

# THE SQUARE AT CRYSTAL FALLS

THE SQUARE AT CRYSTAL FALLS  
1900 S BAGDAD ROAD, BUILDING 2  
LEANDER, TEXAS 78641

**SHELL BUILDING OWNER:**

BANDALI COMMERCIAL  
CONTACT: AMAN BANDALI  
7817 ROCK WOOD LANE, SUITE 300  
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**ARCHITECT:**

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AUSTIN, TX 78746  
(512) 329-0007  
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**CIVIL ENGINEER:**

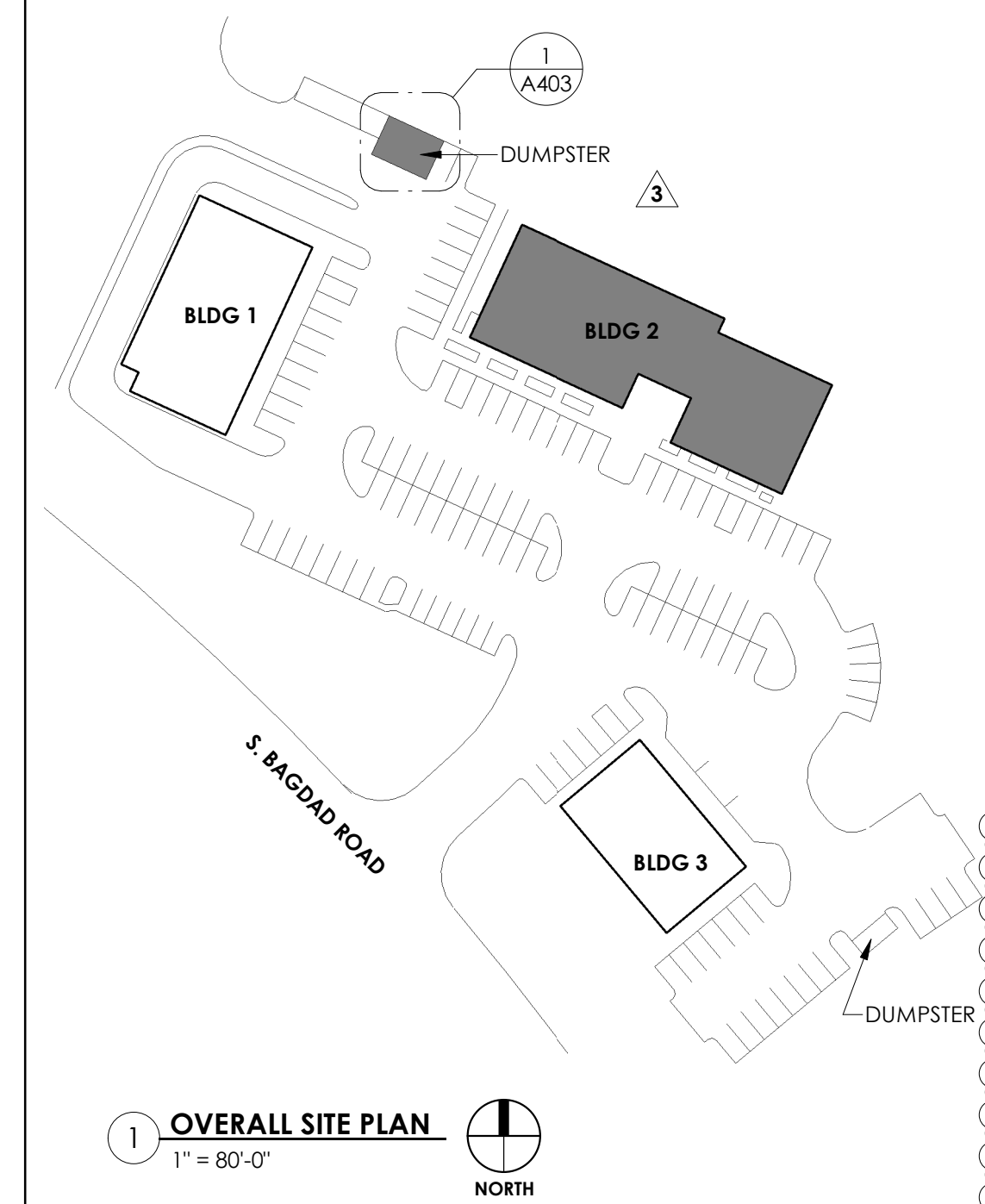
JAMISON CIVIL ENGINEERING LLC  
CONTACT: STEPHEN R. JAMISON, P.E.  
13812 RESEARCH BLVD. #B-2  
AUSTIN, TX 78750  
(737) 484-0880  
STEVE@JAMISONENG.COM

**STRUCTURAL ENGINEER:**

JCAA CONSULTING ENGINEERS LLC  
CONTACT: NICHOLAS H. ROHR, P.E., S.E.  
4100 WADSWORTH BLVD.  
WHEAT RIDGE, CO 80033  
(561) 562-9919  
ROHR@JCAACE.COM

**MEP ENGINEER:**

AYS ENGINEERING, LLC  
CONTACT: ROSS ALEMAN, P.E.  
411 W. MAIN ST. SUITE 310  
ROUND ROCK, TX 78664  
(512) 961-6835  
RALEMAN@AYSENG.COM



1 OVERALL SITE PLAN  
1" = 80'-0"  
NORTH



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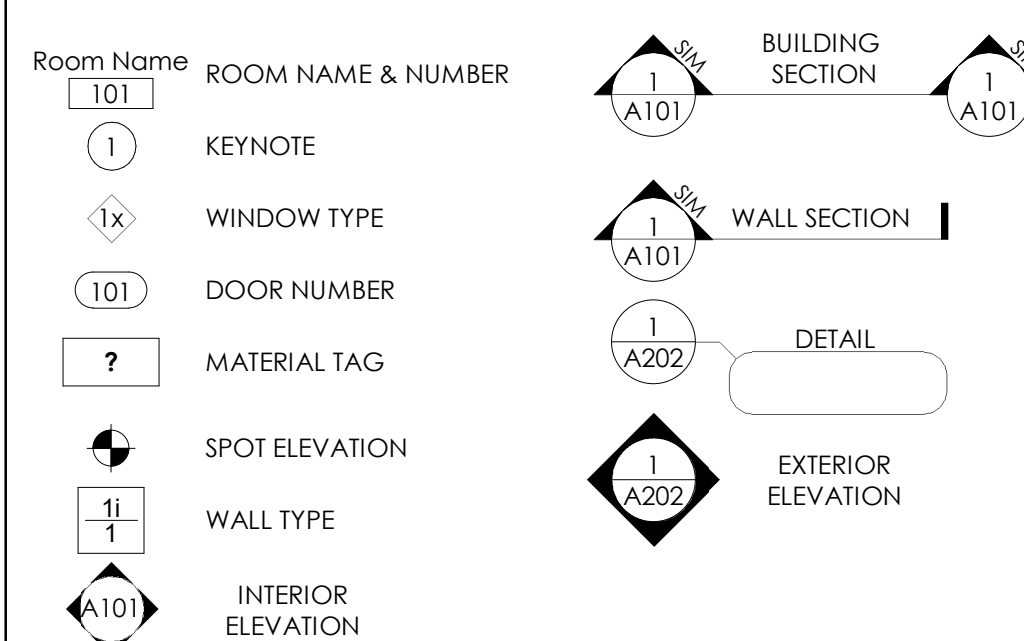
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- P200 1ST LEVEL FLOOR PLAN - PLUMBING
- P201 2ND LEVEL FLOOR PLAN - PLUMBING
- P202 SITE PLAN - PLUMBING
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**GENERAL NOTES**

- CONTRACTOR SHALL COORDINATE HIS WORK AND SCHEDULE TO ALLOW UNINTERRUPTED PROGRESS OF ALL WORK AND TO COMPLETE PROJECT WITHIN THE ESTABLISHED SCHEDULE.
- CONTRACTOR TO VERIFY DELIVERY DATES FOR ANY LONG LEAD TIME ITEMS AND MATERIALS TO ENSURE THEIR INSTALLATION ON THE PROPER SEQUENCE OF THE JOB.
- THESE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS ARE INTENDED TO MEET ALL APPLICABLE CODES AND ORDINANCES. CONTRACTOR TO COMPLY WITH ALL LOCAL CODES, ORDINANCES.
- ANY DISCREPANCIES IN CONSTRUCTION DOCUMENTS TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO WORK BEING PERFORMED OR MATERIALS BEING ORDERED.
- ALL PERMIT COSTS TO BE PAID FOR BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ASSURING THAT ALL PERMITS NECESSARY TO LEGALLY PERFORM THE WORK HAVE BEEN OBTAINED PRIOR TO COMMENCING CONSTRUCTION.
- ALL DIMENSIONS TO BE VERIFIED IN THE FIELD. REPORT ANY AND ALL DISCREPANCIES, ERRORS OR OMISSIONS TO THE ARCHITECT PRIOR TO COMMENCING WORK AND/OR THE ORDERING OF MATERIALS.
- UNDER NO CIRCUMSTANCES SHALL ANY DIMENSIONS BE SCALED FROM THESE DRAWINGS. ANY CRUCIAL DIMENSION NOT GIVEN SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. EXISTING DIMENSIONS CAN BE VERIFIED IN THE FIELD.
- THE CONTRACTOR SHALL GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS OR PERSONS IN CHARGE OF UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCING WORK.
- CONTRACTOR SHALL CLEAN UP AREAS AFFECTED BY DAILY WORK AND REMOVE DEBRIS AND MATERIALS FROM THE SITE UPON COMPLETION OF THE WORK AND MAINTAIN A CLEAN AND ORDERLY WORK AREA AT ALL TIMES.
- LOCATION, SIZE, QUANTITY AND GRAPHIC DESIGNATIONS FOR FIRE EXTINGUISHERS SHALL BE DETERMINED BY GOVERNING FIRE DEPARTMENT.
- THESE DRAWINGS DO NOT ADDRESS ANY FIRE ALARM OR FIRE SUPPRESSION/SPRINKLER SYSTEM REQUIREMENTS. SYSTEM DESIGN AND REQUIRED PERMITS FROM OTHERS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE SEPARATE FROM THIS SUBMITTAL.
- ARCHITECTS ARE GOVERNED BY THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS, (512) 458-1363.
- ALL SIGNAGE PERMIT APPLICATIONS TO BE SUBMITTED AT A LATER DATE. BUILDING SIGNAGE TO BE PERMITTED SEPARATELY BY FUTURE TENANTS.

**ANNOTATION SYMBOLS**



**SCHEDULE OF RESPONSIBILITY**

ITEM	SPECIFICATION			PURCHASING			INSTALLATION		
	GC	OWNER	OTHER	GC	OWNER	OTHER	GC	OWNER	OTHER
<b>GENERAL</b>									
PERMITS									
ADA INSPECTIONS									
ALL ACCENT LIGHTING			ARCH						
FIRE EXTINGUISHERS			OTHER						
EXTERIOR SIGNAGE			V						V
<b>TELEPHONE SYSTEM</b>									
CONDUIT			MEP						
<b>SECURITY SYSTEM</b>									
CONDUIT			V						

LEGEND: ARCH = ARCHITECT, I.D. = INTERIOR DESIGNER, G.C. = GENERAL CONTRACTOR, MEP = ENGINEER, COD = CODE, V = VENDOR (BY OWNER)

100% CDS - REV. 5 - VE AUG. XX, 2024

**ALIGN**  
AUSTIN ARCHITECTS

**BUILDING 2**  
THE SQUARE AT CRYSTAL FALLS  
1900 S BAGDAD ROAD, BUILDING 2  
LEANDER, TEXAS 78641

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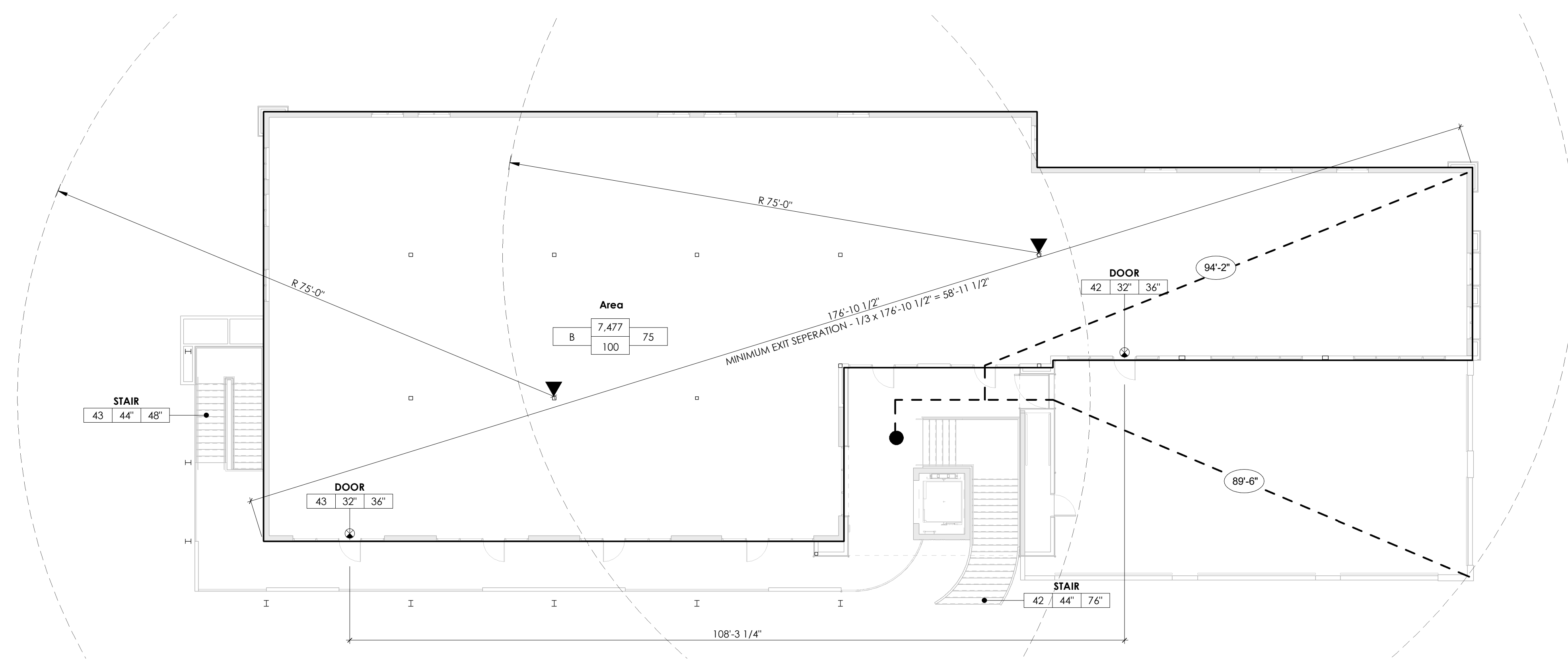
- 2 06.17.22 Revision 2
- 3 09.12.22 City Comments
- 5 08.09.24 VE

**NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION.**  
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ARCHITECT:  
**RODNEY PALMER**  
06.09.2024

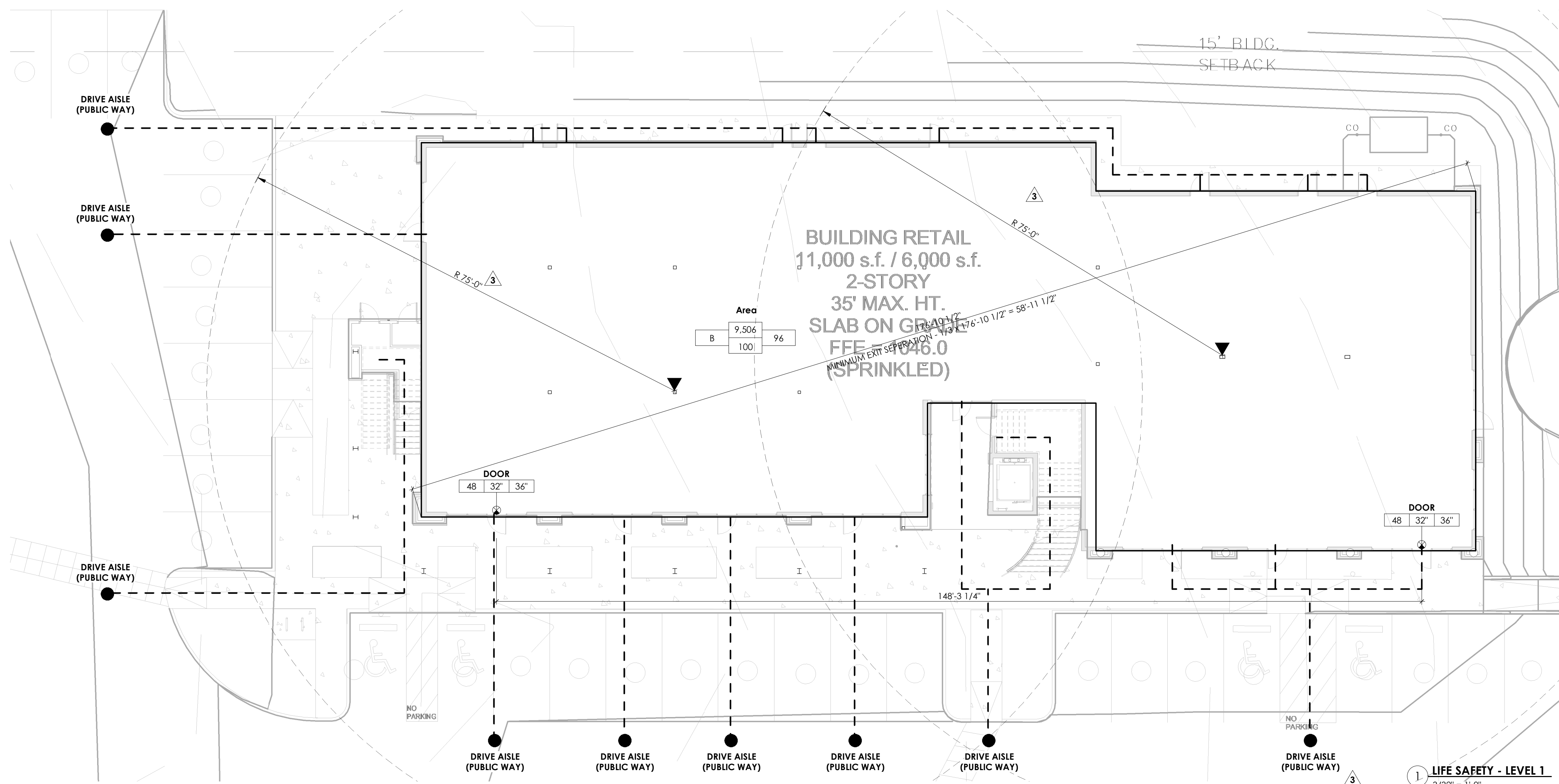
100% CDS - REV05 - VE COVER

SHEET: **G000**

PROJECT NO: 21099  
DRAWN BY: MD  
DATE: 02.17.23  
PROJECT MGR: KS



2 LIFE SAFETY - LEVEL 2  
3/32" = 1'-0"



1 LIFE SAFETY - LEVEL 1  
3/32" = 1'-0"

**CODE SUMMARY**

**GOVERNING AGENCIES:**  
CITY OF LEANDER  
TEXAS ACCESSIBILITY STANDARDS COMMISSION

**GOVERNING CODE:**  
2015 INTERNATIONAL BUILDING CODE  
(AS ADOPTED BY THE CITY OF LEANDER)  
2015 INTERNATIONAL PLUMBING CODE  
2015 INTERNATIONAL MECHANICAL CODE  
2014 NATIONAL ELECTRIC CODE (NFPA 70)  
2015 INT'L ENERGY CONSERVATION CODE  
2015 INTERNATIONAL FIRE CODE  
2015 INTERNATIONAL FUEL GAS CODE  
2012 TEXAS ACCESSIBILITY STANDARDS

**PROJECT DESCRIPTION:**  
2-STORY SHELL RETAIL/BUSINESS BUILDING

**BUILDING TYPE:**  
V-B  
SPRINKLERED

**ALLOWABLE AREA AND BUILDING HEIGHT:**  
27,000 SQ.FT. ALLOWABLE FLOOR AREA  
3 ALLOWABLE NUMBER OF STORIES  
60 FT ALLOWABLE HEIGHT  
17,044 SQ.FT. ACTUAL FLOOR AREA  
2 ACTUAL NUMBER OF STORIES  
34'-0" ACTUAL BUILDING HEIGHT

**TOTAL PROJECT AREA:**  
17,044 SQ.FT. - CONDITIONED SPACE

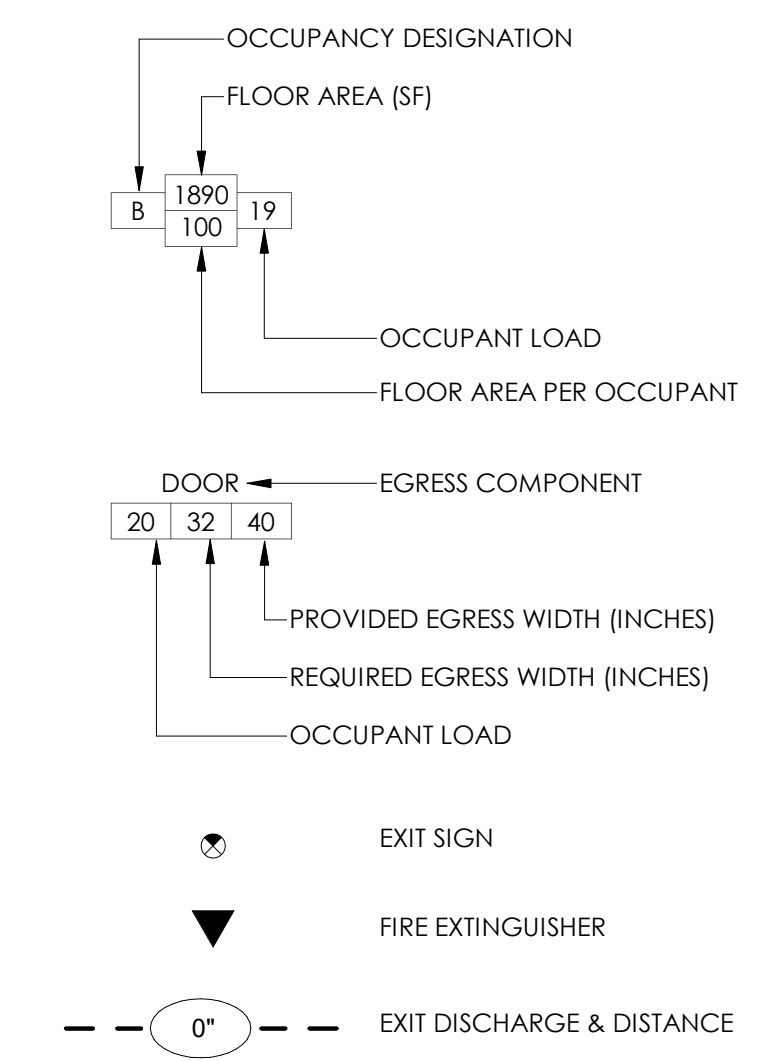
**OCCUPANCY TYPE:**  
OCCUPANCY TYPE  
CLASSIFICATION - "BUSINESS"  
OCCUPANT LOAD FACTOR: 1 PER 100 S.F.  
OCCUPANCY LOAD: 17,044/100 = 171 OCCUPANTS

**RESTROOM, SERVICE SINK, AND DRINKING FOUNTAIN REQUIREMENTS:**  
RESTROOMS TO BE DESIGNED AND PROVIDED WITH EACH SEPARATE FINISH-OUT, ACCORDING TO OCCUPANCY USAGE AND CURRENT APPLICABLE CODE

**FIRE RATED ASSEMBLIES:**  
N/A

**EGRESS SYSTEM:**  
REFER TO LIFE SAFETY ANALYSIS ON THIS SHEET

**EGRESS LEGEND**



**EGRESS NOTES**

- IBC 1005.3.2 MAXIMUM REQUIRED EGRESS WIDTH (SPRINKLERED):  
OTHER EGRESS COMPONENTS - 0.15 INCH/OCCUPANT  
0.15 X 171 = 25.7 INCHES  
PROVIDED = 36 INCHES
- TABLE IBC 1006.3.1 MINIMUM NUMBER OF EXITS PER STORY:  
2 EXITS FOR UP TO 500 OCCUPANTS
- TABLE IBC 1006.3.2(2) MAXIMUM COMMON PATH OF EGRESS:  
OCCUPANCY OCCUPANT LOAD DISTANCE (SPRINKLERED)  
B 49 100 FT
- IBC 1007.1.1 EXCEPTION 2 EXIT DOOR SEPARATION DISTANCE FOR SPRINKLERED BUILDINGS TO BE A DISTANCE APART EQUAL TO NOT LESS THAN ONE-THIRD OF THE LENGTH OF THE OVERALL DIAGONAL DIMENSION OF THE BUILDING
- IBC 1011.2 MINIMUM CLEAR STAIRWAY WIDTH IS 48 INCHES FOR OCCUPANT LOADS OVER 50 AND 36 INCHES FOR OCCUPANT LOADS UNDER 50.
- TABLE IBC 1017.2 EXIT ACCESS TRAVEL DISTANCE:  
OCCUPANCY DISTANCE(W/ SPRINKLER SYSTEM)  
B 250'

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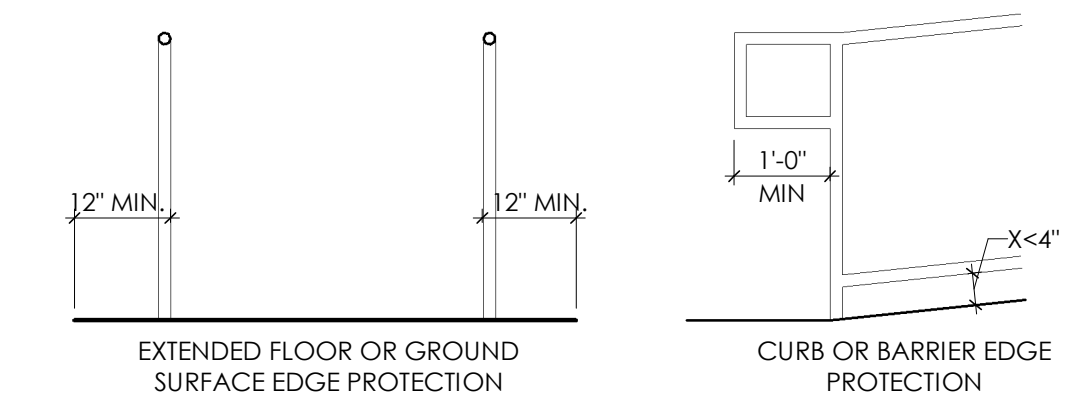
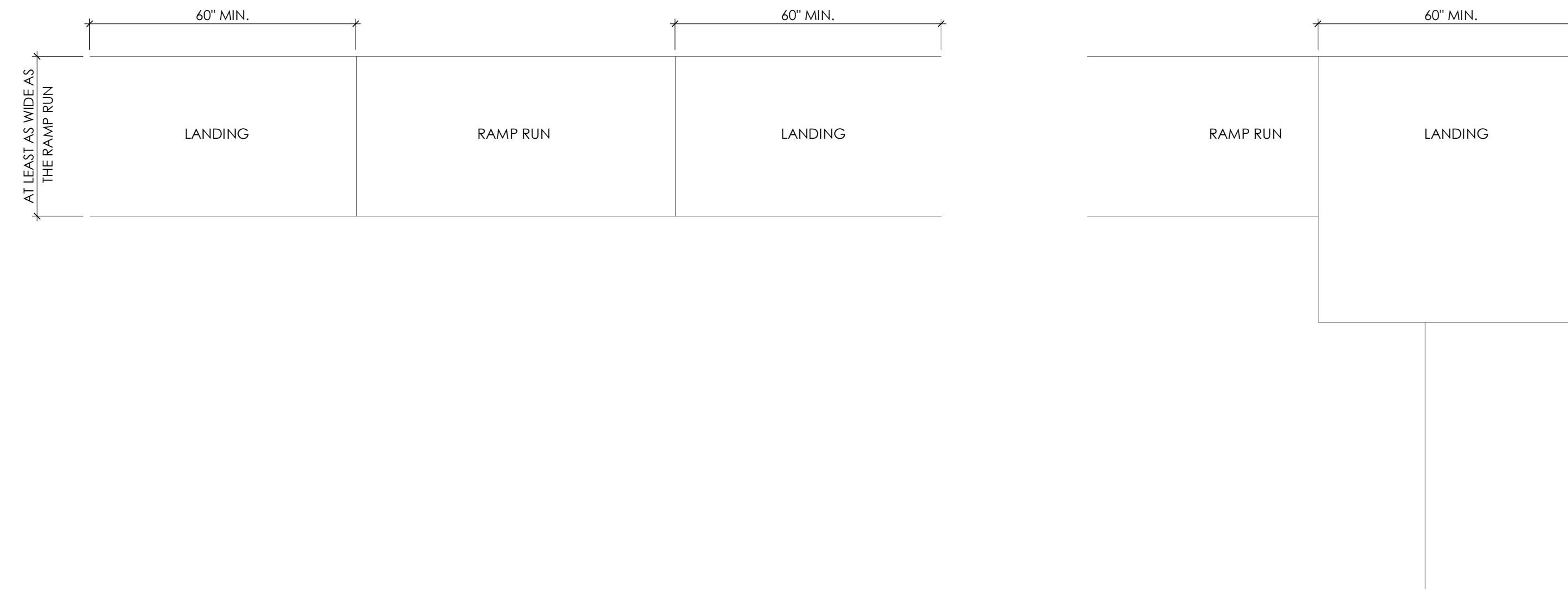
3 09.12.22 City Comments

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**RODNEY PALMER**  
06.09.2024  
100% CDS - REV05 - VE LIFE SAFETY

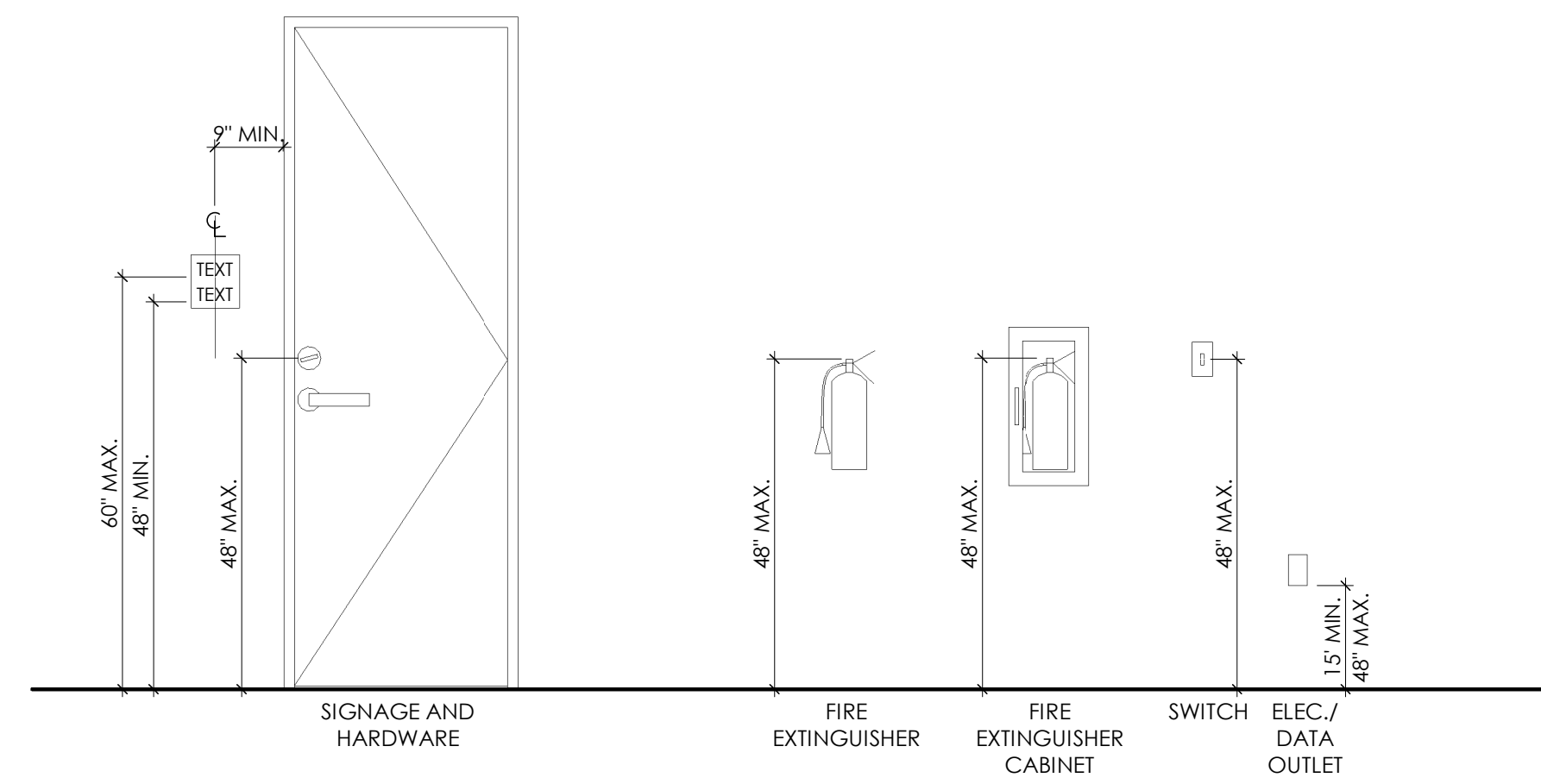
SHEET: **G001**

PROJECT NO: 21099  
DRAWN BY: AG,MD  
DATE: 02.17.23  
PROJECT MGR: KS

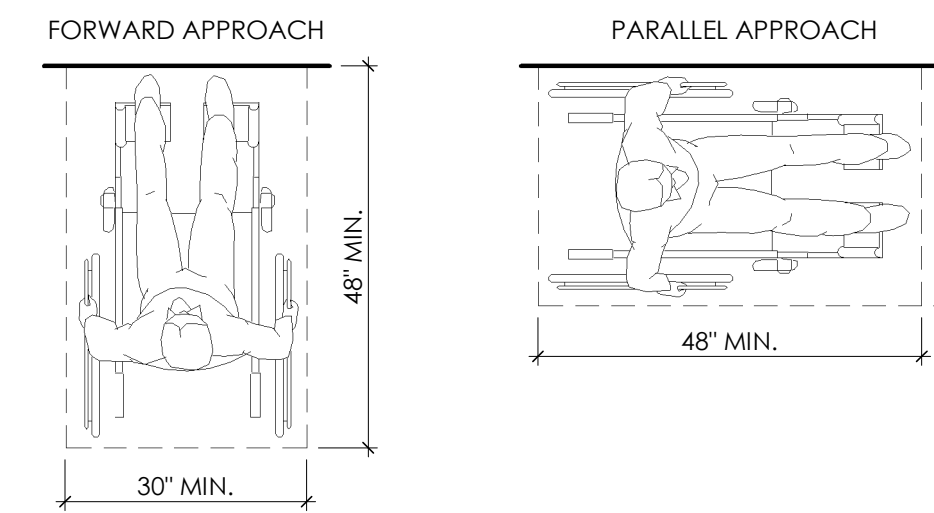
RAMP LANDINGS



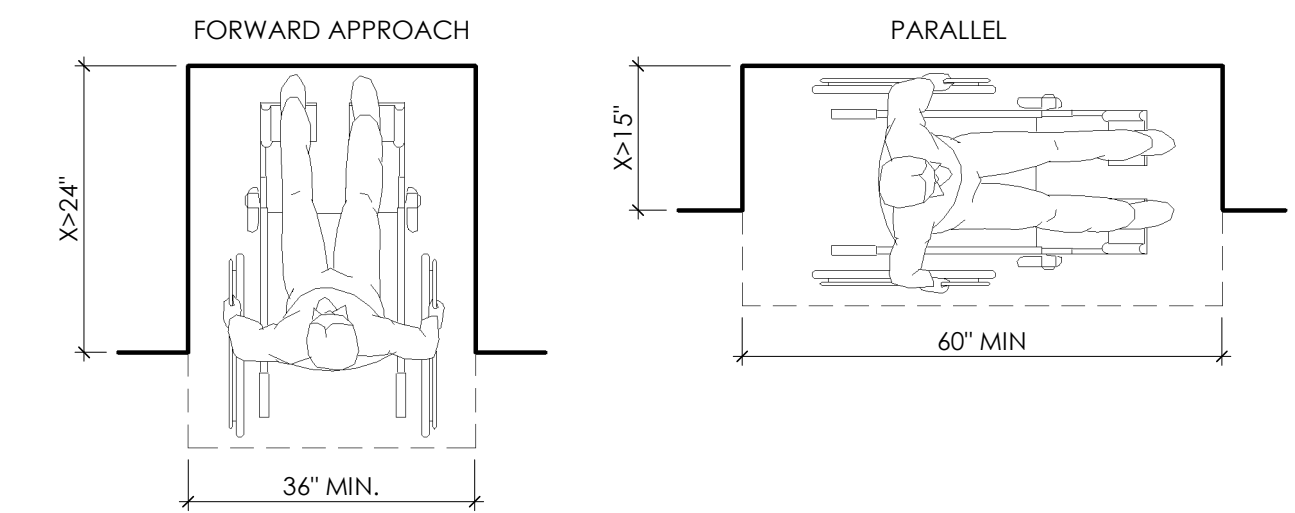
1 **MANEUVERING CLEARANCES**  
1/2" = 1'-0"



4 **TAS - TYP. MOUNTING HEIGHTS**  
1/2" = 1'-0"

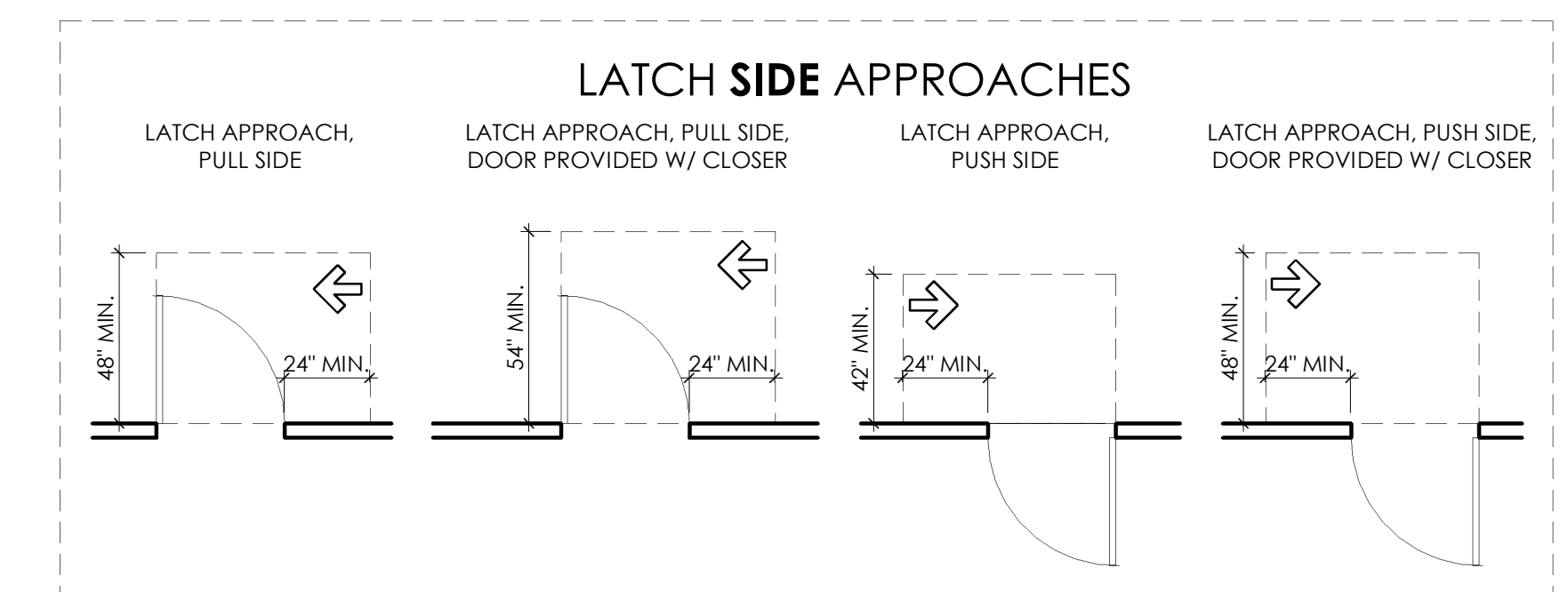
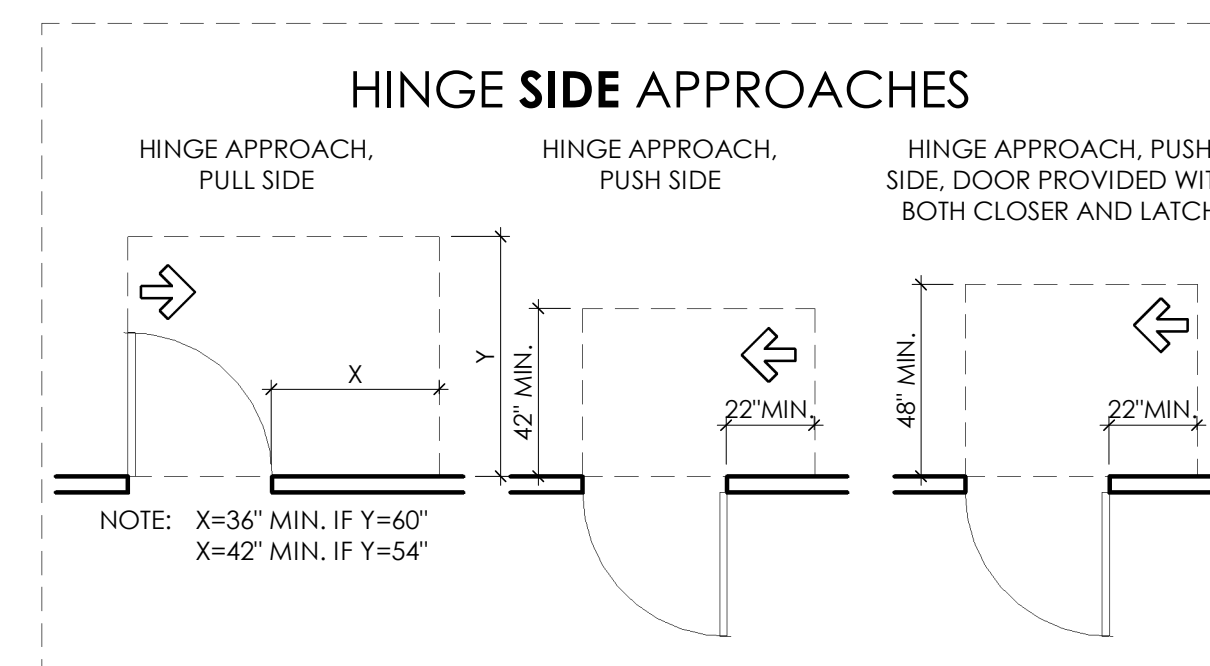
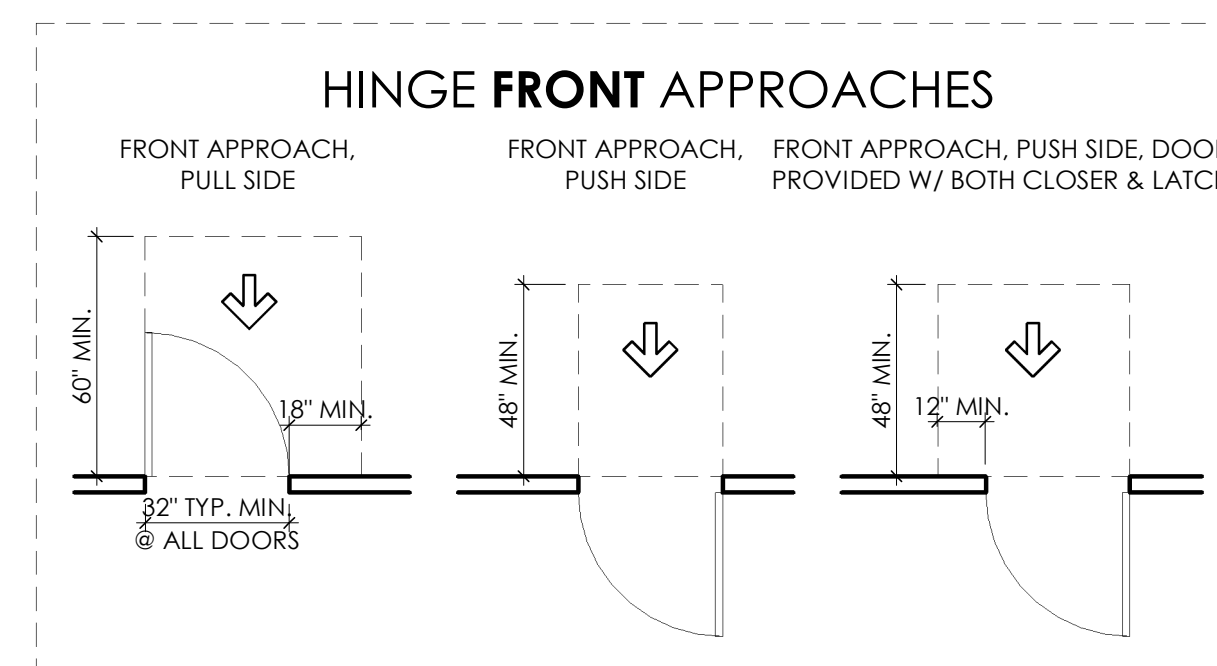


POSITION OF CLEAR FLOOR OR GROUND SPACE



MANEUVERING CLEARANCE IN AN ALCOVE

6 **MANEUVERING CLEARANCES**  
1/2" = 1'-0"



5 **TAS - MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS**  
1/4" = 1'-0"

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RODNEY PALMER

05.09.2024  
100% CDS - REV05 - VE  
TEXAS ACCESSIBILITY STANDARDS

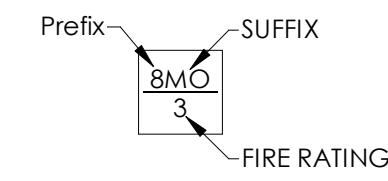
SHEET: **G002**

PROJECT NO: 21099  
DRAWN BY: AG, MD  
DATE: 02.17.23  
PROJECT MGR: KS

**LEGEND**

- 9 1/4" TILT WALL PANEL U.N.O.
- 3 5/8" METAL STUDS U.N.O.

**WALL LEGEND**



**SUFFIX**

- A LOW WALL - HEIGHT PER ELEVATIONS
- B R-25 BATT INSULATION
- C SHAFT WALL

**PREFIX**

- 0 FURRING
- 1 5 1/2" TILT WALL PANEL
- 2 7 1/4" TILT WALL PANEL
- 3 9 1/4" TILT WALL PANEL
- 4 3 5/8" METAL
- 5 6" METAL
- 6 8" METAL

**FIRE RATING**

- N NON RATED
- 1 1-HOUR RATING
- 2 2-HOUR RATING
- 3 3-HOUR RATING
- 4 4-HOUR RATING

**PLAN KEY-NOTES**

- 1 OUTLINE OF SOFFIT/ROOF ABOVE
- 2 OUTLINE OF FLOOR ABOVE
- 3 LEAVE OUT IN CONCRETE FOR FUTURE UTILITIES. SEE MEP
- 4 DOWNSPOUT LOCATION. PROVIDE 4" PREFINISHED METAL DOWNSPOUT. FINISH TO MATCH ADJACENT WALL FINISH
- 5 HSS TUBE STEEL COLUMN. SEE STRUCTURAL
- 6 PROVIDE 4" DIAMETER PVC PIPE SLEEVES FOR REFRIGERANT LINES RUNNING FROM ROOF
- 7 RECESSED KNOX BOX LOCATION. TO BE 4-6 FEET FROM FINISHED GRADE. UNOBSTRUCTED VIEW FROM THE FRONTING FIRE DEPARTMENT ROADWAY. TO INCLUDE VEGETATION GROWTH UPON MATURITY.
- 8 EXTERIOR RISER ROOM DOOR TO BE LABELED IN RED, "RISER ROOM"
- 9 CONC. FOUNDATION, BROOM FINISH, SLOPE 1/4" PER FOOT. SEE STRUCTURAL
- 10 CONCRETE SIDEWALK / PAVING - SEE CIVIL & STRUCTURAL FOR ADDITIONAL INFORMATION.
- 11 22 GA. ARCHITECTURAL STANDING SEAM ROOF, EQUAL TO BERRIDGE, <ZINC GREY>. CEE-LOCK W/ 1/2" TALL RIBS @ 16" O.C., TYP. OVER HIGH-HEAT PEEL AND STICK MEMBRANE
- 12 STEEL TRELLIS. SEE A202 FOR ADDITIONAL INFORMATION
- 14 CONCRETE DECK. SEE STRUCTURAL
- 15 TAPERED INSULATION TO CREATE MIN. OF 1/4"/12" SLOPE AWAY FROM PARAPET, TYP.
- 17 90 MIL TPO ROOF SYSTEM

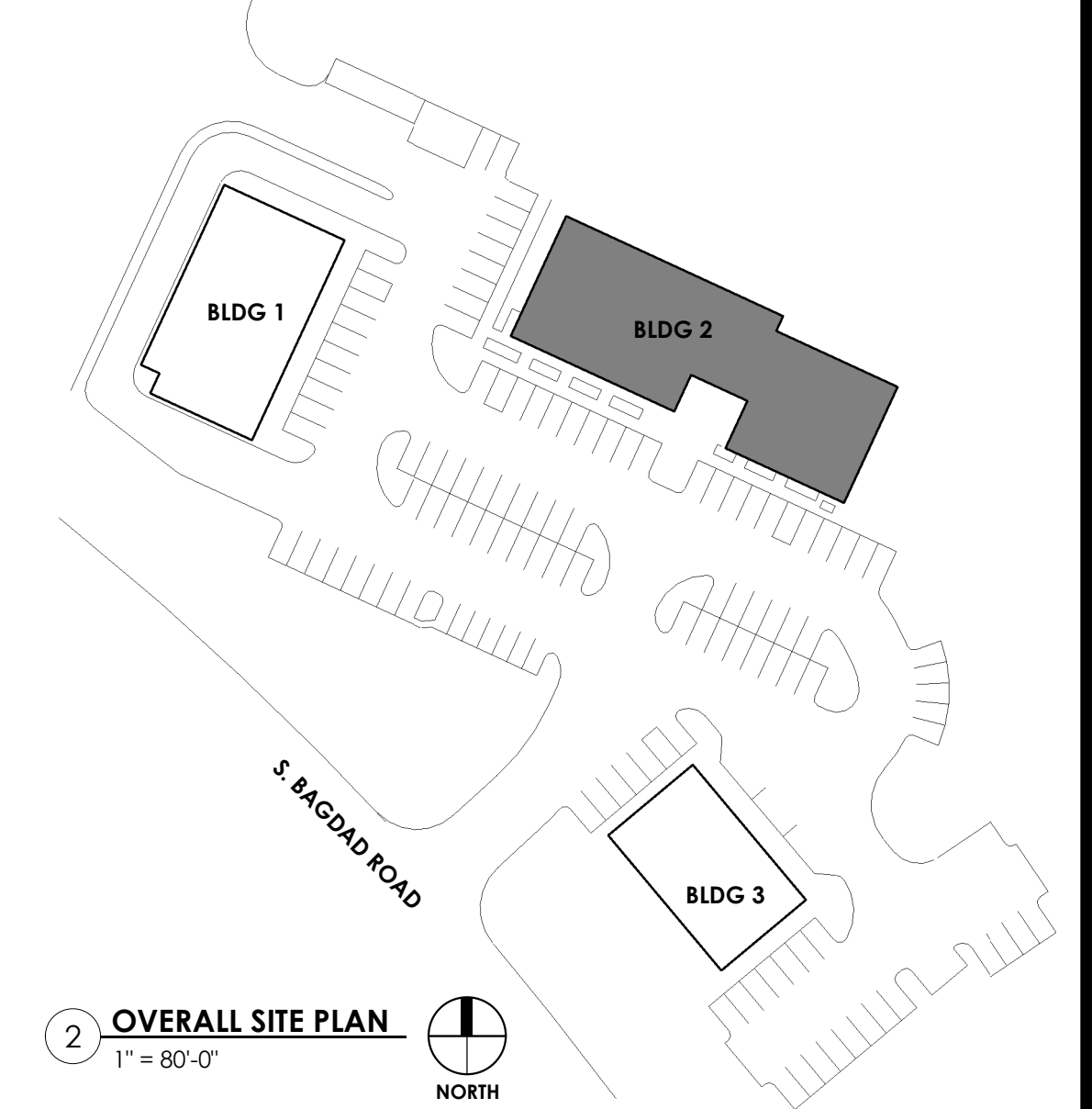
**PLAN KEY-NOTES**

- 19 STANDING SEAM METAL BARREL ROOF W/ FELT UNDERLAYMENT. SEE ELEVATIONS AND STRUCTURAL FOR MORE INFORMATION.
- 20 PREFAB. ALUMINUM CANOPY, EQUAL TO ARCHITECTURAL FABRICATION, HELIOS CANOPY SYSTEM, 20 YR WARRANTY POWDER-COATED FINISH.
- 21 PREFINISHED METAL COPING. SEE WALL DETAILS FOR ADDITIONAL INFORMATION.
- 23 LINE OF FRAME WALL BELOW, TYP.
- 24 KICK OUT FLASHING
- 25 LOCATION FOR FUTURE RTU ZONE ON ROOF. SEE MEP AND STRUCTURAL FOR ADDITIONAL INFORMATION.
- 26 CONC. TILT WALL PANEL JOINT. SEE ELEVATIONS AND STRUCTURAL FOR ADDITIONAL INFORMATION
- 27 THRU-WALL SCUPPER & OVERFLOW, PAINTED TO MATCH DOWNSPOUTS
- 28 TPO WALKWAY PAD, INSTALLED PER MANUFACTURER REQUIREMENTS, EQUAL TO PRESTONE ULTRAPLY
- 29 LOCATION OF ELECTRICAL PANEL BOX. SEE MEP
- 30 60" W. STEEL AWNING BY FUTURE TENANT
- 31 METAL GUARDRAIL. SEE DETAILS
- 32 ROOF ACCESS LADDER, PER CODE
- 33 APPROVED PICTORIAL SIGN STATING "IN CASE OF EMERGENCY, DO NOT USE ELEVATOR. USE THE STAIRS." TO BE POSTED AT EACH ELEVATOR CALL STATION
- 34 SEMIRECESSED ALUMINUM AED (AUTOMATED EXTERNAL DEFIBRILLATOR (AED) CABINET. PROVIDE BLOCKING AS REQUIRED. PROVIDE FDA APPROVED AED AS REQUIRED PER FIRE DEPARTMENT.
- 35 LINEAR DECK DRAIN SYSTEM. PROVIDE IN-WALL DOWNSPOUT @ EA. COLUMN LOCATION. SEE MEP AND WALL SECTIONS FOR ADDL. INFORMATION.

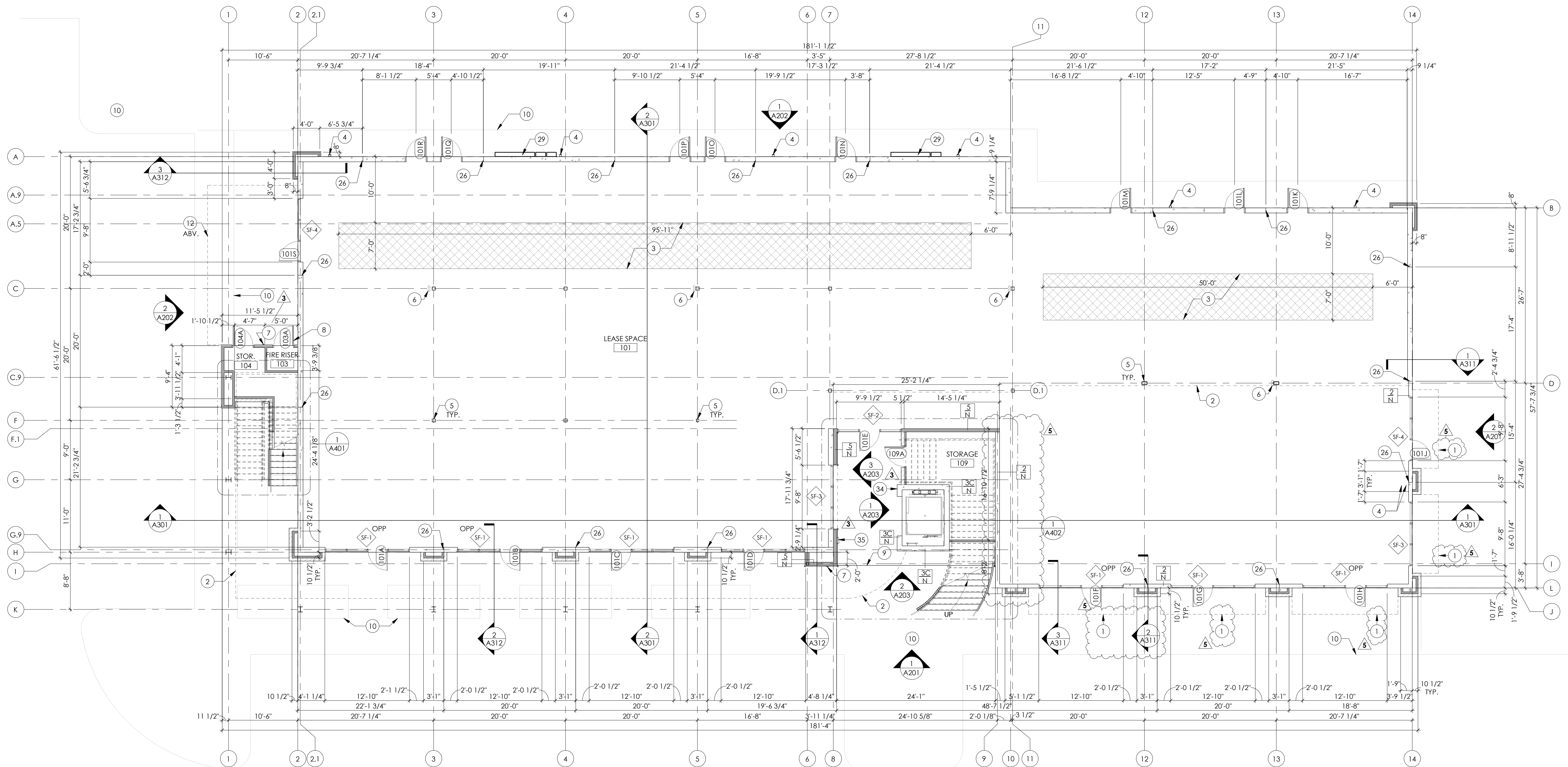
**GENERAL PLAN NOTES**

- A. FIRE EXTINGUISHERS - PROVIDE A MINIMUM SIZE 2A: 10ABC FIRE EXTINGUISHERS MEETING THE TRAVEL DISTANCE OF 75 FEET TO AN EXTINGUISHER FROM ALL PORTIONS. INSTALLATION LOCATIONS TO BE VERIFIED BY LICENSED INSPECTOR. SEE LIFE SAFETY PLAN FOR SUGGESTED LOCATIONS.
- B. SPRAY FOAM INSULATION APPLICATION IS TO BE INSTALLED PER CODE AND AN ICC-ES REPORT MUST BE PROVIDED TO FIRE DEPARTMENT FOR SEPARATE REVIEW AND APPROVAL.
- C. REFER TO WALL SECTIONS & DETAILS SHEETS FOR EXTERIOR WALL TYPES
- D. KNOX BOX LOCATION(S) TO BE APPROVED BY FIRE DEPARTMENT AND SHALL BE INSTALLED NO LESS THAN 48" AND NO MORE THAN 72" ABOVE FINISHED GRADE.
- E. ALL SIGNAGE REQUIRES A SEPARATE APPLICATION AND APPROVAL FROM THE BUILDING INSPECTIONS DEPARTMENT. NO SIGNAGE IS APPROVED WITH THE SITE DEVELOPMENT PLAN OR BUILDING'S CONSTRUCTION DOCUMENTS.
- F. DIMENSIONS ARE TO THE FACE OF STUD OR FACE OF CMU UON.
- G. ALIGN FACE OF WALLS WITH FACE OF COLUMN WRAPS, WHERE POSSIBLE, WHERE OCCURS, TYP., UON.
- H. WHERE WALL TYPES WITH GYP BD FINISH AND DIFFERENT THICKNESSES ADJOIN IN SAME PLANE, ALIGN FACE OF GYP BD.
- I. PROVIDE CJS AT 30"-0" OC MAX AT DOORS AND WINDOWS (AS INDICATED ON INTERIOR ELEVATIONS OF GYP BD WALL ASSEMBLIES.)

2 OVERALL SITE PLAN  
1" = 80'-0"



**ALIGN**  
AUSTIN ARCHITECTS



**BUILDING 2**  
THE SQUARE AT CRYSTAL FALLS  
1900 S BAGDAD ROAD, BUILDING 2  
LEANDER, TEXAS 78641

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3 09.12.22 City Comments  
5 08.09.24 VE

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RODNEY PALMER  
08.09.2024  
100% CDS - REV05 - VE  
FLOOR PLAN - LEVEL 1

SHEET: **A101**

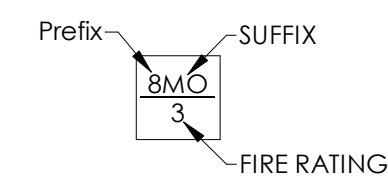
PROJECT NO: 21099  
DRAWN BY: MD  
DATE: 02.17.23  
PROJECT MGR: KS

1 FLOOR PLAN - LEVEL 1  
1/8" = 1'-0"

**LEGEND**

- 9 1/4" TILT WALL PANEL U.N.O.
- 3 5/8" METAL STUDS U.N.O.

**WALL LEGEND**



- PREFIX**
- 0 FURRING
  - 1 5 1/2" TILT WALL PANEL
  - 2 7 1/4" TILT WALL PANEL
  - 3 9 1/4" TILT WALL PANEL
  - 4 3 5/8" METAL
  - 5 6" METAL
  - 6 8" METAL

- FIRE RATING**
- N NON RATED
  - 1 1-HOUR RATING
  - 2 2-HOUR RATING
  - 3 3-HOUR RATING
  - 4 4-HOUR RATING

**SUFFIX**

- A LOW WALL - HEIGHT PER ELEVATIONS
- B R-25 BATT INSULATION
- C SHAFT WALL

**PLAN KEY-NOTES**

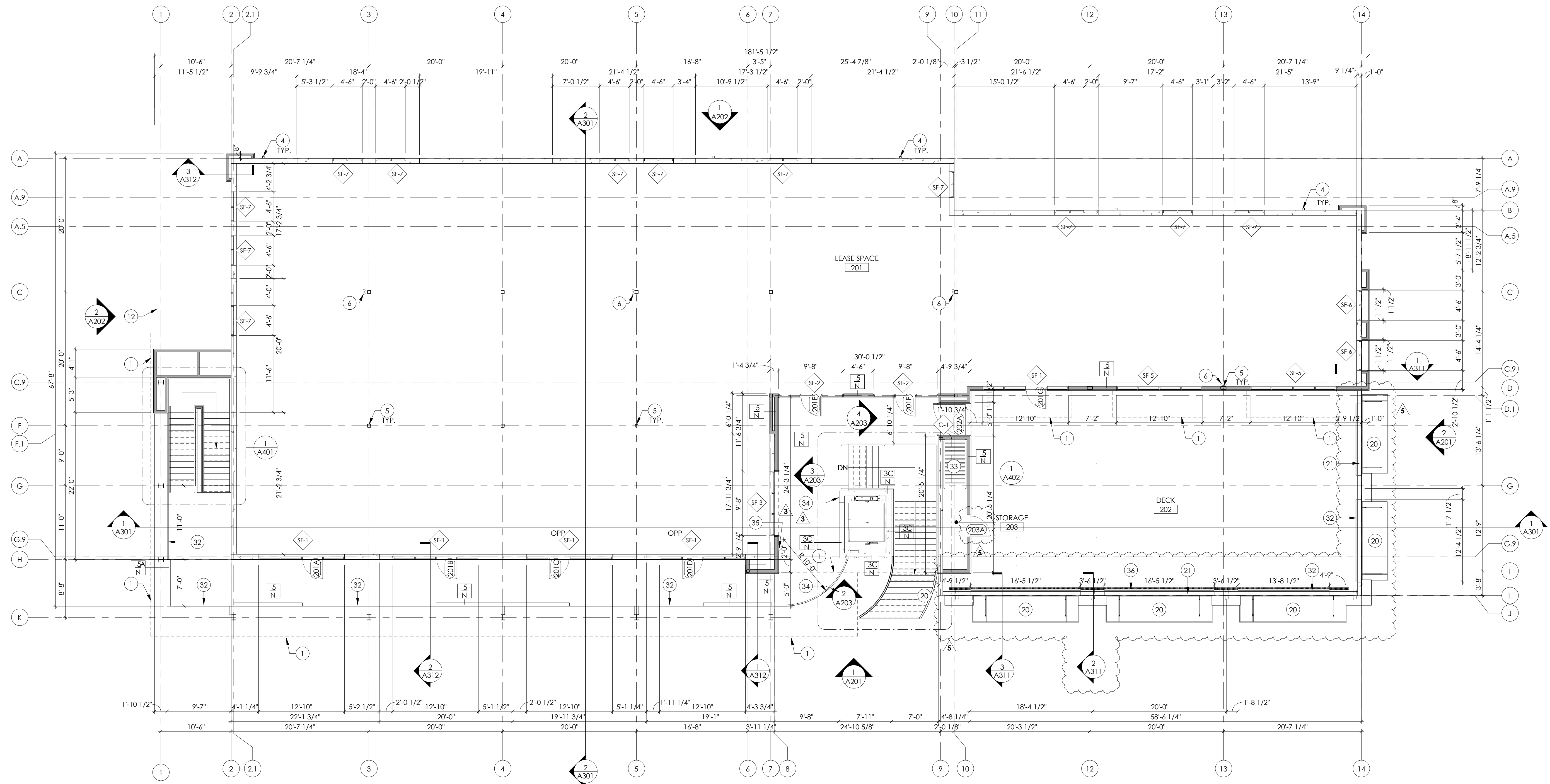
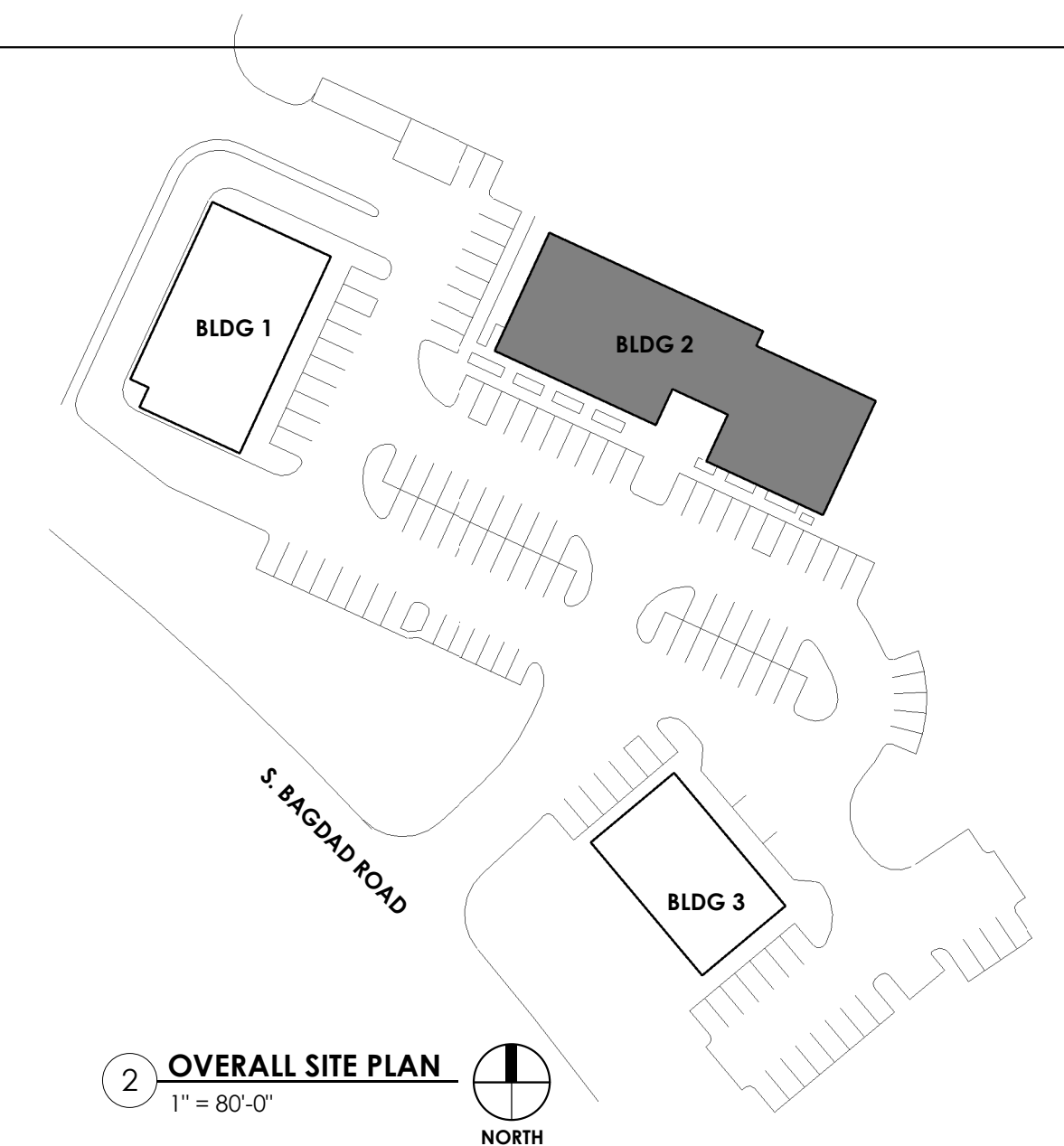
- 1 OUTLINE OF SOFFIT/ROOF ABOVE
- 2 OUTLINE OF FLOOR ABOVE
- 3 LEAVE OUT IN CONCRETE FOR FUTURE UTILITIES. SEE MEP
- 4 DOWNSPOUT LOCATION. PROVIDE 4" PREFINISHED METAL DOWNSPOUT, FINISH TO MATCH ADJACENT WALL FINISH
- 5 HSS TUBE STEEL COLUMN. SEE STRUCTURAL
- 6 PROVIDE 4" DIAMETER PVC PIPE SLEEVES FOR REFRIGERANT LINES RUNNING FROM ROOF
- 7 RECESSED KNOX BOX LOCATION, TO BE 4-6 FEET FROM FINISHED GRADE. UNOBSTRUCTED VIEW FROM THE FRONTING FIRE DEPARTMENT ROADWAY, TO INCLUDE VEGETATION GROWTH UPON MATURITY.
- 8 EXTERIOR RISER ROOM DOOR TO BE LABELED IN RED, "RISER ROOM"
- 9 CONC. FOUNDATION, BROOM FINISH, SLOPE 1/4" PER FOOT, SEE STRUCTURAL
- 10 CONCRETE SIDEWALK / PAVING - SEE CIVIL & STRUCTURAL FOR ADDITIONAL INFORMATION.
- 11 22 GA. ARCHITECTURAL STANDING SEAM ROOF, EQUAL TO BERRIDGE, <ZINC GREY>, CEE-LOCK W/ 1/2" TALL RIBS @ 16" O.C., TYP., OVER HIGH-HEAT PEEL AND STICK MEMBRANE
- 12 STEEL IRELLIS, SEE A202 FOR ADDITIONAL INFORMATION
- 14 CONCRETE DECK, SEE STRUCTURAL
- 15 TAPERED INSULATION TO CREATE MIN. OF 1/4"/12" SLOPE AWAY FROM PARAPET, TYP.
- 17 90 MIL TPO ROOF SYSTEM

**PLAN KEY-NOTES**

- 19 STANDING SEAM METAL BARREL ROOF W/ FELT UNDERLAYMENT, SEE ELEVATIONS AND STRUCTURAL FOR MORE INFORMATION.
- 20 PREFAB. ALUMINUM CANOPY, EQUAL TO ARCHITECTURAL FABRICATION, HELIOS CANOPY SYSTEM, 20 YR WARRANTY POWDER-COATED FINISH.
- 21 PREFINISHED METAL COPING, SEE WALL DETAILS FOR ADDITIONAL INFORMATION.
- 23 LINE OF FRAME WALL BELOW, TYP.
- 24 KICK OUT FLASHING
- 25 LOCATION FOR FUTURE RTU ZONE ON ROOF. SEE MEP AND STRUCTURAL FOR ADDITIONAL INFORMATION.
- 26 CONC. TILT WALL PANEL JOINT, SEE ELEVATIONS AND STRUCTURAL FOR ADDITIONAL INFORMATION
- 27 THRU-WALL SCUPPER & OVERFLOW, PAINTED TO MATCH DOWNSPOUTS
- 28 TPO WALKWAY PAD, INSTALLED PER MANUFACTURER REQUIREMENTS, EQUAL TO FIRESTONE ULTRAPLY
- 29 LOCATION OF ELECTRICAL PANEL BOX, SEE MEP
- 31 60" W. STEEL AWNING BY FUTURE TENANT
- 32 METAL GUARDRAIL, SEE DETAILS.
- 33 ROOF ACCESS LADDER, PER CODE
- 34 APPROVED PICTORIAL SIGN STAINING "IN CASE OF EMERGENCY, DO NOT USE ELEVATOR, USE THE STAIRS." TO BE POSTED AT EACH ELEVATOR CALL STATION
- 35 SEMIRECESSED ALUMINUM AED (AUTOMATED EXTERNAL DEFIBRILLATOR (AED) CABINET, PROVIDE BLOCKING AS REQUIRED, PROVIDE FDA APPROVED AED AS REQUIRED PER FIRE DEPARTMENT.
- 36 LINEAR DECK DRAIN SYSTEM. PROVIDE IN-WALL DOWNSPOUT @ EA. COLUMN LOCATION. SEE MEP AND WALL SECTIONS FOR ADDL. INFORMATION.

**GENERAL PLAN NOTES**

- A. FIRE EXTINGUISHERS - PROVIDE A MINIMUM SIZE 2A: 10ABC FIRE EXTINGUISHERS MEETING THE TRAVEL DISTANCE OF 75 FEET TO AN EXTINGUISHER FROM ALL PORTIONS. INSTALLATION LOCATIONS TO BE VERIFIED BY LICENSED INSPECTOR. SEE LIFE SAFETY PLAN FOR SUGGESTED LOCATIONS.
- B. SPRAY FOAM INSULATION APPLICATION IS TO BE INSTALLED PER CODE AND AN ICC-ES REPORT MUST BE PROVIDED TO FIRE DEPARTMENT FOR SEPARATE REVIEW AND APPROVAL.
- C. REFER TO WALL SECTIONS & DETAILS SHEETS FOR EXTERIOR WALL TYPES
- D. KNOX BOX LOCATION(S) TO BE APPROVED BY FIRE DEPARTMENT AND SHALL BE INSTALLED NO LESS THAN 48" AND NO MORE THAN 72" ABOVE FINISHED GRADE.
- E. ALL SIGNAGE REQUIRES A SEPARATE APPLICATION AND APPROVAL FROM THE BUILDING INSPECTIONS DEPARTMENT. NO SIGNAGE IS APPROVED WITH THE SITE DEVELOPMENT PLAN OR BUILDING'S CONSTRUCTION DOCUMENTS.
- F. DIMENSIONS ARE TO THE FACE OF STUD OR FACE OF CMU UON.
- G. ALIGN FACE OF WALLS WITH FACE OF COLUMN WRAPS, WHERE POSSIBLE, WHERE OCCURS, TYP., UON.
- H. WHERE WALL TYPES WITH GYP BD FINISH AND DIFFERENT THICKNESSES ADJOIN IN SAME PLANE, ALIGN FACE OF GYP BD.
- I. PROVIDE CJS AT 30'-0" OC MAX AT DOORS AND WINDOWS (AS INDICATED ON INTERIOR ELEVATIONS OF GYP BD WALL ASSEMBLIES.)



**ALIGN**  
AUSTIN ARCHITECTS

**BUILDING 2**  
THE SQUARE AT CRYSTAL FALLS  
1900 S BAGDAD ROAD, BUILDING 2  
LEANDER, TEXAS 78641

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3 09.12.22 City Comments  
5 08.09.24 VE

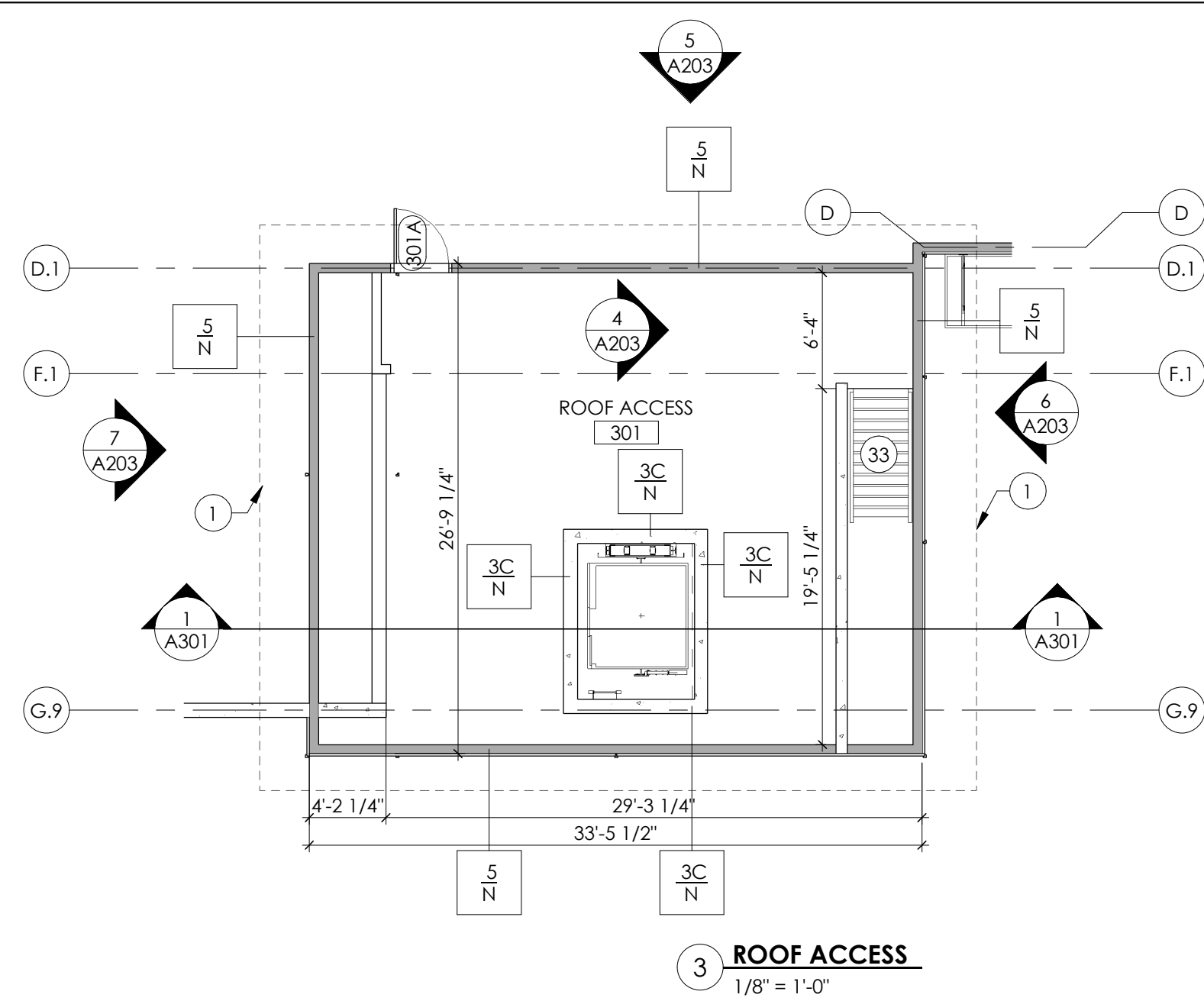
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RODNEY PALMER  
08.09.2024  
100% CDS - REV05 - VE  
FLOOR PLAN - LEVEL 2

SHEET: **A102**

PROJECT NO: 21099  
DRAWN BY: MD  
DATE: 02.17.23  
PROJECT MGR: KS

**FLOOR PLAN - LEVEL 2**  
1/8" = 1'-0"



**3 ROOF ACCESS**  
1/8" = 1'-0"

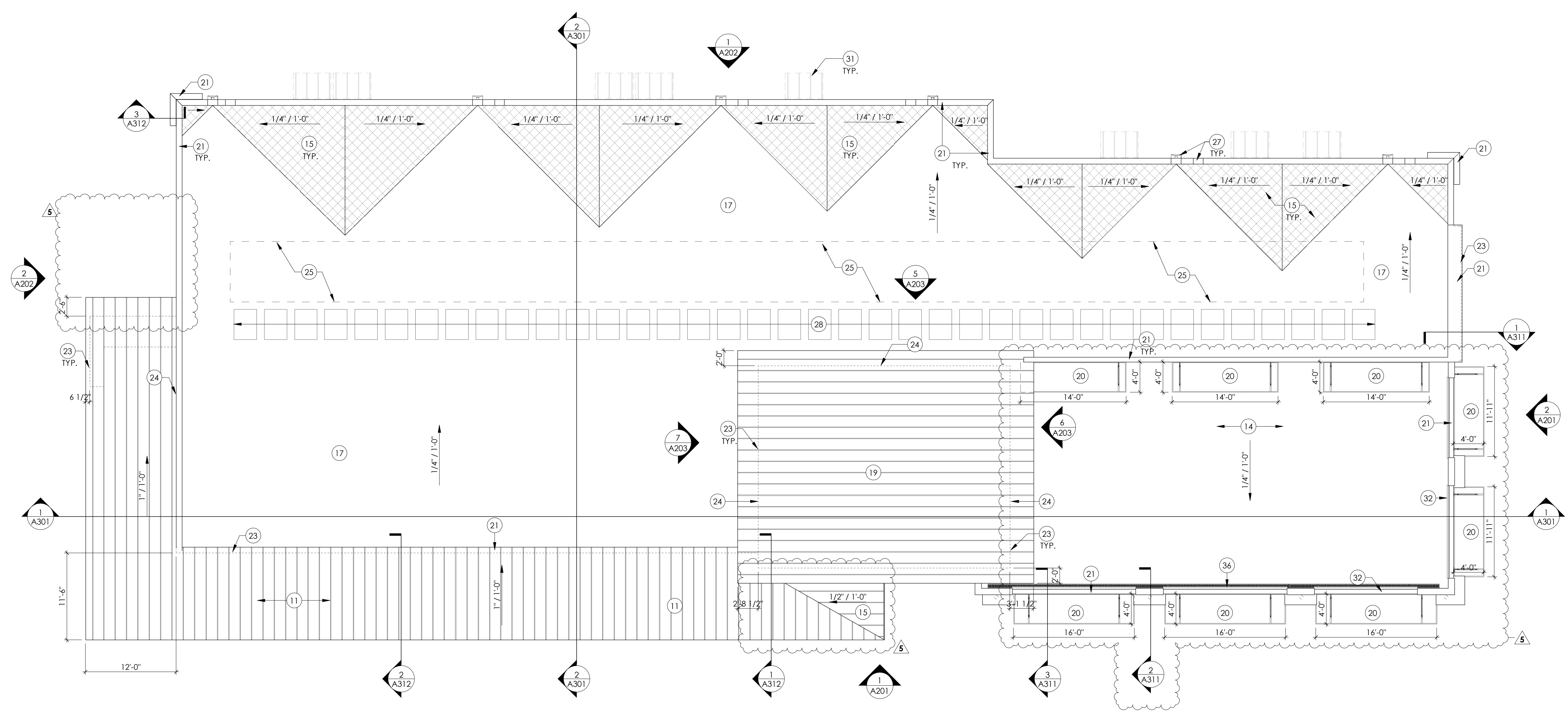


**PLAN KEY-NOTES**

- 1 OUTLINE OF SOFFIT/ROOF ABOVE
- 2 OUTLINE OF FLOOR ABOVE
- 3 LEAVE OUT IN CONCRETE FOR FUTURE UTILITIES. SEE MEP
- 4 DOWNSPOUT LOCATION. PROVIDE 4" PREFINISHED METAL DOWNSPOUT. FINISH TO MATCH ADJACENT WALL FINISH
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- 10 CONCRETE SIDEWALK / PAVING - SEE CIVIL & STRUCTURAL FOR ADDITIONAL INFORMATION.
- 11 22 GA. ARCHITECTURAL STANDING SEAM ROOF. EQUAL TO BERRIDGE, "ZINC GREY", CEE-LOCK W/ 1/2" TALL RIBS @ 16" O.C., TYP., OVER HIGH-HEAT PEEL AND STICK MEMBRANE STEEL TRELLIS. SEE A202 FOR ADDITIONAL INFORMATION
- 12 CONCRETE DECK. SEE STRUCTURAL
- 14 TAPERED INSULATION TO CREATE MIN. OF 1/4"/12" SLOPE AWAY FROM PARAPET. TYP.
- 17 90 MIL TPO ROOF SYSTEM

**PLAN KEY-NOTES**

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- 20 PREFAB. ALUMINUM CANOPY. EQUAL TO ARCHITECTURAL FABRICATION. HELIOS CANOPY SYSTEM. 20 YR WARRANTY. POWDER-COATED FINISH.
- 21 PREFINISHED METAL COPING. SEE WALL DETAILS FOR ADDITIONAL INFORMATION.
- 23 LINE OF FRAME WALL BELOW. TYP.
- 24 KICK OUT FLASHING
- 25 LOCATION FOR FUTURE RTU ZONE ON ROOF. SEE MEP AND STRUCTURAL FOR ADDITIONAL INFORMATION.
- 26 CONC. TILT WALL PANEL JOINT. SEE ELEVATIONS AND STRUCTURAL FOR ADDITIONAL INFORMATION
- 27 THRU-WALL SCUPPER & OVERFLOW. PAINTED TO MATCH DOWNSPOUTS
- 28 TPO WALKWAY PAD. INSTALLED PER MANUFACTURER REQUIREMENTS. EQUAL TO FIRESTONE ULTRAPLY
- 29 LOCATION OF ELECTRICAL PANEL BOX. SEE MEP
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- 33 ROOF ACCESS LADDER. PER CODE
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- 36 LINEAR DECK DRAIN SYSTEM. PROVIDE IN-WALL DOWNSPOUT @ EA. COLUMN LOCATION. SEE MEP AND WALL SECTIONS FOR ADDTL. INFORMATION.



**1 ROOF PLAN**  
1/8" = 1'-0"

**ALIGN**  
AUSTIN ARCHITECTS

**BUILDING 2**  
THE SQUARE AT CRYSTAL FALLS  
1900 S BAGDAD ROAD, BUILDING 2  
LEANDER, TEXAS 78641

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5 08.09.24 VE

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THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ARCHITECT:  
RODNEY PALMER  
08.09.2024  
100% CDS - REV05 - VE  
ROOF PLAN

SHEET: **A121**

PROJECT NO: 21099  
DRAWN BY: AG,MD  
DATE: 02.17.23  
PROJECT MGR: KS

- NOTES:**
1. ALL PERMANENT EXTERIOR LIGHTING SHALL BE NON-FLASHING AND SHIELDED SUCH THAT THE LIGHT SOURCES IS NOT VISIBLE FROM THE PUBLIC RIGHT-OF-WAY OR ADJACENT RESIDENTIAL USES AT THE PROPERTY LINE. WALL PACK LIGHTING AND OTHER LIGHTING THAT DIRECTS THE LIGHT IN A HORIZONTAL DIRECTION WITHOUT AN ADEQUATE SHIELD IS NOT PERMITTED IF THERE ARE STREETS OR RESIDENTIAL USES IN THE DIRECTION OF THE LIGHT
  2. ALL SITE UTILITY LINES ARE PROPOSED TO BE LOCATED UNDERGROUND.
  3. WINDOWS SHALL HAVE A MAXIMUM EXTERIOR REFLECTIVITY OF TWENTY (20%) PERCENT

MATERIAL TAKEOFF		
MATERIAL	AREA	PERCENTAGE
CP-1	11,882	18%
CP-2	5,817	9%
GL-1	2,798	4%
MT-1	13,083	20%
MT-2	3,383	5%
MT-3	396	1%
P-1	1,268	2%
ST-1	949	1%
TPO-1	21	0%
TW-1	12,542	19%
WD-1	1,193	2%
WD-2	9,823	15%
WD-3	1,228	2%
	64,382	100%

- MATERIAL LEGEND**
- MT-1 22 GA GALVANIZED CENTRIA PANEL, CONCEPT SERIES (REFER TO SHEET A204 FOR PROFILE LAYOUT), CHARCOAL GREY
  - MT-2 22 GA ARCHITECTURAL METAL STANDING SEAM ROOF, EQUAL TO BERRIDGE, PREWEATHERED GALVALUME, CEE-LOCK W/ 1 1/2" TALL RIBS AT 16" O.C.
  - MT-3 PREFINISHED METAL FASCIA, PREWEATHERED GALVALUME
  - CP-1 STUCCO 1, APPLIED STUCCO FINISH, COLOR TO MATCH STO EIDER WHITE
  - CP-2 STUCCO 2, COLOR TO MATCH STO ELEPHANT EAR
  - ST-1 STONEBROOK NATURAL STONE VENEER, WHITE, FACE CUT ALL SIDES
  - WD-1 NICHIIHA WOOD SERIES, VINTAGEWOOD, CEDAR

**EXTERIOR WALL MATERIAL (EWS) CALCULATIONS:**

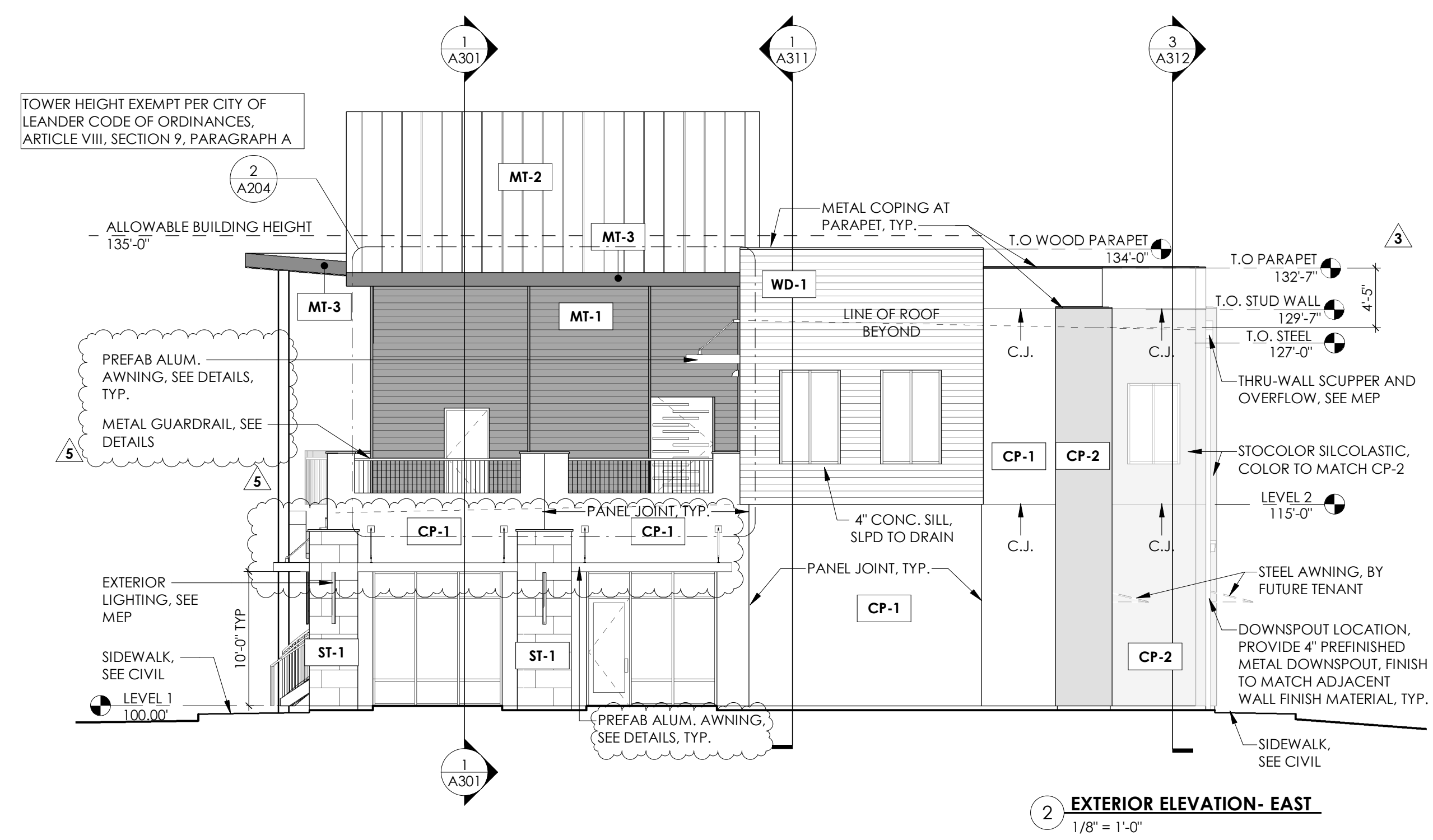
**SOUTH (STREET FACING WALL):**

	ACTUAL	REQUIRED
<b>FIRST STORY:</b>		
GROSS WALL AREA	1802.69 SF	
DOORS AND WINDOWS	899.33 SF (49.8%)	
NET WALL AREA	904.86 SF	85% MIN REQ'D
EWS	850.5 SF (94.0%)	
<b>SECOND STORY:</b>		
GROSS WALL AREA	2866.10 SF	
DOORS AND WINDOWS	899.06 SF (31.4%)	
NET WALL AREA	1967.04 SF	50% MIN REQ'D
EWS	770.34 SF (39.2%)	
<b>WEST:</b>		
<b>FIRST STORY:</b>		
GROSS WALL AREA	881.99 SF	
DOORS AND WINDOWS	96.66 SF (11.0%)	
NET WALL AREA	785.33 SF	85% MIN REQ'D
EWS	785.33 SF (100%)	
<b>SECOND STORY:</b>		
GROSS WALL AREA	1038.35 SF	
DOORS AND WINDOWS	81.0 SF (7.8%)	
NET WALL AREA	957.35 SF	50% MIN REQ'D
EWS	957.35 SF (100%)	
<b>North:</b>		
<b>FIRST STORY:</b>		
GROSS WALL AREA	2555 SF	
DOORS AND WINDOWS	191.11 SF (7.5%)	
NET WALL AREA	2363.89 SF	85% MIN REQ'D
EWS	2363.89 SF (100%)	
<b>SECOND STORY:</b>		
GROSS WALL AREA	2995.03 SF	
DOORS AND WINDOWS	216 SF (7.2%)	
NET WALL AREA	2779.03 SF	50% MIN REQ'D
EWS	2779.03 SF (100%)	
<b>EAST:</b>		
<b>FIRST STORY:</b>		
GROSS WALL AREA	859.83 SF	
DOORS AND WINDOWS	193.33 SF (22.5%)	
NET WALL AREA	666.5 SF	85% MIN REQ'D
EWS	666.5 SF (100%)	
<b>SECOND STORY:</b>		
GROSS WALL AREA	589.31 SF	
DOORS AND WINDOWS	63.0 SF (10.7%)	
NET WALL AREA	526.31 SF	50% MIN REQ'D
EWS	272.81 SF (51.8%)	

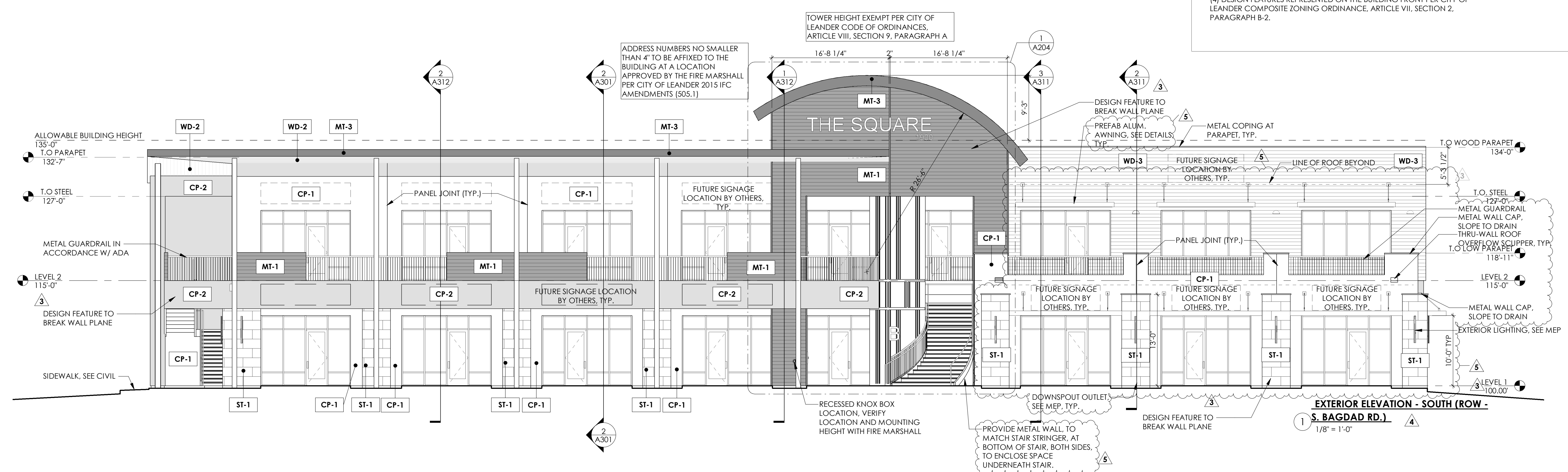
**TOTAL BUILDING:**

	FIRST FLOOR	SECOND FLOOR
GROSS WALL AREA	6,099.51 SF	7,488.79 SF
DOORS AND WINDOWS	1,379.43 SF (22.6%)	1,259.06 SF (16.8%)
NET WALL AREA	4,720.08 SF	6,229.73 SF
EWS	4,666.22 SF (98.9%)	4,779.53 SF (76.7%)

- NOTES:**
- EXTERIOR SURFACE AREA OF BUILDING IS COMPRISED OF AT LEAST 85% MASONRY FOR FIRST STORY WALLS AND ATLEAST 50% MASONRY FOR THE EXTERIOR SURFACE AREA OF EACH ADDITIONAL STORY PER CITY OF LEANDER COMPOSITE ZONING ORDINANCE, ARTICLE VI, SECTION 6, PARAGRAPH G-1.
- A MINIMUM OF 15% OF THE FRONT PRIMARY BUILDING FACADE CONSISTS OF WINDOW AND DOOR OPENINGS PER CITY OF LEANDER COMPOSITE ZONING ORDINANCE, ARTICLE VI, SECTION 2, PARAGRAPH B-1.
- EWS = CUT STONE AND CONCRETE TILT WALL WITH A DECORATIVE FINISH
- (4) DESIGN FEATURES REPRESENTED ON THE BUILDING FRONT PER CITY OF LEANDER COMPOSITE ZONING ORDINANCE, ARTICLE VII, SECTION 2, PARAGRAPH B-2.



