCATION OF EXISTING FIRE PROTECTION PIPING, FROM THE ACTUAL JOB SITE. ALL NEW LINES ARE TO BE ROUTED TO AND/OR FROM VERIFIED LOCATIONS. TAPS, WHEN NOT PROVIDED BY PREVIOUS INSTALLER SHALL BE PROVIDED BY THIS INSTALLER.
- PROVIDE AND MAINTAIN TEMPORARY CONNECTIONS TO KEEP EXISTING FIRE PROTECTION SYSTEM IN SERVICE. ANY SHUT DOWNS ARE TO BE APPROVED BY OWNER'S REPRESENTATIVE.
- ALL WORK IS TO BE FREE OF DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF THREE(3) YEARS FROM DATE OF FINAL ACCEPTANCE. ALL DEFECTS WHICH DEVELOP OR ARE DISCOVERED WITHIN THIS PERIOD SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
- UPON COMPLETION OF THE WORK UNDER THIS CONTRACT, THE CONTRACTOR SHALL REMOVE ALL TOOLS, APPLIANCES, SURPLUS MATERIALS, AND SCRAP. ALL IDENTIFIED EXISTING EQUIPMENT TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER.
- WHEN CONFLICTS OCCUR IN SPECIFICATIONS OR IN THE DRAWINGS, OR BETWEEN EITHER, THE ITEMS OF GREATER QUANTITY OR HIGHER COST SHALL BE PROVIDED.
- THE CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES IN ORDER TO AVOID CONFLICTS.
- MECHANICAL ROOM NOTE - SPRINKLER HEADS IN THE MECHANICAL ROOMS MUST BE COORDINATED WITH THE EQUIPMENT AND DUCTWORK. THE SPRINKLER CONTRACTOR SHALL COORDINATE HIS SHOP DRAWINGS WITH THOSE OF THE HVAC CONTRACTOR AND PROVIDE HEADS BETWEEN EQUIPMENT AND UNDER DUCTWORK AS REQUIRED. ADDITIONAL SPRINKLERS SHALL BE PROVIDED UNDER ALL DUCTS AND OBSTRUCTIONS GREATER THAN 4 FEET IN WIDTH AS REQUIRED BY NFPA 13, 8.10.7.3.2 (2007).
- CONTRACTOR SHALL PROVIDE TO LOCAL AHJ OR PERMITTING AGENCY A COPY OF ALL MAJOR EQUIPMENT CUTS SHEETS AT TIME OF APPLICATION.

STIRLING & WILBUR
ENGINEERING GROUP



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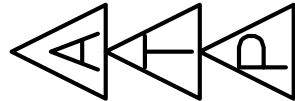
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MANATEE COUNTY, FLORIDA

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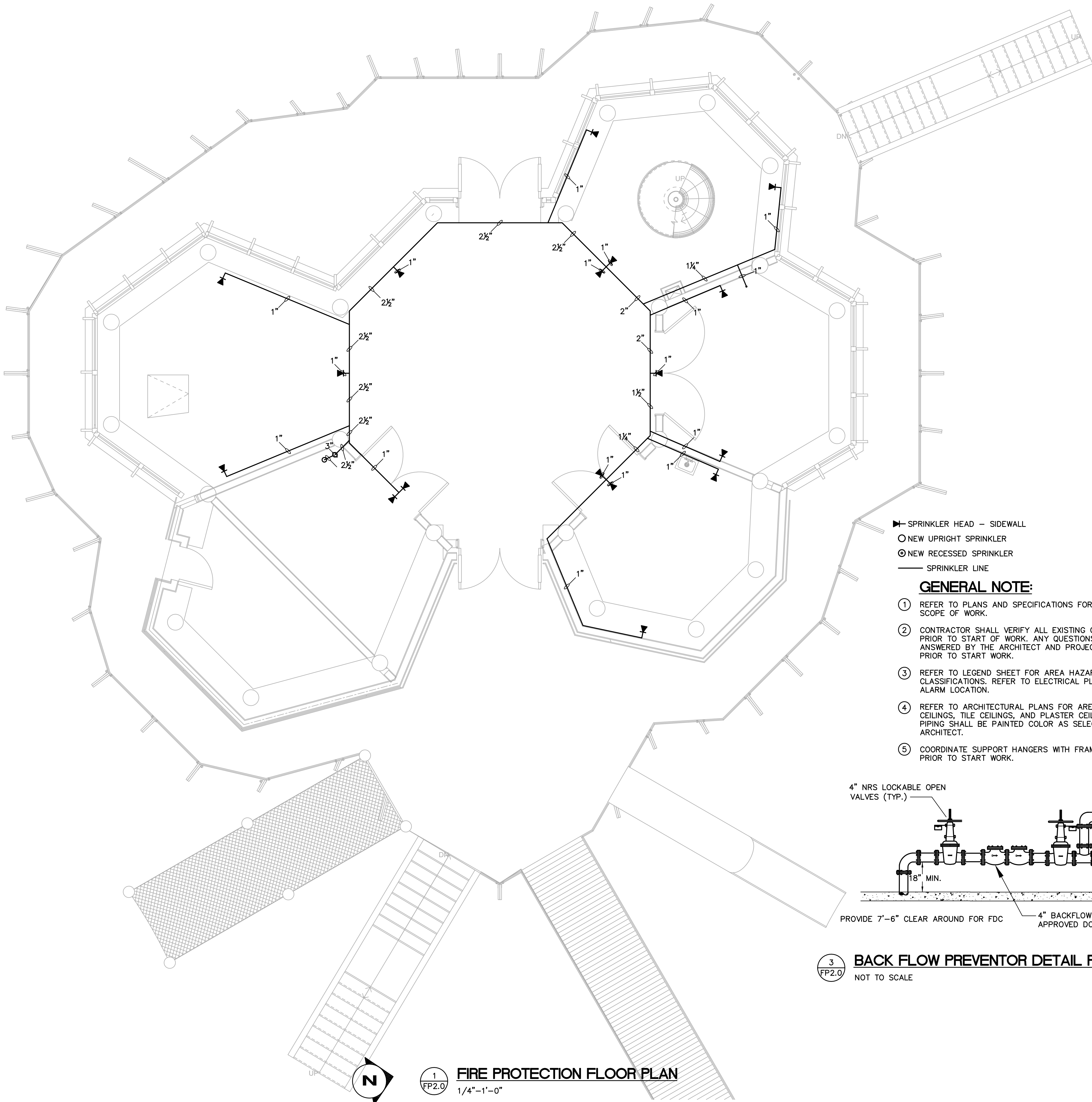
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DRAWING TITLE:
FIRE PROTECTION LEGEND
AND GENERAL NOTES

DATE : 10/02/2014
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SHEET No.:

FP1.0

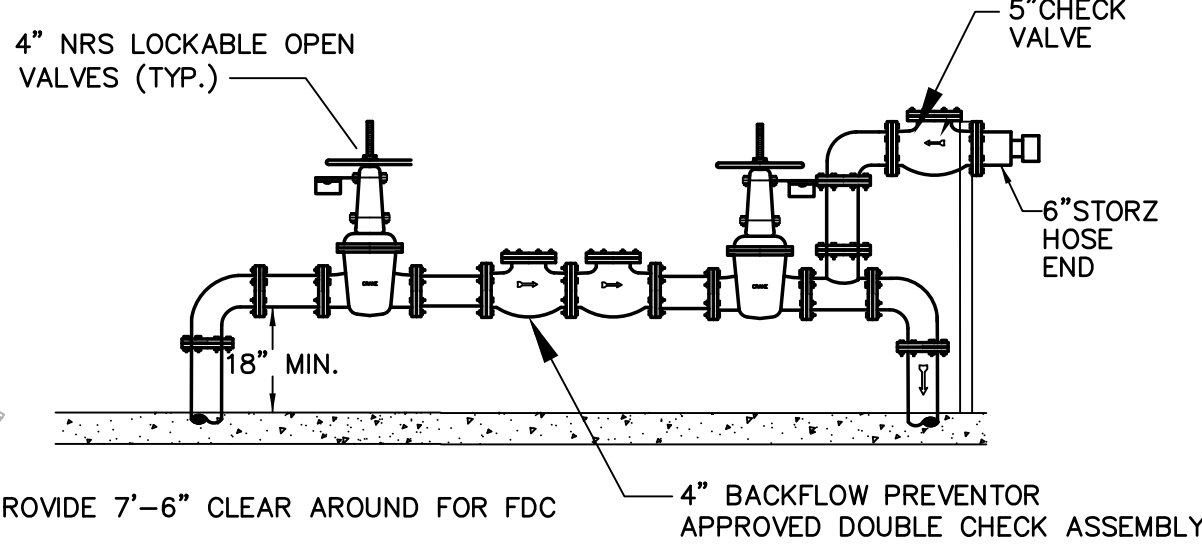


1
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FIRE PROTECTION FLOOR PLAN
1/4"=1'-0"