**2 EXTERIOR ELEVATION - EAST**  
1/8" = 1'-0"



**1 EXTERIOR ELEVATION - SOUTH (ROW - S. BAGDAD RD.)**  
1/8" = 1'-0"

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- 3 09.12.22 City Comments
- 4 02.17.23 City Comments
- 5 08.09.24 VE

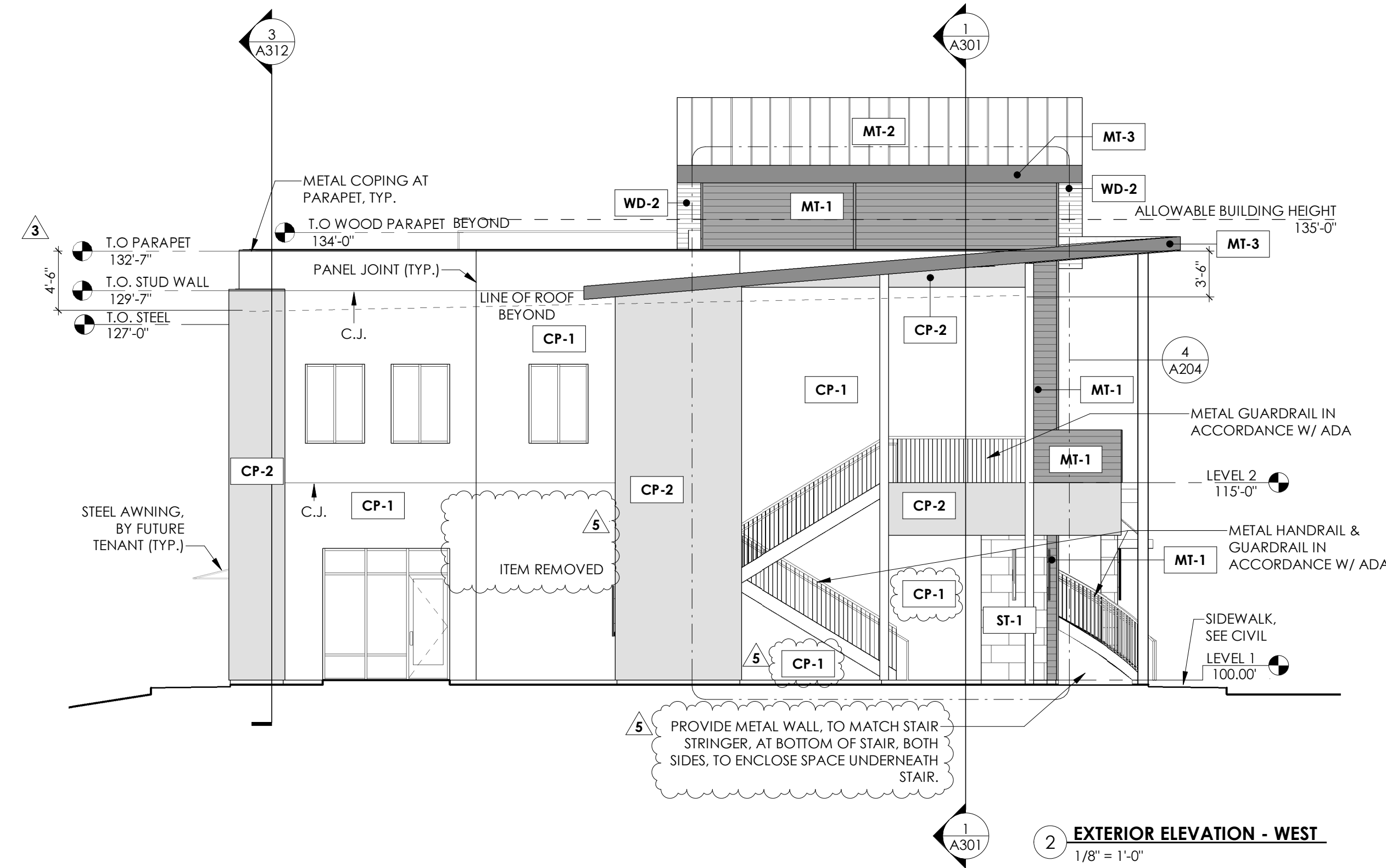
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**RODNEY PALMER**  
08.09.2024  
100% CDS - REV05 - VE  
EXTERIOR ELEVATIONS

SHEET: **A201**

PROJECT NO: 21099  
DRAWN BY: MD  
DATE: 02.17.23  
PROJECT MGR: KS

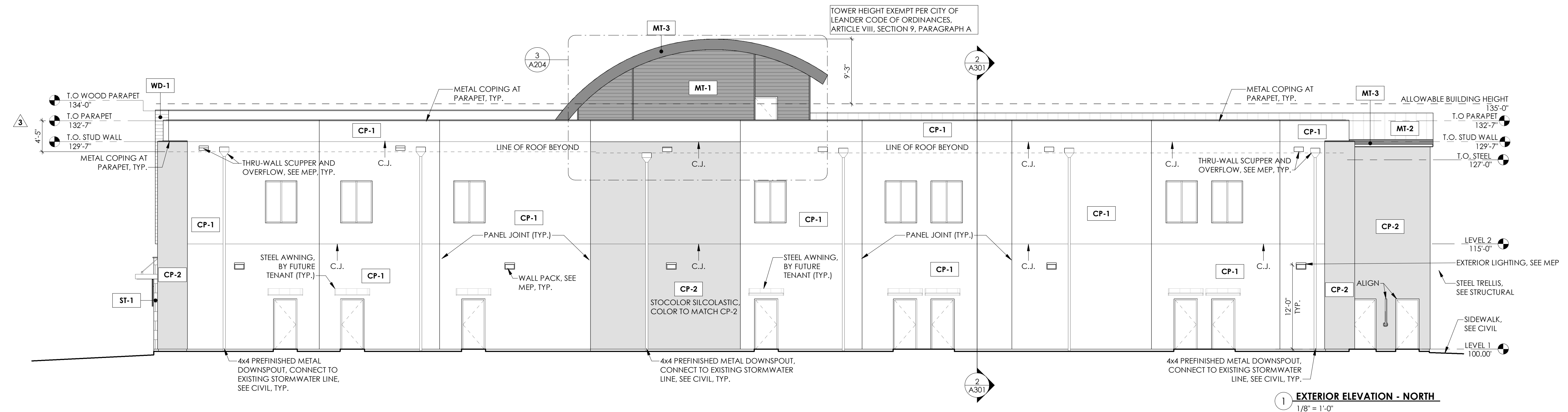


### MATERIAL LEGEND

MT-1	22 GA GALVANIZED CENTRIA PANEL, CONCEPT SERIES (REFER TO SHEET A204 FOR PROFILE LAYOUT), CHARCOAL GREY
MT-2	22 GA ARCHITECTURAL METAL STANDING SEAM ROOF, EQUAL TO BERRIDGE, PREWEATHERED GALVALUME, CEE-LOCK W/ 1 1/2" TALL RIBS AT 16" O.C.
MT-3	PREFINISHED METAL FASCIA, PREWEATHERED GALVALUME
CP-1	STUCCO 1, APPLIED STUCCO FINISH, COLOR TO MATCH STO EIDER WHITE
CP-2	STUCCO 2, COLOR TO MATCH STO ELEPHANT EAR
ST-1	STONEBROOK NATURAL STONE VENEER, WHITE, FACE CUT ALL SIDES
WD-1	NICHIHA WOOD SERIES, VINTAGEWOOD, CEDAR

### NOTES:

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**RODNEY PALMER**  
 08.09.2024  
 100% CDS - REV05 - VE  
 EXTERIOR ELEVATIONS

SHEET: **A202**

PROJECT NO: 21099  
 DRAWN BY: MD  
 DATE: 02.17.23  
 PROJECT MGR: KS



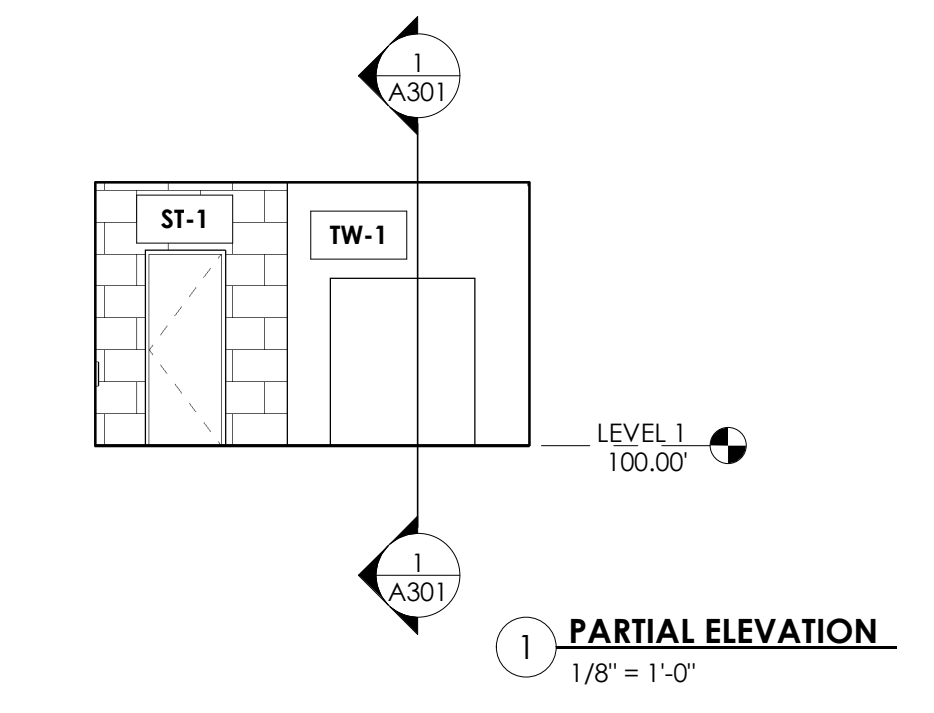
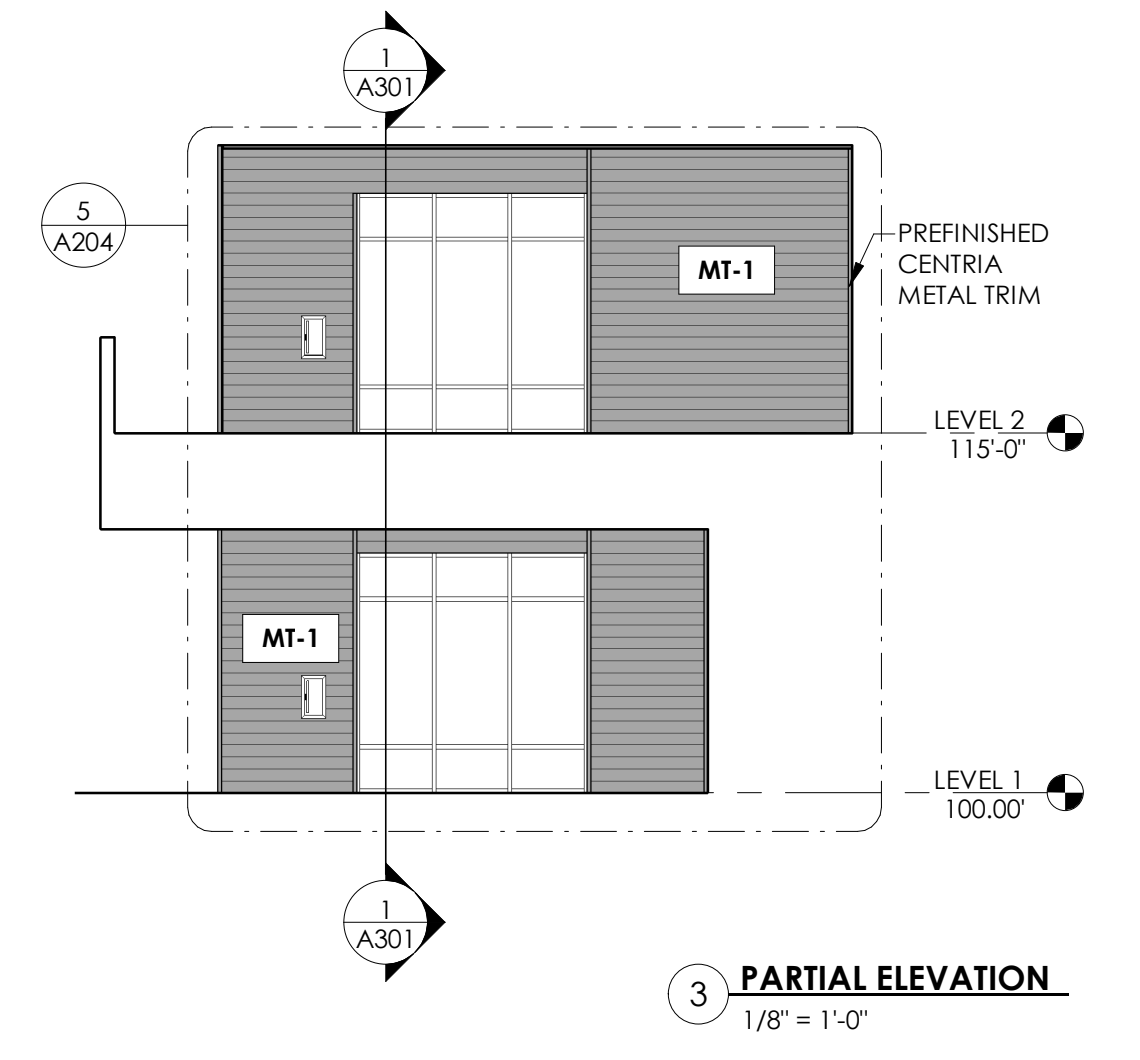
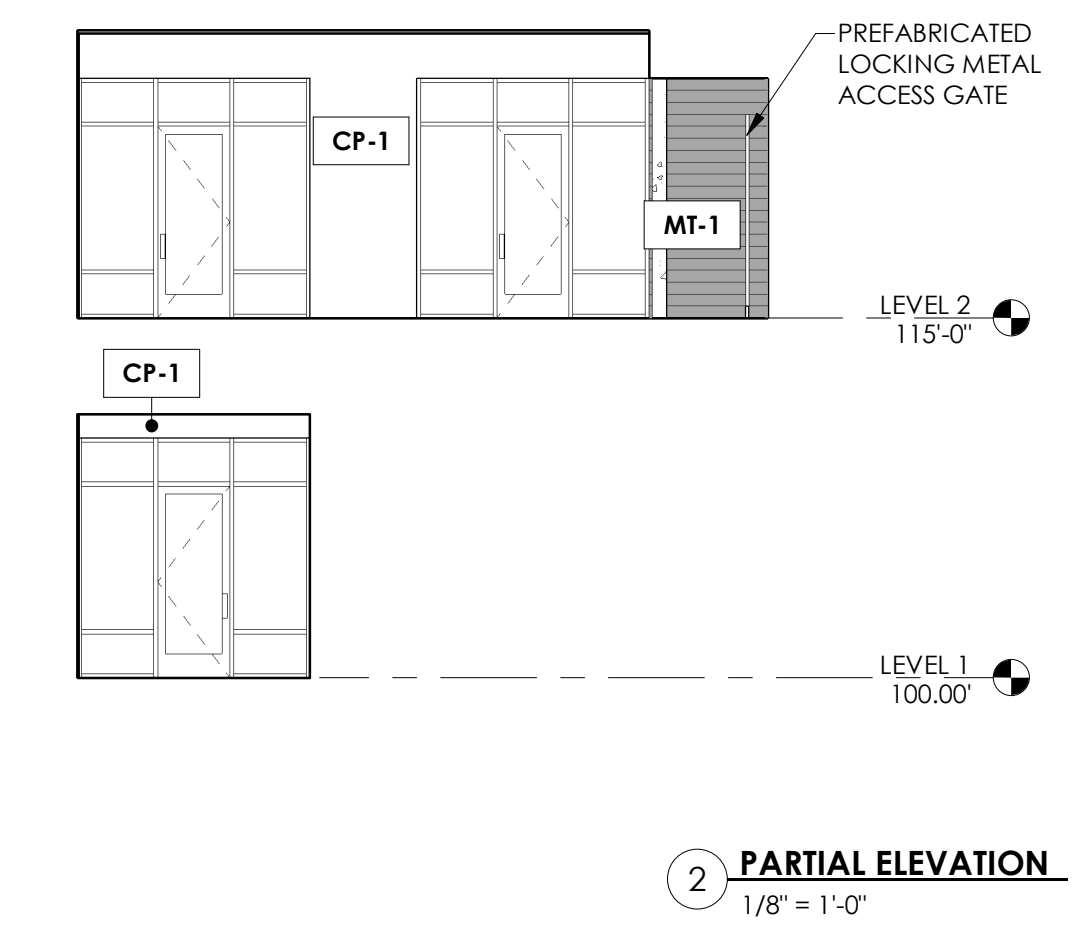
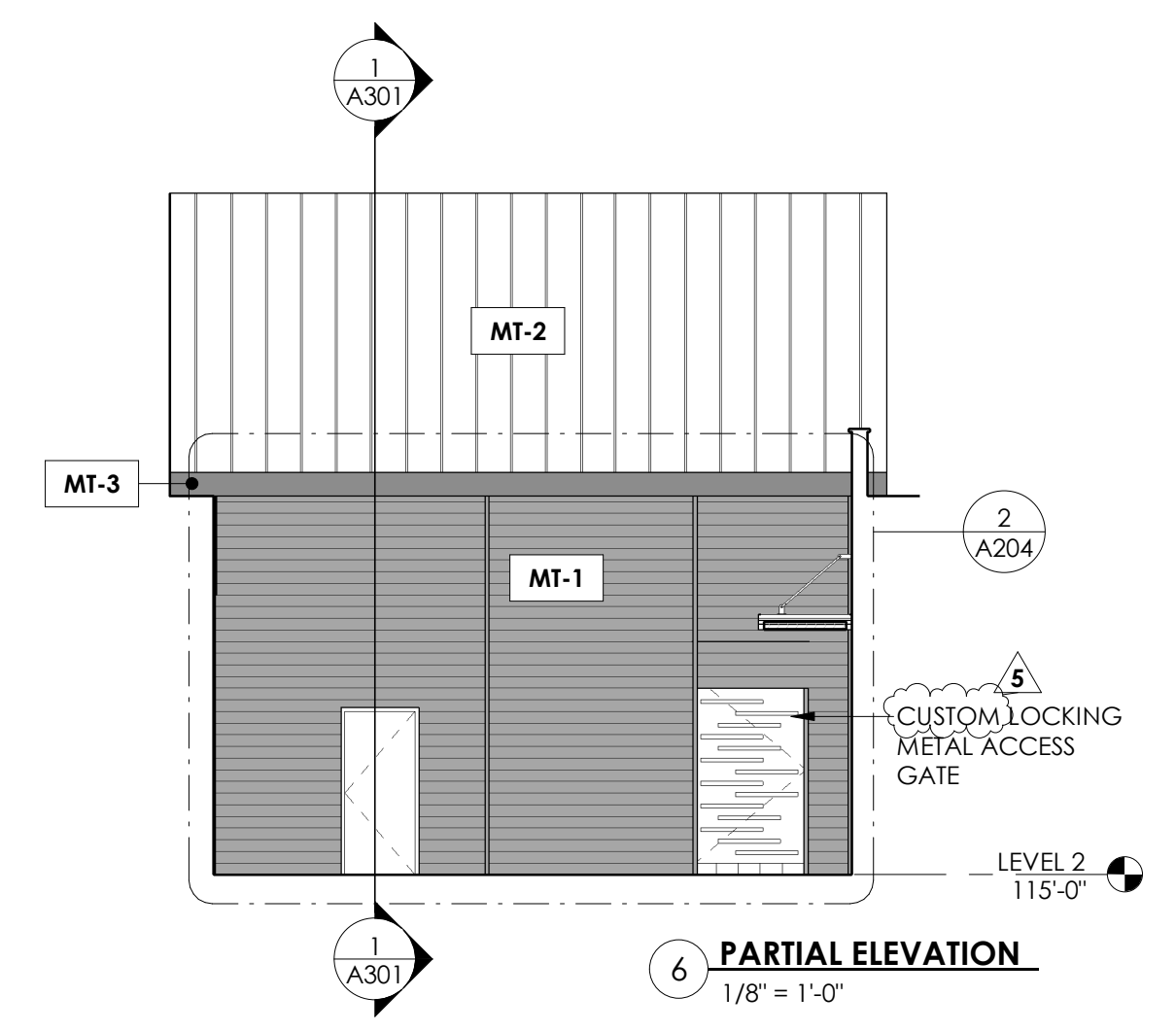
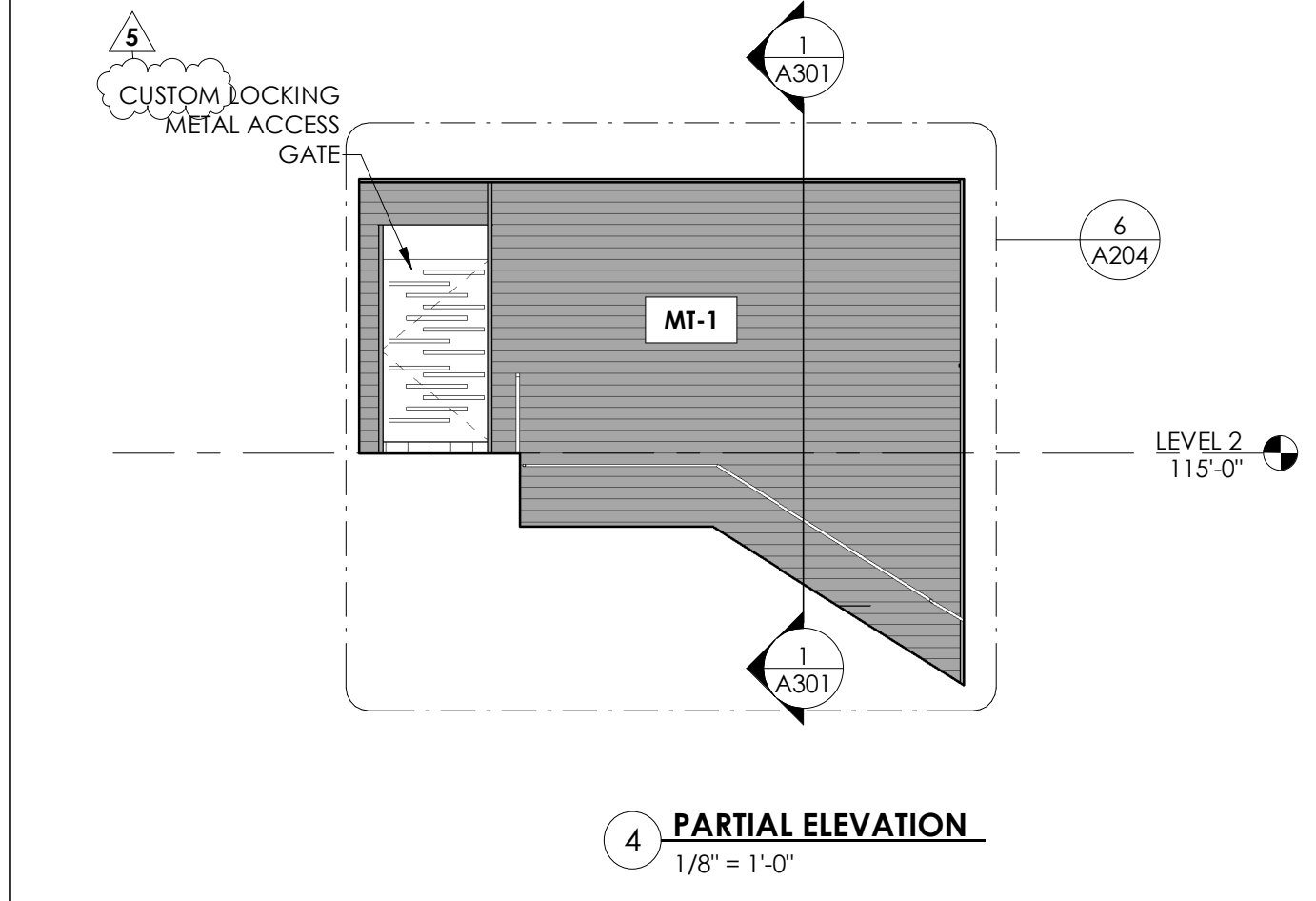
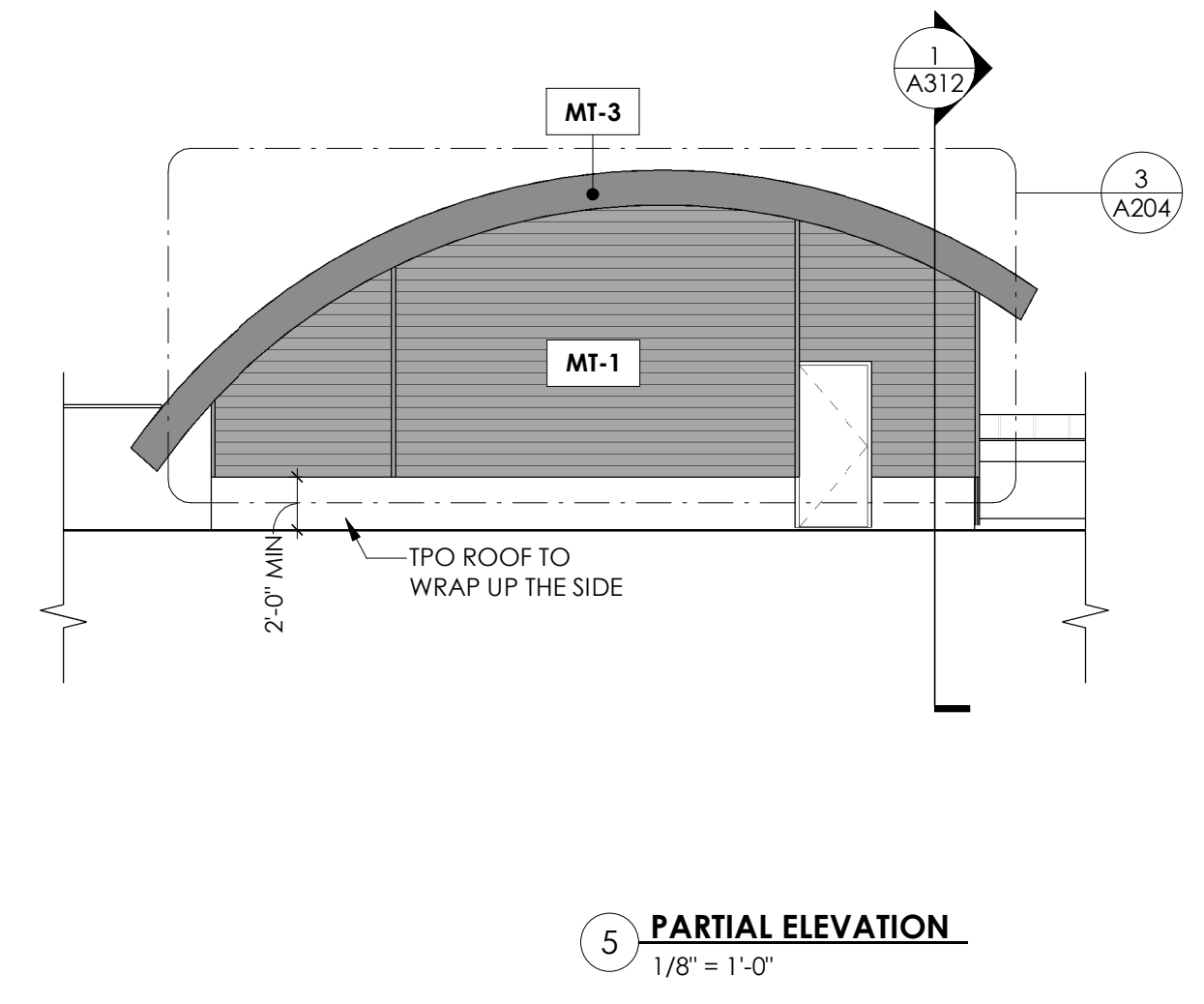
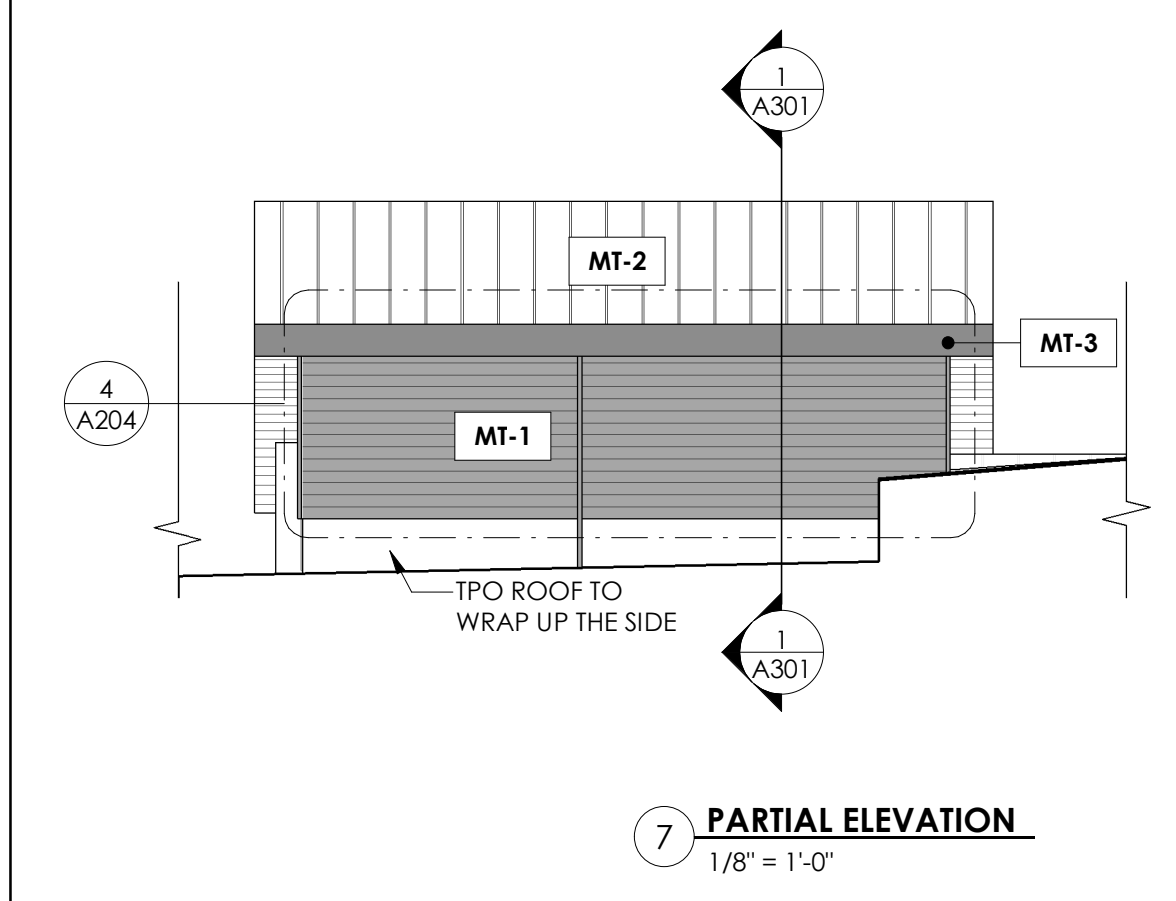
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 ARCHITECT:  
 RODNEY PALMER  
 08.09.2024  
 100% CDS - REV05 - VE  
 PARTIAL ELEVATIONS

SHEET: **A203**

PROJECT NO: 21099  
 DRAWN BY: MD  
 DATE: 02.17.23  
 PROJECT MGR: KS



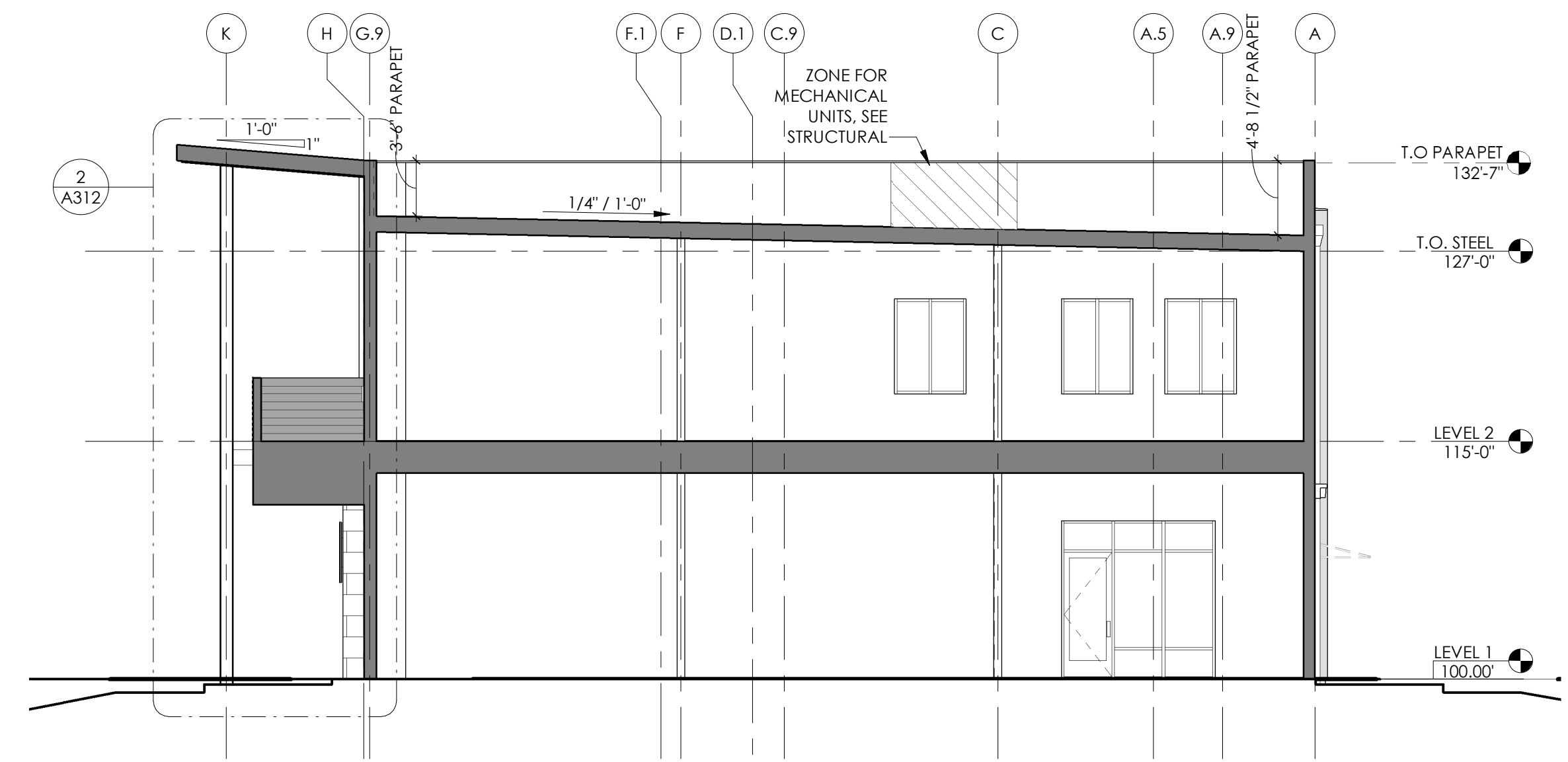




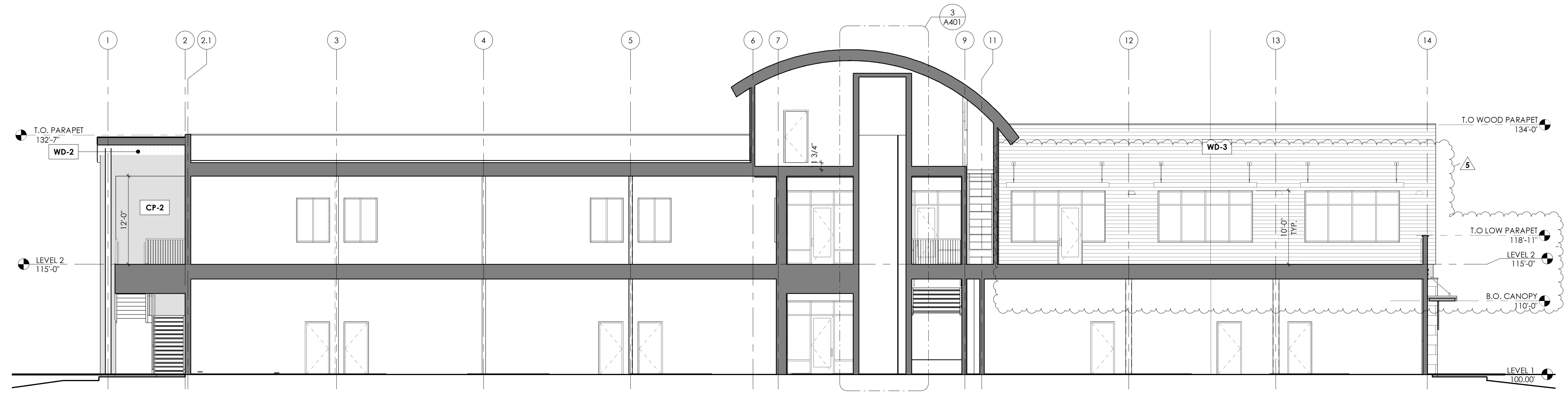
4 3D VIEW (FOR REFERENCE ONLY)  
N.T.S.



3 3D VIEW (FOR REFERENCE ONLY)  
N.T.S.



2 ROOFTOP UNIT DIAGRAM  
1/8" = 1'-0"



1 BUILDING SECTION  
1/8" = 1'-0"

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UNDER THE AUTHORITY OF  
ARCHITECT:  
RODNEY PALMER  
08.09.2024  
100% CDS - REV05 - VE  
BUILDING SECTIONS

SHEET: **A301**

PROJECT NO: 21099  
DRAWN BY: AG,MD  
DATE: 02.17.23  
PROJECT MGR: KS

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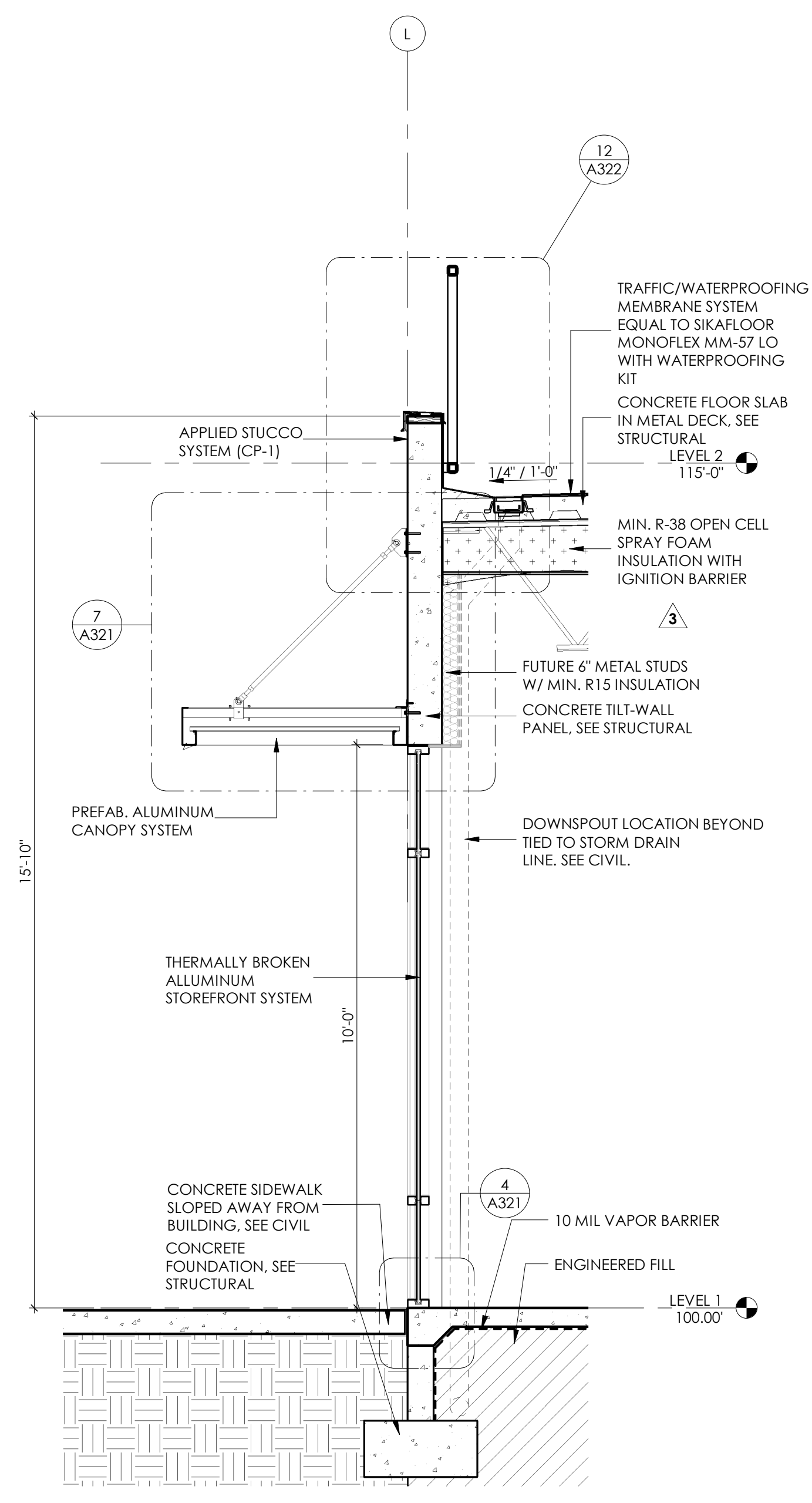
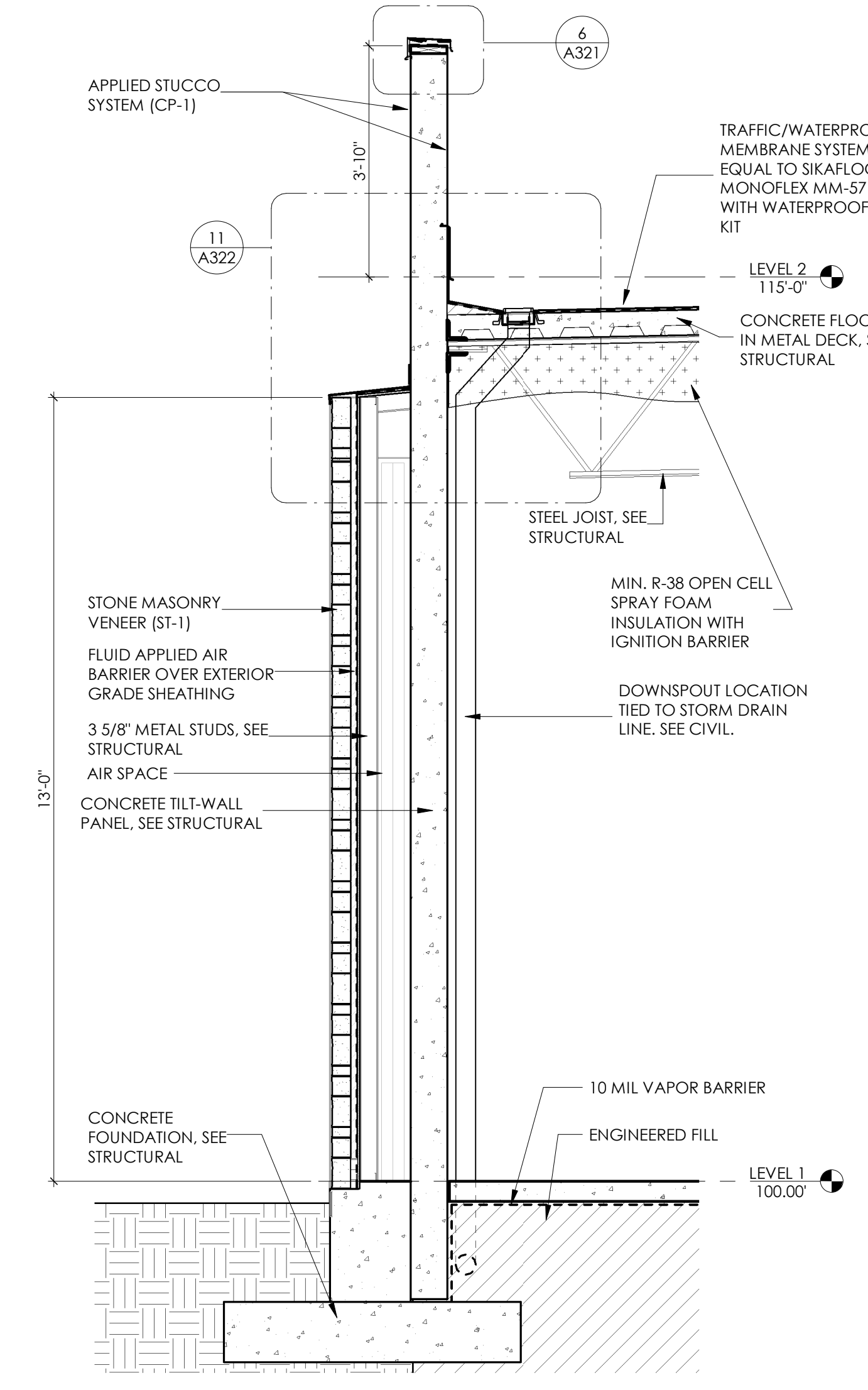
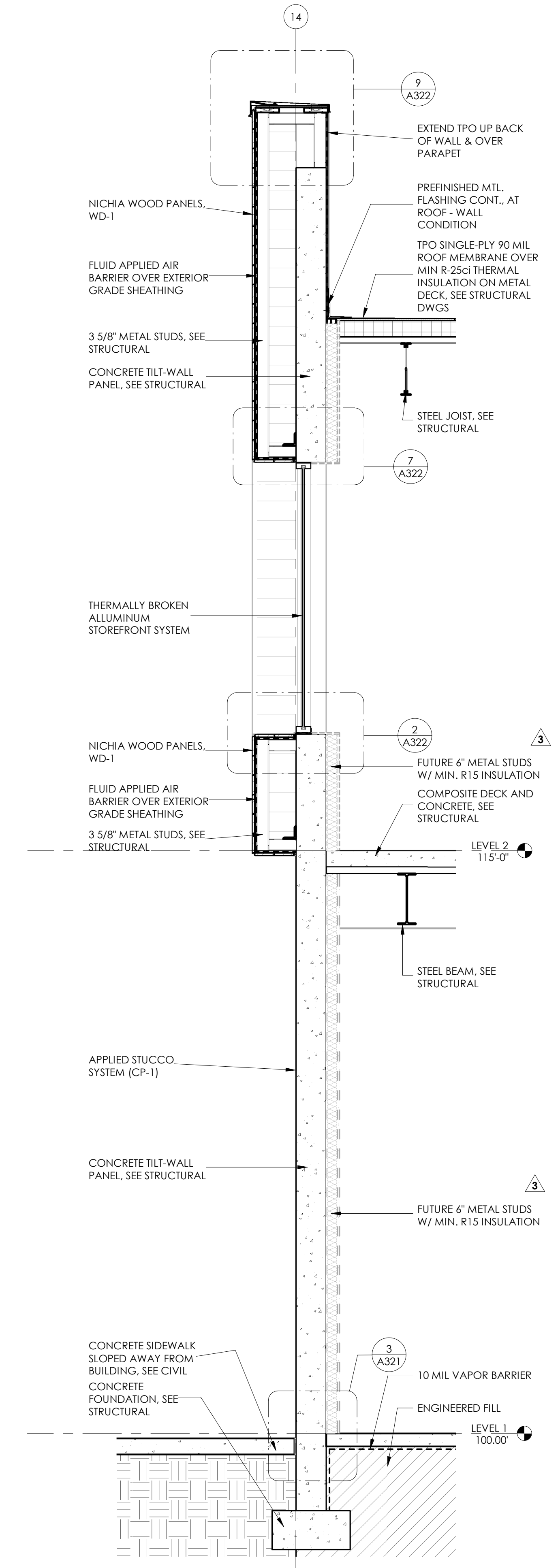
3 09.12.22 City Comments  
 5 08.09.24 VE

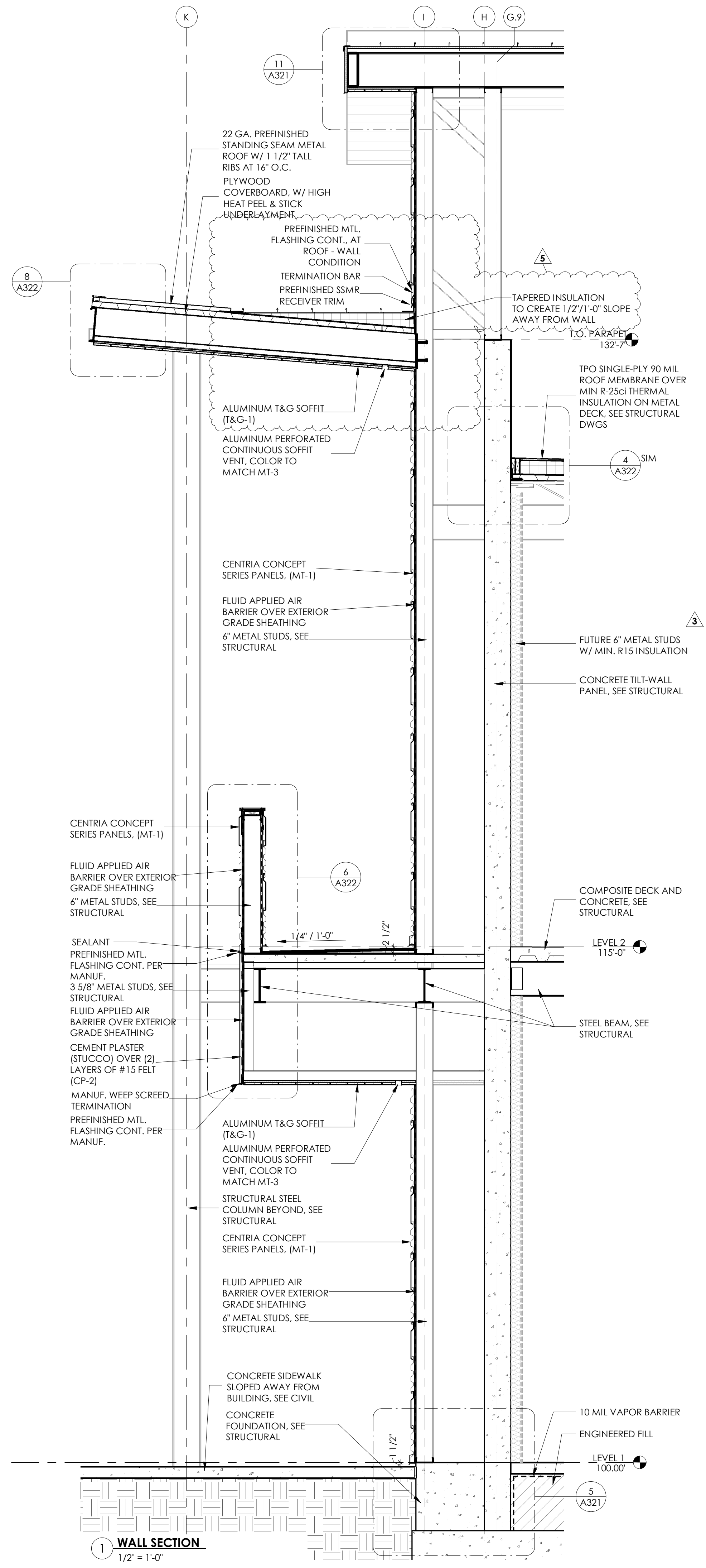
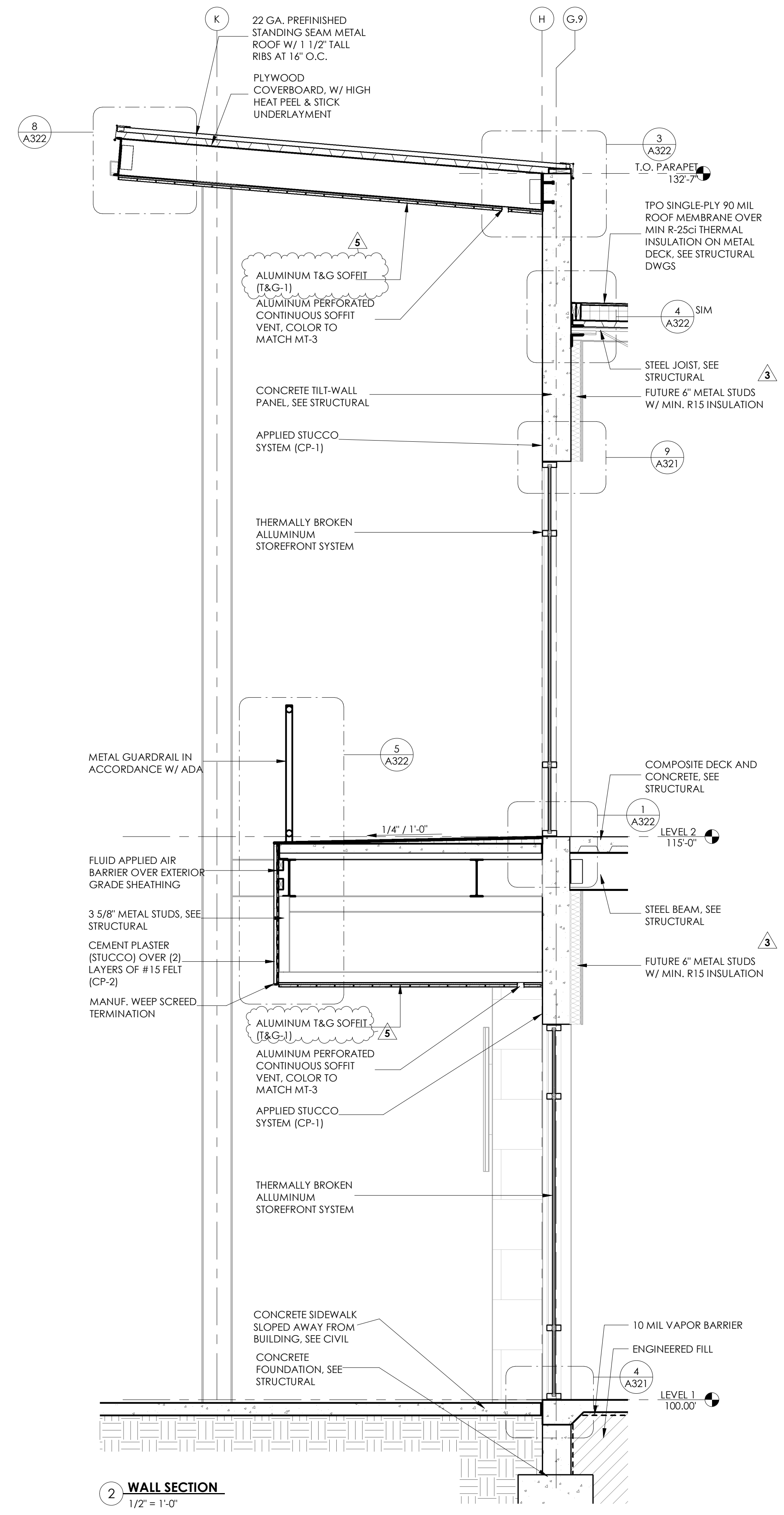
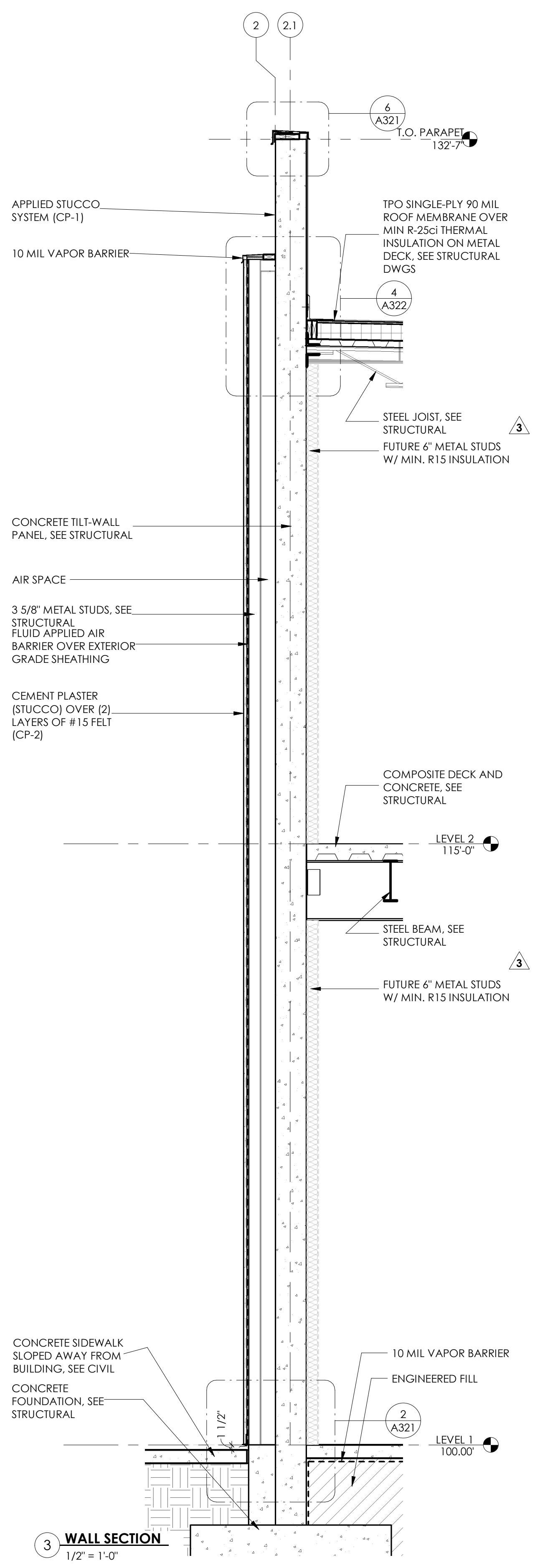
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 RODNEY PALMER  
 08.09.2024  
 100% CDS - REV05 - VE  
 WALL SECTIONS

SHEET: **A311**

PROJECT NO: 21099  
 DRAWN BY: AG, MD  
 DATE: 02.17.23  
 PROJECT MGR: KS





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3 09.12.22 City Comments  
 5 08.09.24 VE

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 08.09.2024  
 100% CDS - REV05 - VE  
 WALL SECTIONS

SHEET: **A312**

PROJECT NO: 21099  
 DRAWN BY: AG,MD  
 DATE: 02.17.23  
 PROJECT MGR: KS

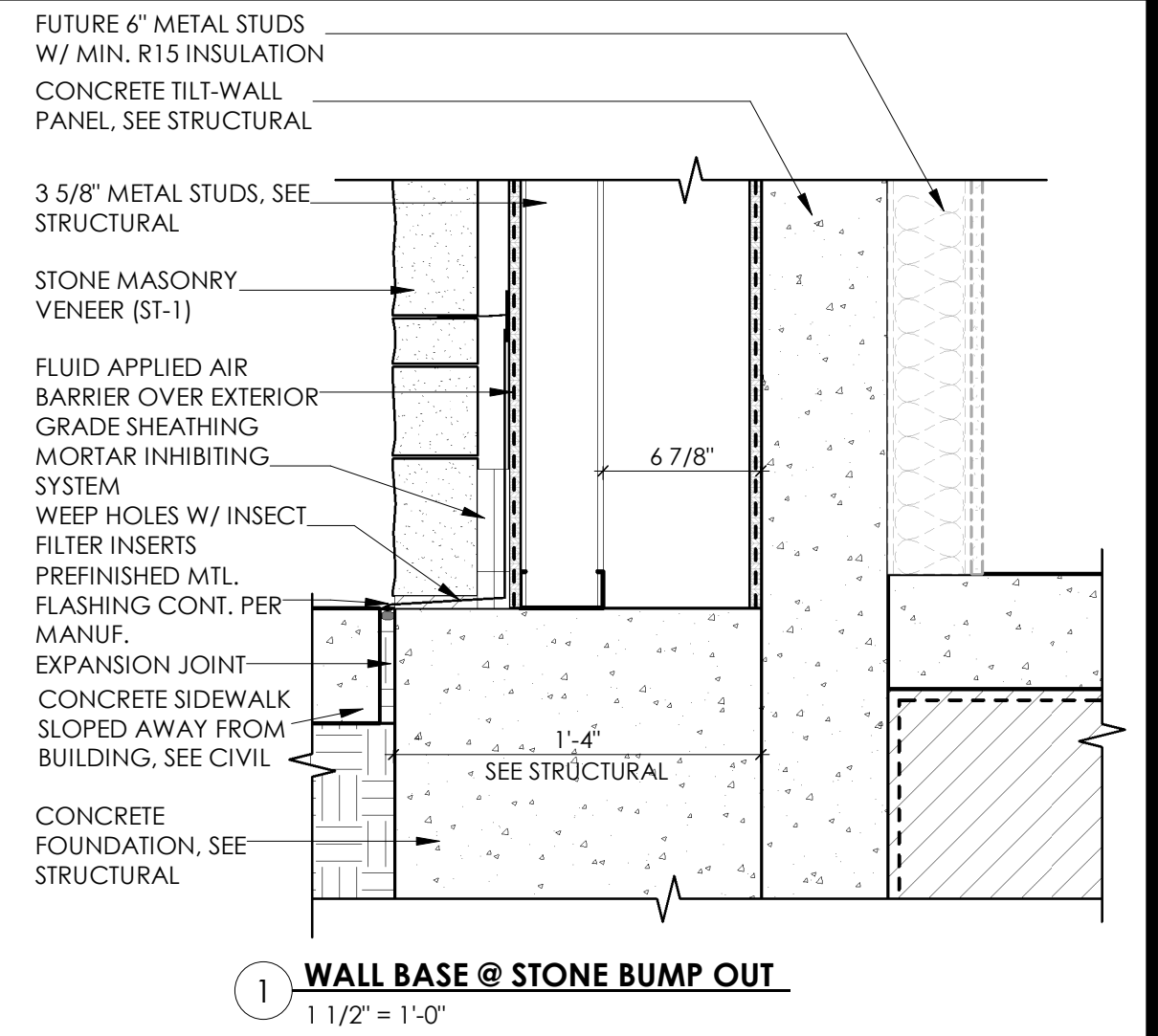
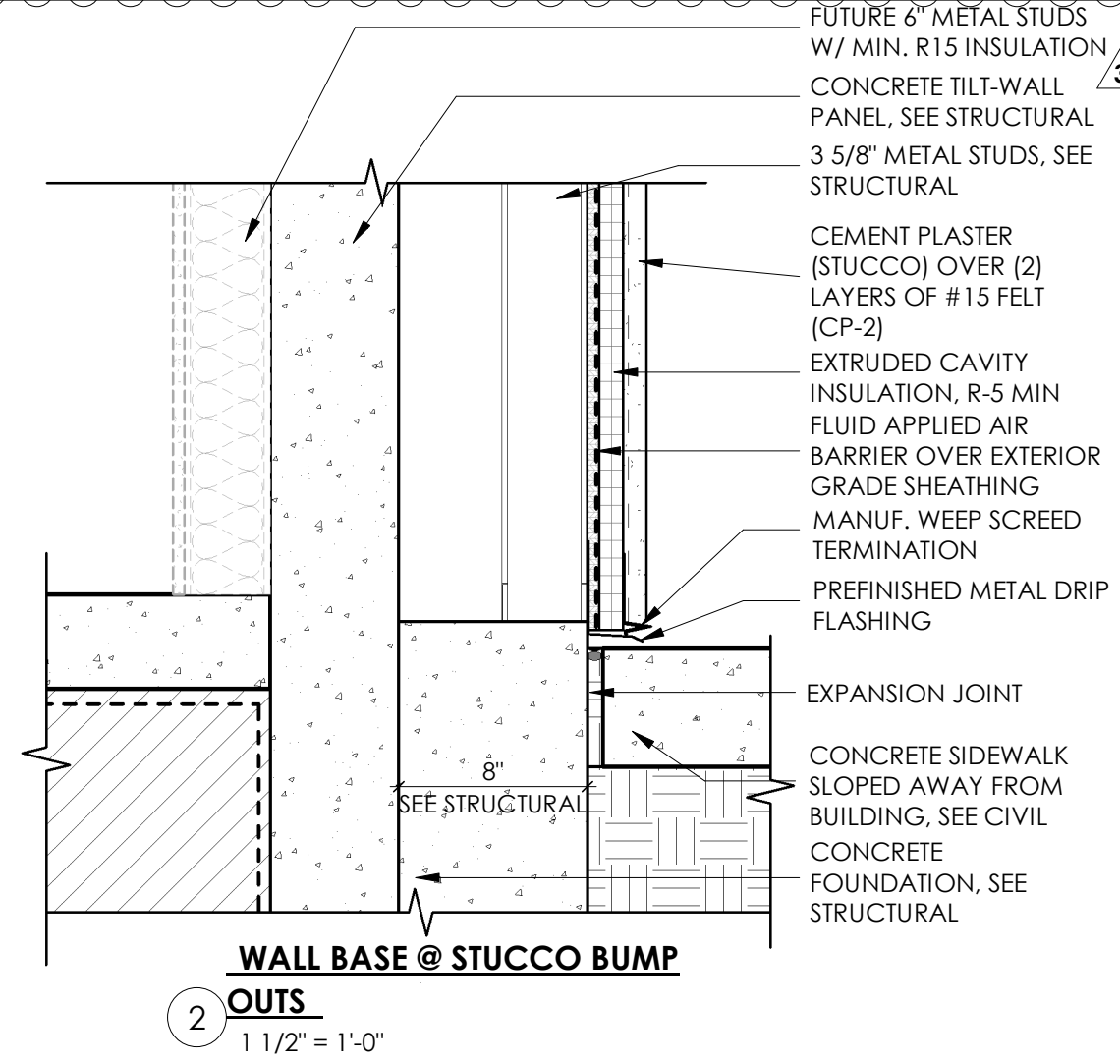
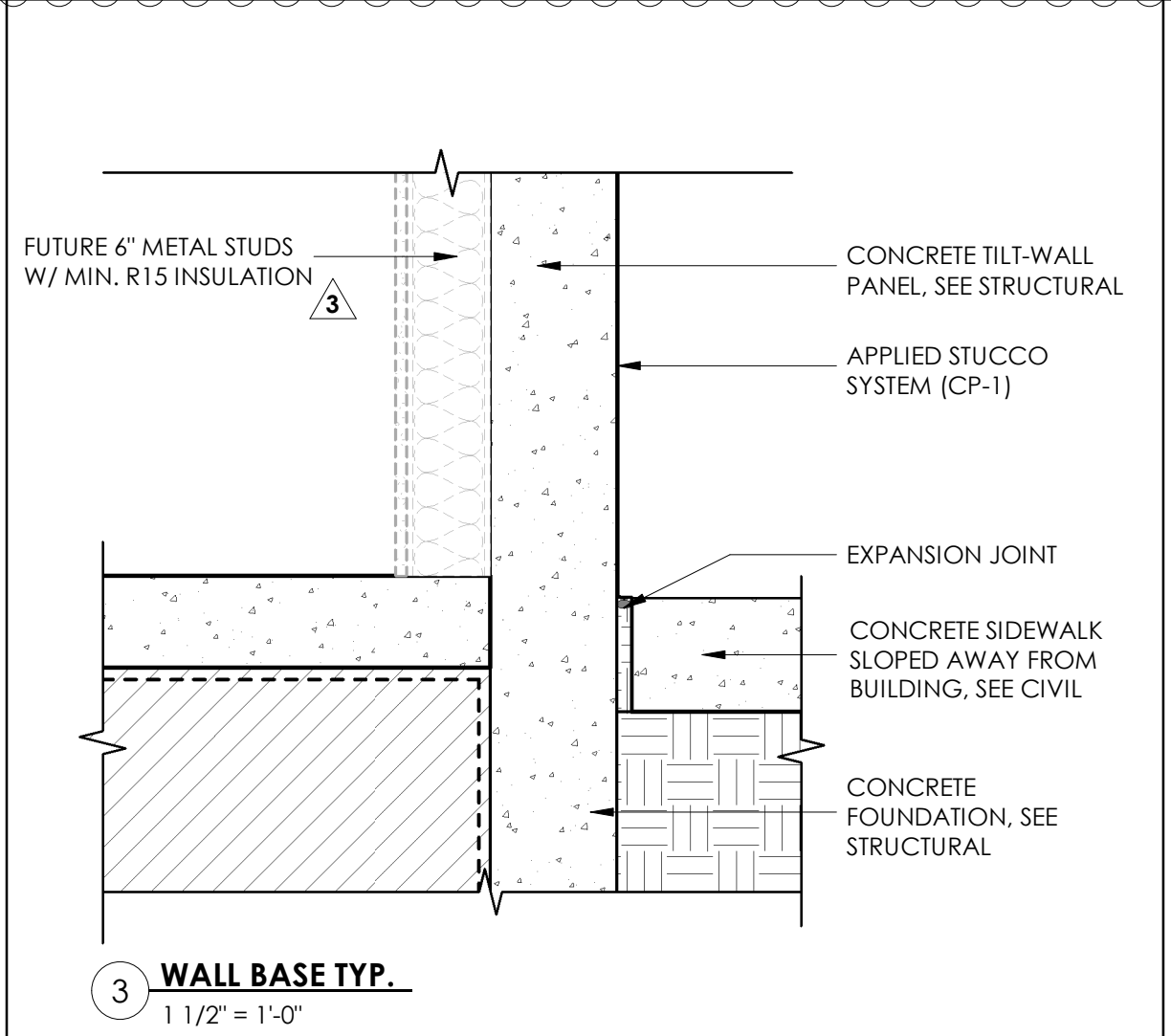
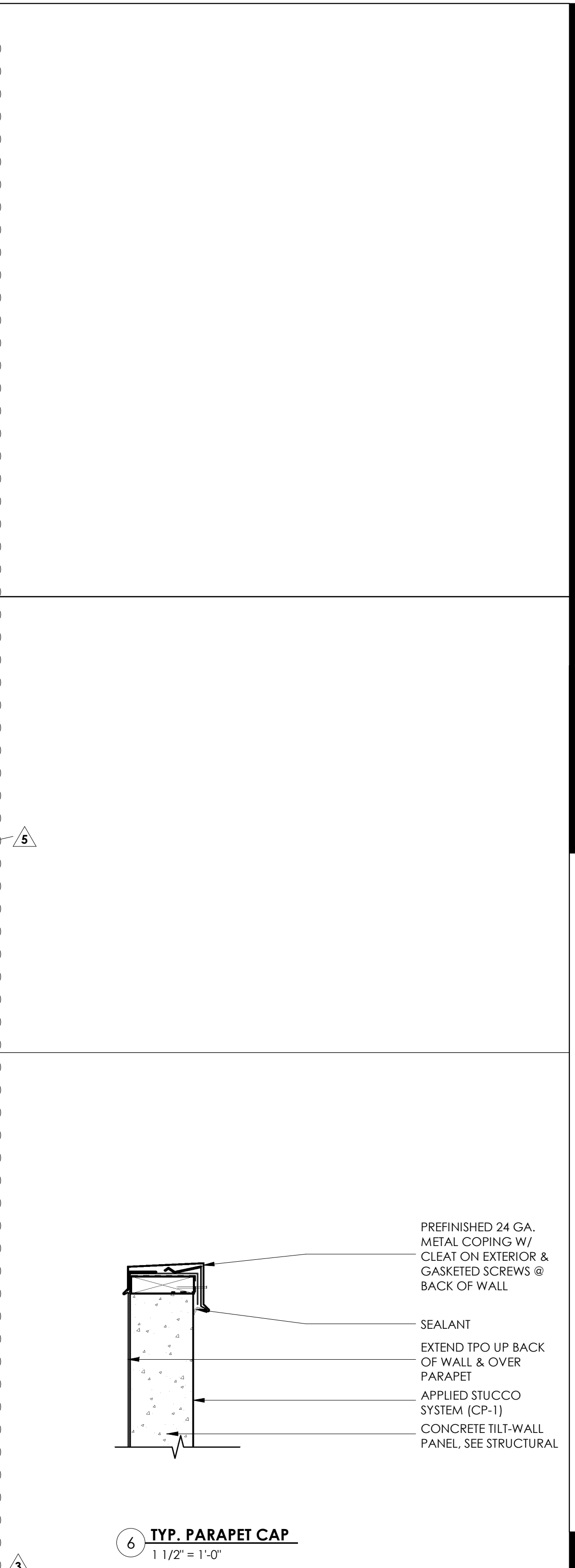
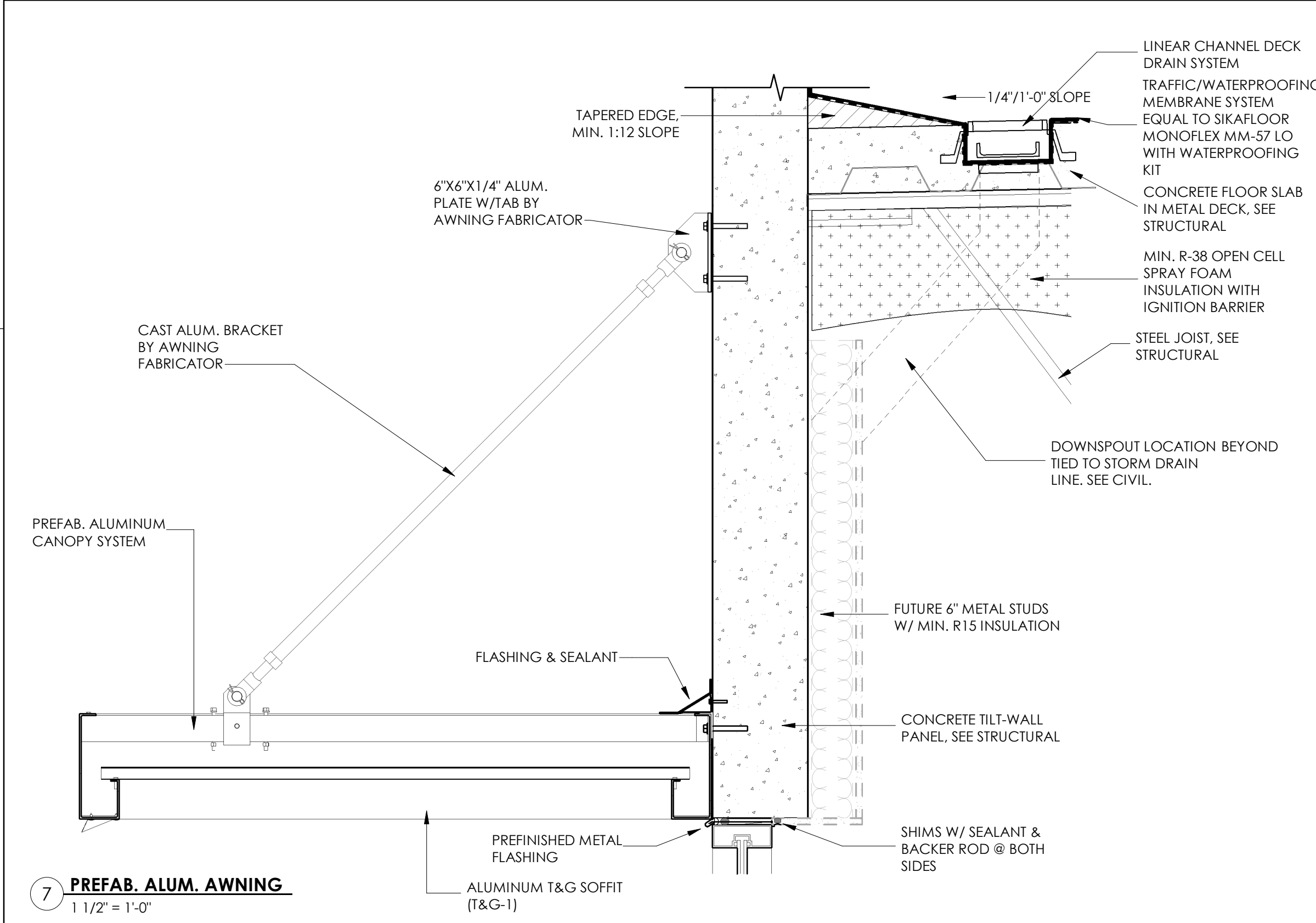
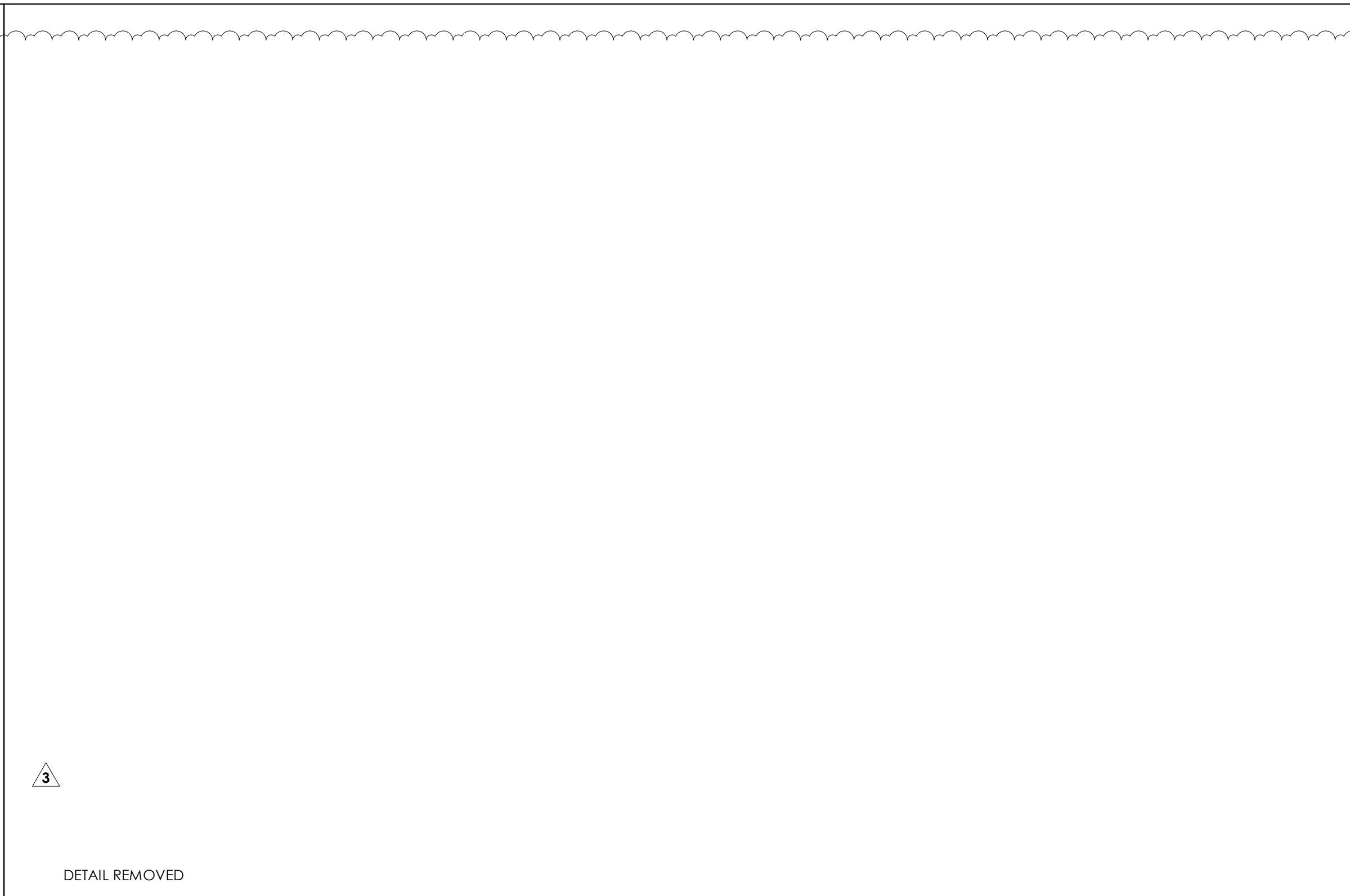
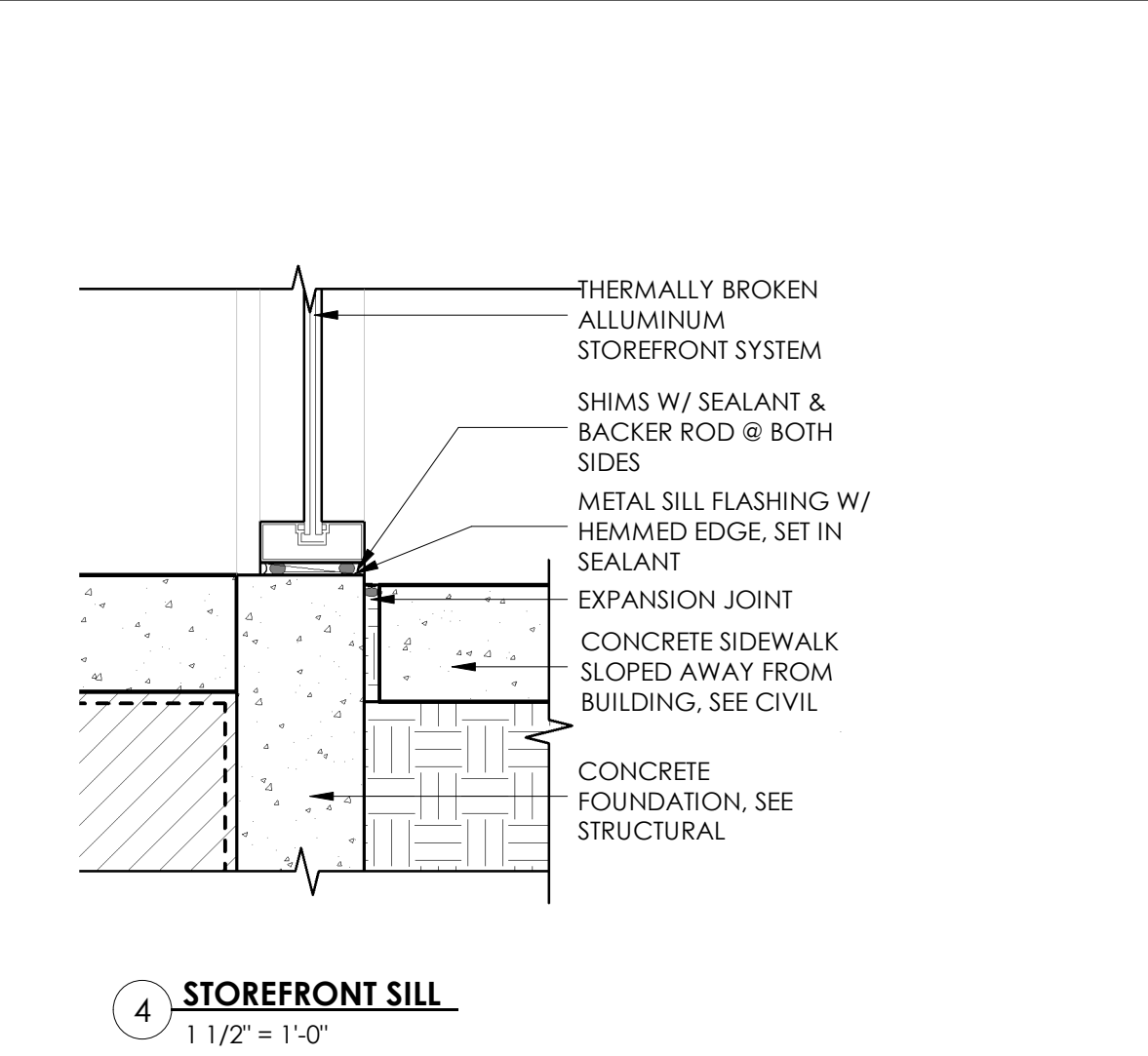
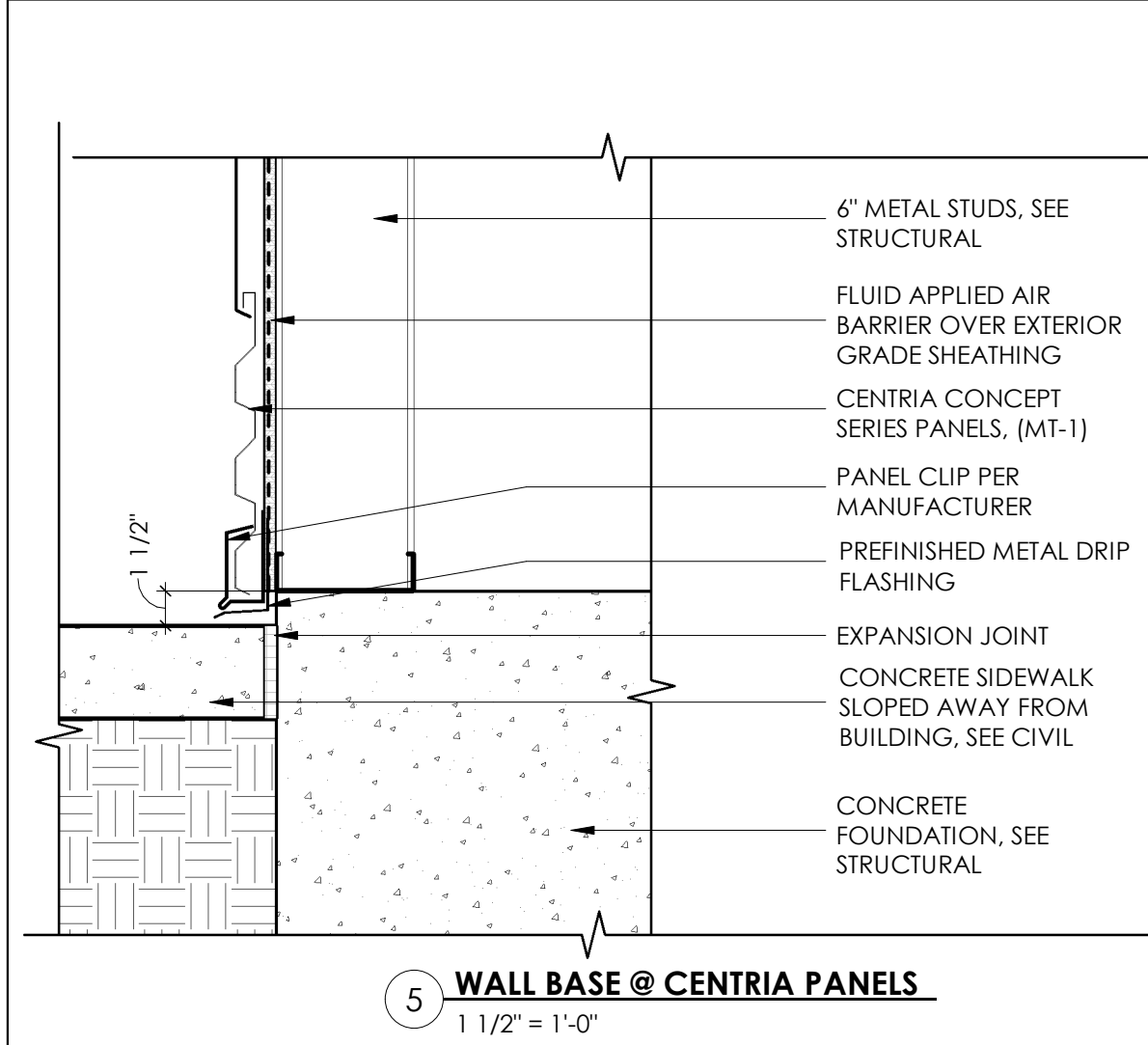
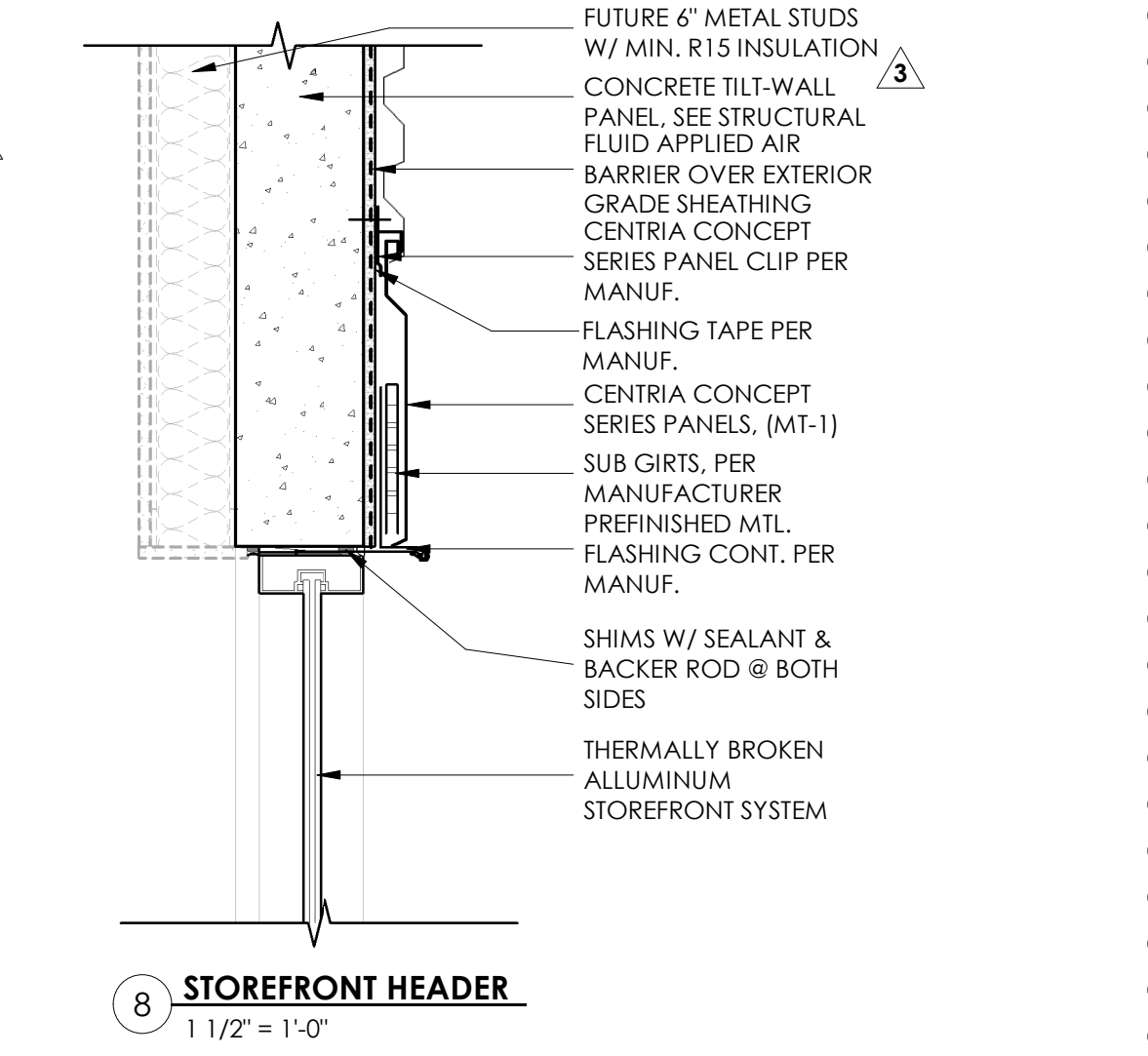
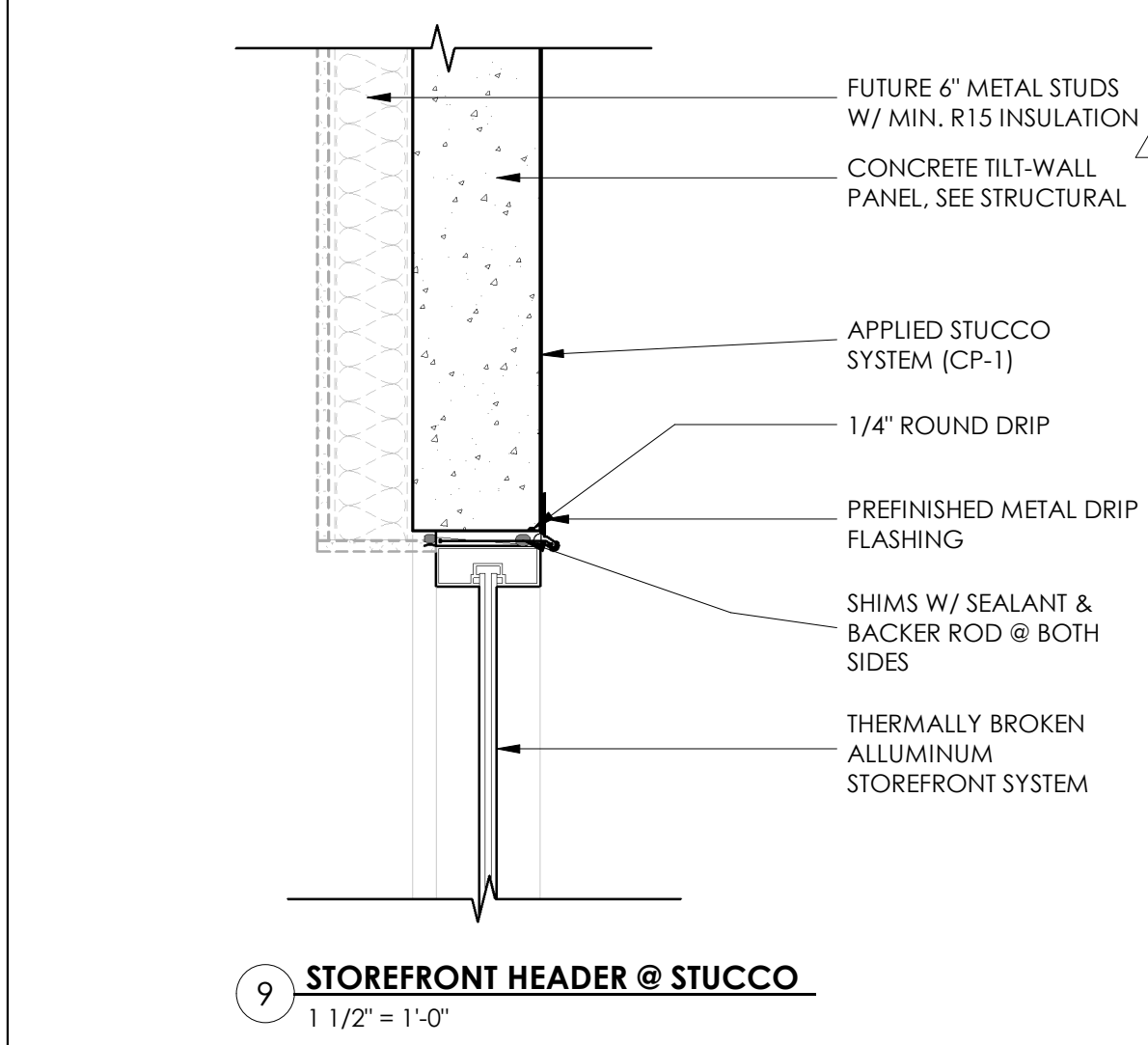
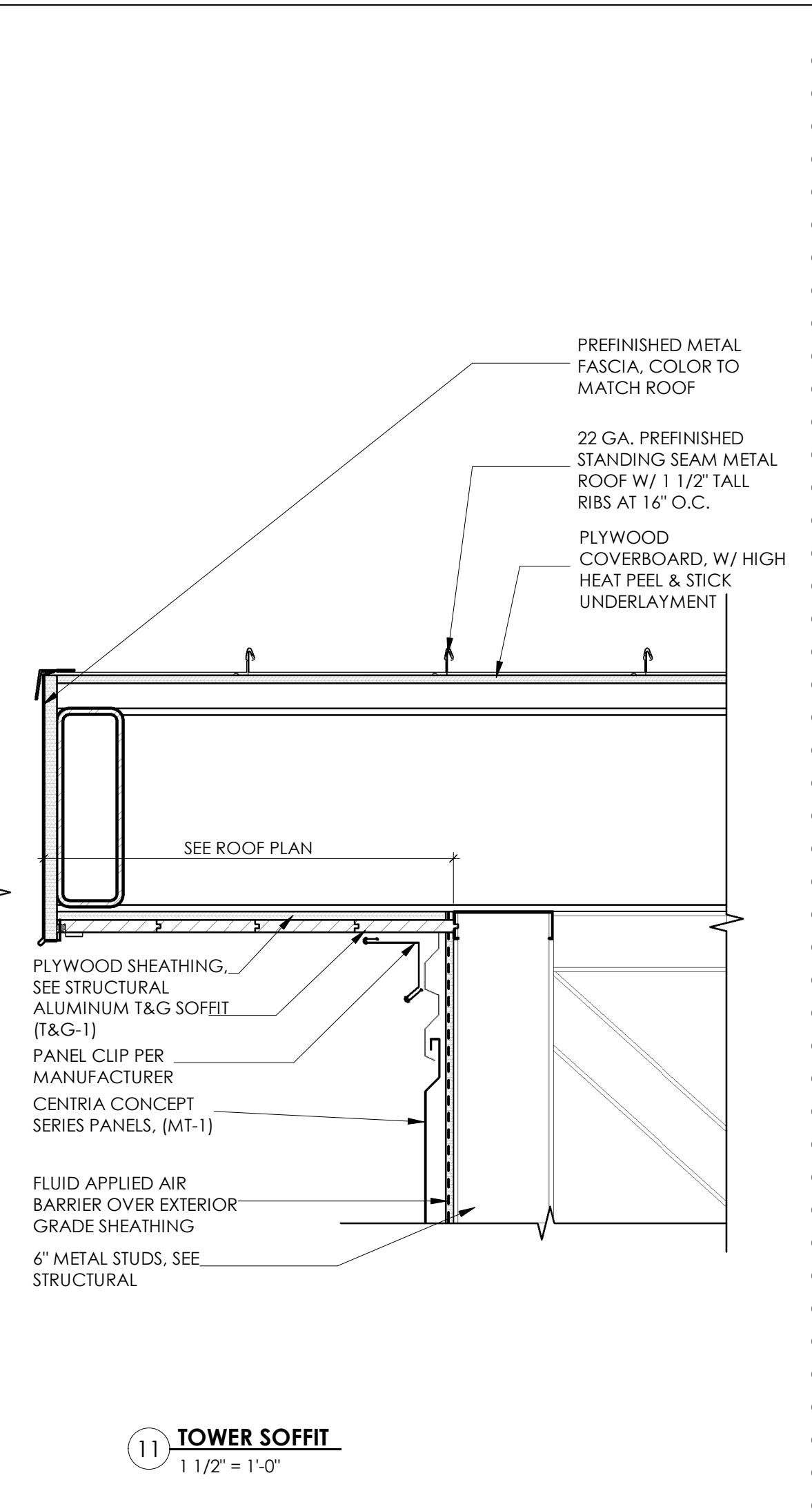
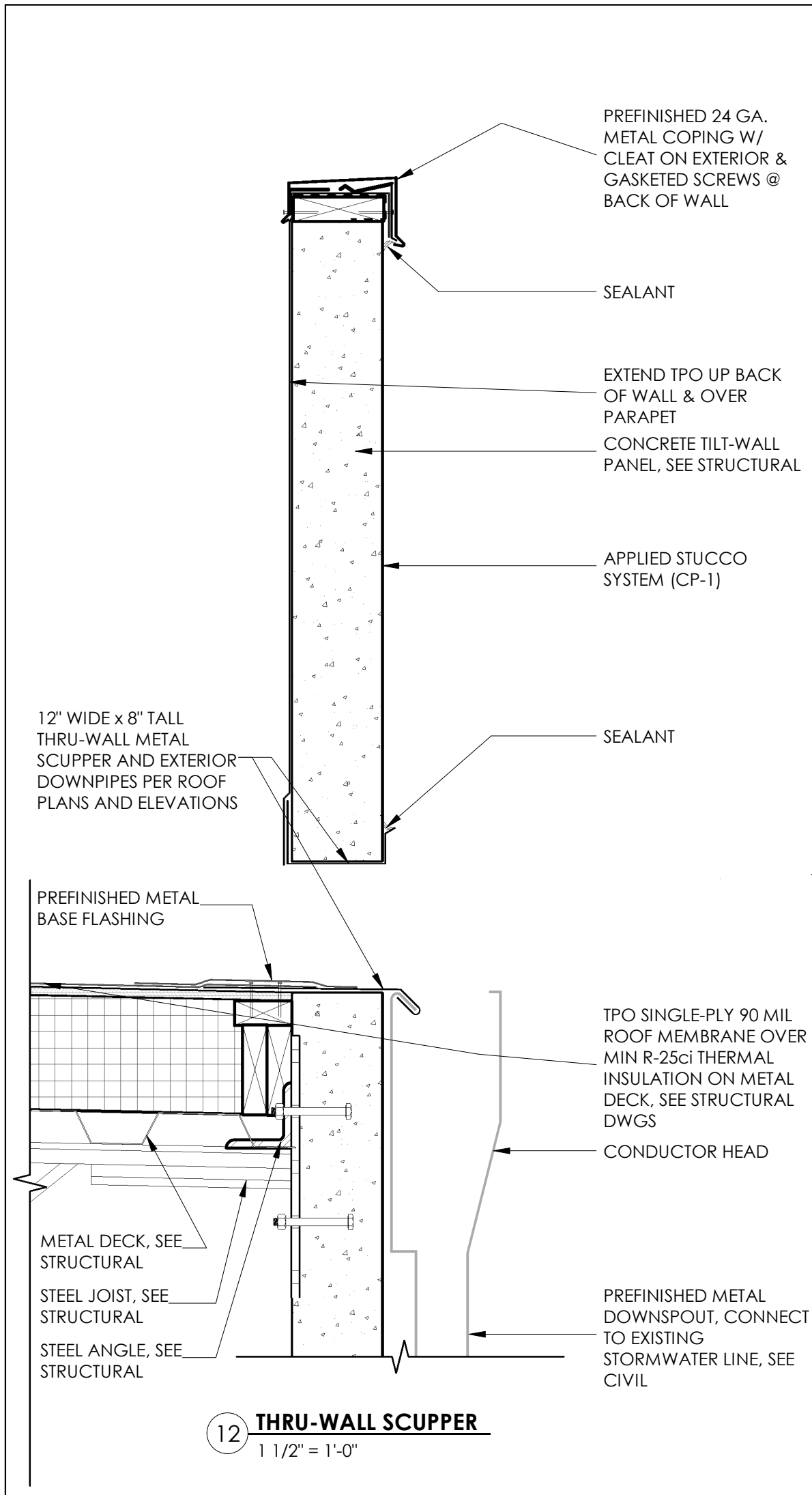
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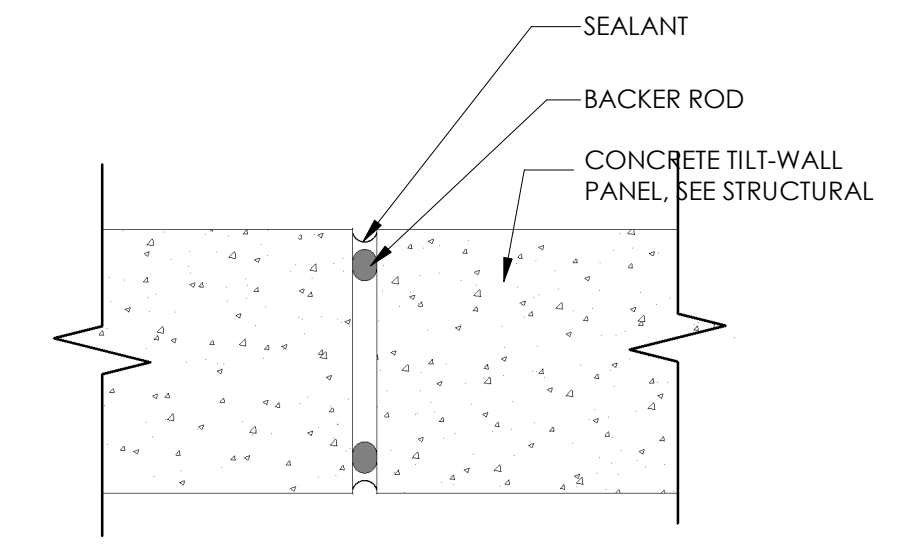
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SECTION DETAILS

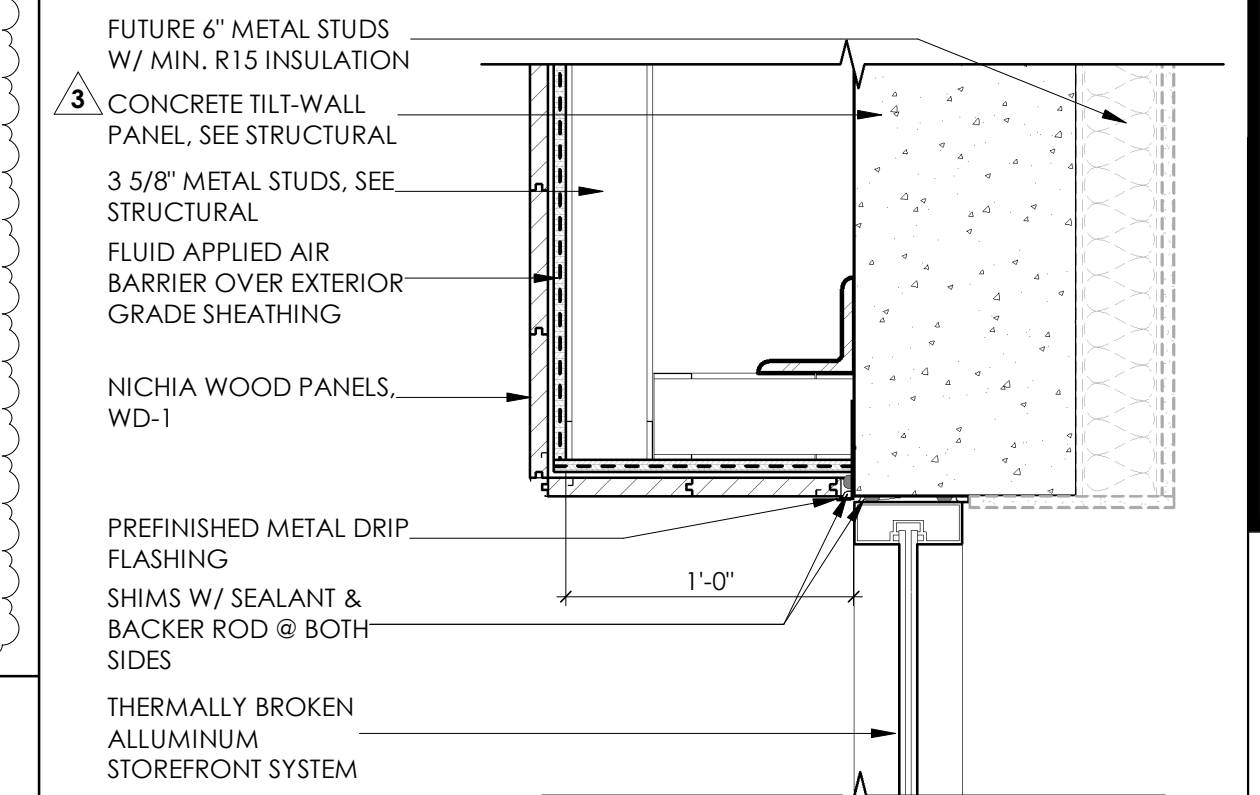
SHEET: **A321**

PROJECT NO: 21099  
DRAWN BY: AG  
DATE: 02.17.23  
PROJECT MGR: KS

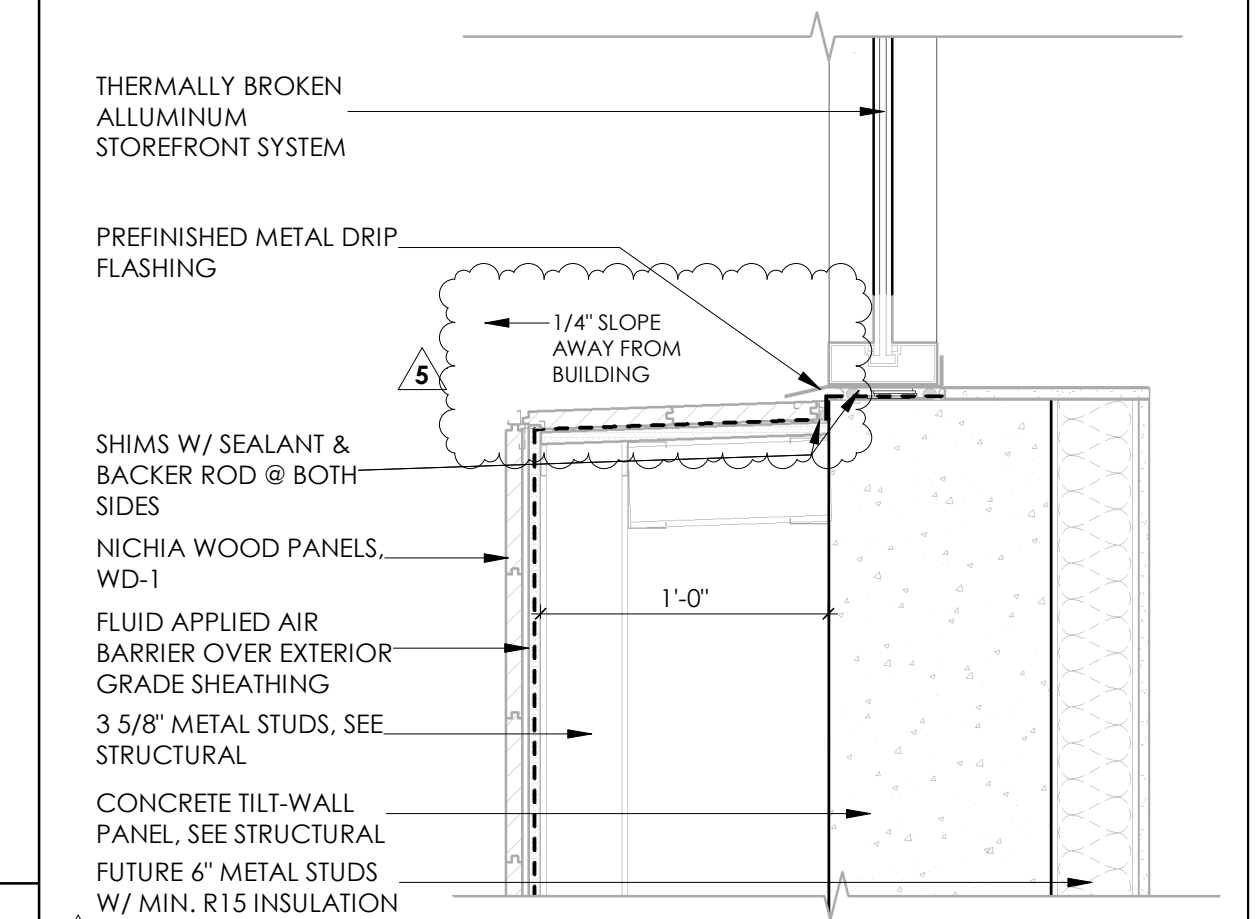




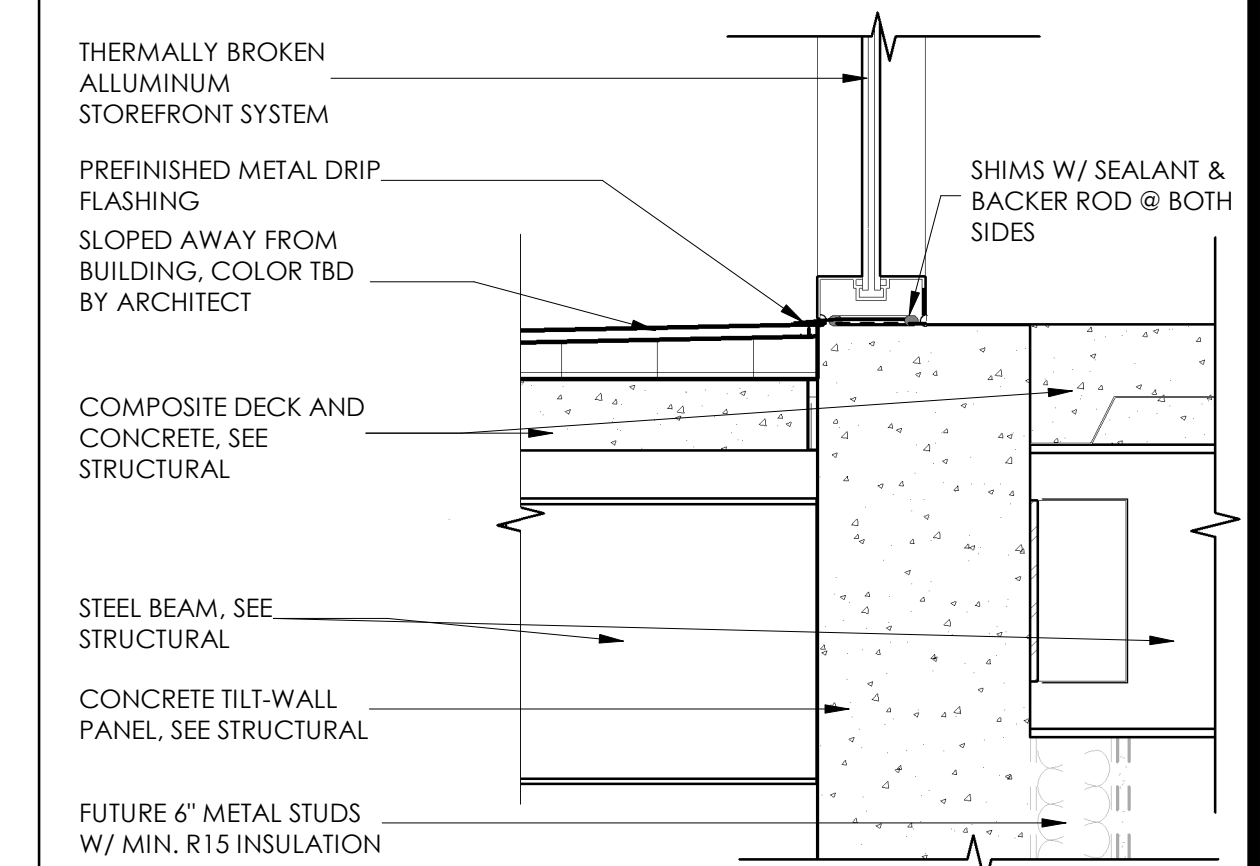
**10 TILT WALL PANEL JOINT**  
3'-0"



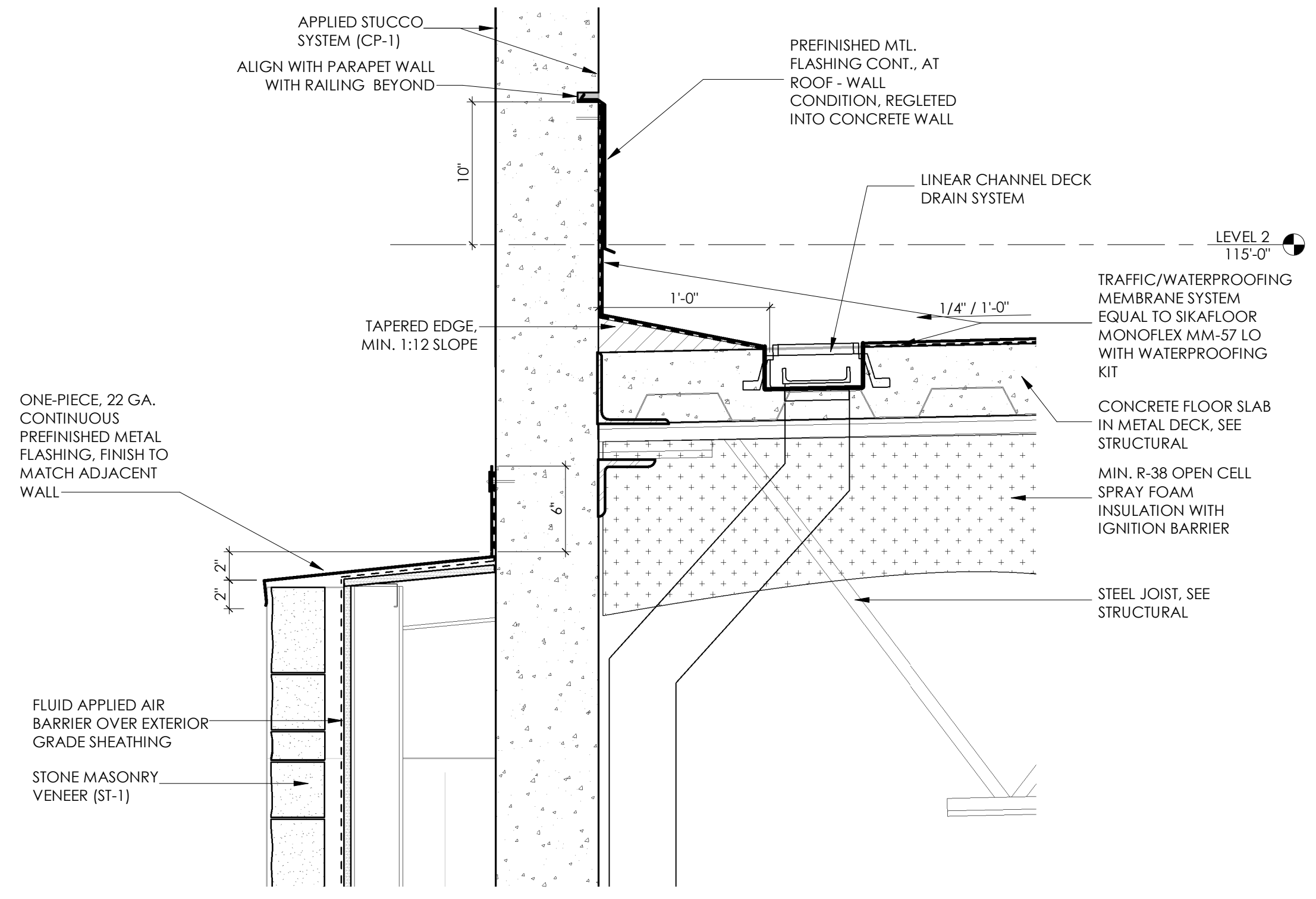
**7 WINDOW HEADER @ WOOD WALL**  
1 1/2" = 1'-0"



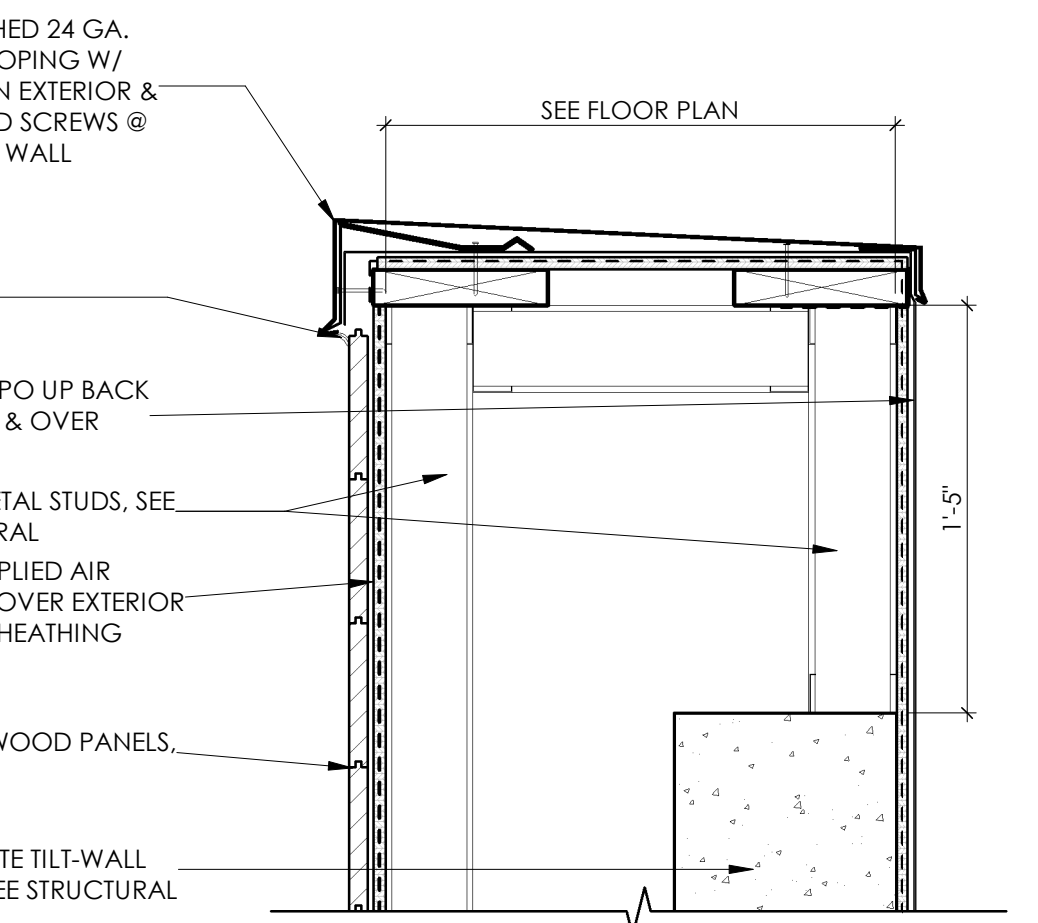
**5 WINDOW SILL @ WOOD WALL**  
1 1/2" = 1'-0"



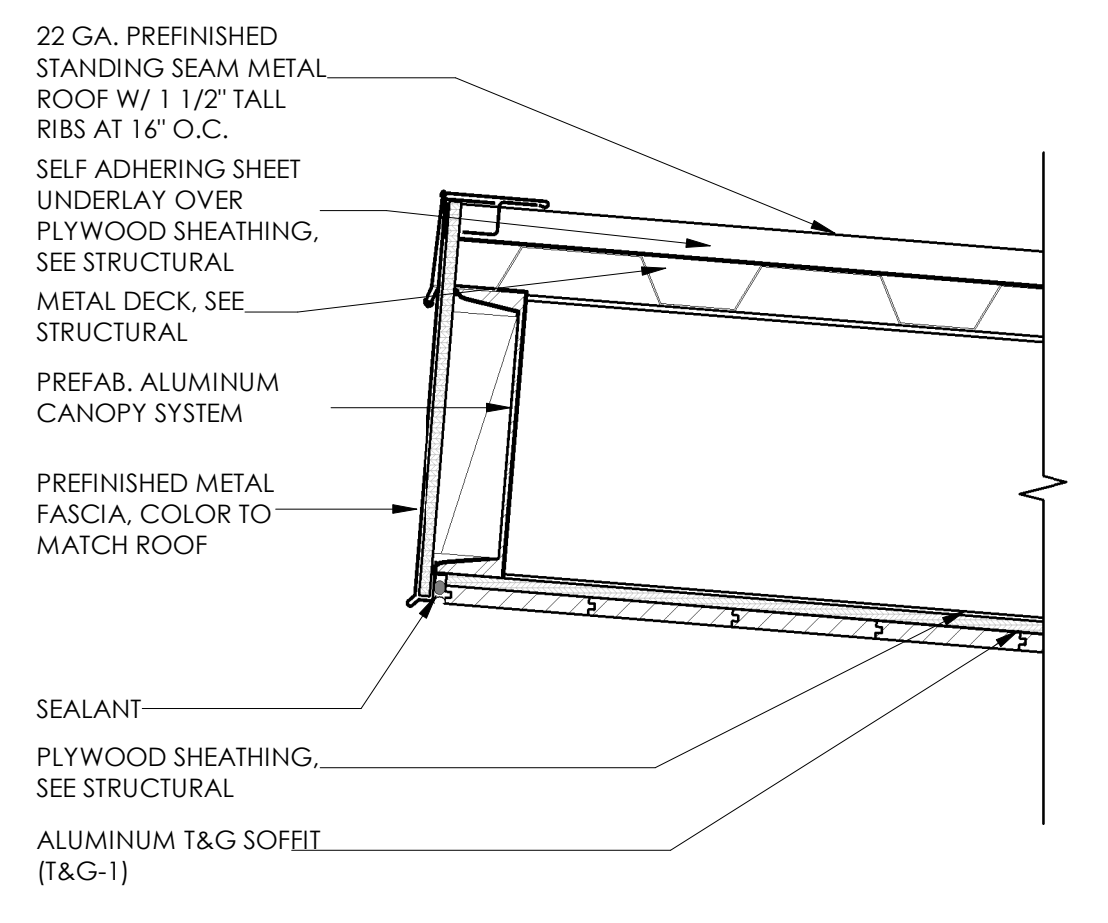
**2 STOREFRONT SILL @ LEVEL 2**  
1 1/2" = 1'-0"



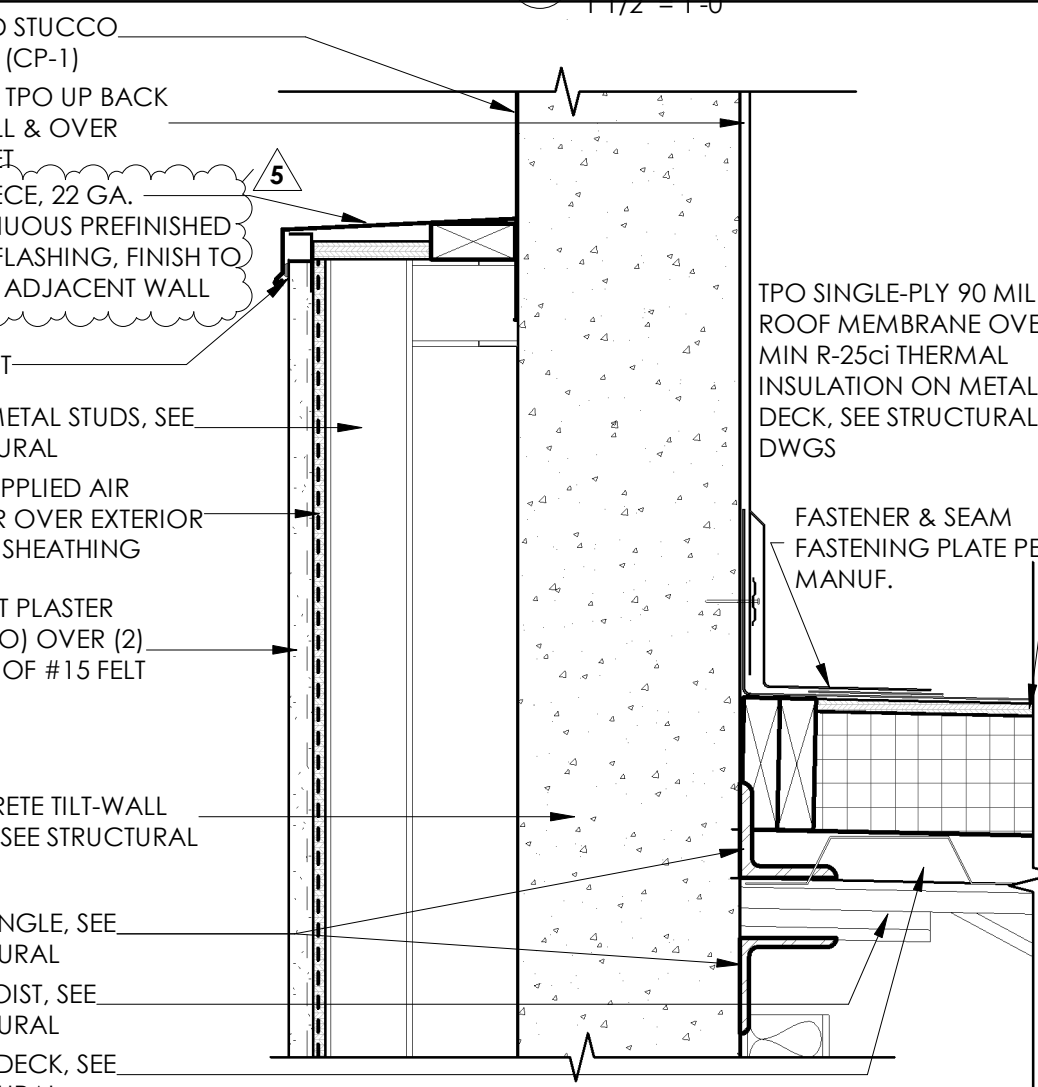
**11 BALCONY FLOOR @ PARAPET**  
1 1/2" = 1'-0"



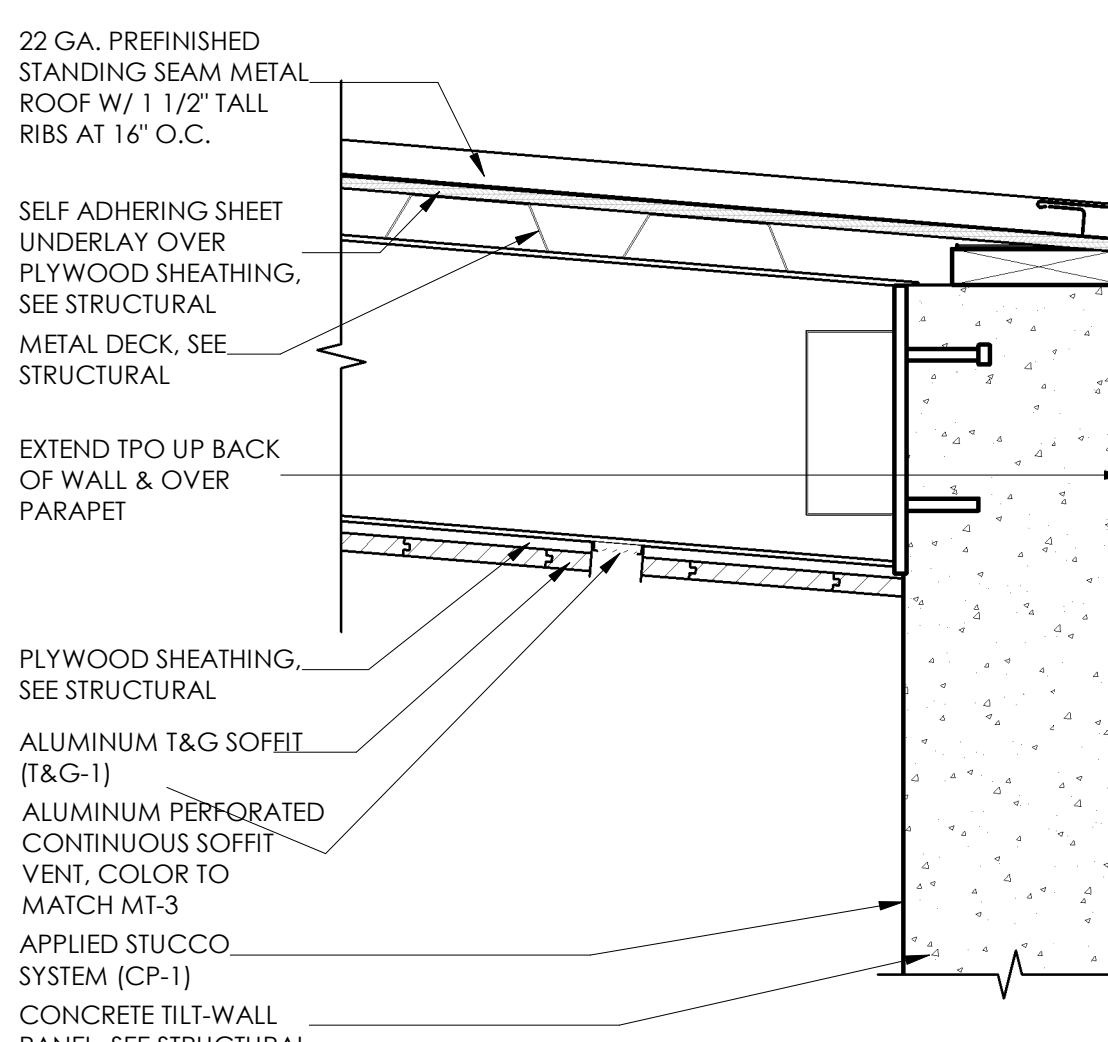
**9 PARAPET @ WOOD WALL**  
1 1/2" = 1'-0"



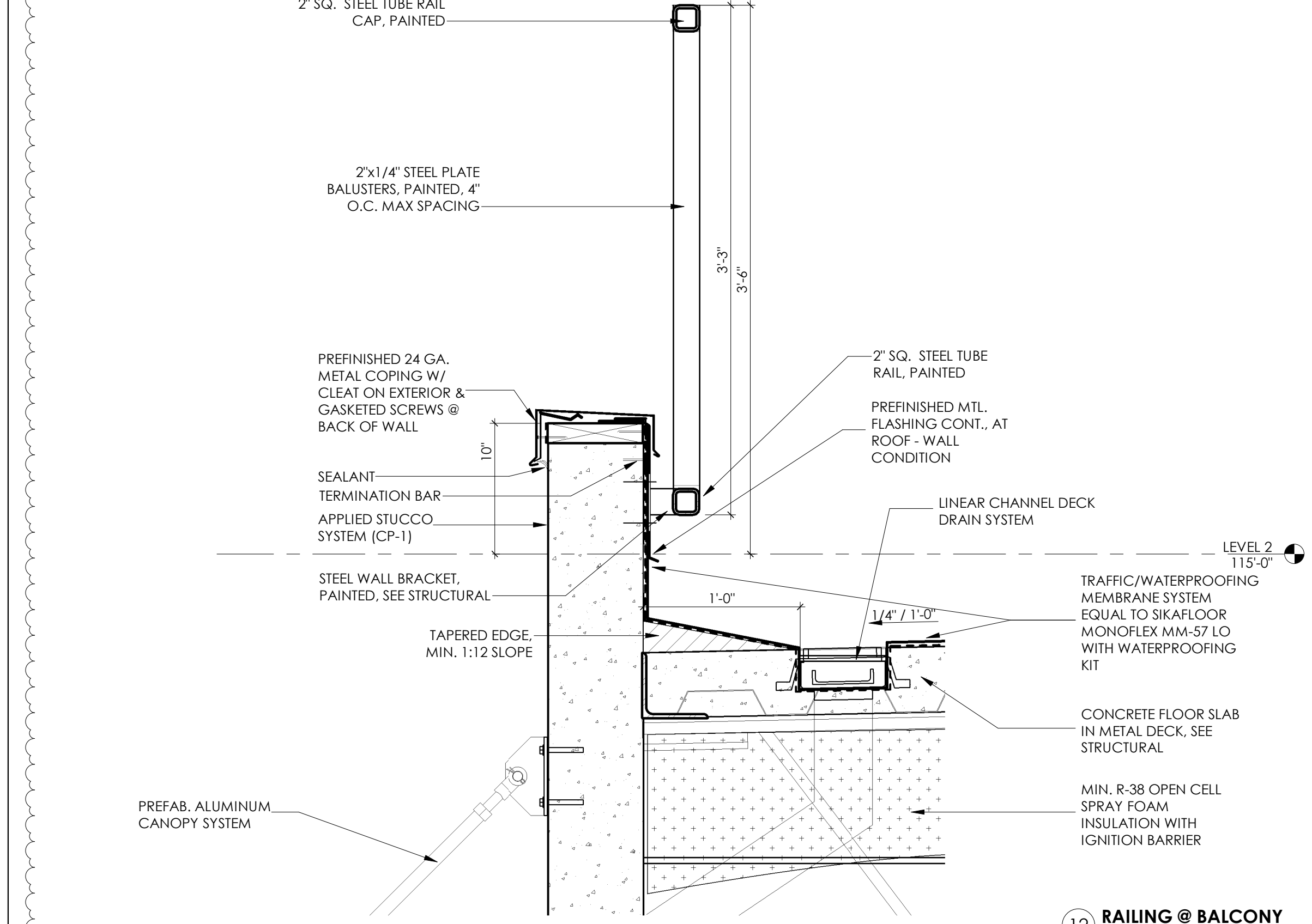
**8 ROOF SOFFIT**  
1 1/2" = 1'-0"



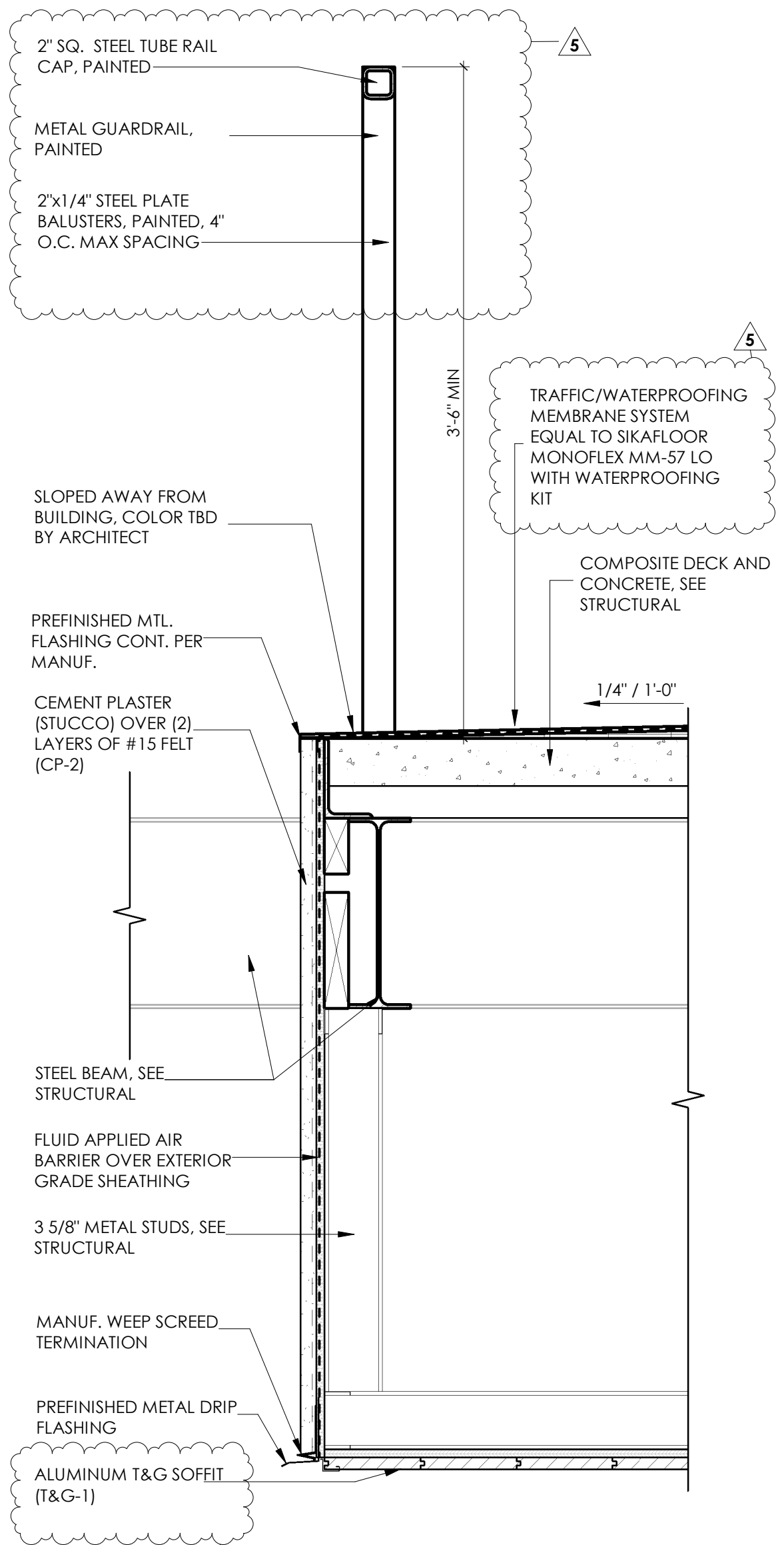
**4 STUCCO WALL CAP**  
1 1/2" = 1'-0"



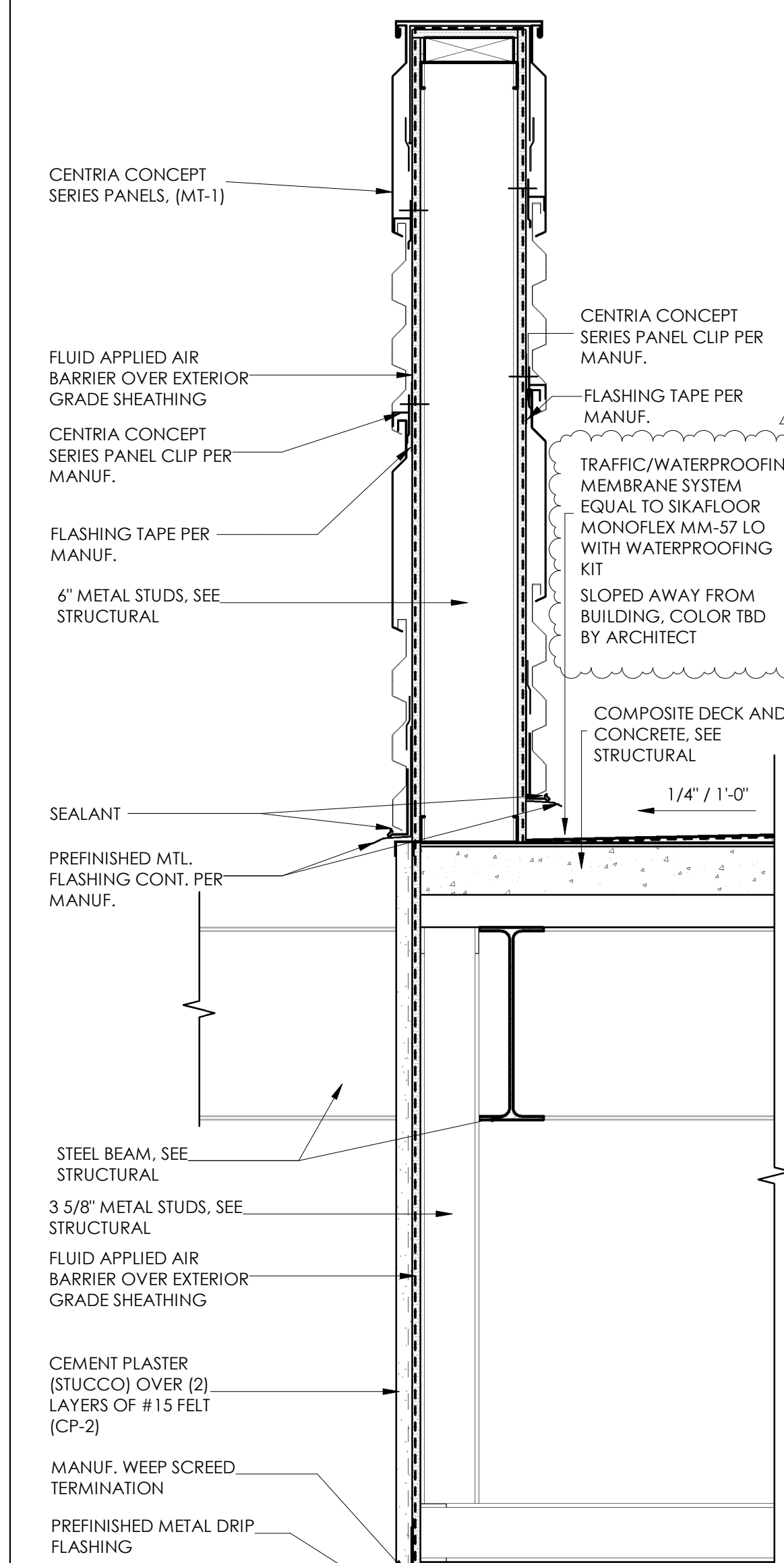
**3 PARAPET AT METAL ROOF**  
1 1/2" = 1'-0"



**12 RAILING @ BALCONY**  
1 1/2" = 1'-0"



**5 LEVEL 2 RAILING**  
1 1/2" = 1'-0"



**6 PONY WALL @ LEVEL 2**  
1 1/2" = 1'-0"

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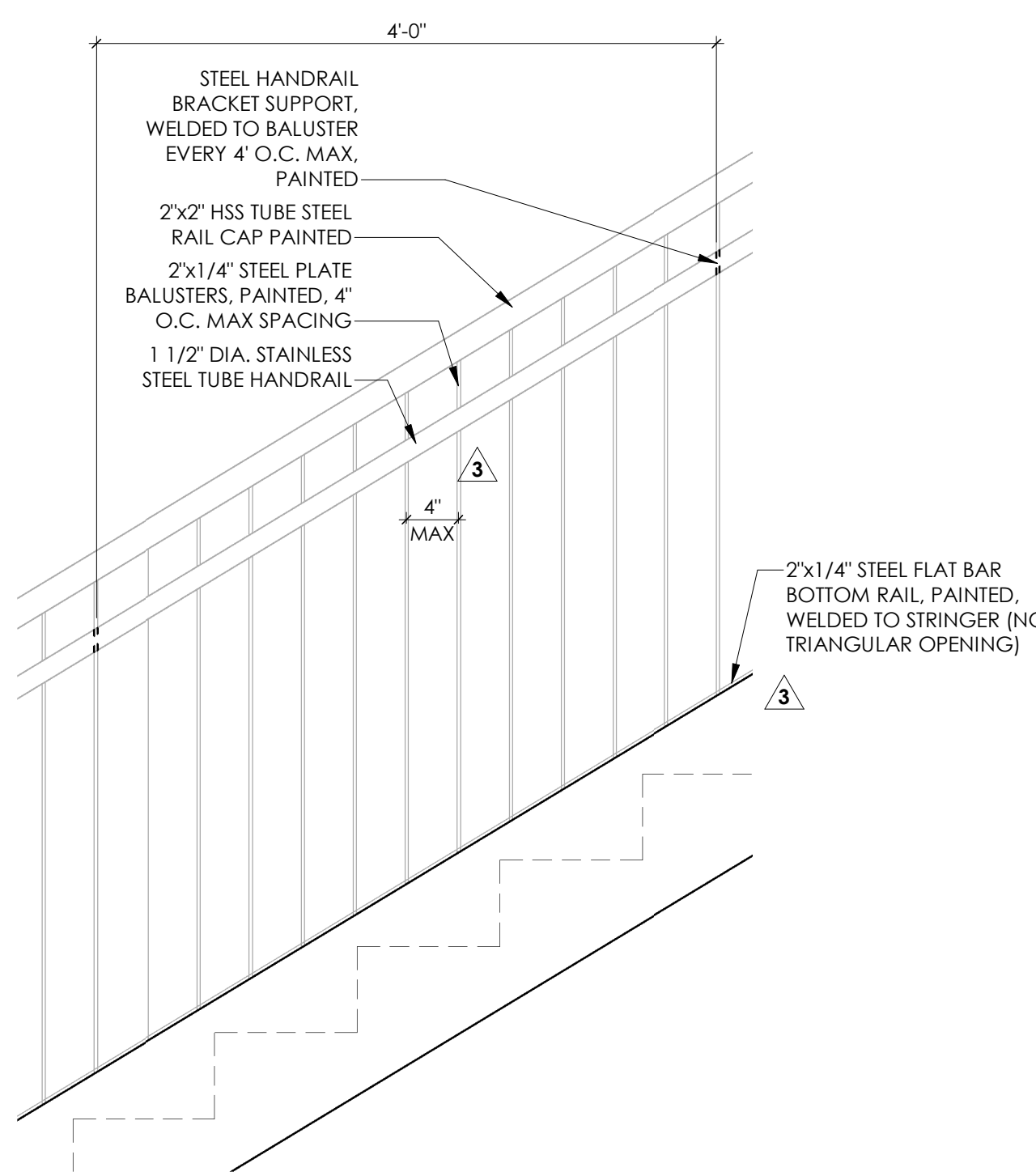
3 09.12.22 City Comments

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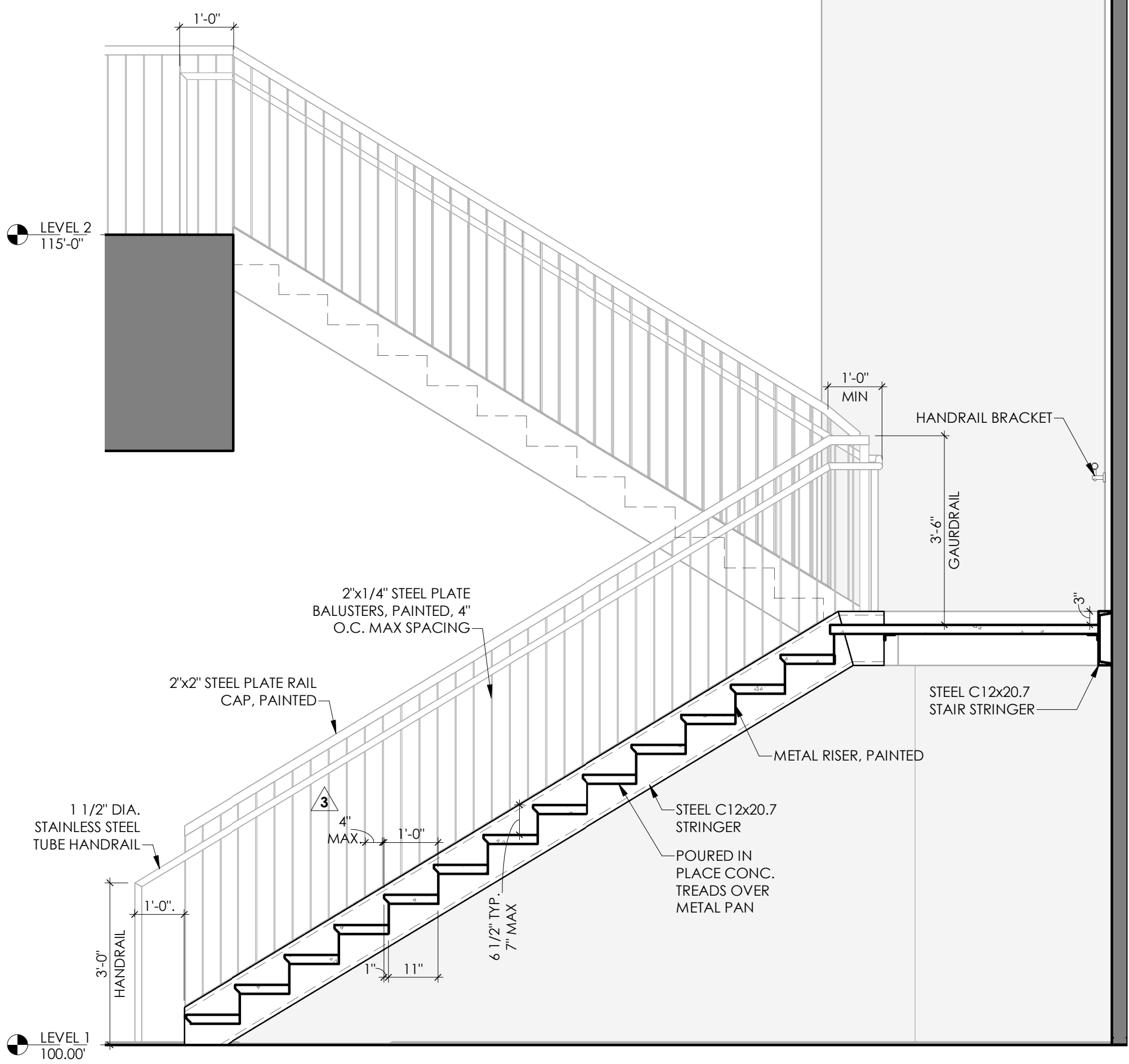
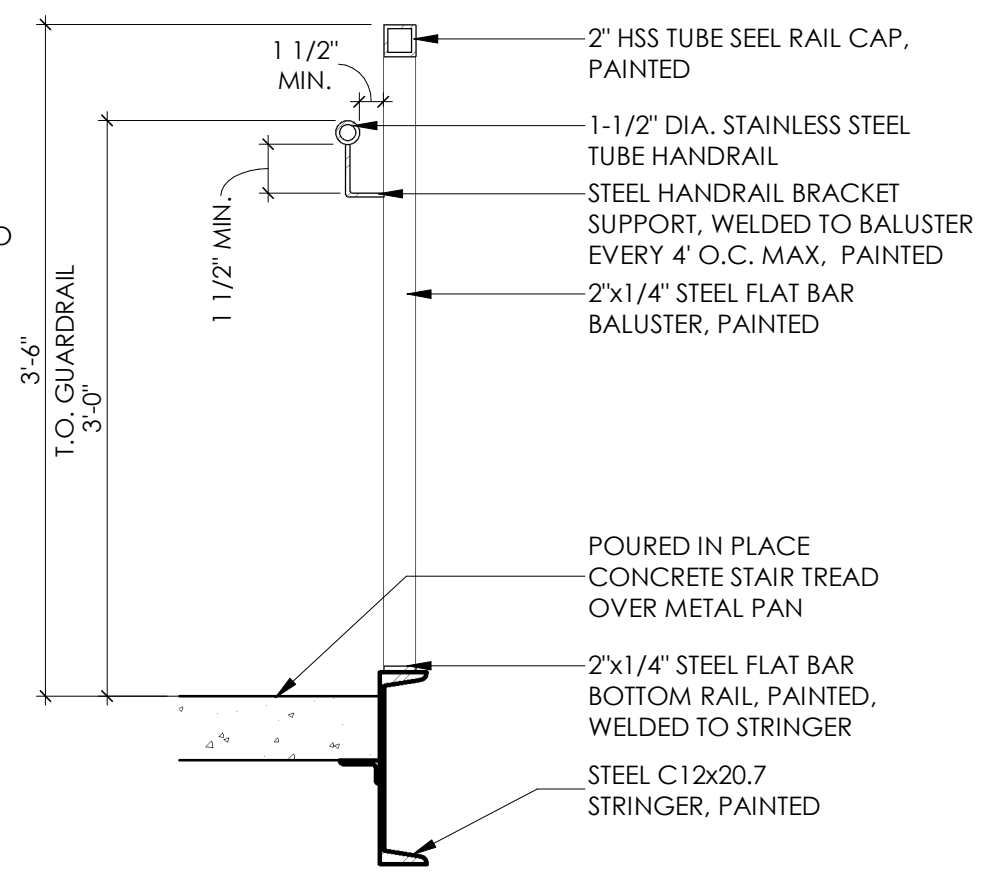
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 08.09.2024  
 100% CDS - REV05 - VE  
 STAIR & ELEVATOR

SHEET: **A401**

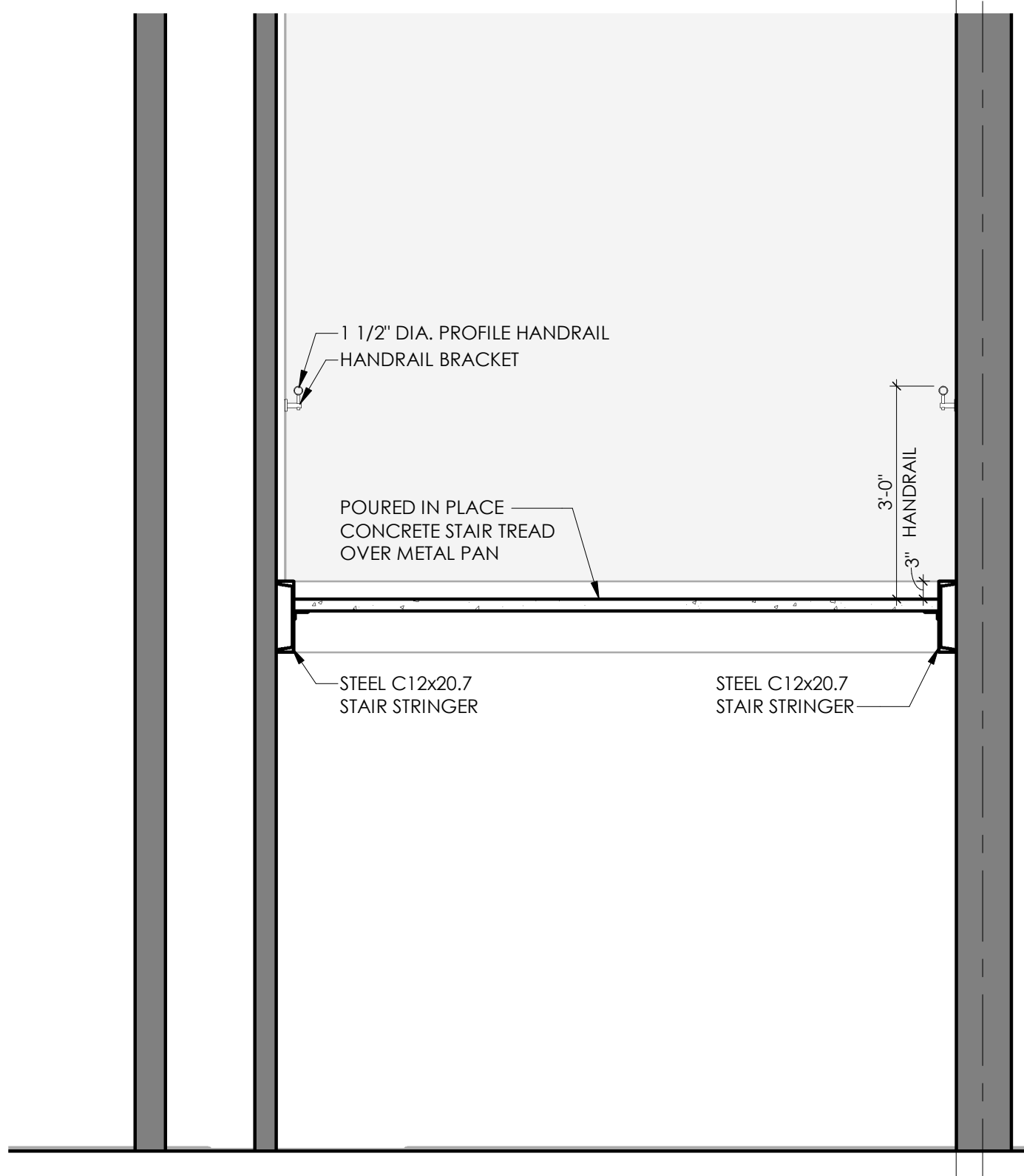
PROJECT NO: 21099  
 DRAWN BY: MD  
 DATE: 02.17.23  
 PROJECT MGR: KS



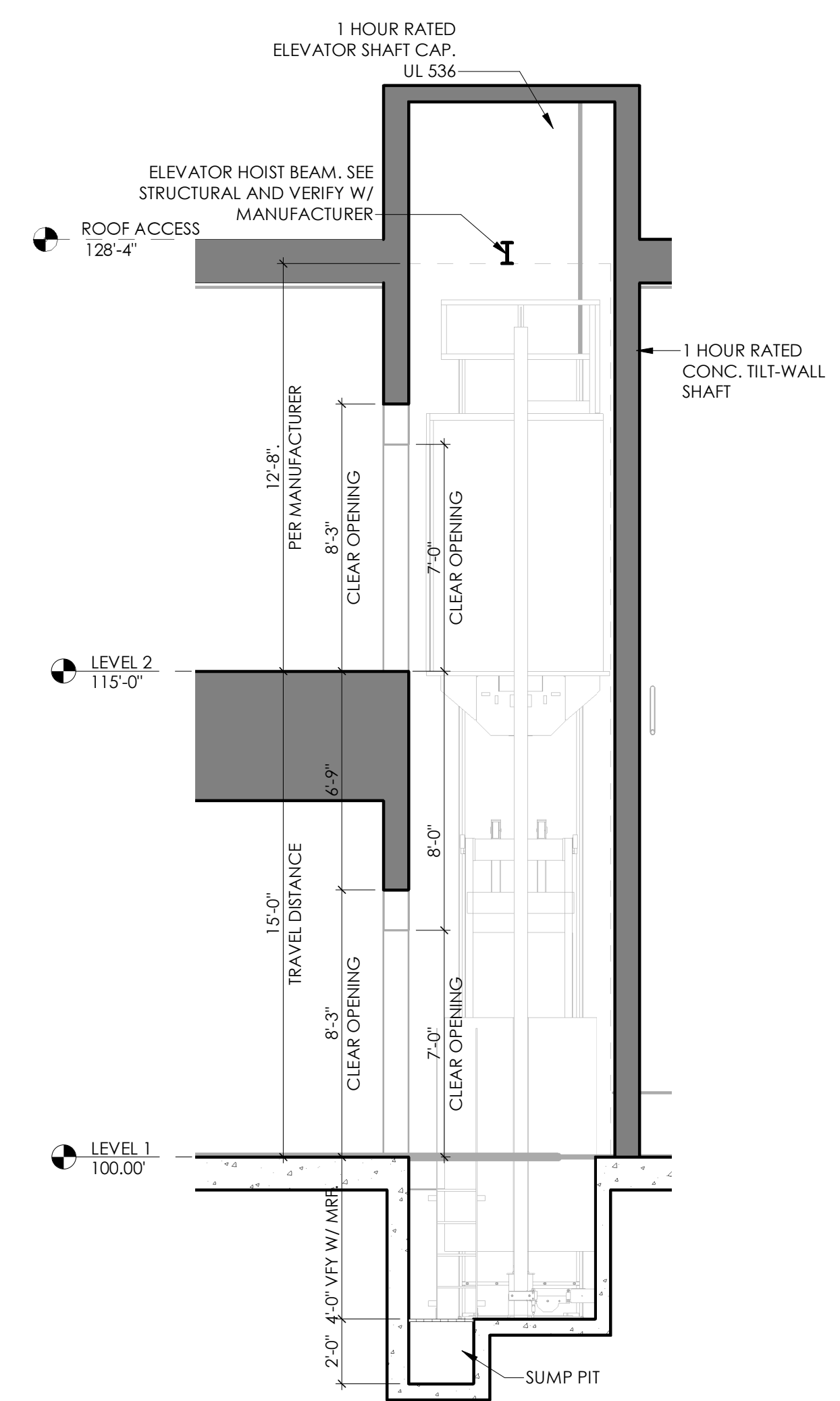
**6 RAILING DETAIL**  
 1/2" = 1'-0"



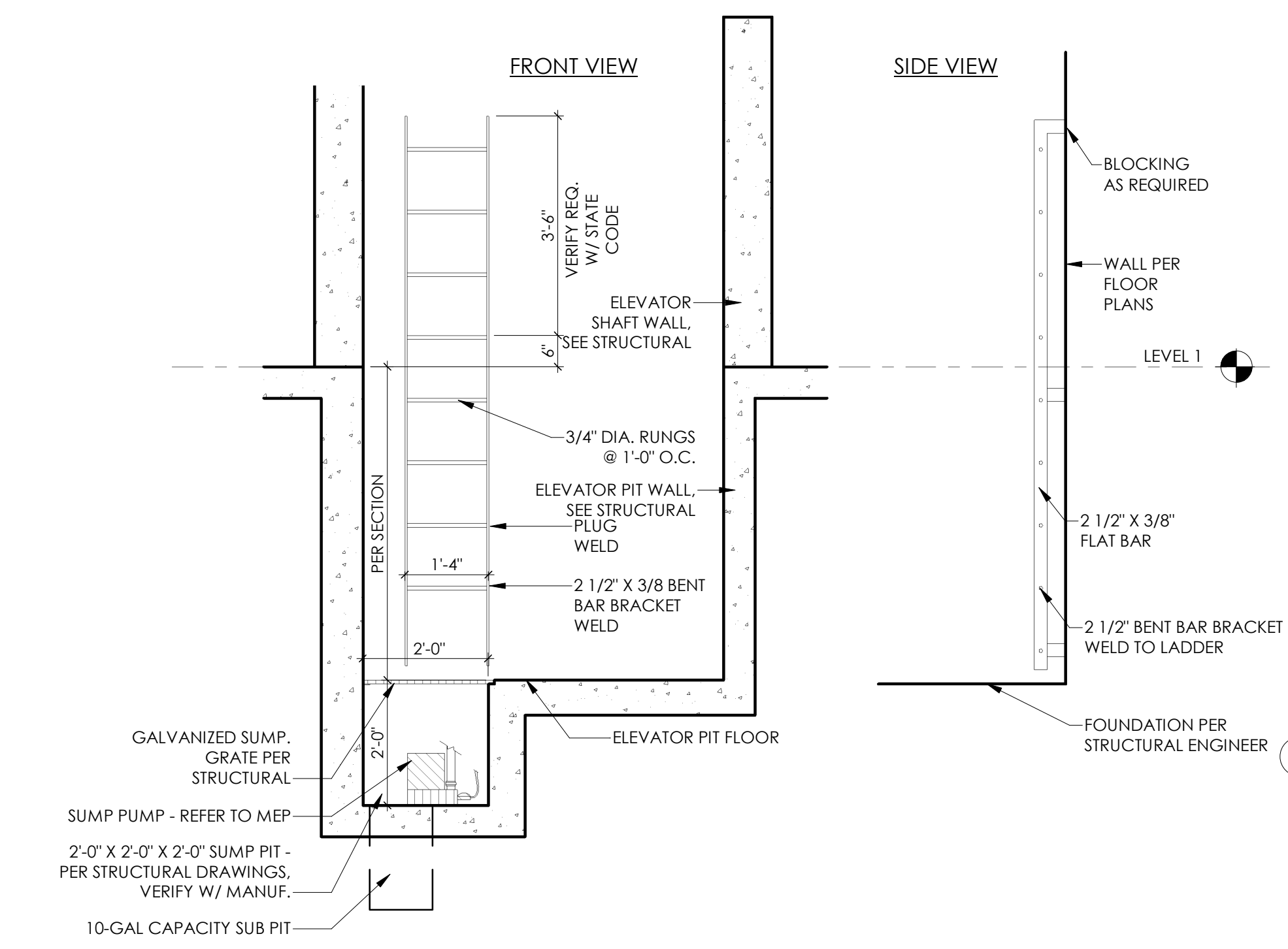
**5 EGRESS STAIR SECTION**  
 1/2" = 1'-0"



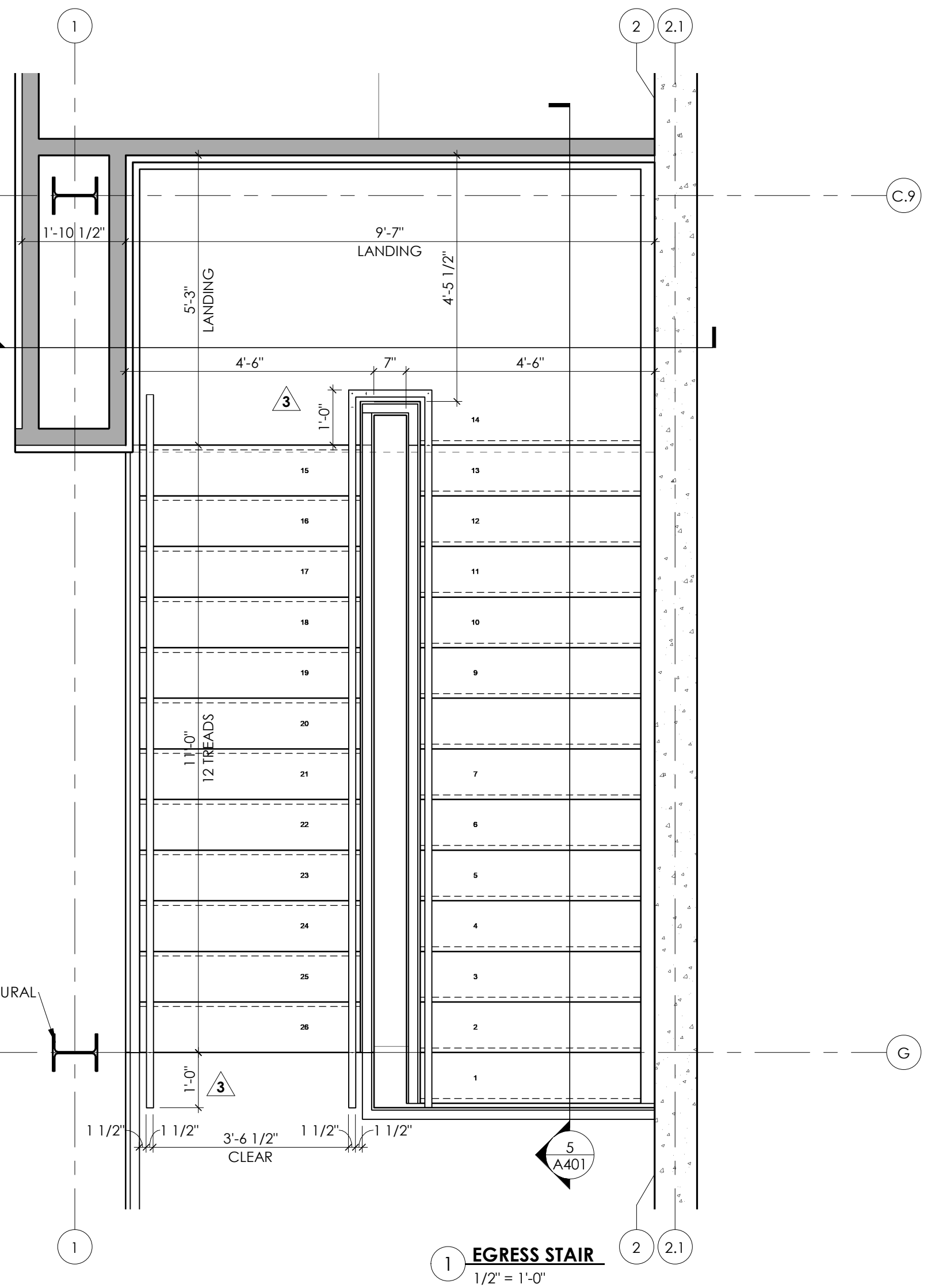
**4 EGRESS STAIR SECTION**  
 1/2" = 1'-0"



**3 ELEVATOR SECTION**  
 1/4" = 1'-0"



**2 ELEVATOR PIT & LADDER DETAIL**  
 1/2" = 1'-0"



**1 EGRESS STAIR**  
 1/2" = 1'-0"

TK ENDURA 30 A - BRUSHED STAINLESS STEEL CAB  
 FINISH, HANDRAILS - RECTANGULAR, CUT ENDS



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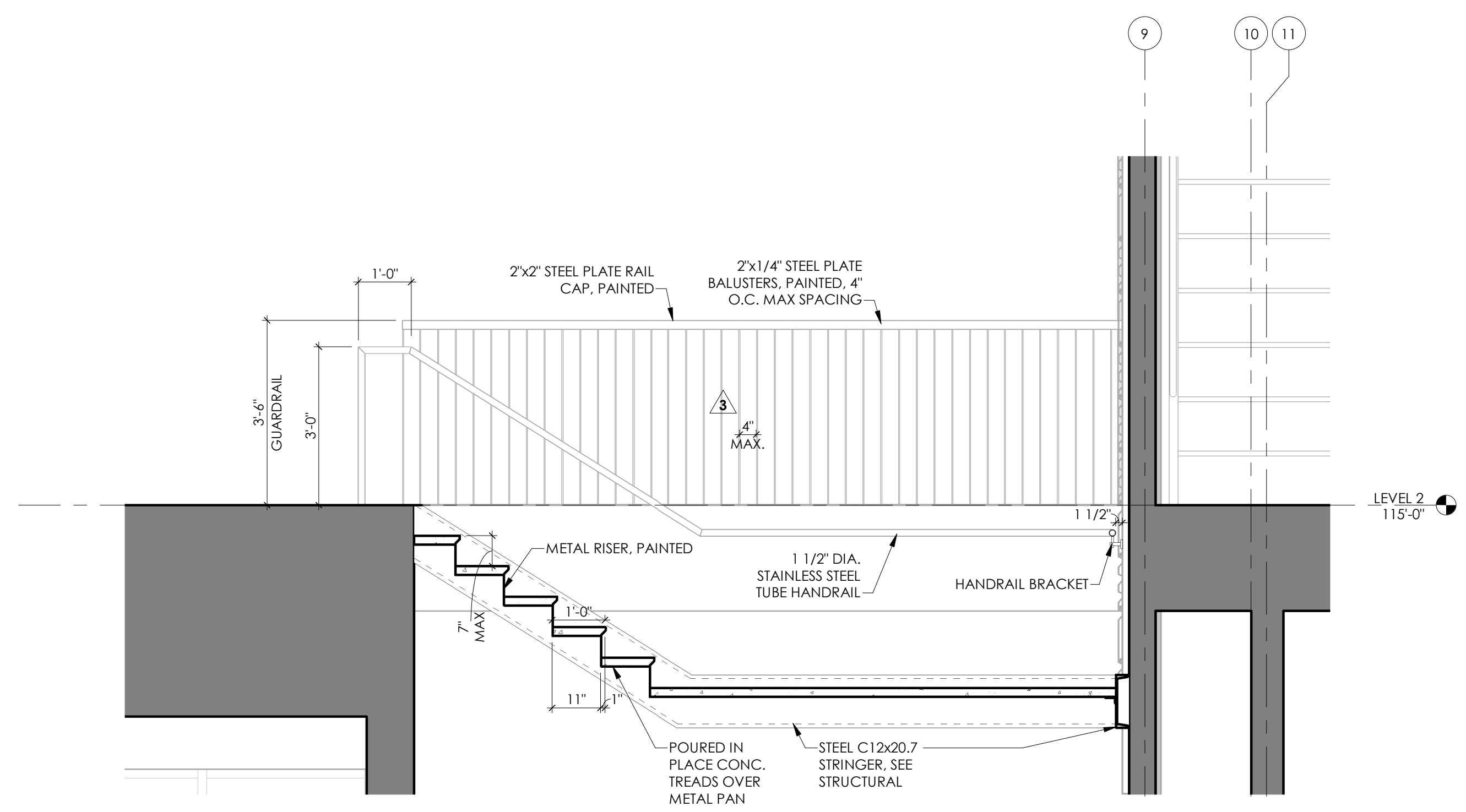
3 09.12.22 City Comments  
 5 08.09.24 VE

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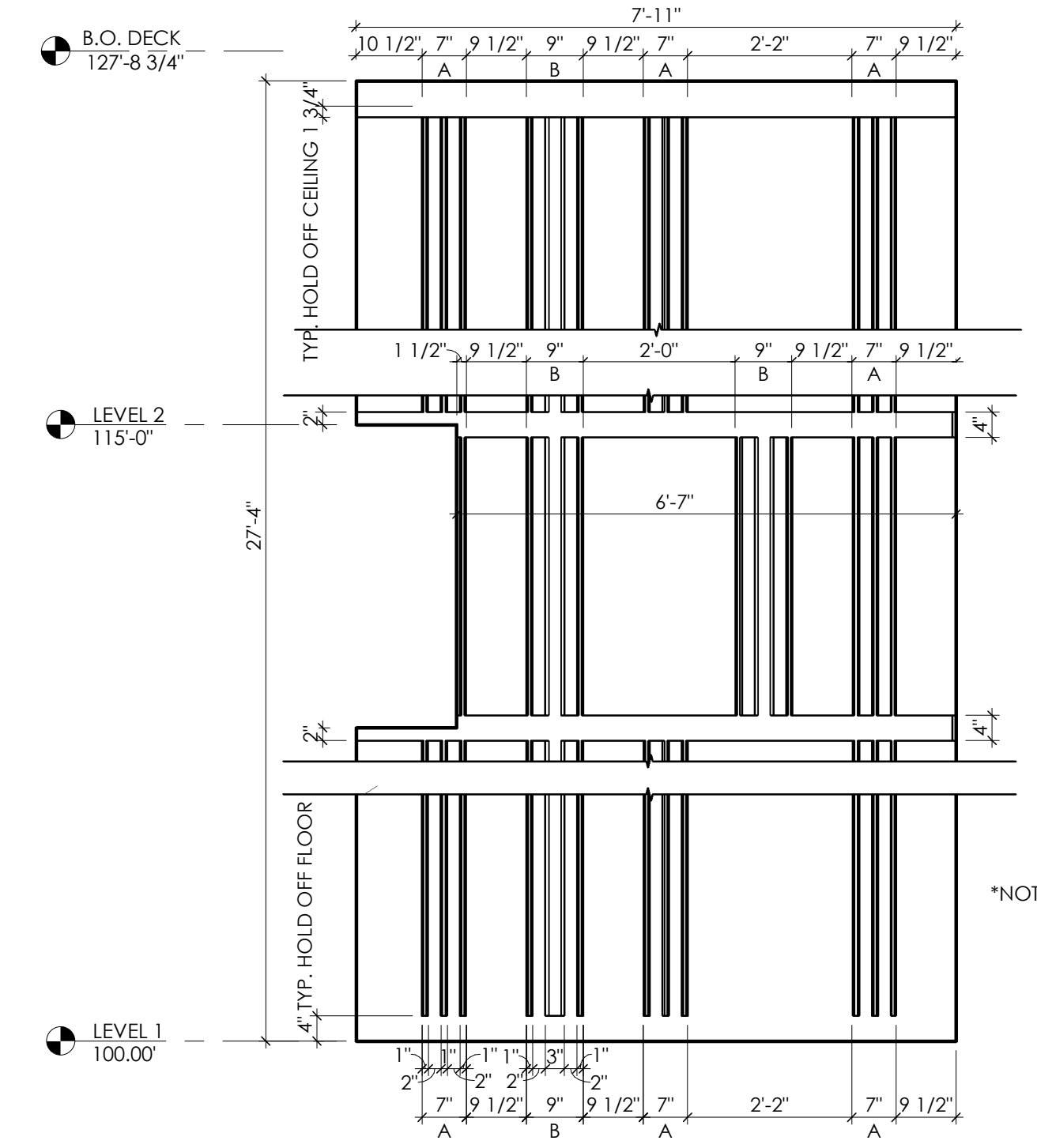
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 STAIR & ELEVATOR

SHEET: **A402**

PROJECT NO: 21099  
 DRAWN BY: MD, AG  
 DATE: 02.17.23  
 PROJECT MGR: KS

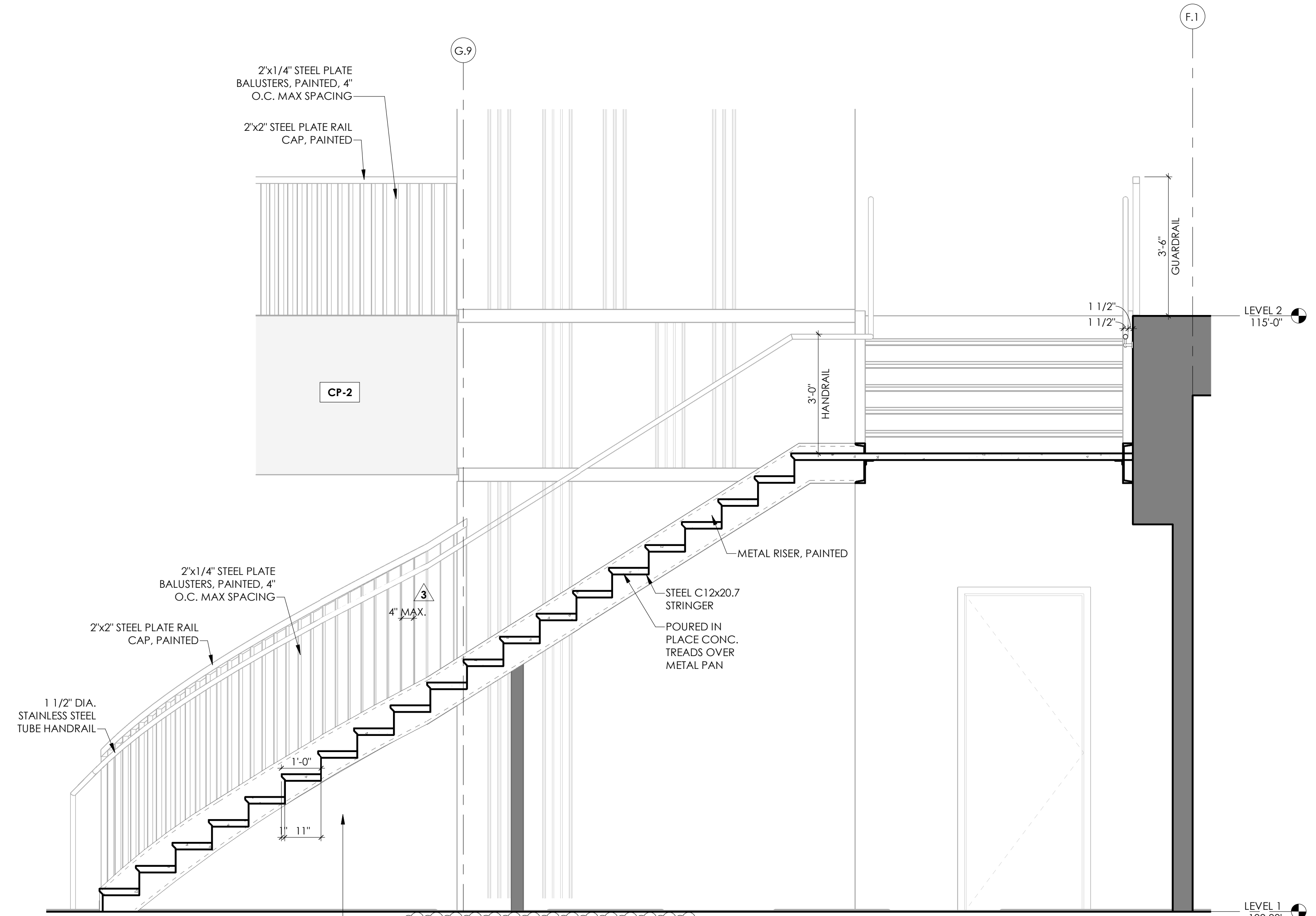


**3 GRAND STAIR SECTION**  
 1/2" = 1'-0"

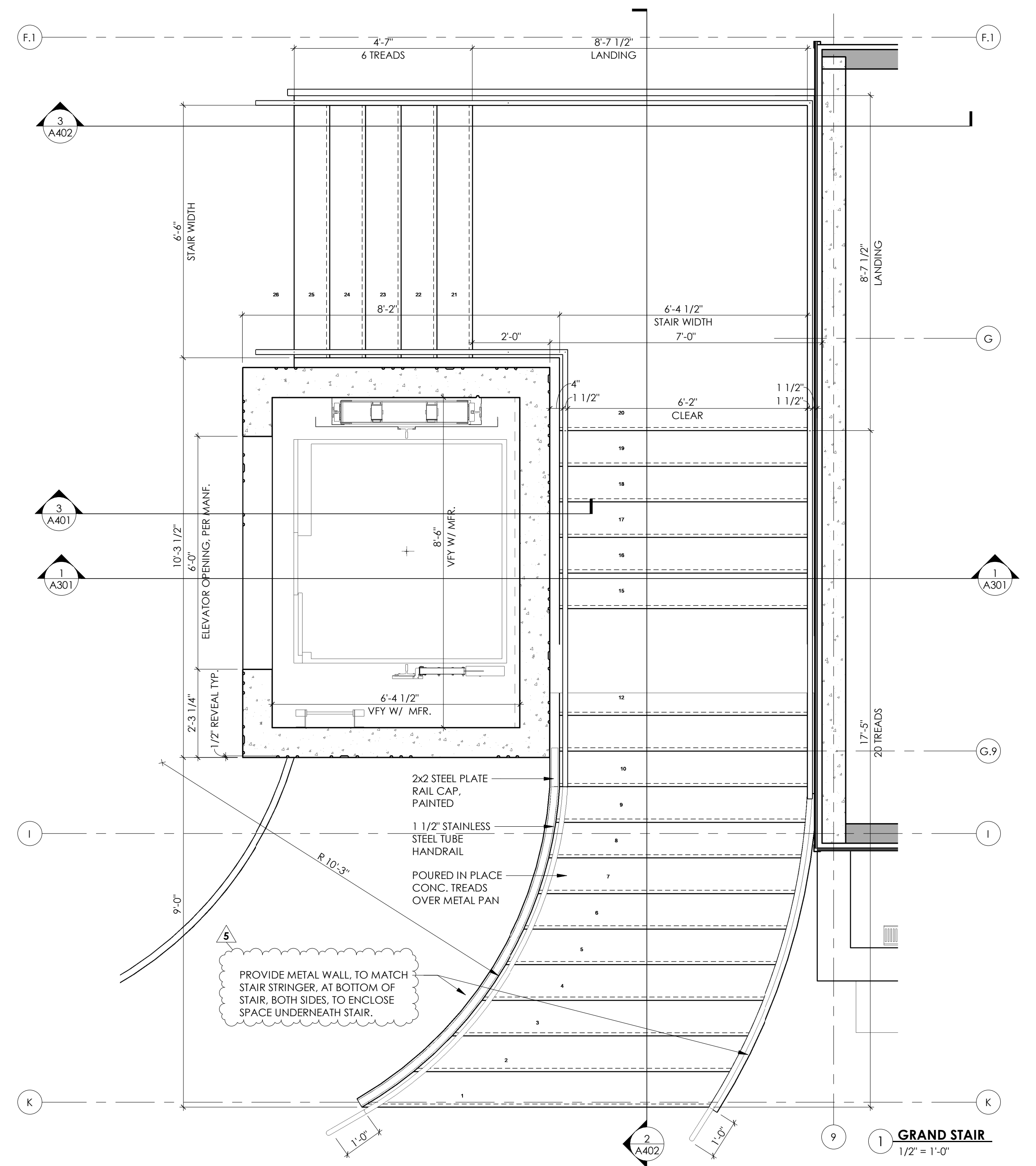


\*NOTE: CONTINUE PATTERN AROUND ALL 4 SIDES OF ELEVATOR SHAFT WALLS  
 ALL REVEALS TO BE 1/2" DEEP

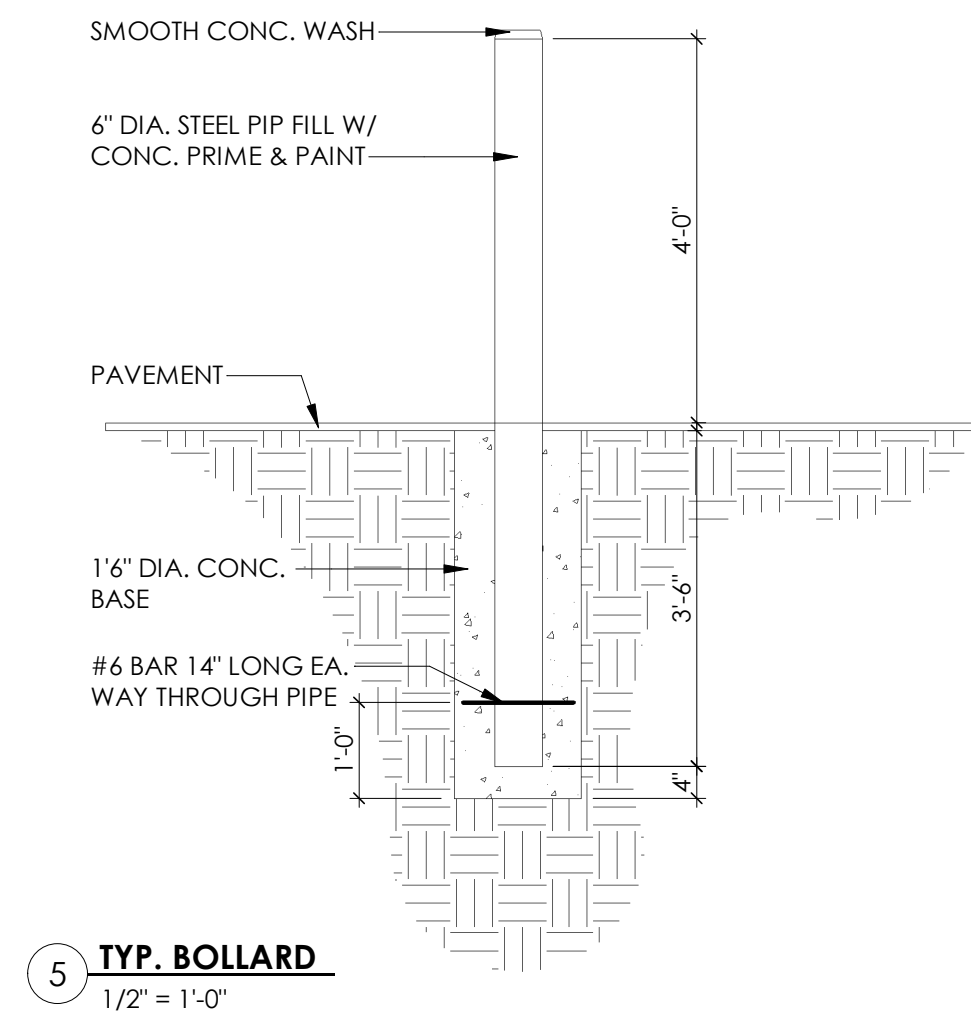
**4 REVEAL PATTERN**  
 1/2" = 1'-0"



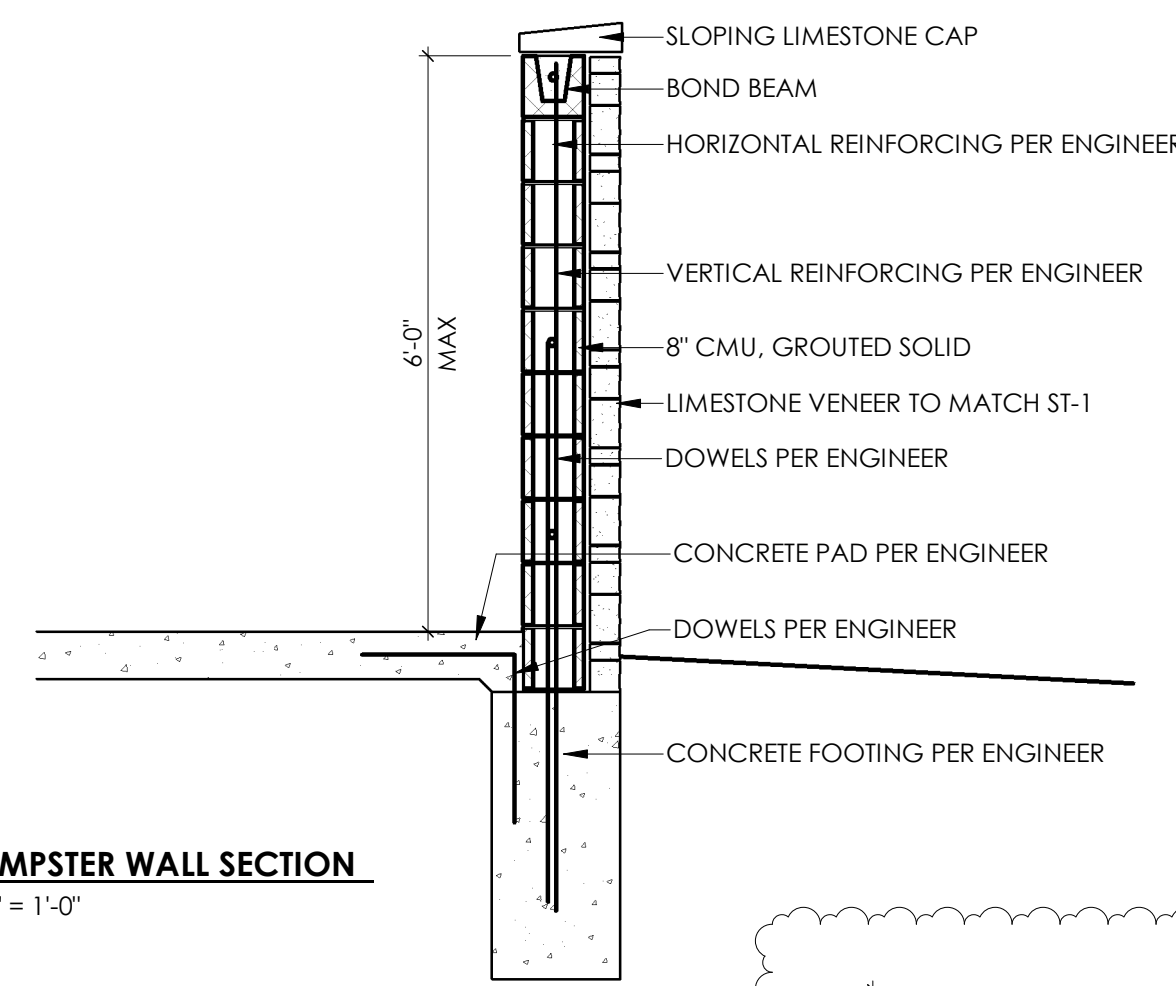
**2 GRAND STAIR SECTION**  
 1/2" = 1'-0"



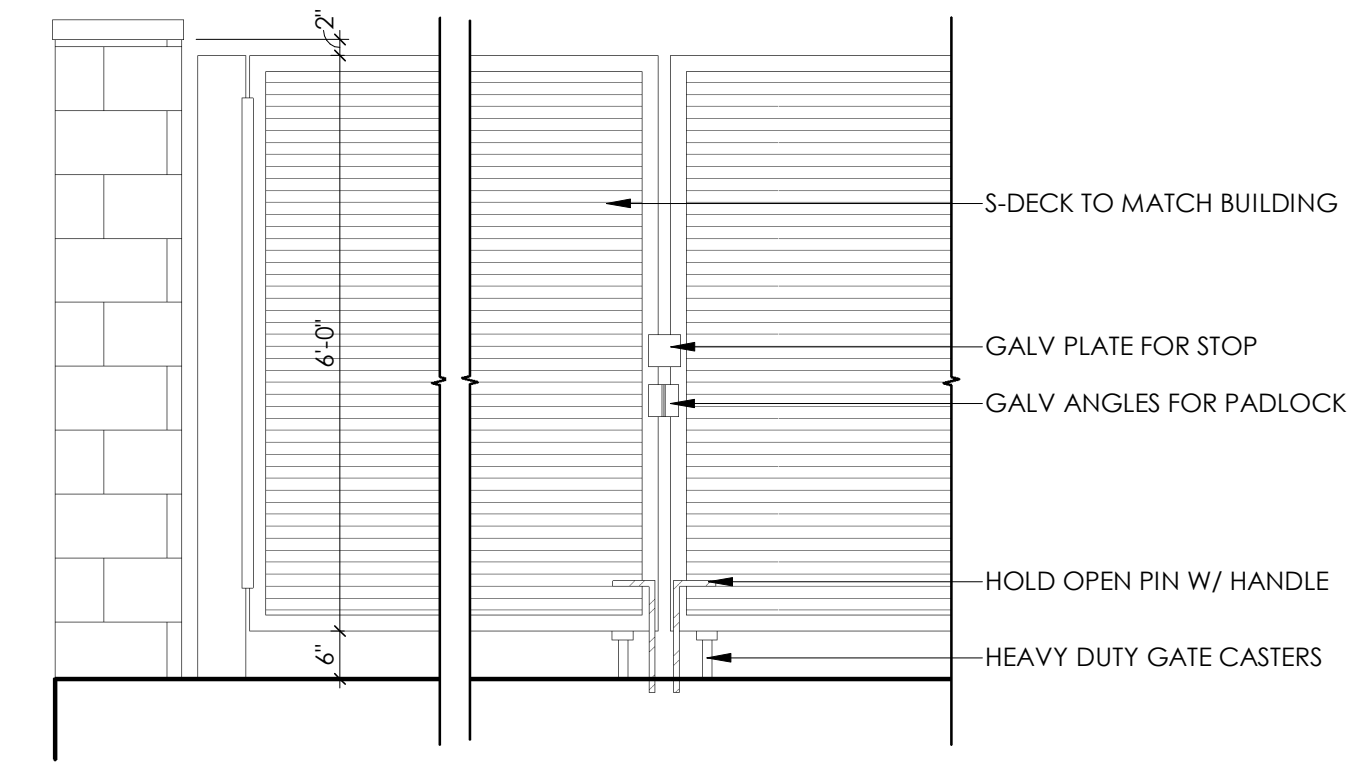
**1 GRAND STAIR**  
 1/2" = 1'-0"



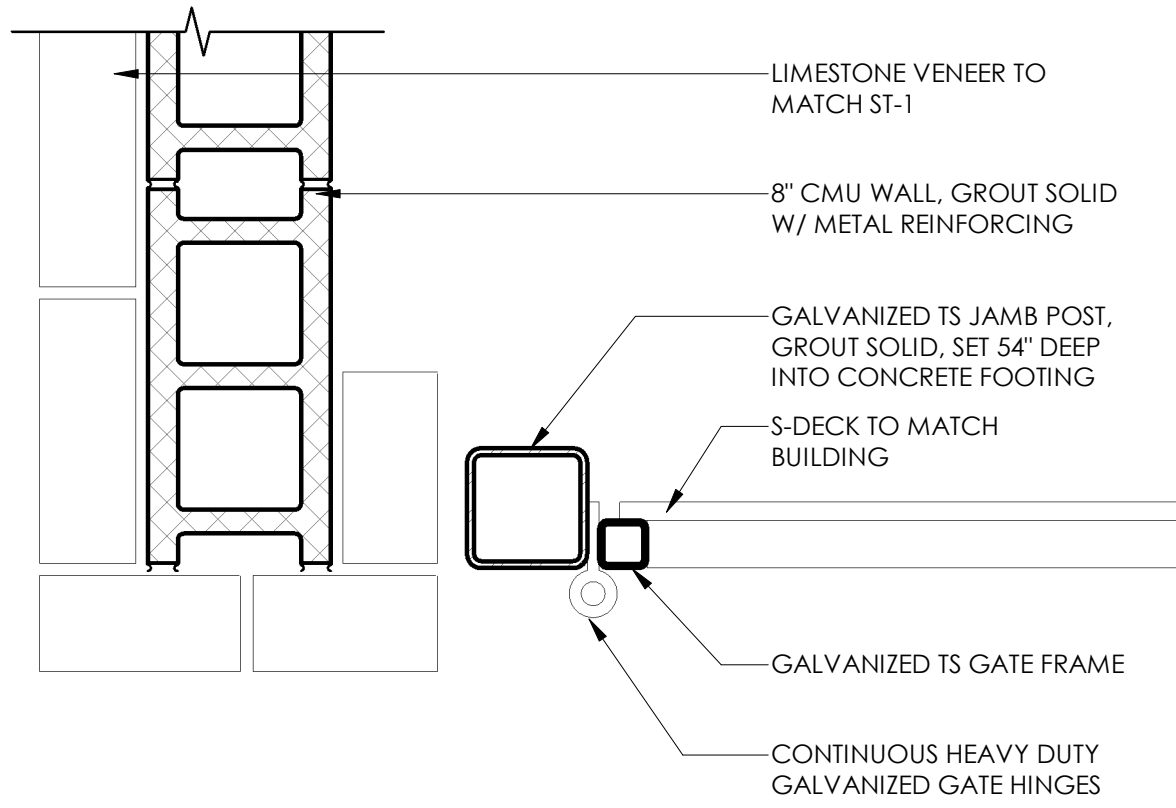
**5 TYP. BOLLARD**  
 1/2" = 1'-0"



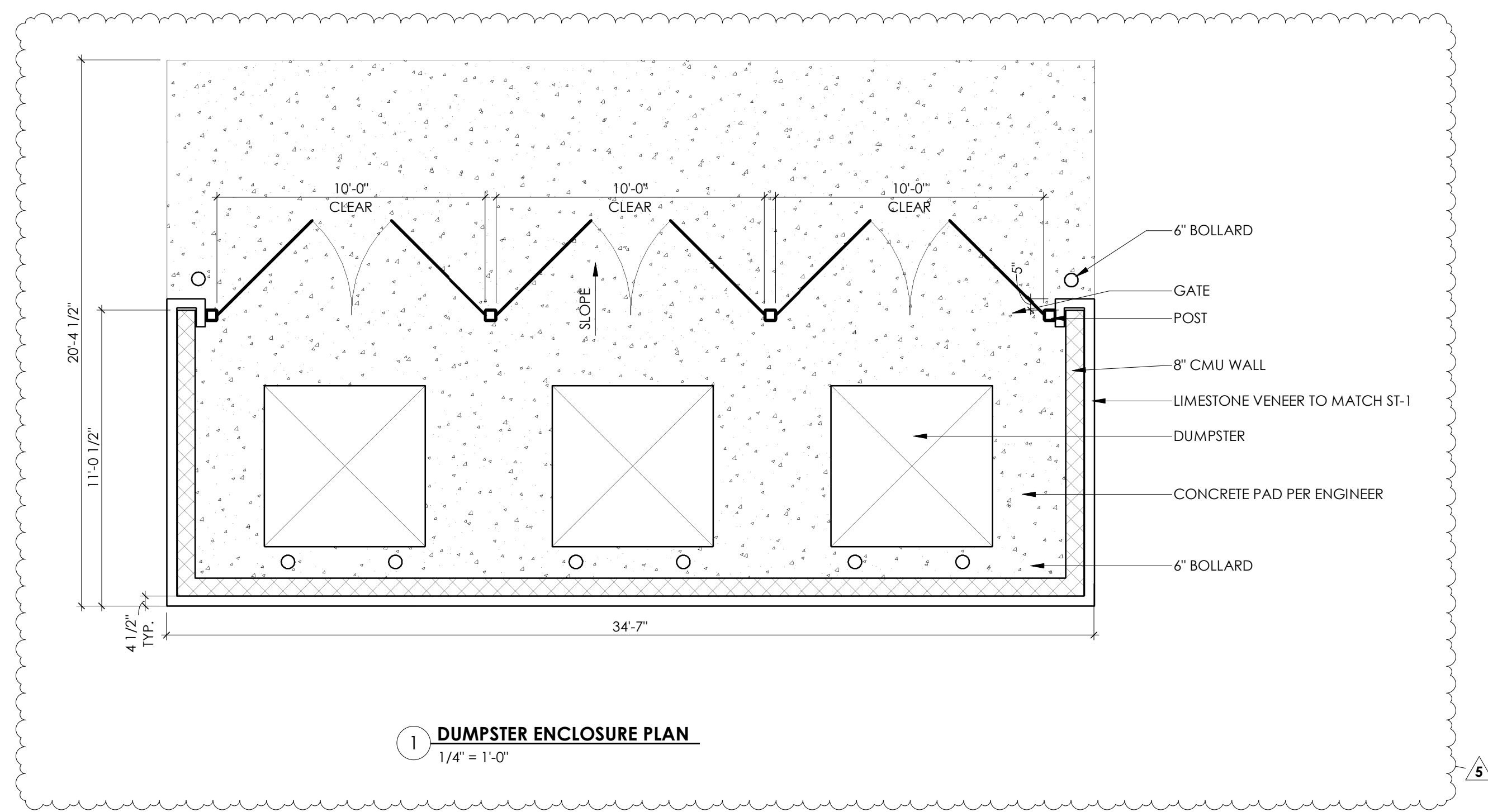
**4 DUMPSTER WALL SECTION**  
 1/2" = 1'-0"



**3 DUMPSTER GATE ELEVATION**  
 1/2" = 1'-0"



**2 DUMPSTER GATE POST**  
 1 1/2" = 1'-0"



**1 DUMPSTER ENCLOSURE PLAN**  
 1/4" = 1'-0"

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 DUMPSTER ENCLOSURE

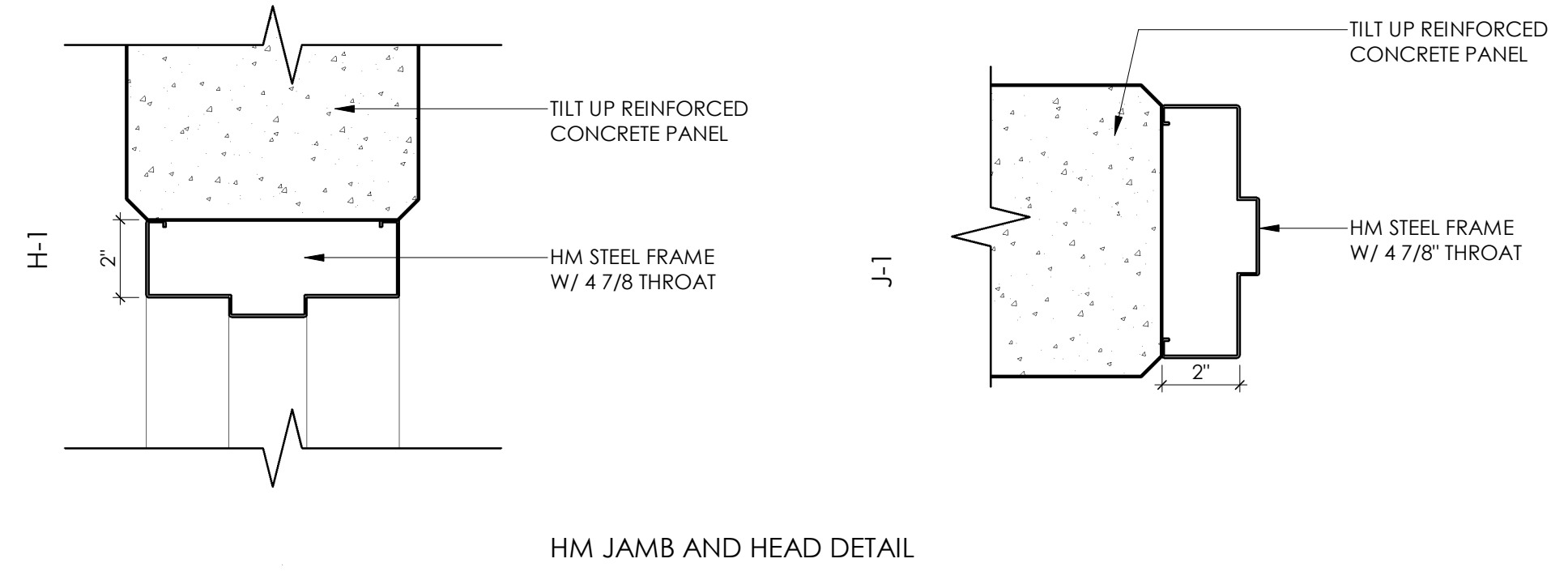
SHEET: **A403**

PROJECT NO: 21099  
 DRAWN BY: AG  
 DATE: 02.17.23  
 PROJECT MGR: KS

**DOOR SCHEDULE**

MARK	SY				FRAME		DETAIL		HARDWARE SET	REMARK	
	WIDTH	HEIGHT	THICKNESS	MATERIAL	TYPE	MATERIAL	JAMB	HEAD			
101A	3'-0"	8'-0"	1 3/4"	AL	FG	SF-1	AL	MANUF	MANUF	1	1
101B	3'-0"	8'-0"	1 3/4"	AL	FG	SF-1	AL	MANUF	MANUF	1	1
101C	3'-0"	8'-0"	1 3/4"	AL	FG	SF-1 OPP	AL	MANUF	MANUF	1	1
101D	3'-0"	8'-0"	1 3/4"	AL	FG	SF-1 OPP	AL	MANUF	MANUF	1	1
101E	3'-0"	8'-0"	1 3/4"	AL	FG	SF-2	AL	MANUF	MANUF	1	1
101F	3'-0"	8'-0"	1 3/4"	AL	FG	SF-1	AL	MANUF	MANUF	1	1
101G	3'-0"	8'-0"	1 3/4"	AL	FG	SF-1 OPP	AL	MANUF	MANUF	1	1
101H	3'-0"	8'-0"	1 3/4"	AL	FG	SF-1	AL	MANUF	MANUF	1	1
101J	3'-0"	8'-0"	1 3/4"	AL	FG	SF-4	AL	MANUF	MANUF	1	1
101K	3'-0"	7'-0"	1 3/4"	HM	F	HM	HM	J-1	H-1	2	2,3
101L	3'-0"	7'-0"	1 3/4"	HM	F	HM	HM	J-1	H-1	2	2,3
101M	3'-0"	7'-0"	1 3/4"	HM	F	HM	HM	J-1	H-1	2	2,3
101N	3'-0"	7'-0"	1 3/4"	HM	F	HM	HM	J-1	H-1	2	2,3
101O	3'-0"	7'-0"	1 3/4"	HM	F	HM	HM	J-1	H-1	2	2,3
101P	3'-0"	7'-0"	1 3/4"	HM	F	HM	HM	J-1	H-1	2	2,3
101Q	3'-0"	7'-0"	1 3/4"	HM	F	HM	HM	J-1	H-1	2	2,3
101R	3'-0"	7'-0"	1 3/4"	HM	F	HM	HM	J-1	H-1	2	2,3
103A	3'-0"	7'-0"	1 3/4"	HM	F	HM	HM	J-1	H-1	4	2
104A	3'-0"	7'-0"	1 3/4"	HM	F	HM	HM	J-1	H-1	3	2
109A	3'-0"	8'-0"	1 3/4"	HM	F	HM	HM	J-1	H-1	3	2
201A	3'-0"	8'-0"	1 3/4"	AL	FG	SF-1	AL	MANUF	MANUF	1	1
201B	3'-0"	8'-0"	1 3/4"	AL	FG	SF-1	AL	MANUF	MANUF	1	1
201C	3'-0"	8'-0"	1 3/4"	AL	FG	SF-1 OPP	AL	MANUF	MANUF	1	1
201D	3'-0"	8'-0"	1 3/4"	AL	FG	SF-1 OPP	AL	MANUF	MANUF	1	1
201E	3'-0"	8'-0"	1 3/4"	AL	FG	SF-2	AL	MANUF	MANUF	1	1
201F	3'-0"	8'-0"	1 3/4"	AL	FG	SF-2	AL	MANUF	MANUF	1	1
201G	3'-0"	8'-0"	1 3/4"	AL	FG	SF-1	AL	MANUF	MANUF	1	1
202A	4'-9"	8'-0"	1 3/4"	METAL	GATE	METAL	METAL	MANUF	MANUF	1	1
203A	3'-0"	7'-0"	1 3/4"	HM	F	HM	HM	MANUF	MANUF	1	1
301A	3'-0"	7'-0"	1 3/4"	HM	F	HM	HM	J-1	H-1	5	2

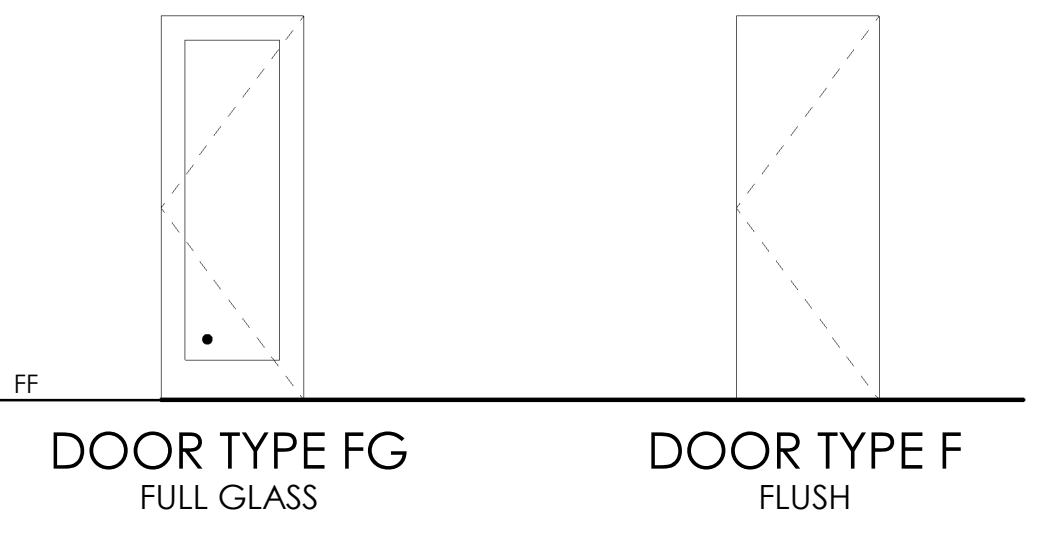
REMARKS:  
1. COORDINATE EXACT DOOR LOCATION WITH FUTURE TENANT  
2. PROVIDE INSULATED HM DOOR, SHOP PRIMED, FIELD PAINTED  
3. COORDINATE DOOR INSTALLATION WITH FUTURE TENANT



HM JAMB AND HEAD DETAIL

**HARDWARE SCHEDULE**

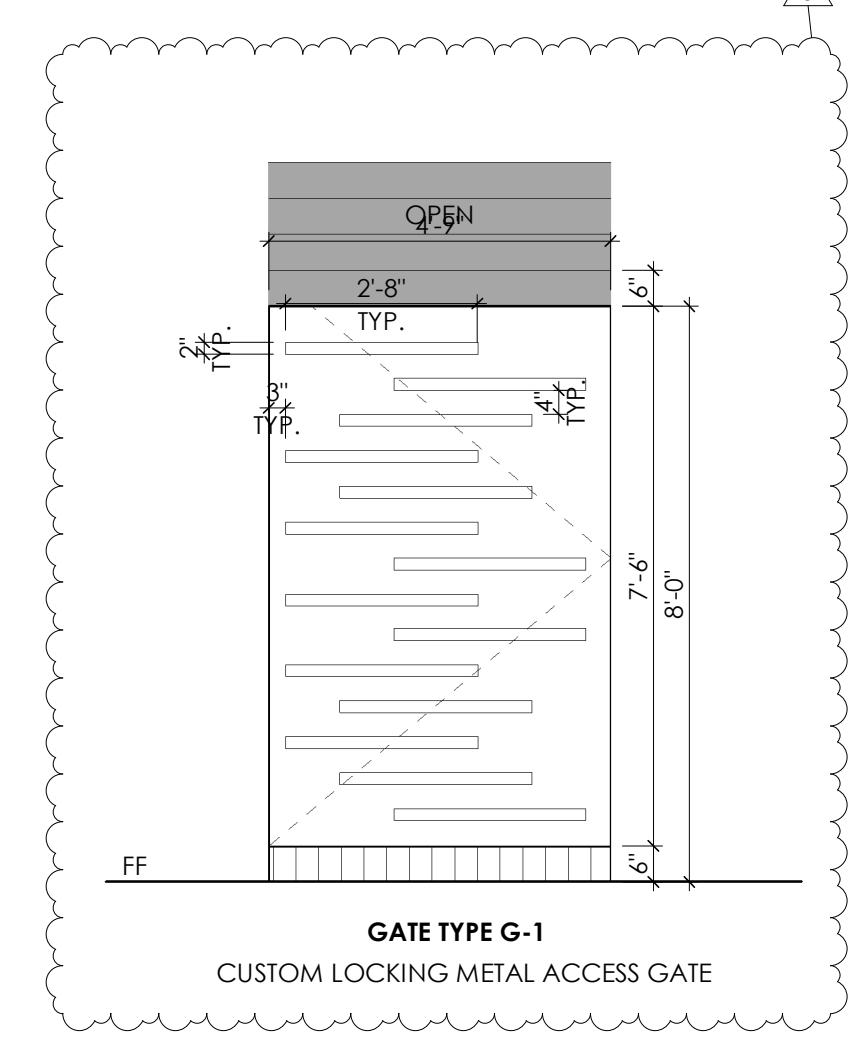
HARDWARE SET	QUALITY LEVEL	HINGES	LOCK FUNCTION, CYLINDERS & BOLTS	EXIT DEVICES	OPERATING TRIM	ACCESSORIES & PROTECT. TRIM	CLOSER & SILENCERS	STOPS & HOLDERS	GASKETS & THRESHOLDS	REMARKS																																
											STANDARD COMMERCIAL	HEAVY DUTY COMMERCIAL	CONTINUOUS HINGE	FULL SURFACE	WIDE THROW	PASSAGE	OFFICE	PRIVACY	DUMMY	MORTISE SET	STOREROOM	ELECTRIFIED	INTERCHANGEABLE	HD DEADLATCH	DEADLATCH PADDLE	MORTISE FIRE DEVICE	PANIC DEVICE	CONCEALED VERT. ROD EXIT DEVICE	LEVER	PUSH RITE	PULL BAR	PUSH AND PULL BARS	KICKPLATE	ASRAGAL	PEEP HOLE	LOCK GUARD	OVERHEAD SURFACE CLOSER	CONCLD. CLOSER (MORTISE)	CONCLD. CLOSER (FLOOR)	HINGE CLOSER	SILENCER	FLOOR STOP
SET #1	X	X					X				PERIMETER GASKETING BY DOOR MANUF.																															
SET #2	X	X																																								
SET #3	X	X																																								
SET #4	X	X																																								
SET #5	X	X																																								



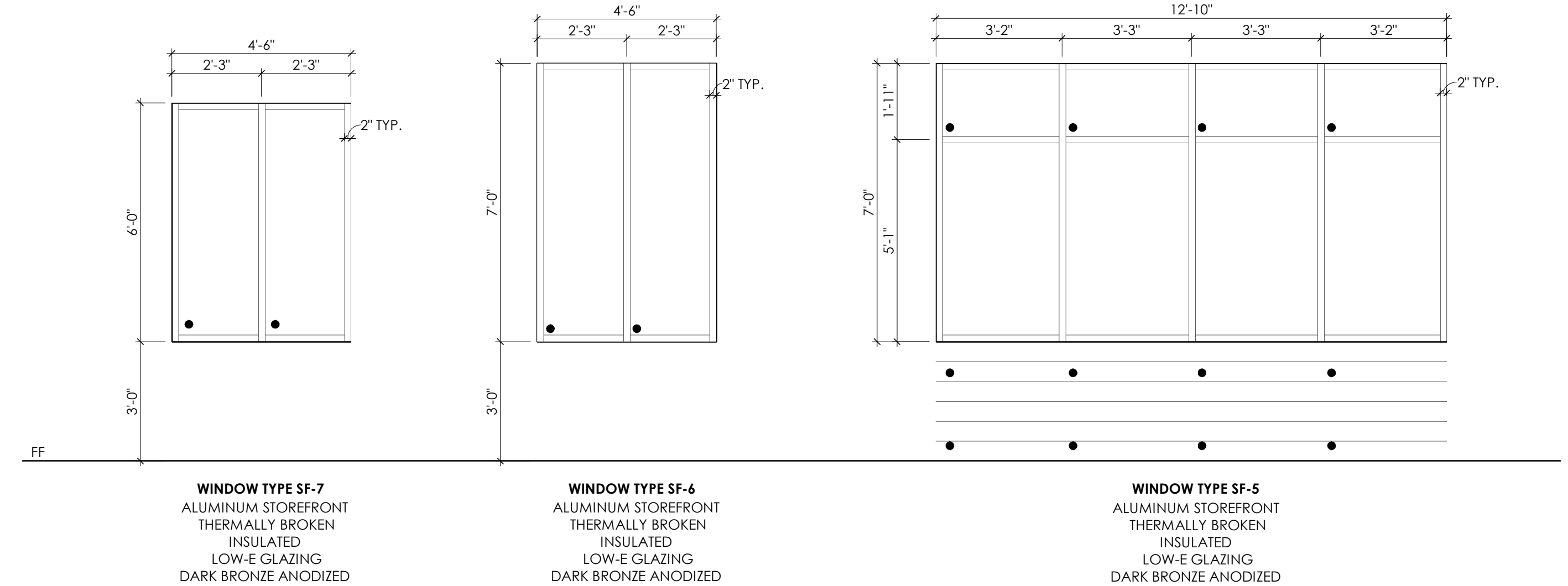
DOOR TYPE FG FULL GLASS  
DOOR TYPE F FLUSH

**WINDOW LEGEND**

- 1" INSULATED, CLEAR, LOW-E GLAZING GL-1, EQUAL TO PPG SOLARBAN 70 XL CLEAR, ANNEALED
  - 1" INSULATED, CLEAR, LOW-E GLAZING GL-1, EQUAL TO PPG SOLARBAN 70 XL CLEAR, TEMPERED
- VITRO SOLARBAN 70 XL CLEAR  
SHGC 0.27  
VLT 64%  
REFLECTANCE 14%MAX



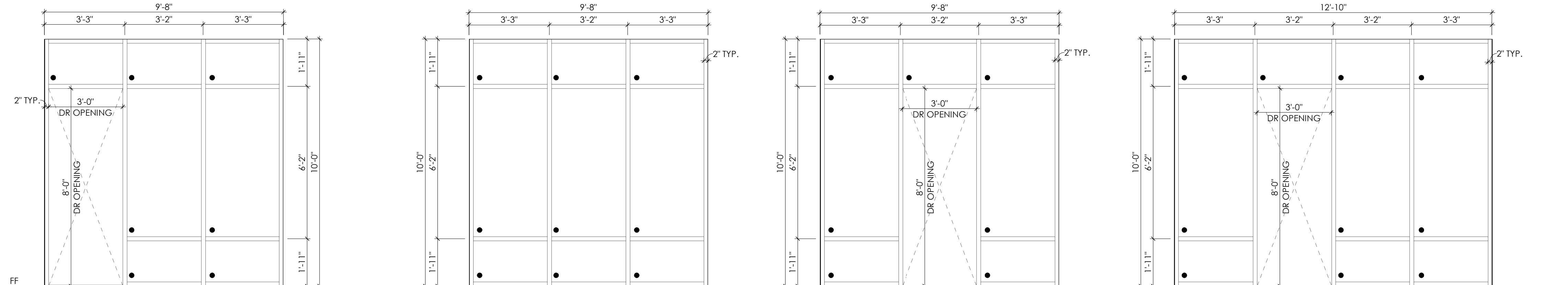
GATE TYPE G-1  
CUSTOM LOCKING METAL ACCESS GATE



WINDOW TYPE SF-7  
ALUMINUM STOREFRONT  
THERMALLY BROKEN  
INSULATED  
LOW-E GLAZING  
DARK BRONZE ANODIZED

WINDOW TYPE SF-6  
ALUMINUM STOREFRONT  
THERMALLY BROKEN  
INSULATED  
LOW-E GLAZING  
DARK BRONZE ANODIZED

WINDOW TYPE SF-5  
ALUMINUM STOREFRONT  
THERMALLY BROKEN  
INSULATED  
LOW-E GLAZING  
DARK BRONZE ANODIZED

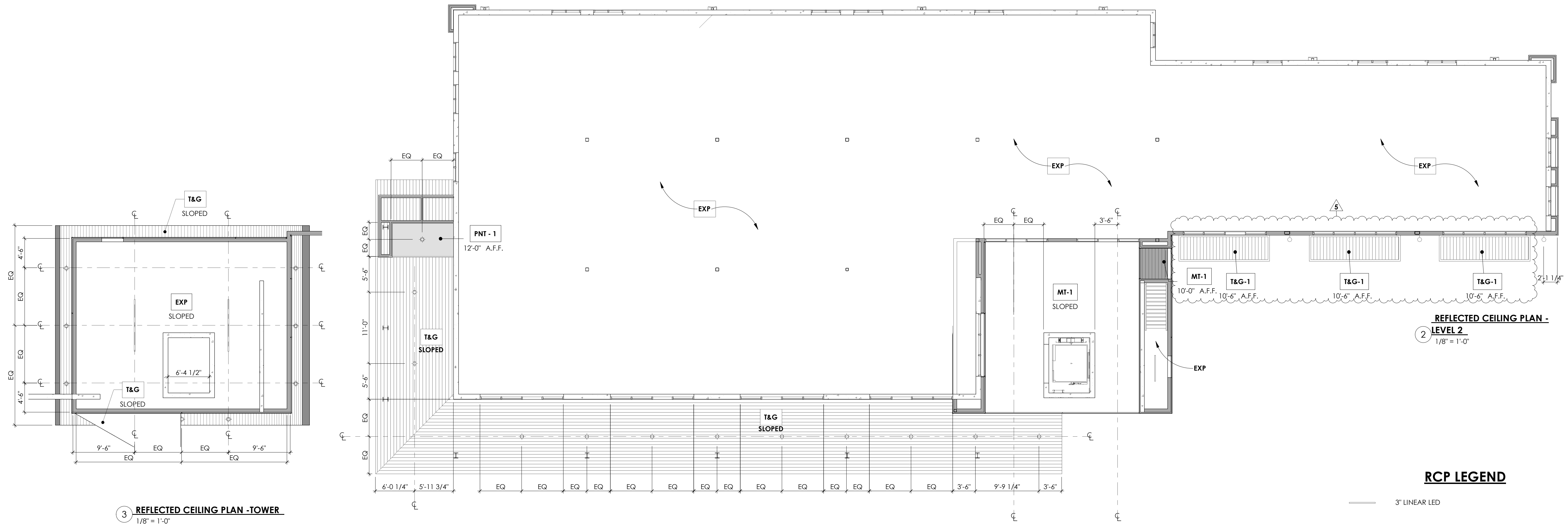


WINDOW TYPE SF-4  
ALUMINUM STOREFRONT  
THERMALLY BROKEN  
INSULATED  
LOW-E GLAZING  
DARK BRONZE ANODIZED

WINDOW TYPE SF-3  
ALUMINUM STOREFRONT  
THERMALLY BROKEN  
INSULATED  
LOW-E GLAZING  
DARK BRONZE ANODIZED

WINDOW TYPE SF-2  
ALUMINUM STOREFRONT  
THERMALLY BROKEN  
INSULATED  
LOW-E GLAZING  
DARK BRONZE ANODIZED

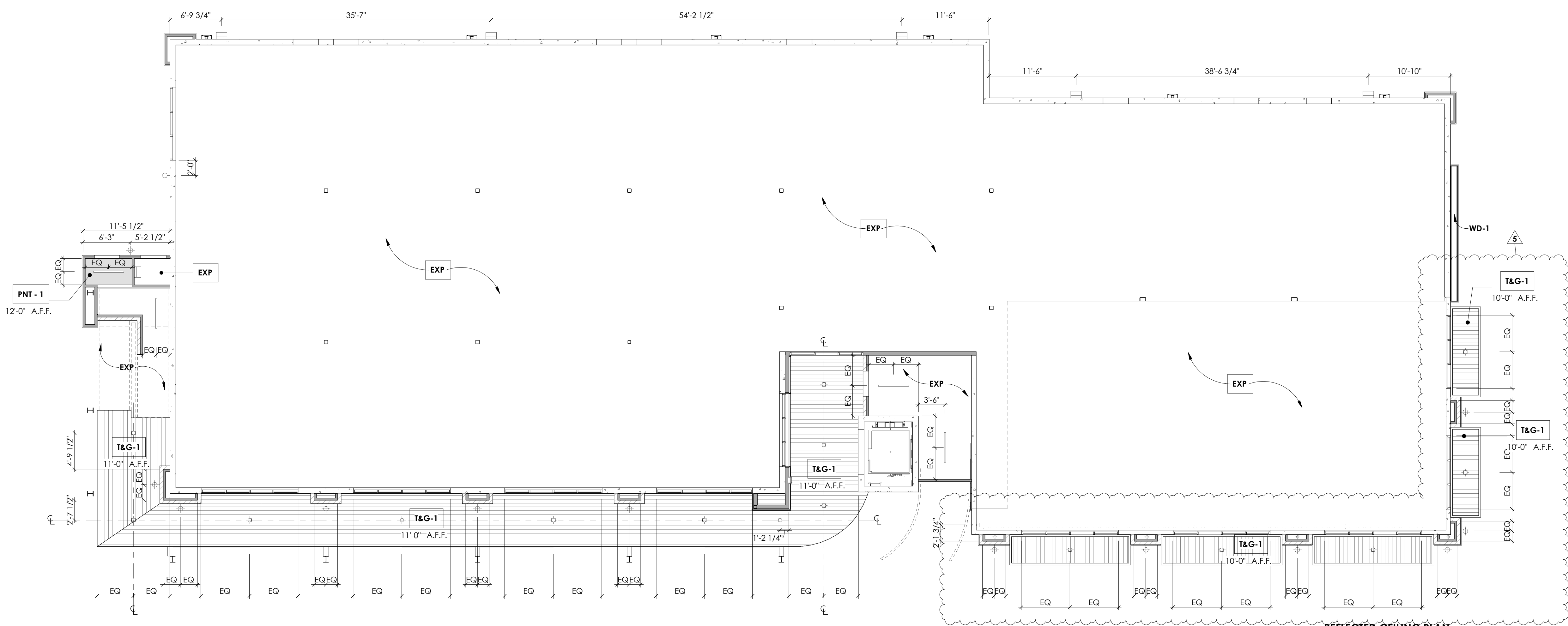
WINDOW TYPE SF-1  
ALUMINUM STOREFRONT  
THERMALLY BROKEN  
INSULATED  
LOW-E GLAZING  
DARK BRONZE ANODIZED



**3 REFLECTED CEILING PLAN - TOWER**  
 1/8" = 1'-0"

**RCP LEGEND**

- 3" LINEAR LED
- ⊙ RECESSED CAN
- ⊙<sub>D</sub> DIRECTIONAL DOWNLIGHT
- ⊙ WALL SCONCE A, T.O. OF FIXTURE TO ALIGN WITH T.O. STOREFRONT, U.N.O.
- ⊙ WALL SCONCE B, T.O. OF FIXTURE TO ALIGN WITH T.O. STOREFRONT, U.N.O.
- ⊙ WALL PACK LIGHTING @ 12'-0" B.O. FIXTURE, U.N.O.
- E 4" VAPOR TIGHT LED, MOUNTED PER ELEVATOR MANUF. AND CODE
- PNT-X GYPSUM BOARD CEILING [COLOR CP-2]
- MT-1 METAL M-PANEL
- T&G-1 ALUMINUM T&G SOFFIT, PER SELECTION
- EXP EXPOSED STRUCTURE - CEILING TREATMENT BY FUTURE TENANT
- MT-3 STEEL PLATE
- WD-1 NICHHA WOOD SERIES, VINTAGEWOOD, CEDAR



**1 REFLECTED CEILING PLAN - LEVEL 1**  
 1/8" = 1'-0"

**LIGHTING DETAIL**



NOTE: ALL FIXTURES TO BE IN ACCORDANCE WITH CITY CODE SECTION 12: OUTDOOR LIGHTING.  
 A. FIXTURES ARE NON-FLASHING AND SHIELDED SUCH THAT THE LIGHT SOURCE IS NOT VISIBLE FROM THE PUBLIC ROW OR ADJACENT RESIDENTIAL USES  
 B. THE LEVEL OF ILLUMINATION AS MEASURED IN FOOT CANDLES AT A HEIGHT OF 3'-0" AT THE PROPERTY LINE DOES NOT EXCEED 2 FOOT CANDLES.