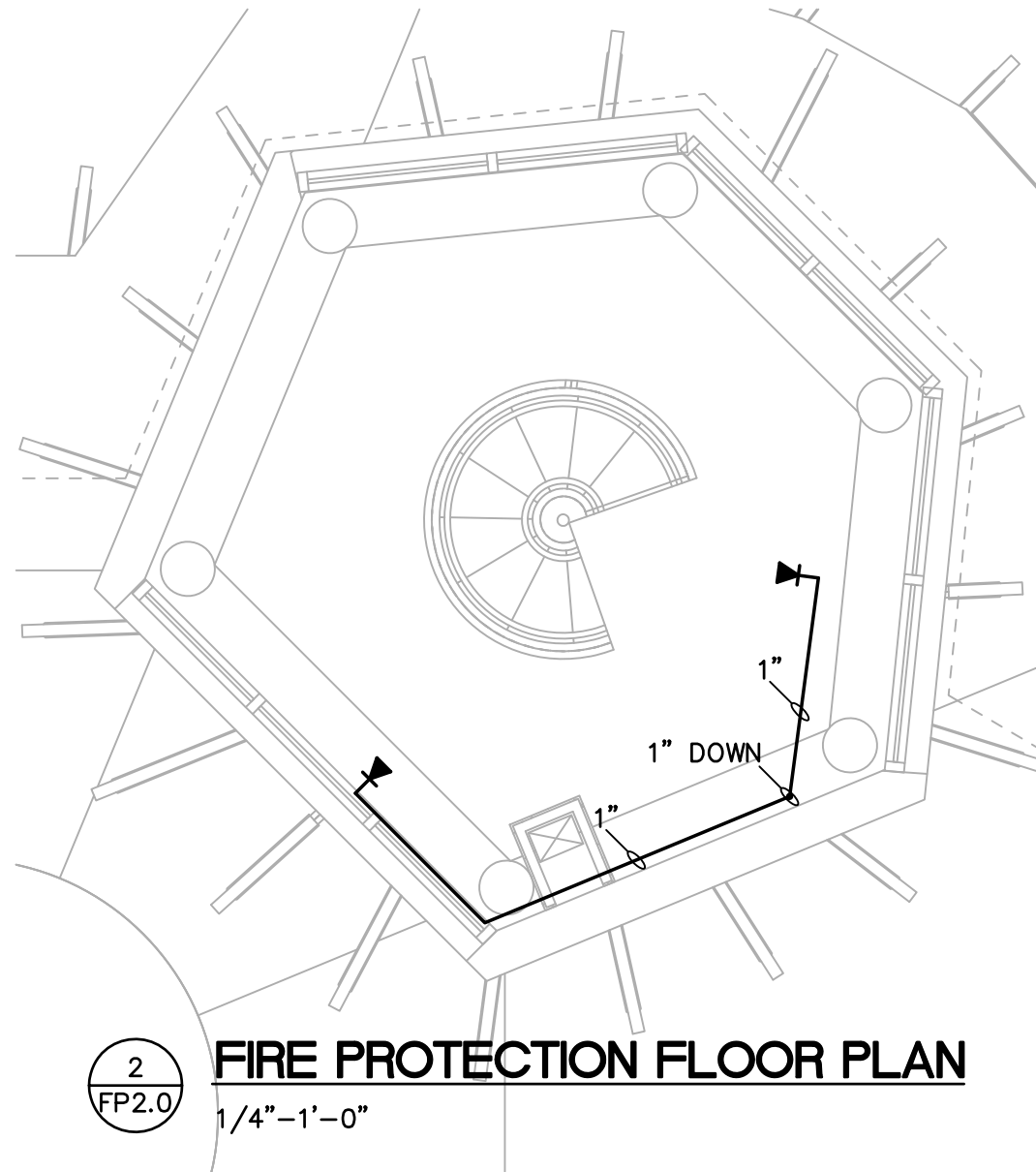
- ▲ SPRINKLER HEAD - SIDEWALL
○ NEW UPRIGHT SPRINKLER
○ NEW RECESSED SPRINKLER
— SPRINKLER LINE

GENERAL NOTE:

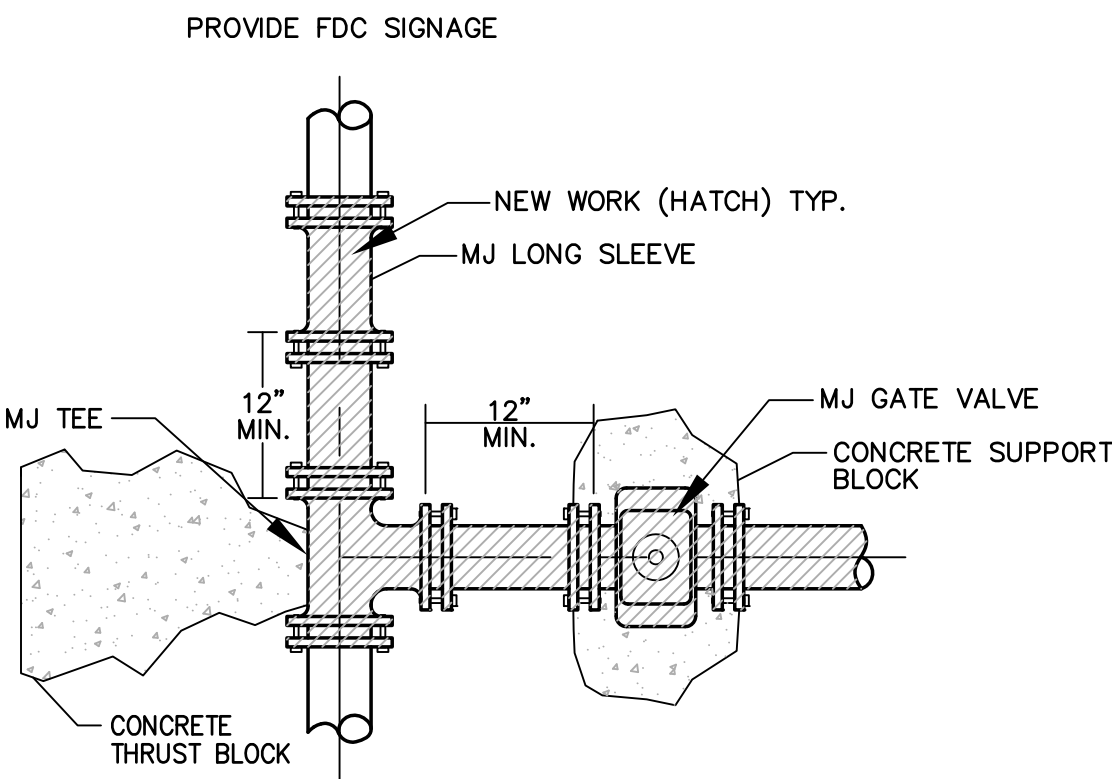
- REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE ARCHITECT AND PROJECT MANAGER PRIOR TO START WORK.
- REFER TO LEGEND SHEET FOR AREA HAZARD CLASSIFICATIONS. REFER TO ELECTRICAL PLAN FOR FIRE ALARM LOCATION.
- REFER TO ARCHITECTURAL PLANS FOR AREAS OF EXPOSED CEILINGS, TILE CEILINGS, AND PLASTER CEILINGS. EXPOSED PIPING SHALL BE PAINTED COLOR AS SELECTED BY THE ARCHITECT.
- COORDINATE SUPPORT HANGERS WITH FRAMING LAYOUT PRIOR TO START WORK.