**STRUCTURAL SUBMITTALS**

- SUBMITTAL REVIEW**
- TEN WORKING DAYS PRIOR TO SUBMITTING SHOP DRAWINGS, THE CONTRACTOR SHALL SUBMIT FOR STRUCTURAL ENGINEER'S REVIEW A SCHEDULE WHICH DETAILS THE ESTIMATED QUANTITY OF SHOP DRAWINGS AND THE DATE THE SHOP DRAWINGS WILL BE RECEIVED BY THE STRUCTURAL ENGINEER. THE STRUCTURAL ENGINEER SHALL HAVE THE OPPORTUNITY TO REVIEW THE PROPOSED SCHEDULE AND SUBMIT COMMENTS TO THE CONTRACTOR. THE FINAL SHOP DRAWING SCHEDULE SHALL BE DEVELOPED AND SUBMITTED TO THE STRUCTURAL ENGINEER. IN ACCORDANCE WITH THE SHOP DRAWING SCHEDULE, THE STRUCTURAL ENGINEER WILL RETURN THE SHOP DRAWING ITEMS WITHIN TEN WORKING DAYS AFTER HAVING RECEIVED THE REPRODUCIBLE SHOP DRAWING.
  - THE CONTRACTOR IS TO REVIEW EACH SUBMITTAL PRIOR TO FORWARDING TO ARCHITECT AND STRUCTURAL ENGINEER. THE CONTRACTOR IS TO STAMP EACH SUBMITTAL VERIFYING THAT THE FOLLOWING IS ADDRESSED:
    - THE SHOP DRAWING IS REQUESTED.
    - THE SHOP DRAWING IS BASED ON THE LATEST DESIGN.
    - THE ARCHITECT'S AND STRUCTURAL ENGINEER'S COMMENTS FROM ANY PREVIOUS SUBMITTALS ARE ADDRESSED.
    - THE WORK IS COORDINATED AMONG ALL CONSTRUCTION TRADES.
    - REVISIONS FROM PREVIOUS SUBMITTALS ARE CLEARLY MARKED BY CIRCLING OR CLOUDS.
    - SUBMITTAL IS COMPLETE.
    - SUBMITTAL DOES NOT INCLUDE SUBSTITUTION REQUEST
    - SUBMITTAL SHALL INCLUDE A STAMP INDICATING PROJECT NAME AND LOCATION, SUBMITTAL NUMBER, SPECIFICATION SECTION NUMBER.
  - THE STRUCTURAL ENGINEER SHALL RETURN, WITHOUT COMMENT, SUBMITTALS WHICH THE CONTRACTOR HAS NOT STAMPED OR WHICH DO NOT MEET THE ABOVE REQUIREMENTS. THE STRUCTURAL ENGINEER'S REVIEW OF SUBMITTALS SHALL BE FOR GENERAL CONFORMANCE WITH THE DESIGN INTENT. NO WORK SHALL BE STARTED WITHOUT SUCH REVIEW.
  - FOR COMPONENTS THAT REQUIRE ENGINEERING BY THE CONTRACTOR, PROVIDE A NOTE ON EACH SHOP DRAWING, WRITTEN AND SIGNED BY THE SUPPLIER'S ENGINEER, INDICATING THAT THE SHOP DRAWING IS IN CONFORMANCE WITH THE CALCULATIONS OF THE CONTRACTOR'S ENGINEER.

- REQUIRED SUBMITTALS**
- THE FOLLOWING ITEMS REQUIRE SUBMITTALS FOR STRUCTURAL REVIEW AS OUTLINED IN THE SPECIFICATIONS:
    - 03100 - CONCRETE FORMWORK.....CALC
    - 03200 - CONCRETE REINFORCING LAYOUT
    - 03300 - CONCRETE MIX DESIGNS
    - 03300 - CONCRETE CONSTRUCTION JOINT LAYOUT
    - 03400 - CONCRETE TILT UP WALL PANEL REINFORCING AND LIFTING AND BRACING
    - 05100 - STRUCTURAL STEEL
    - 05100 - STEEL CONNECTIONS.....CALC - S/S
    - 05100 - STEEL STAIRS.....CALC - S/S
    - 05200 - STEEL JOISTS
    - 05300 - STEEL METAL DECK
    - 05400 - COLD FORMED STEEL STUDS.....CALCS - S/S
    - CALC = CALCULATIONS TO BE PROVIDED TO ENGINEER OF RECORD
    - S/S=SIGNED AND SEALED BY ENGINEER IN PROJECT STATE

- DELEGATED DESIGNS**
- THE ITEMS IN THIS SECTION REFER TO LOADS IMPOSED BY CONTRACTOR DESIGNED SYSTEMS, SPECIFICALLY:
    - COLD FORMED STEEL FRAMING
    - STEEL CONNECTIONS
    - METAL STAIRS
    - ARCHITECTURAL ORNAMENTATION (FLAGPOLES, BANNERS, MASTS, ETC.)
    - ELEVATOR REACTIONS
  - WHERE CONTRACTOR LOADS IMPOSED DO NOT EXCEED AND/OR CONNECTION CONDITIONS DO NOT DIFFER FROM WHAT IS INDICATED IN THE STRUCTURAL DRAWINGS, SUBMIT FOR RECORD A LETTER SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE IN WHICH THE PROJECT IS LOCATED STATING THE FOLLOWING:
    - "THE CONTRACTOR DESIGNED SYSTEM HAS BEEN DESIGNED TO IMPOSE LOADS ON THE BASE BUILDING STRUCTURE THAT ARE WITHIN THE LOAD LIMITS AND AT THE LOCATIONS INDICATED ON THE STRUCTURAL DRAWINGS."
  - WHERE CONTRACTOR LOADS IMPOSED FOR THE FOLLOWING ITEMS EXCEED AND/OR CONNECTION CONDITIONS DIFFER FROM WHAT IS SHOWN IN THE STRUCTURAL DRAWINGS, SUBMIT FOR APPROVAL TO SER LOADS IMPOSED ON THE PRIMARY STRUCTURAL FRAME DUE TO THE DEAD, LIVE, AND WIND/SEISMIC LOADS INDICATED ON THE CONTRACT DOCUMENTS.
  - SUBMITTAL SHALL LIST THE DESIGN LOADS USED AND BE SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE IN WHICH THE PROJECT IS LOCATED. SUBMITTAL SHALL INCLUDE LOCATION, MAGNITUDE AND DIRECTION OF UNFACTORED IMPOSED LOADS, APPROPRIATE REPRESENTED IN THEIR APPROPRIATE LOCATIONS ON A COPY OF THE CONTRACT DOCUMENT STRUCTURAL FRAMING PLANS OR ELEVATIONS AS APPROPRIATE. DETAIL REFERENCES IN THE CONNECTIONS APPLICABLE AT EACH LOCATION SHALL BE NOTED ON THE SUBMITTAL DRAWINGS.
  - FOR EXTERIOR WALL ASSEMBLIES, THE LOADS IMPOSED SUBMITTAL SHALL BE COMPREHENSIVE INDICATING THE LOAD IMPOSED ON THE BASE BUILDING STRUCTURE AND SHALL BE THE REACTION BASED ON THE ACTUAL LOADS OF THE ENTIRE ASSEMBLY, INCLUDING BUT NOT LIMITED TO GLAZING, CLADDING, METAL STUD BACKUP, AND MULLIONS.
  - A SUBSTITUTION REQUEST MAY BE REQUIRED WHERE CONTRACTOR LOADS IMPOSED EXCEED AND/OR CONNECTION CONDITIONS DIFFER FROM THE BASIS OF DESIGN.

**WIND LOADING DIAGRAMS**

COMPONENT & CLADDING DESIGN WIND PRESSURES (PSF)			
ROOF			
ZONE	10 SF	50 SF	100 SF
1 (+)	16	16	16
2, 3 (+)	29.7	26.7	25.3
1	-32.5	-30.5	-29.7
2, 3	-54.5	-46.8	-35.2
2o	-68	-51	-45
WALLS			
ZONE	10 SF	50 SF	100 SF
4,5 (+)	29.7	26.7	25.3
4	-32.2	-29.1	-27.8
5	-39.6	-33.5	-30.9
PARAPET			
ZONE	10 SF	50 SF	100 SF
4P(+/-)	87.8	70.5	63.1
5P(+/-)	87.8	70.5	63.1

**ROOF PLAN (GENERIC BUILDING SHOWN)**

**WALLS (GENERIC BUILDING SHOWN)**

**NOTES:**

- TABLE PRESSURES ARE FOR THE SQUARE FOOT (SF) TRIBUTARY AREA SHOWN. FOR OTHER TRIBUTARY AREAS, LINEARLY INTERPOLATE BETWEEN VALUES SHOWN ABOVE.
- POSITIVE PRESSURES ACT TOWARD THE BUILDING. NEGATIVE PRESSURES ACT AWAY FROM THE BUILDING.
- REF. DIAGRAMS FOR ZONE LOCATIONS.
- ALL PRESSURES SHOWN ARE GROSS ULTIMATE PRESSURES.

a= 6'-0"

**POST-INSTALLED ANCHORS NOTES**

- EXCEPT WHERE INDICATED ON THE DRAWINGS, POST-INSTALLED ANCHORS SHALL CONSIST OF THE FOLLOWING ANCHOR TYPES AS PROVIDED BY HILTI, INC. CONTACT HILTI AT (800) 879-8000 FOR PRODUCT RELATED QUESTIONS.
  - ANCHORAGE TO CONCRETE**
    - ADHESIVE ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:
      - HILTI HIT-HY 200 SAFE SET SYSTEM WITH THE HILTI HIT-Z ROD PER ICC ESR-3187
      - HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VACUUM SYSTEM WITH HAS-E THREADED ROD PER ICC ESR-3187
      - HILTI HIT-RE 500v3 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VACUUM WITH HAS-E THREADED ROD PER ICC ESR-3814
      - HILTI HIT-RE 500v3 SAFE SET SYSTEM WITH HILTI ROUGHENING TOOL (HIT RT) WITH HAS-E THREADED ROD PER ICC ESR-3814 FOR DIAMOND CORED HOLES
    - MEDIUM DUTY MECHANICAL ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:
      - HILTI KWIK HUS EZ AND KWIK HUS EZ-I SCREW ANCHORS SAFE SET SYSTEM WITH HOLLOW DRILL BIT AND VACUUM SYSTEM PER ICC ESR-3027
      - HILTI KWIK BOLT-TZ EXPANSION ANCHORS SAFE SET SYSTEM WITH HOLLOW DRILL BIT AND VACUUM SYSTEM AND SI-AT-A22 WITH ADAPTIVE TORQUE PER ICC ESR-1917
      - HILTI KWIK BOLT 3 EXPANSION ANCHOR SAFE SET SYSTEM WITH HOLLOW DRILL BIT AND VACUUM SYSTEM AND SI-AT-A22 WITH ADAPTIVE TORQUE (UNCRACKED CONCRETE ONLY) PER ICC ESR-2302
    - HEAVY DUTY MECHANICAL ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:
      - HILTI HDA UNDERCUT ANCHORS PER ICC ESR 1546
      - HILTI HSL-3 EXPANSION ANCHORS PER ICC ESR 1545
  - REBAR DOWELING INTO CONCRETE**
    - ADHESIVE ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:
      - HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VACUUM SYSTEM WITH CONTINUOUSLY DEFORMED REBAR PER ICC ESR-3187
      - HILTI HIT-HY 500v3 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VACUUM SYSTEM WITH CONTINUOUSLY DEFORMED REBAR PER ICC ESR-3814
      - HILTI HIT-RE 500v3 SAFE SET SYSTEM WITH HILTI ROUGHENING TOOL (HIT RT) WITH CONTINUOUSLY DEFORMED REBAR PER ICC ESR-3814 IN DIAMOND CORED HOLES
  - ANCHORAGE TO SOLID GROUTED MASONRY**
    - ADHESIVE ANCHORS USE:
      - HILTI HIT-HY 270 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VACUUM SYSTEM PER ICC ESR-4143
      - STEEL ANCHOR ELEMENT SHALL BE HILTI HAS-E CONTINUOUSLY THREADED ROD OR CONTINUOUSLY DEFORMED STEEL REBAR
    - MECHANICAL ANCHORS USE:
      - HILTI KWIK BOLT-3 EXPANSION ANCHORS WITH SI-AT-A22 WITH ADAPTIVE TORQUE PER ICC ESR 1385
  - ANCHORAGE TO HOLLOW / MULTI-WYTHE MASONRY (NOT ALLOWED UNLESS SPECIFICALLY DETAILS IN STRUCTURAL DRAWINGS)**
    - ADHESIVE ANCHORS USE:
      - HILTI HIT-HY 270 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VACUUM SYSTEM PER ICC ESR-4143.
      - STEEL ANCHOR ELEMENT SHALL BE HILTI HAS-E CONTINUOUSLY THREADED ROD OR CONTINUOUSLY DEFORMED STEEL REBAR
      - THE APPROPRIATE SIZE SCREEN TUBE SHALL BE USED PER ADHESIVE MANUFACTURER'S RECOMMENDATION
- ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY HILTI OR SUCH OTHER METHOD AS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE.
- INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING.
- OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED USING THE HILTI PROFIT SYSTEM.
- THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.
- ANCHOR CAPACITY IS DEPENDANT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
- EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS, BY HILTI FERROSCAN, GPR, X-RAY, CHIPPING OR OTHER MEANS.

**COLD-FORMED STEEL NOTES**

- THE DESIGN, INSTALLATION, AND CONSTRUCTION OF COLD-FORMED CARBON OR LOW-ALLOY STEEL SHALL BE IN ACCORDANCE WITH THE "STANDARD FOR COLD-FORMED STEEL FRAMING - GENERAL PROVISIONS, AMERICAN IRON AND STEEL INSTITUTE (AISI-GENERAL) AND AISI-NASPEC.
- ALL FRAMING MEMBERS SHALL BE FORMED FROM CORROSION-RESISTANT STEEL, CORRESPONDING TO THE REQUIREMENTS OF ASTM A 653.
- G.C.S ENGINEER SHALL DESIGN ALL COLD FORMED STEEL STUDS AND THEIR ATTACHEMENT. CFS DRAWINGS SHALL BE STAMPED BY REGISTERED ENGINEER IN STATE OF TEXAS.
- FABRICATION AND ERECTION OF MEMBERS SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- SECURE ALL CONTINUOUS TRACKS TO CONCRETE FOUNDATIONS WITH HILTI X-U 27 P8 TH POWDER ACTUATED FASTENERS (OR APPROVED EQUAL) AT 16" O.C. AND TO STEEL FRAMING MEMBERS WITH X-U 19 P8 TH POWDER ACTUATED FASTENERS (OR APPROVED EQUAL) AT 16" O.C. UNLESS NOTED OTHERWISE.
- WELDED CONNECTIONS SHALL BE WIRE BRUSHED AND BRUSH-COATED WITH A GALVANIZED PAINT.
- HORIZONTAL BRIDGING/STRAP BRACING SHALL BE ATTACHED TO LOAD BEARING AND EXTERIOR WALL STUDS AT 48" O.C. MAXIMUM.
- FASTENERS ALONG PANEL EDGES SHALL BE PLACED NO LESS THAN 3/8" FROM PANEL EDGES AND ARE TO BE SPACED AT 6" O.C. ALONG PANEL EDGES AND AT 12" O.C. AT ALL INTERMEDIATE SUPPORTS. ALL PANEL EDGES SHALL BE FULLY BLOCKED.

**CONTROLLED BACKFILL BEHIND RETAINING WALLS**

- BACKFILL MATERIAL SHALL MEET THE REQUIREMENTS OF THE GEOTECHNICAL ADDENDUM LETTER DATED SEPT. 2, 2021 BY ALLIANCE ENGINEERING GROUP, INC. REPORT NO P21-0702 - ADDENDUM #1
- BACKFILL BEHIND RETAINING WALLS SHALL BE PRIMARILY GRANULAR CONSISTING OF SELECT FILL, SAND, CRUSHED AGGREGATE OR CRUSHED CONCRETE. NATIVE CLAYS SHALL NOT BE USED FOR BACKFILL BEHIND RETAINING WALLS. SELECT FILL IMPORTED TO SITE SHALL MEET GEOTECHNICAL REQUIREMENTS CLASSIFIED AS SM, SC, GM, OR GC ACCORDING TO UNIFIED SOIL CLASSIFICATION SYSTEM.
- PER ADDENDUM TABLE #2 - SELECT FILL. MAX ACTIVE DESIGN PRESSURE: 40 PCF .
- DRAINAGE SYSTEM SHALL BE PROVIDED BEHIND RETAINING WALL TO PREVENT WALL BUILDUP ON RETAINED SOIL.
- HEAVY EQUIPMENT SHALL NOT BE USED ABOVE RETAINED SOILS. USE HAND EQUIPMENT ONLY FOR SOILS COMPACTION.
- BACKFILL MATERIAL SHALL BE PLACED IN HORIZONTAL LOOSE LIFTS NOT TO EXCEED 8" IN THICKNESS.
- EACH LIFT SHOULD BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY BASED ON TxDOT METHOD TEX-113-E.
- THE MOISTURE CONTENT SHOULD BE WITHIN 3 PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT AT THE TIME OF COMPACTION.
- BACKFILL MATERIAL SHALL NOT BE PLACED AGAINST WALLS UNTIL ALL SUPPORTING SLABS, BEAMS, STRUTS, ETC., HAVE ATTAINED THEIR 28 DAY DESIGN STRENGTH UNLESS PROPER BRACING IS INSTALLED.
- WHERE BACKFILL IS REQUIRED ON BOTH SIDES OF A STRUCTURE OR BUILDING ELEMENT, BACKFILL SHALL BE PLACED SIMULTANEOUSLY ALONG BOTH SIDES SO THAT THE BACKFILL HEIGHT ON ONE SIDE DOES NOT EXCEED THE HEIGHT ON THE OPPOSITE SIDE BY MORE THAN 4'-0".
- COMPACTION AND MOISTURE CONTENT OF SUBGRADE AND EACH LIFT OF STRUCTURAL FILL SHALL BE INSPECTED AND APPROVED BY A QUALIFIED ENGINEERING TECHNICIAN, SUPERVISED BY A GEOTECHNICAL ENGINEER
- GEOTECHNICAL ENGINEER SHALL BE RETAINED TO VERIFY BACKFILL MATERIAL PRIOR TO PLACEMENT.

**REQUIRED SPECIAL INSPECTIONS**

ITEM	SECTION
STRUCTURAL STEEL	IBC 1705.2 / AISC 360 SECTION N5
FIELD WELDING	IBC 1705.5
STRUCTURAL CONCRETE	IBC 1705.3 / ACI 318 17.8, 26.13
ANCHOR BOLTS, POST INSTALLED ANCHORS IN CONC	ACI 318 17.8
SOILS COMPLIANCE PRIOR TO FOUNDATION INSPECTION	IBC 1705.6 / PER GEOTECH REQUIREMENTS

- THE ARCHITECT IS THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (RDPIRC) FOR THIS PROJECT. SUBMIT ALL INSPECTION REPORTS DIRECTLY TO THE RDPIRC FOR REVIEW. INDIVIDUAL INSPECTION REPORTS SHALL INDICATE IF WORK WAS COMPLETED IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE GC FOR CORRECTION. IF NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND RDPIRC PRIOR TO COMPLETION OF THAT PHASE OF WORK.
- IN ORDER TO COMPLY WITH THE BUILDING CODE REQUIREMENTS, THE SPECIAL INSPECTORS AND TESTING TECHNICIANS MAY NOT BE EMPLOYED BY THE GENERAL CONTRACTOR (GC), SUBCONTRACTORS OR MATERIAL SUPPLIERS. IN THE CASE OF AN OWNER / CONTRACTOR, THE BUILDING OFFICIAL SHALL BE CONSULTED.
- THESE INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS IDENTIFIED IN SECTION 110 OF THE IBC 2015. CONSTRUCTION SHALL REMAIN ACCESSIBLE AND EXPOSED FOR INSPECTION PURPOSES UNTIL APPROVED.
- SPECIAL INSPECTIONS REPORT REQUIREMENTS 1704.2.4: SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS OR WAS NOT COMPLETED IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO THE COMPLETION OF THAT PHASE OF WORK. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS SHALL BE SUBMITTED AT A POINT IN TIME AGREED UPON PRIOR TO THE START OF WORK BY THE APPLICANT AND THE BUILDING OFFICIAL.

**SPECIAL INSPECTIONS AND TESTING**

- THE OWNER SHALL EMPLOY THE SERVICES OF ONE OR MORE SPECIAL INSPECTORS TO PROVIDE SPECIAL INSPECTIONS DURING CONSTRUCTION FOR THE FOLLOWING:
  - SHALLOW FOUNDATIONS:
    - INSPECT SOILS BELOW FOOTINGS FOR ADEQUATE BEARING CAPACITY AND CONSISTENCY WITH GEOTECHNICAL REPORT.
    - INSPECT REMOVAL OF UNSUITABLE MATERIAL AND PREPARATION OF SUBGRADE PRIOR TO PLACEMENT OF CONTROLLED FILL.
  - CONTROLLED STRUCTURAL FILL:
    - PERFORM SIEVE TESTS (ASTM D422 & D1140) AND MODIFIED PROCTOR TESTS (ASTM D1557) ON EACH SOURCE OF FILL MATERIAL
    - INSPECT PLACEMENT, LIFT THICKNESS & COMPACTION OF CONTROLLED FILL.
    - TEST DENSITY OF EACH LIFT OF FILL BY NUCLEAR METHODS (ASTM D2922).
    - VERIFY EXTENT AND SLOPE OF FILL PLACEMENT.
  - STRUCTURAL STEEL:
    - REVIEW SHOP FABRICATION AND QUALITY CONTROL PROCEDURES.
    - REVIEW CERTIFIED MILL TEST REPORTS & IDENTIFICATION MARKINGS ON HSS SHAPES.
    - INSPECT INSTALLATION AND TIGHTENING OF HIGH-STRENGTH BOLTS. VERIFY THAT SPLINES HAVE SEPARATED FROM TENSION CONTROL BOLTS. VERIFY PROPER TIGHTENING SEQUENCE.
    - INSPECT STEEL FRAME FOR COMPLIANCE WITH STRUCTURAL DRAWINGS, INCLUDING BRACING, MEMBER CONFIGURATIONS AND CONNECTION DETAILS.
    - INSPECT WELDS IN ACCORDANCE WITH AWS D1.1.
- POST-INSTALLED ANCHOR BOLTS:
  - PERIODIC OR CONTINUOUS INSPECTIONS PER THE REQUIREMENTS OF THE ICC-ES REPORT FOR THE PRODUCT USED.
- THE INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
- DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
  - THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE INSPECTOR MAY NOT ALTER, MODIFY, ENLARGE OR WAIVE ANY OF THE REQUIREMENTS OF THE DOCUMENTS.
  - THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE PROFESSIONAL OF RECORD, AND THE CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. THEN, IF UNCORRECTED, SUBMIT A COMPLETE LIST OF ALL OUTSTANDING DISCREPANCIES ON A WEEKLY BASIS TO THE OWNER, THE BUILDING OFFICIAL, AND THE PROFESSIONAL OF RECORD UNTIL ALL CORRECTIONS HAVE BEEN COMPLETED.
  - THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.
  - STRUCTURAL OBSERVATION BY THE SEOR IS NOT REQUIRED.
  - WHERE INSPECTION REQUIREMENTS DUPLICATE THE REQUIREMENTS OF SPECIFIED QUALITY ASSURANCE TESTING, DUPLICATE INSPECTIONS SHALL NOT BE REQUIRED.

**ALIGN**  
AUSTIN ARCHITECTS

**BUILDING 2**  
THE SQUARE AT CRYSTAL FALLS  
1900 S BAGDAD ROAD BLDG 2  
LEANDER, TEXAS 78641

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**REVISION:**  
2 06/2022 REV 1



08/09/24  
100% CDS-REV-05-V6  
GENERAL NOTES, SCHEDULES AND DIAGRAMS

**SHEET: S002**

A	AB. ANCHOR BOLT	AC. ALASKA CEDAR (WOOD)	ADT. ABOUT	ABV. ABOVE	ADD'L. ADDITIONAL	ADJ. ADJACENT	AISC. AMER. INST. OF STEEL CONSTR.	ALT. ALTERNATE	AMP. AMPUTITUDE	AGGR. AGGREGATE	APPROX. APPROXIMATE(LY)	ARCH. ARCHITECT(URE)(URAL)	B	B2B. BACK-TO-BACK	BD. BOARD	BF. BRACED FRAME	B.F. BOUNDARY FASTENER	B.L. BOTTOM LOWER	BLDG. BUILDING	BLK. BLOCK	BLKG. BLOCKING	BM. BEAM	B.N. BOUNDARY NAIL(ING)	BOT. BOTTOM	B.O. BOTTOM OF	B.O.C. BOTTOM OF CONCRETE	B.O.F. BOTTOM OF FOOTING	B.O.S. BOTTOM OF STEEL	BRG. BEARING	BS. BOUNDARY SCREWS	BSMT. BASEMENT	B.U. BOTTOM UPPER	B.TN. BETWEEN	C	C. CHANNEL (STEEL SHAPE)	CFS. COLD-FORMED STEEL	CIDH. CAST-IN-DRILLED HOLE	C.I.P. CAST - IN-PLACE	C.J. CONTROL JOINT	C.J.P. COMPLETE JOINT PENETRATION (GROOVE WELD)	CLG. CEILING	CLR. CLEARANCE	C.M.U. CONCRETE MASONRY UNIT	COL. COLUMN	COLL. COLLECTOR	CONC. CONCRETE	CONN. CONNECTION	CONST. CONSTRUCT (ING) (ION)	CONT. CONTINUOUS	CONTR. CONTRACT(OR)	CRVD. CURVED	C.P. COMPLETE PENETRATION (WELD)	CST. CONSTRUCTION	CTR. CENTER, CENTRAL	CTSK. COUNTERSINK	CHT. COUNTERWEIGHT	CVN. CHARPY V-NOTCH	d	D. PENNY HEIGHT (NAIL)	D2L. NELSON WELDED REBAR	D.S.A. DEFORMED BAR ANCHOR	DBL. DOUBLE	DEMO. DEMOLITION	DTL. DETAIL	DF. DOUGLAS FIR (WOOD)	DIA. DIAMETER	DIAG. DIAGONAL	DIM. DIMENSION	DISCONT. DISCONTINUOUS	DN. DOWN	DO. DITTO	DP. DEEP	DSA. CA DIV. OF STATE ARCH.	DWG. DRAWING	E	(E). EXISTING	EA. EACH	E.F. EACH FACE	E.G. SUCH AS	EL. ELEVATION	ELEC. ELECTRICAL	ELEVR. ELEVATOR	E.J. EXPANSION JOINT	EMBED. EMBEDMENT	E.N. EDGE NAIL(ING)	E.O. EDGE OF	E.O.S. EDGE OF SLAB	E.P.S. EXPANDED POLYSTYRENE	EQ. EQUAL (EQUIVALENT)	EQ. SP. EQUALLY SPACED	EQUIP. EQUIPMENT	E.S. EACH SIDE	E.W. EACH WAY	E.W.E.F. EACH WAY, EACH FACE	E/W. EAST/WEST	EXP. EXPANSION	EXT. EXTERIOR
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F	FB. FLAT BAR (STEEL SHAPE)	F.D. FLOOR DRAIN	FDN. FOUNDATION	F.F. FAR FACE OR FIELD FASTENER	FIN. FINISHED	FLG. FLANGE	FLR. FLOOR	F.N. FIELD NAIL	F.O. FACE OF	F.O.C. FACE OF CONCRETE	F.F. FACE OF STUD OR FACE OF STEEL	F.P. FULL PENETRATION (WELD)	F.PRF. FIREPROOFING	FRMG. FRAMING	FS. FIELD SCREWS	FT. FEET OR FOOT	FTG. FOOTING	g	GA. GAUGE	GALV. GALVANIZED	GAR. GARAGE	G.B. GRADE BEAM	G.C. GENERAL CONTRACTOR	GEN. GENERAL	GLB. GLUED LAMINATED TIMBER BEAM	GLC. GLUED LAMINATED TIMBER COLUMN	GP. GEORGIA PACIFIC	GR. GRADE	GYP. GYPSUM	H	(H), HORIZ.	H.C.T. HORIZONTAL	HD. HOLLOW CLAY TILE	HD. HOLDDOWN	H.D.G. HOT-DIP GALVANIZED	HDPE. HIGH-DENSITY POLYETHYLENE	HDWE. HARDWARE	HDR. HEADER	HGR. HANGER	HK. HOOK	H.S. HEADED STUD OR HIGH STRENGTH (BOLT)	HSS. HOLLOW STRUCTURAL SECTION	HT. HEIGHT	I	I.D. INSIDE DIAMETER	I.E. THAT IS, SPECIFICALLY	I.F. INSIDE FACE	IN. INCH	INCL. INCLUDED	INFO. INFORMATION	INSP. INSPECTION	INSUL. INSULATION	INT. INTERIOR	IRREG. IRREGULAR	J	JCT. JUNCTION	JOST. JOIST	JT. JNT. JOINT	K	K. KIP (1,000 POUNDS)	K.D. KILN DRIED	KSI. KIPS PER SQUARE INCH	KSF. KIPS PER SQUARE FOOT	L	L. ANGLE (STEEL SHAPE)	LB. POUND	LGS. LIGHT-GAUGE STEEL	L.L.B. LONG LEGS BACK TO BACK	L.L.H. LONG LEG HORIZONTAL	L.L.V. LONG LEG VERTICAL	LMBR. LUMBER	L.S. LONG SLOTTED (HOLE)	LSL. LAMINATED STRAND LUMBER	LSLH. LONG SLOTTED (HOLE)	W/ LONG AXIS HORIZ.	LSLT. LONG SLOTTED (HOLE)	LONG SLOTTED (HOLE)	W/ LONG AXIS VERT.	LTWT. LIGHTWEIGHT	LVL. LEVEL OR LAMINATED VENEER LUMBER	LWC. LIGHTWEIGHT CONCRETE	M	MANUF. MANUFACTURER	MATL. MATERIAL	MAX. MAXIMUM (NO MORE THAN; AT MOST)	M.B. MACHINE BOLT	MC. MISCELLANEOUS CHANNEL (STEEL SHAPE)	MECH. MECHANICAL	MEP. MECHANICAL, ELECTRICAL, PLUMBING	MEZZ. MEZZANINE	MFR. MANUFACTURE(R)	M.I. MALLEABLE IRON	MIN. MINIMUM (NO LESS THAN; AT LEAST)	MISC. MISCELLANEOUS	MOD. MODIFY (ICATION)	MT. MISCELLANEOUS TEE (STEEL SHAPE)	MTL. METAL
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N	N. NORTH	NEW. NEW	NOT APPLICABLE	N.F. NEAR FACE	NOT IN CONTRACT NUMBER	NOM. NOMINAL	N&F. NEAR & FAR SIDE	N.T.S. NOT TO SCALE	NR. NEAR	N.S. NEAR SIDE	N/S. NORTH/SOUTH	N.W. NORMAL WEIGHT	NWC. NORMAL WEIGHT CONCRETE	O	O.C. ON CENTER	O.D. OUTSIDE DIAMETER	O.F. OUTSIDE FACE	OG. OPEN GRAIN (REDWOOD)	O.H. OPPOSITE HAND	OPG. OPENING	OPNG. GRADE BEAM	OPP. OPPOSITE	ORIG. ORIGINAL	O.S. OVERSIZED (HOLE)	P	P.A.F. POWDER ACTUATED FASTENER(S)	PC, PCS. PIECE, PIECES	PCF. POUNDS PER CUBIC FOOT	PCI. POUNDS PER CUBIC INCH	P.D. POWDER DRIVEN	P.D.F. POWDER DRIVEN FASTENER(S)	P.E.F. (PLYWOOD) PANEL EDGE FASTENER (PLYWOOD) PANEL EDGE NAILING	P.E.N. PERF. PERFORATED	PIPE-X. EXTRA STRONG PIPE	PIPE-XX. DOUBLE EXTRA STRONG PIPE	P.J.P. PARTIAL JOINT PENETRATION (GROOVE WELD)	PL. PLATE	P.L. PROPERTY LINE	P.LWD. PLYWOOD	PLYWD. PLYWOOD	P.P. PARTIAL PENETRATION (WELD)	PREFAB. PREFABRICATE(D)	PRELIM. PRELIMINARY	PRESTR. PRESTRESSED	PREV. PREVIOUS(LY)	PROJ. PROJECT ( ED ) (ING ) (ION )	PSF. POUNDS PER SQUARE FOOT	PSI. POUNDS PER SQUARE INCH	PSL. PARALLEL STRAND LUMBER	PT. POINT	P.T. POST-TENSION( ED )(ING)	(R). REUSED	RAD. RADIUS	RB. ROUND BAR (STEEL SHAPE)	R.C. REINFORCED CONCRETE	REINFC. REINFORC(ED) (ING)	REINFC. REINFORCING BAR	REF. REFERENCE	REQ'D. REQUIRED	RET. RETAINING	REV. REVIS( E) (ION)	RF. ROOF	RFG. ROOFING	RND. ROUND	R.O. ROUGH OPENING	RW. REDWOOD	S	SAD. REF. ARCHITECTURAL DRAWINGS	S.B. SOLID BLOCKING	S.C.D. REF. CIVIL DRAWINGS	SCHED. SCHEDULE	SDS. SIMPSON STRONG-DRIVE SCREW, INSTALLED PER ICC ESR-2236	SECT. SECTION	S.E.D. REF. ELECTRICAL DRAWINGS	SEOR. STRUCTURAL ENGINEER OF RECORD	SEP. SEPARATION	SFKCS. SOCKET FLAT HEAD CAP SCREW	SHT. SHEET	SHTG. SHEATHING	SIM. SIMILAR	SJI. STEEL JOIST INSTITUTE	S.L.B.B. SHORT LEGS BACK TO BACK	S.L.D. REF. LANDSCAPE DRAWINGS	SLRS. SEISMIC LOAD RESISTING SYSTEM	S.M.D. REF. MECHANICAL DRAWINGS	SMS. SHEET METAL SCREW	S.O.G. SLAB ON GRADE	SPC. SOUTHERN PINE (WOOD)	SPC. SPAC(ES)(ING)	S.P.D. REF. PLUMBING DRAWINGS	SPC(S). SPECIFICATION(S)	SQ. SQUARE	S.S. STAINLESS STEEL	S.S. SHORT SLOTTED (HOLE)	S.S.L.T. SHORT SLOTTED (HOLE)	S.T. SUCH THAT	STAG. STAGGERED	STAGG. STAGGERED	STD. STANDARD	STFNR. STIFFENER	STL. STEEL	STRUC. STRUCTURAL	SUP. SUSPENDED	SUSP. SUSPENDED	SYM., SYMM. SYMMETRICAL	T	T&B. TOP & BOTTOM	T&G. TONGUE & GROOVE	T.B.D. TO BE DETERMINED	TD. TIE DOWN	THD. THREADED	THK. THICK(NESS)	THRD. THREADED THROUGH	THRU. THROUGH	T.L. TOP LOWER	T.N. TOE NAIL	T.O. TOP OF	T.O.C. TOP OF CONCRETE ELEVATION	T.O.F. TOP OF FOOTING	T.S. TUBE STEEL	T.S. TOP UPPER	T.U. TYPICAL	U	U.O.N. UNLESS OTHERWISE NOTED	URM. UNREINFORCED MASONRY	V	(V). VERT. VERTICAL	VOLUME. VOLUME	V.I.F. VERIFY IN FIELD	V.W.M. VERIFY W/ MANUF.	W	W/. WITH	WD. WOOD	WF. WIDE FLANGE	WH. WEB HORIZONTAL	WIN. WITH IN	WKG. WORKING	W.O. WHERE OCCURS	W/O. WITHOUT	W.P. WORK POINT	W.PFG. WATERPROOFING	W.PJ. WEAKENED PLANE JOINT	W.T. WIDE-FLANGE TEE (STEEL SHAPE)	WT. WEIGHT	W.W.F. WELDED WIRE FABRIC	X	XS. EXTRA STRONG (PIPE)	XXS. DOUBLE EXTRA STRONG (PIPE)	SPECIAL CHARACTERS	&. AND	∠. ANGLE (MEASUREMENT)	@. AT	Ø. CENTER LINE	Ø. DIAMETER OR ROUND	//. PARALLEL	⊥. PERPENDICULAR	P.L. PROPERTY LINE	#. POUND OR NUMBER	±. TOLERANCE
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### REBAR STANDARD HOOKS & BENDS

BAR SIZE	MAIN REINFORCEMENT			STIRRUPS & TIES		
	90° HOOK LENGTH "L"	INSIDE DIA "D1"	180° HOOK LENGTH "L"	90° HOOK LENGTH "L"	INSIDE DIA "D2"	135° HOOK LENGTH "L"
#3	4 1/2"	2 1/4"	2 1/2"	3"	1 1/2"	3"
#4	6"	3"	2 1/2"	3"	2"	3"
#5	7 1/2"	3 3/4"	2 1/2"	3 3/4"	2 1/2"	3 3/4"
#6	9"	4 1/2"	3"	9"	4 1/2"	4 1/2"
#7	10 1/2"	5 1/4"	3 1/2"	10 1/2"	5 1/4"	5 1/4"
#8	1' 0"	6"	4"	1' 0"	6"	6"
#9	1' 1 1/2"	9 1/2"	4 1/2"	-	-	-
#10	1' 3 1/4"	10 3/4"	5 1/4"	-	-	-
#11	1' 5"	1' 0"	5 3/4"	-	-	-

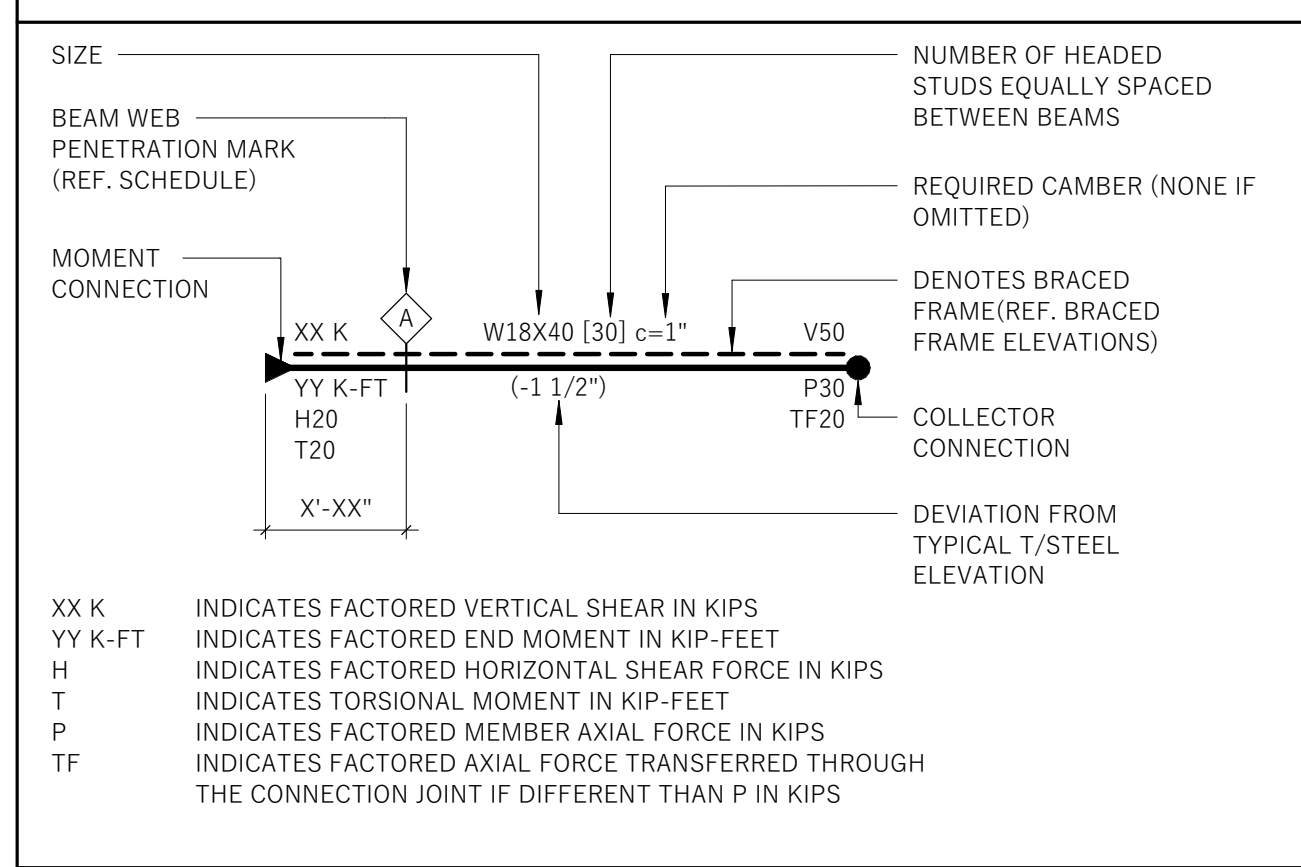
### SYMBOLS LEGEND

SYMBOL	DESCRIPTION
FLOOR MARK T.O. FOOTING ELEVATION	SPREAD FOOTING, REF SCHEDULE ON S101
COL. MARK	STEEL COLUMN, REF. SCHEDULE ON S101
	SLAB OR DECK SPAN DIRECTION
P-X	INDICATES TILT WALL REF. SHT. S101 FOR TILT WALL PLANS
	INDICATES VERTICAL BRACE ABOVE/ BELOW
	INDICATES RTU ZONE, REF. PLAN NOTE FOR ADD. LOADING INFORMATION
NOTE(S): 1. ITEMS IN LEGEND MAY NOT APPEAR ON ALL PLANS	

### REBAR OFFSET & LAP SPlice REQUIREMENTS

CONCRETE STRENGTH	f'c = 3000 PSI				f'c = 4000 PSI			
	CLASS "A"		CLASS "B"		CLASS "A"		CLASS "B"	
CLASS OF LAP SPLICE	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	1'-10"	1'-5"	2'-4"	1'-10"	1'-7"	1'-3"	2'-1"	1'-7"
#4	2'-5"	1'-10"	3'-1"	2'-5"	2'-1"	1'-7"	2'-9"	2'-1"
#5	3'-0"	2'-4"	3'-11"	3'-0"	2'-7"	2'-0"	3'-5"	2'-7"
#6	3'-7"	2'-9"	4'-8"	3'-7"	3'-1"	2'-5"	4'-1"	3'-1"
#7	5'-3"	4'-0"	6'-9"	5'-2"	4'-6"	3'-6"	5'-11"	4'-6"
#8	6'-0"	4'-7"	7'-9"	6'-0"	5'-2"	4'-0"	6'-9"	5'-2"
#9	6'-9"	5'-2"	8'-9"	6'-9"	5'-10"	4'-6"	7'-7"	5'-10"
#10	7'-7"	5'-10"	9'-10"	7'-7"	6'-7"	5'-1"	8'-6"	6'-7"
#11	8'-5"	6'-6"	10'-11"	8'-5"	7'-3"	5'-7"	9'-5"	7'-3"

### STEEL BEAM LEGEND



OTHER ABBREVIATIONS (PRODUCT ABBREVIATIONS):

FOR POWDER-DRIVEN FASTENERS AND CONCRETE ANCHOR ABBREVIATIONS, REF. HILTI NORTH AMERICAN PRODUCT TECHNICAL GUIDE (available at www.us.hilti.com) AND SIMPSON STRONG-TIE ANCHOR SYSTEMS CATALOG (available at www.strongtie.com).

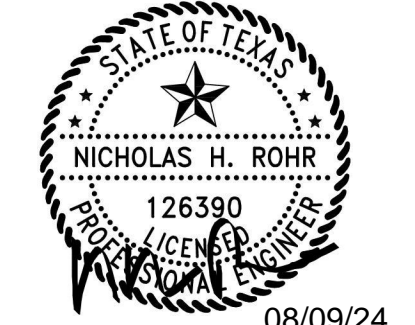
FOR LIGHT-GAUGE STEEL CONNECTOR ABBREVIATIONS, REF. STEEL NETWORK LIGHT STEEL FRAMING CONNECTION CATALOG (available at www.steelnetwork.com) AND SIMPSON STRONG-TIE COLD-FORMED STEEL CONNECTORS CATALOG (available at www.strongtie.com).

**ALIGN**  
AUSTIN ARCHITECTS

**BUILDING 2**  
THE SQUARE AT CRYSTAL FALLS  
1900 S BAGDAD ROAD BLDG-2  
LEANDER, TEXAS 78641

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REVISION:  
2 06/20/22 REV 1

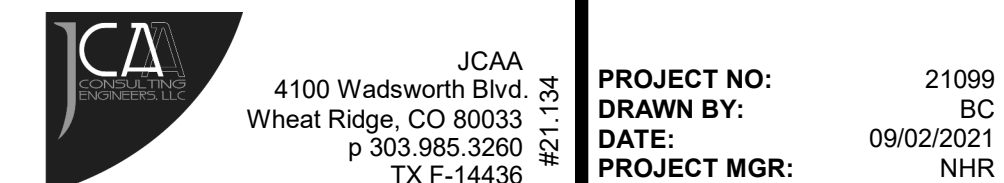


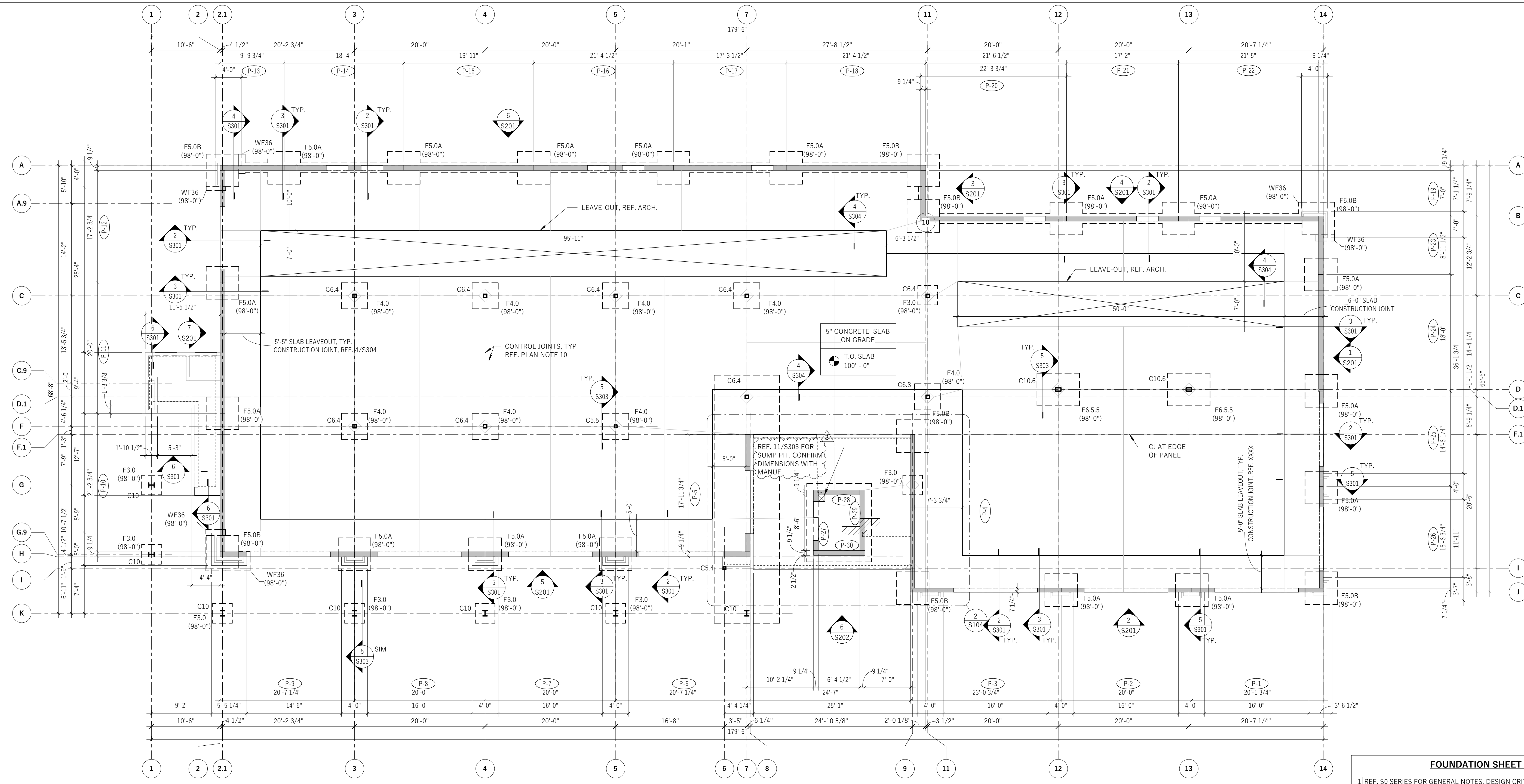
08/09/24

09/09/2024  
100% CDS-REVISED  
STRUCTURAL LEGENDS AND SCHEDULES

SHEET: S003

PROJECT NO: 21099  
DRAWN BY: BC  
DATE: 09/02/2021  
PROJECT MGR: NHR





**1 BUILDING B - FOUNDATION PLAN**  
 S101 1/8" = 1'-0"  
 NORTH

- FOUNDATION SHEET NOTES**
- REF. S0 SERIES FOR GENERAL NOTES, DESIGN CRITERIA.
  - REF. S3 SERIES FOR FOUNDATION TYPICAL DETAILS.
  - DO NOT SCALE WALL LENGTH ON PLAN. REF. ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
  - REFERENCE ELEVATION - TOP OF CONCRETE SLAB ELEVATION = EL. 100'-0". SEE CIVIL FOR N.A.V.D.
  - WALL FOOTINGS (U.N.O.) = WF18, T.O. FOOTING = 98'-0"
  - SLAB-ON-GRADE SHALL BE 5" CONCRETE SLAB REINFORCED WITH #4 BARS AT 16" ON CENTER LOCATED 2" FROM TOP OF SLAB. PLACE 10 MIL VAPOR BARRIER IMMEDIATELY BELOW THE SLAB, OVER A 4 INCH (MIN) THICK BASE COURSE LAYER (REF GEOTECH) OVER THE PREPARED FILL AND SUBGRADE. REF. SHEET S001, AND THE GEOTECHNICAL REPORT FOR SUBGRADE PREPARATION AND SLAB-ON-GRADE NOTES.
  - REF. ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF ALL SLOPED SLABS AND SLAB DEPRESSIONS.
  - SLOPE SLAB AS REQUIRED WHILE MAINTAINING UNIFORM SLAB THICKNESS. SEE ARCH FOR SLAB SLOPES.
  - SEE APPROVED FINAL GRADING PLAN FOR GRADING INFORMATION. CONTRACTOR SHALL VERIFY THAT BOTTOM OF FOOTING ELEVATIONS MEET THE MINIMUM BEARING REQUIREMENTS GIVEN IN THE SOILS REPORT.
  - LOCATE CONTROL JOINTS AT A MAXIMUM OF 15'-0" O.C. REF. DETAIL 1/S301 AT CONTROL JOINTS OR CONSTRUCTION JOINTS AT CONTRACTOR'S OPTION. DO NOT LOCATE CONTROL JOINTS ABOVE GRADE BEAMS.
  - REFERENCE ARCHITECTURAL AND PLUMBING DRAWINGS FOR ALL CONCRETE SLAB LEAVE OUTS, FLOOR DRAIN, AND SLAB PENETRATION LOCATIONS. REFER TO 2/S303 DRAWINGS.
  - VERIFY ALL OPENING DIMENSIONS AND LOCATIONS WITH ARCHITECTURAL DRAWINGS.
  - REFERENCE CIVIL DRAWINGS FOR ALL EXTERIOR SIDEWALKS, RAMPS, AND DOOR STOOPS.

COLUMN AND BASE PLATE SCHEDULE									
MARK	COLUMN SIZE	BASE PLATE TYPE	BASE PLATE DIMENSIONS					ANCHOR BOLTS	
			L	D	A	B	t		
C4.3	HSS4X4X3/16	REF 5/S504	11"	11"	4"	4"	3/4"	(4) 3/4" DIA W/ 8" EMBED	
C5.4	HSS5X5X1/4	BP-A	11"	11"	4"	4"	3/4"	(4) 3/4" DIA W/ 8" EMBED	
C5.5	HSS5X5X5/16	BP-A	1'-0"	1'-0"	4 1/2"	4 1/2"	3/4"	(4) 3/4" DIA W/ 8" EMBED	
C6.4	HSS6X6X1/4	BP-A	1'-0"	1'-0"	4 1/2"	4 1/2"	3/4"	(4) 3/4" DIA W/ 8" EMBED	
C6.8	HSS6X6X1/2	BP-A	1'-0"	1'-0"	4 1/2"	4 1/2"	3/4"	(4) 3/4" DIA W/ 8" EMBED	
C10	W10X33	BP-B	1'-0"	10"	2 1/2"	3"	3/4"	(4) 3/4" DIA W/ 8" EMBED	
C10.6	HSS10X6X5/8	BP-C	1'-7"	1'-3"	8"	6"	1 3/8"	(6) 1" DIA W/ 12" EMBED	

SPREAD FOOTING SCHEDULE								
MARK	FOOTING DIMENSIONS			REINFORCING				COMMENTS
	WIDTH	LENGTH	THICKNESS	BOTTOM BARS - LONG	BOTTOM BARS - SHORT	TOP BARS - LONG	TOP BARS - SHORT	
F3.0	3'-0"	3'-0"	1'-0"	(3) #5 BARS	(3) #5 BARS			PROVIDE STD HOOK ON BOTTOM BARS
F4.0	4'-0"	4'-0"	1'-6"	(4) #6 BARS	(4) #6 BARS			PROVIDE STD HOOK ON BOTTOM BARS
F5.0A	5'-0"	5'-0"	1'-0"	(4) #6 BARS	(4) #6 BARS			
F5.0B	5'-0"	5'-0"	1'-6"	(6) #6 BARS	(6) #6 BARS			
F6.5.5	5'-0"	6'-6"	1'-8"	(7) #5 BARS	(8) #6 BARS	(7) #5 BARS		LONG BARS AS TOP/BOTT. LAYER

CONTINUOUS WALL FOOTING SCHEDULE			
MARK	WIDTH	THICKNESS	REINFORCING
WF18	1'-6"	1'-0"	(3) #5 BARS CONT. WITH #5 BARS AT 12" O.C. TRAVERSE
WF36	3'-0"	1'-0"	(3) #5 BARS CONT. WITH #5 BARS AT 12" O.C. TRAVERSE

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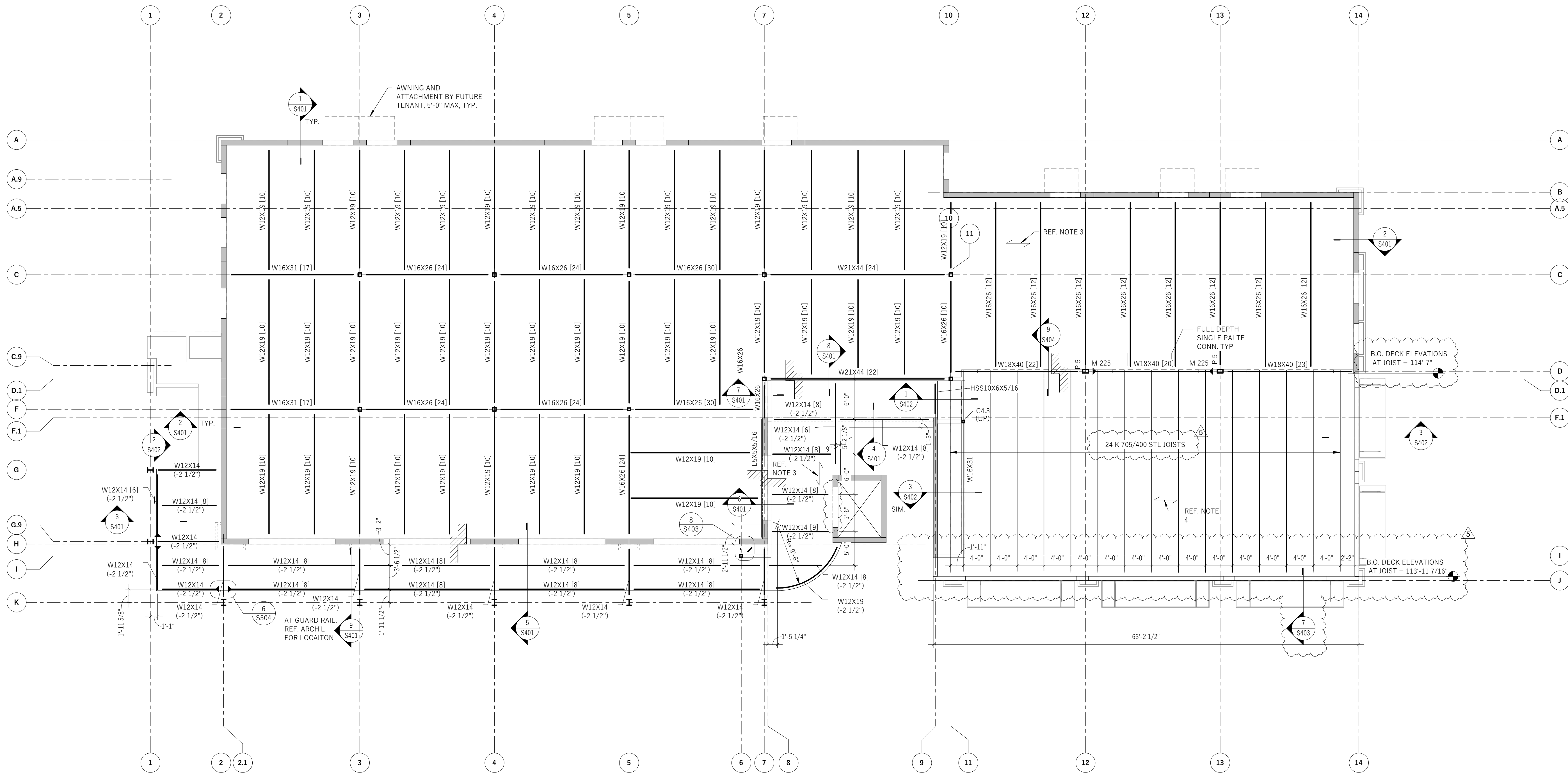
**REVISION:**  
 2 06/20/22 REV 1  
 3 08/03/22 CITY COMMENTS



08/09/24  
 100% CD-REV/05-VE  
 FOUNDATION PLAN

SHEET: **S101**





**1** LEVEL 2 FRAMING PLAN  
S102 1/8" = 1'-0"

STRUCTURAL FLOOR FRAMING NOTES	
1	REF S0 FOR GENERAL NOTES, DESIGN CRITERIA, AND SPECIAL INSPECTIONS
2	T.O. CONCRETE ELEV = 115'-0" U.N.O. T.O. STEEL ELEV = 114'-7"
3	TYP. FLOOR CONSTRUCTION : 3" CONC. (LWC 115 PCF MAX) OVER 2" METAL DECK OVER STEEL COMPOSITE FRAMING, REF. GENERAL NOTES
4	DECK SHALL BE 1.5 C 22 CONFORM DECK WITH 3 1/2" CONCRETE TOPPING (REINF. WITH 6X6-W2.9X2.9 WWR) , TOTAL SLAB AND DECK THICKNESS = 5". DECK AS MANUFACTURED BY VULCRAFT OR APPROVED EQUAL.
5	STEEL CONNECTIONS SHALL BE DESIGNED FOR 15 KIPS VERTICAL SHEAR MIN U.N.O.
6	DO NOT CUT, NOTCH, DRILL, BORE, SHAVE, TAPER OR FOR ANY REASON MODIFY PRE-ENGINEERED/ MANUFACTURED STRUCTURAL ELEMENTS SUCH AS GLUE-LAMINATED MEMBERS, PARALAMS, MICROLAMS, WOOD JOISTS, OR SIMILAR MEMBERS UNLESS WRITTEN PARAMETERS ARE SET FORTH BY THE MANUFACTURER OF THAT PRODUCT, THE MANUFACTURER'S ENGINEER, OR THE ENGINEER OF RECORD FOR THE PROJECT.

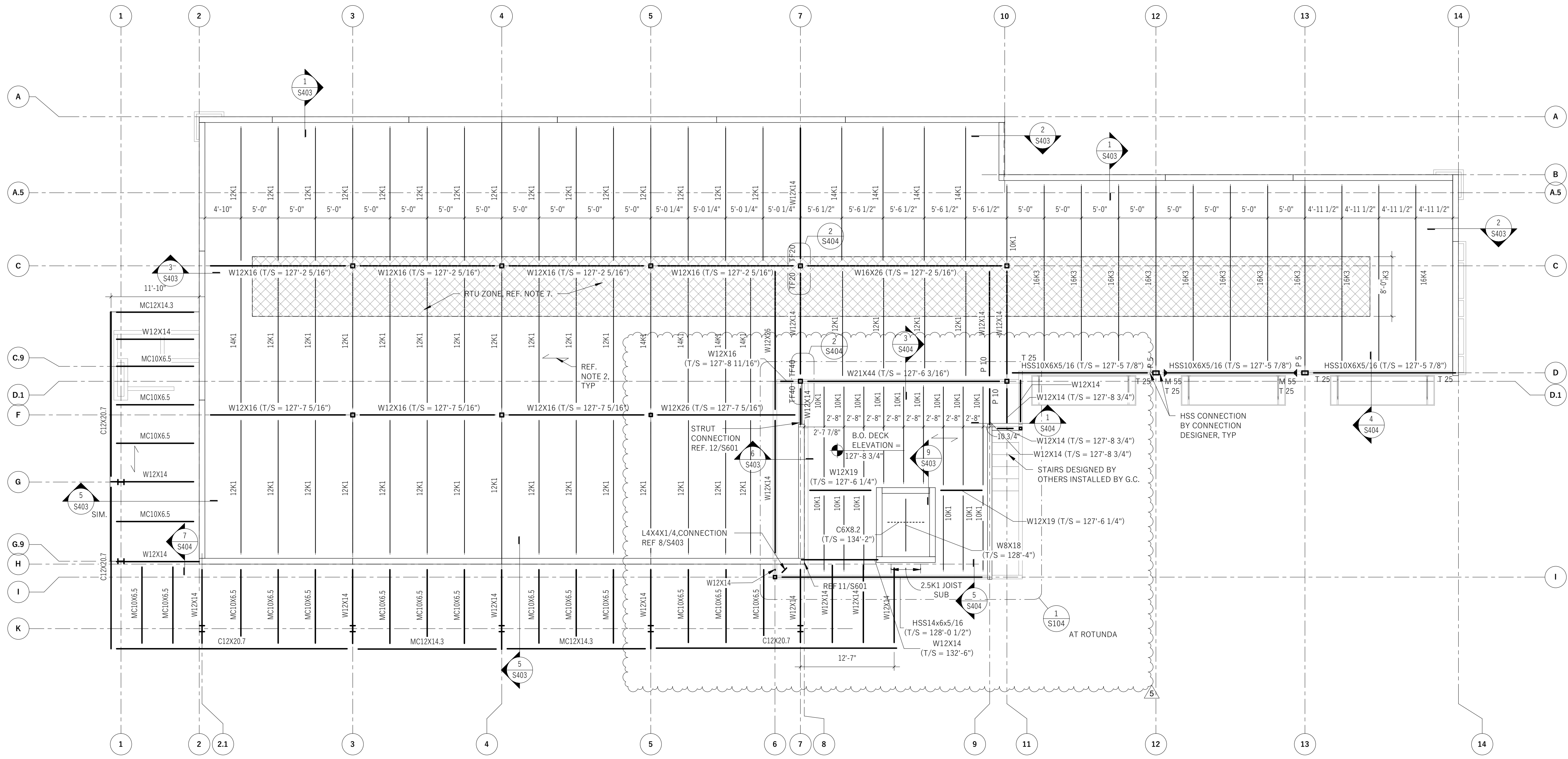
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<b>REVISION:</b>	2 06/20/22 REV 1
	5 08/09/24 VE



08/09/2024  
100% CDS-REV:05/VE  
LEVEL 2 FRAMING PLAN

SHEET: **S102**



**1 ROOF FRAMING PLAN**  
 S103 1/8" = 1'-0"  
 NORTH

**MISC. ROOF DESIGN CRITERIA**

ROOF DESIGN CRITERIA	
DEAD LOADS:	LIVE LOADS: = 20 PSF TC
ROOFING = 3.0 PSF TC	WIND LOADS: = S-003
METAL DECK = 2.5 PSF TC	EQUIPMENT LOAD NOT INCLUDED
TRUSSES = 4.0 PSF TC	ROOFING WEIGHT INCLUDES (1) LAYER RE-ROOFING
CEILING = 2.0 PSF BC	"TC" DENOTES LOAD IS APPLIED TO TRUSS TOP CHORD
INSULATION = 1.0 PSF TC	"BC" DENOTES LOAD IS APPLIED TO TRUSS BOTTOM CHORD
MISC. = 3.5 PSF BC	
MEPF = 4.0 PSF BC	
<b>TOTAL = 20.0 PSF</b>	

**ROOF FRAMING SHEET NOTES**

- DESIGN LIVE LOAD: SEE GENERAL NOTES
- ROOF CONSTRUCTION: VULCRAFT 1.5 B 20 DECK OVER STEEL METAL JOISTS, REF. GENERAL NOTES
- BOTTOM OF STEEL DECK NOTED ON PLAN. REFERENCE ELEVATION = FINISHED FLOOR EL. 100'-0"
- SEE S0 SERIES FOR GENERAL STRUCTURAL NOTES.
- COORDINATE SCUPPER OPENINGS & TILT PANEL PARAPETS WITH ARCHITECTURAL DRAWINGS.
- JOIST MANUFACTURER SHALL DESIGN BRIDGING UPLIFT PER WIND DIAGRAMS ON S002.
- AT RTU ZONE: JOIST DESIGNER TO DESIGN JOIST FOR AN ADDITIONAL 30 PSF LIVE LOAD.
- SEE 6/S-303 FOR PARTITION WALL SUPPORT

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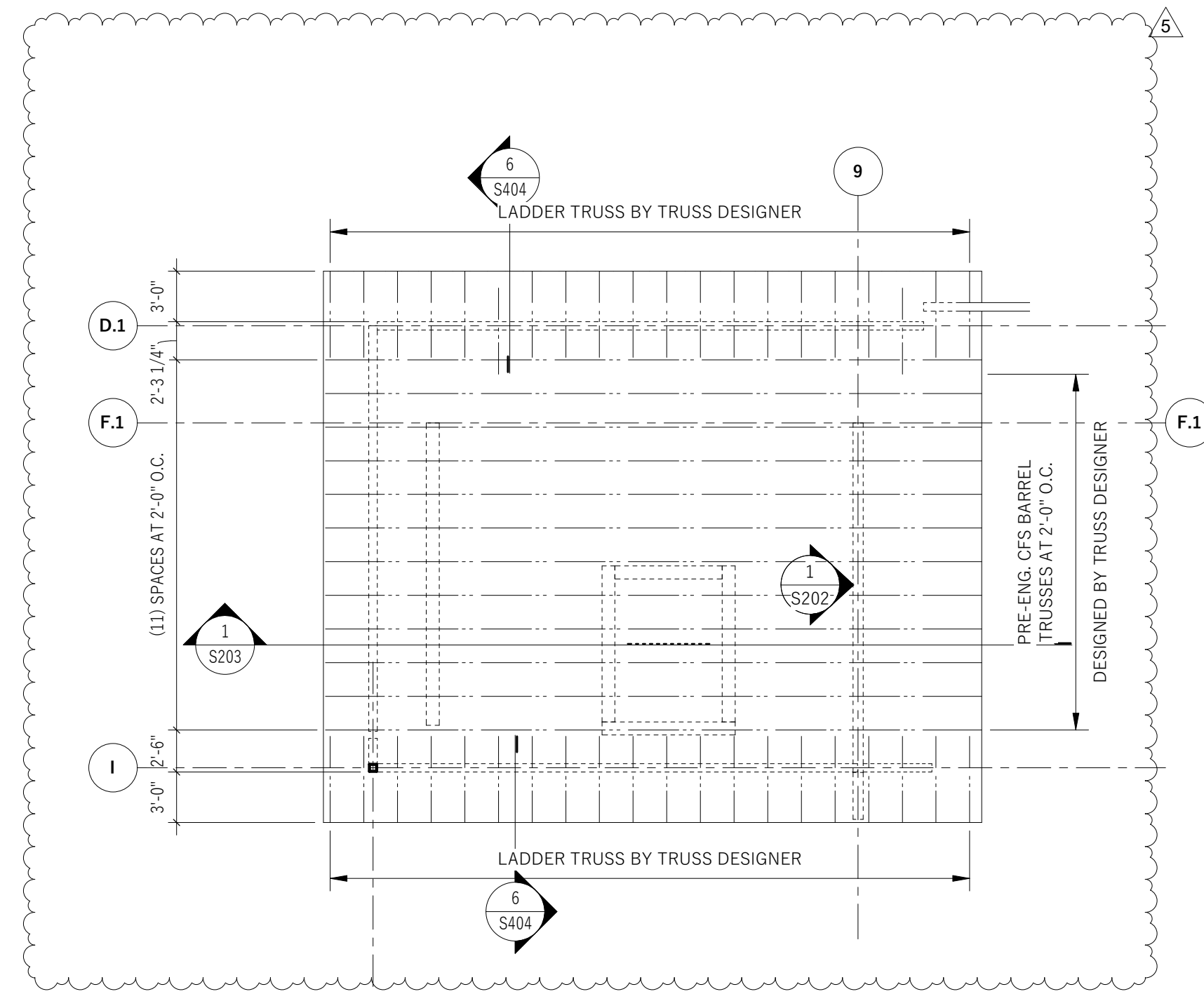
**REVISION:**

2	06/20/22	REV 1
5	08/09/24	VE

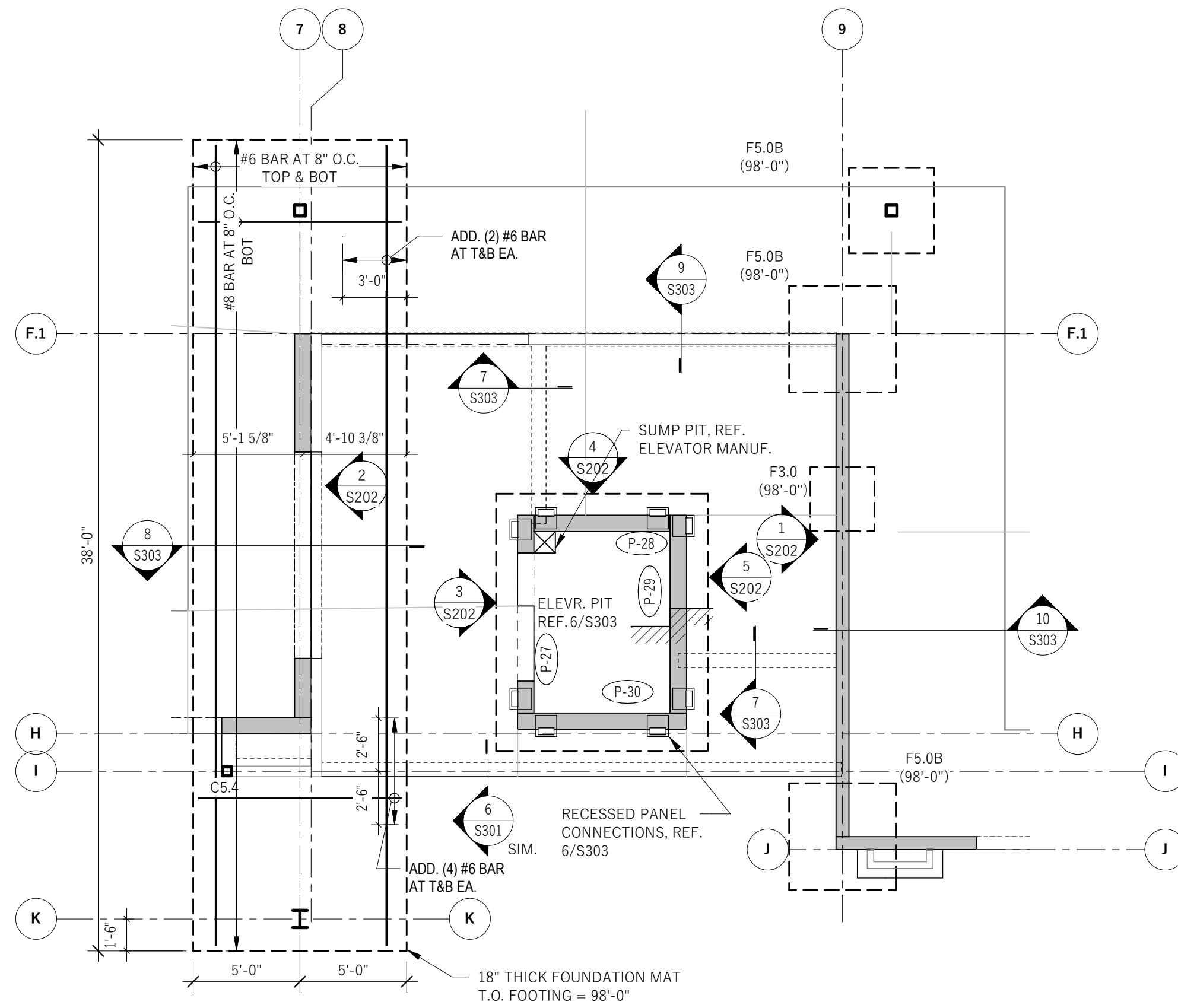


09/09/2024  
 100% CDS-REV 05-VE  
 ROOF FRAMING PLAN

SHEET: **S103**



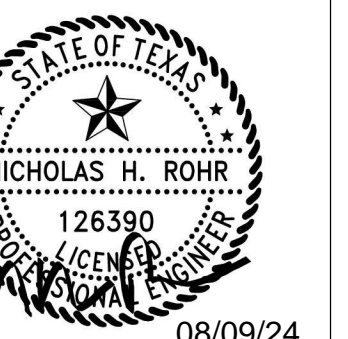
1 HIGH ROOF FRAMING PLAN  
S104 1/8" = 1'-0"



2 ELEV. PARTIAL FOUNDATION PLAN  
S104 3/16" = 1'-0"

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REVISION:	DATE	BY
2	06/20/22	REV 1
5	08/09/24	VE

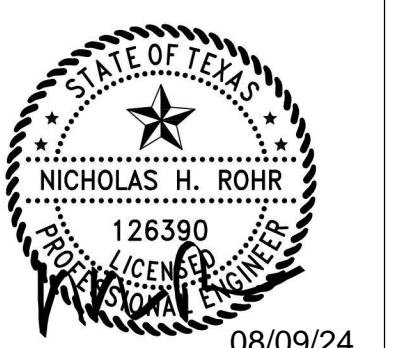


08/09/2024  
100% CDS-REV05-VE  
PARTIAL PLANS

SHEET: S104

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**REVISION:**  
2 06/20/22 REV 1

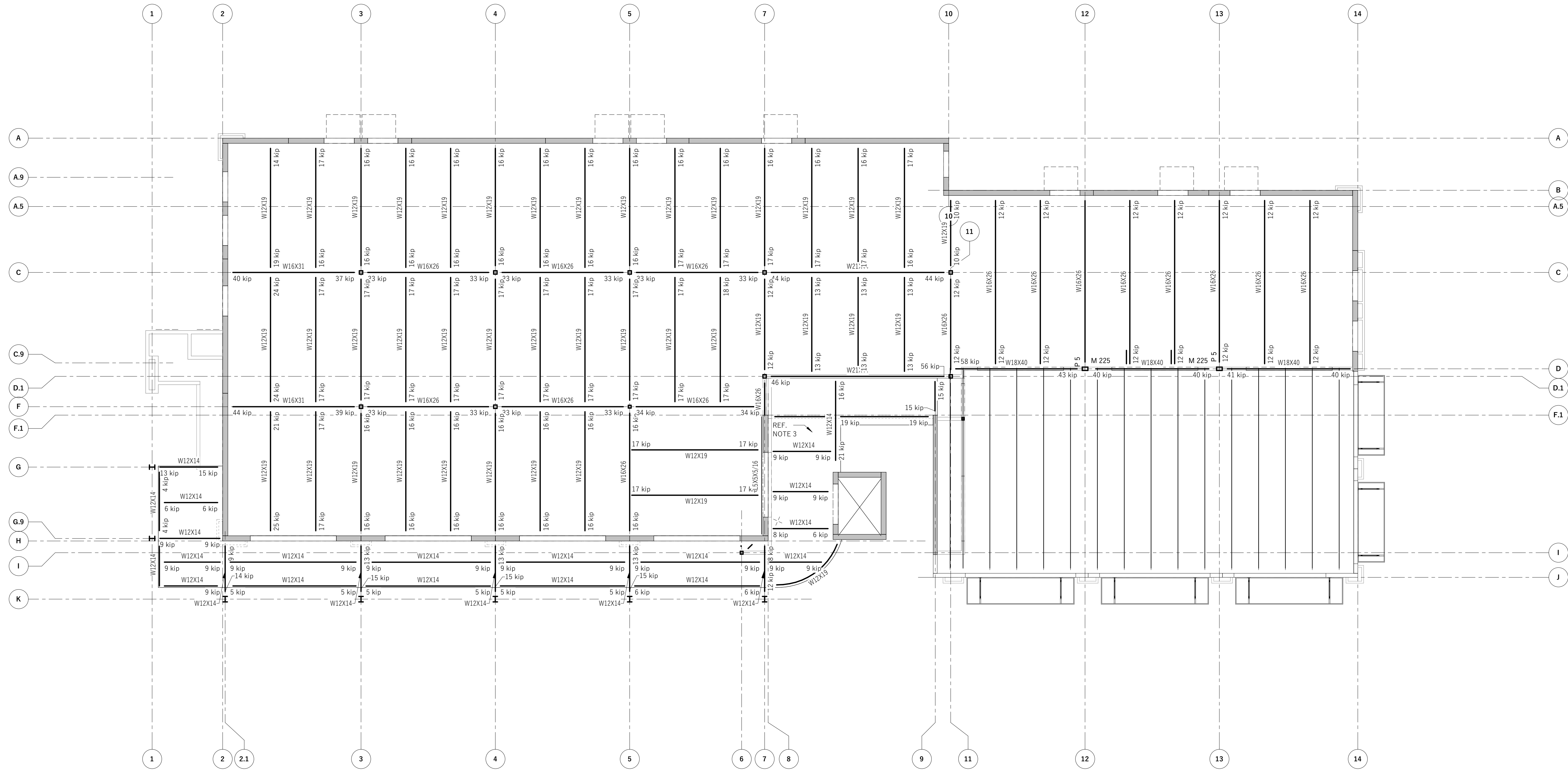


09/09/2024  
100% CDS-REV 05-VE  
CONNECTIONS FORCE

SHEET: **S105**

PROJECT NO: 21099  
DRAWN BY: BC  
DATE: 09/02/2021  
PROJECT MGR: NHR

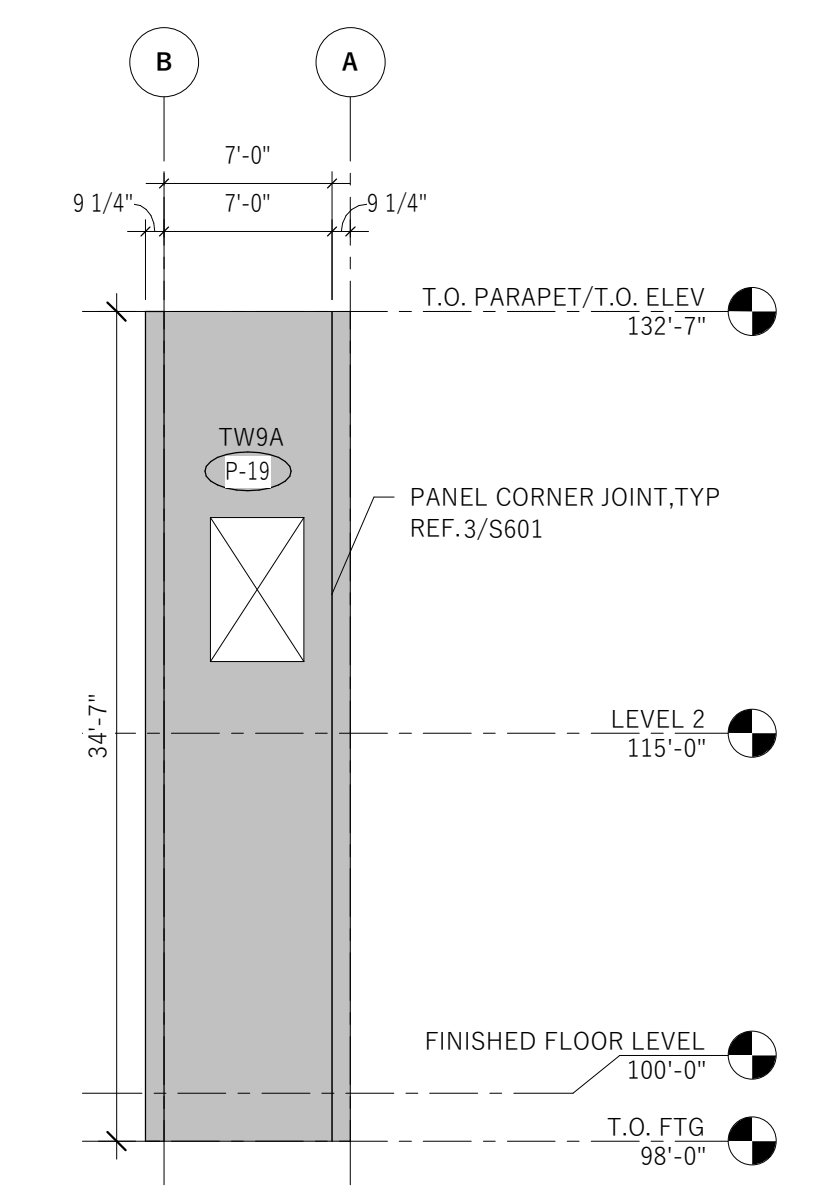
JCA  
4100 Wadsworth Blvd  
Wheat Ridge, CO 80033  
p 303.985.3260  
TX F-14436 #21134



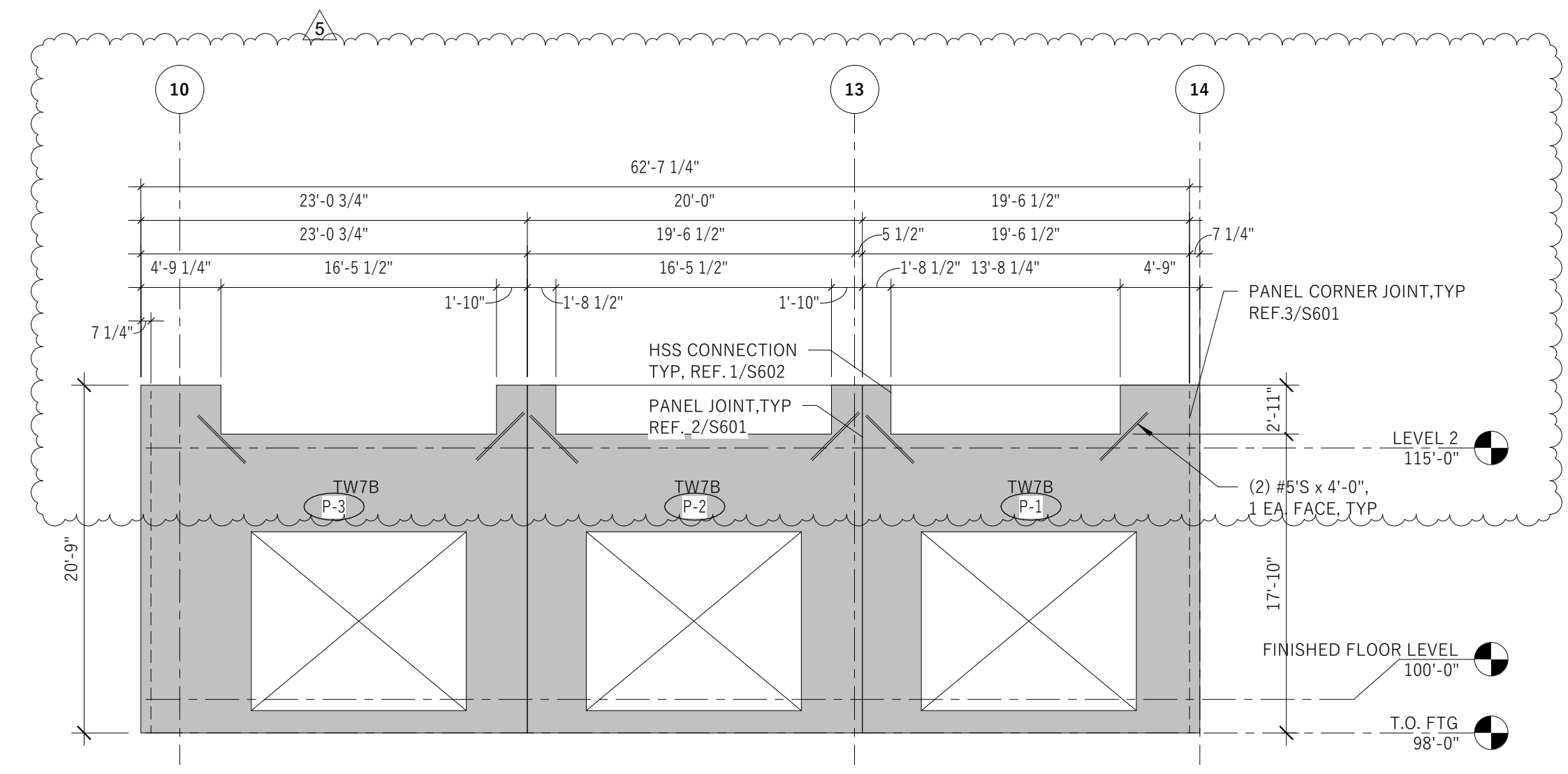
**LEVEL 2 CONNECTION LOADING PLAN**

**1**  
**S105**

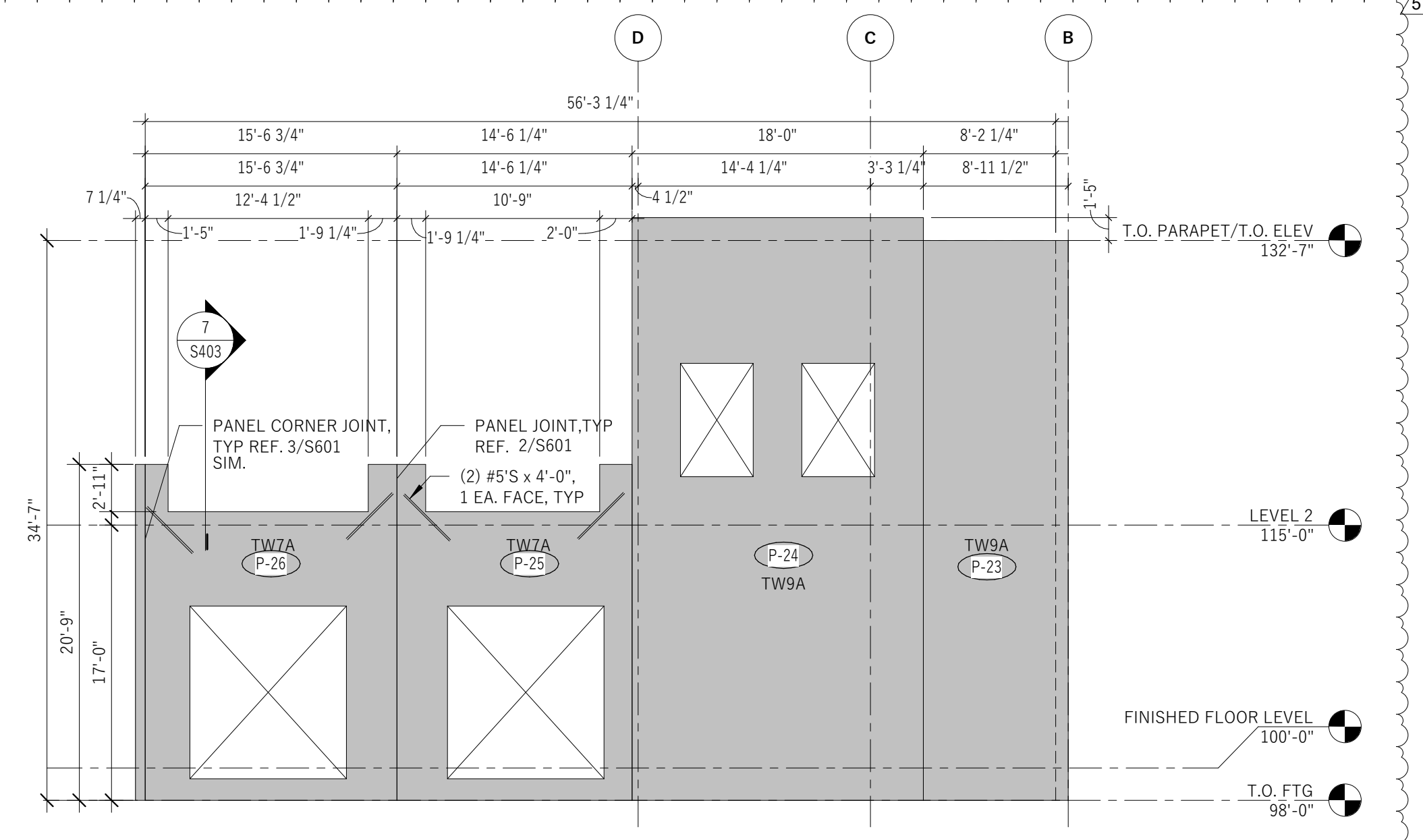
1/8" = 1'-0"



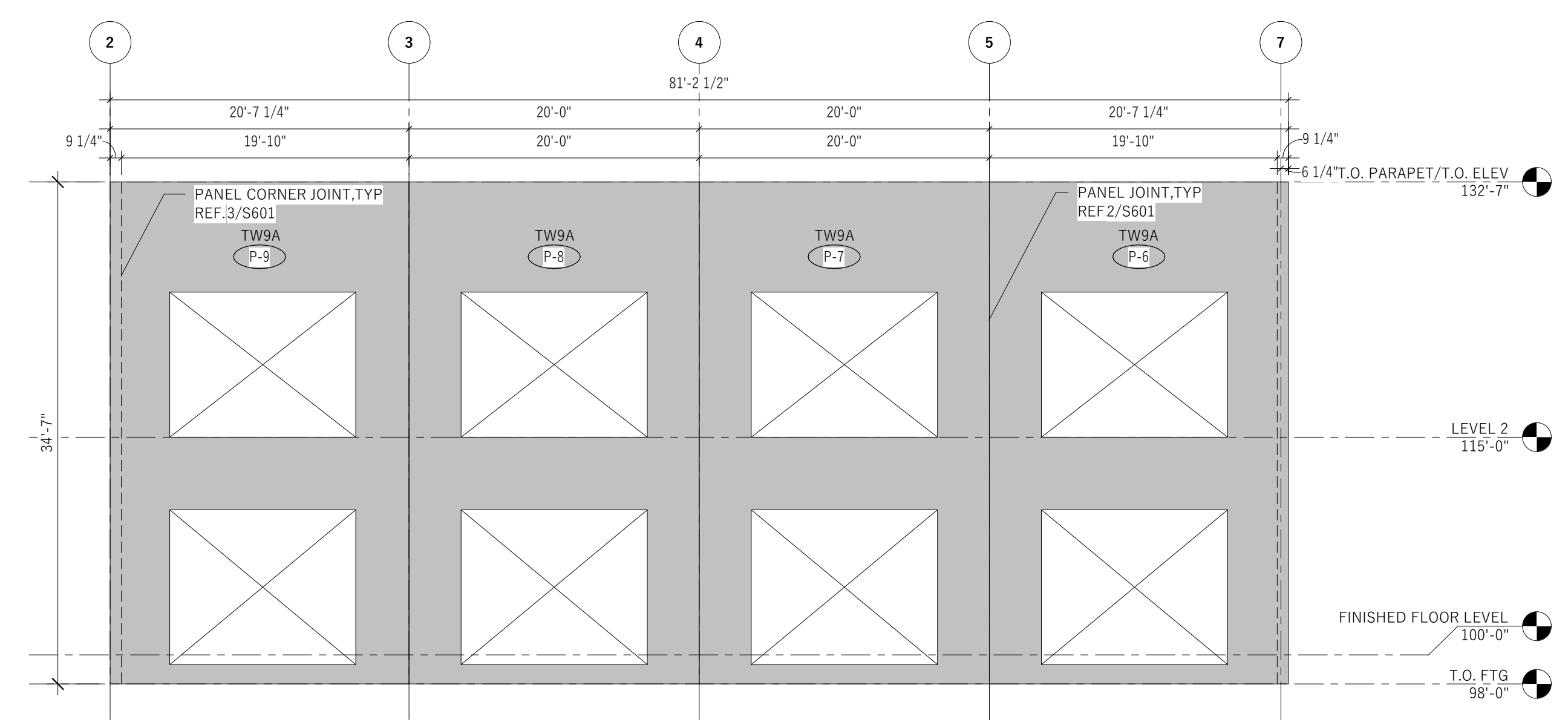
**3** ELEVATION AT PANEL 19  
S201 1/8" = 1'-0"



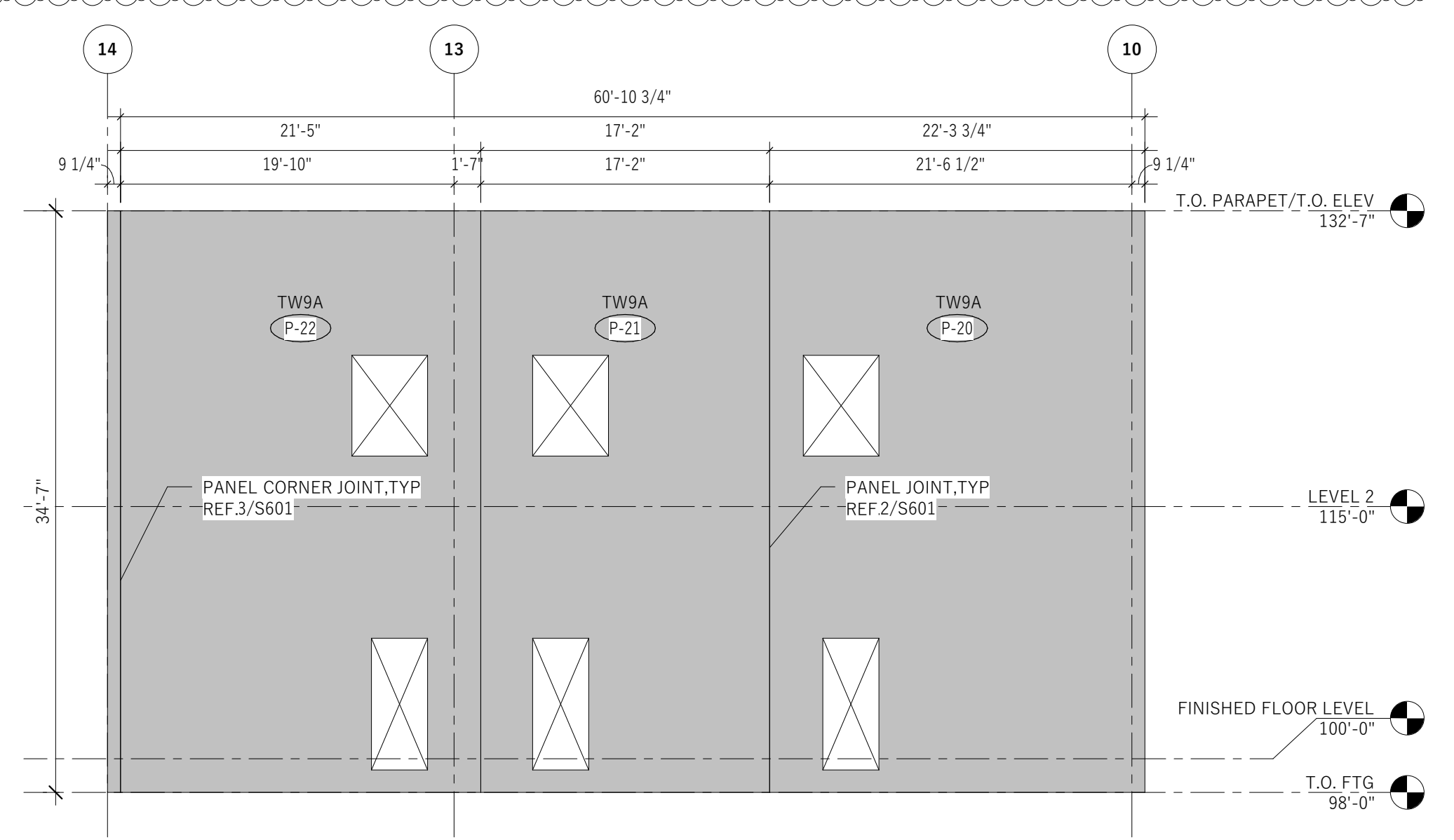
**2** ELEVATION AT PANELS 1-3  
S201 1/8" = 1'-0"



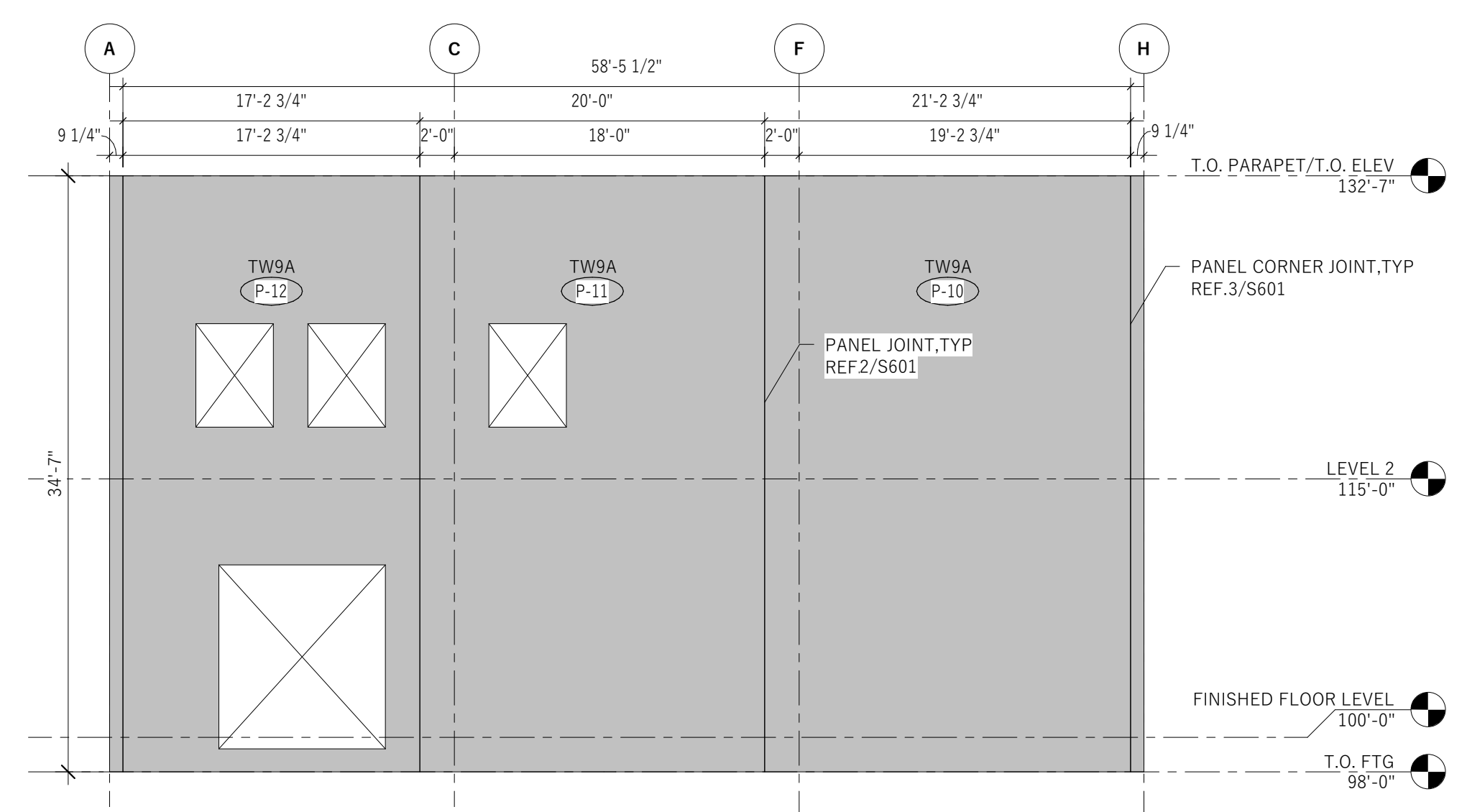
**1** ELEVATION AT PANELS 23-26  
S201 1/8" = 1'-0"