3
FP2.0
BACK FLOW PREVENTOR DETAIL FIRE SYSTEM
NOT TO SCALE



2
FP2.0
FIRE PROTECTION FLOOR PLAN
1/4"=1'-0"



- NOTES:
- CONNECTION TO MAIN SHALL BE MADE AFTER ARCHITECT & FIRE MARSHAL, AHJ, AND COUNTY WATER COMPANY, HAVE APPROVED ALL NEW WATER MAIN CONSTRUCTION. CONTRACTOR IS TO NOTIFY THE ARCHITECT 72 HRS PRIOR TO CUTTING IN TEE.
 - SEE COUNTY SPECIFICATIONS FOR FITTINGS, GATE VALVES, AND PIPE COUPLINGS. ANY SUBSTITUTIONS SHALL BE APPROVED BY THE ARCHITECT AND AHJ, AND COUNTY WATER COMPANY PRIOR TO CONSTRUCTION.
 - WRAP TEE AND VALVE WITH PLASTIC THEN POUR SUPPORT BLOCK AND THRUST BLOCK.

4
FP2.0
MAIN CONNECTION DETAIL
NOT TO SCALE

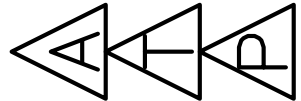
HANGER DISTANCE		
PIPE	SPAN DISTANCE	ROD DIA SIZE
1"	7'-0"	3/8"
1 1/4"	7'-0"	3/8"
1 1/2"	9'-0"	3/8"
2"	10'-0"	3/8"
2 1/2"	10'-0"	1/2"
3"	12'-0"	1/2"
4"	14'-0"	5/8"
6"	15'-0"	3/4"

NOTES: REF. NFPA 9.2.3.2.2 FOR STARTER SPRINKLERS AND 9.2.3.4 FOR UNSUPPORTED LENGTHS, PROVIDE RISER CLAMPS AT EXTERIOR WALL INSTALLATIONS AND SLEEVE WALL PENETRATIONS

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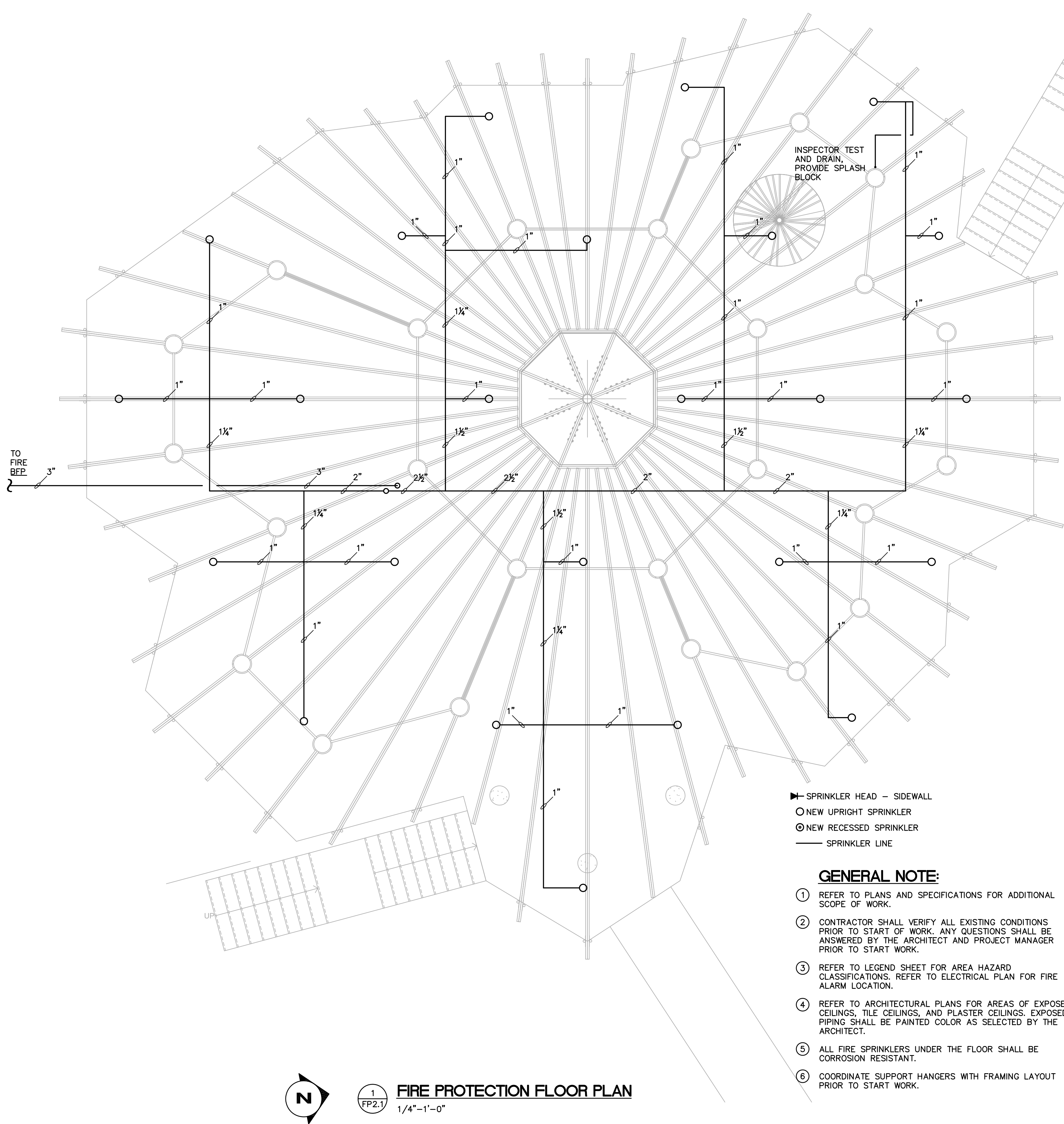
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SEAL



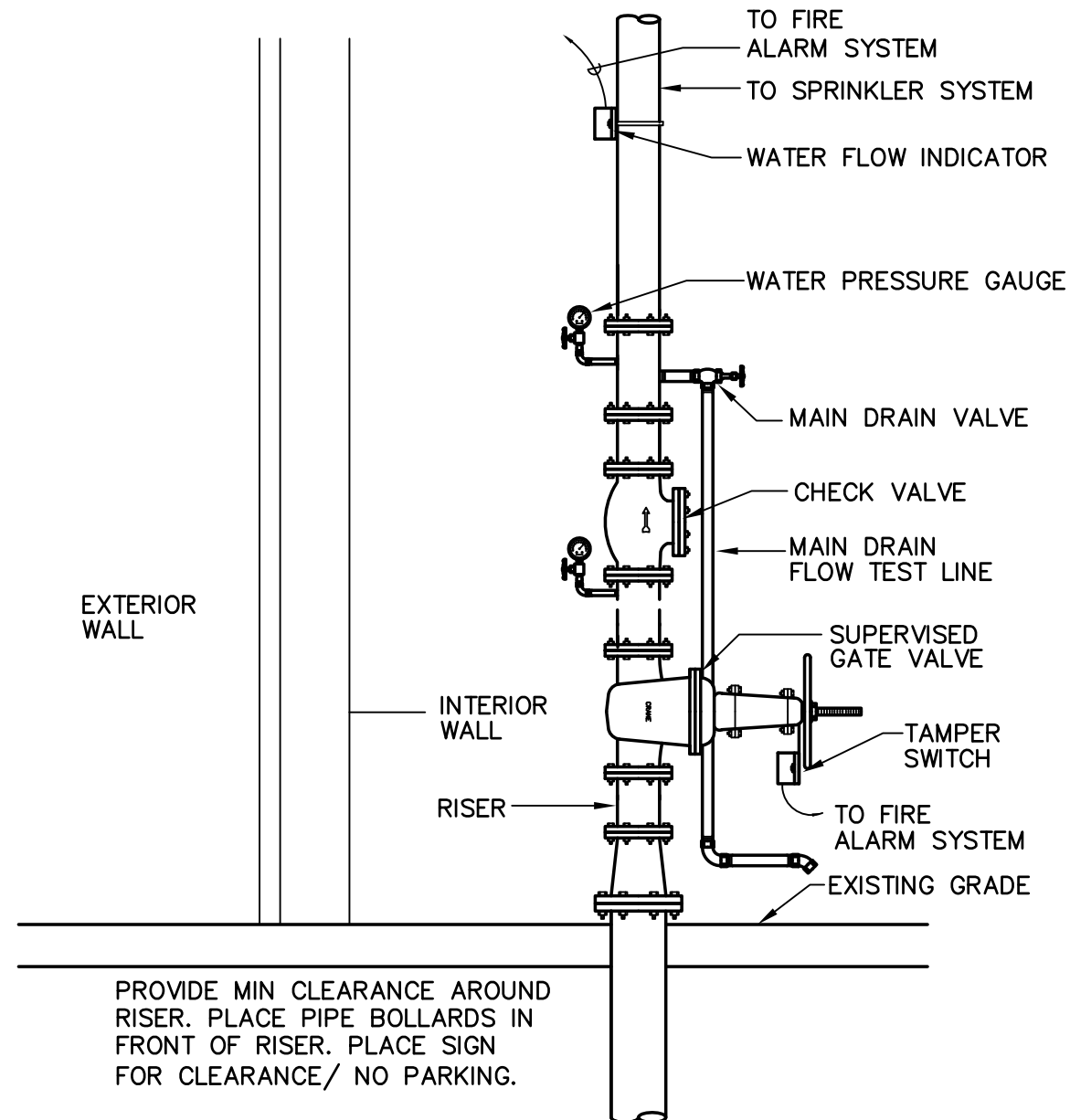
- SPRINKLER HEAD - SIDEWALL
○ NEW UPRIGHT SPRINKLER
⊙ NEW RECESSED SPRINKLER
— SPRINKLER LINE