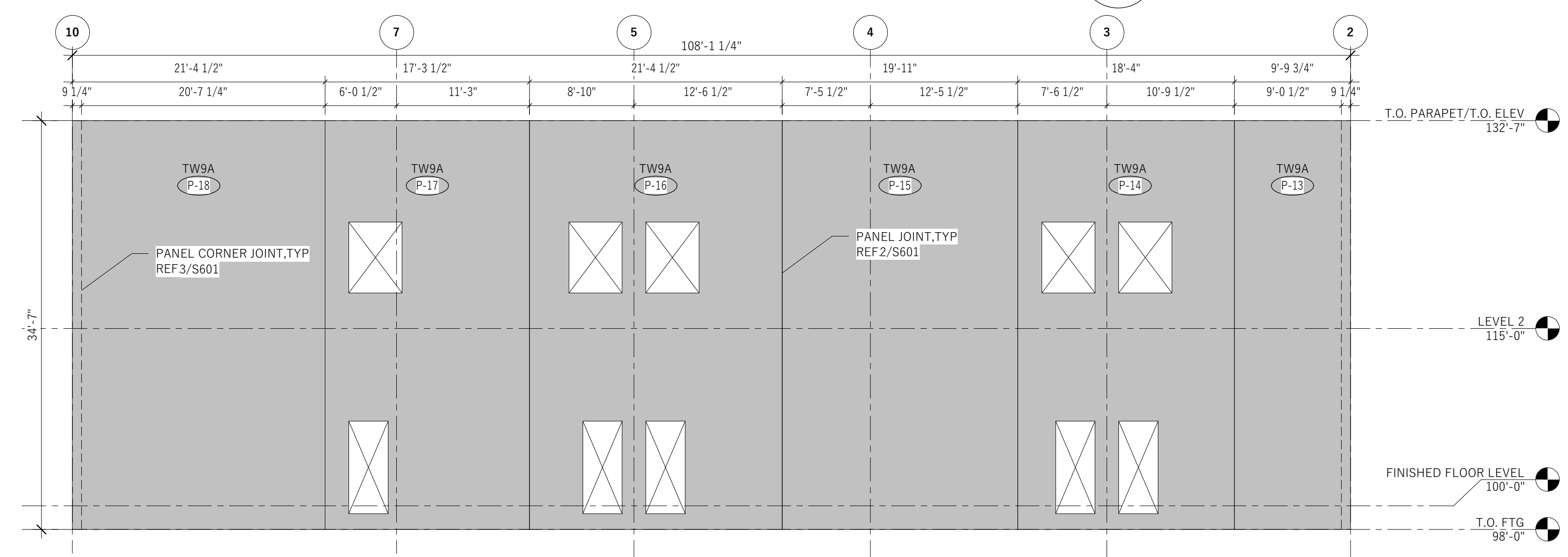
**5** ELEVATION AT PANELS 6-9  
S201 1/8" = 1'-0"



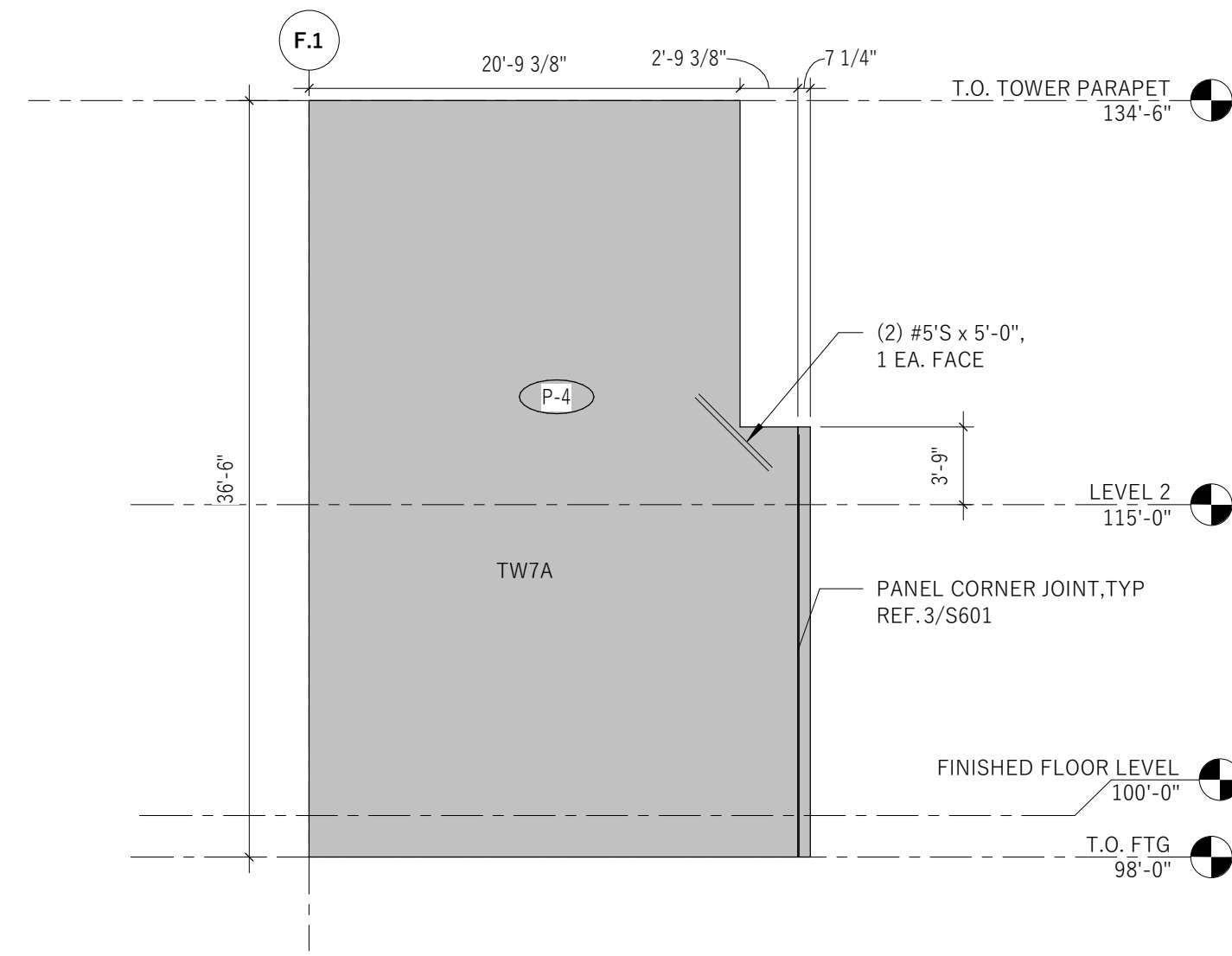
**4** ELEVATION AT PANELS 20-22  
S201 1/8" = 1'-0"



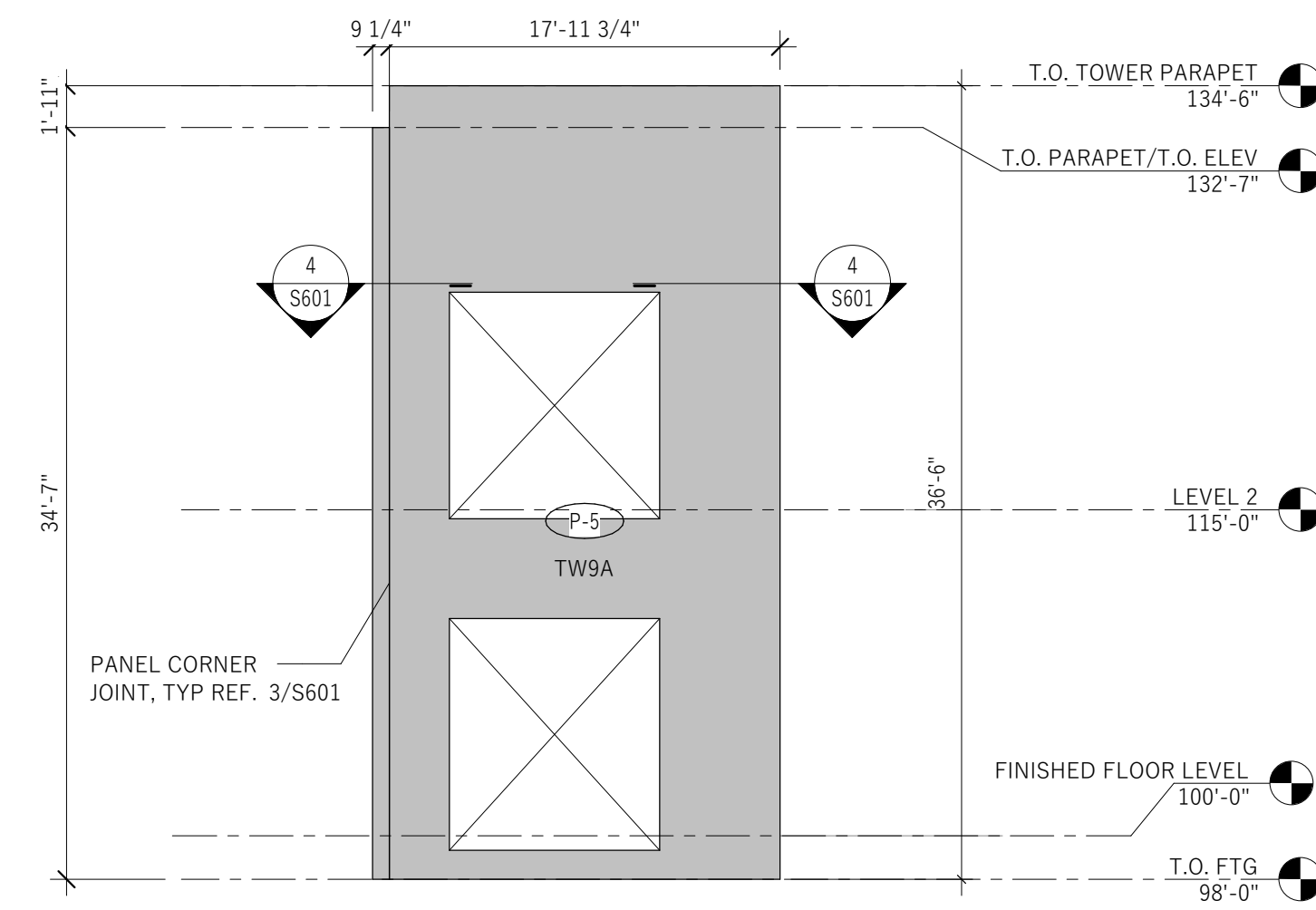
**7** ELEVATION AT PANELS 10-12  
S201 1/8" = 1'-0"



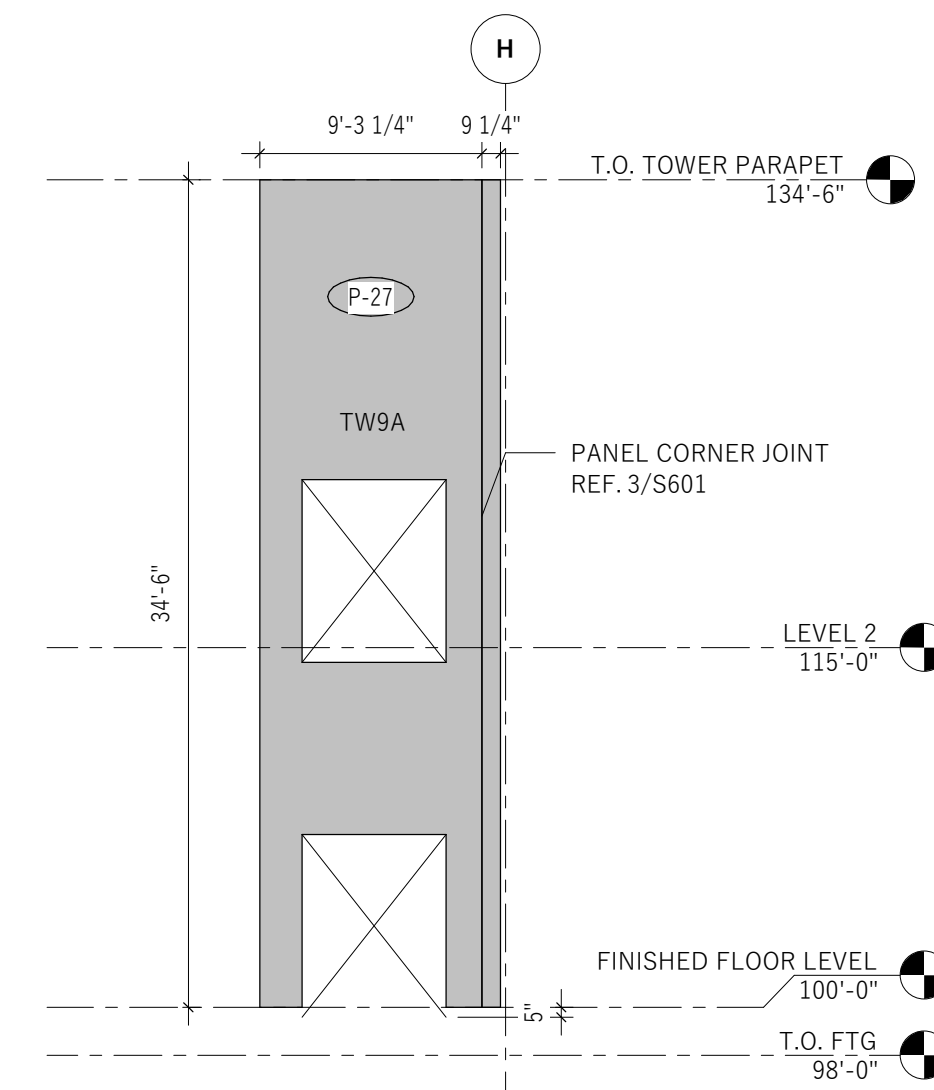
**6** ELEVATION AT PANELS 13-18  
S201 1/8" = 1'-0"



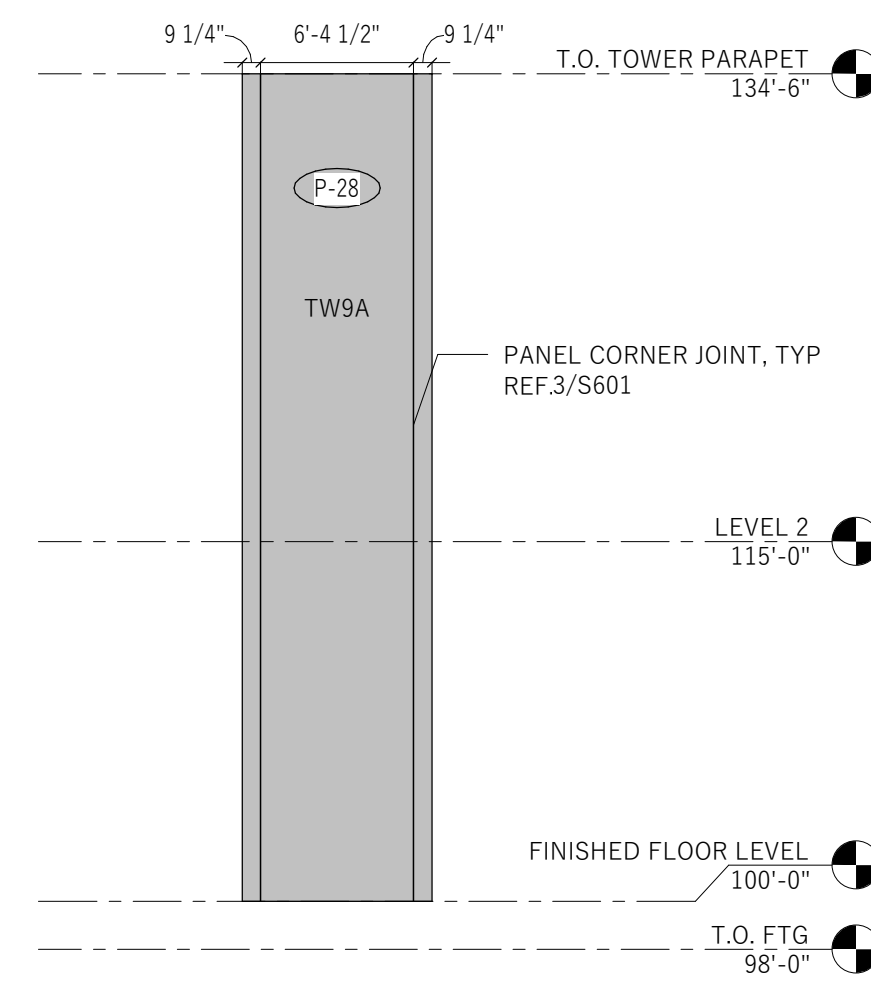
1 ELEVATION AT PANEL 4  
S202 1/8" = 1'-0"



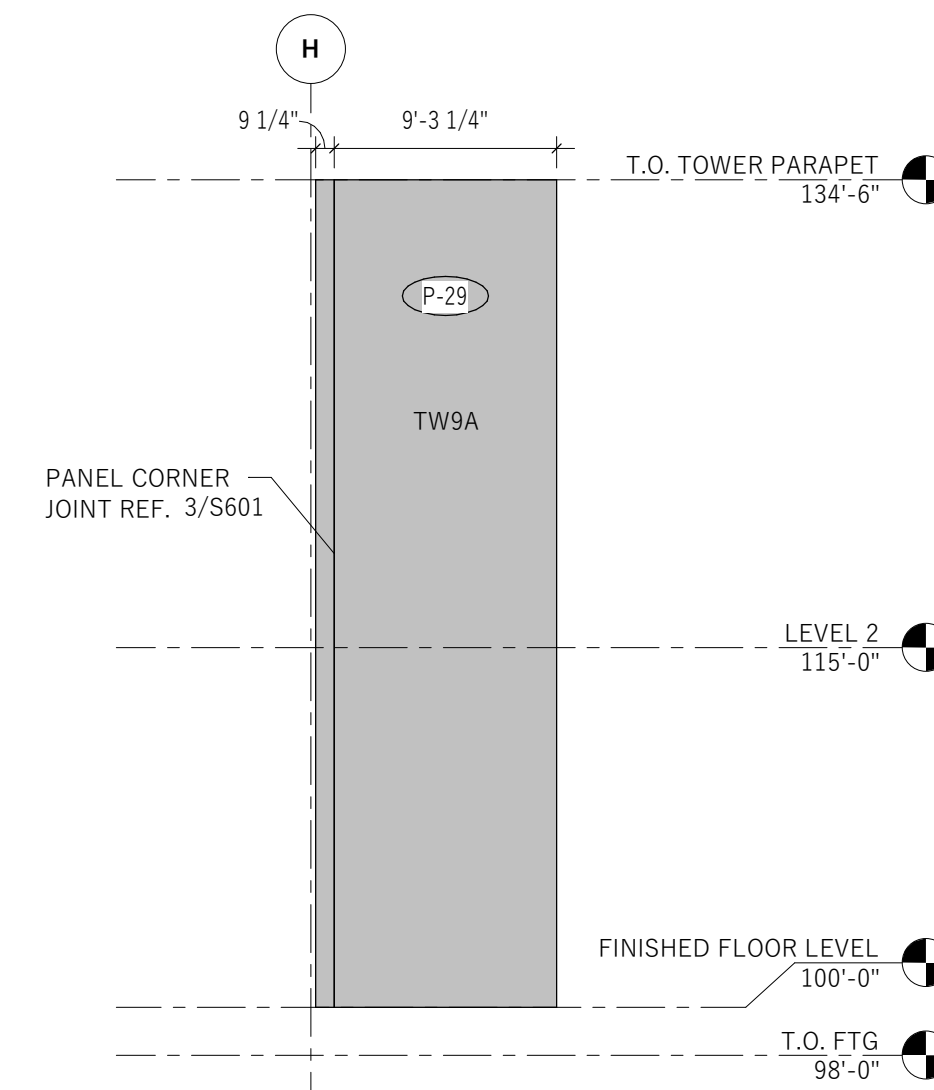
2 ELEVATION AT PANEL 5  
S202 1/8" = 1'-0"



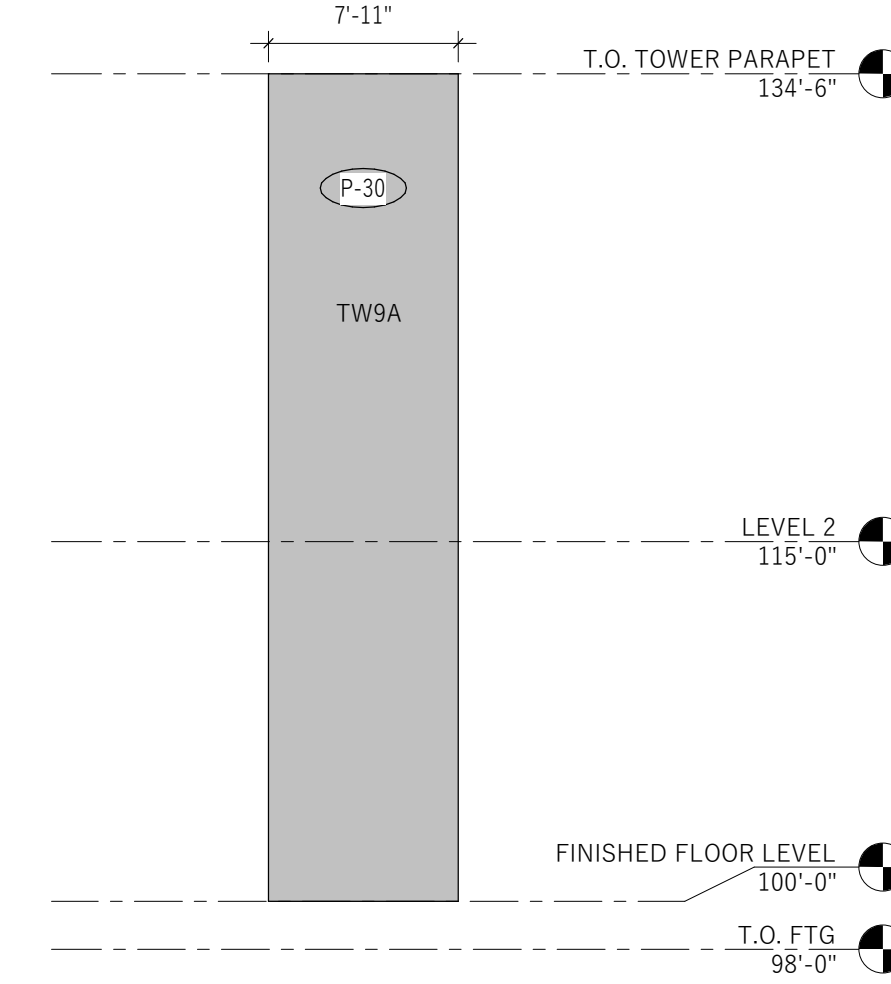
3 ELEVATION AT PANEL 27  
S202 1/8" = 1'-0"



4 ELEVATION AT PANEL 28  
S202 1/8" = 1'-0"



5 ELEVATION AT PANEL 29  
S202 1/8" = 1'-0"

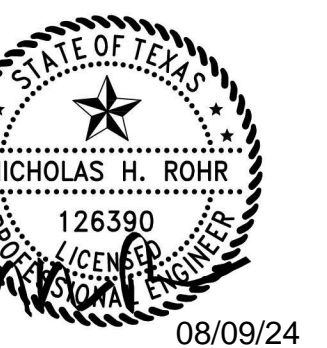


6 ELEVATION AT PANEL 30  
S202 1/8" = 1'-0"

**BUILDING 2**  
THE SQUARE AT CRYSTAL FALLS  
1900 S BAGDAD ROAD BLDG 2  
LEANDER, TEXAS 78641

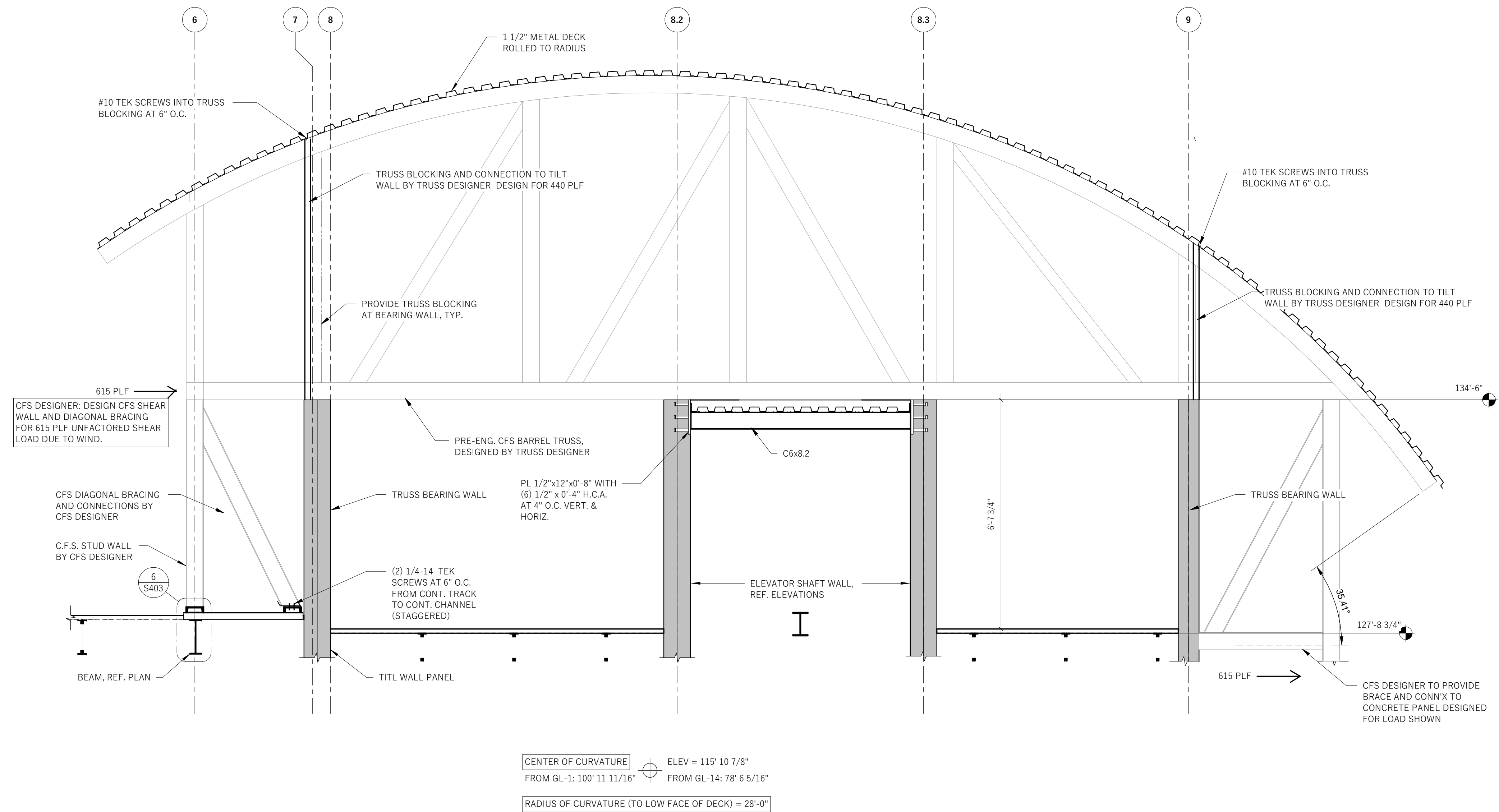
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**REVISION:**  
2 06/20/22 REV 1  
5 08/09/24 VE



08/09/2024  
100% CDS-REV05-VE  
TILT WALL ELEVATIONS

SHEET: **S202**



CENTER OF CURVATURE ELEV = 115' 10 7/8"  
FROM GL-1: 100' 11 11/16" FROM GL-14: 78' 6 5/16"  
RADIUS OF CURVATURE (TO LOW FACE OF DECK) = 28'-0"

**1** BUILDING SECTION  
S203 1/2" = 1'-0"

**BUILDING 2**  
THE SQUARE AT CRYSTAL FALLS  
1900 S BAGDAD ROAD BLDG 2  
LEANDER, TEXAS 78641

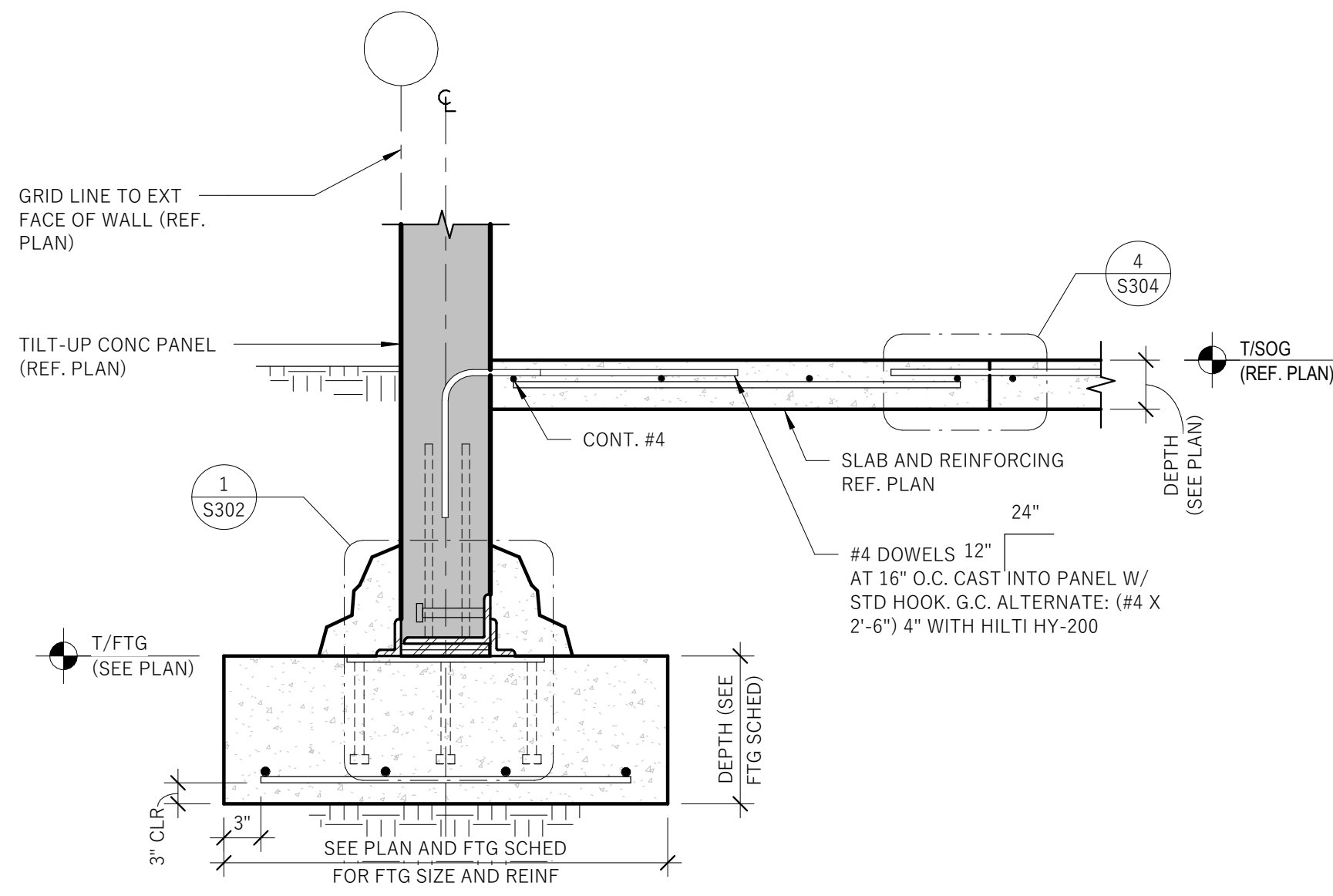
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2 06/20/22 REV 1

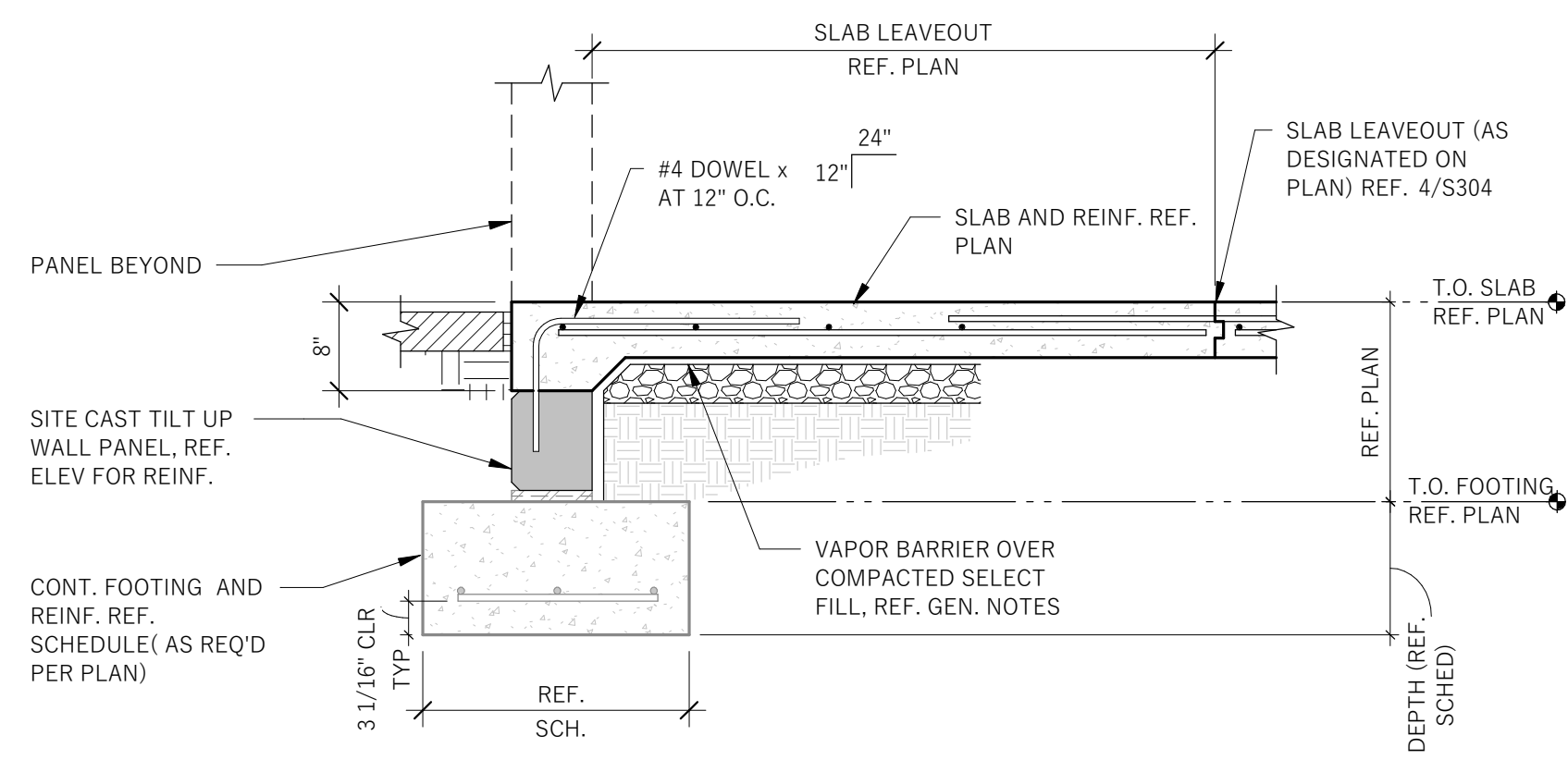


09/09/2024  
100% CDS-REV/05-VE  
BUILDING SECTIONS

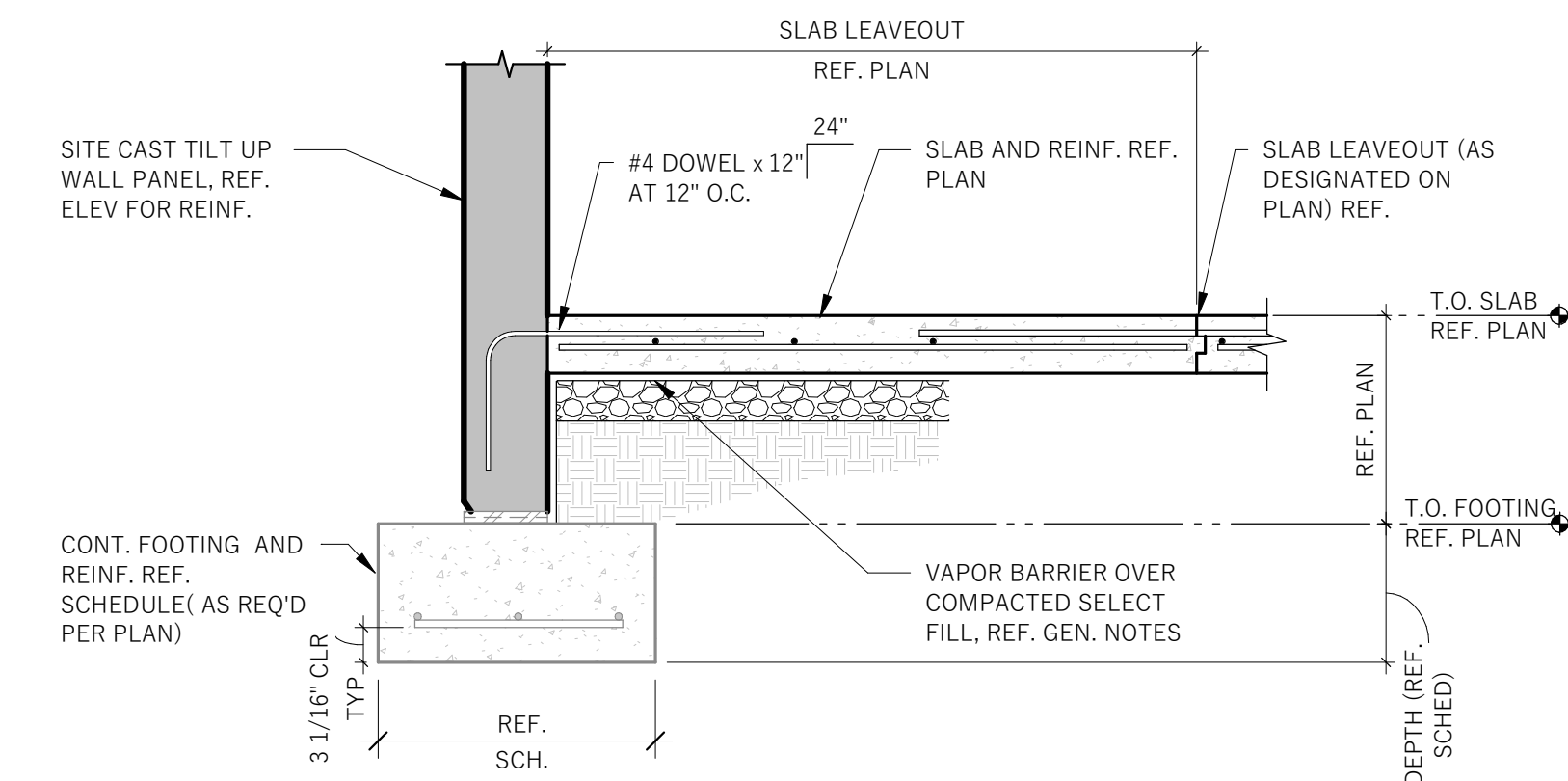
SHEET: **S203**



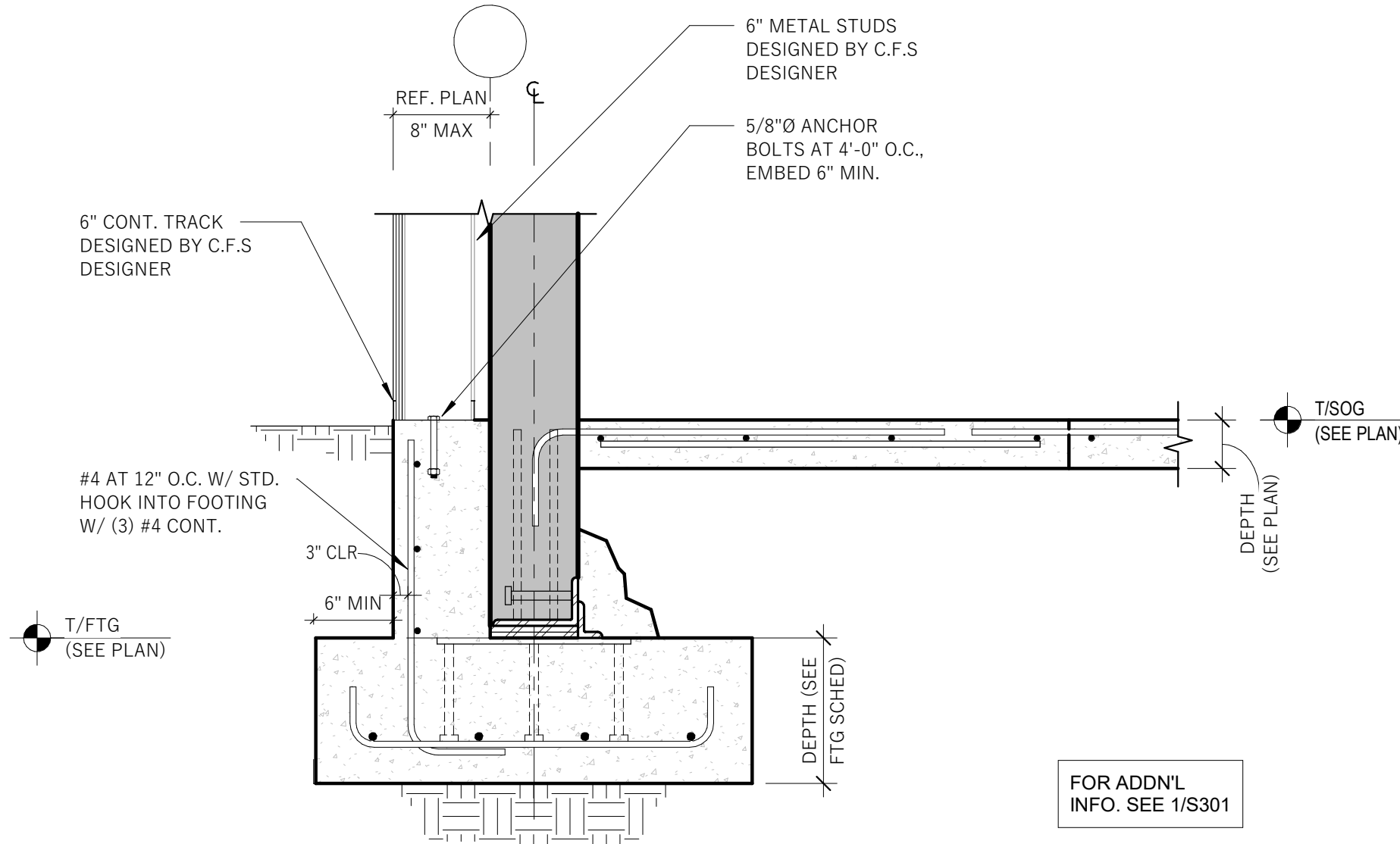
**1** SITE-CAST WALL TO FOOTING  
 S301 1" = 1'-0"



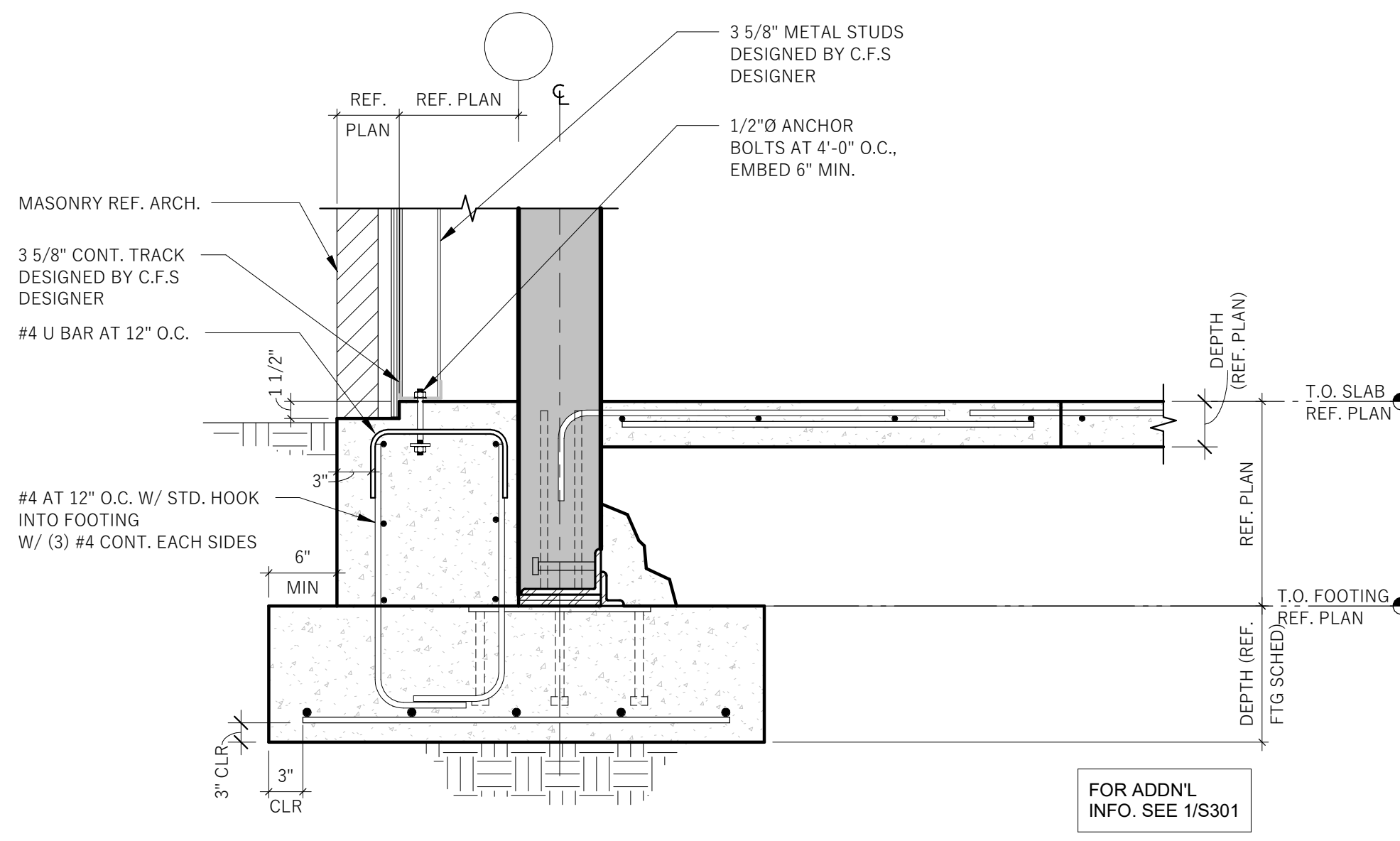
**2** TILT WALL PANEL AT OPENING  
 S301 3/4" = 1'-0"



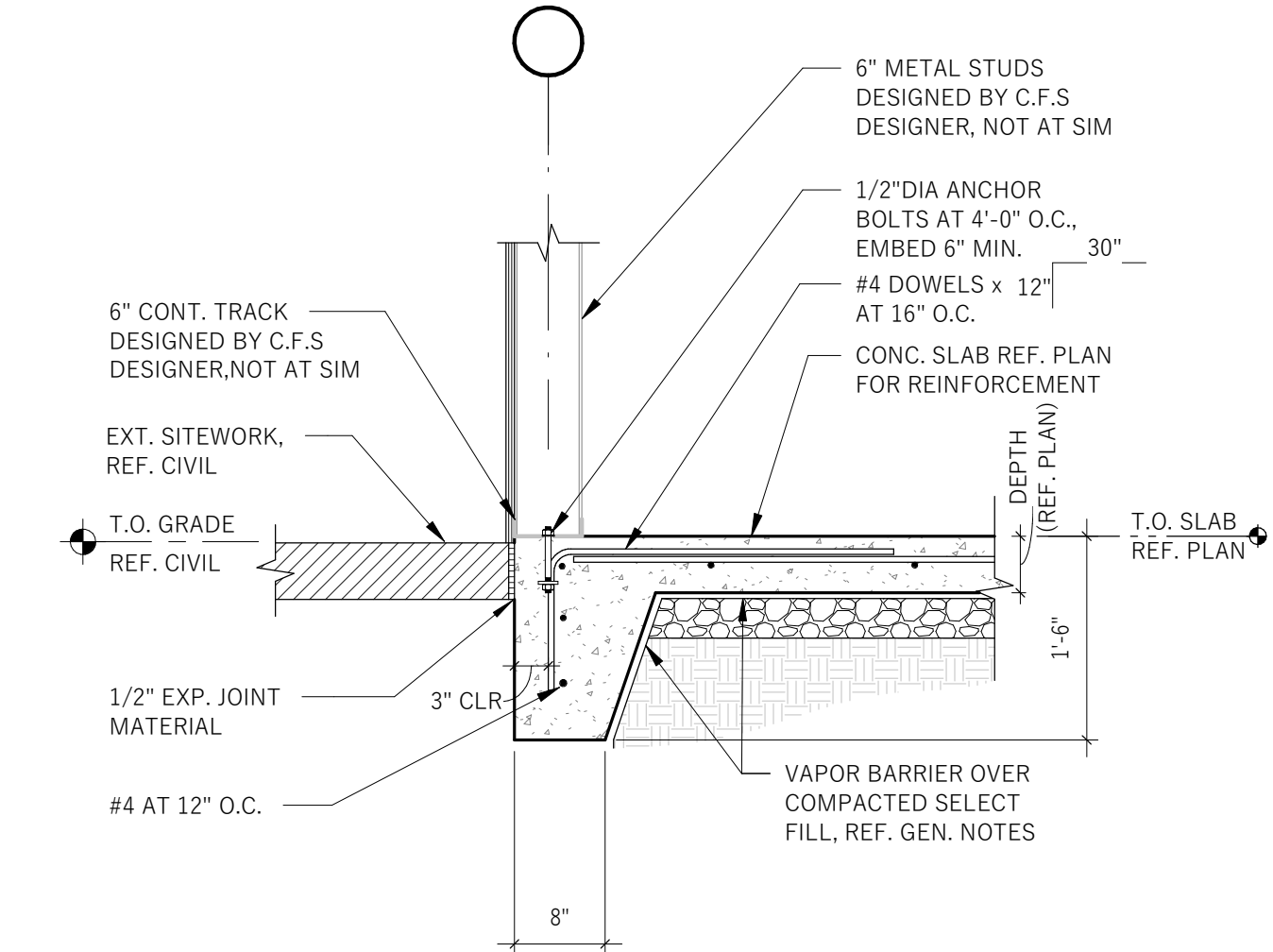
**3** SECTION AT TILT WALL PANEL SLAB LEAVOUT  
 S301 3/4" = 1'-0"



**4** SITE-CAST WALL TO FOOTING WITH C.F.S.  
 S301 1" = 1'-0"



**5** SITE-CAST WALL TO FOOTING WITH MASONRY  
 S301 1" = 1'-0"



**6** EXTERIOR FOOTING SECTION  
 S301 3/4" = 1'-0"

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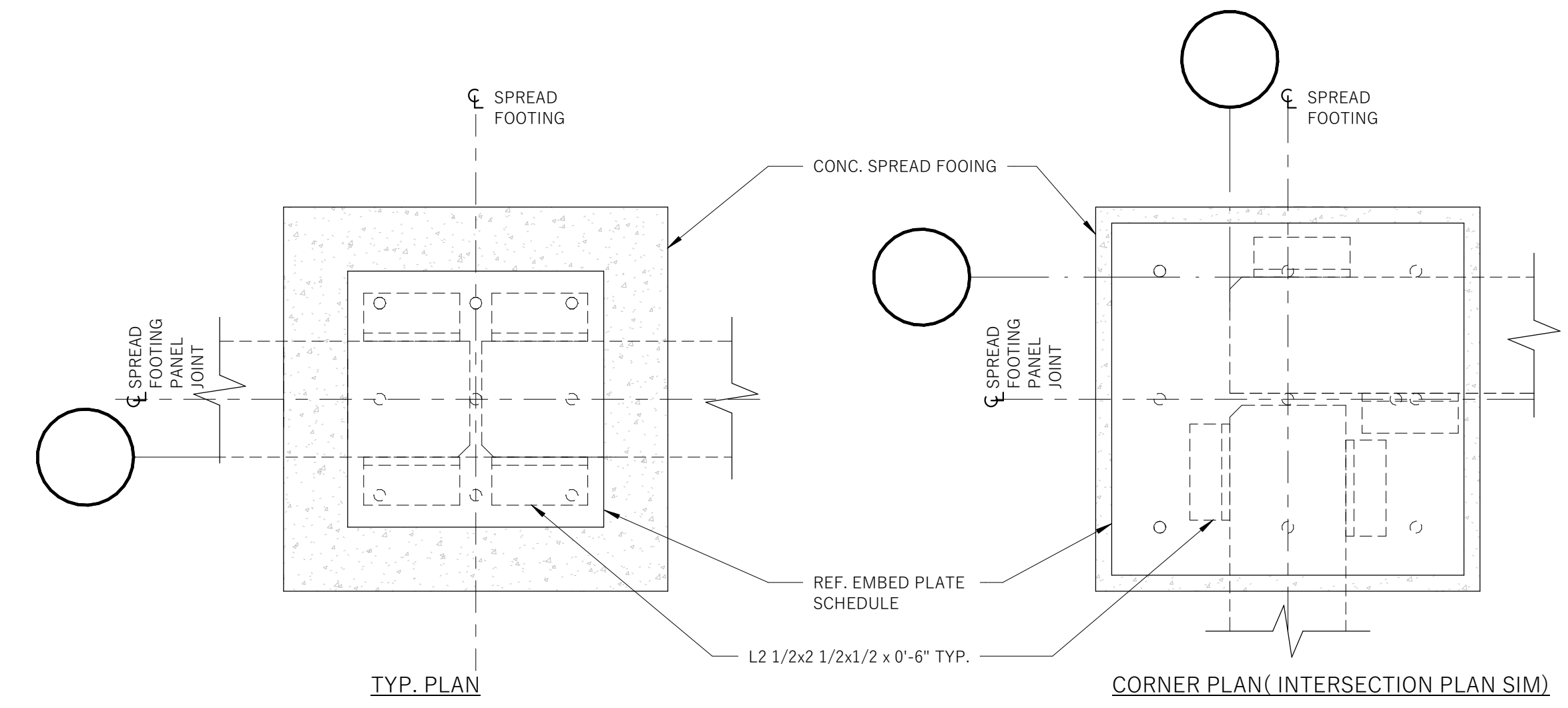
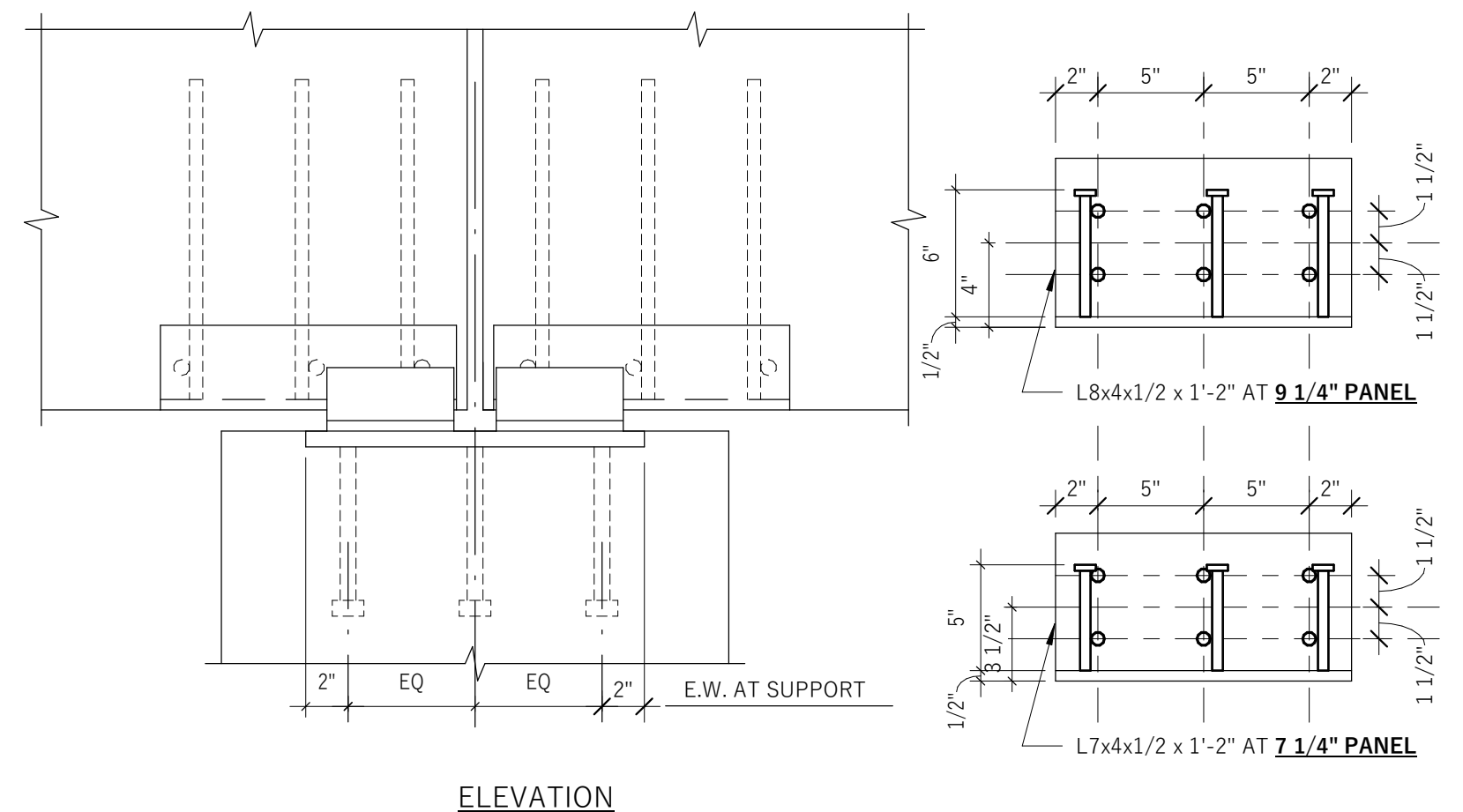
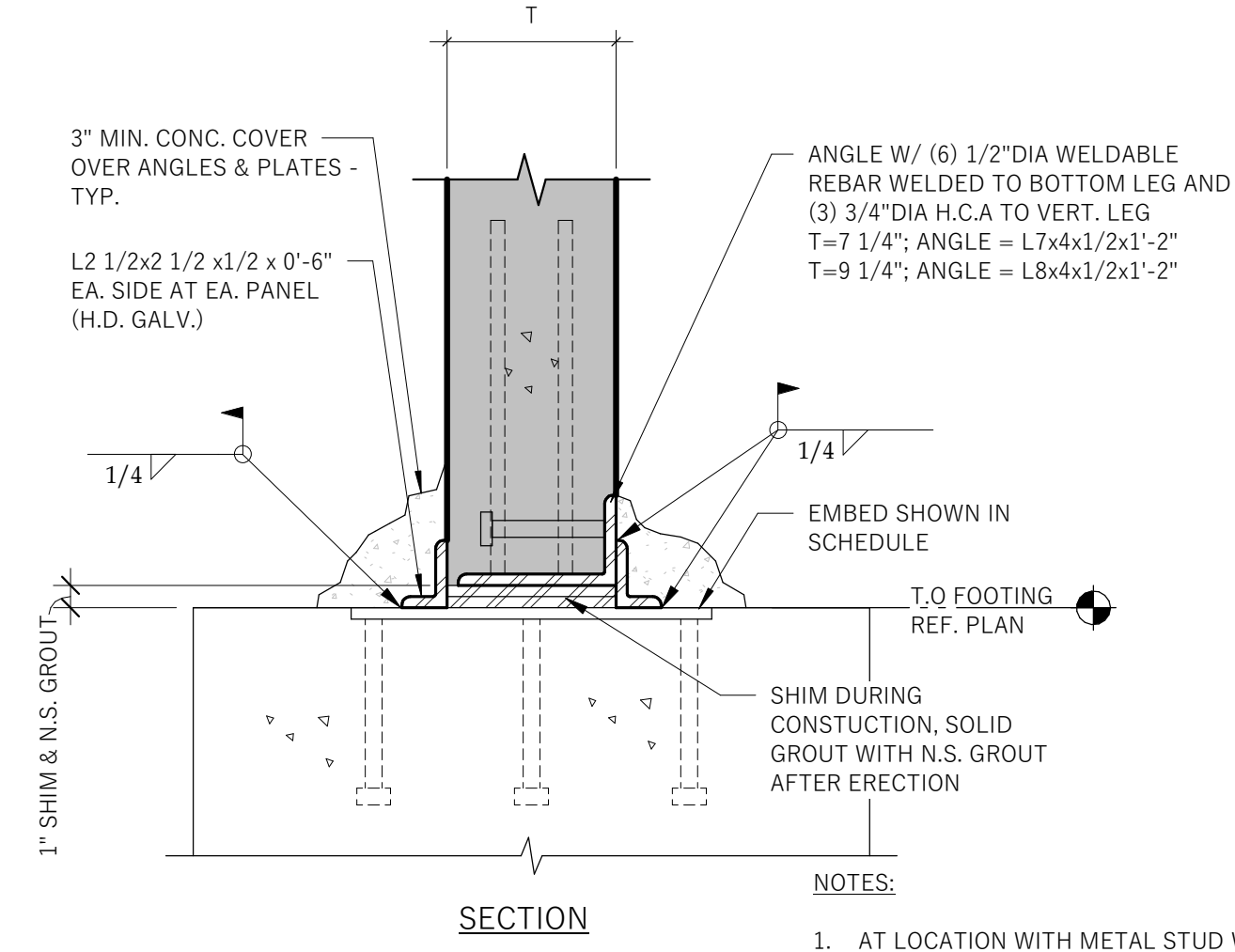
REVISION:  
 2 06/20/22 REV 1



09/09/2024  
 100% CDS-REV 05-VE  
 FOUNDATION DETAILS

SHEET: **S301**





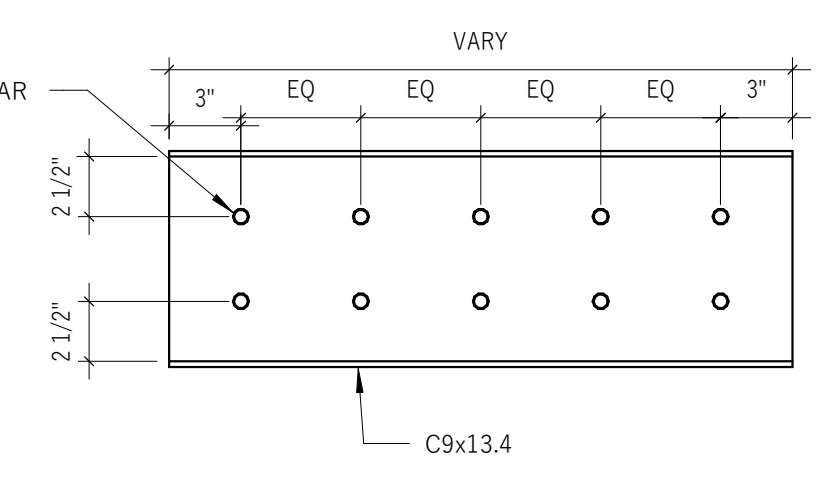
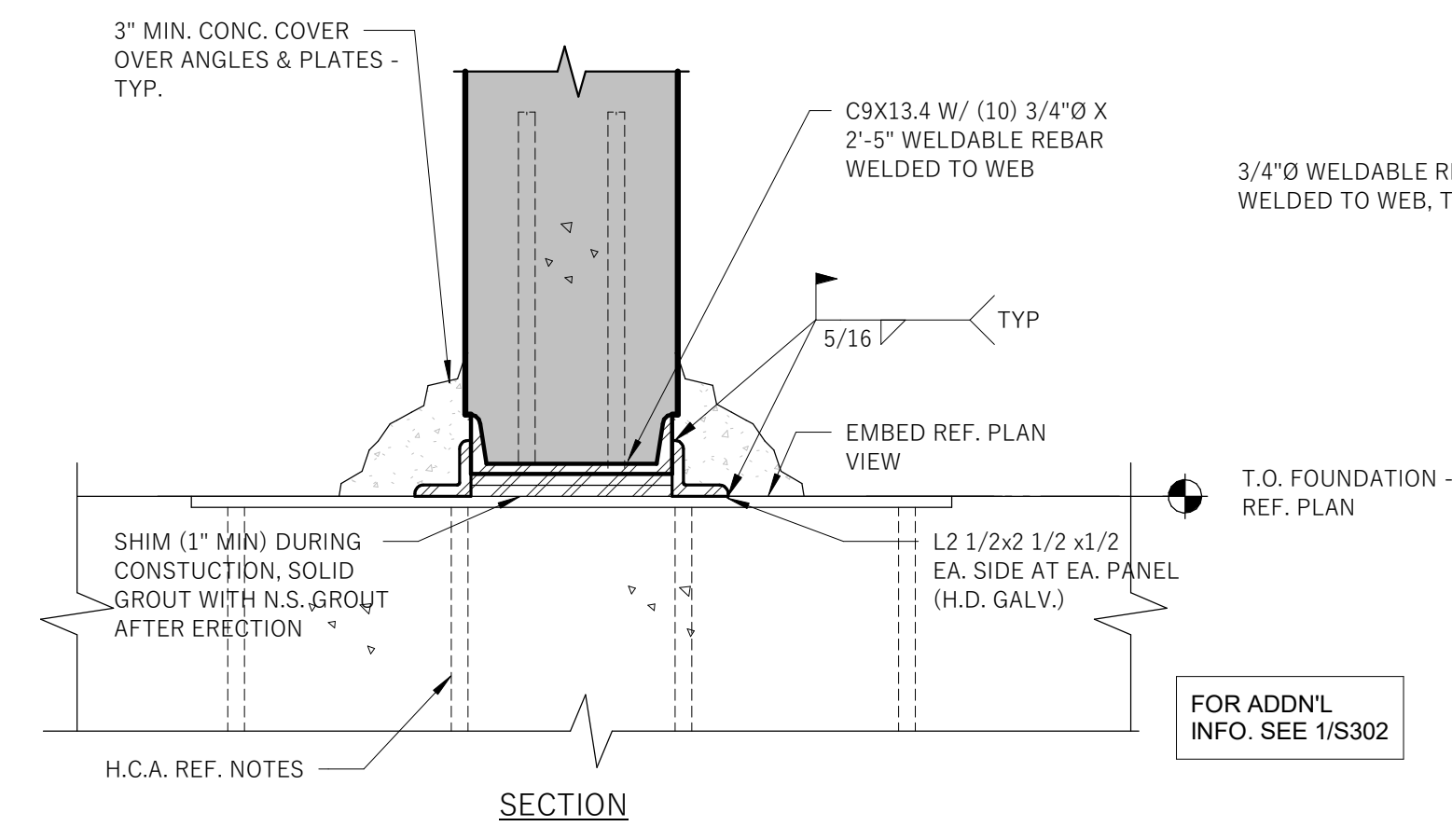
EMBED PLATE SCHED.			
LOCATION	NO. H.C.A.	PLATE SIZE (T=7 1/4")	PLATE SIZE (T=9 1/4")
TYPICAL	9	3/4" x 16" x 1'-4"	3/4" x 18" x 1'-6"
CORNER	9	3/4" x 22" x 1'-10"	3/4" x 24" x 2'-0"
INTERSECTION	9	3/4" x 22" x 1'-10"	3/4" x 24" x 2'-0"

- NOTES:
1. PROVIDE 2-1"Ø AIR RELIEF HOLES IN CENTER OF PLATE.
  2. H.C.A. ARE 3/4" DIA. x 0'-12"
  3. H.D. GALV. AFTER FABRICATION.
  4. FOR PANNLE 5 P-5, REF. 2/S302

- NOTES:
1. AT LOCATION WITH METAL STUD WALL, REF. 2/S302

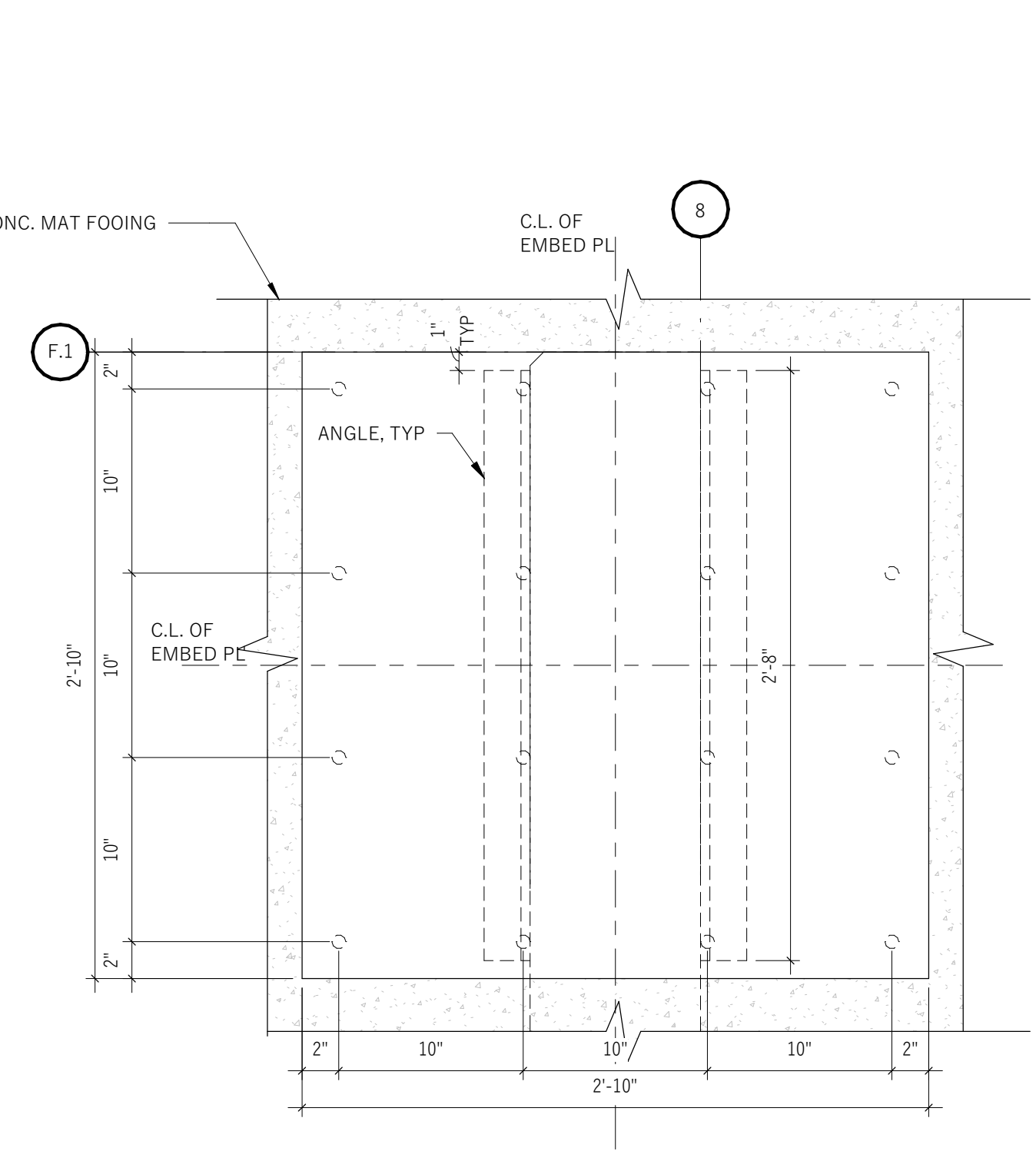
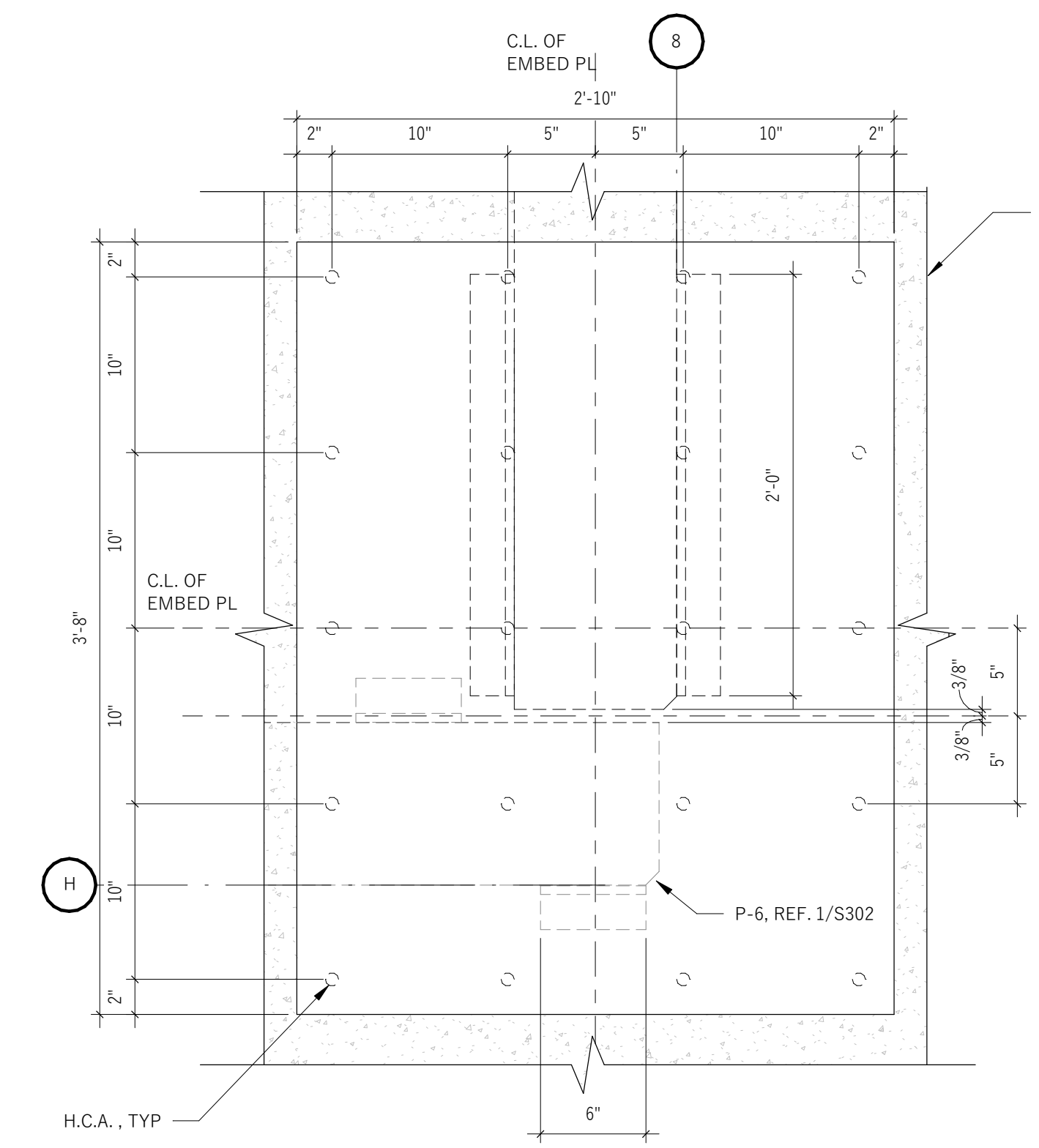
**1**  
**S302**  
TYPICAL TILT-UP WALL PANEL ANCHOR DETAIL

1 1/2" = 1'-0"



- NOTES:
1. PROVIDE 2-1"Ø AIR RELIEF HOLES IN CENTER OF PLATE.
  2. H.C.A. ARE 7/4" DIA. x 1'-0"
  3. H.D. GALV. AFTER FABRICATION.

FOR ADDNL INFO. SEE 1/S302



PLAN VIEW - SOUTH END

PLAN VIEW - NORTH END

**2**  
**S302**  
PANNEL 5 TILT-UP WALL PANEL ANCHOR DETAIL

1 1/2" = 1'-0"

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REVISION:  
2 06/20/22 REV 1

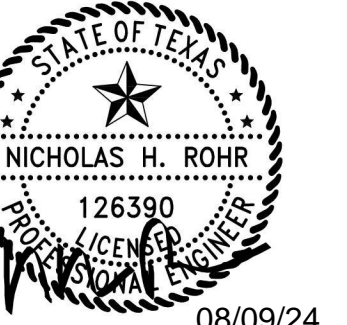


09/09/2024  
100% CDS-REV 05-VE  
FOUNDATION DETAILS

SHEET: **S302**

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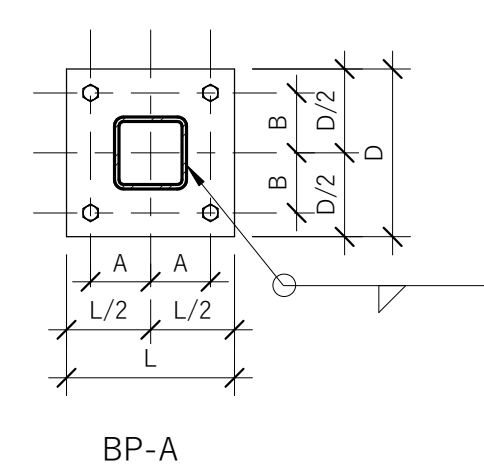
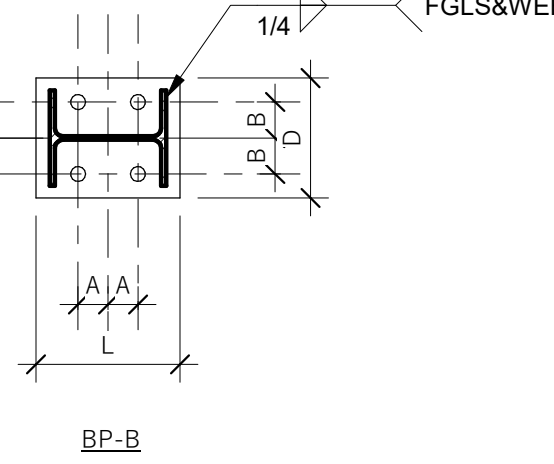
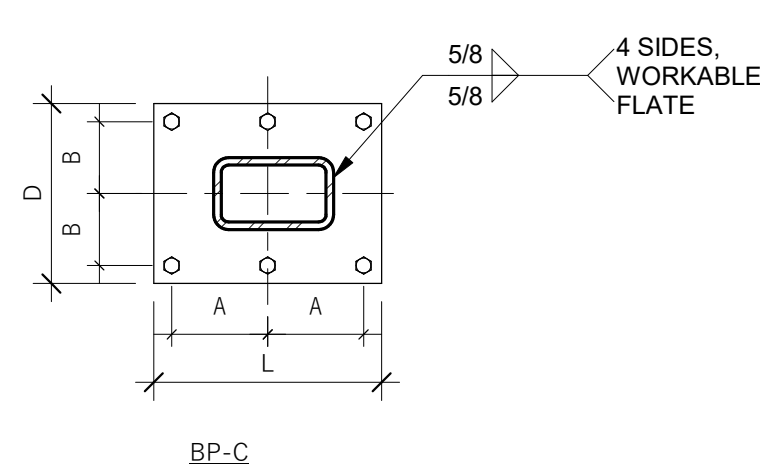
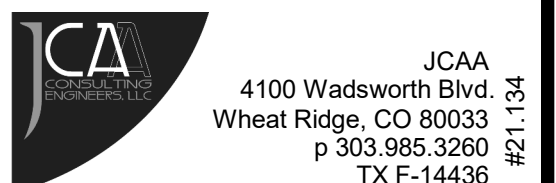
**REVISION:**  
 2 06/20/22 REV 1  
 3 08/03/22 CITY COMMENTS



08/09/24  
 100% CDS-REV 05-VE  
 FOUNDATION DETAILS

SHEET: **S303**

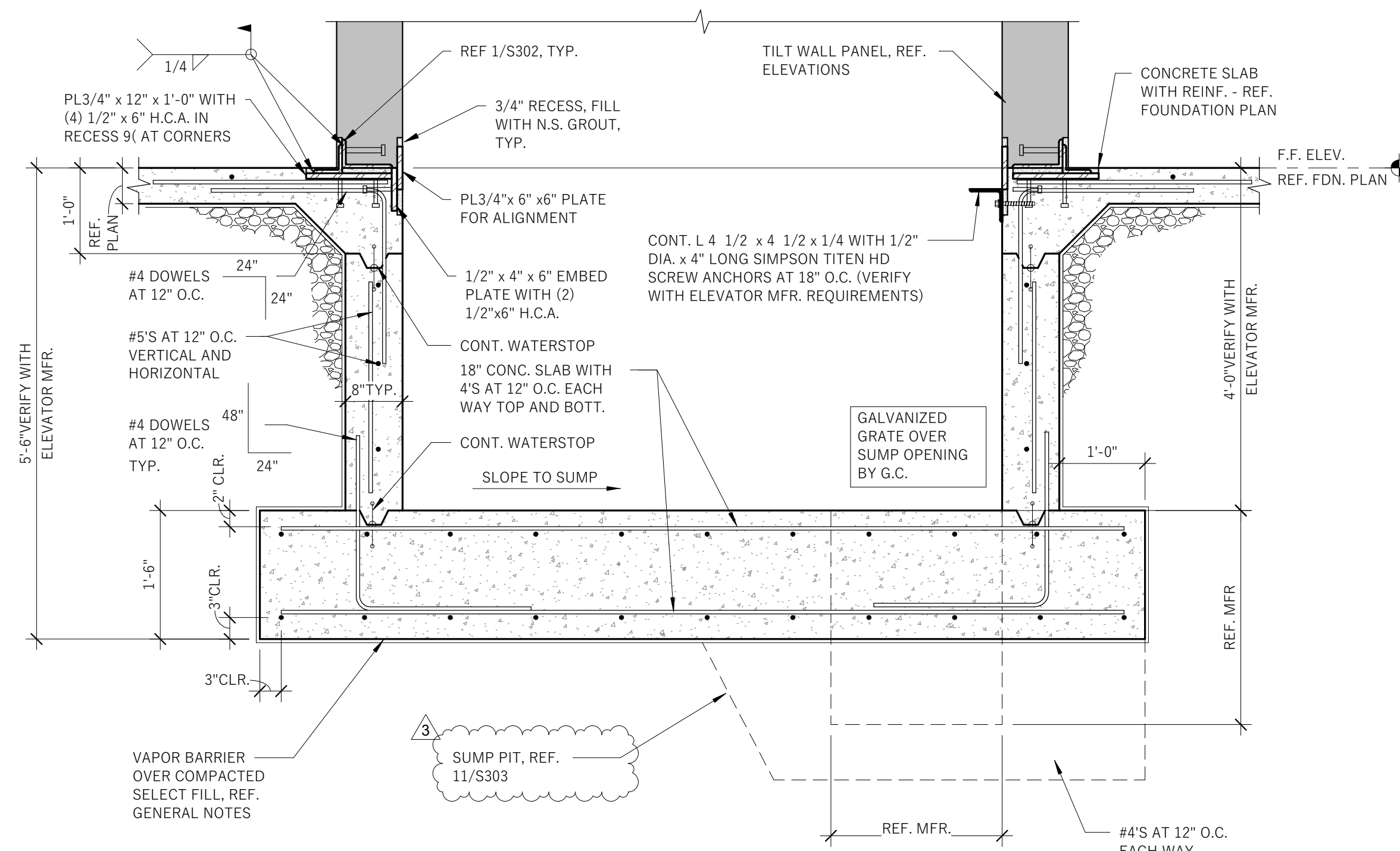
PROJECT NO: 21099  
 DRAWN BY: BC  
 DATE: 09/02/2021  
 PROJECT MGR: NHR



- NOTES:**
- WELD TO BE 1/16" SMALLER THAN THICKNESS OF TUBE.
  - COLUMN STABILITY DURING ERECTION IS RESPONSIBILITY OF CONTRACTOR.
  - BASE PLATE THICKNESS SHOWN ON SCHEDULE IS A MIN. DIMENSION AFTER ALL MILLING IS COMPLETED.
  - ANCHOR RODS HAVE 1"x3"x3" PLATE WASHER, TYP.

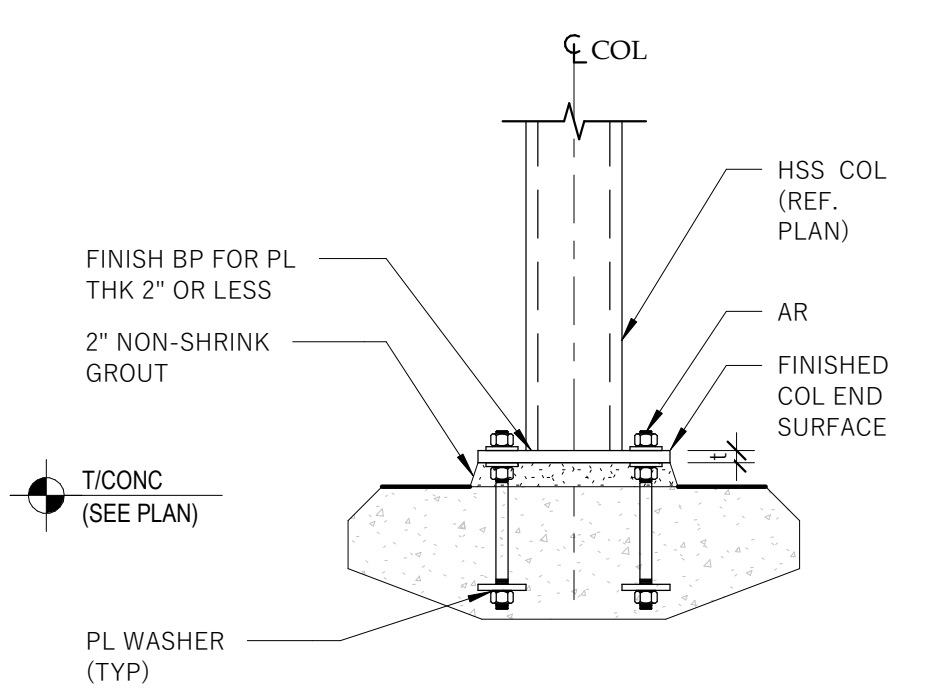
**3** BASE PLATE SCHEDULE

S303 3/4" = 1'-0"



**6** ELEVATOR PIT SECTION

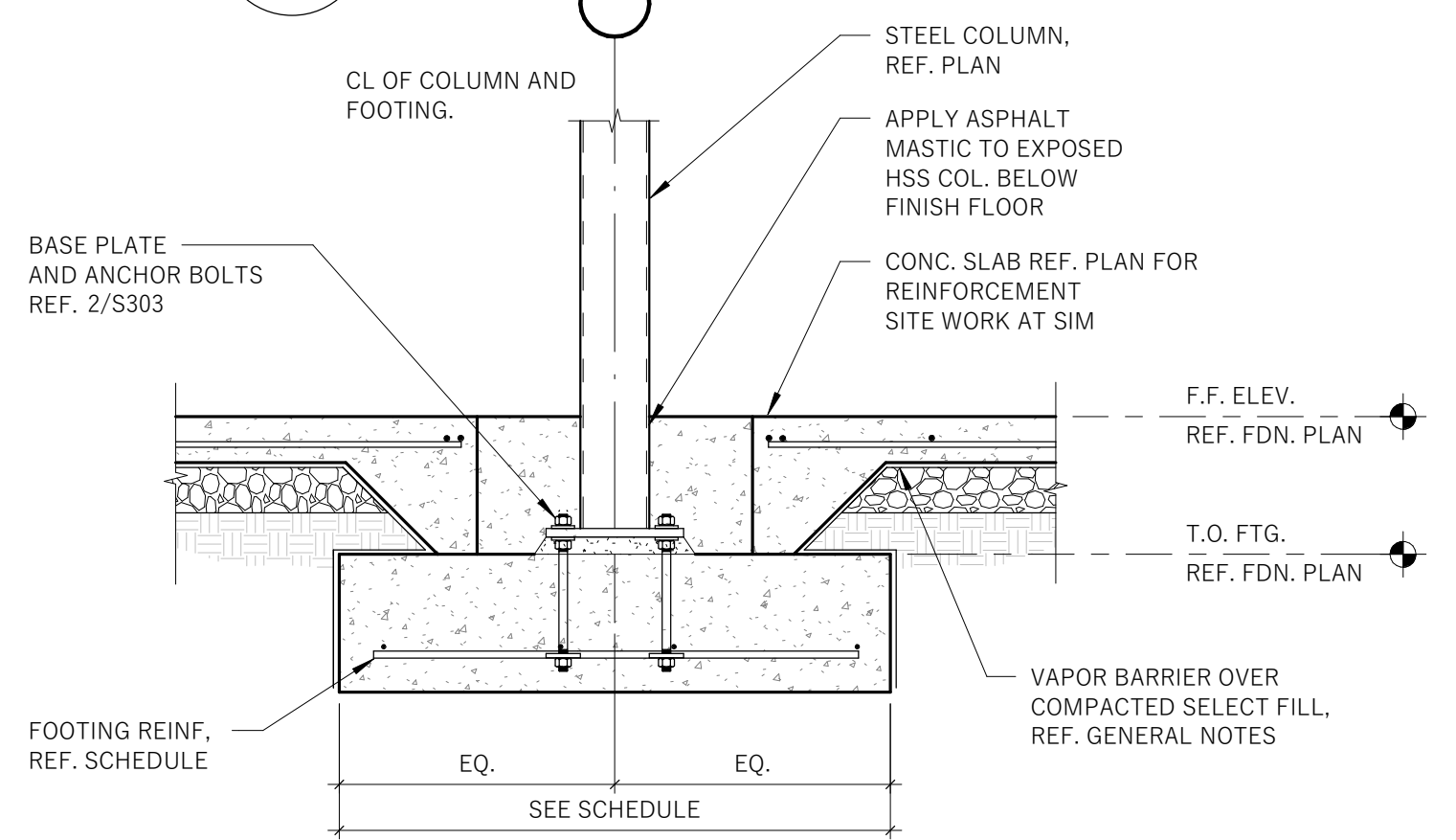
S303 3/4" = 1'-0"



- NOTES:**
- REF. COL SCHED FOR BP SIZE, ORIENTATION AND THICKNESS.
  - BP THICKNESS SHOWN ON SCHED IS A MIN DIM AFTER ALL MILLING IS COMPLETED.
  - ANCHOR RODS PER COLUMN SCHEDULE WITH 1"x3"x3" PL WASHER, TYP.
  - COL STABILITY DURING ERECTION IS RESPONSIBILITY OF CONTRACTOR.
  - CONTRACTORS OPTION TO FIELD WELD COLS TO BPs FOR HEAVY BPs.

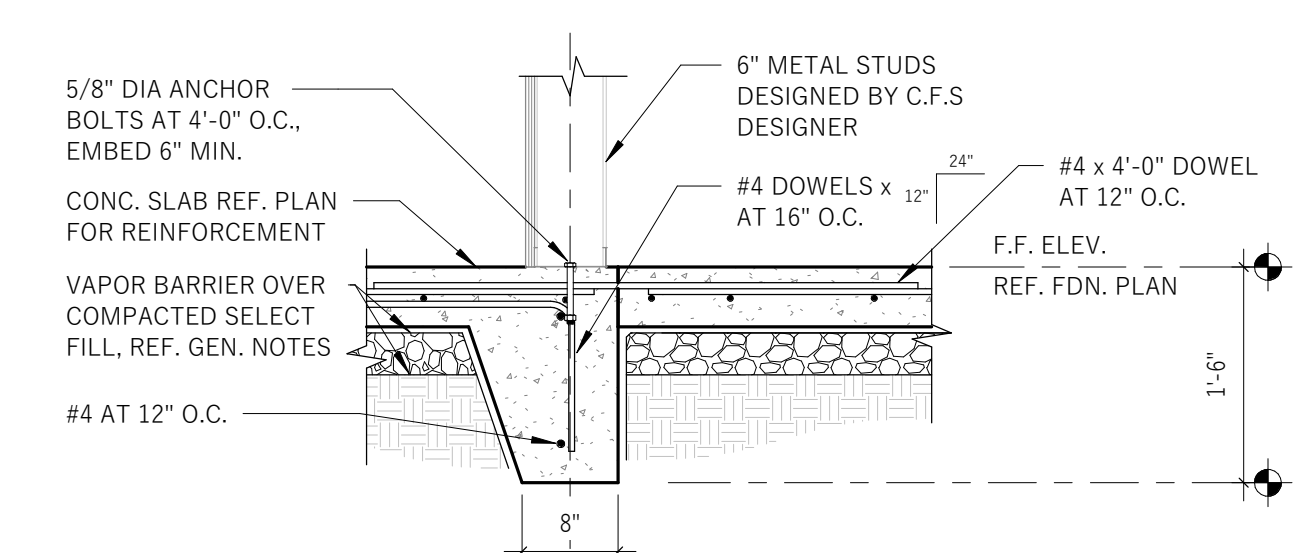
**2** TYPICAL BASE PLATE DETAIL

S303 1" = 1'-0"



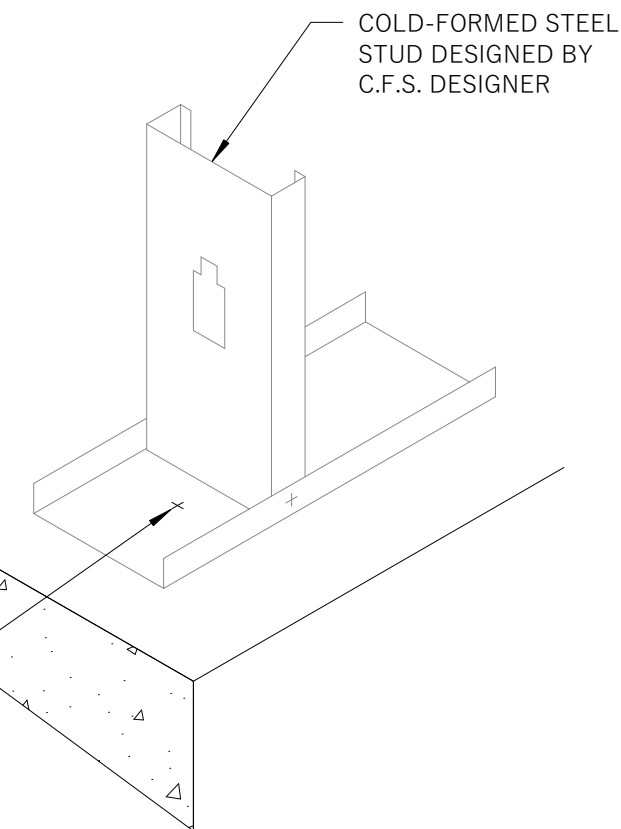
**5** SECTION AT INTERIOR COLUMN FOOTING

S303 3/4" = 1'-0"



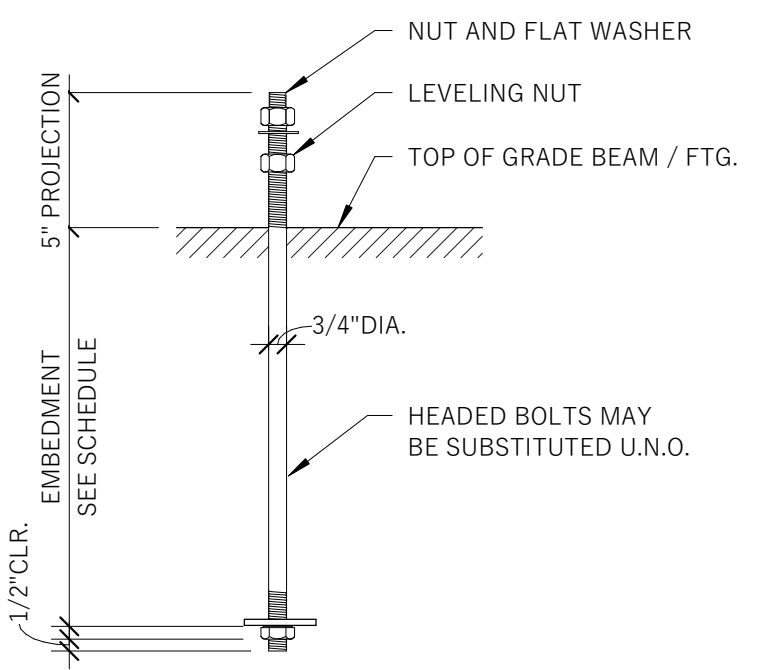
**9** SECTION AT STUD WALL FOUNDATION

S303 3/4" = 1'-0"



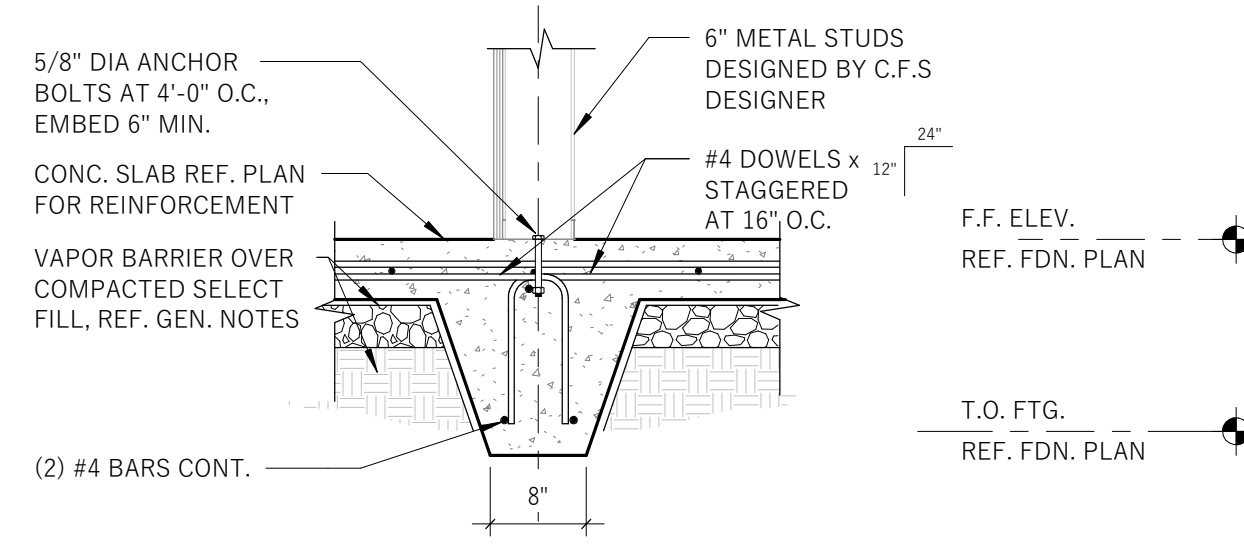
**1** C.F.S. STUD BASE DETAIL

S303 1" = 1'-0"



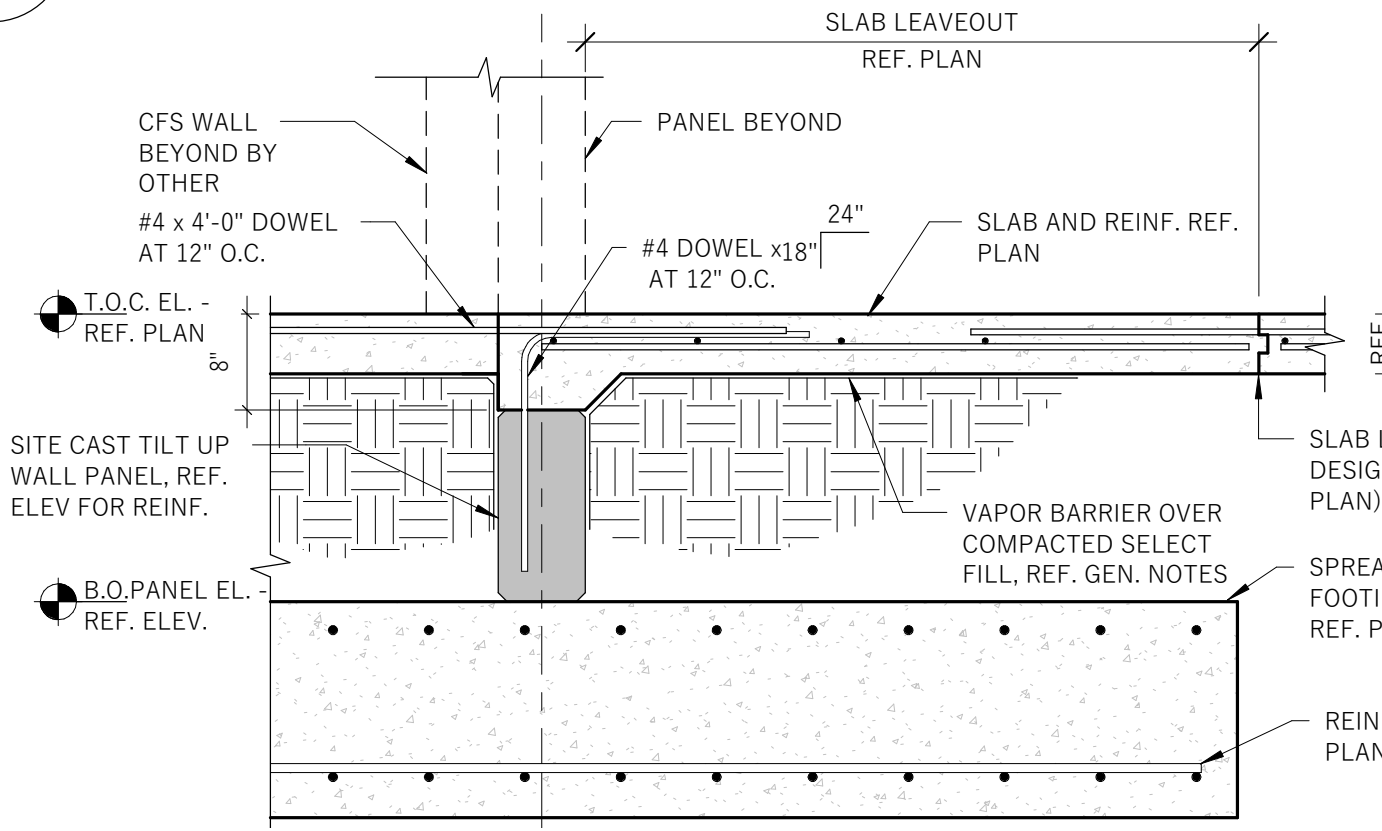
**4** TYPICAL ANCHOR BOLT DIAGRAM

S303 1 1/2" = 1'-0"



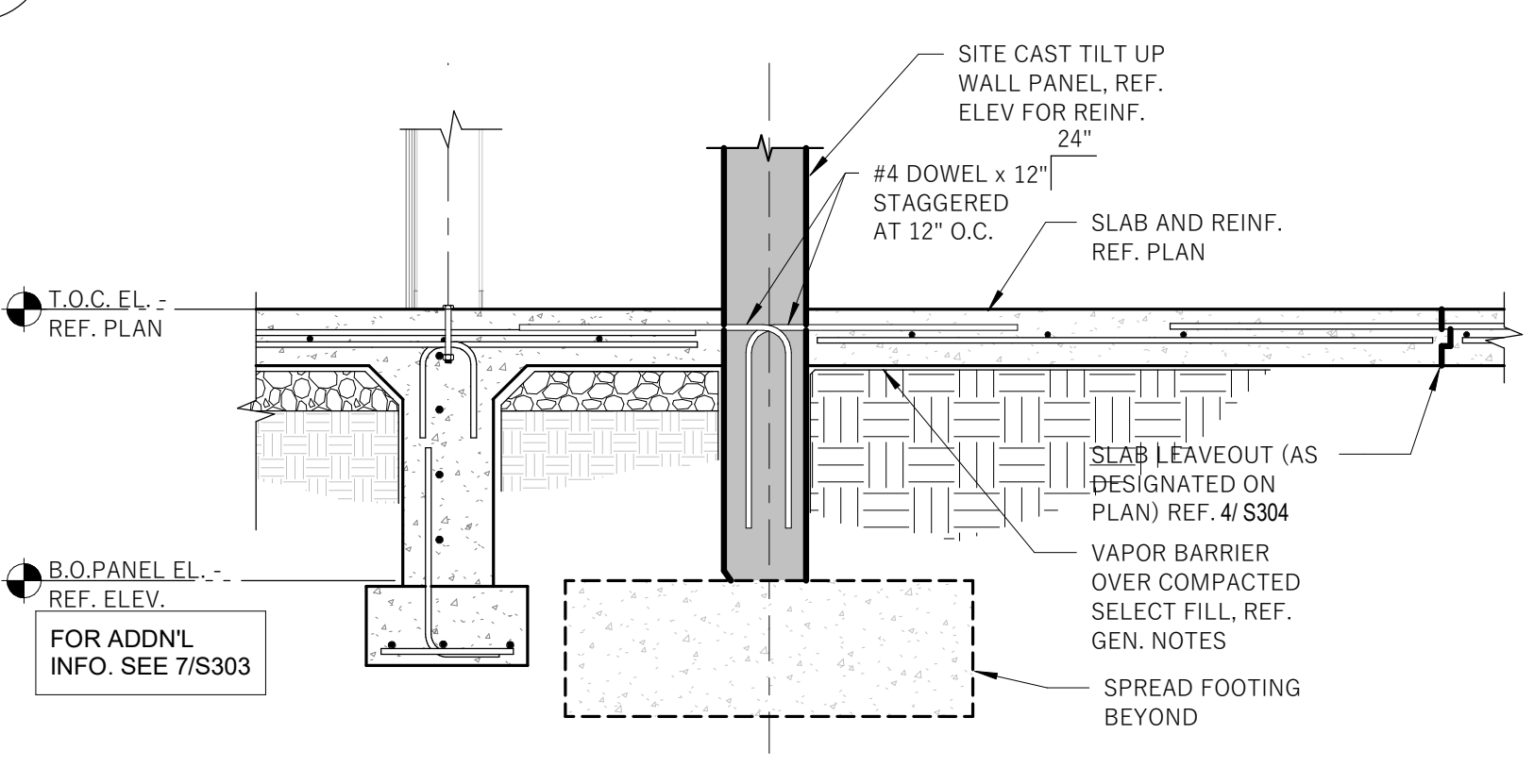
**7** SECTION AT STUD WALL FOUNDATION

S303 3/4" = 1'-0"



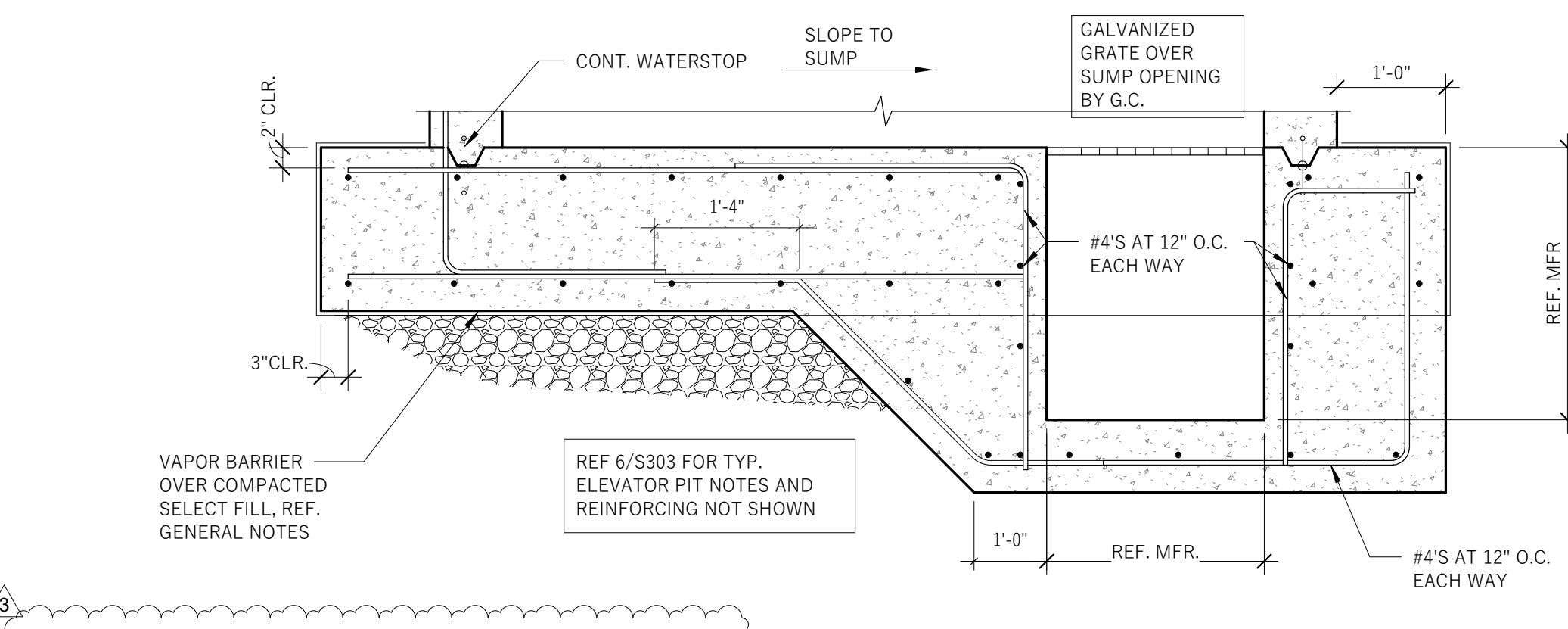
**8** TILT WALL PANEL AT OPENING

S303 3/4" = 1'-0"



**10** SECTION AT STUD WALL FOUNDATION

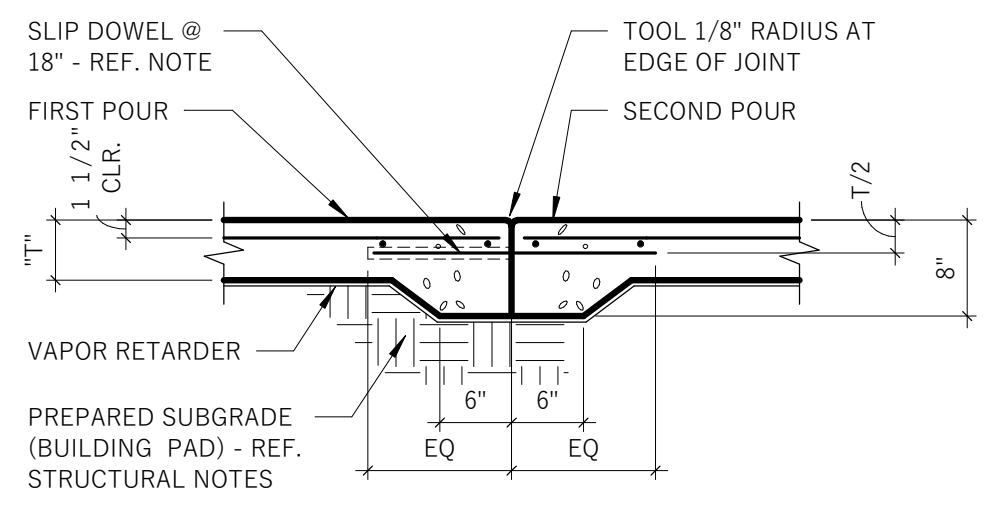
S303 3/4" = 1'-0"



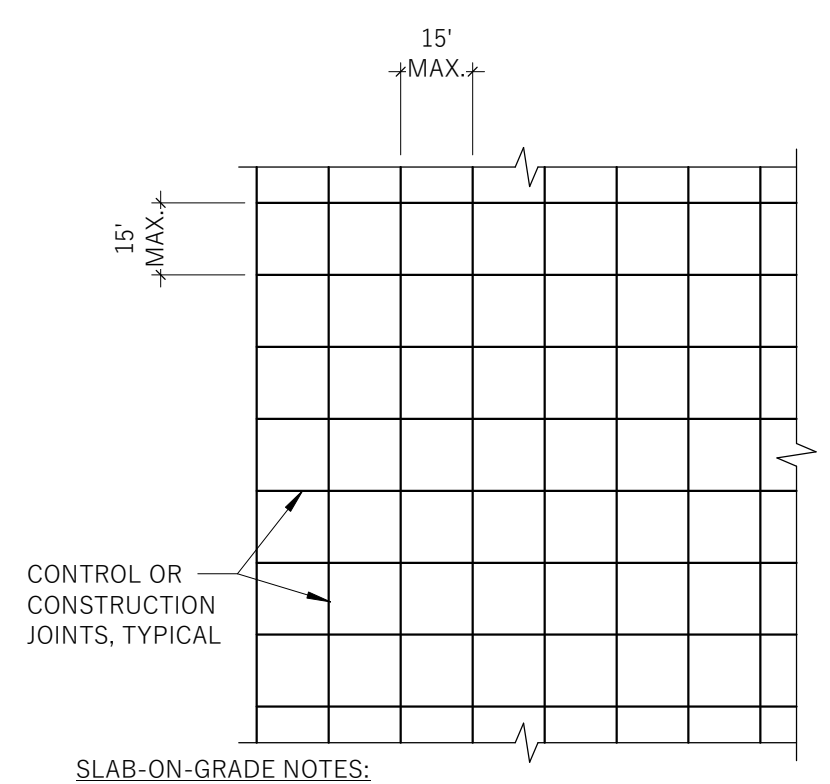
**11** SECTION AT SUMP PIT

S303 3/4" = 1'-0"

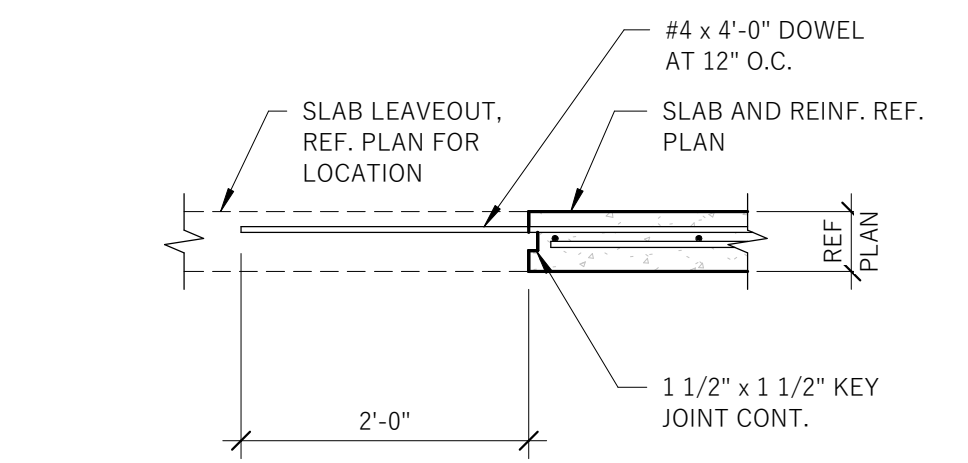
NOTE:  
 PROVIDE ONE OF THE FOLLOWING SLIP DOWELS:  
 - PNA CONSTRUCTION TECHNOLOGIES 1/4" x 4 1/2" x 4 1/2" "DIAMOND DOWEL"  
 PLATE DOWEL SYSTEM.  
 - GREENSTREAK 5/8" DIA. SMOOTH x 24" "SPEED DOWEL" SYSTEM.  
 - 1/2" DIA. x 2'-0" A36 SMOOTH ROD.