GENERAL NOTE:

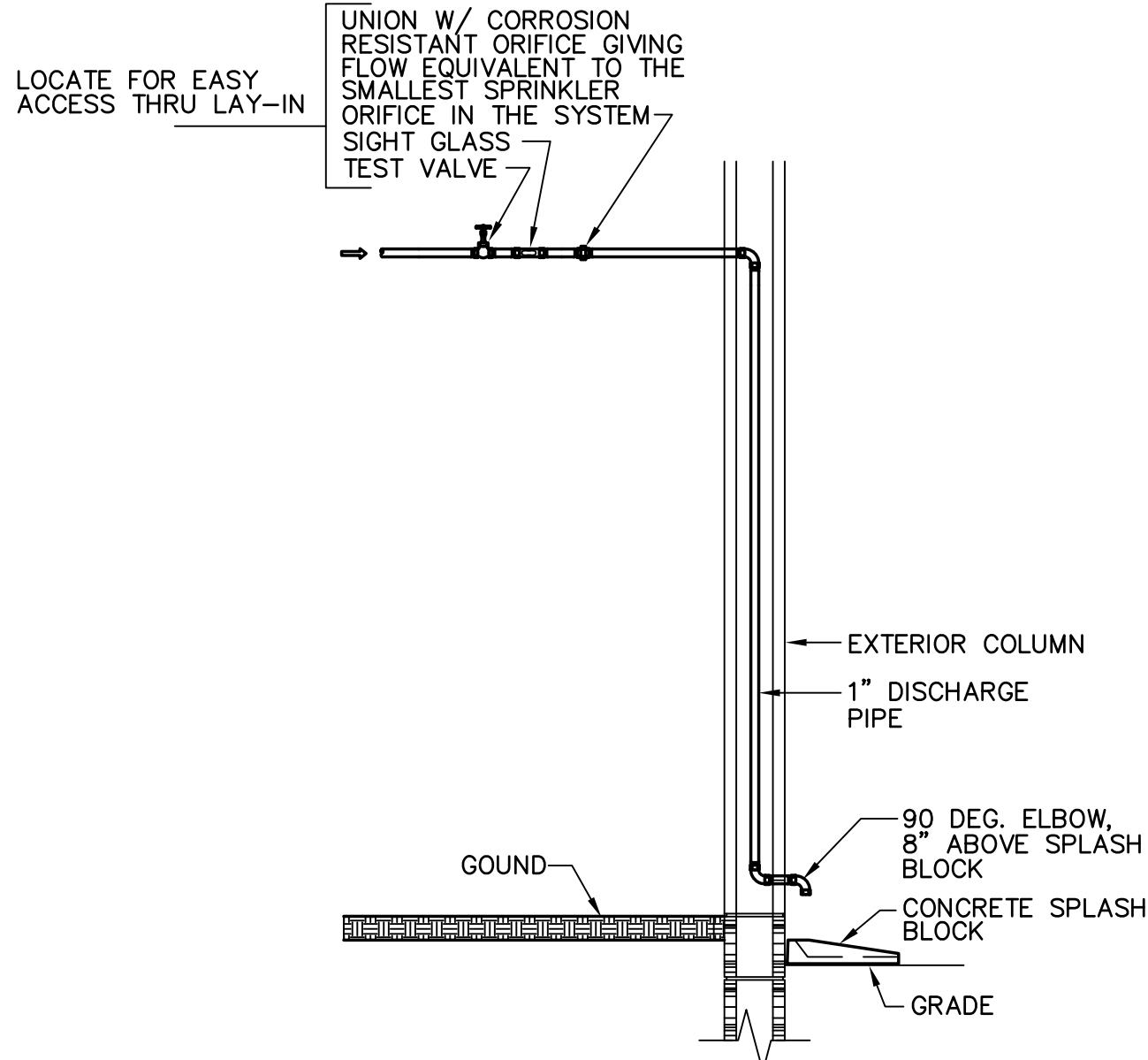
- REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE ARCHITECT AND PROJECT MANAGER PRIOR TO START WORK.
- REFER TO LEGEND SHEET FOR AREA HAZARD CLASSIFICATIONS. REFER TO ELECTRICAL PLAN FOR FIRE ALARM LOCATION.
- REFER TO ARCHITECTURAL PLANS FOR AREAS OF EXPOSED CEILINGS, TILE CEILINGS, AND PLASTER CEILINGS. EXPOSED PIPING SHALL BE PAINTED COLOR AS SELECTED BY THE ARCHITECT.
- ALL FIRE SPRINKLERS UNDER THE FLOOR SHALL BE CORROSION RESISTANT.
- COORDINATE SUPPORT HANGERS WITH FRAMING LAYOUT PRIOR TO START WORK.