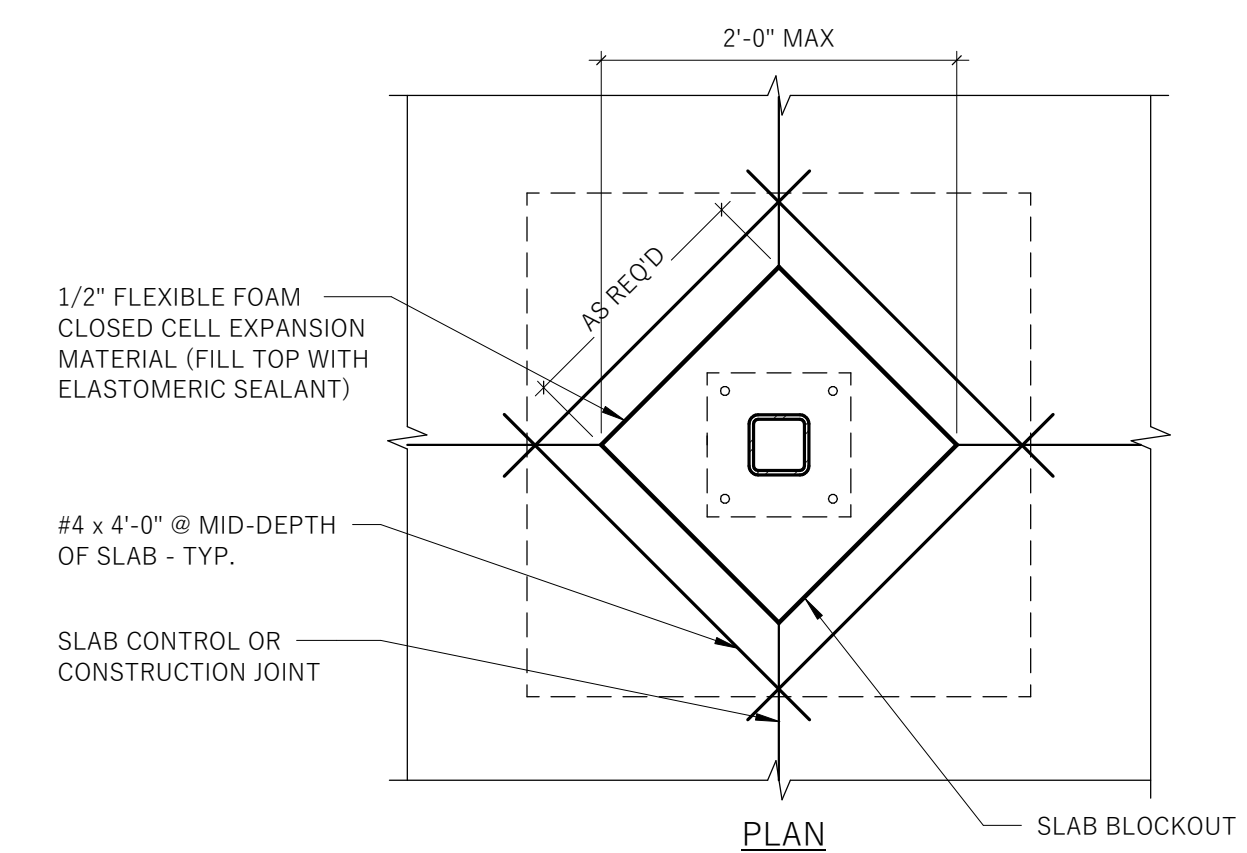
1  
S304  
3/4" = 1'-0"



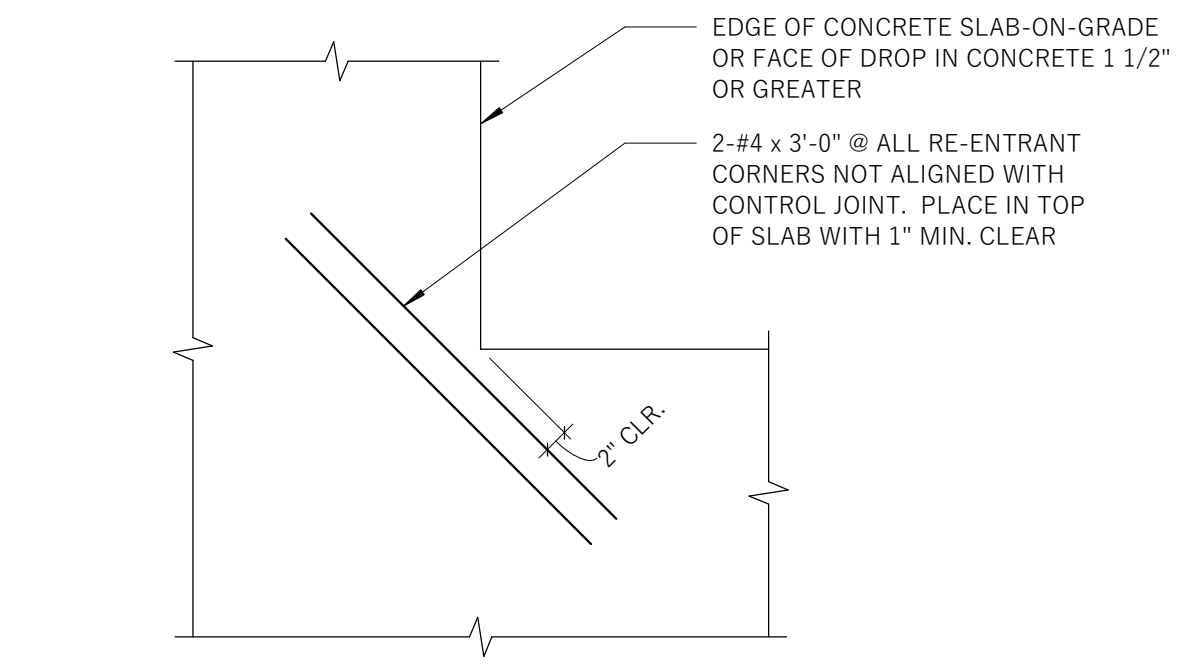
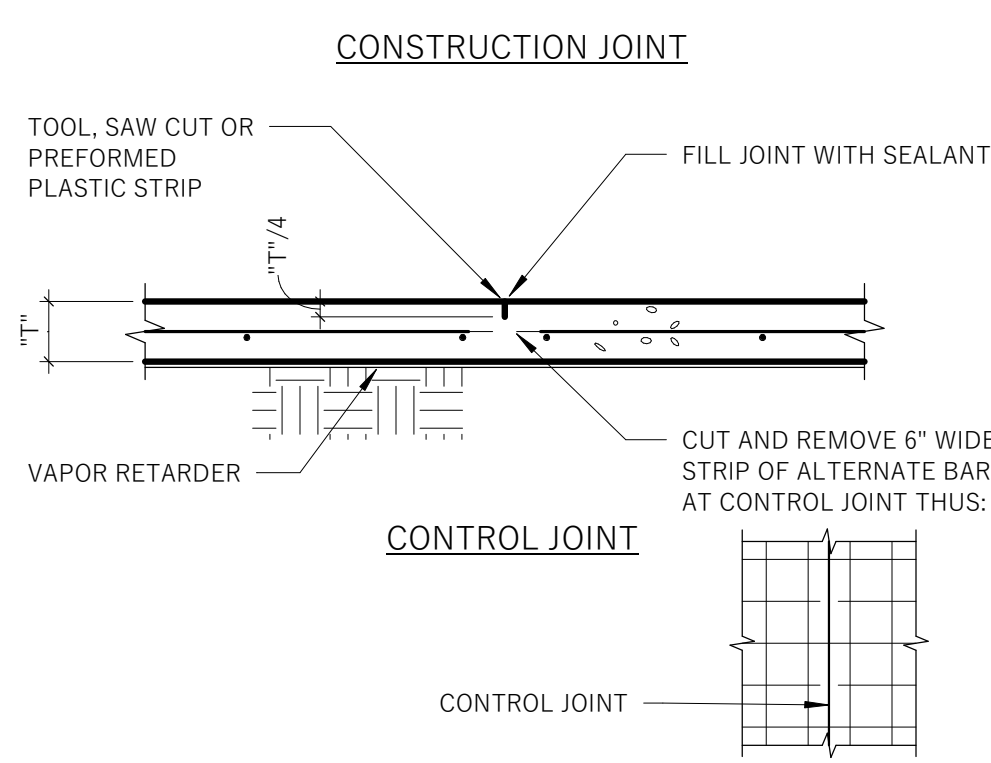
2  
S304  
3/4" = 1'-0"



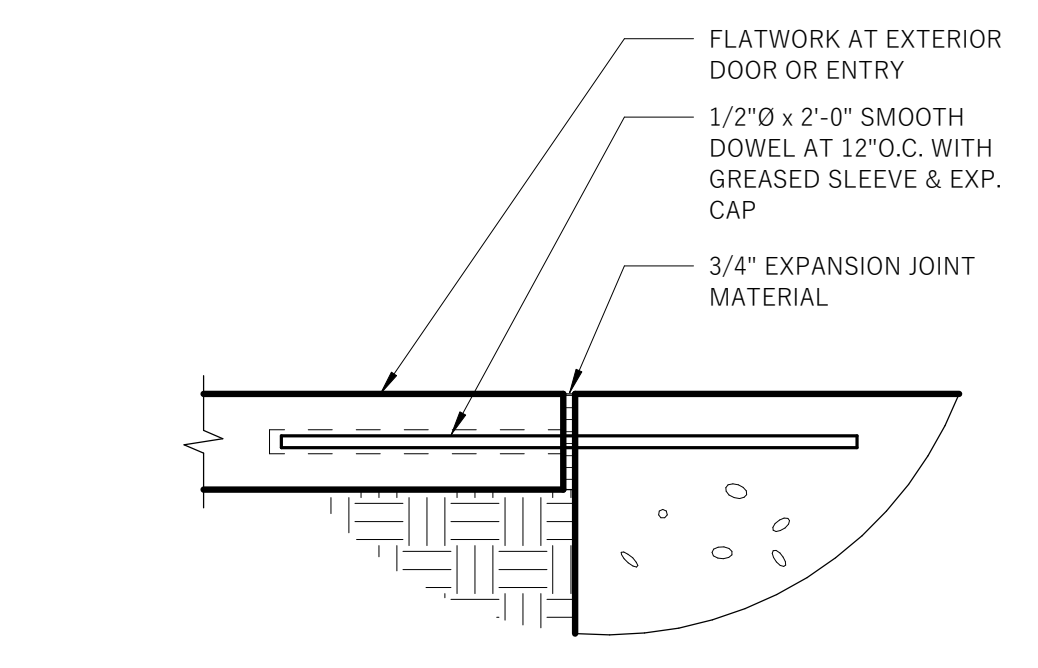
4  
S304  
3/4" = 1'-0"



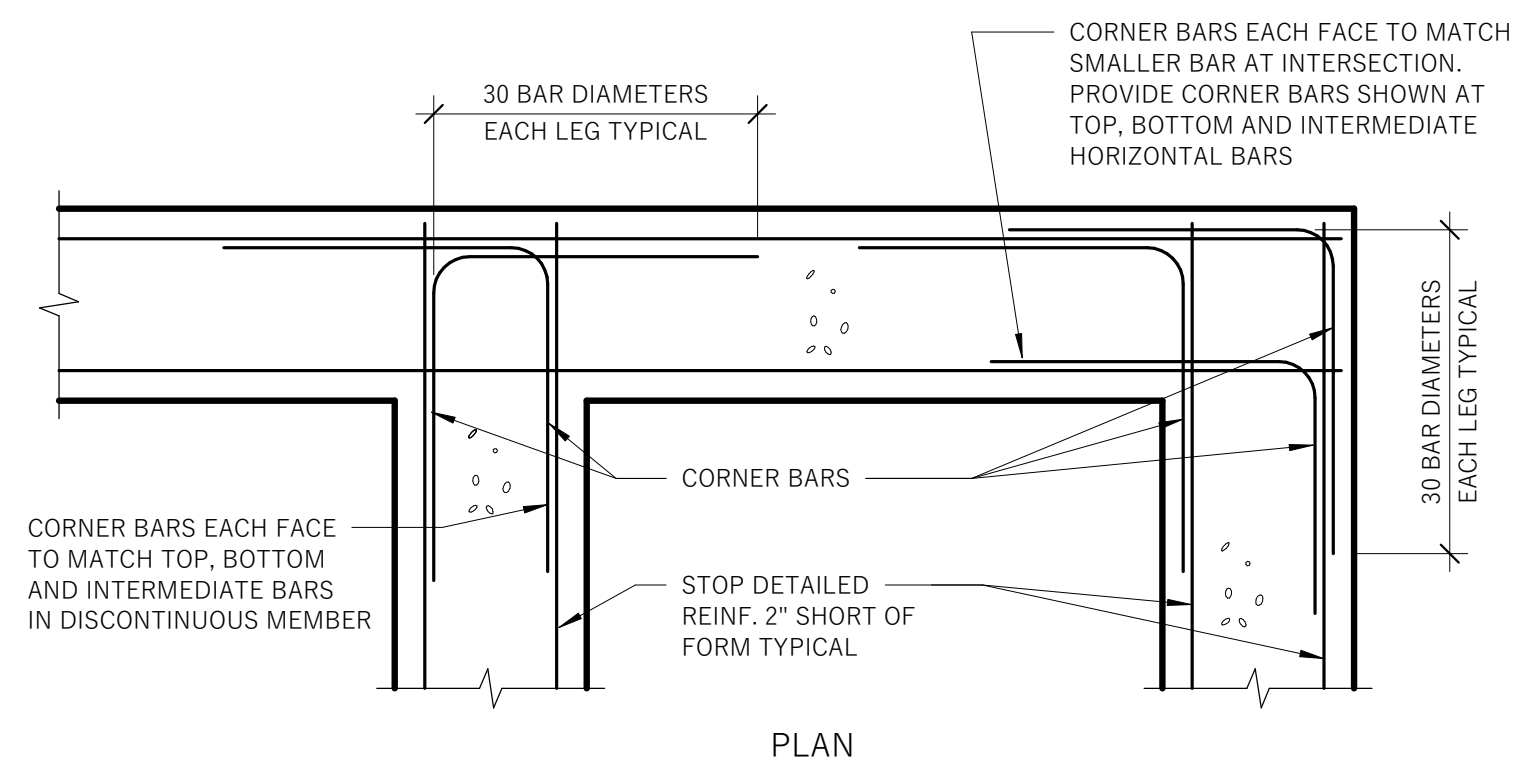
6  
S304  
3/4" = 1'-0"



3  
S304  
3/4" = 1'-0"

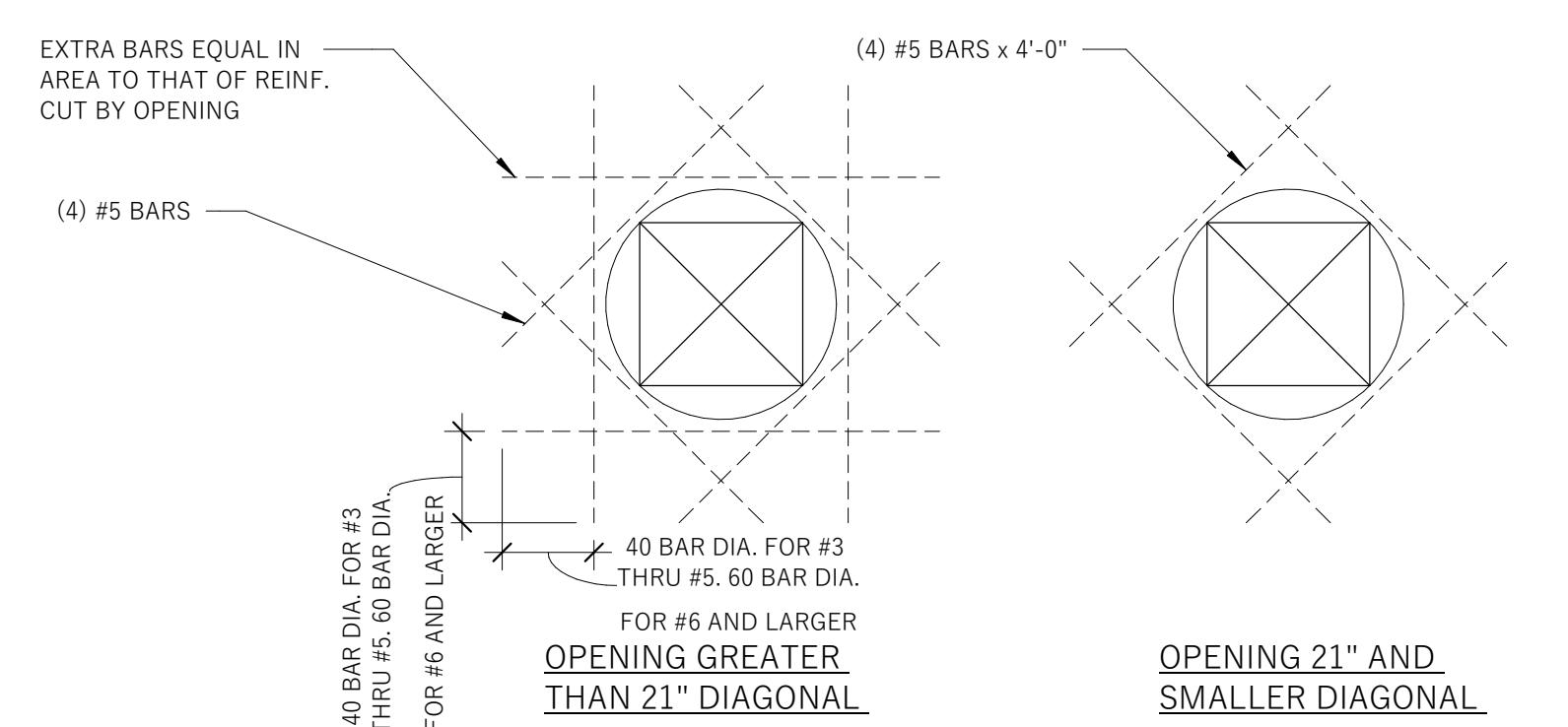


5  
S304  
1 1/2" = 1'-0"

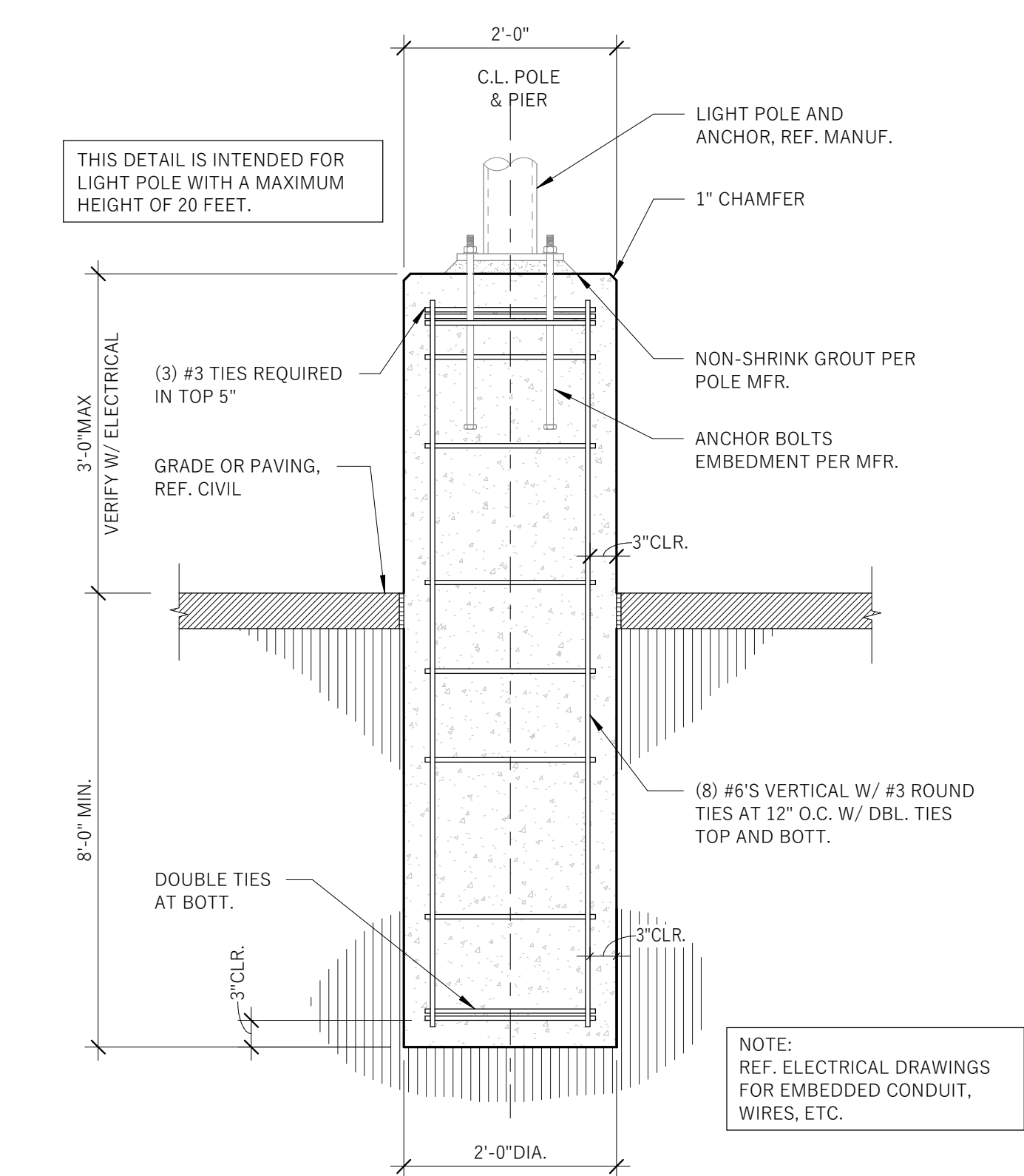


7  
S304  
3/4" = 1'-0"

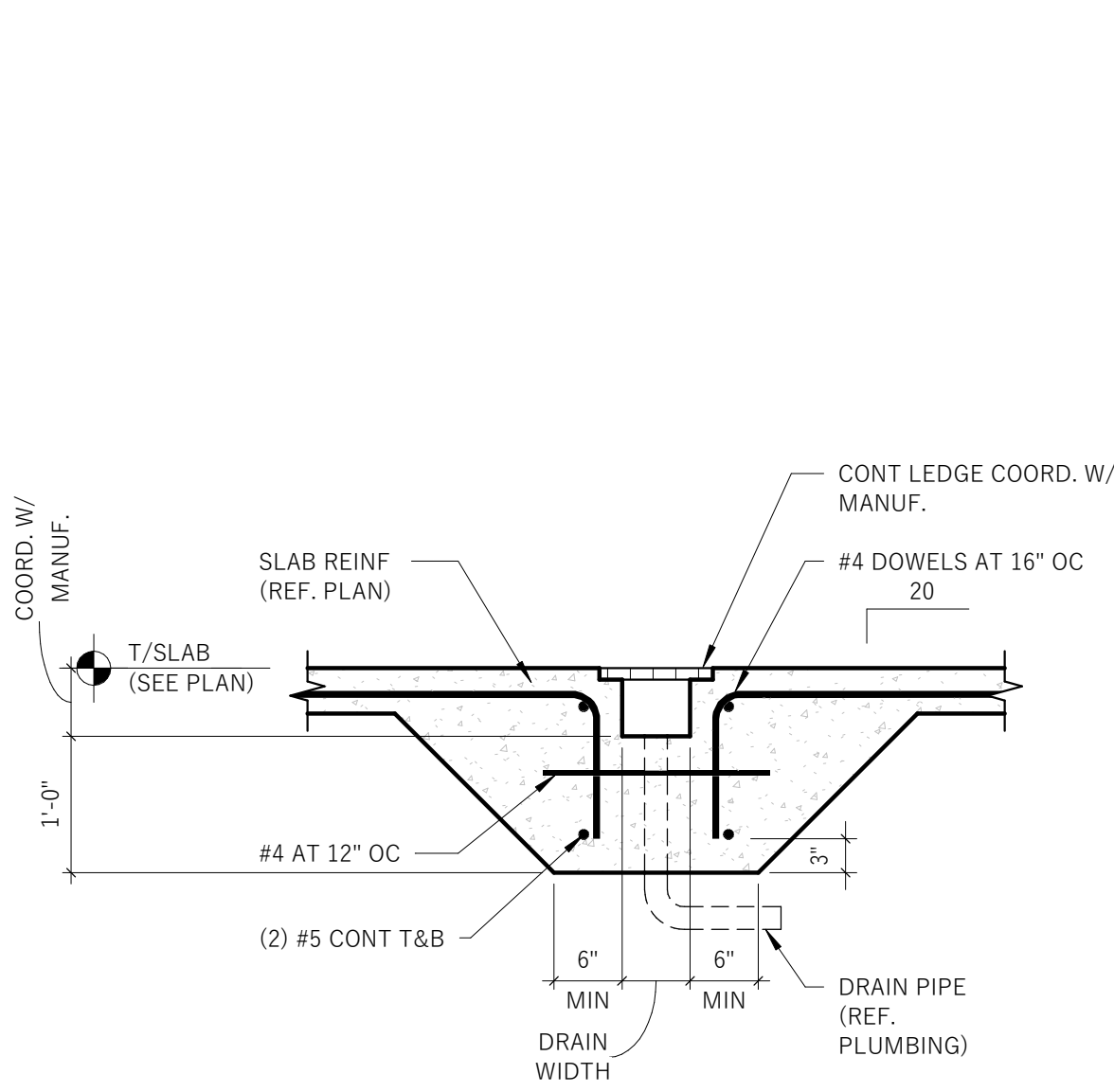
NOTES:  
 1. MATCH SIZE, LOCATION AND NUMBER OF HORIZONTAL BEAM AND WALL BARS, EXCEPT THAT WHERE THERE ARE MORE THAN 2 TOP OR BOTTOM BARS, ONLY THE INSIDE AND OUTSIDE BARS MUST BE MATCHED.  
 2. WHERE 90 DEGREE HOOKS ARE PROVIDED FOR TOP BARS CORNER BARS MAY BE OMITTED AT TOP, WHERE 90 DEGREE HOOKS ARE PROVIDED FOR BOTTOM BARS, CORNER BARS MAY BE OMITTED AT BOTTOM.



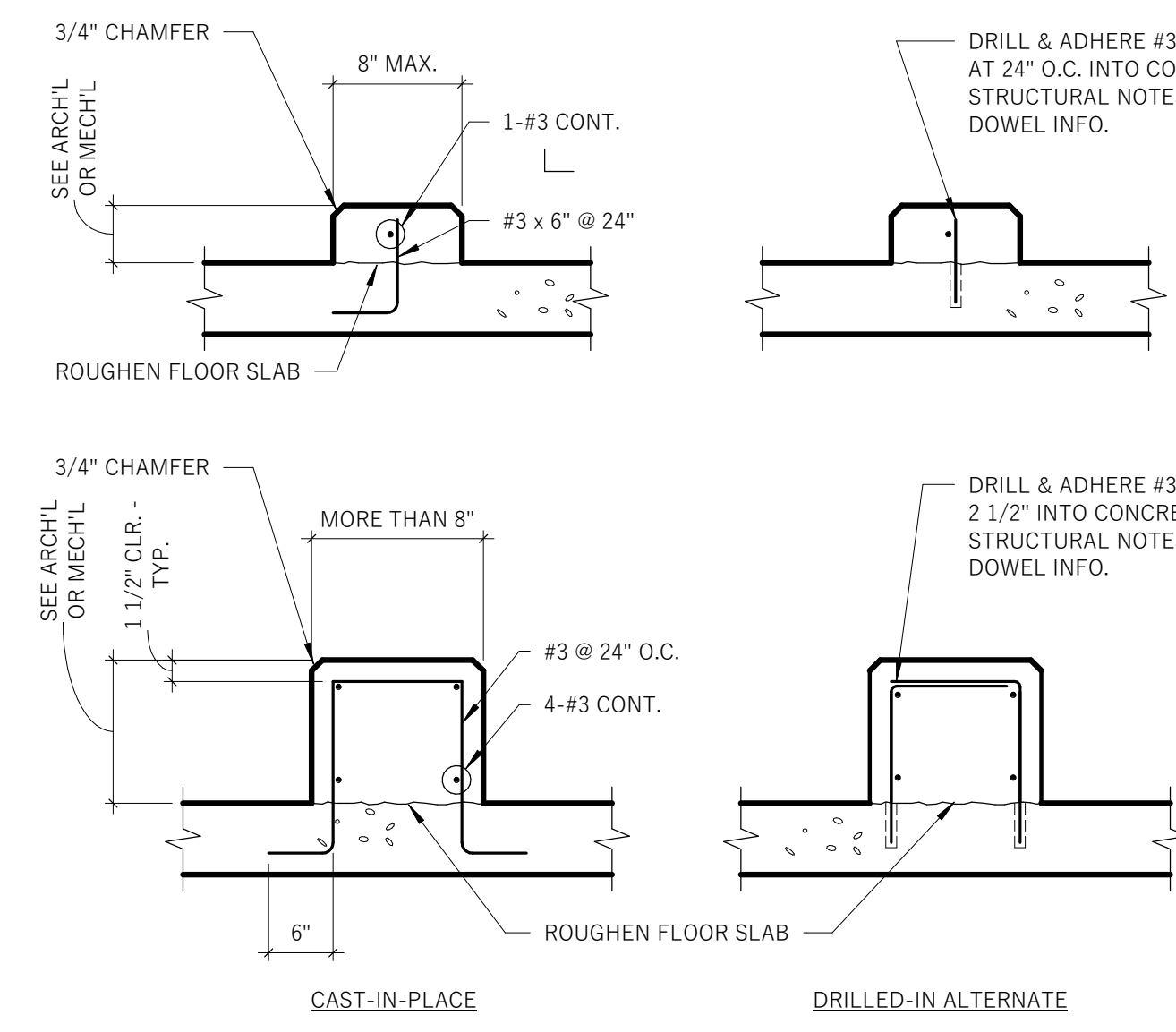
8  
S304  
3/4" = 1'-0"



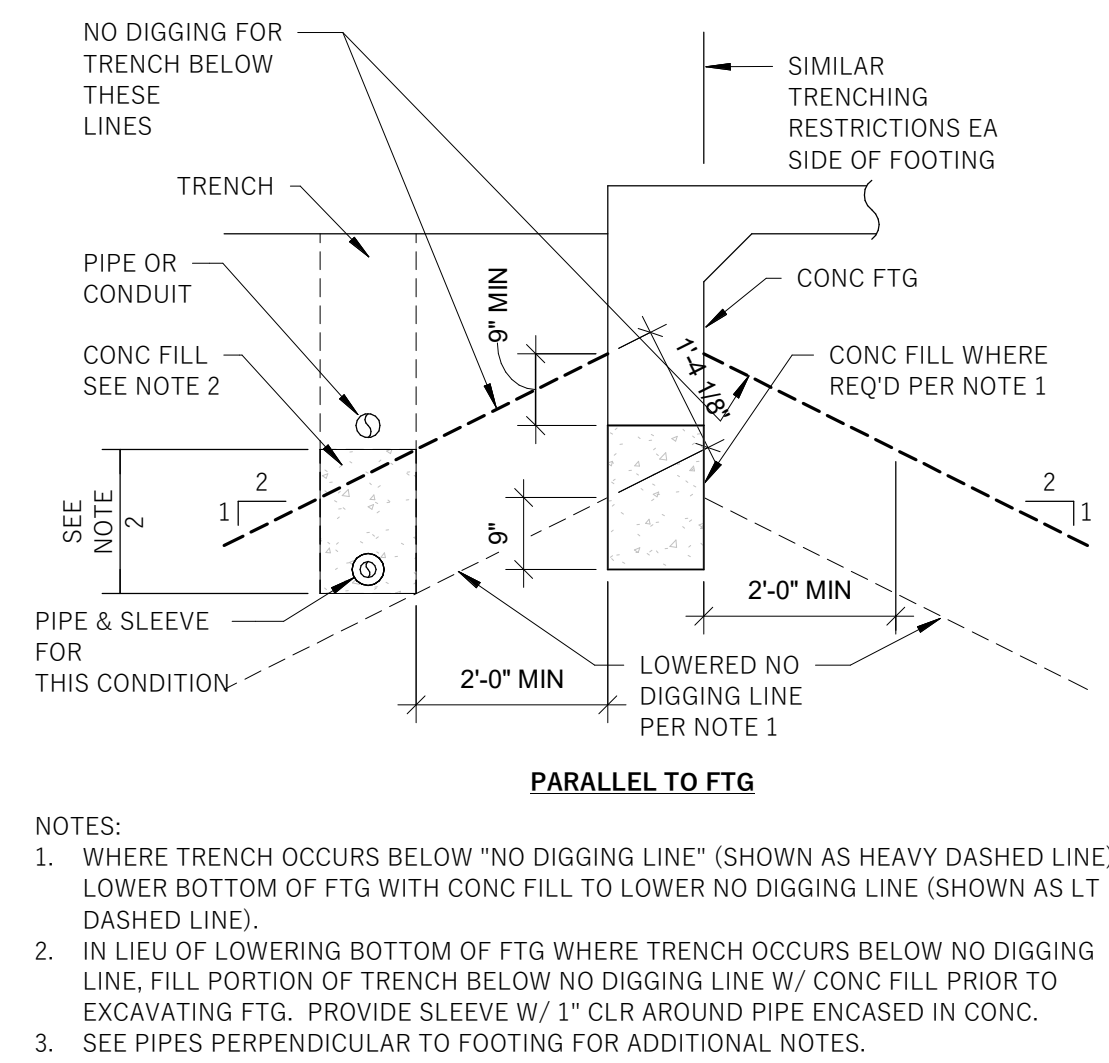
9  
S304  
3/4" = 1'-0"



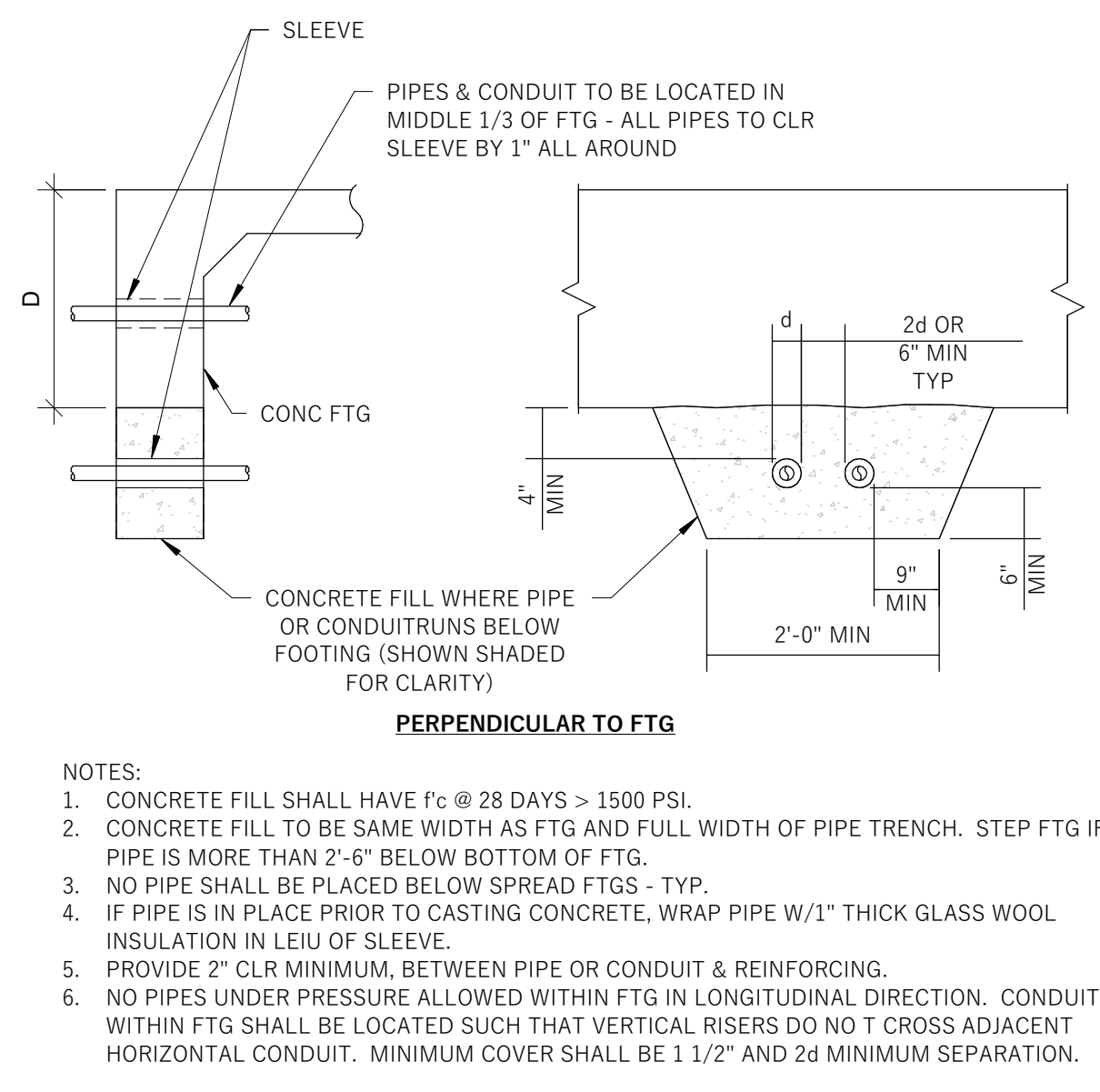
10  
S304  
3/4" = 1'-0"



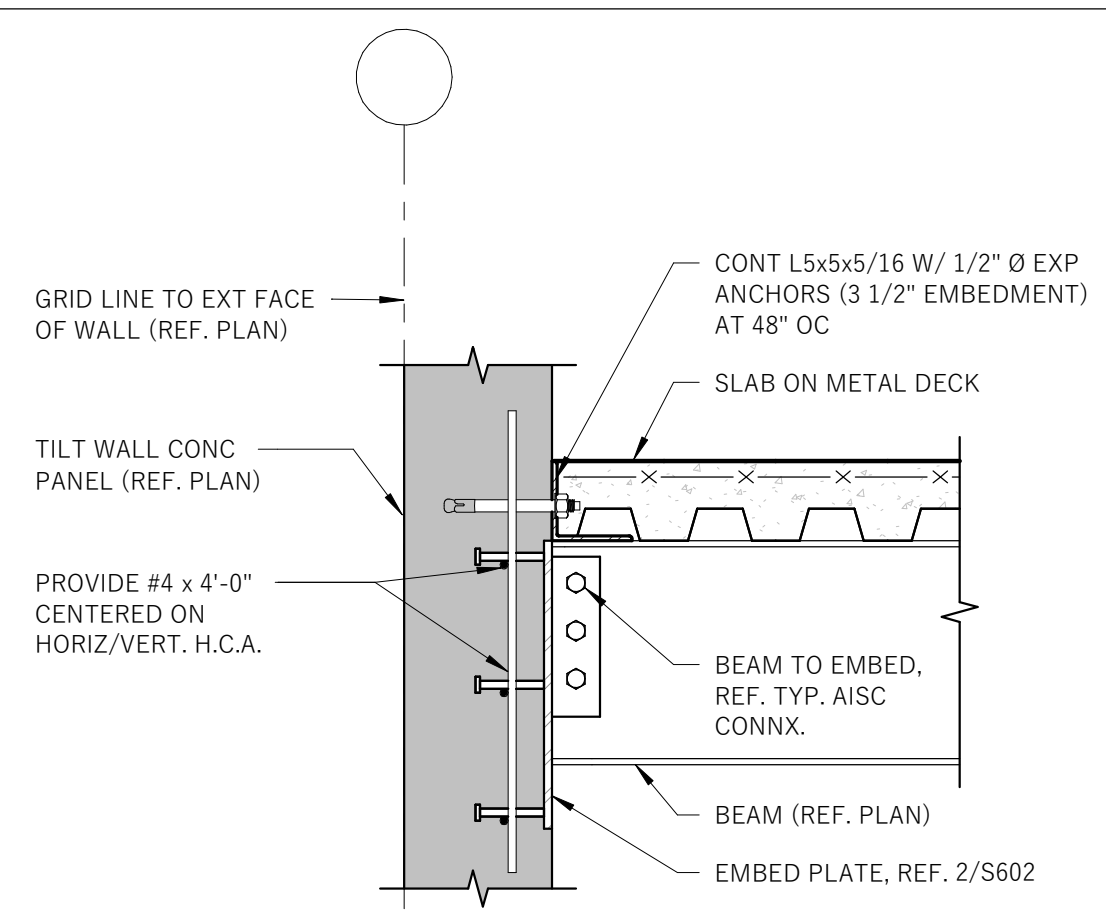
11  
S304  
3/4" = 1'-0"



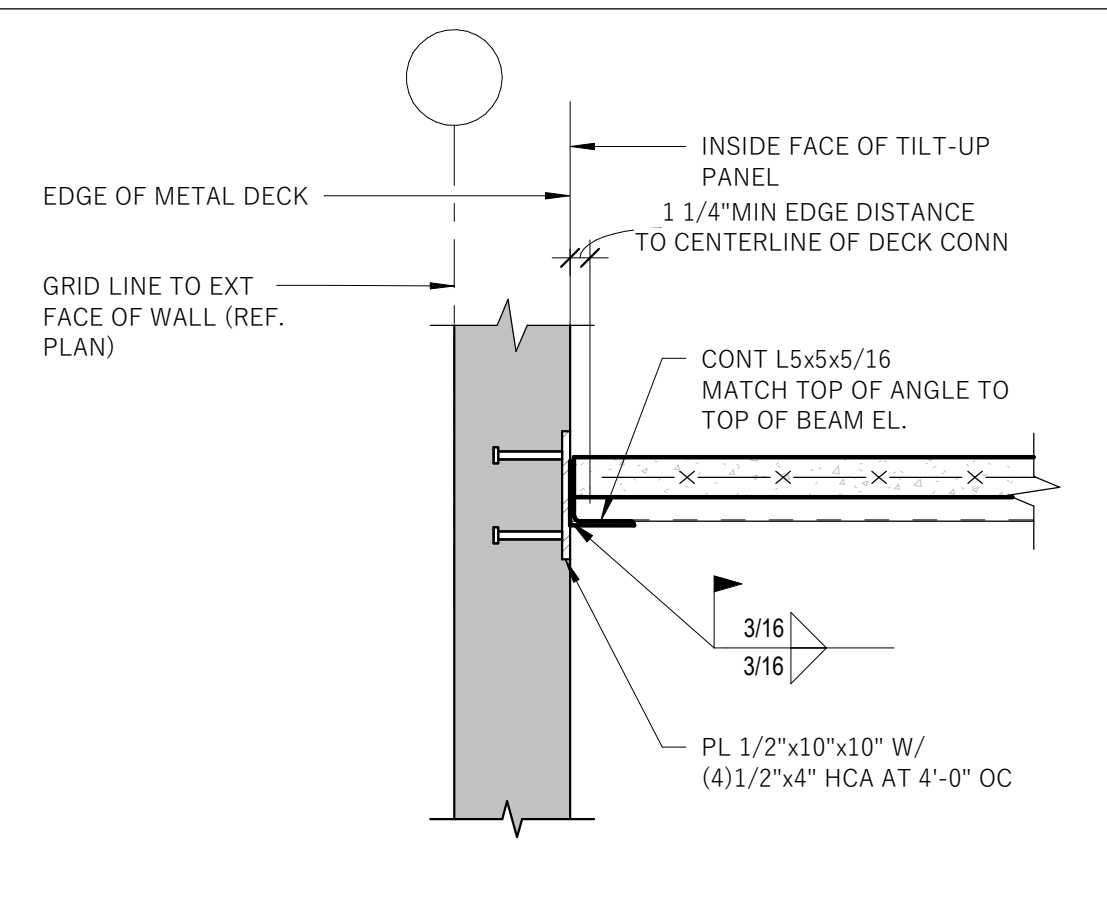
12  
S304  
1/2" = 1'-0"



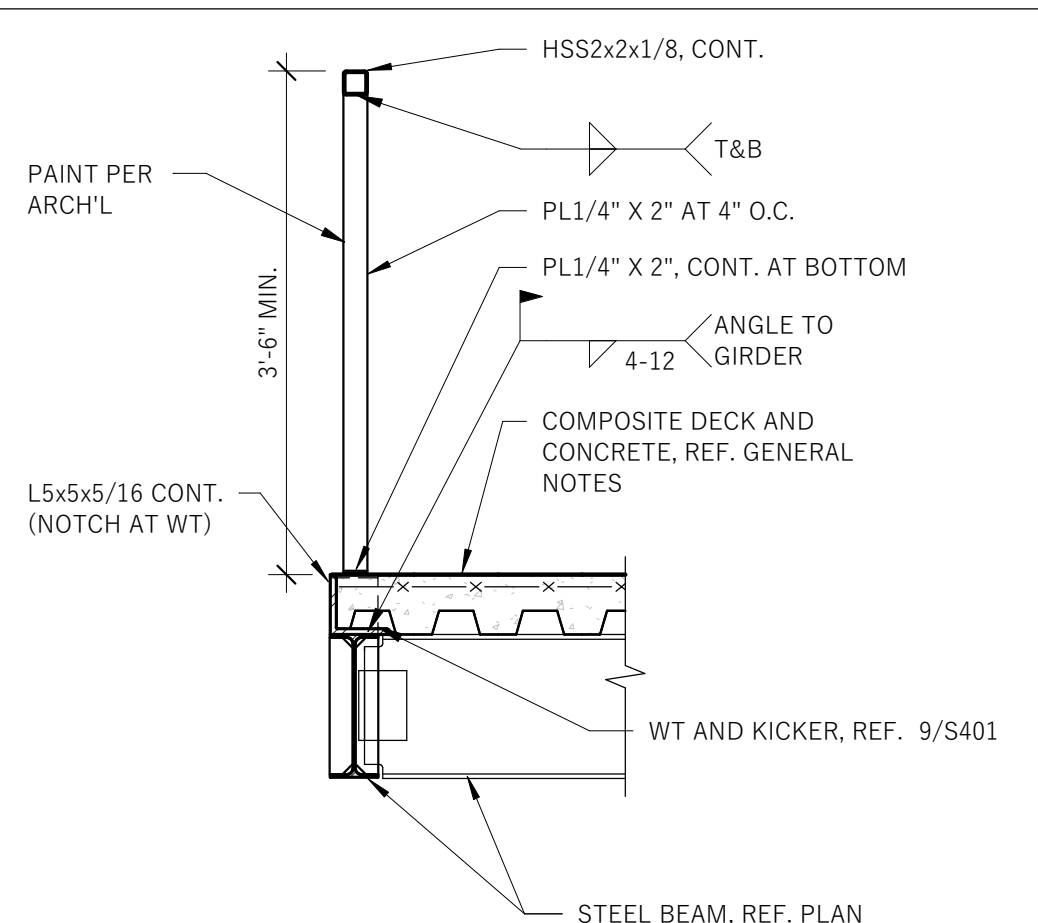
12  
S304  
1/2" = 1'-0"



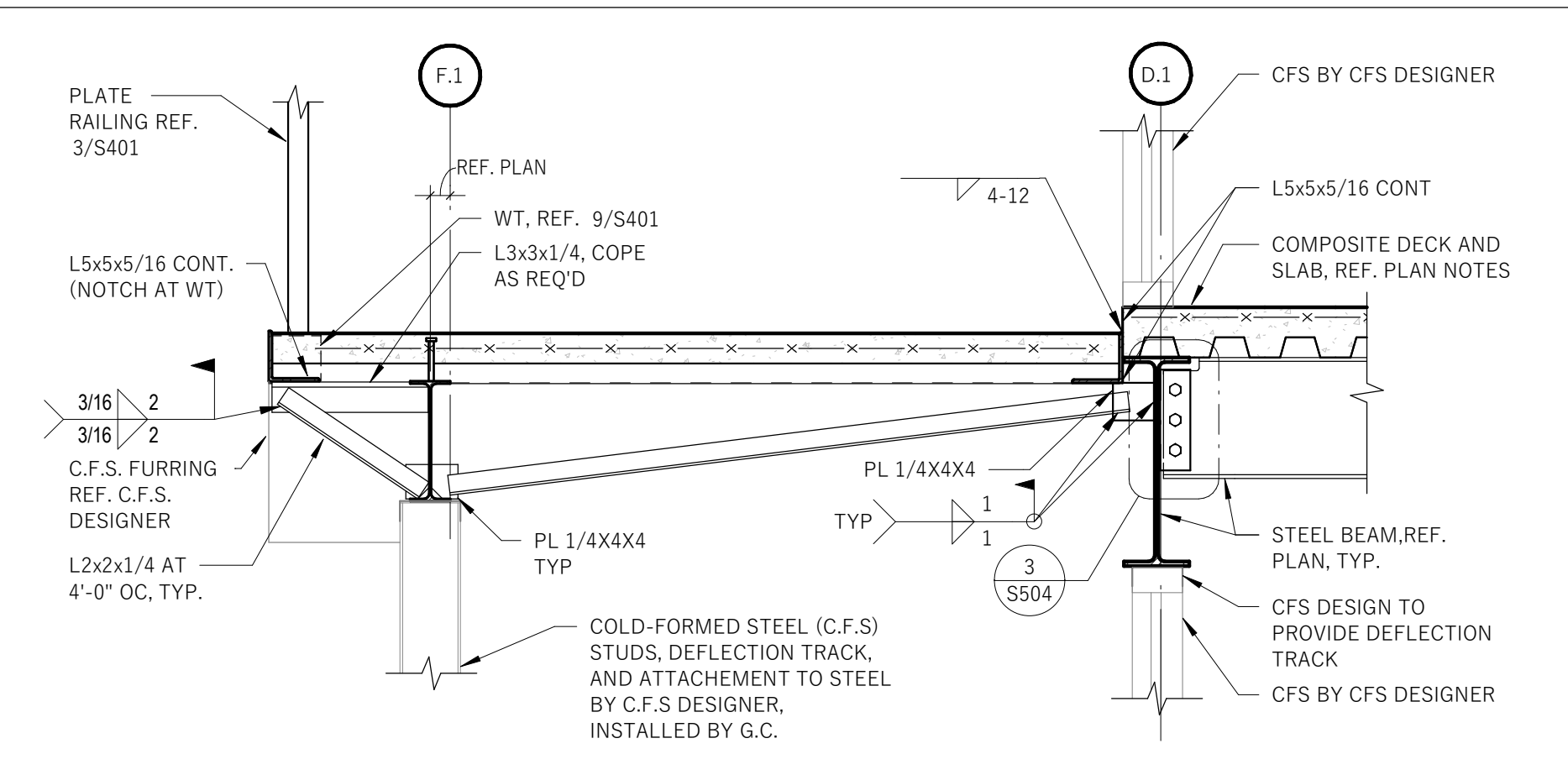
**1** TYP. STL BEAM TO TILT WALL  
 S401 1" = 1'-0"



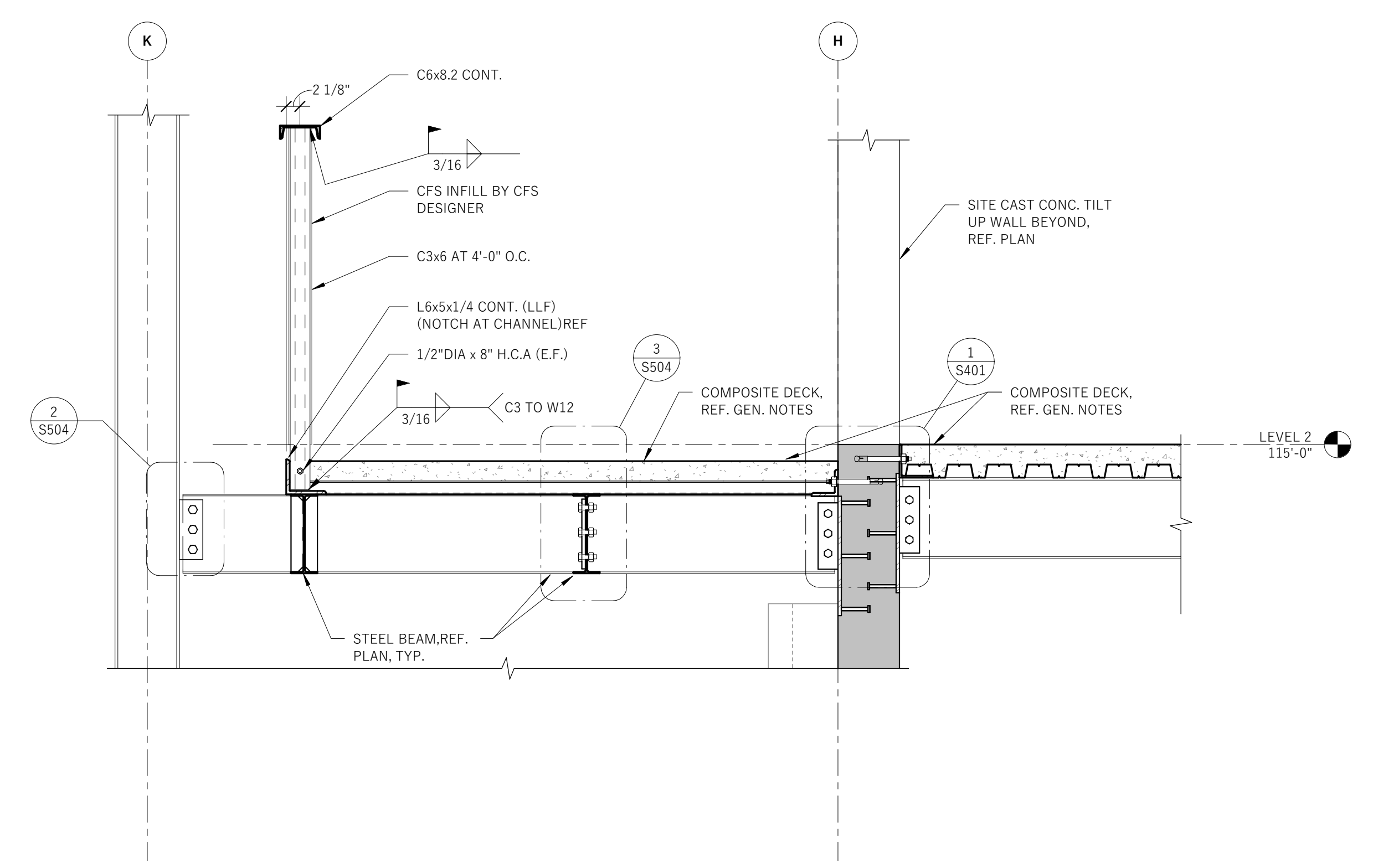
**2** SECTION  
 S401 1" = 1'-0"



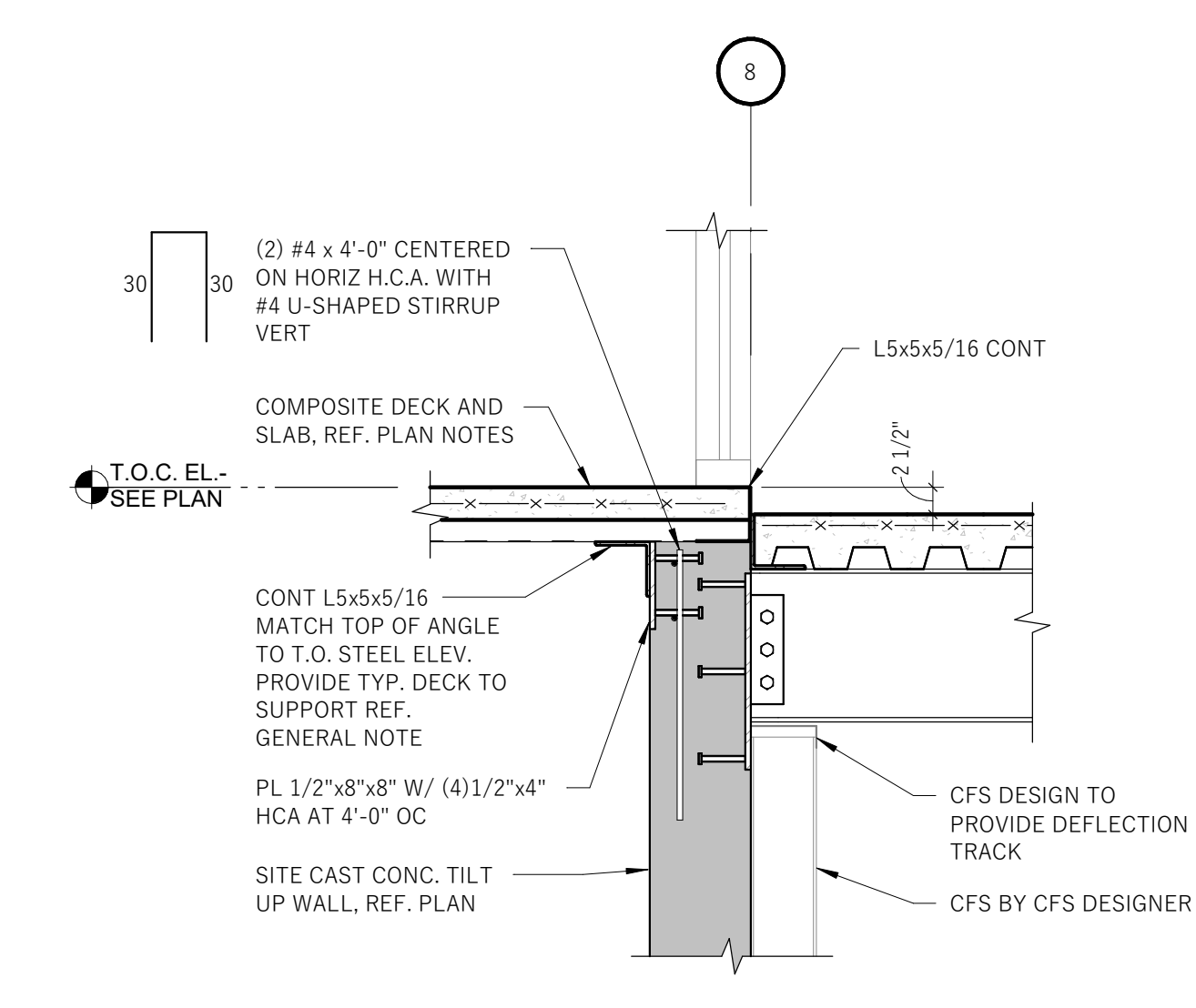
**3** SECTION AT PLATE RAILING  
 S401 3/4" = 1'-0"



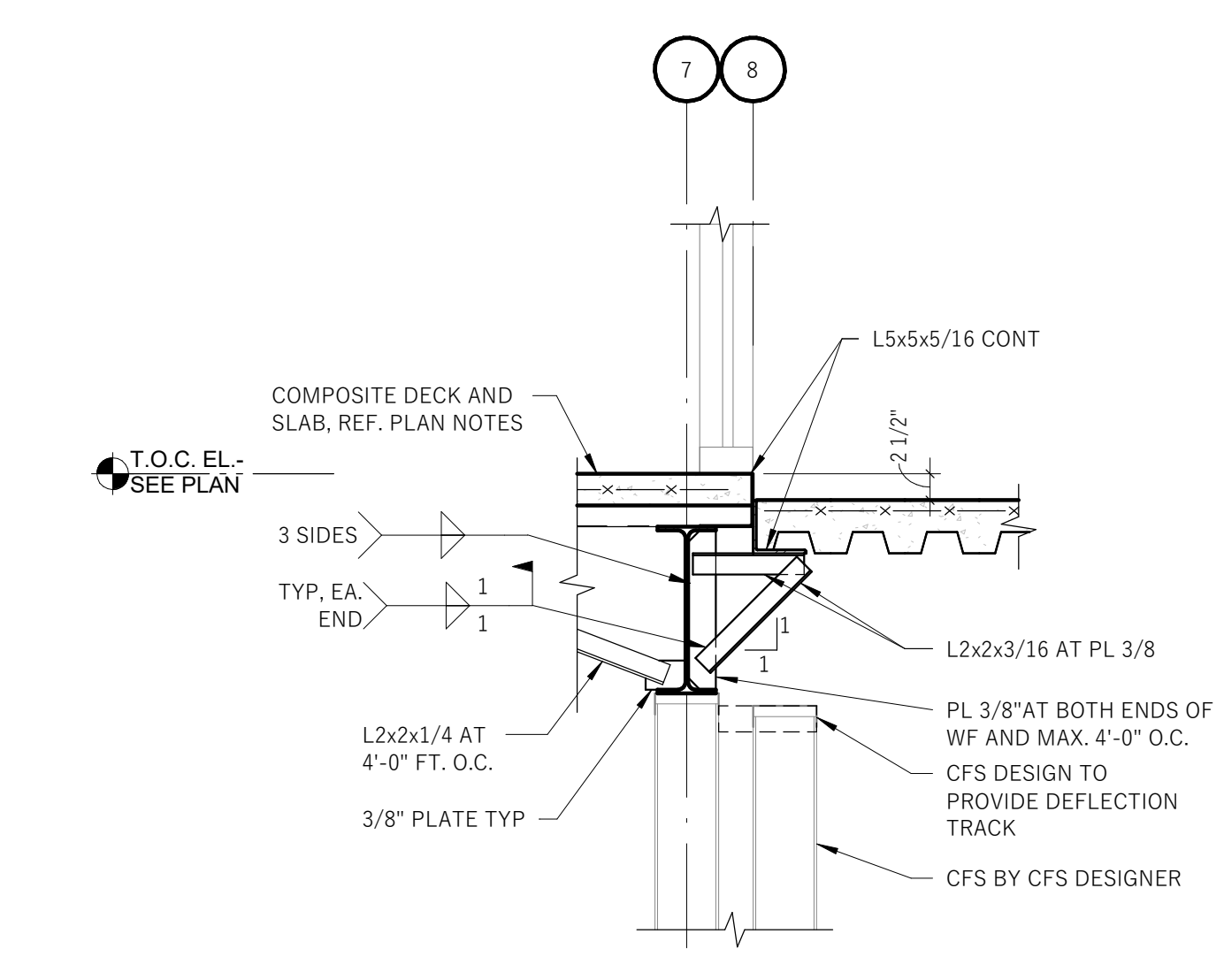
**4** SECTION AT LEVEL 2 ENTRY  
 S401 3/4" = 1'-0"



**5** BUILDING SECTION  
 S401 3/4" = 1'-0"



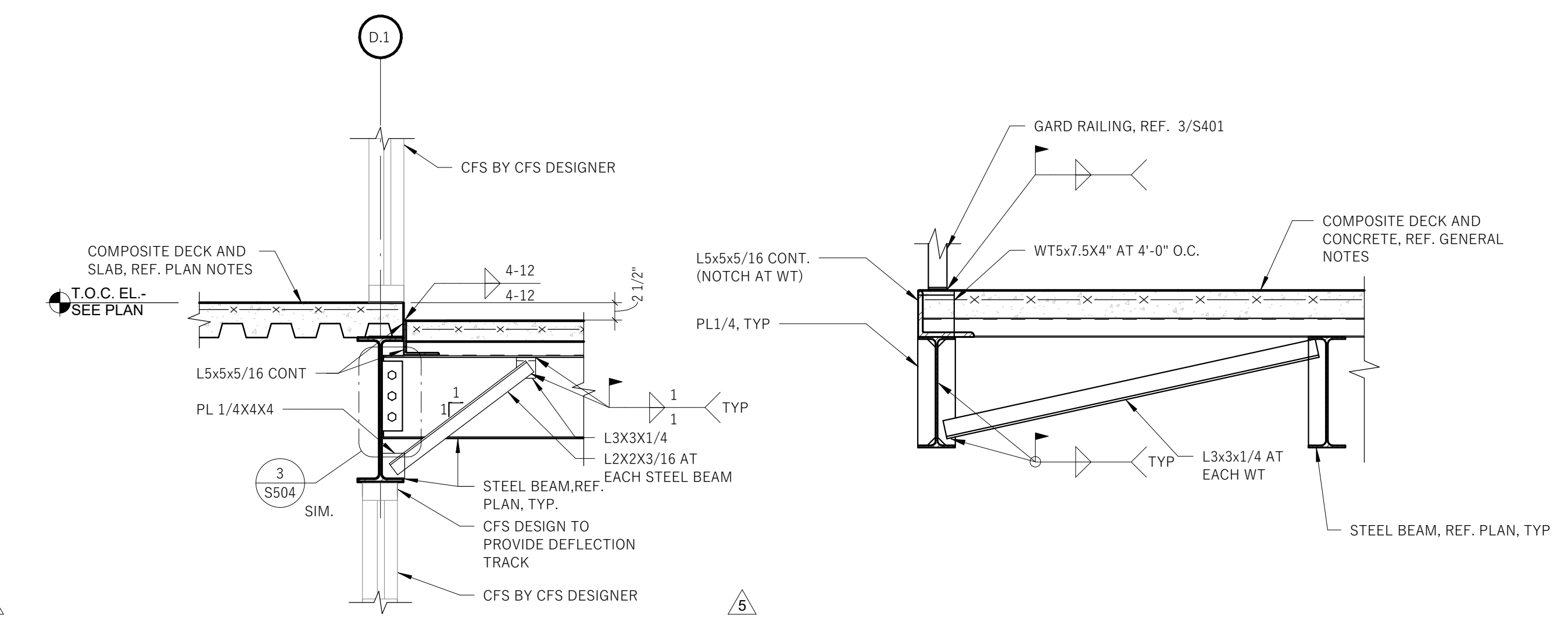
**6** SECTION AT PATIO  
 S401 3/4" = 1'-0"



**7** SECTION AT PATIO  
 S401 3/4" = 1'-0"



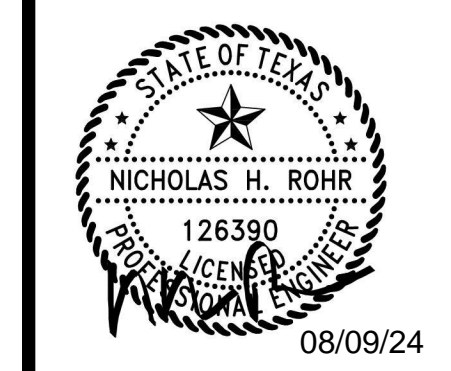
**8** SECTION AT PATIO  
 S401 3/4" = 1'-0"



**9** SECTION AT PLATE RAILING  
 S401 1" = 1'-0"

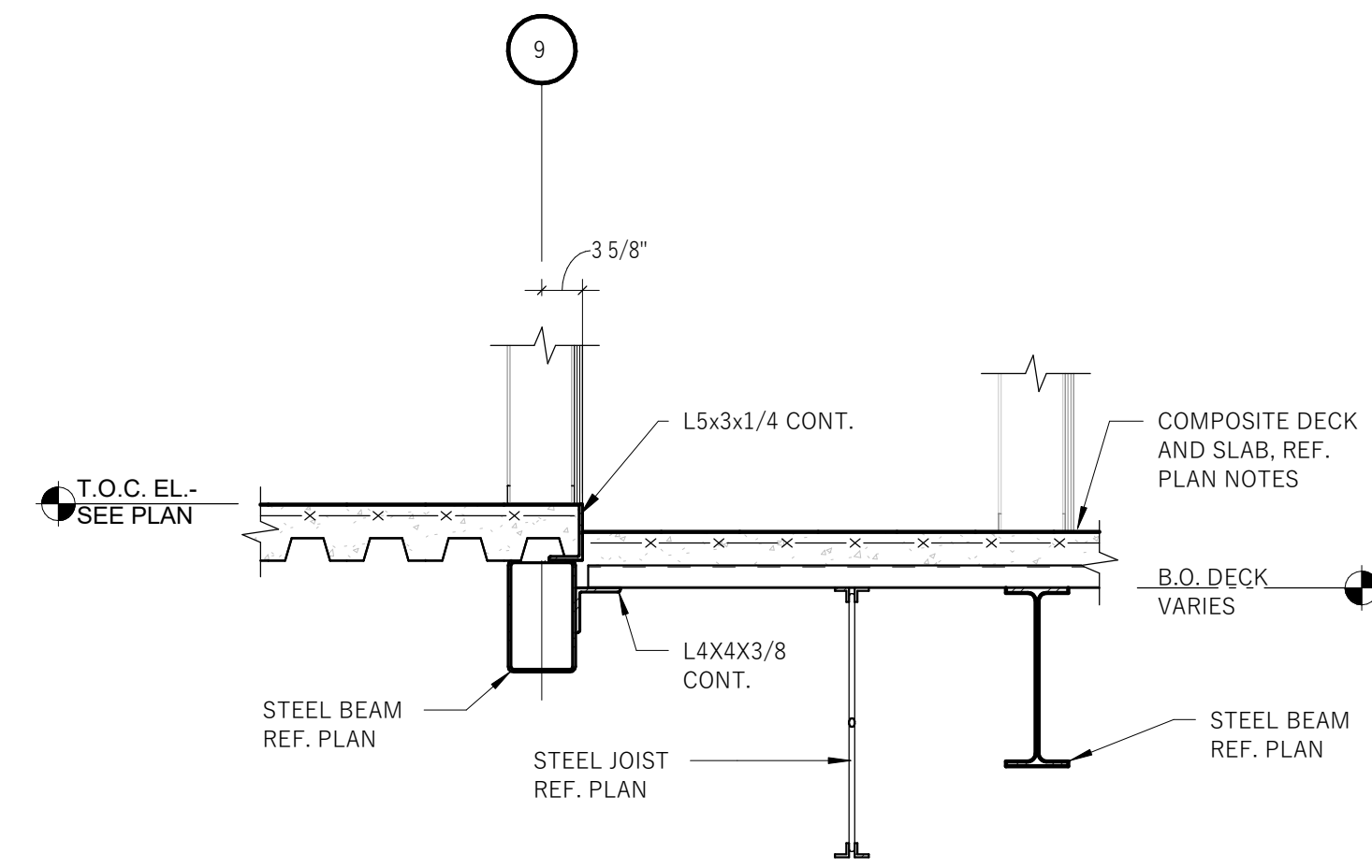
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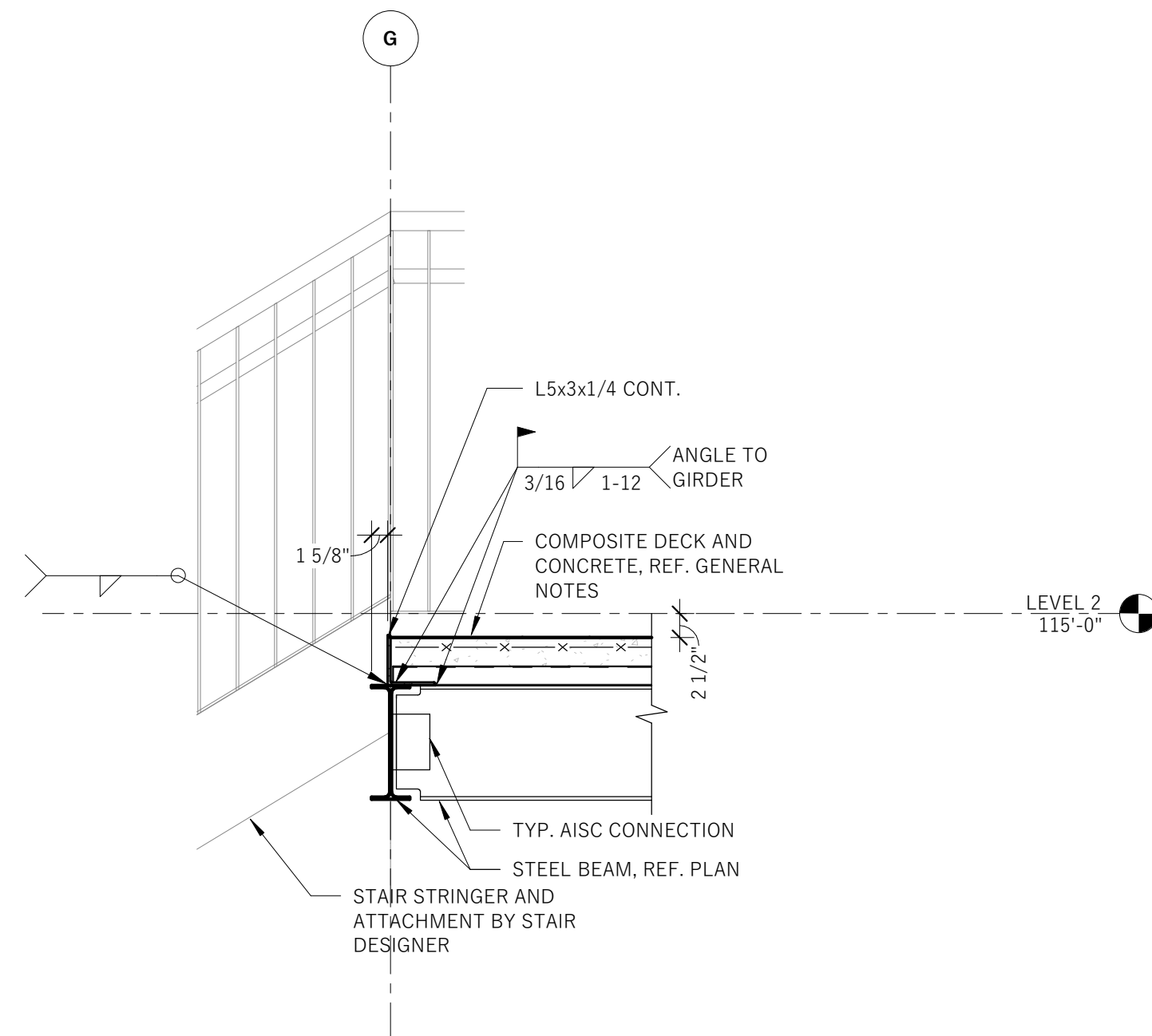


09/09/2024  
 100% CDS-REV05-VE  
 FLOOR FRAMING SECTIONS

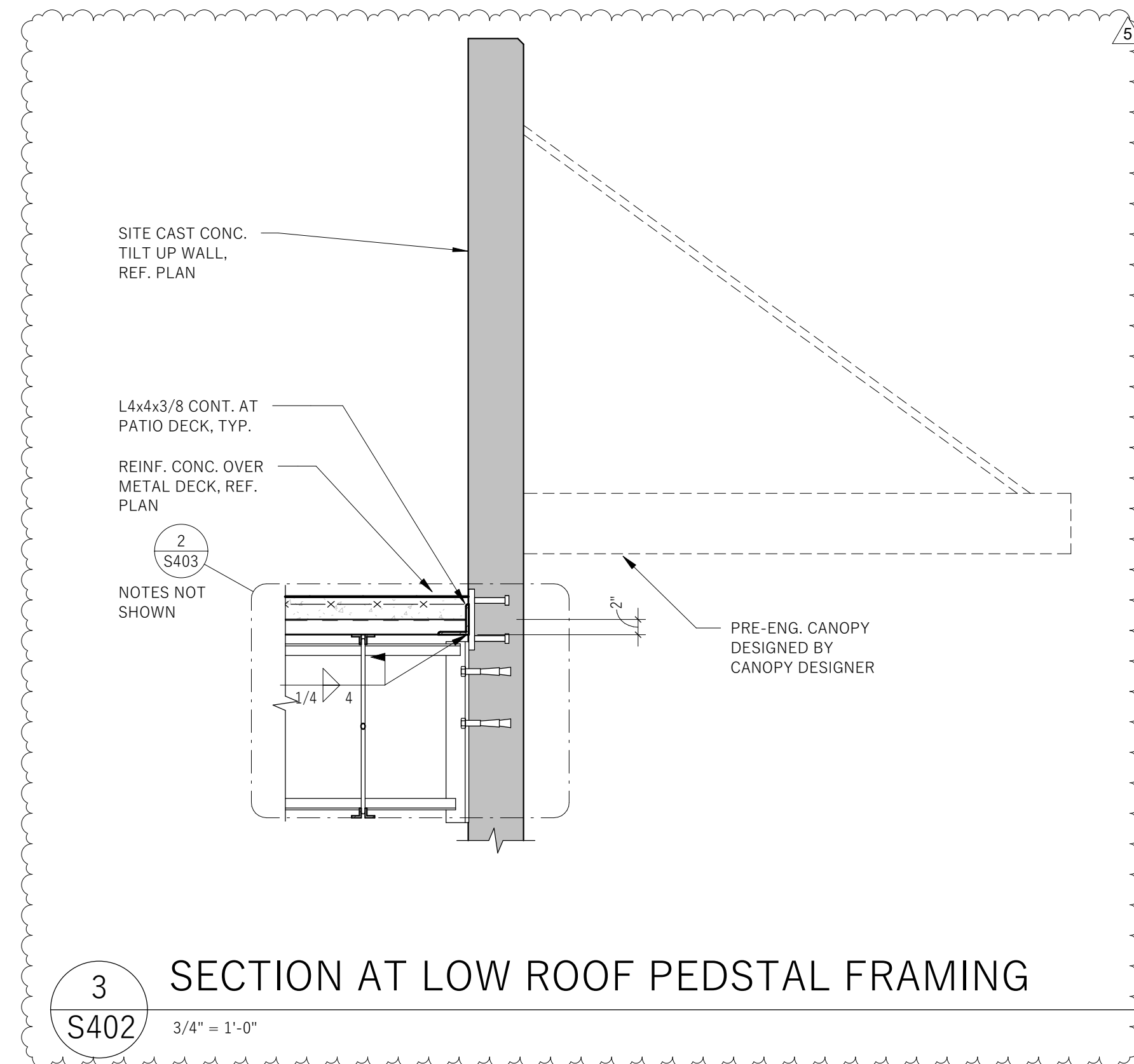
SHEET: **S401**



**1**  
SECTION AT PATIO  
S402 3/4" = 1'-0"



**2**  
STAIR SECTION  
S402 3/4" = 1'-0"



**3**  
SECTION AT LOW ROOF PEDSTAL FRAMING  
S402 3/4" = 1'-0"

**BUILDING 2**  
THE SQUARE AT CRYSTAL FALLS  
1900 S BAGDAD ROAD BLDG 2  
LEANDER, TEXAS 78641

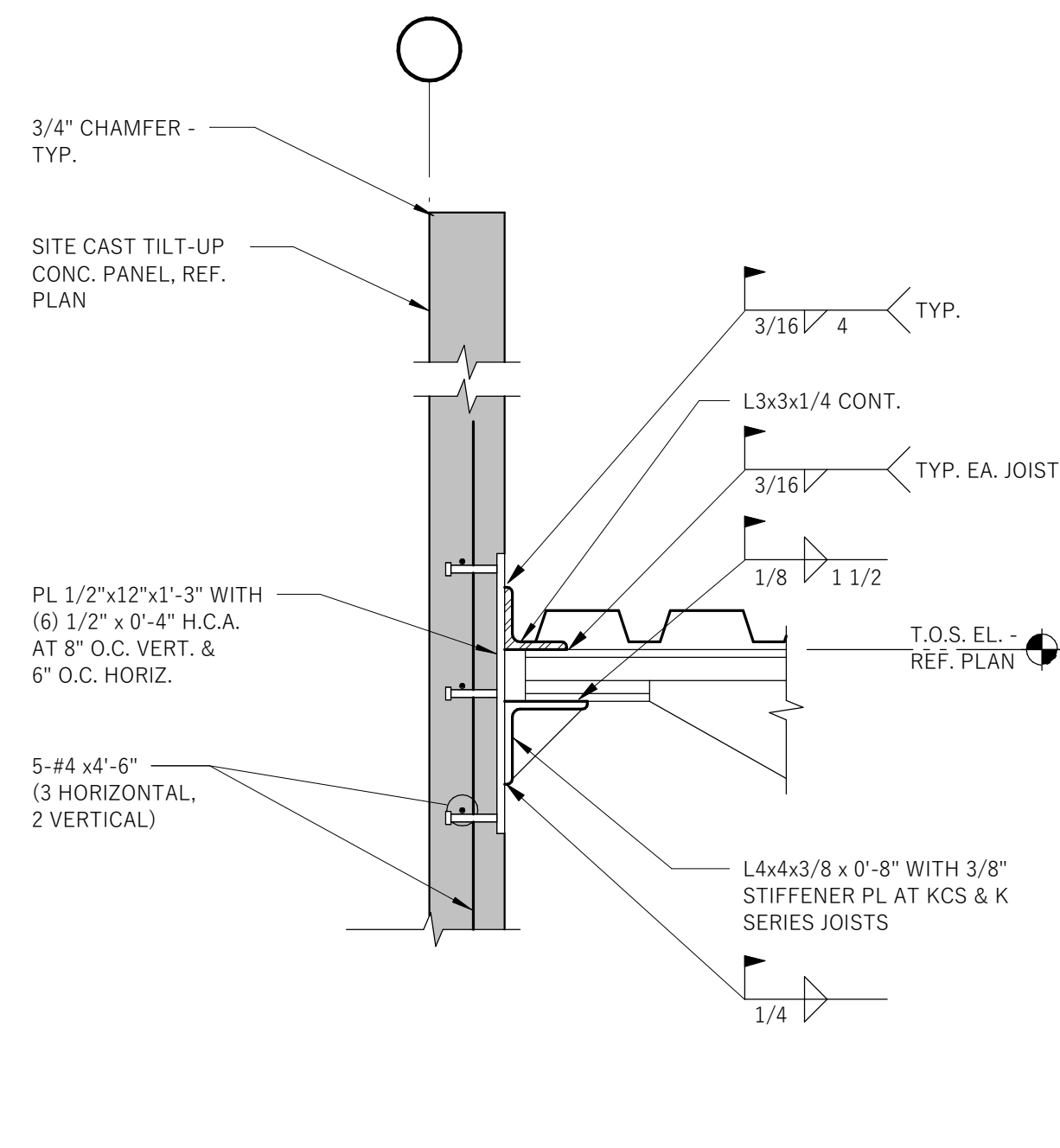
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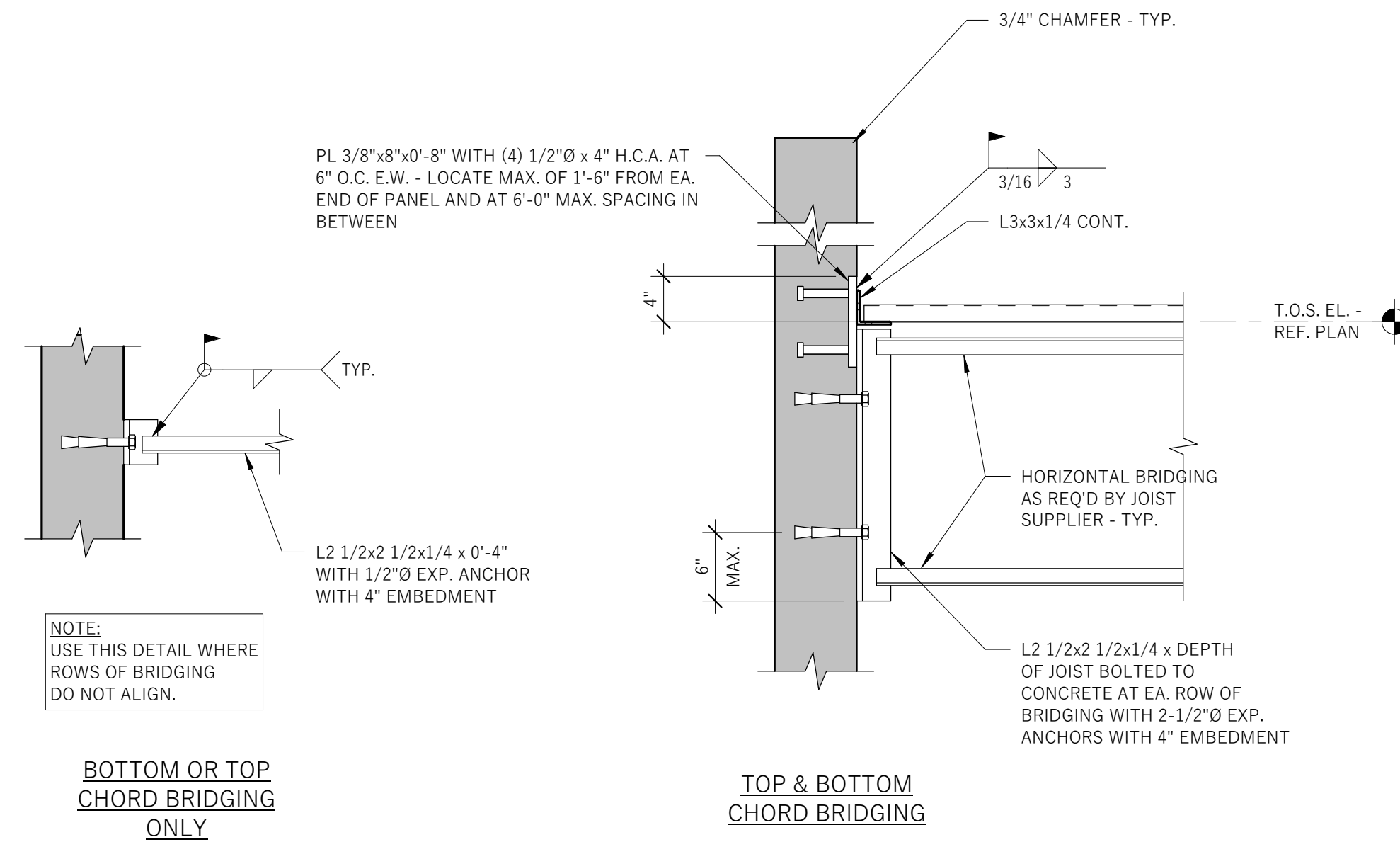


08/09/2024  
100% CDS-REV:05-VE  
FLOOR FRAMING SECTIONS

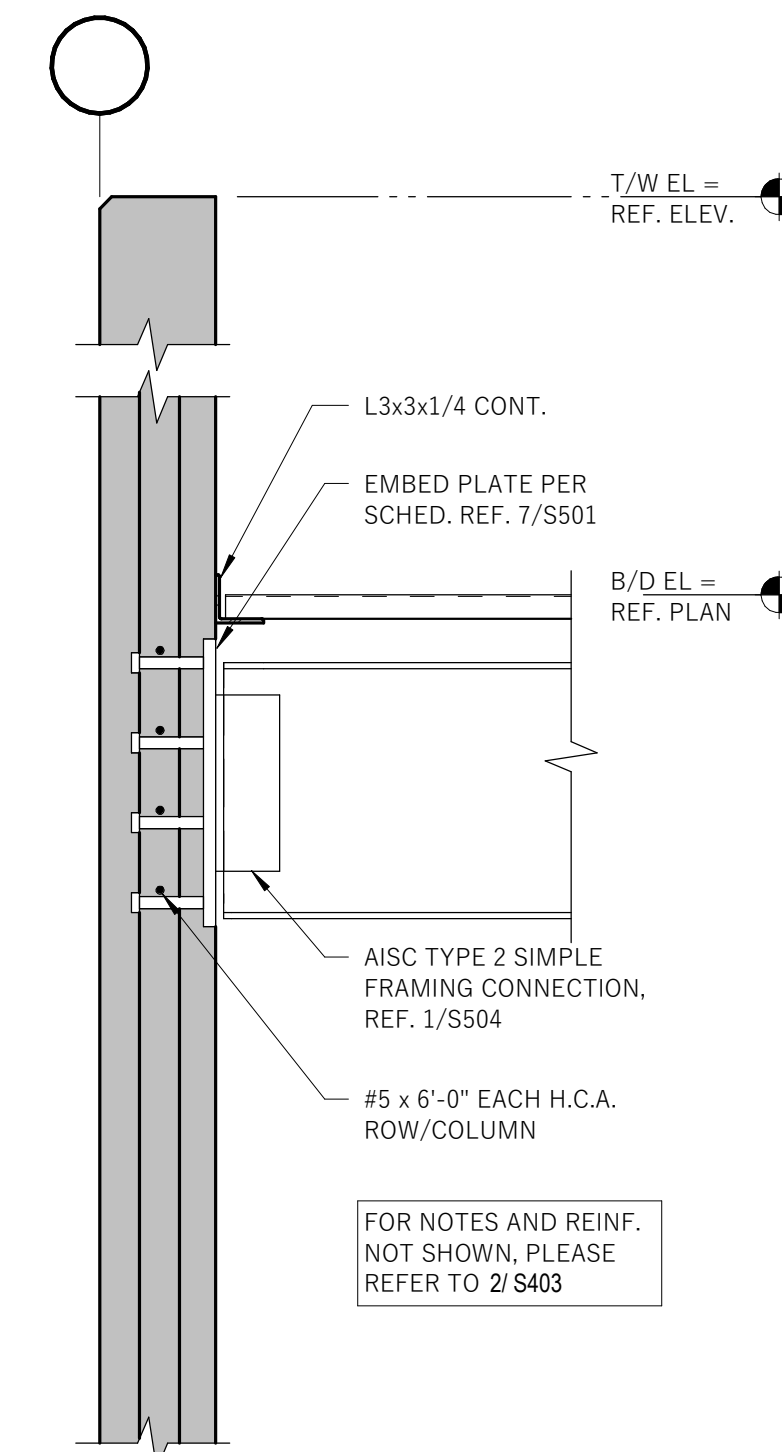
SHEET: **S402**



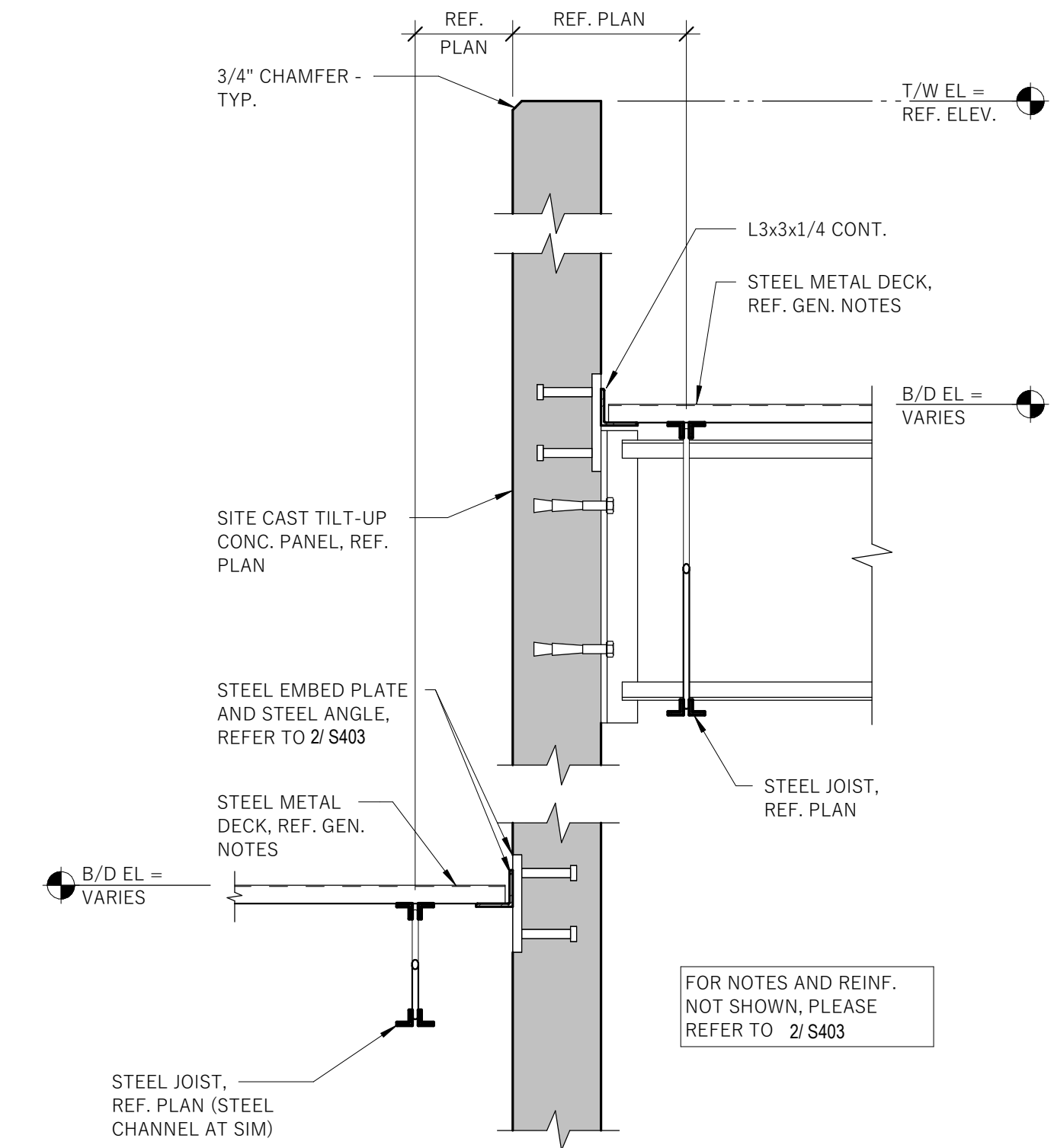
**1** TYPICAL JOIST SEAT DETAIL  
S403 3/4" = 1'-0"



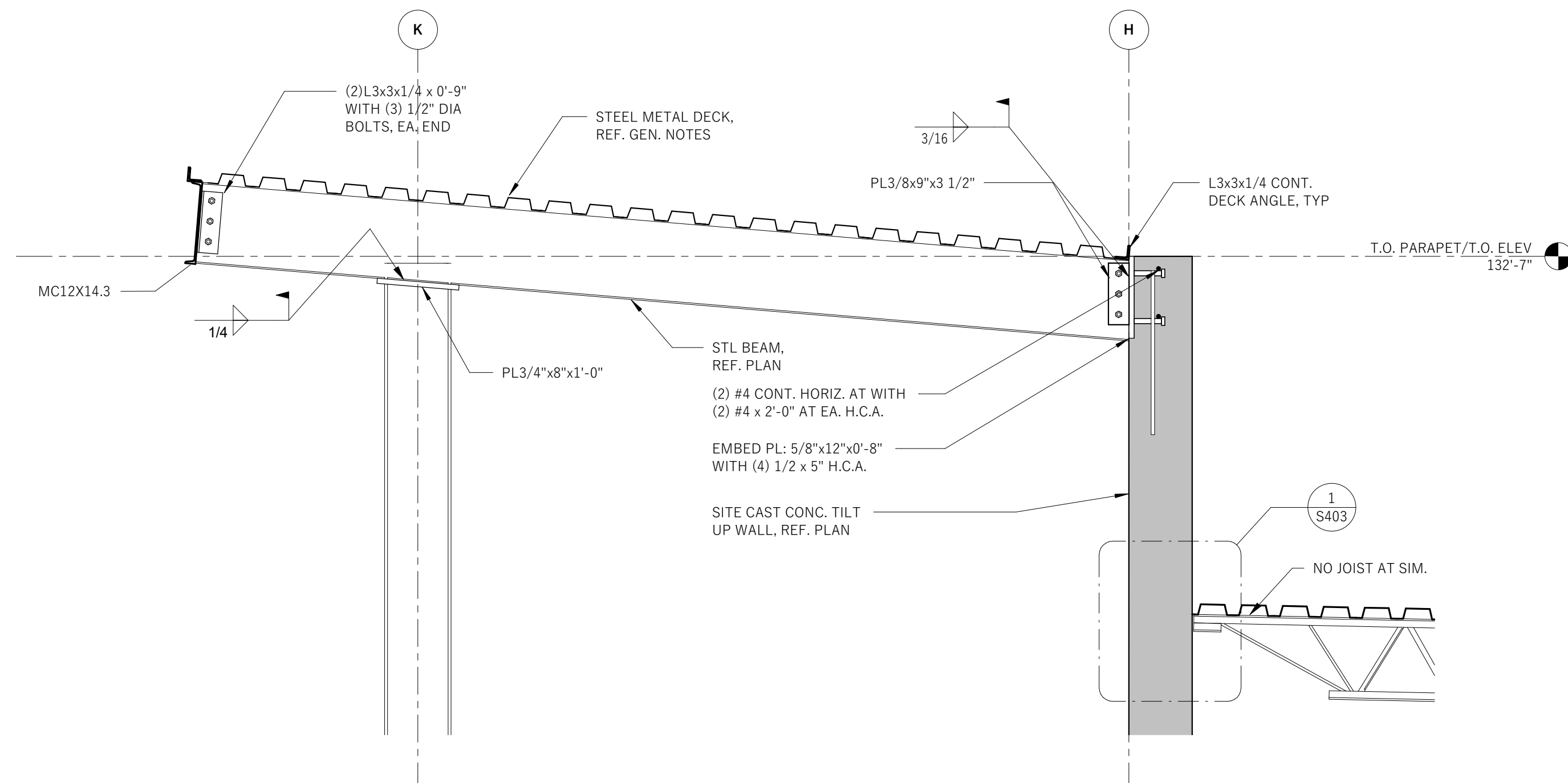
**2** TYPICAL BRIDGING ANCHOR DETAIL  
S403 1" = 1'-0"



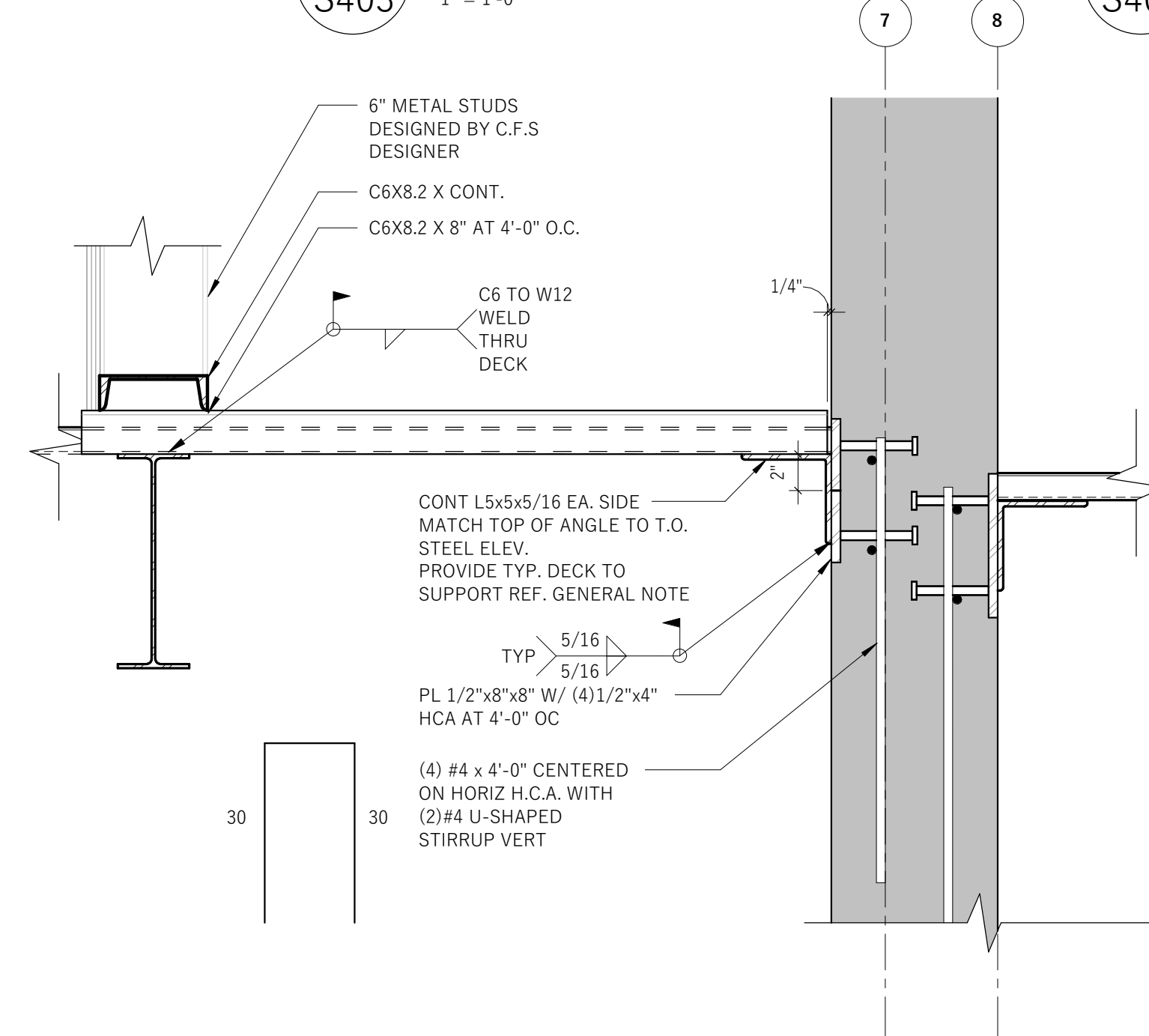
**3** SECTION  
S403 1" = 1'-0"



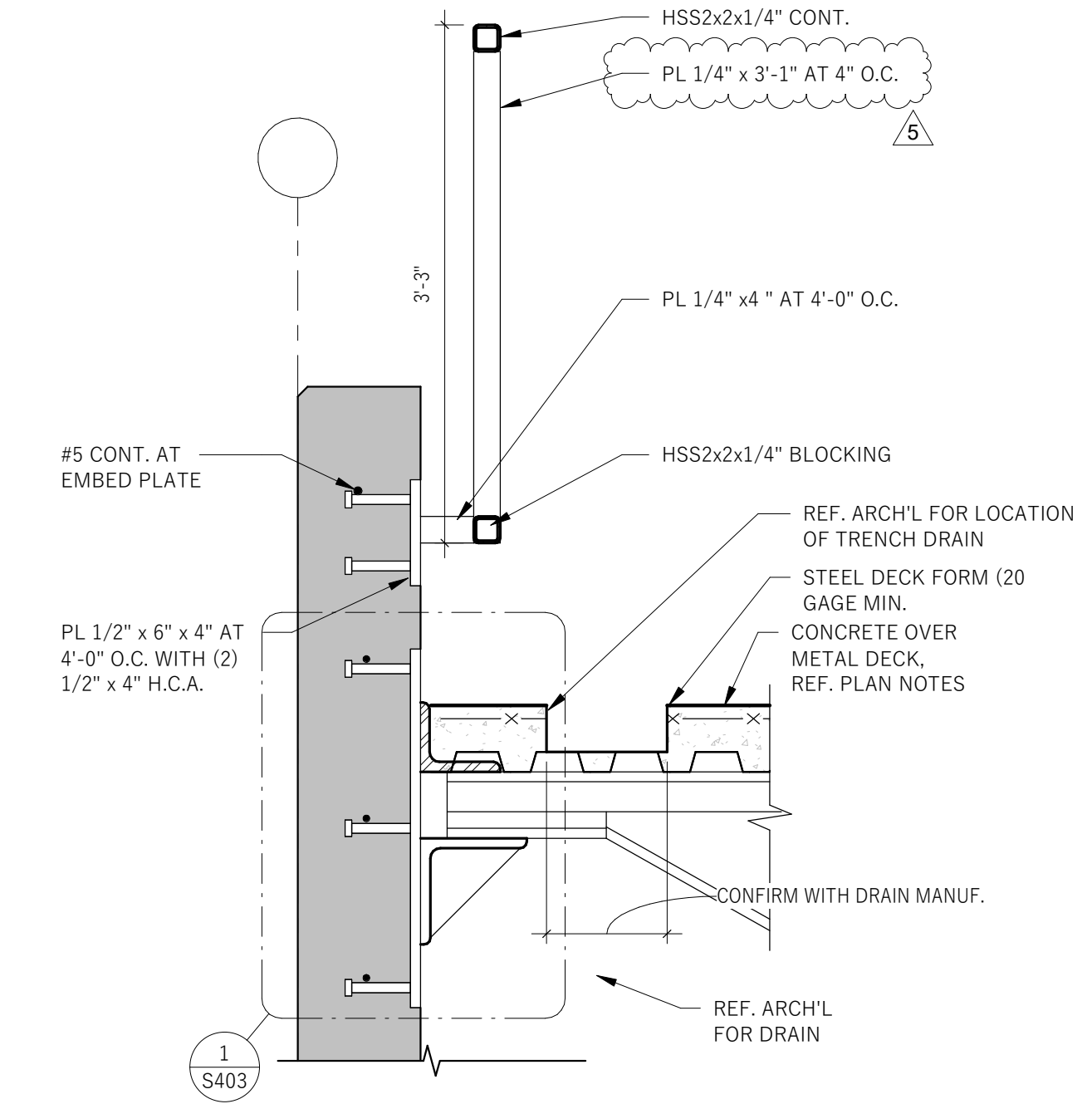
**4** SECTION AT DEMISING TILT PANEL  
S403 1" = 1'-0"



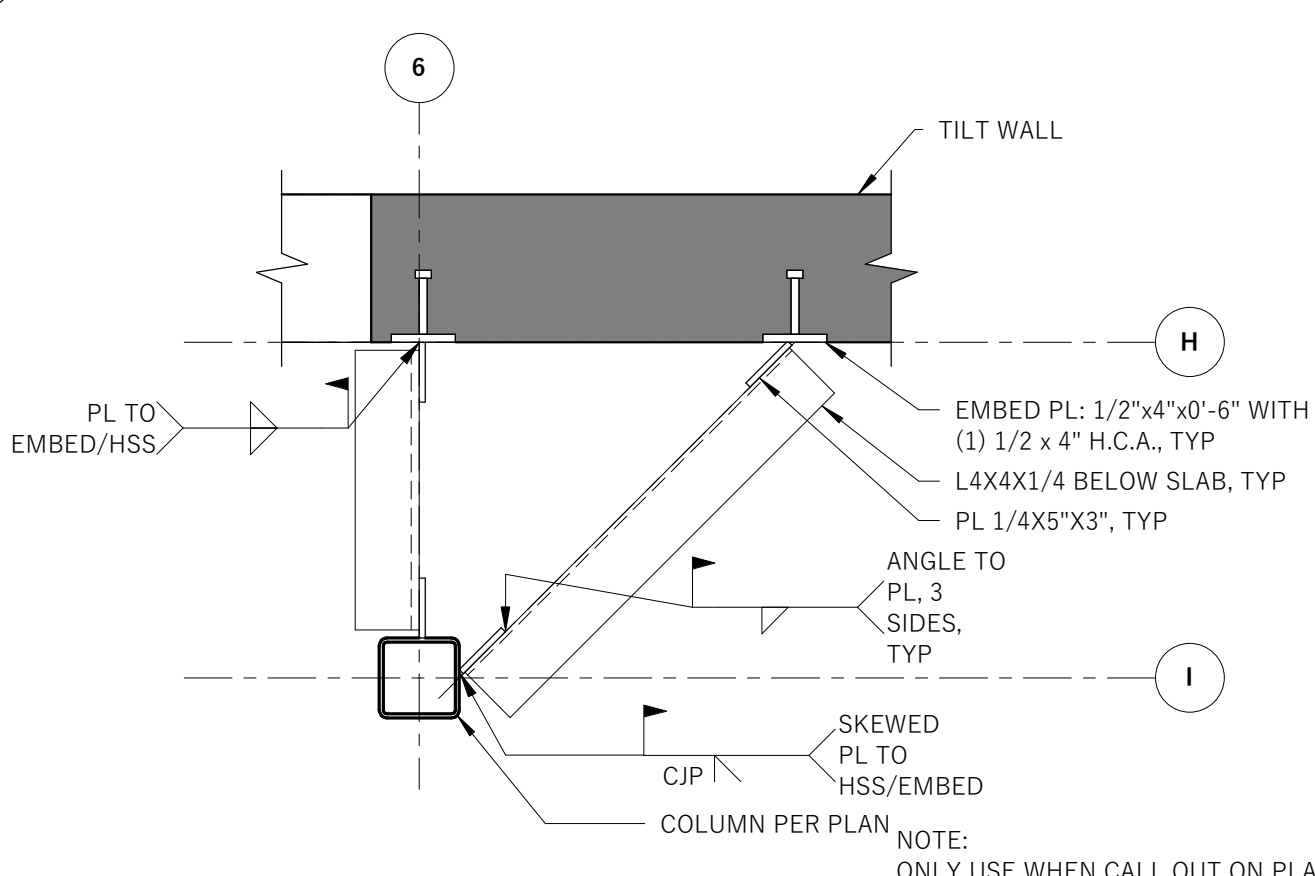
**5** BUILDING SECTION  
S403 3/4" = 1'-0"



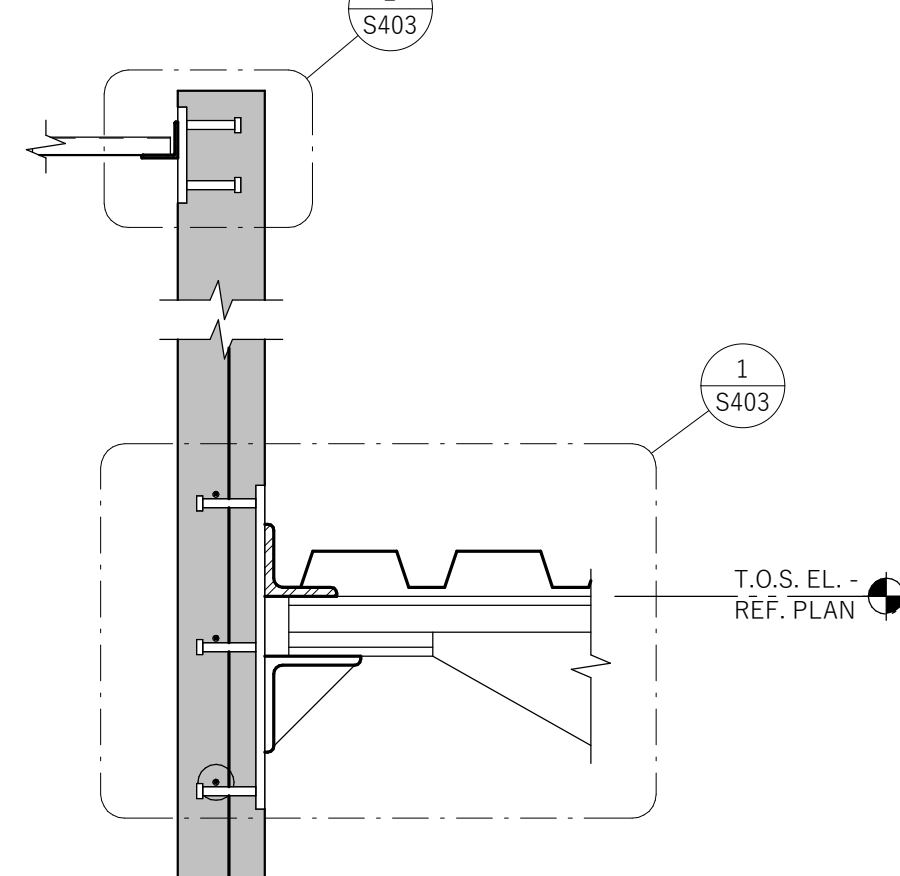
**6** PANEL 5 SECTION  
S403 1 1/2" = 1'-0"



**7** SECTION AT DRAIN  
S403 1" = 1'-0"



**8** HSS COLUMN BRACE PLAN  
S403 1" = 1'-0"



**9** TYPICAL JOIST SEAT DETAIL  
S403 3/4" = 1'-0"

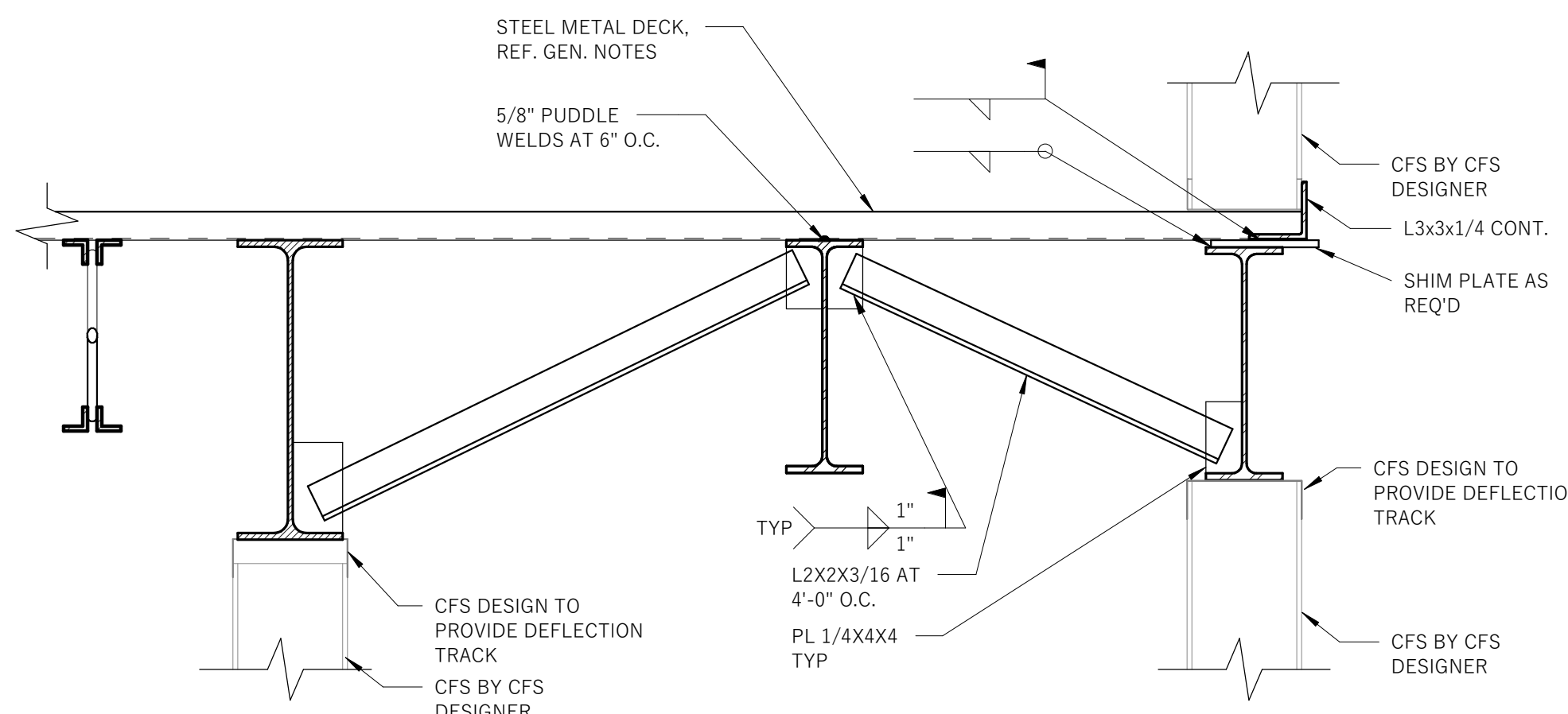
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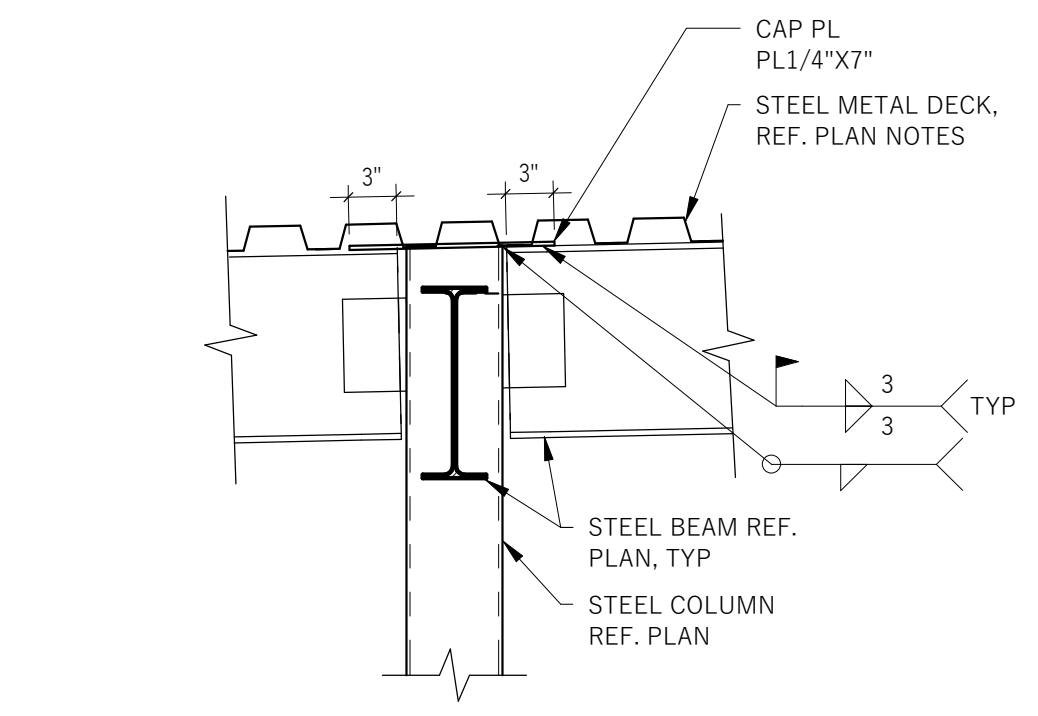


09/09/2024  
100% CDS-REV05-VE  
STEEL FRAMING AT TILT UP CONC. WALL

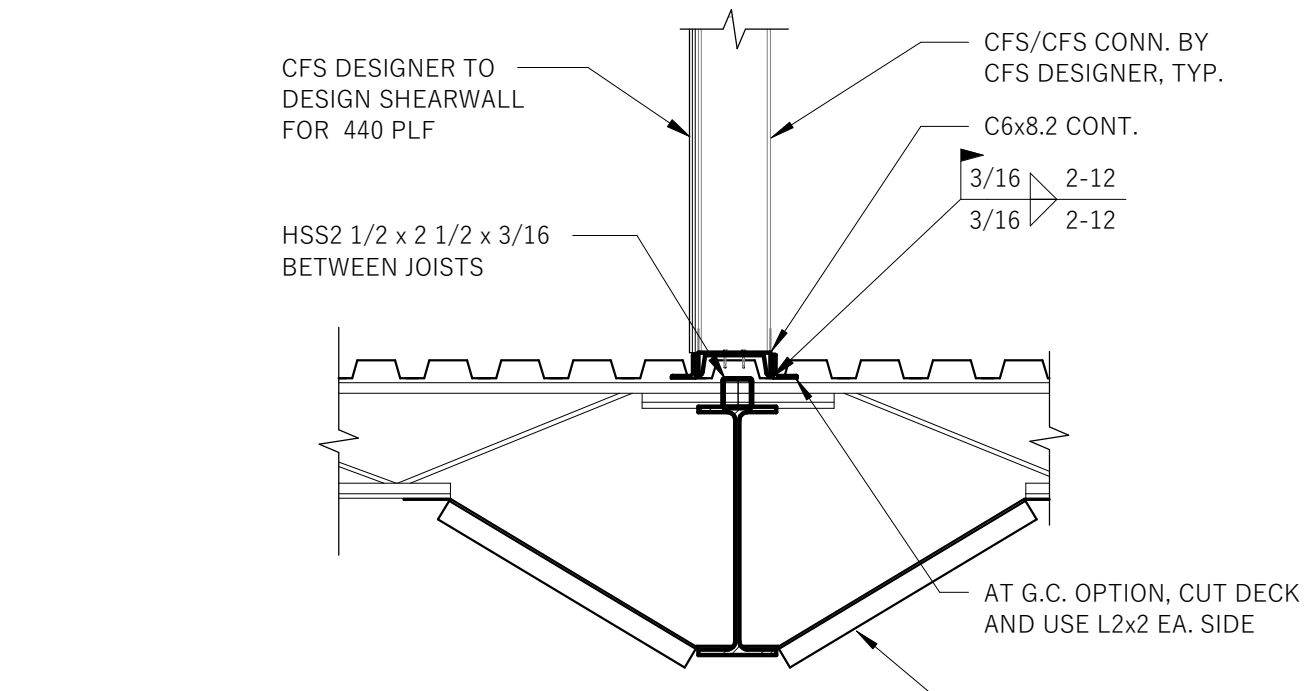
SHEET: **S403**



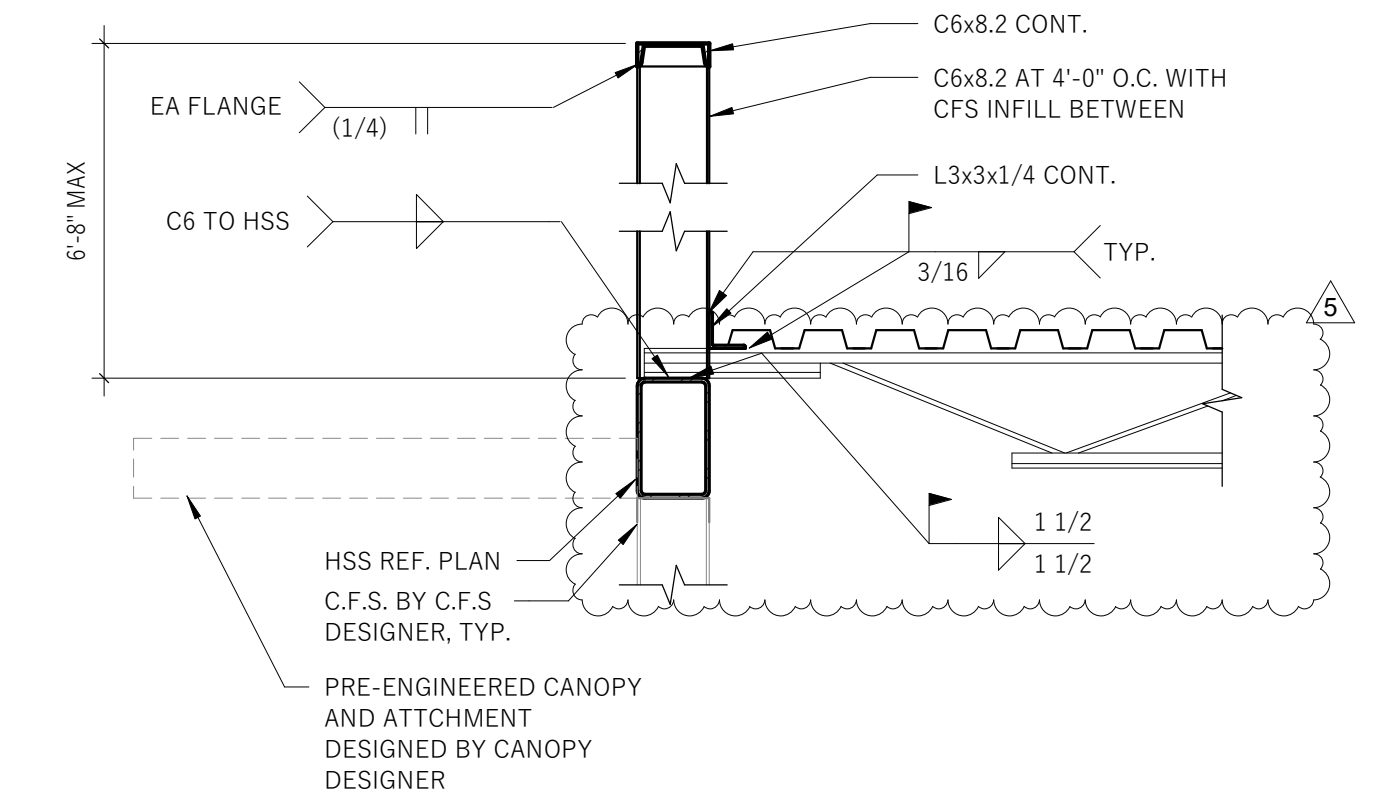
**1**  
S404  
1 1/2" = 1'-0"



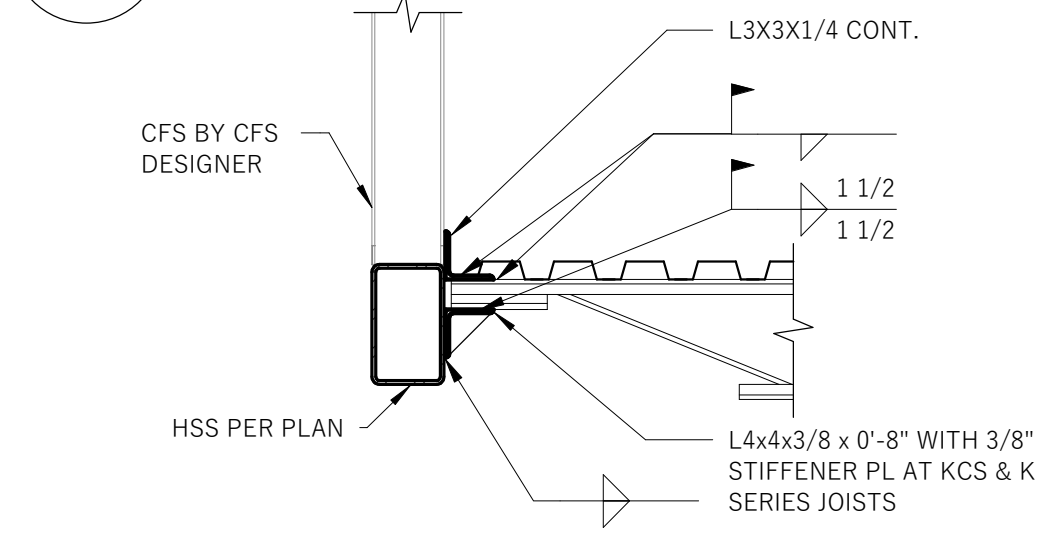
**2**  
S404  
1" = 1'-0"



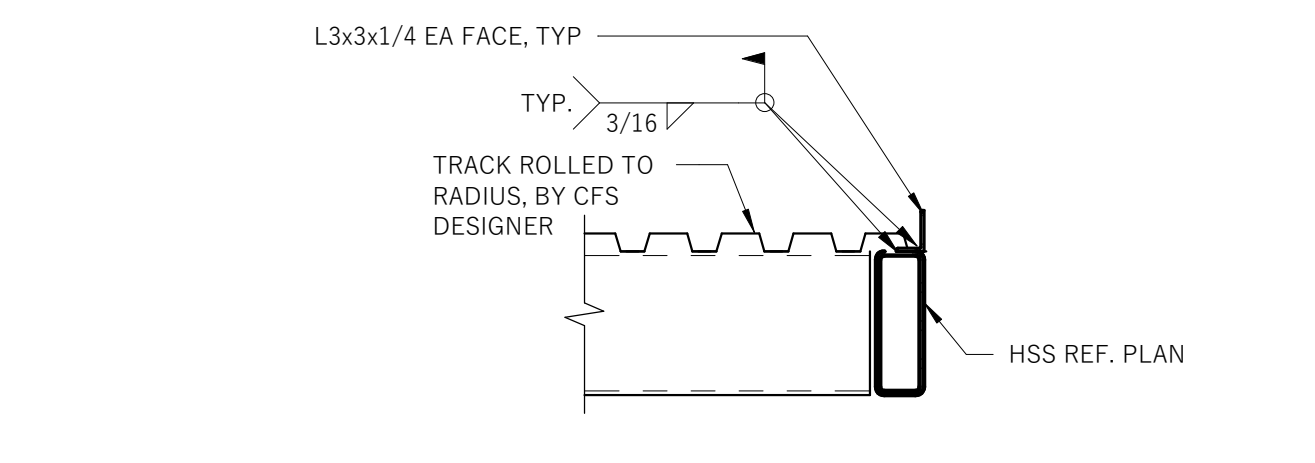
**3**  
S404  
3/4" = 1'-0"



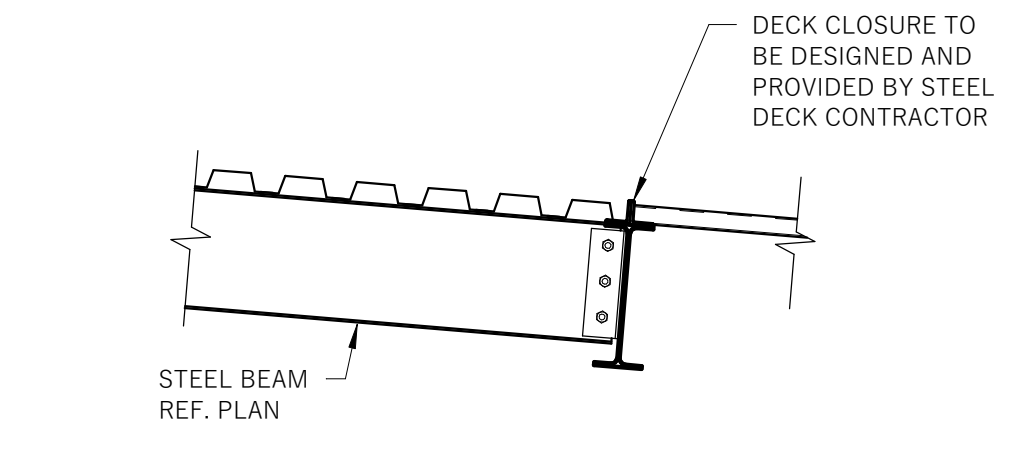
**4**  
S404  
3/4" = 1'-0"



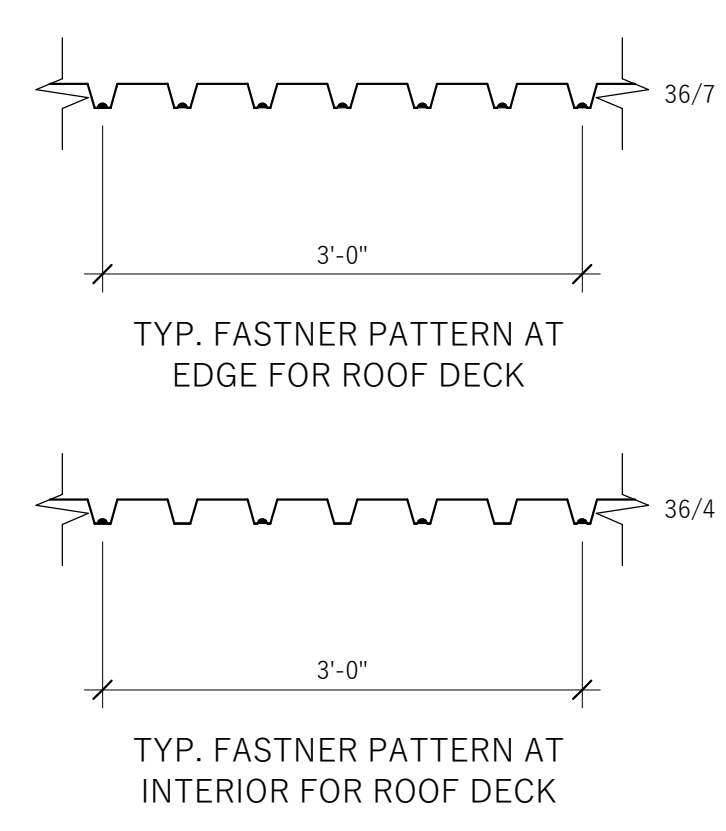
**5**  
S404  
3/4" = 1'-0"



**6**  
S404  
3/4" = 1'-0"

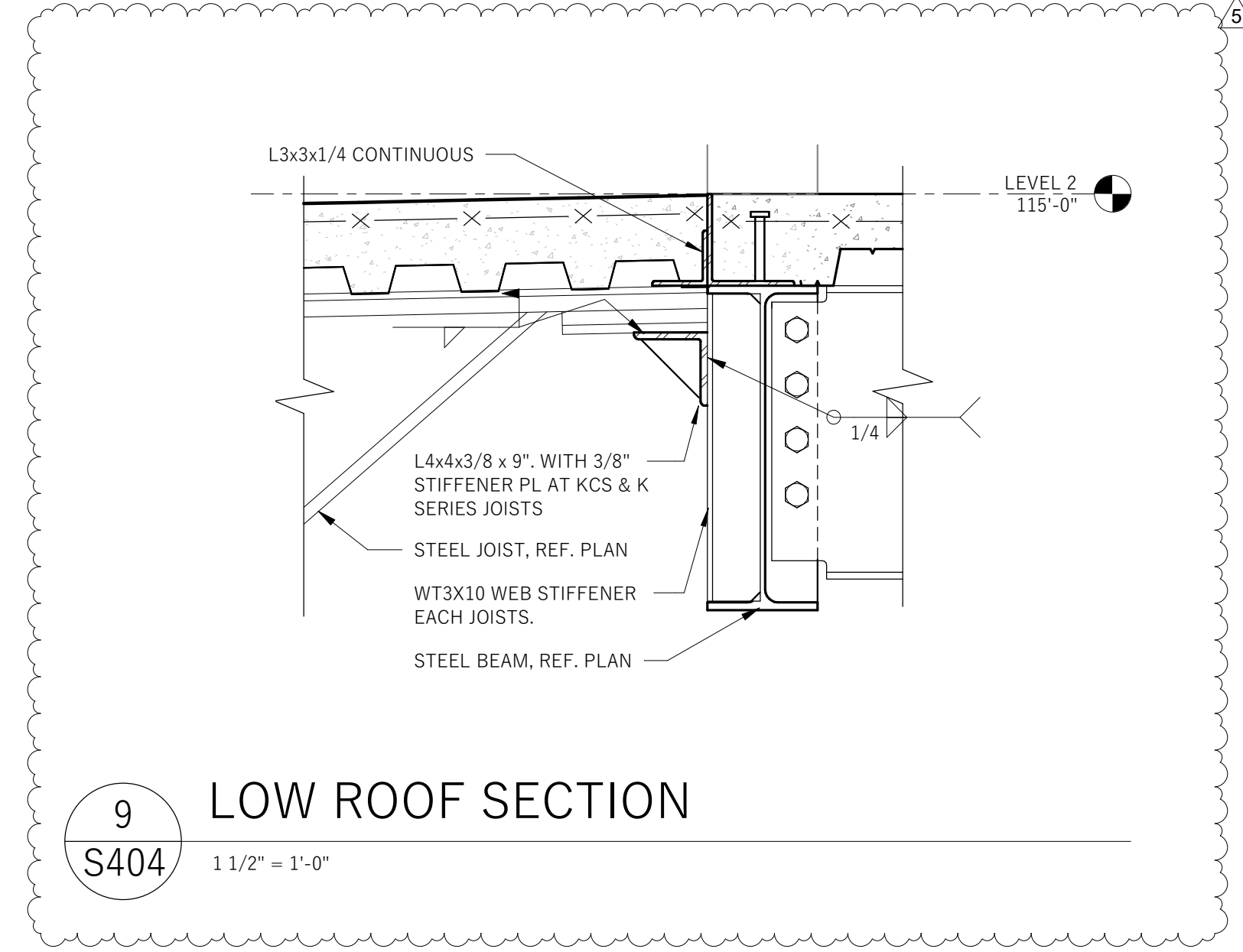


**7**  
S404  
3/4" = 1'-0"



- ROOF DECK ATTACHMENT NOTES:
- ATTACHMENT AT SUPPORTS SHALL BE 5/8" PUDDLE WELDS
  - ATTACHMENT AT SIDE LAPS SHALL BE #10 TEKS
  - ATTACHMENT AROUND OPENINGS SHALL BE WELDS AT 6" O.C.
  - ATTACHMENTS AT SIDE SUPPORTS ALONG PERIMETER SHALL BE WELDS AT 36" O.C.
  - MINIMUM SHEET LAP SHALL BE 3" TYP.
  - PROVIDE (3) SIDELAPS PER SPAN AT (4) EQUAL SPACES.

**8**  
S404  
1" = 1'-0"



**9**  
S404  
1 1/2" = 1'-0"

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ROOF FRAMING SECTIONS

SHEET: **S404**

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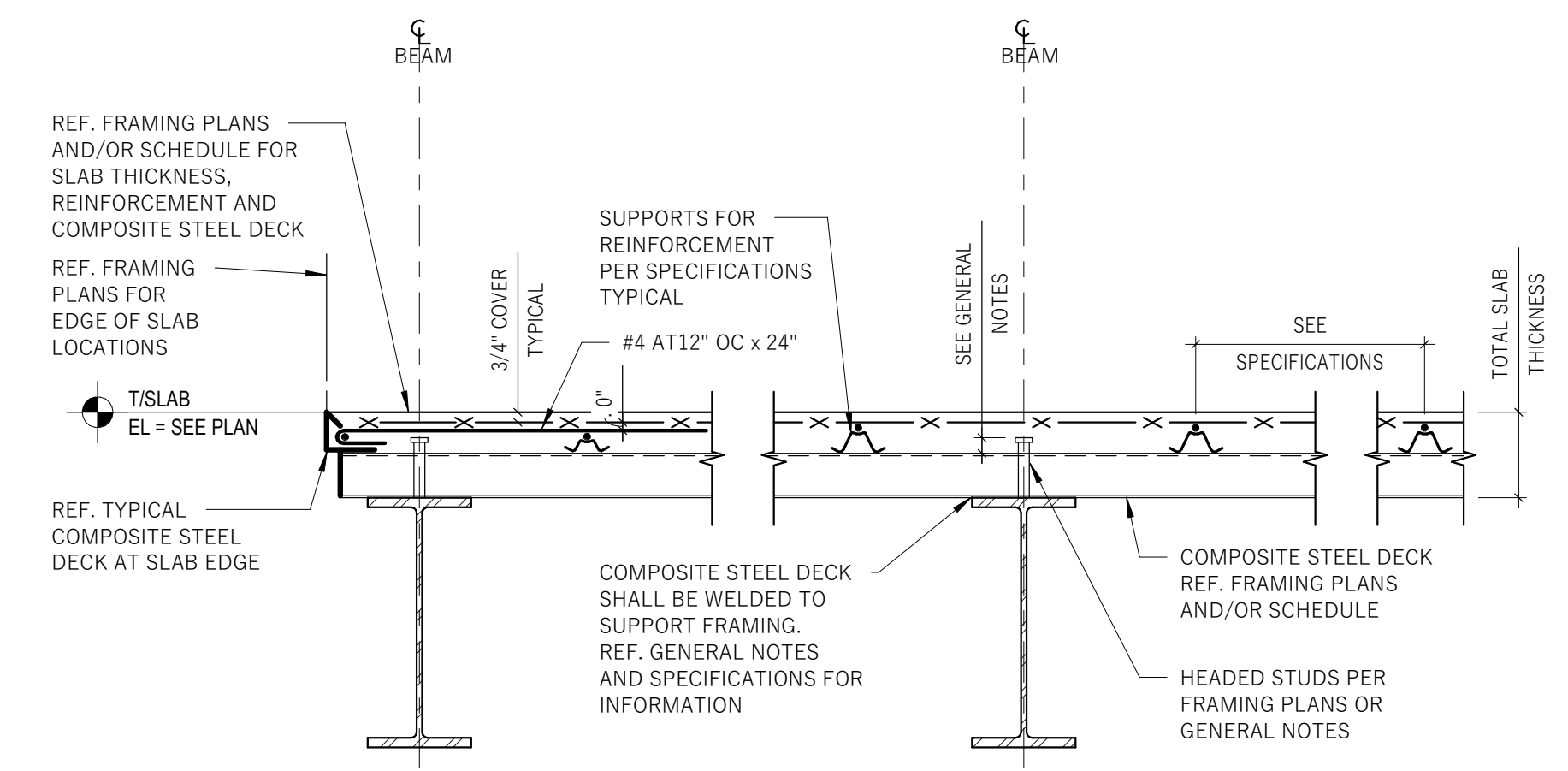
REVISION: 2 06/20/22 REV 1



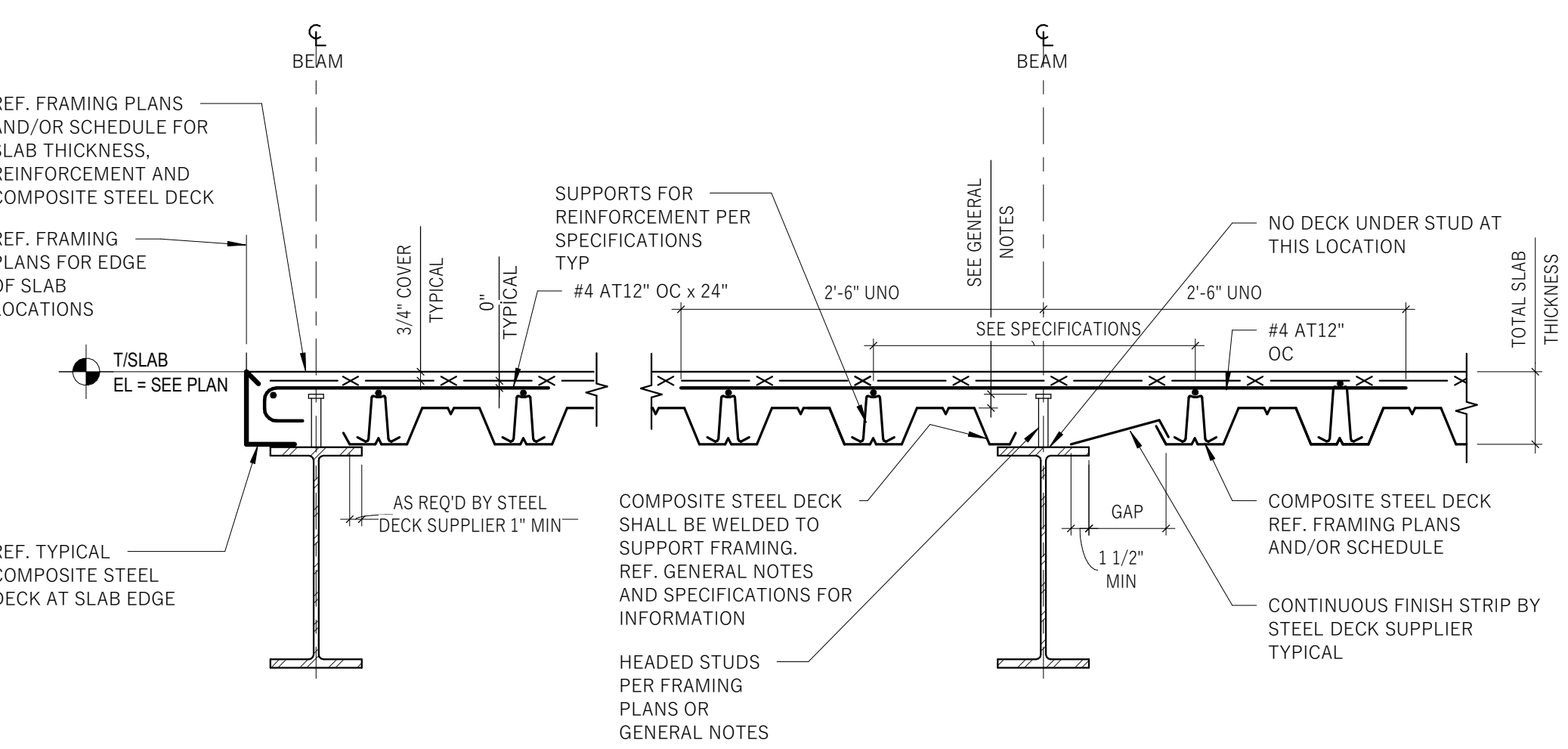
09/09/2024  
100% CDS-REVISED  
STEEL COMPOSITE FRAMING  
CONSTRUCTION DETAILS  
PROJECT NO: 21099  
DRAWN BY: BC  
DATE: 09/02/2021  
PROJECT MGR: NHR

SHEET: **S501**

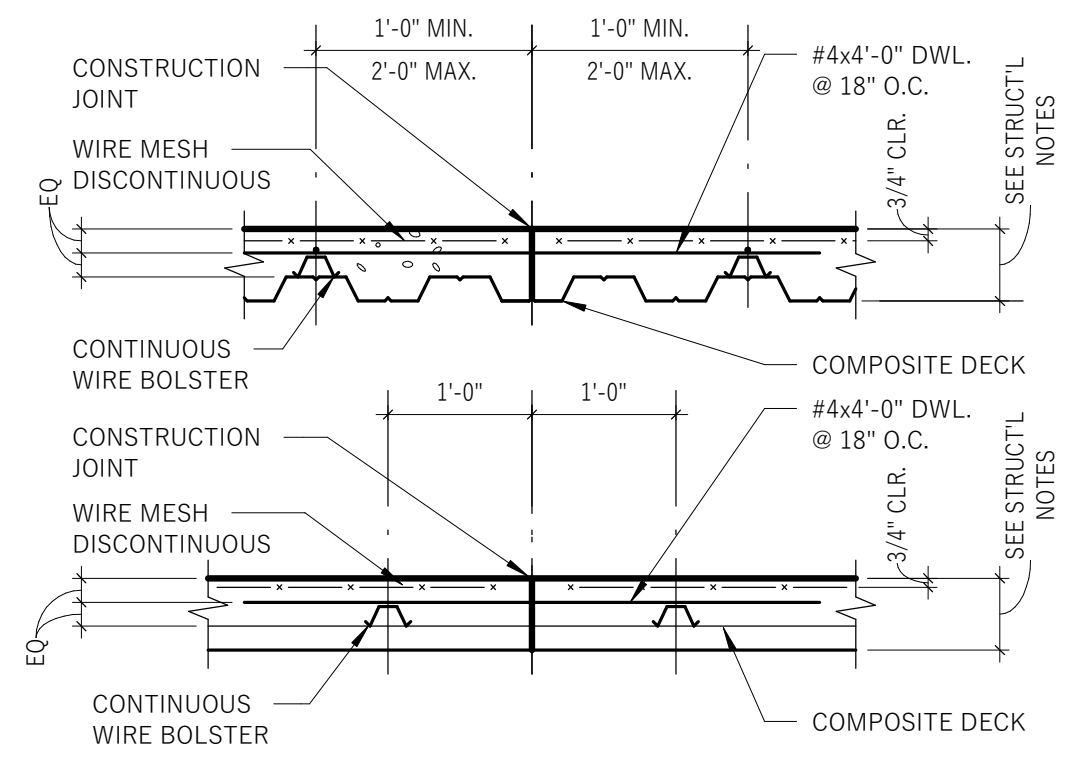
**4** TYPICAL COMPOSITE STEEL DECK  
S501 1" = 1'-0"



**5** TYPICAL COMPOSITE STEEL DECK  
S501 1" = 1'-0"

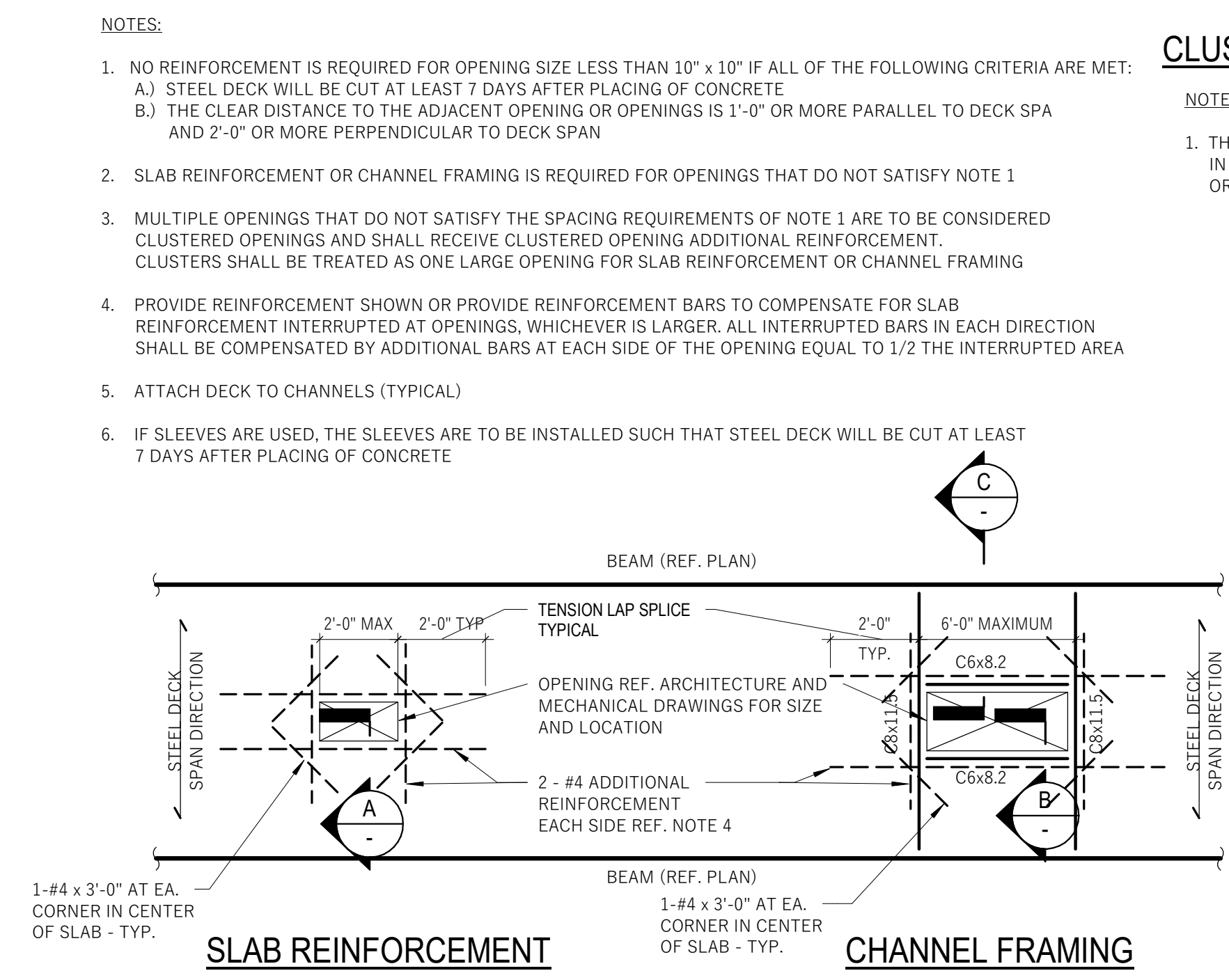
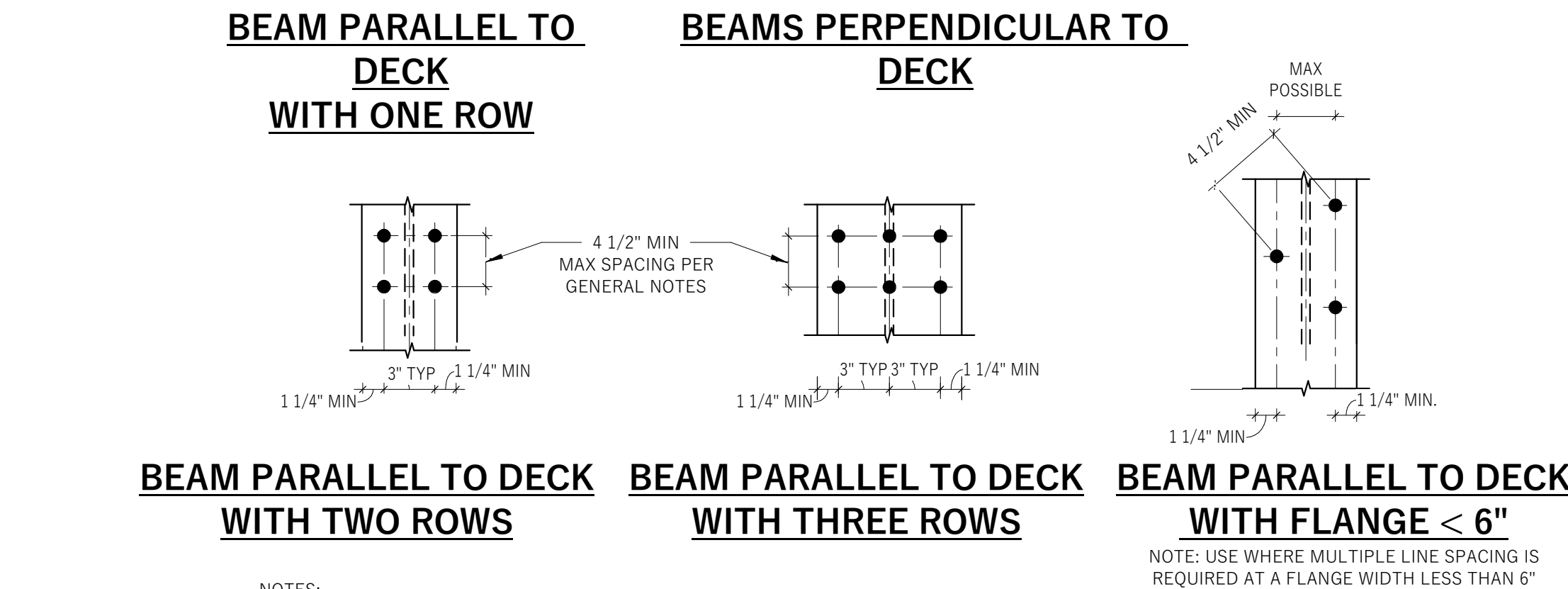


**2** TYPICAL CONSTRUCTION JOINT IN COMPOSITE SLAB DETAIL  
S501 NO SCALE



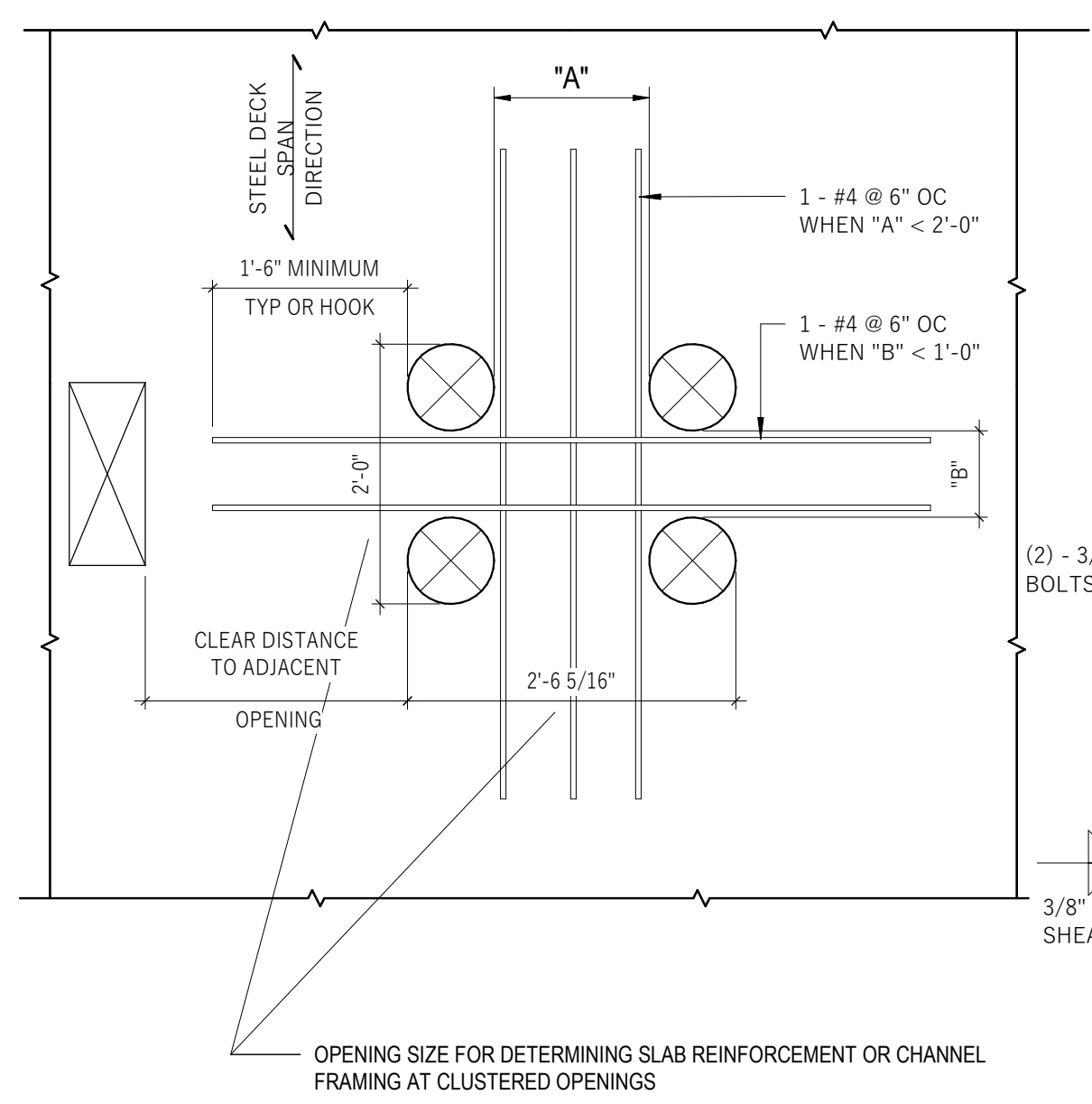
**3** TYPICAL COMPOSITE STEEL DECK AT OPENING  
S501 3/4" = 1'-0"

**1** TYPICAL HEADED STUD SPACING DETAIL  
S501 3/4" = 1'-0"



**3** TYPICAL COMPOSITE STEEL DECK AT OPENING  
S501 3/4" = 1'-0"

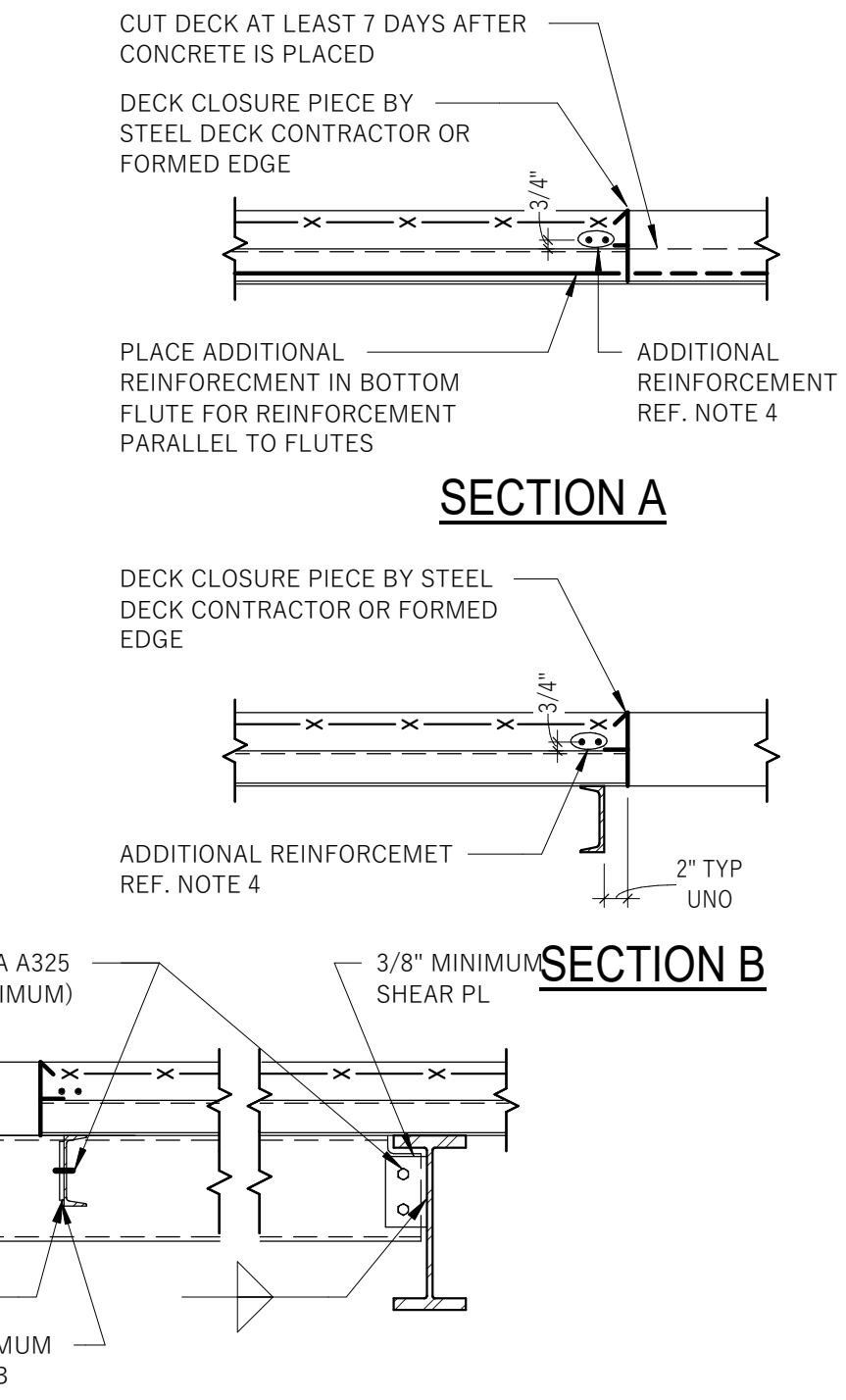
**CLUSTERED OPENING ADDITIONAL REINFORCEMENT**



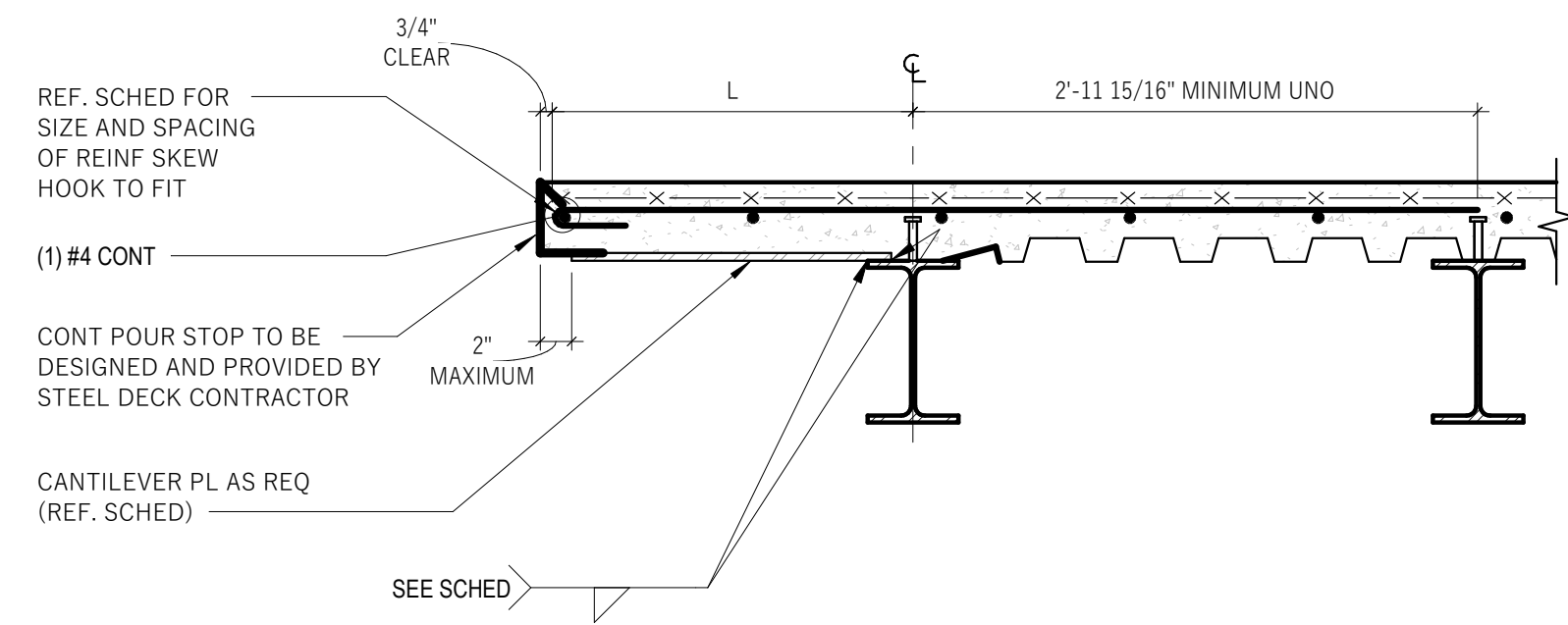
**SECTION C**

**SECTION A**

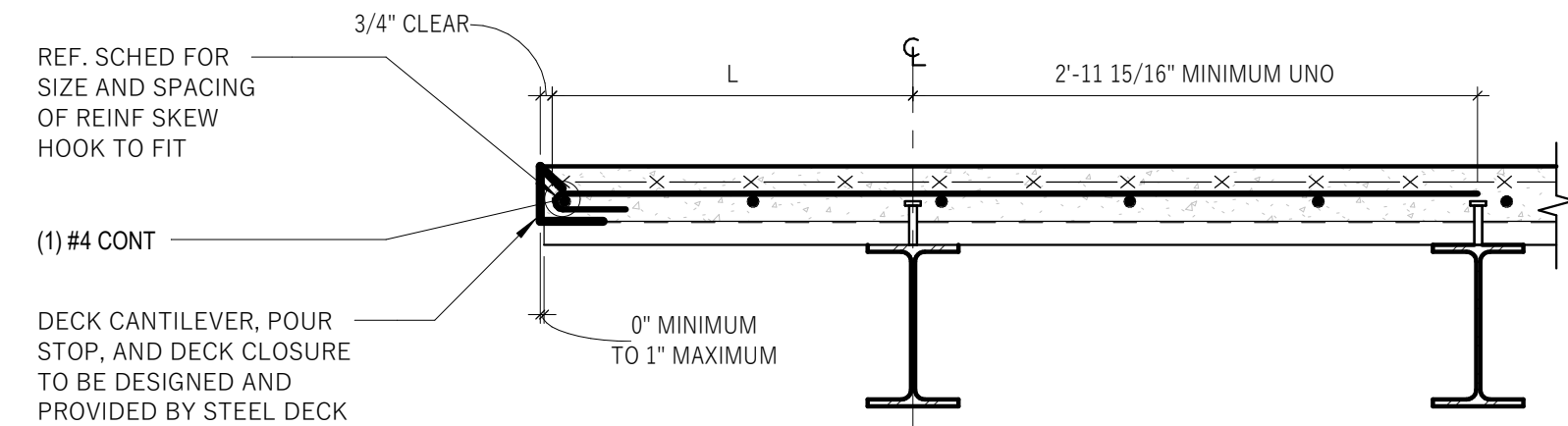
**SECTION B**







**DETAIL A**  
(DECK PRL)



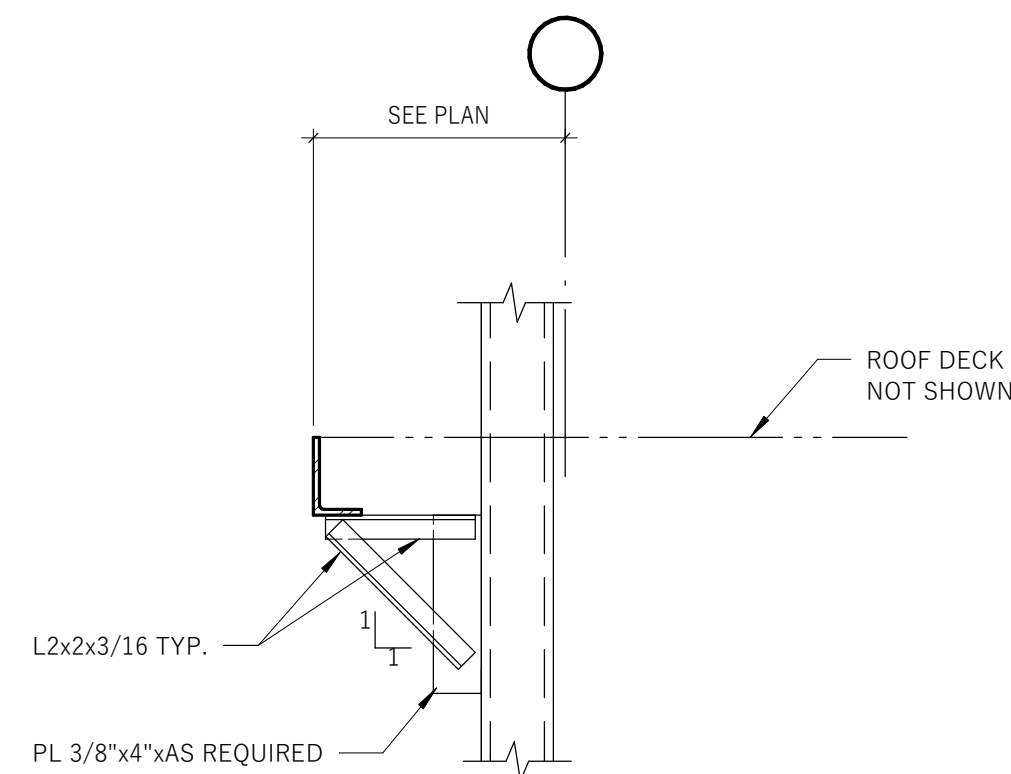
**DETAIL C**  
(DECK PERP)

**NOTES:**

- WHERE BLOCKOUT OR EMBEDDED ITEM IS LOCATED AT THE SLAB EDGE, DETAIL C IS NOT PERMITTED. USE DETAIL A OR DETAIL B FOR CANTILEVERED SLAB EDGE.
- WHERE DECK CANTILEVER (DETAIL C) IS NOT CAPABLE OF SUPPORTING REQ CANTILEVER SPAN 'L', USE DETAIL A OR DETAIL B SIM FOR CANTILEVER SLAB EDGE.

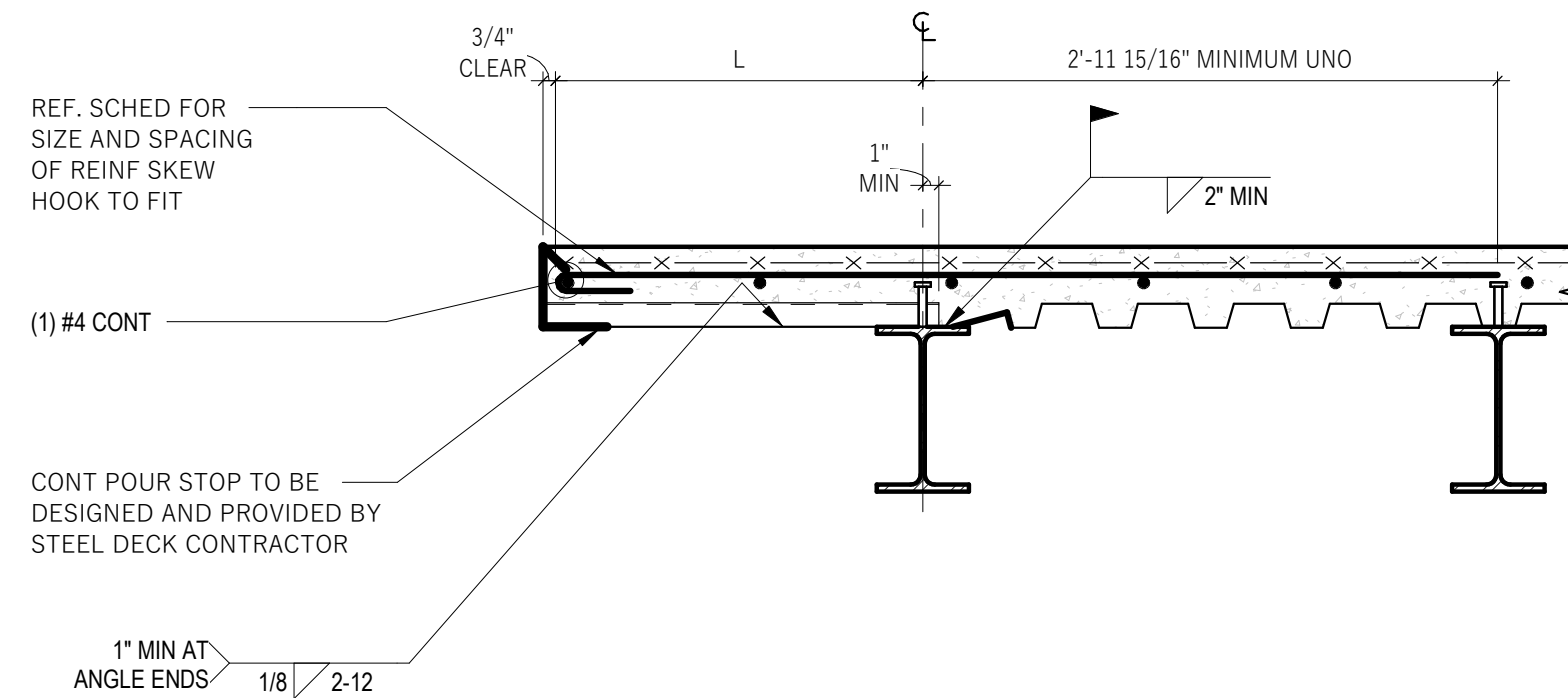
**1** TYP COMPOSITE STEEL DECK AT SLAB EDGE

S502 3/4" = 1'-0"



**4** EDGE ANGLE SUPPORT AT COLUMN

S502 3/4" = 1'-0"

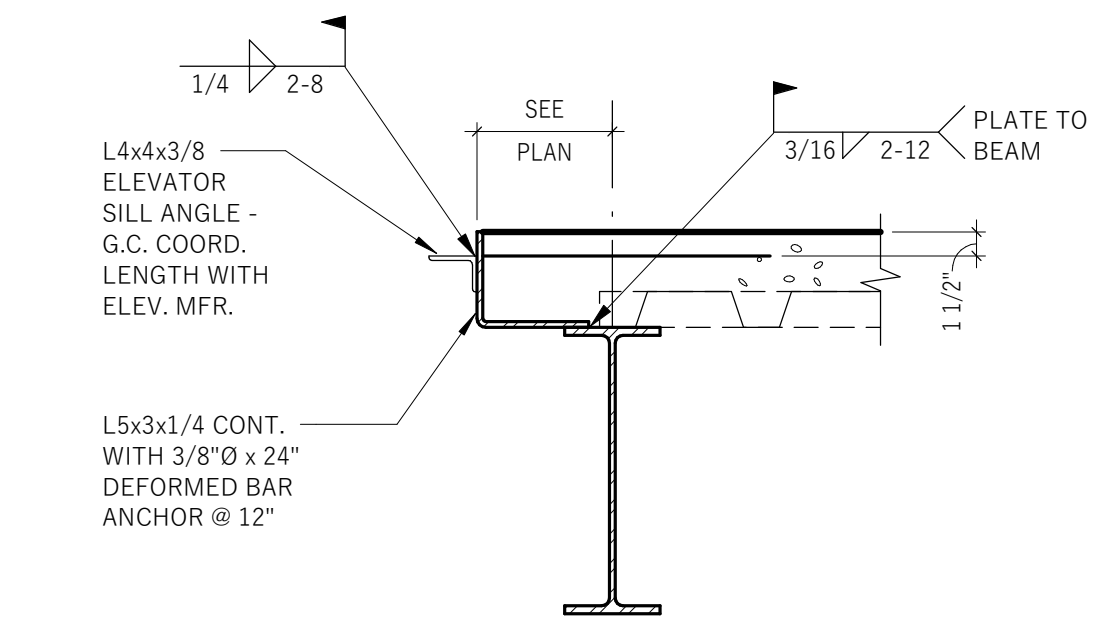


**DETAIL B**  
(ALT SLAB EDGE AT DECK PRL CONDITION)

CANTILEVER PLATE AND REINFORCEMENT SCHEDULE						
TOTAL SLAB THICKNESS (IN)	CANTILEVERED SPAN 'L'	CANTILEVER REINFORCEMENT (SEE NOTES)	DETAIL A			DETAIL B
			PLATE THICKNESS (A36 MINIMUM)	PLATE TO FLANGE WELD		STIFFENING ANGLE
				SIZE	SPACING	
UP TO 5 1/2" (2 1/2" MINIMUM CONCRETE THICKNESS OVER DECK)	2'-0" < L ≤ 2'-3"	#4 AT 12"	1/2"	1/4"	4-12	L3x3x1/4
	1'-5" < L ≤ 2'-0"	#4 AT 12"	3/8"	3/16"	3-12	L3x3x1/4
	7" < L ≤ 1'-5"	#4 AT 12"	1/4"	3/16"	3-12	L3x3x1/4
	L ≤ 7"	-	-	-	-	-

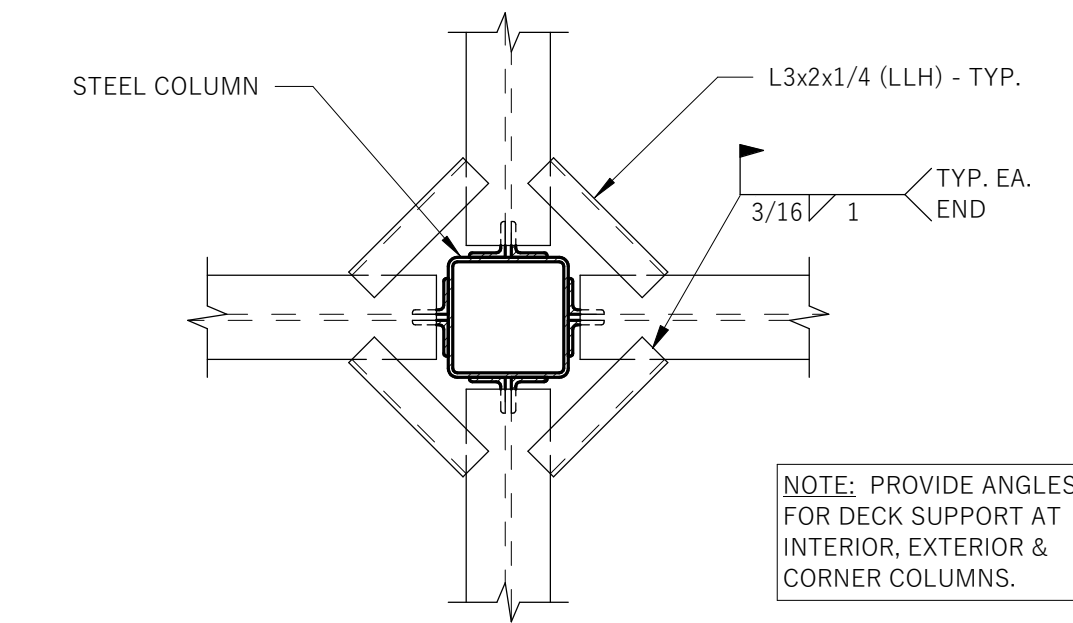
**SCHEDULE NOTES:**

- REF. ADDL DETAILS FOR REINF AT CURTAIN WALL SUPPORT AND AT CORNERS (AS REQ).
- POUR STOP TO BE DESIGNED AND PROVIDED BY STEEL DECK CONTRACTOR (14 GA MIN).
- CANTILEVER REINF IS IN ADDITION TO ANY REINF SHOWN IN NOTES, ON PLAN OR ON SLAB SCHEDULES.
- SLAB EDGE SERVICE LOADS NOT TO EXCEED 400 PLF.



**EDGE CONDITION AT STAIR STRINGERS AND ELEVATOR SILL DETAIL**

**2** S502 3/4" = 1'-0"



**TYPICAL DECK SUPPORT AT COLUMN DETAIL**

**3** S502 3/4" = 1'-0"

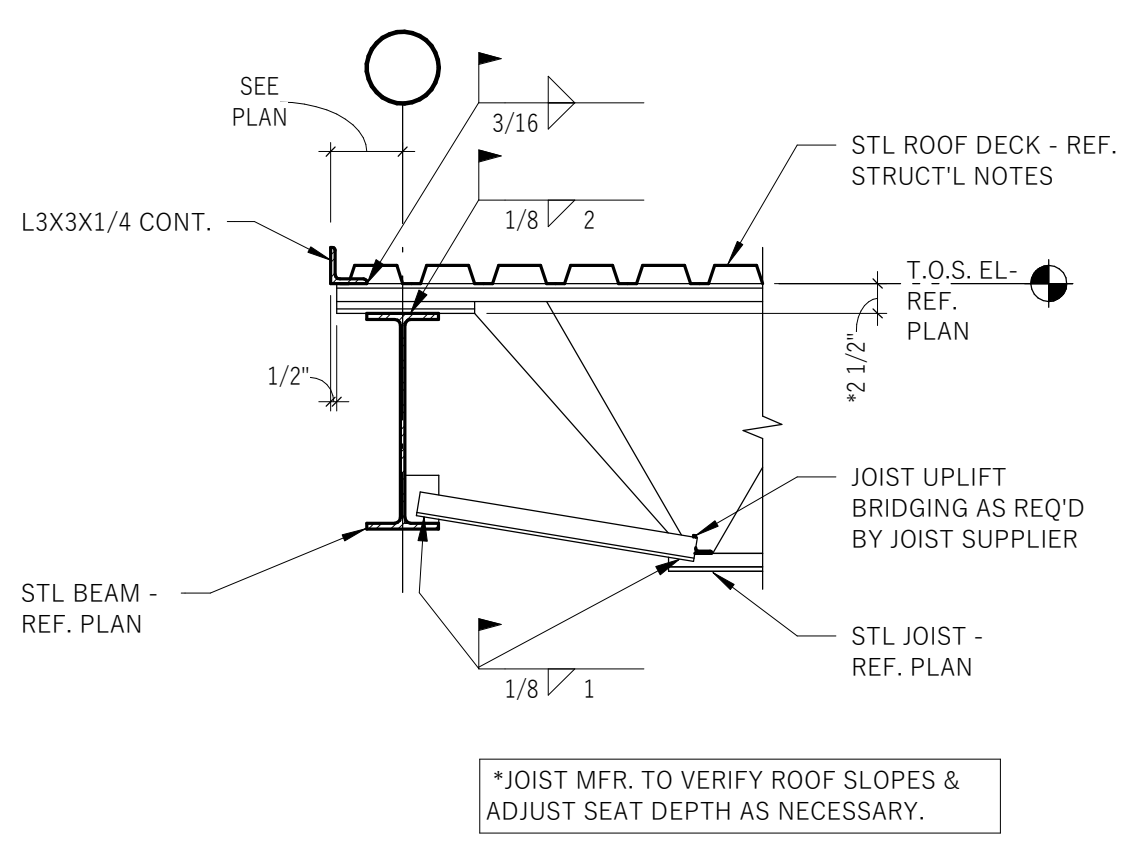
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**REVISION:**  
2 06/20/22 REV 1

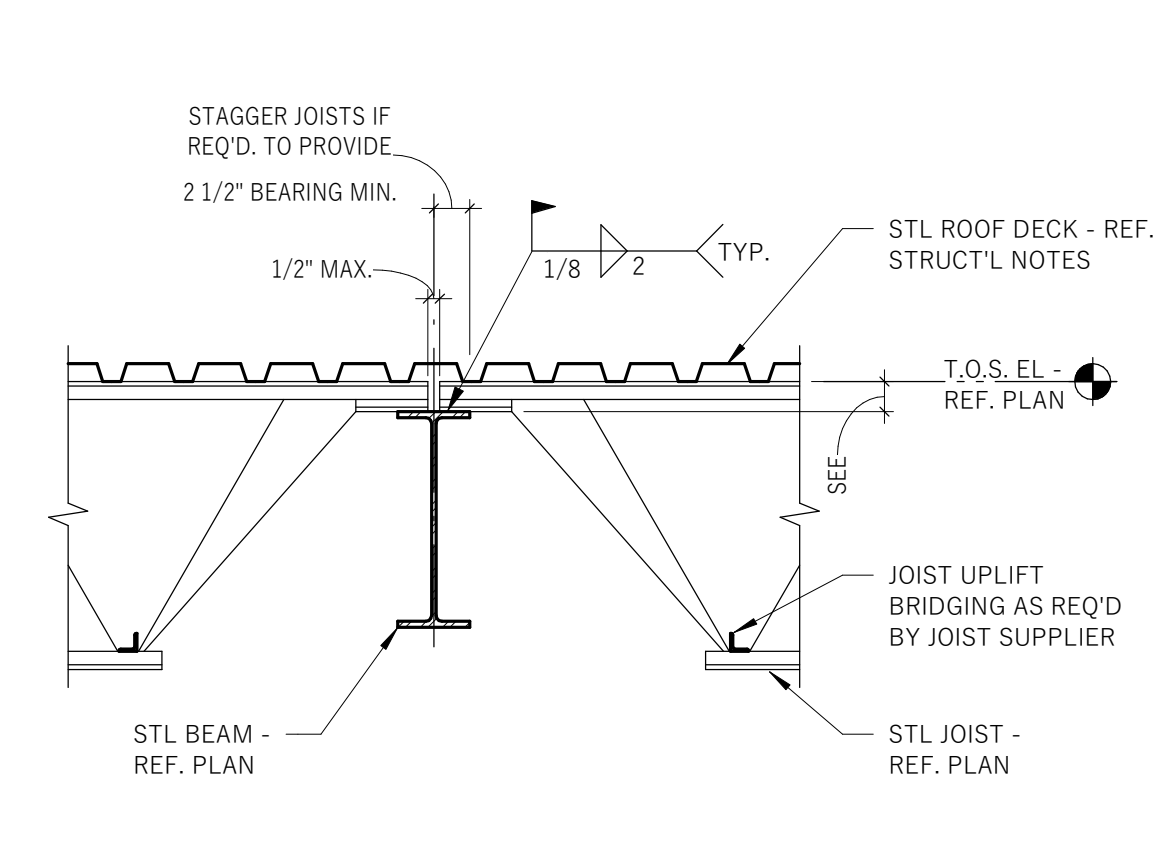


09/09/2024  
100% CDS-REV05-VE  
COMPOSITE FLOOR FRAMING  
DETAILS

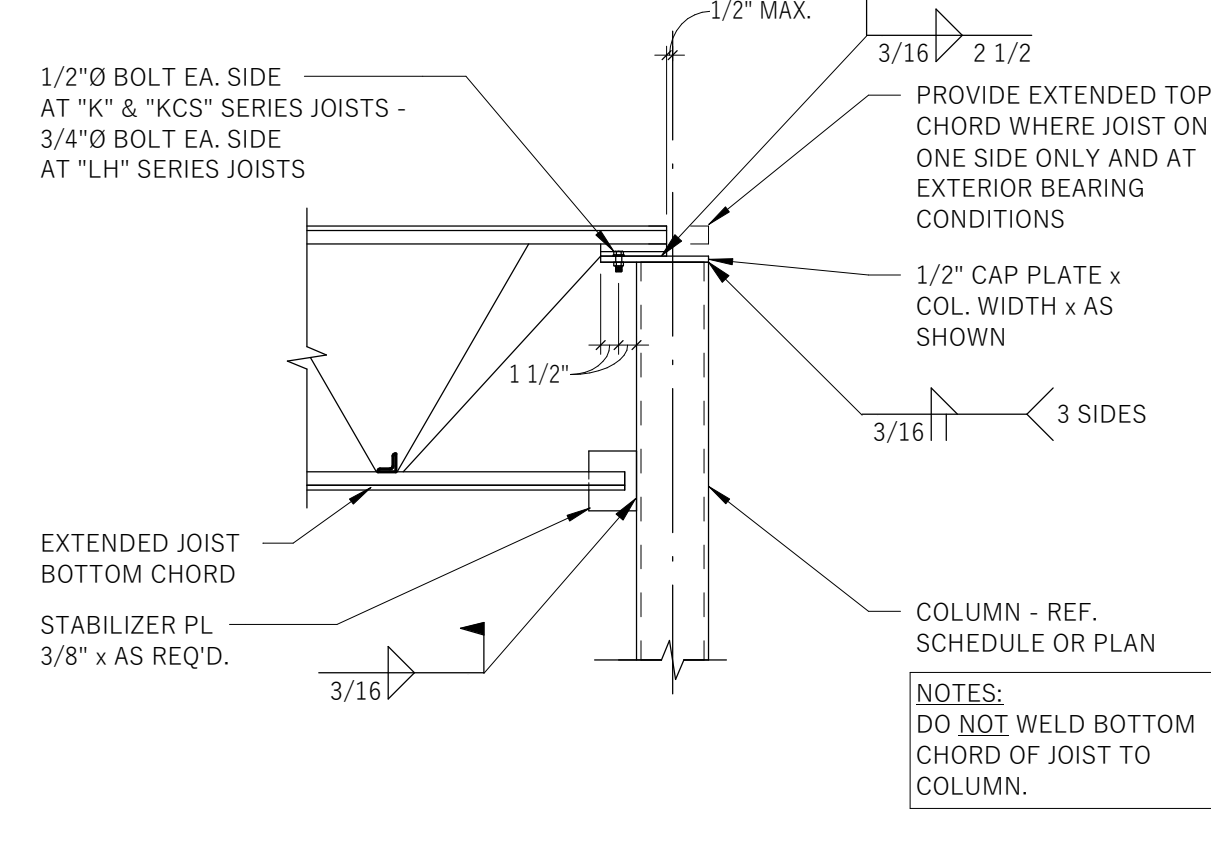
SHEET: **S502**



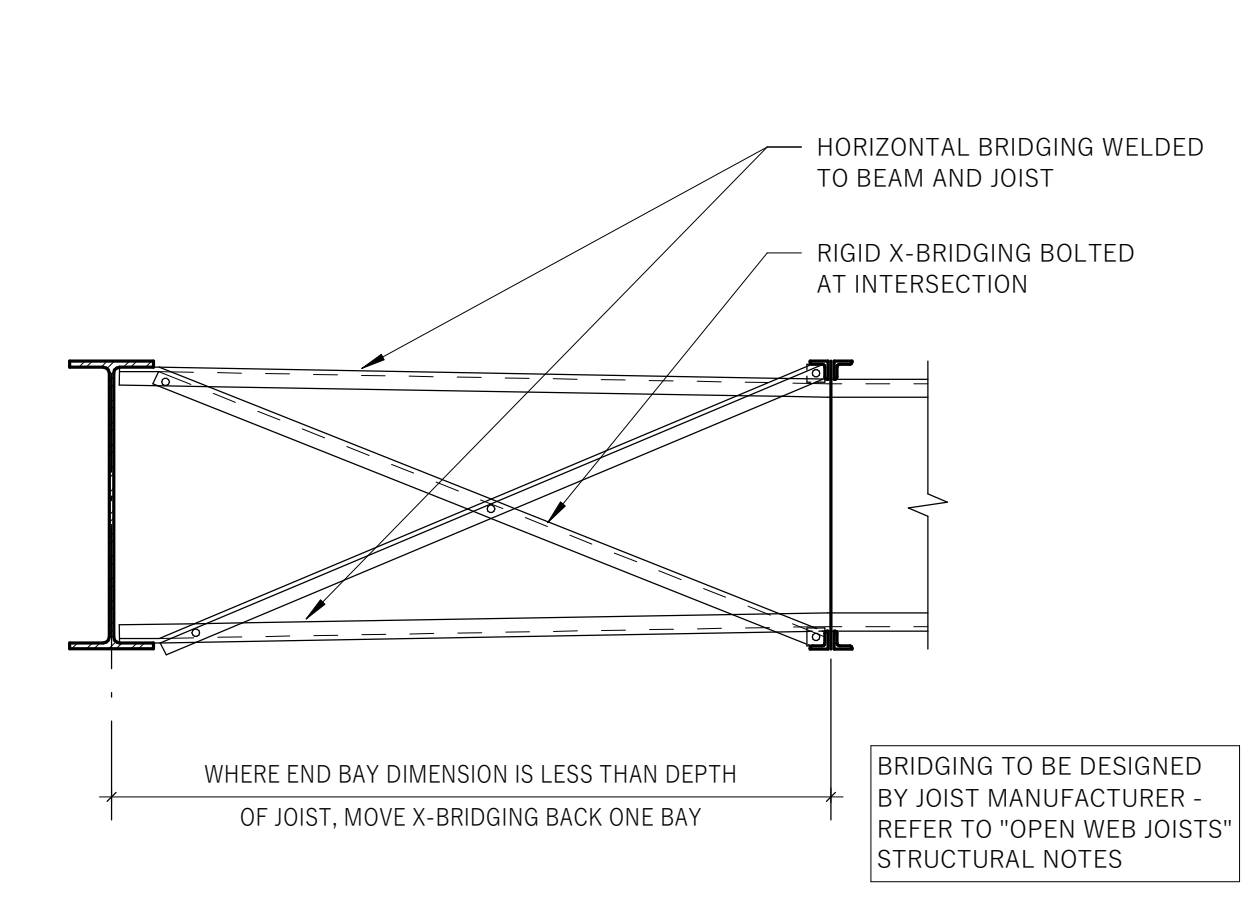
**1**  
**S503** NO SCALE  
TYPICAL KCS OR K SERIES STEEL JOIST BEARING ON PERIMETER BEAM



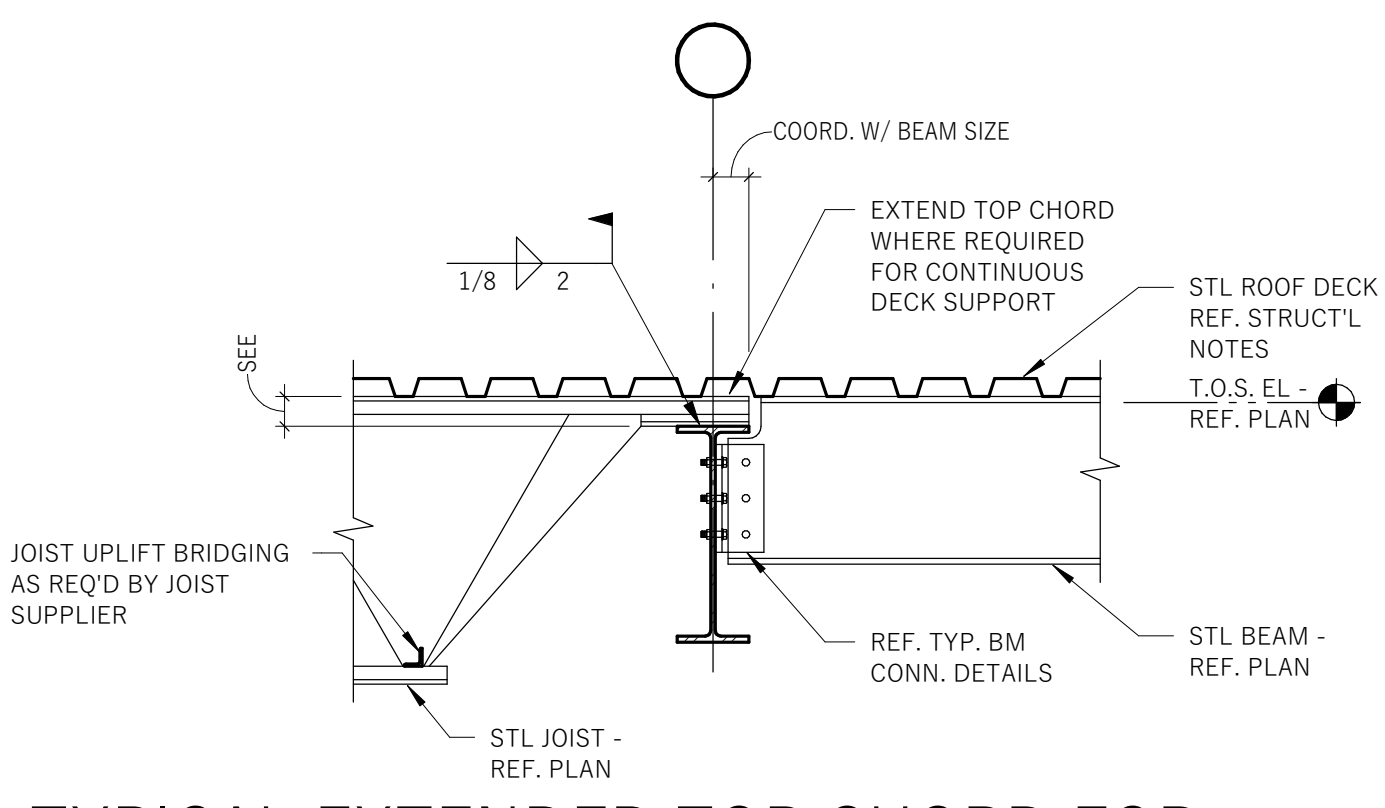
**2**  
**S503** NO SCALE  
TYPICAL KCS OR K SERIES STEEL JOIST BEARING ON INTERIOR BEAM



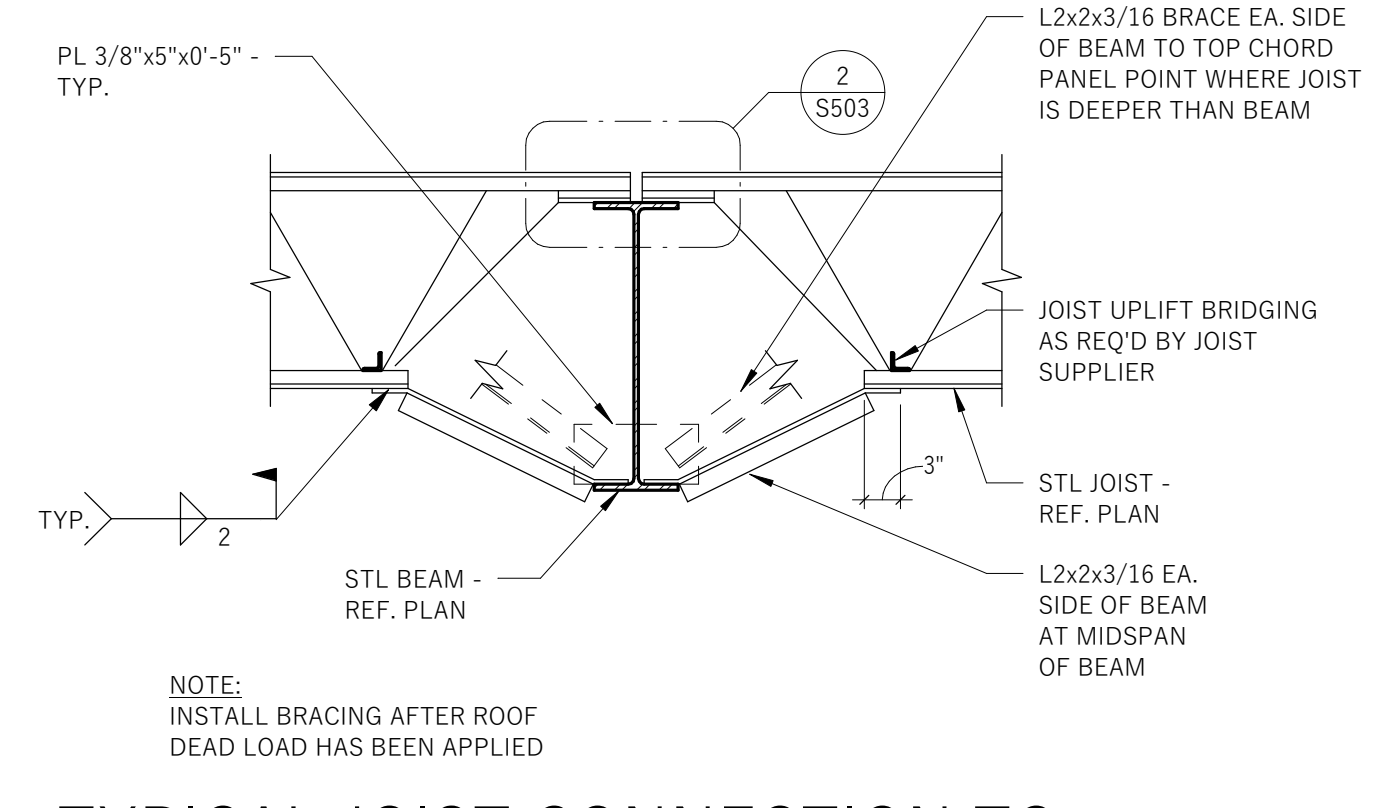
**3**  
**S503** 3/4" = 1'-0"  
JOIST WITH EXTENDED BOTTOM CHORD CONNECTION TO COLUMN



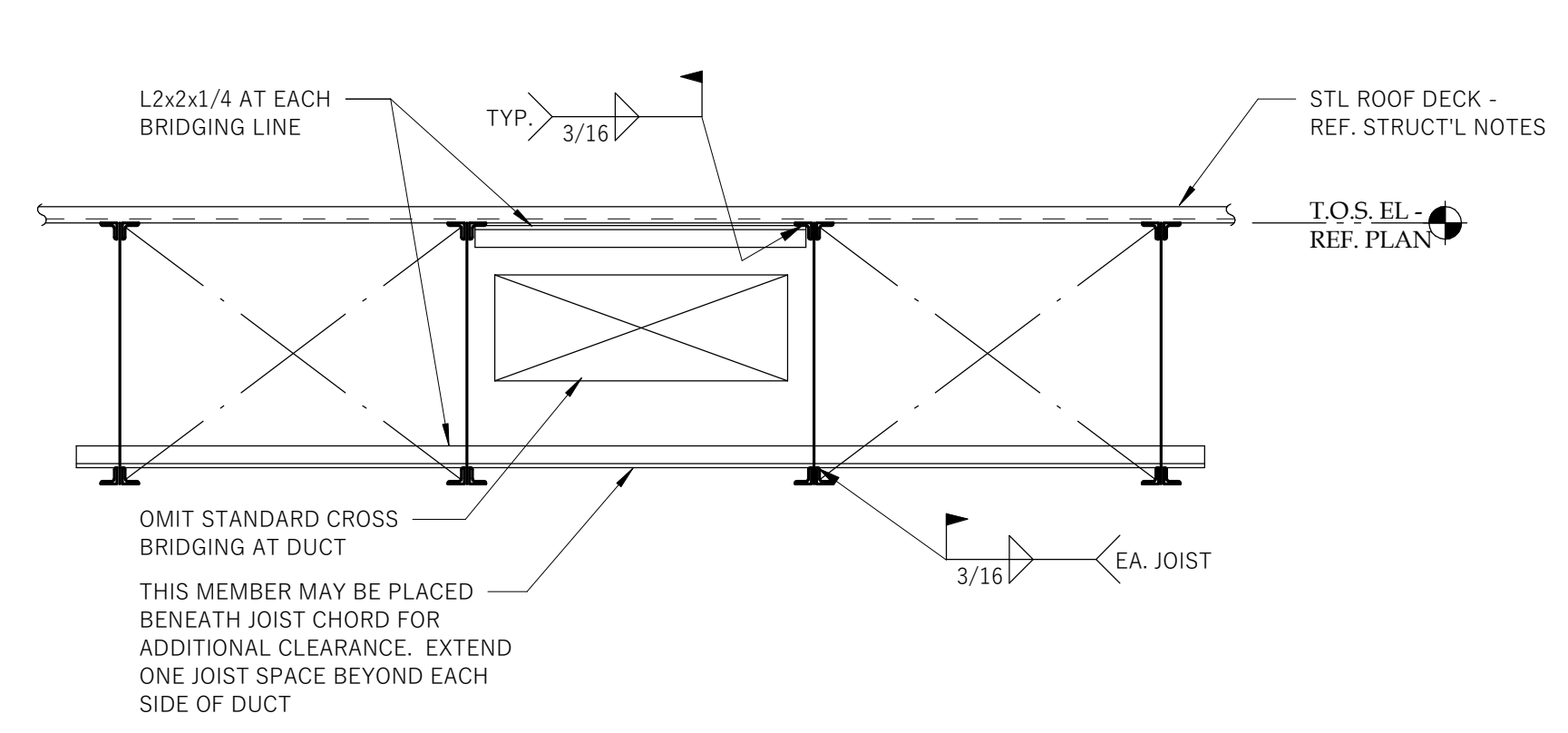
**4**  
**S503** 3/4" = 1'-0"  
TYP. CROSS-BRIDGING AT END BAY FOR K AND KCS SERIES JOISTS



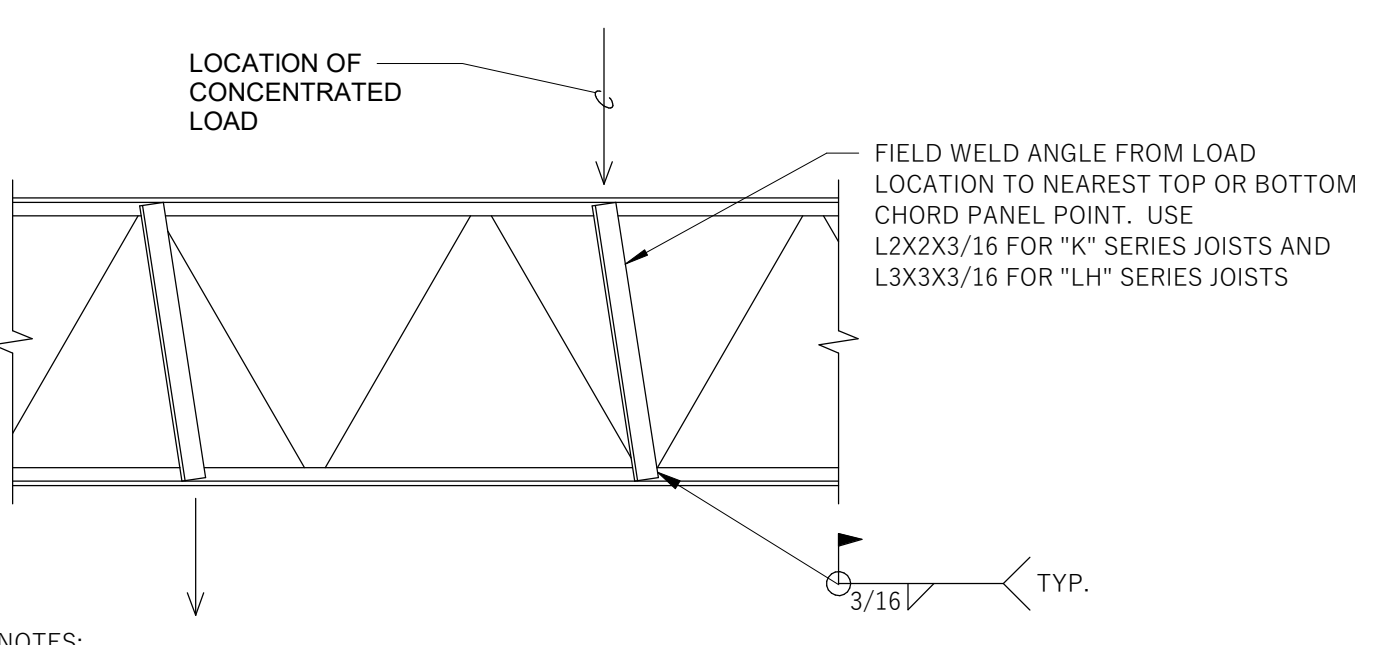
**5**  
**S503** NO SCALE  
TYPICAL EXTENDED TOP CHORD FOR DECK SUPPORT DETAIL



**6**  
**S503** 3/4" = 1'-0"  
TYPICAL JOIST CONNECTION TO BOTTOM FLANGE OF BEAM DETAIL

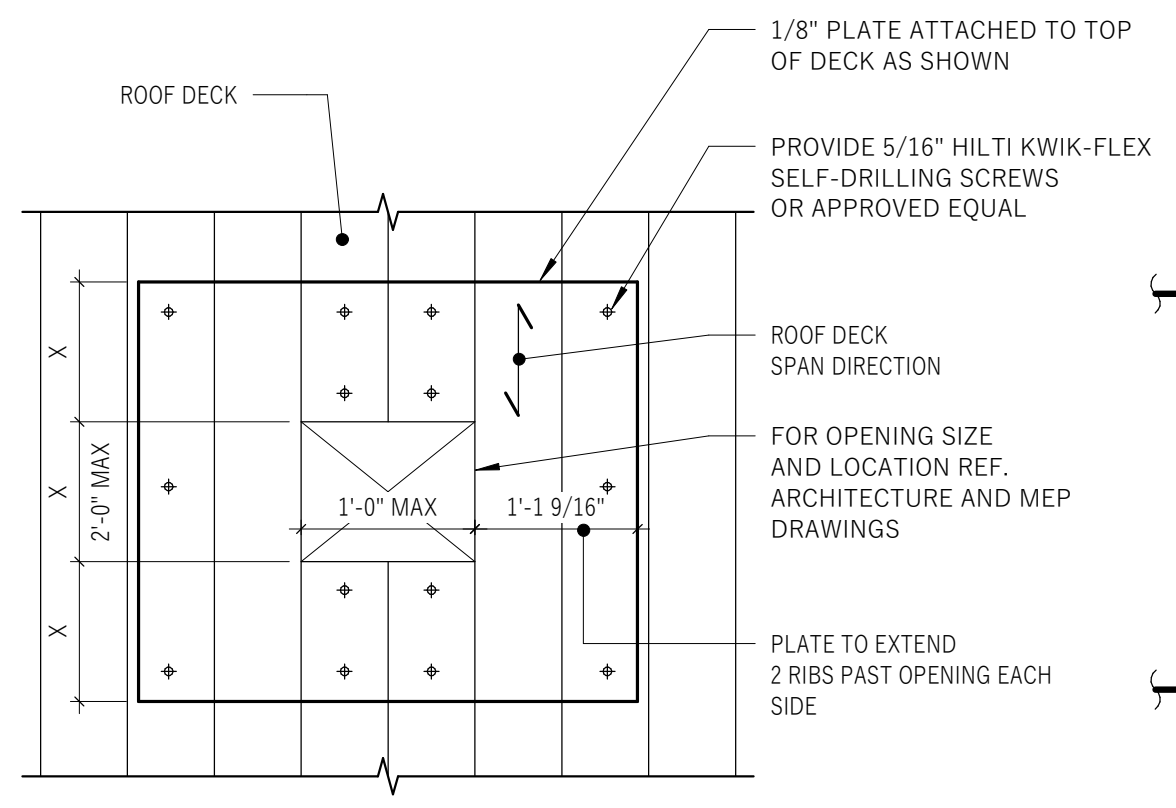


**7**  
**S503** 3/4" = 1'-0"  
TYPICAL DUCT OPENING AT CROSS BRIDGING DETAIL



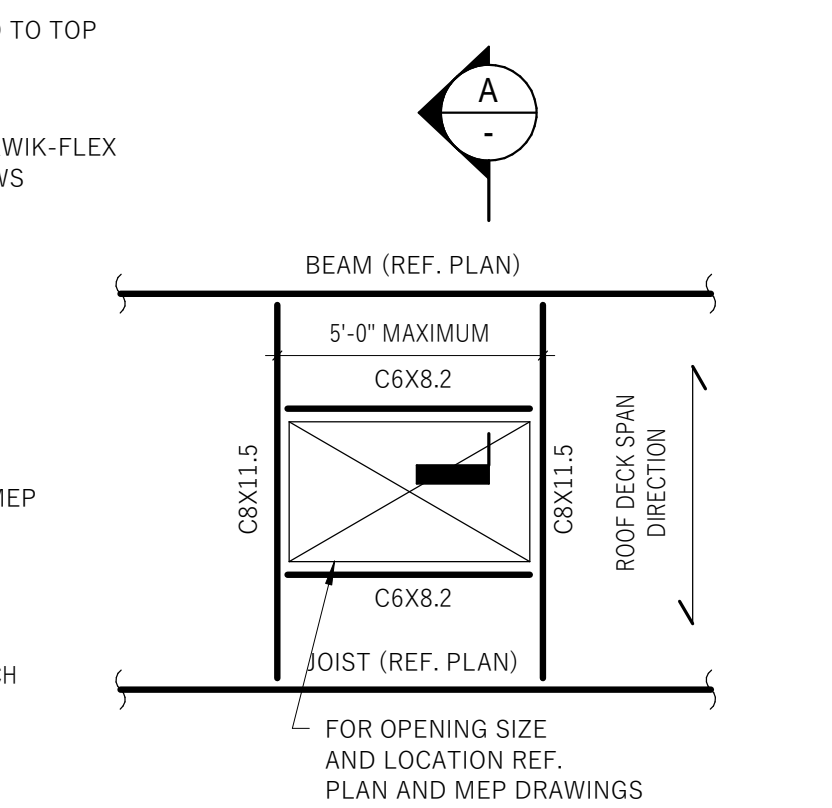
**NOTES:**  
THIS DETAIL APPLIES WHEREVER A CONCENTRATED LOAD GREATER THAN 100 POUNDS OCCURS MORE THAN 4" AWAY FROM A JOIST TOP OR BOTTOM CHORD PANEL POINT. MAXIMUM LOAD TO BE APPLIED WITHOUT CONSULTATION WITH ENGINEER IS 250 POUNDS. DO NOT PLACE CONCENTRATED LOADS CLOSER THAN 4'-0" O.C.  
ALL HANGERS OR ATTACHMENTS TO JOISTS SHALL BE PLACED CONCENTRIC WITH THE TOP AND BOTTOM CHORD(S) AND SHALL NOT ATTACH TO ONLY ONE ANGLE OF CHORD.