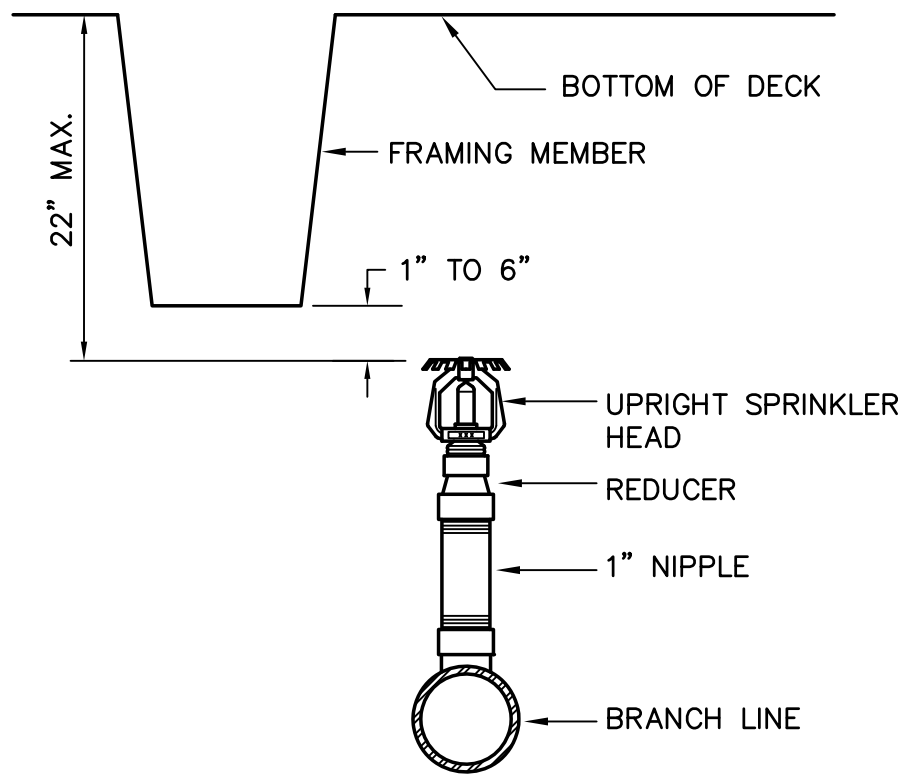
1
FP2.1
FIRE PROTECTION FLOOR PLAN
1/4"=1'-0"



2
FP2.1
SYSTEM RISER WITHOUT A TEE DETAIL
NOT TO SCALE



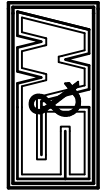
3
FP2.1
INSPECTORS TEST AND DRAIN DETAIL
NOT TO SCALE



4
FP2.0
UPRIGHT SPRINKLER HEAD DETAIL
NOT TO SCALE

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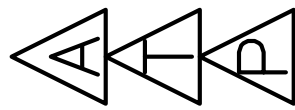
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