**8**  
**S503** 3/4" = 1'-0"  
JOIST CHORD REINFORCEMENT

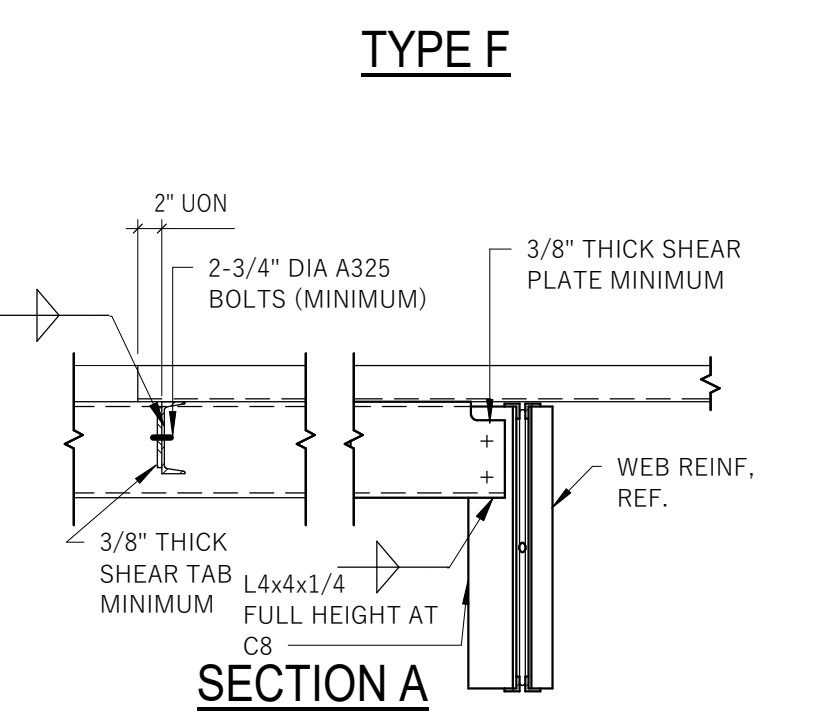


**NOTES:**  
1. NO REINFORCEMENT REQUIRED IF OPENING IS 6" x 6" OR SMALLER PROVIDED ONLY ONE RIB IS INTERRUPTED  
2. CLUSTERED OPENINGS WITH CLEAR SPACE LESS THAN 1'-0" SHALL BE TREATED AS ONE LARGE OPENING AND PROVIDE THE REINFORCEMENT OR CHANNEL FRAMING AS PER DETAIL ABOVE  
3. ATTACH DECK TO CHANNELS TYPICAL  
4. TYPE D SHALL NOT BE USED TO SUPPORT MECHANICAL EQUIPMENT  
5. TYPE F FRAMING SHALL BE COORDINATED WITH EQUIPMENT SUPPORT FRAMING

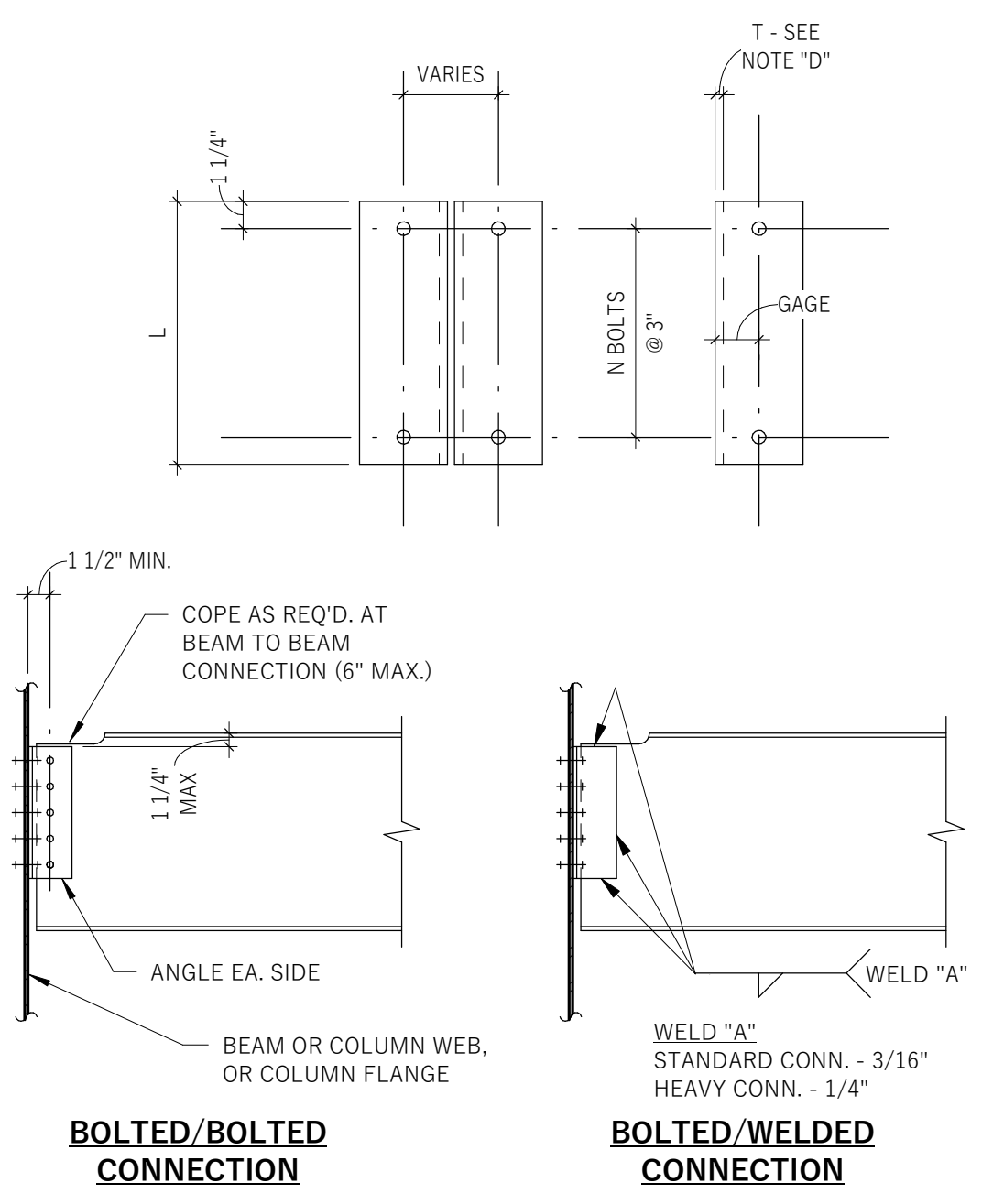
**9**  
**S503** 3/4" = 1'-0"  
TYPICAL ROOF DECK AT OPENING



**10**  
**S503** 1" = 1'-0"  
STEEL DECK AT JOIST FRAMING



**11**  
**S503** 3/4" = 1'-0"  
TYPICAL BEAM PARALLEL TO JOIST



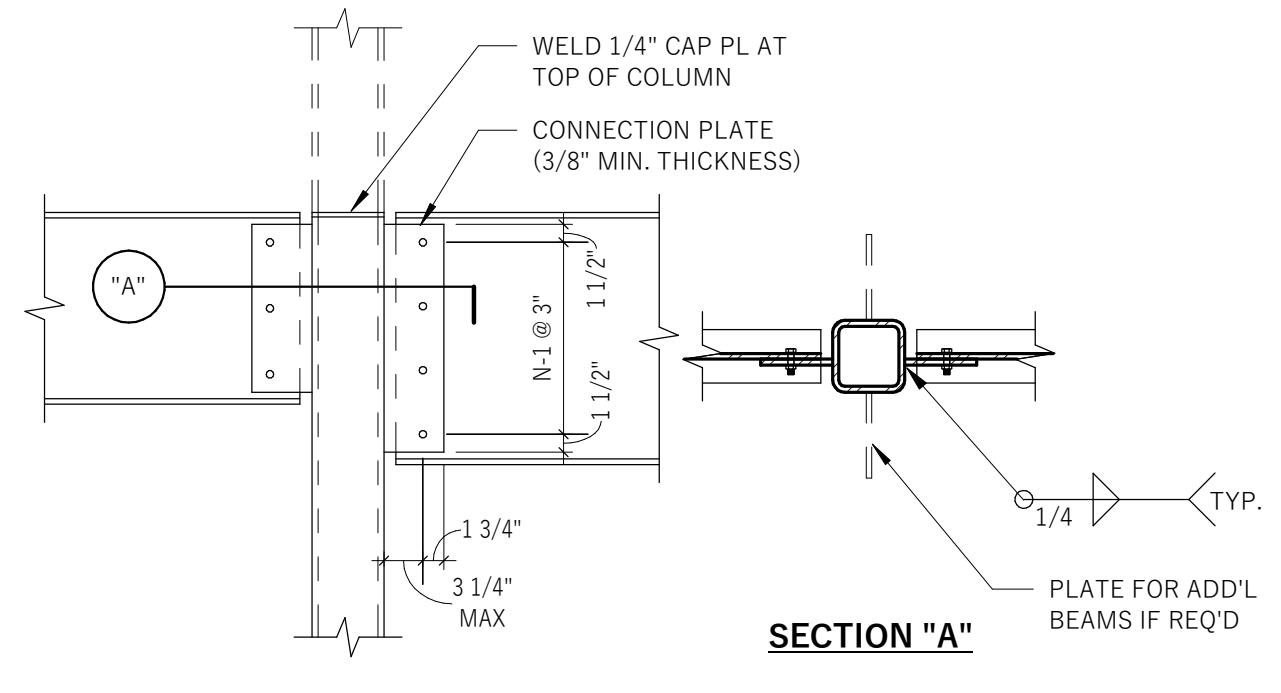
BEAM SIZE	STANDARD			HEAVY		
	ANGLE LENGTH (L)	NO. OF ROWS OF BOLTS (N)	MAX. BEAM REACTION (KIPS)	ANGLE LENGTH (L)	NO. OF ROWS OF BOLTS (N)	MAX. BEAM REACTION (KIPS)
W8	5 1/2"	2	17	-	-	N.A.
W10	5 1/2"	2	19	-	-	N.A.
W12	5 1/2"	2	20	8 1/2"	3	28
W14	8 1/2"	3	32	11 1/2"	4	42
W16	8 1/2"	3	35	11 1/2"	4	46
W18	11 1/2"	4	55	14 1/2"	5	68
W21	11 1/2"	4	64	17 1/2"	5	94
W24	14 1/2"	5	89	20 1/2"	7	123
W27	14 1/2"	5	89	23 1/2"	8	148
W30	17 1/2"	6	104	26 1/2"	9	167
W33	20 1/2"	7	119	29 1/2"	10	186
W36	23 1/2"	8	133	29 1/2"	10	186
W40	26 1/2"	9	147	29 1/2"	10	213
W44	29 1/2"	10	160	29 1/2"	10	213

- NOTES:
- RIGHT ANGLE CONNECTIONS SHALL BE DOUBLE ANGLE AS SCHEDULED.
  - NOTED REACTIONS ARE FOR SERVICE LOADS
  - REFER TO "STRUCTURAL STEEL CONNECTIONS" IN STRUCTURAL NOTES FOR ADD'L INFO.
  - MINIMUM CONNECTION: ANGLE THICKNESS IS 1/4" TYPICAL AND 5/16" AT W33 AND DEEPER "HEAVY" CONNECTIONS.
  - BOLTS ARE 3/4" DIA. TYP. AND 7/8" DIA. AT W40 & W44 "HEAVY CONNECTIONS". BOLTS ARE A325N.
  - BEAM CONNECTIONS ARE "STANDARD" U.N.O. ON PLAN.
  - CONTRACTOR SHALL CHECK DESIGN OF ALL BEAMS REQUIRING COPES GREATER THAN SHOWN IN DETAIL BASED ON REACTIONS SHOWN IN TABLE. CONNECTION ANGLES, BOLTS AND WELDS SHALL NOT BE LESS THAN THAT SHOWN
  - ANY REACTIONS NOTED ON PLAN WHICH EXCEED MAX. BEAM REACTIONS NOTED IN TABLE ABOVE SHALL BE DESIGNED BY GENERAL CONTRACTOR. REF. STRUCTURAL NOTES FOR ADDITIONAL INFO.

**1**  
S504 3/4" = 1'-0"

**BOLTED/BOLTED CONNECTION**  
**BOLTED/WELDED CONNECTION**

**AISC TYPE 2 SIMPLE FRAMING CONNECTIONS**

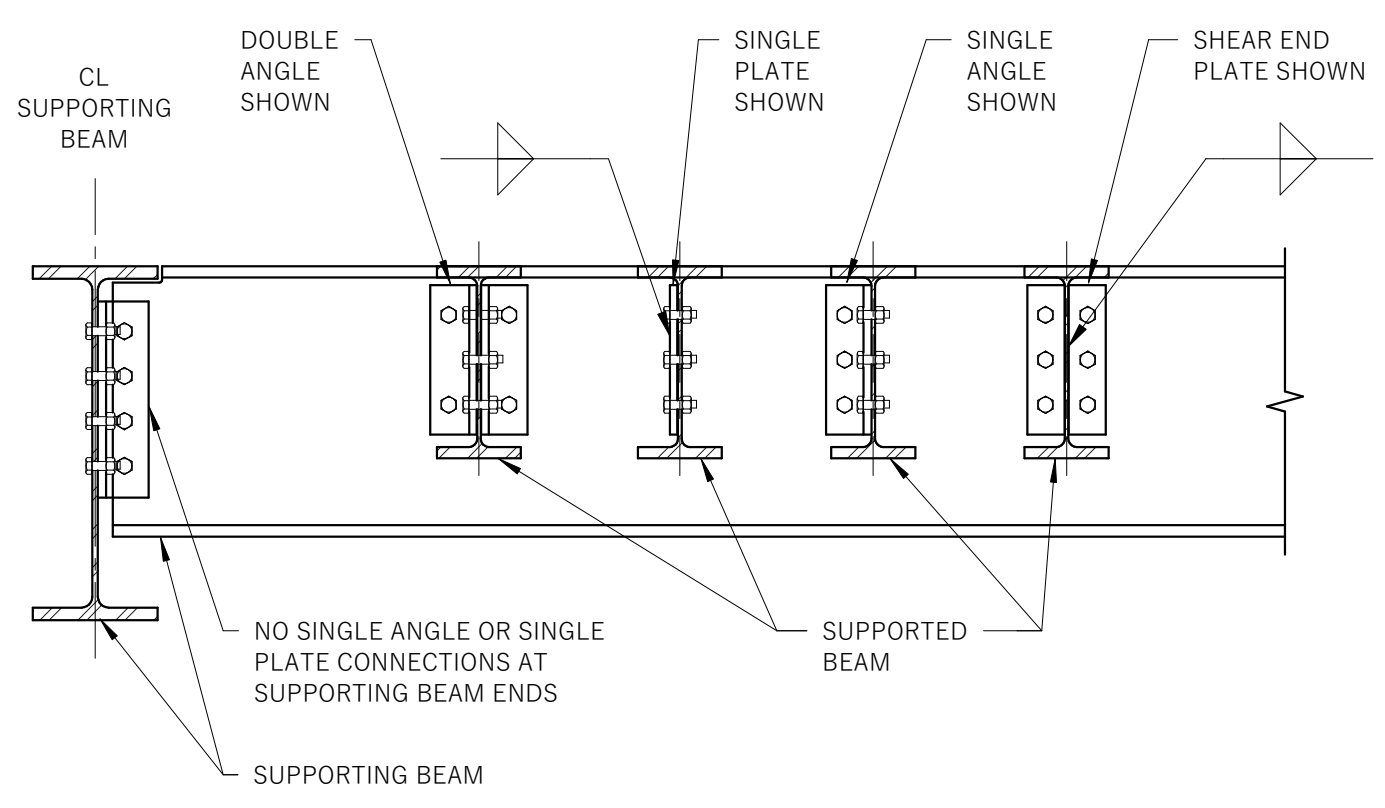


BEAM SIZE	PLATE LENGTH (L)	NO. OF BOLTS (N)	MAX BEAM REACTIONS (KIPS)	
			3/4" DIA	7/8" DIA
W8	6	2	21.2	25.6
W10	6	2	21.2	25.6
W12	9	3	31.8	38.4
W14	9	3	31.87	39.2
W16	12	4	42.4	52.2
W18	15	5	53	65.3
W21	18	6	63.6	78.3
W24	18	6	63.6	78.3
W27	21	7	74.2	91.3
W30	24	8	84.8	103.5
W33	27	9	95.4	115.6
W36	30	10	106	127.8
W40	33	11	116.6	139.9
W44	36	12	127.2	152.1

- NOTES:
- CONNECTIONS SHALL BE BASED ON REACTIONS SHOWN ON PLANS AND MAXIMUM BEAM REACTION IN ABOVE TABLE, U.N.O.
  - NOTED REACTIONS ARE FOR SERVICE LOADS.
  - REF. "STRUCTURAL STEEL CONNECTIONS" IN STRUCTURAL NOTES FOR ADD'L INFO.
  - MINIMUM CONNECTION: PLATE THICKNESS IS 3/8" TYPICAL AND 7/16" AT W33 AND DEEPER "HEAVY" CONNECTIONS.
  - BOLTS ARE A325N, TYPICAL.
  - BEAM CONNECTIONS ARE "STANDARD" U.N.O. ON PLAN.
  - ANY REACTIONS NOTED ON PLAN WHICH EXCEED MAX. BEAM REACTIONS NOTED IN TABLE ABOVE SHALL BE DESIGNED BY GENERAL CONTRACTOR. REF. STRUCTURAL NOTES FOR ADDITIONAL INFO.

**2**  
S504 3/4" = 1'-0"

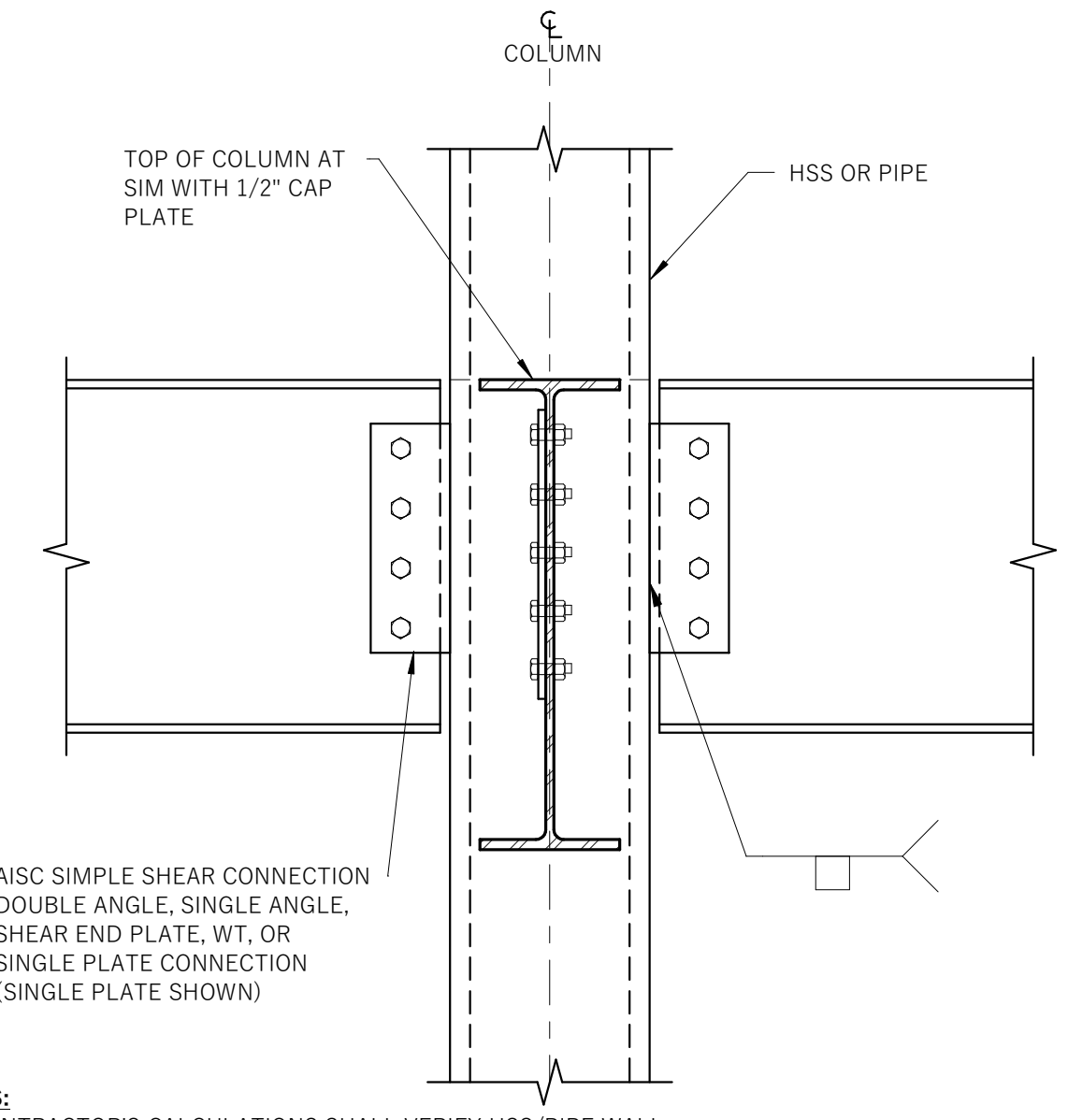
**TYPICAL BEAM WEB TO TUBE COLUMN CONNECTION**



- NOTES:
- SUPPORTED BEAMS PRIMARILY SUPPORT DISTRIBUTED LOADS FROM SLABS OR DECKING
  - SUPPORTING BEAMS SUPPORT SIGNIFICANT POINT LOADS FROM ONE OR MORE SUPPORTED BEAMS OR FROM COLUMNS BEING TRANSFERRED. SUPPORTING BEAMS MAY BE SUPPORTED BY COLUMNS OR BY OTHER SUPPORTING BEAMS
  - FOR AISC SIMPLE SHEAR CONNECTIONS AT SUPPORTED BEAM ENDS, DOUBLE ANGLE, SINGLE PLATE, SINGLE ANGLE, OR SHEAR END PLATE MAY BE USED UNO
  - WELDED/BOLTED OR BOLTED/BOLTED CONNECTIONS PER AISC ARE PERMITTED

**3**  
S504 3/4" = 1'-0"

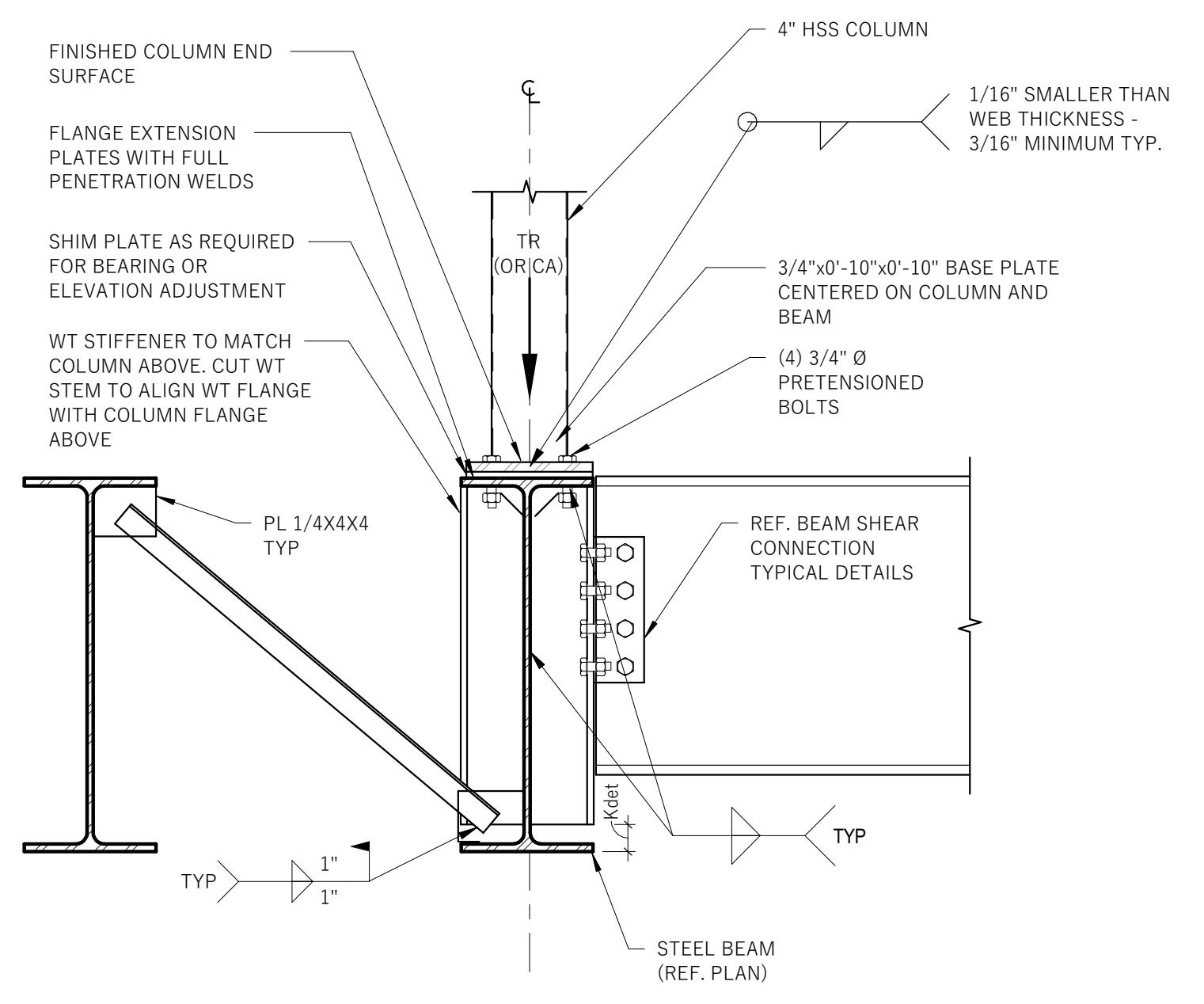
**TYPICAL SHEAR CONNECTION**



- NOTES:
- CONTRACTOR'S CALCULATIONS SHALL VERIFY HSS/PIPE WALL THICKNESS IS ADEQUATE FOR CONNECTION TYPE CHOSEN PER AISC.

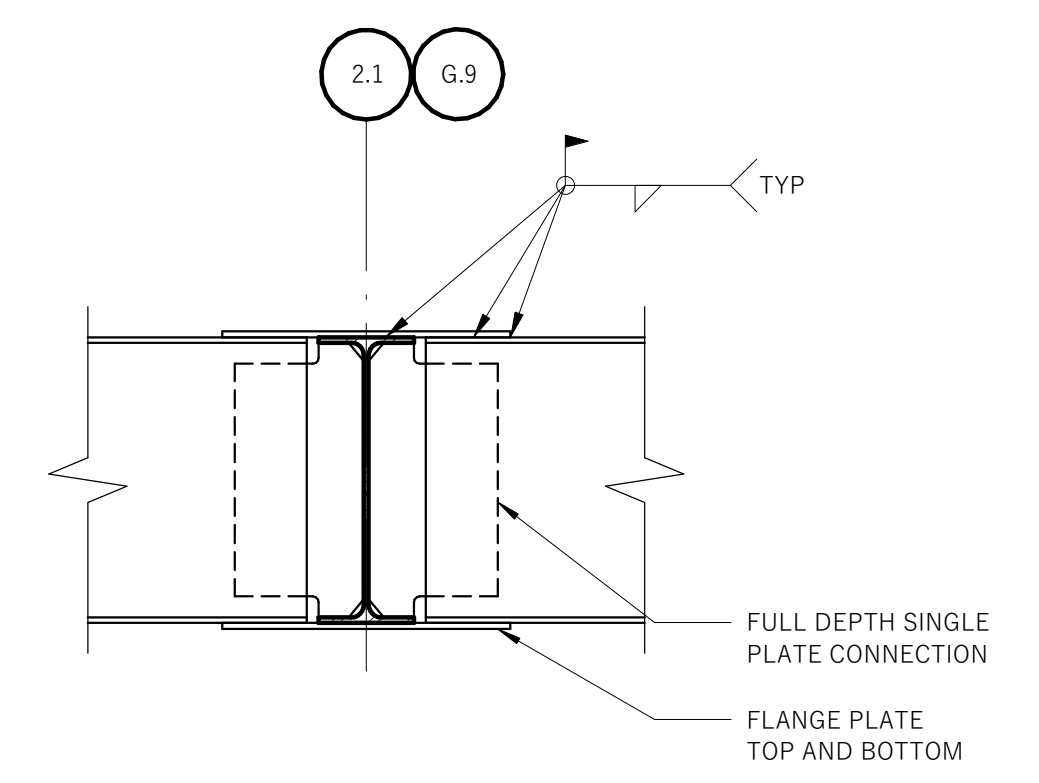
**4**  
S504 1" = 1'-0"

**TYPICAL SHEAR CONNECTION**



**5**  
S504 1" = 1'-0"

**TYPICAL COLUMN BEARING ON BEAM**



**6**  
S504 1 1/2" = 1'-0"

**SECTION AT CANTILEVERED MOMENT BEAM**

**BUILDING 2**  
THE SQUARE AT CRYSTAL FALLS  
1900 S BAGDAD ROAD BLDG 2  
LEANDER, TEXAS 78641

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REVISION:  
2 06/20/22 REV 1



09/09/2024  
100% CDS-REVISED  
TYPICAL STEEL CONNECTIONS

SHEET: **S504**

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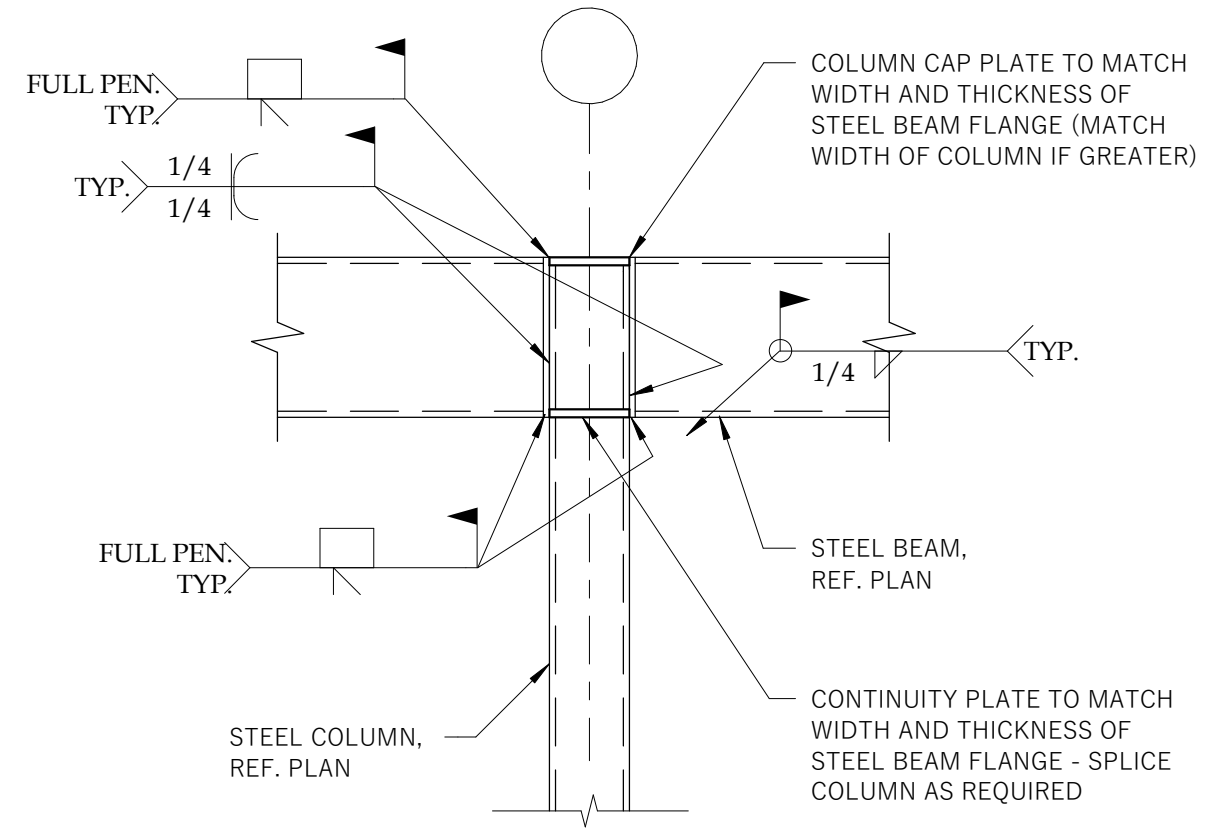
**REVISION:**  
2 06/20/22 REV 1  
5 08/09/24 VE



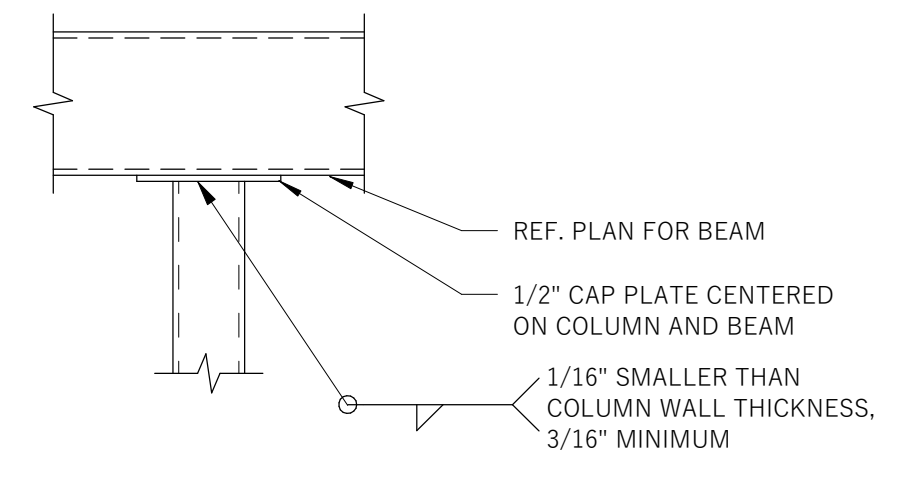
09/09/2024  
100% CDS-REV05-VE  
BRACE CONNECTIONS

SHEET: **S505**

INDICATES COMPLETE PENETRATION  
MOMENT CONNECTIONS ON PLAN SHEETS

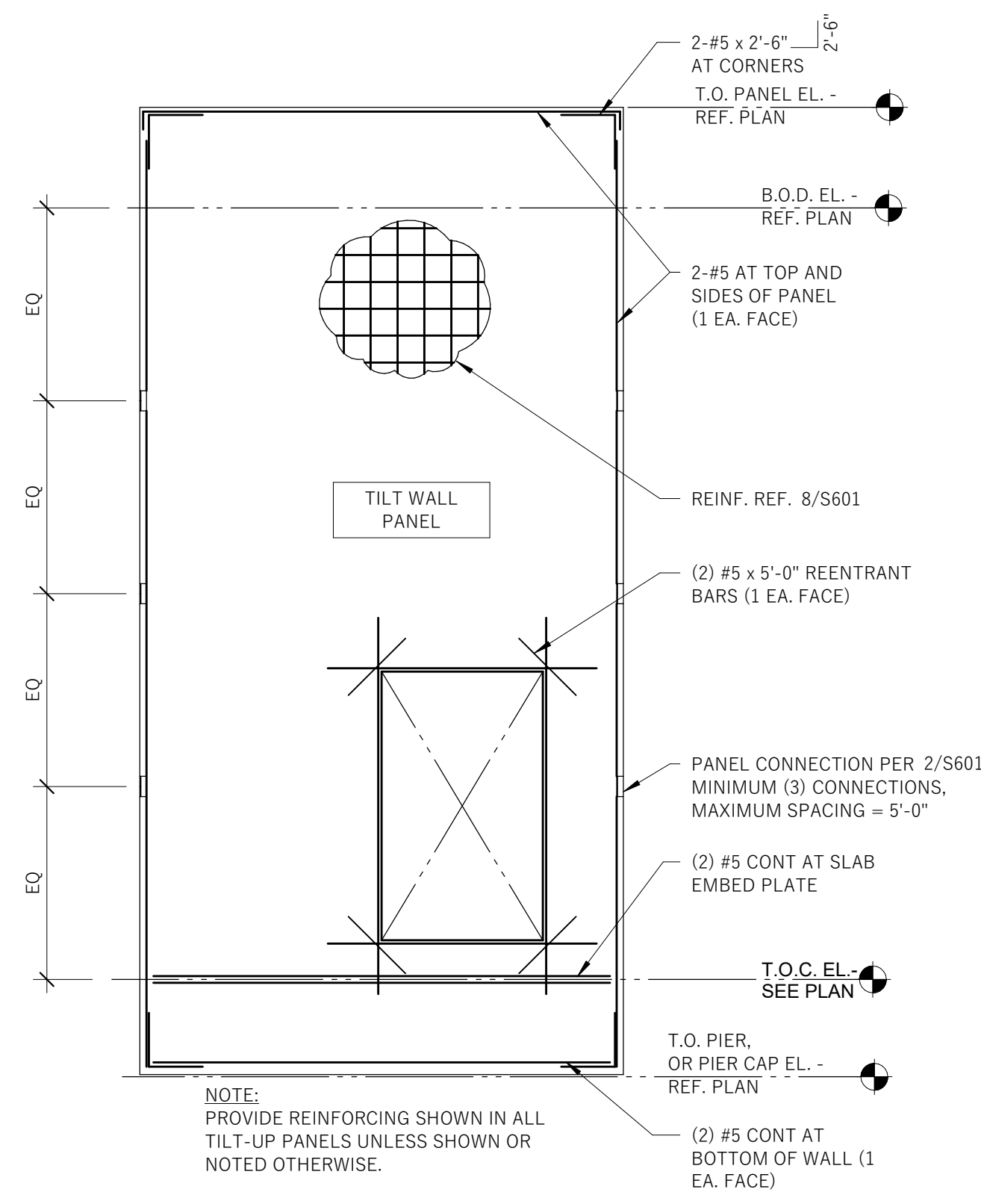


**1**  
S505 HSS MOMENT CONN. AT HSS COL.  
1" = 1'-0"

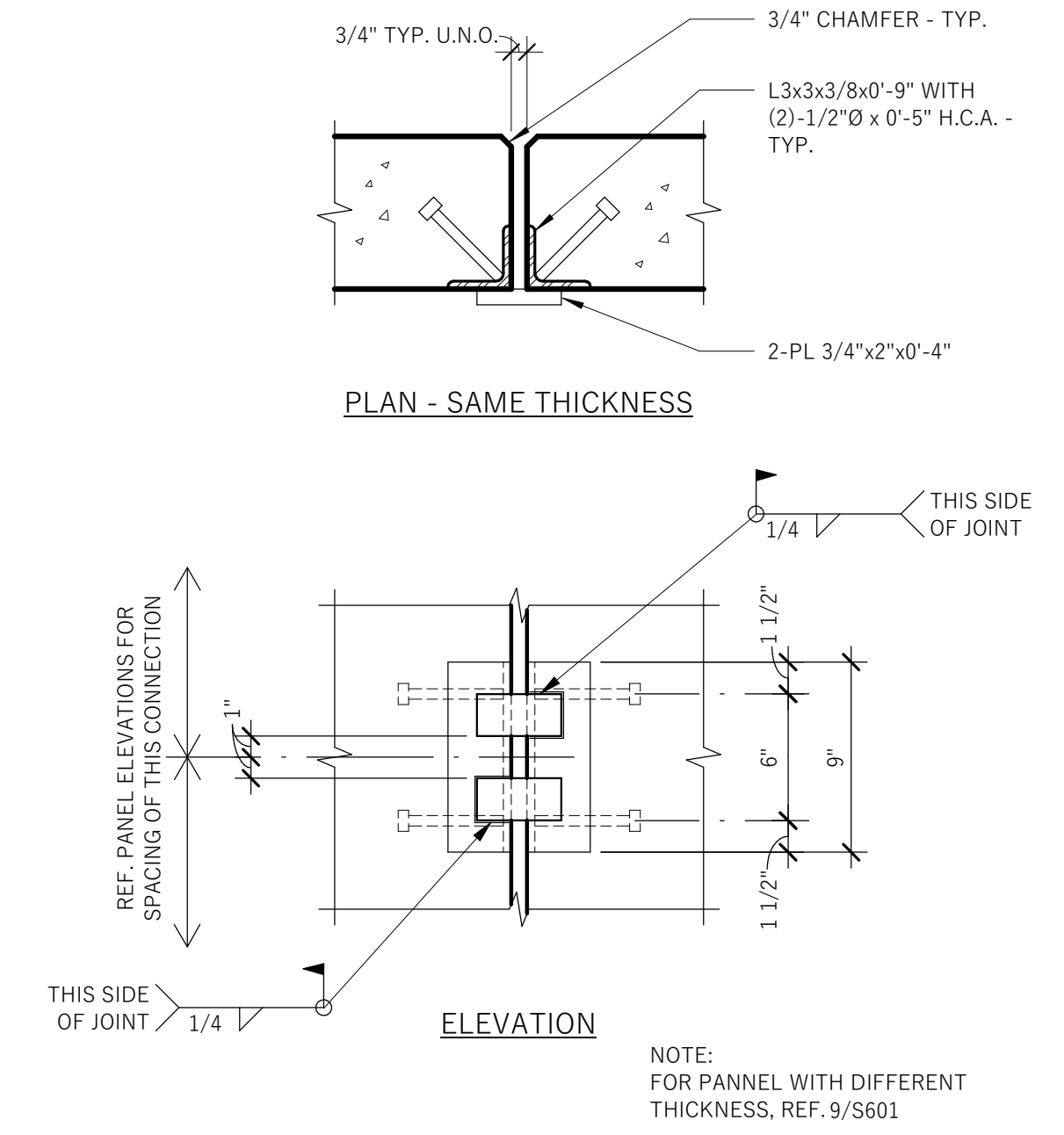


**2**  
S505 HSS CAP PLATE TO BEAM CONNECTION  
3/4" = 1'-0"

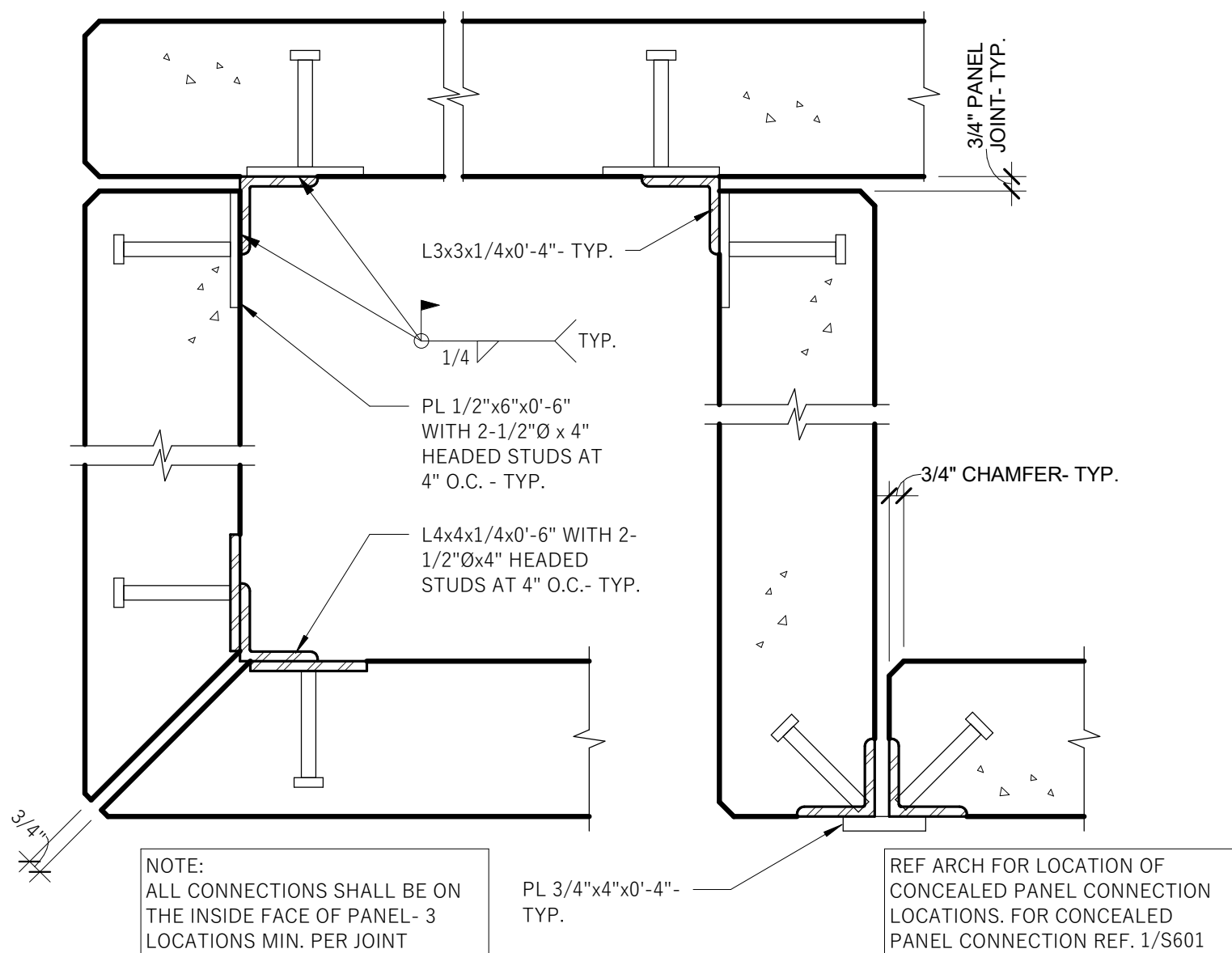
**NOTES:**  
1. REF. ROOF PLAN FOR ROOF SLOPE. SLOPE CAP PLATES ACCORDINGLY.



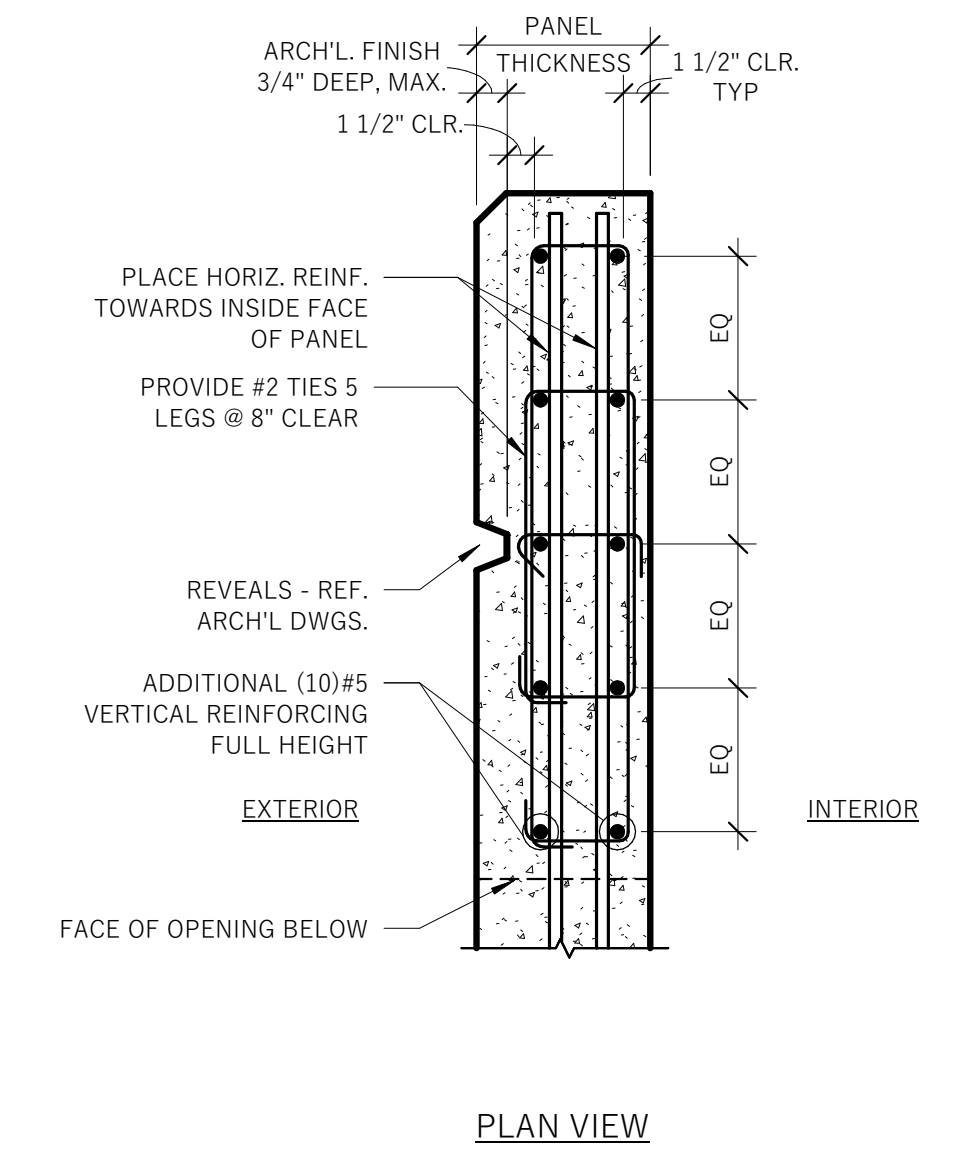
**1**  
**S601** 3/16" = 1'-0"



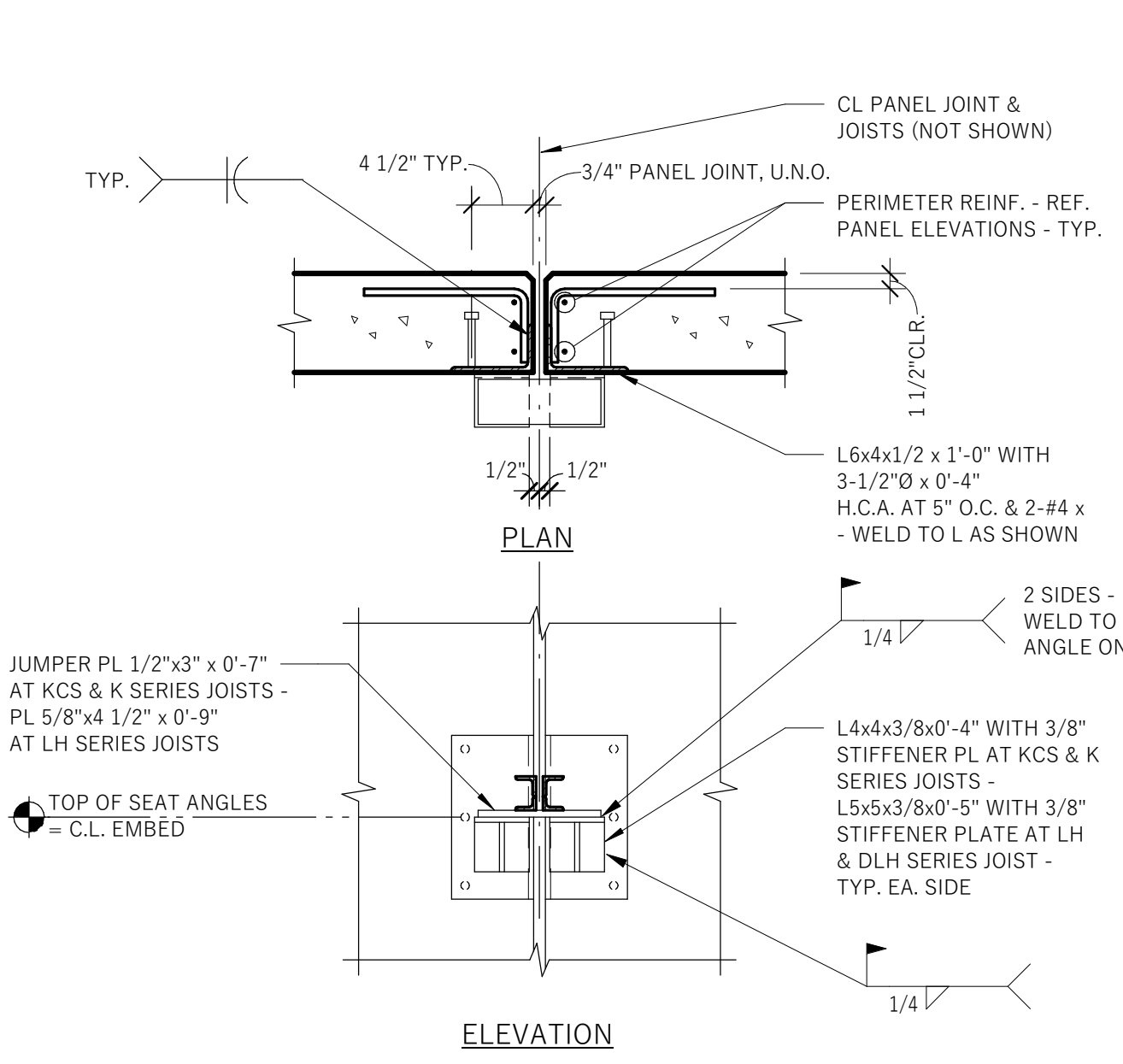
**2**  
**S601** 3/4" = 1'-0"



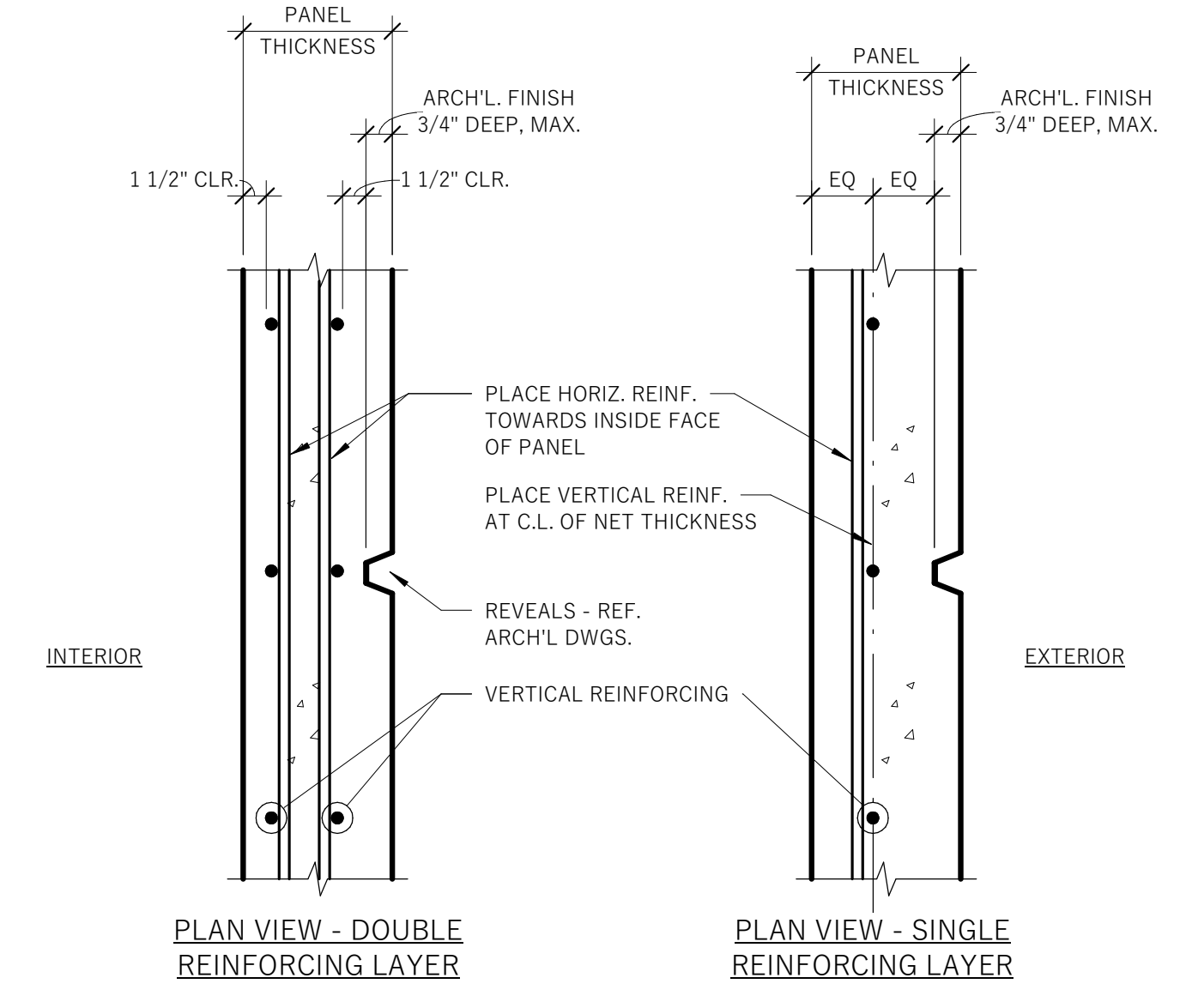
**3**  
**S601** 1 1/2" = 1'-0"



**4**  
**S601** 3/4" = 1'-0"



**5**  
**S601** 3/4" = 1'-0"



**6**  
**S601** 3/4" = 1'-0"

**TILT-UP WALL PANEL OPENING SCHEDULE**

OPENING WIDTH	VERT. REINF.	HORIZ. REINF.
≤4'-0"	2-#5, 1 EA. FACE	2-#5, 1 EA. FACE
>4'-0" & <8'-0"	4-#5, 2 EA. FACE	4-#5, 2 EA. FACE
>8'-0"	6-#5, 3 EA. FACE	6-#5, 3 EA. FACE

\*PROVIDE STANDARD HOOK IN VERT. REINF. IF INTERRUPTED BY OPENING ABOVE/BELOW.

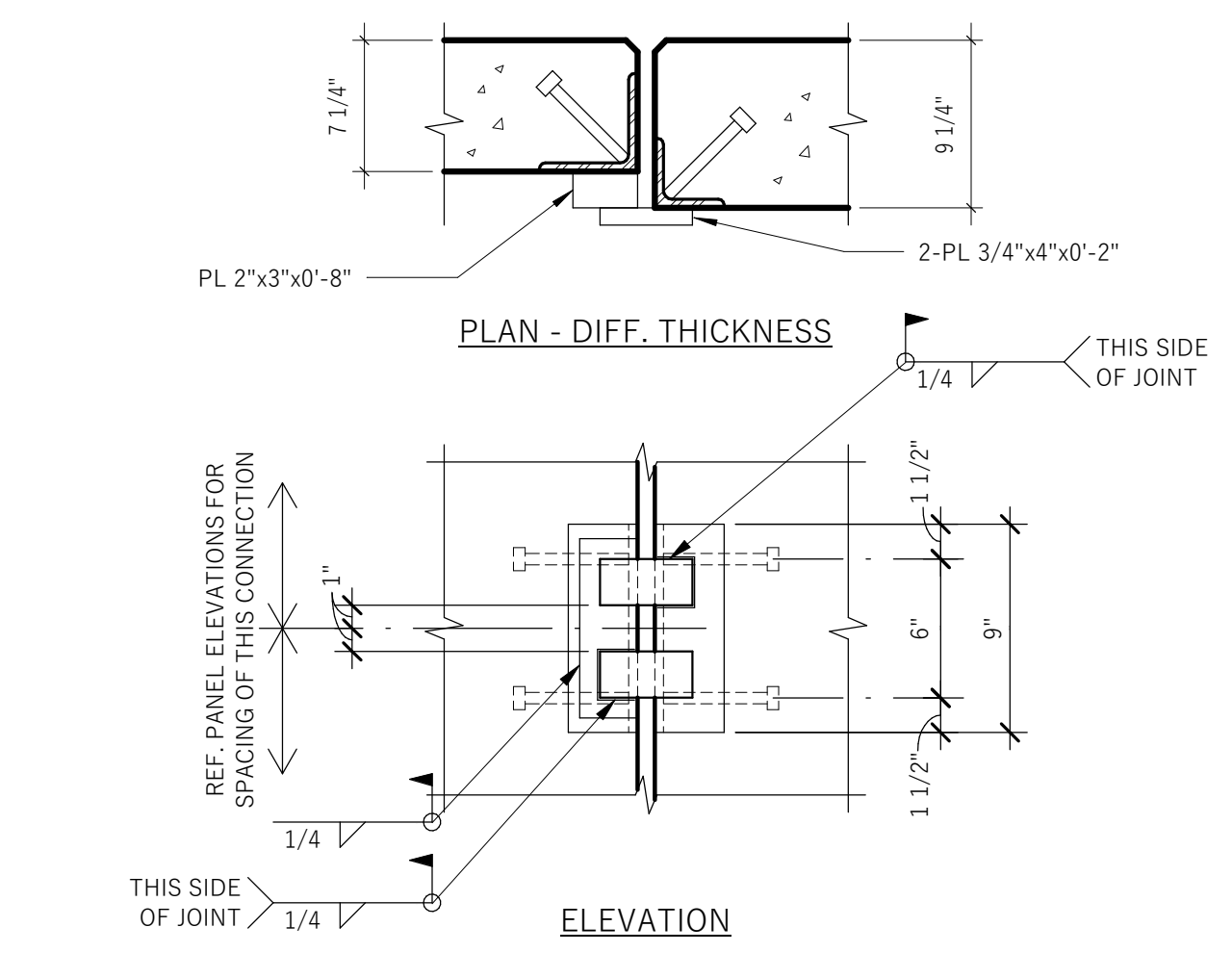
**7**  
**S601** 3/4" = 1'-0"

**TILT-UP WALL PANEL REINFORCING SCHEDULE**

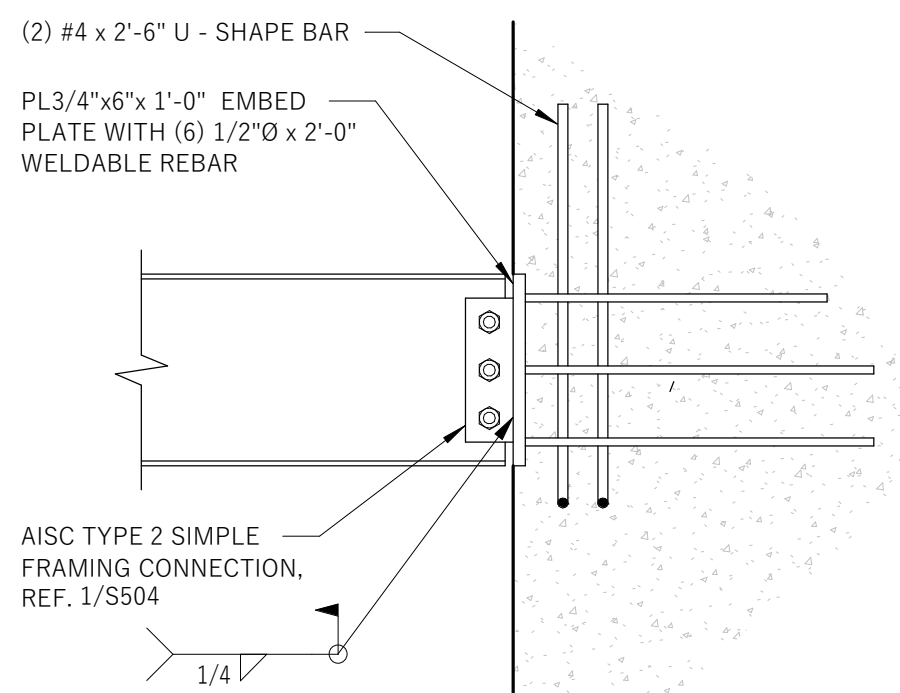
TYPE	PANEL THICKNESS	VERT. REINF.	HORIZ. REINF.	REINF. LAYERS
TW7A	7 1/4"	#4 BARS AT 8" O.C.	#4 BARS AT 12" O.C.	SINGLE, U.N.O.
TW7B	7 1/4"	(2)#4 BARS AT 16" O.C.	(2)#4 BARS AT 18" O.C.	DOUBLE
TW9A	9 1/4"	(2)#5 BARS AT 18" O.C.	(2)#4 BARS AT 18" O.C.	DOUBLE
TW9B	9 1/4"	(2)#5 BARS AT 16" O.C.	(2)#4 BARS AT 18" O.C.	DOUBLE

\*PROVIDE STANDARD HOOK IN VERT. REINF. IF INTERRUPTED BY OPENING ABOVE/BELOW.

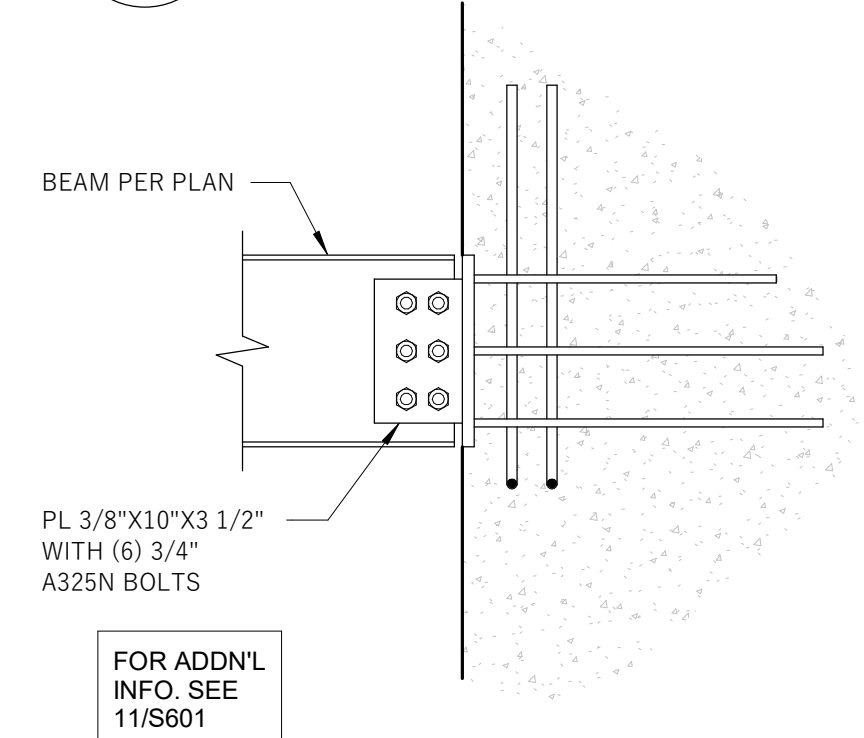
**8**  
**S601** 3/4" = 1'-0"



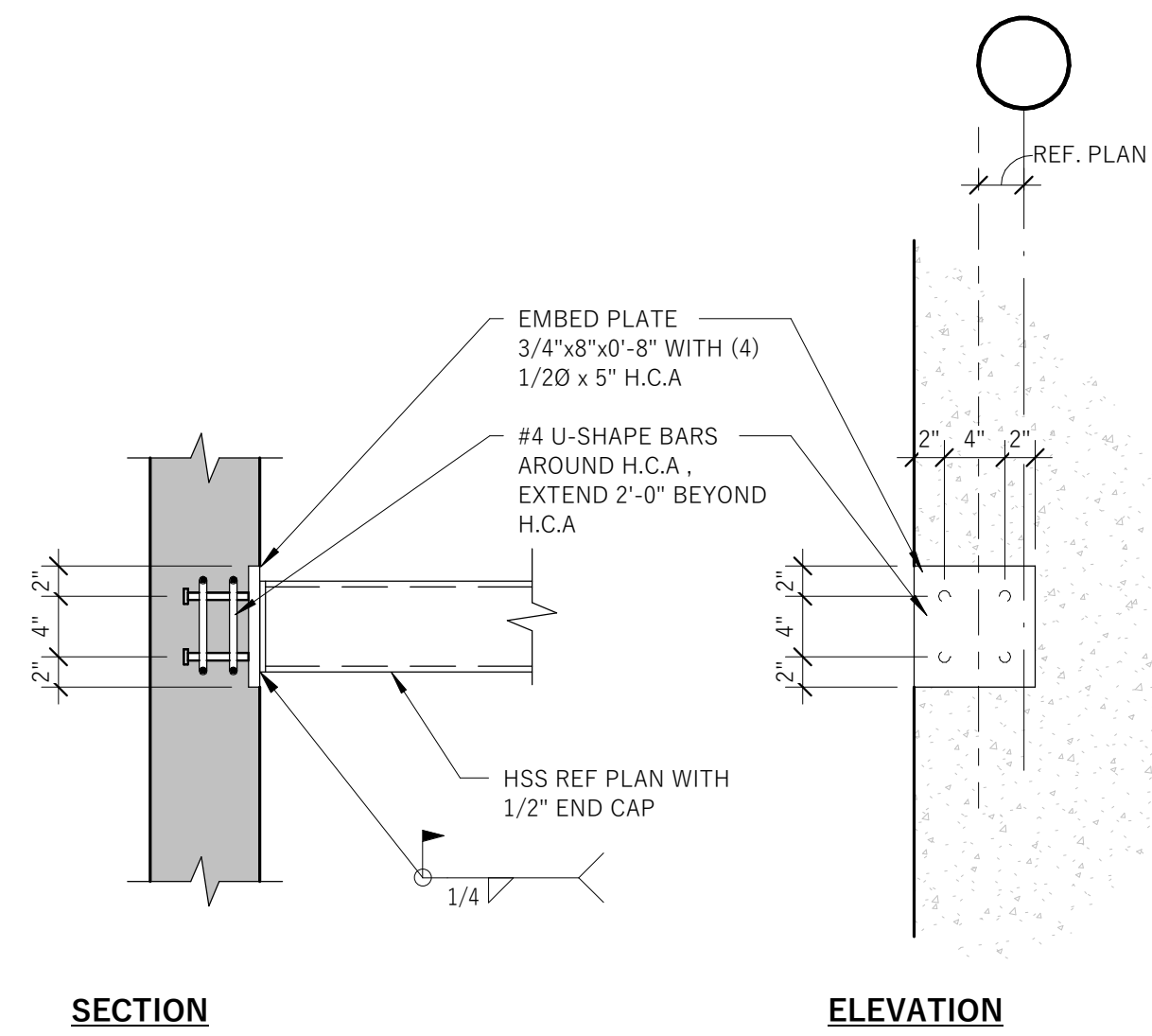
**9**  
**S601** 3/4" = 1'-0"



**11**  
**S601** 1" = 1'-0"



**12**  
**S601** 1" = 1'-0"



SECTION

ELEVATION

1 HSS AT EDGE OF PANEL CONNECTION  
S602 1" = 1'-0"

EMBED PLATE SCHEDULE - SHEAR ONLY								
NOMINAL STEEL BEAM SIZE	MAXIMUM FACTORED VERTICAL BEAM SHEAR REACTION (KIPS)	MINIMUM CONNECTION DEPTH (IN)	EMBED PLATE			No STUD COLUMNS	No STUD ROWS	REMARKS
			t (in)	X B (in)	X D (in)			
W8 -W12	33	6	3/4	X 10	X 10	2	2	
W12-W18	47	9	3/4	X 10	X 16	2	3	
W14-W24	68	12	3/4	X 12	X 22	2	4	
W18-W30	85	15	3/4	X 12	X 28	3	5	COLUMN SPACING 4 1/2" OC
W21-W36	100	18	3/4	X 14	X 32	3	5	COLUMN SPACING = 5" OC ROW SPACING = 7" OC
W24-W40	130	21	3/4	X 16	X 28	3	5	

NOTES:

- USE SMALLEST EMBED PLATE SIZE FOR A GIVEN NOMINAL BEAM DEPTH AND WITH A SCHEDULED MAXIMUM SHEAR REACTION EQUAL TO OR GREATER THAN THE SHEAR REACTION REQUIRED ON PLAN
- CONTRACTOR SHALL DESIGN SINGLE-PLATE GRADE, THICKNESS, BOLT QUANTITY AND TYPE (A325, A490, N OR X) TO RESIST THE SHEAR FORCE SHOWN IN TABLES OR PLANS WHILE SATISFYING GEOMETRIC REQUIREMENTS OF THE TYPICAL EMBED PLATE DETAIL AND SCHEDULE. REF. GENERAL NOTES FOR ADDITIONAL INFORMATION REGARDING THE DESIGN OF STRUCTURAL STEEL CONNECTIONS
- EMBED PLATES SHALL CONFORM TO ASTM A572, Fy=50 ksi
- STUDS SHALL BE 3/4" DIAMETER x 5 1/2" LONG NOMINAL (MINIMUM), 4" LONG AT 5 1/2" TILT PANEL
- REF. TYPICAL EMBED DETAIL FOR ASSUMED CONNECTION LOCATION RELATIVE TO EMBED PLATE. REPORT ANY AS-BUILT DEVIATION FROM THE ASSUMED CONDITION TO THE SER AS FOLLOWS: HORIZONTAL DEVIATION GREATER THAN 2" VERTICAL DEVIATION GREATER THAN 1"

2 EMBED PLATE SCHEDULE  
S602 N.T.S.

**ALIGN**  
AUSTIN ARCHITECTS

**BUILDING 2**  
THE SQUARE AT CRYSTAL FALLS  
1900 S BAGDAD ROAD BLDG 2  
LEANDER, TEXAS 78641

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2 06/20/22 REV 1

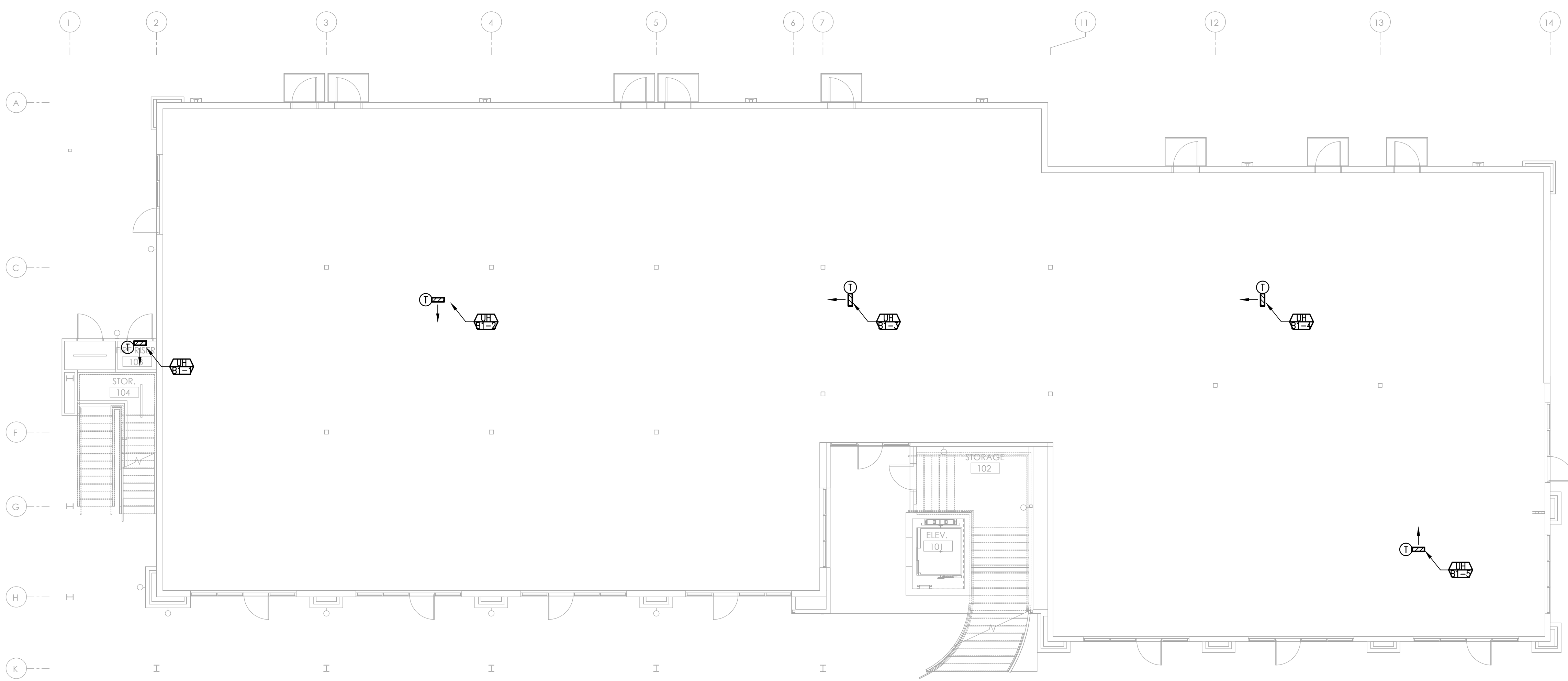


09/09/2024  
100% CDS-REV05-VE  
TILT UP CONCRETE WALL DETAILS

SHEET: S602

JCA  
4100 Wadsworth Blvd  
Wheat Ridge, CO 80033  
p 303.985.3260  
TX F-14436 #21134

JCAA  
PROJECT NO: 21099  
DRAWN BY: BC  
DATE: 09/02/2021  
PROJECT MGR: NHR



**GENERAL NOTES**

- MECHANICAL CONTRACTOR TO COORDINATE WITH EXISTING SYSTEMS AND ALL OTHER TRADES PRIOR TO INSTALLING NEW SYSTEMS.
- THESE PLANS ARE DIAGRAMMATIC IN NATURE, CONTRACTORS SHALL INCLUDE APPROPRIATE ALLOWANCES FOR OFFSETS, TRANSITIONS, FITTINGS, ETC. AS REQUIRED TO ACCOMMODATE VERTICAL AND HORIZONTAL VARIATIONS IN THE LOCATIONS AND ELEVATIONS OF DUCTWORK, PIPING AND EXISTING AND/OR OTHER TRADES CONDITIONS.
- PENETRATIONS OF WALLS OR FLOORS FOR THE PASSAGE OF PIPING, DUCTWORK, OR OTHER EQUIPMENT SHALL BE PROPERLY SEALED AFTER INSTALLATION OF EQUIPMENT. FIELD VERIFY EXISTING WALL PENETRATIONS AND PROPERLY SEAL AS REQUIRED TO MAINTAIN WALL OR FLOOR RATING.
- PROVIDE CODE AND MANUFACTURER-REQUIRED ACCESS TO ALL CONCEALED EQUIPMENT. COORDINATE LOCATION OF ACCESS PANELS WITH ARCHITECT.
- ALL CONSTRUCTION DEBRIS SHALL BE DISPOSED OF BY THE CONTRACTOR UNLESS NOTED OTHERWISE.
- MECHANICAL CONTRACTOR TO COORDINATE WITH LIGHTING AND FIRE SPRINKLER PIPING LAYOUT ON ELECTRICAL AND ARCHITECTURAL PLANS.

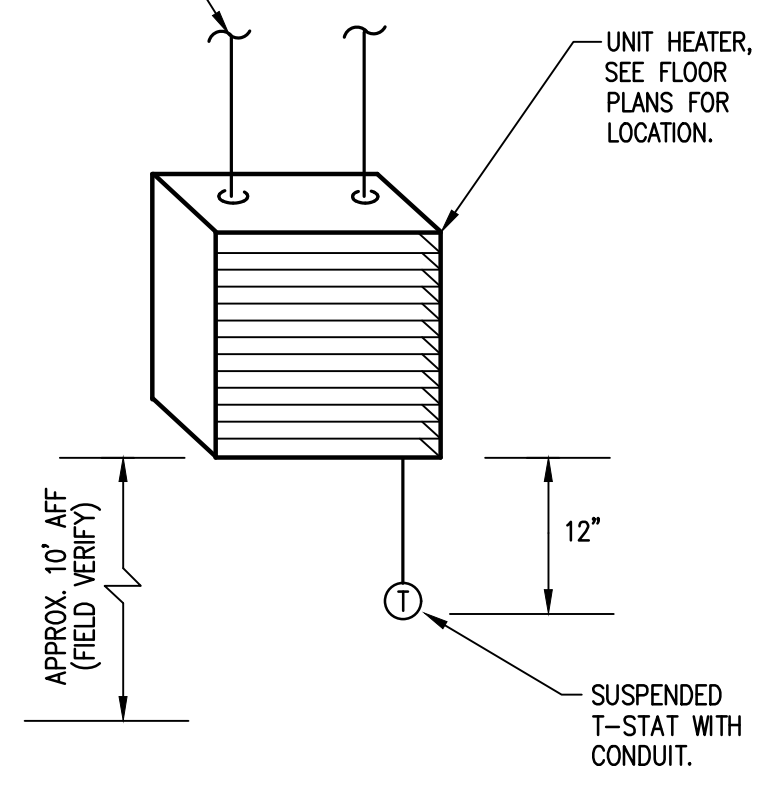
**1** 1ST LEVEL FLOOR PLAN - MECHANICAL  
SCALE: 1/8" = 1'-0"  
TRUE PLAN NORTH NORTH

**ELECTRIC UNIT HEATER SCHEDULE**

MARK	LOCATION MOUNTING HEIGHT	HP/ VOLTS/ PH/HZ	K.W.	REMARKS
UH-B1-1, B1-2, B1-3, B1-4, B1-5	APPROX. 10'-0"	1/50-208/1/60	3.3	REDD-I F1F5103N

- NOTES FOR ALL:
- AUTOMATIC PRIMARY HI-LIMIT CUTOUTS.
  - ADJUSTABLE LOUVERS.
  - PROVIDE MOUNTING BRACKETS AND SUPPORTS.
  - PROVIDE ADJUSTABLE THERMOSTAT.

HANGER RODS, (PROVIDE STRUCTURAL STEEL ANGLE BETWEEN JOISTS FOR SUPPORT OF UNIT HEATER).

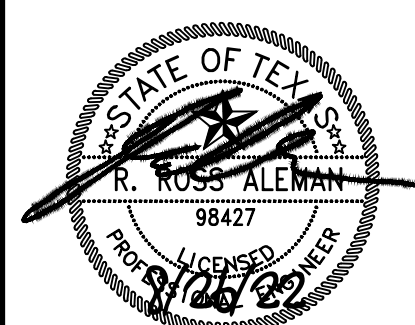


**2** UNIT HEATER DETAIL  
SCALE: NOT TO SCALE

**BUILDING 2**  
THE SQUARE AT CRYSTAL FALLS  
1900 S. BAGDAD ROAD, BLDG. 2  
LEANDER, TEXAS 78641

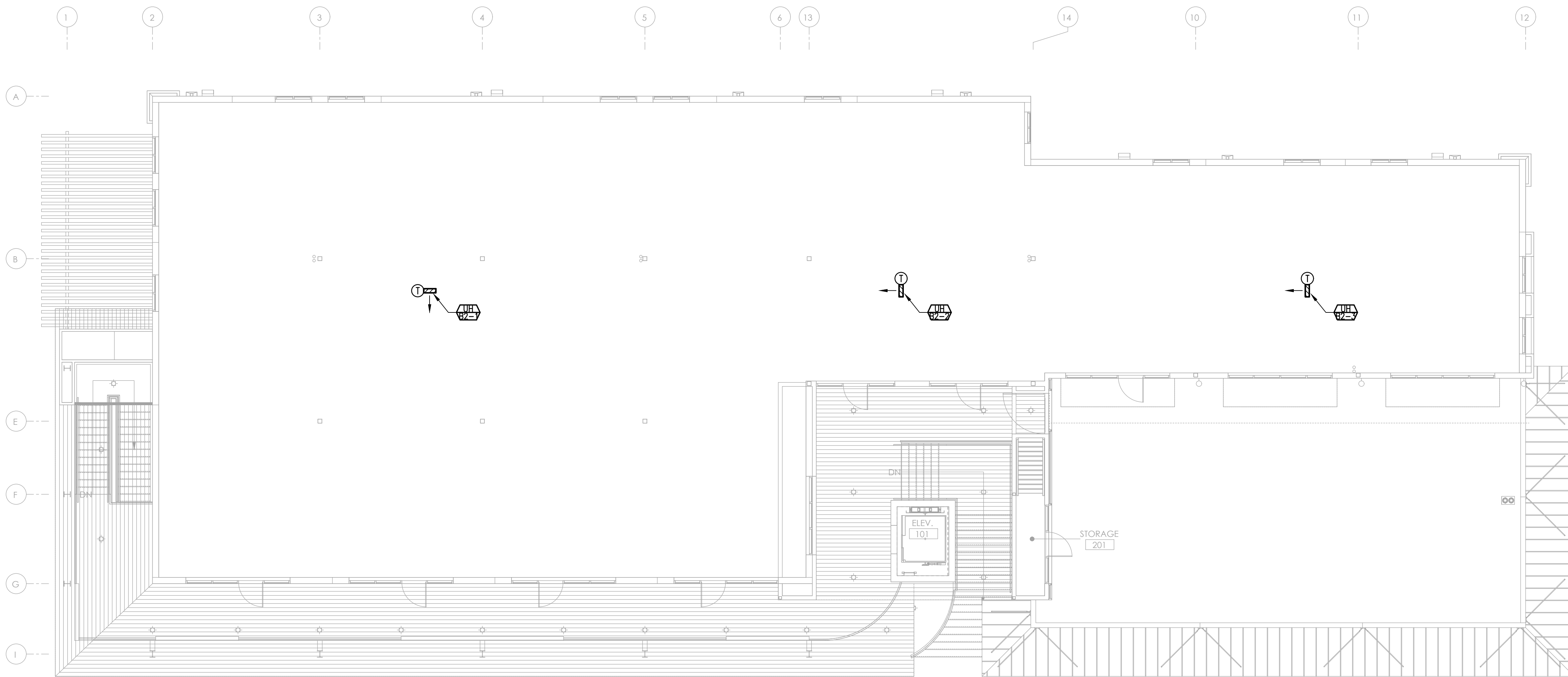
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- 2 06.20.22 - Revision 2
- 3 08.26.22 - City Comments



DRAWN BY: RG CHECKED BY: PR  
**AYS**  
Engineering, LLC  
MEP CONSULTING ENGINEERING  
411 W. Main Street, Suite 310 • Round Rock • TX 78664  
www.AYSEng.com • 512-961-6835  
TBPE Form F-10298

08.26.2022  
CITY COMMENTS  
1ST LEVEL FLOOR PLAN - MECHANICAL  
SHEET: **M100**  
PROJECT NO: 21099  
DRAWN BY:  
DATE: 01.28.2022  
PROJECT MGR:

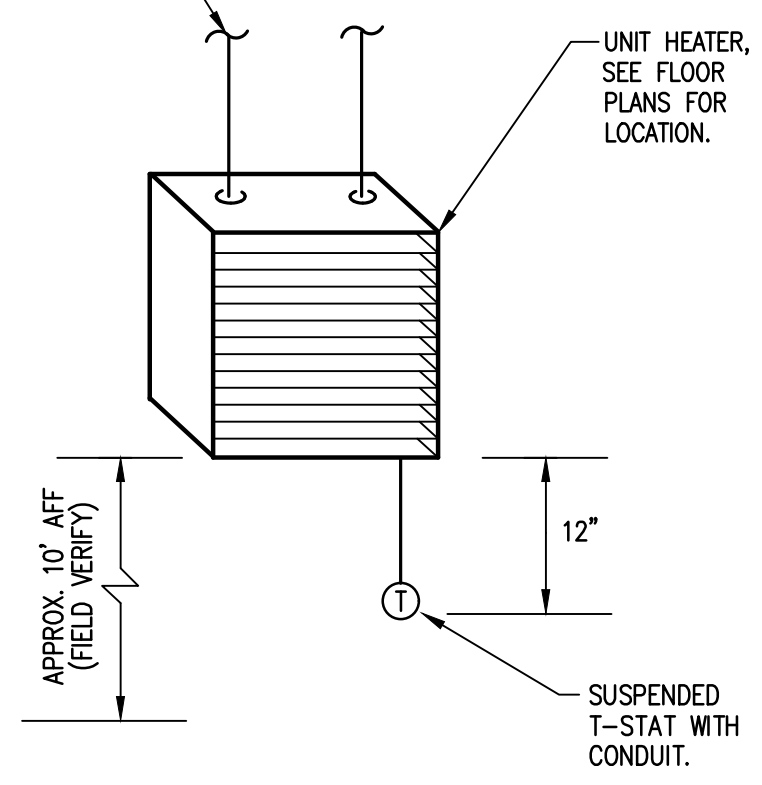


**2ND LEVEL FLOOR PLAN - MECHANICAL**  
SCALE: 1/8" = 1'-0"  
TRUE PLAN NORTH NORTH

**GENERAL NOTES**

- MECHANICAL CONTRACTOR TO COORDINATE WITH EXISTING SYSTEMS AND ALL OTHER TRADES PRIOR TO INSTALLING NEW SYSTEMS.
- THESE PLANS ARE DIAGRAMMATIC IN NATURE, CONTRACTORS SHALL INCLUDE APPROPRIATE ALLOWANCES FOR OFFSETS, TRANSITIONS, FITTINGS, ETC. AS REQUIRED TO ACCOMMODATE VERTICAL AND HORIZONTAL VARIATIONS IN THE LOCATIONS AND ELEVATIONS OF DUCTWORK, PIPING AND EXISTING AND/OR OTHER TRADES CONDITIONS.
- PENETRATIONS OF WALLS OR FLOORS FOR THE PASSAGE OF PIPING, DUCTWORK, OR OTHER EQUIPMENT SHALL BE PROPERLY SEALED AFTER INSTALLATION OF EQUIPMENT. FIELD VERIFY EXISTING WALL PENETRATIONS AND PROPERLY SEAL AS REQUIRED TO MAINTAIN WALL OR FLOOR RATING.
- PROVIDE CODE AND MANUFACTURER-REQUIRED ACCESS TO ALL CONCEALED EQUIPMENT. COORDINATE LOCATION OF ACCESS PANELS WITH ARCHITECT.
- ALL CONSTRUCTION DEBRIS SHALL BE DISPOSED OF BY THE CONTRACTOR UNLESS NOTED OTHERWISE.
- MECHANICAL CONTRACTOR TO COORDINATE WITH LIGHTING AND FIRE SPRINKLER PIPING LAYOUT ON ELECTRICAL AND ARCHITECTURAL PLANS.

HANGER RODS, (PROVIDE STRUCTURAL STEEL ANGLE BETWEEN JOISTS FOR SUPPORT OF UNIT HEATER).



ELECTRIC UNIT HEATER SCHEDULE				
MARK	LOCATION MOUNTING HEIGHT	HP/ VOLTS/ PH/HZ	K.W.	REMARKS
UH-B2-1, B2-2, B2-3	APPROX. 10'-0"	1/50-208/1/60	3.3	REDD-I F1F5103N

- NOTES FOR ALL:
- AUTOMATIC PRIMARY HI-LIMIT CUTOUTS.
  - ADJUSTABLE LOUVERS.
  - PROVIDE MOUNTING BRACKETS AND SUPPORTS.
  - PROVIDE ADJUSTABLE THERMOSTAT.

**2 UNIT HEATER DETAIL**  
SCALE: NOT TO SCALE

DRAWN BY: RG CHECKED BY: PR

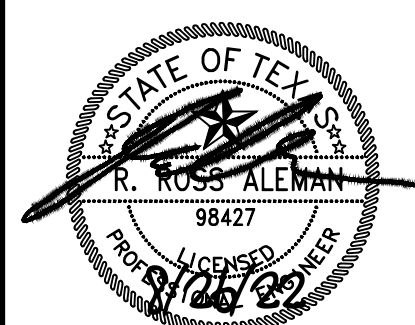
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**BUILDING 2**  
THE SQUARE AT CRYSTAL FALLS  
1900 S. BAGDAD ROAD, BLDG. 2  
LEANDER, TEXAS 78641

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- 2 06.20.22 - Revision 2
- 3 08.26.22 - City Comments



08.26.2022  
CITY COMMENTS  
2ND LEVEL FLOOR PLAN - MECHANICAL

SHEET: **M101**

PROJECT NO: 21099  
DRAWN BY:  
DATE: 01.28.2022  
PROJECT MGR:



**ELECTRICAL LEGEND**

NOTE: ALL SYMBOLS SHOWN ON LEGEND ARE NOT NECESSARILY USED.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	1X4 LINEAR FLUORESCENT FIXTURE W/ DESIGNATION	<b>ABBREVIATIONS</b>	
	2X2 LINEAR FLUORESCENT FIXTURE W/ DESIGNATION	AFB	ABOVE FINISHED CEILING
	2X4 LINEAR FLUORESCENT FIXTURE W/ DESIGNATION	AFF	ABOVE FINISHED FLOOR
	NIGHT LIGHT FIXTURE	AFG	ABOVE FINISHED GRADE
	LINEAR FLUORESCENT STRIP OR 6" FIXTURE W/ DESIGNATION	AHJ	AUTHORITY HAVING JURISDICTION
	RECESSED DOWNLIGHT FIXTURE W/ DESIGNATION	AL	ALUMINUM
	SURFACE OR PENDANT DOWNLIGHT FIXTURE W/ DESIGNATION	BFG	BELOW FINISHED GRADE
	WALL WASH FIXTURE W/ DESIGNATION, DIRECTION INDICATED BY TRIANGLE	C	CONDUIT
	WALL MOUNT LINEAR FLUORESCENT FIXTURE W/ DESIGNATION	CKT	CIRCUIT
	WALL MOUNT FIXTURE W/ DESIGNATION	CT	CURRENT TRANSFORMER
	SPOTLIGHT	EOMH	ELECTRICALLY OPERATED, MECHANICALLY HELD
	CEILING OR WALL MOUNT EXIT SIGN (INSTALL FACE AS INDICATED BY ARROWS)	EM	EMERGENCY
	EMERGENCY BATTERY FIXTURE	EWG	ELECTRIC WATER COOLER
	CEILING FAN	(E)	EXISTING
	20A SIMPLEX RECEPTACLE AT 18" U.N.O.	ETR	EXISTING TO REMAIN
	20A DUPLEX RECEPTACLE AT 18" U.N.O.	ER	EXISTING RELOCATED
	GFCI RECEPTACLE AT 18" U.N.O. (DUPLICATION / SIMPLEX)	F/A	FIRE ALARM
	20A QUADRUPLEX RECEPTACLE AT 18" U.N.O.	F/S	FIRE/SMOKE DAMPER
	20A DUPLEX RECEPTACLE 8" ABOVE COUNTER U.N.O.	G OR GND	GROUND
	20A DUPLEX RECEPTACLE SPECIAL MOUNT (FLOOR, CLG)	GEC	GROUNDING ELECTRODE CONDUCTOR
	20A ISOLATED GROUND RECEPTACLE	GF	GROUND FAULT CIRCUIT INTERRUPTER
	20A WEATHER-RESISTANT GFCI RECEPTACLE WITH WEATHERPROOF "EXTRA DUTY WHILE IN USE" COVER	IG	ISOLATED GROUND
	DEDICATED DUPLEX RECEPTACLE WITH AMP RATING NOTED	MFR	MANUFACTURER
	20A DUPLEX RECEPTACLE WITH TOP RECEPTACLE CONTROLLED VIA AUTO-ON/OFF OCCUPANCY SENSOR	N1, N3R, N...	NEMA 1, NEMA 3R, NEMA DUPLEX (AS NOTED)
	20A COMBINATION DUAL USB AND DUPLEX RECEPTACLE		
	SPECIAL RECEPTACLE AS NOTED	NIES	NOT IN ELECTRICAL SECTION
	COMBINATION TELEPHONE/DATA (TELE-DATA) OUTLET (18" ON WALL, 8" ABOVE COUNTER, FLOOR)	NL	NIGHT LIGHT
	TELEPHONE OUTLET, DATA OUTLET	NTS	NOT TO SCALE
	TELEVISION/CABLE OUTLET, CARD READER OUTLET	OH	OVERHEAD
	J-BOX (CEILING/WALL, FLOOR)	SDE	SERVICE DISTRIBUTION ENCLOSURE
	SECURITY CAMERA	SPD	SURGE PROTECTIVE DEVICE
	CONDUIT RUN EXPOSED OR CONCEALED	TT	TELEPHONE TERMINAL
	CONDUIT RUN BELOW FLOOR OR GRADE	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
	ITEM TO BE REMOVED	UG	UNDERGROUND
	SWITCHLEG	UNO	UNLESS NOTED OTHERWISE
	CIRCUIT HOMERUN, #12, THWN/THHN & QTY AS REQ'D, W/ GND, 3/4" C., U.N.O.	WP	WEATHER PROOF
	CIRCUIT HOMERUN CONTAINING 3 HOTS, NEUTRAL, & GROUND	WR	WEATHER RESISTANT
	CONDUIT STUB-UP - CAP & MARK	XFMR	TRANSFORMER
	GROUND	XP	EXPLOSION PROOF
	BUILDING STEEL GROUND	+18"	MOUNTING HEIGHT TO CENTERLINE OF DEVICE AFF OR AFG
	COLD WATER GROUND		
	CONCRETE ENCASED ELECTRODE GROUND	<b>FIRE ALARM SYSTEM</b>	
	PANELBOARD OR LOAD CENTER	[FACP]	FIRE ALARM CONTROL PANEL
	TRANSFORMER	[ANNUN]	FIRE ALARM ANNUNCIATOR PANEL
	DISCONNECT SWITCH (NON-FUSED UNLESS NOTED OTHERWISE WITH FUSE SIZE - AF - IN DISCONNECT SWITCH CALLOUT)	[F]	MANUAL PULL STATION DOUBLE ACTION
	MAGNETIC MOTOR STARTER	[MMS]	GENERAL ALARM COMBINATION HORN/STROBE (AUDIO/VISUAL) (WALL, CLG)
	COMBINATION DISCONNECT AND STARTER	[V]	FIRE ALARM STROBE (VISUAL DEVICE) (WALL, CLG)
	MOTOR	[S]	SPEAKER - CEILING MOUNTED, WALL MOUNTED
	EQUIPMENT CONNECTION	[S]	SMOKE/IONIZATION DETECTOR
	OCCUPANCY SENSOR (CEILING, FLOOR) - RATING/COVERAGE, IF SHOWN, IS IN 100'S OF SQ. FT.	[H]	HEAT DETECTOR
	PHOTOELECTRIC CELL	[D]	DUCT DETECTOR
	LIGHTING CONTACTOR	[FS]	SPRINKLER SYSTEM FLOW SWITCH
	TIMECLOCK	[TS]	SPRINKLER SYSTEM TAMPER SWITCH
	LIGHTING CONTROL PANEL	[RIS]	REMOTE TEST SWITCH
	LIGHT SWITCH AT 48" UNLESS NOTED	[E]	ELECTRIC DOOR HOLDER
<b>SUBSCRIPTS</b>			
3	3-WAY SWITCH		
4	4-WAY SWITCH		
O	OCCUPANCY SENSOR SWITCH		
D	DIMMER SWITCH		
K	KEY-OPERATED SWITCH		
T	TIMER SWITCH		
P	SWITCH WITH PILOT LIGHT		
M	MOTOR RATED SWITCH		
V	VACANCY SWITCH (AUTO OFF, MANUAL ON)		
o	LOWER CASE LETTER AT FIXTURES AND SWITCHES (a, b, ETC.) INDICATES SWITCHING CONTROL.		

**GENERAL ELECTRICAL NOTES:**

- DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS ON ARCHITECTURAL DRAWINGS AND IN FIELD PRIOR TO COMMENCEMENT OF WORK.
- BEFORE BEGINNING EXCAVATIONS OF ANY NATURE WHATSOEVER, CONTRACTOR SHALL LOCATE ALL SERVICES AND UTILITIES OCCURRING WITHIN THE BOUNDS OF THE PROJECT. THE CONTRACTOR SHALL THEN PROCEED WITH CAUTION IN HIS WORK SO THAT NO UTILITY OR LINE SERVING AREAS THAT ARE TO REMAIN BE DAMAGED WITH A RESULTANT LOSS OF SERVICE. VERIFY THE SOURCE AND SERVICE OF EACH AND EVERY LINE ENCOUNTERED AND RECORD SERVICE, SIZE AND LOCATION ON RECORD DRAWINGS.
- COORDINATE EACH AND EVERY INTERRUPTION OF SERVICES AND UTILITIES WITH THE OWNER AND UTILITY COMPANIES TO ENSURE MINIMUM SHUT-DOWN TIMES ARE ACCEPTABLE.
- VERIFY EXACT LOCATION OF EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN.
- IT IS THE INTENT OF THESE DRAWINGS TO CALL FOR FINISHED WORK, I.E., FULLY ADJUSTED, TESTED, AND READY FOR OPERATION. WHERE THE WORD "PROVIDE" IS USED, IT SHALL MEAN, "FURNISH AND INSTALL COMPLETE AND READY FOR USE".
- FOR EACH EQUIPMENT CONNECTION SHOWN, PROVIDE THE DEVICE, OUTLET, OR JUNCTION BOX REQUIRED TO CONNECT THE EQUIPMENT.
- WHERE 120 VOLT BRANCH CIRCUITS EXCEED 57', PROVIDE MINIMUM #10 AWG CONDUCTORS FROM PANEL TO FIRST DEVICE, FIXTURE, ETC. REF. VOLTAGE DROP TABLE ON THIS SHEET FOR ADDITIONAL VOLTAGE DROP CONDITIONS.
- NO SINGLE CONDUIT SHALL CONTAIN MORE THAN 6 CURRENT CARRYING CONDUCTORS, UNLESS NOTED OTHERWISE AND PROPERLY DERATED. HOMERUN CONDUIT SHALL NOT BE LESS THAN 3/4".
- ALL WIRING SHALL BE IN CONDUIT. ALL CONDUIT SHALL BE 1/2" EMT MINIMUM WITH STEEL TYPE FITTINGS. 1/2" STEEL FLEXIBLE METAL CONDUIT WILL BE ALLOWED IN MAXIMUM LENGTHS OF 6', 3/8" AND/OR NON-METALLIC FLEXIBLE CONDUIT SHALL NOT BE USED. MC-TYPE CABLE MAY BE USED FOR INTERIOR BRANCH CIRCUIT WIRING IF ALLOWED BY THE AUTHORITY HAVING JURISDICTION. UNDERGROUND CONDUIT SHALL BE RIGID GALVANIZED STEEL (RGS) OR SCHEDULE 40 PVC WITH RGS ELLS AND RGS CONDUIT/FITTINGS WHEN EMERGING FROM GRADE, UNLESS NOTED OTHERWISE. PROVIDE CODE-SIZED GREEN GROUNDING CONDUCTOR IN ALL CONDUIT. INCREASE CONDUIT SIZE AS REQUIRED. ALL WIRING SHALL BE #12 AWG MINIMUM COPPER CONDUCTORS.
- UNLESS OTHERWISE NOTED, CONDUIT SHALL BE CONCEALED, IF POSSIBLE, AND INSTALLED SQUARE TO BUILDING LINES.
- ALL EMPTY RACEWAY SYSTEMS SHALL HAVE A #12 PULLWIRE OR EQUAL, AND SHALL BE IDENTIFIED AT ALL JUNCTION, PULL AND TERMINATION POINTS, USING PERMANENT METALLIC TAGS. TAG SHALL INDICATE INTENDED USE OF CONDUIT, ORIGINATION, AND TERMINATION POINTS OF EACH INDIVIDUAL CONDUIT.
- WHERE FIXTURES CONTAINING BATTERY PACKS ARE SWITCHED (BY TOGGLE SWITCH, OCCUPANCY SENSOR, TIMECLOCK/LIGHTING CONTROL PANEL, ETC.), SUPPLY TO BATTERY PACKS SHALL BE UNSWITCHED.
- REVIEW ARCHITECTURAL, STRUCTURAL, CIVIL, PLUMBING, AND OTHER DRAWINGS PRIOR TO BID.
- INSTALL ALL MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ANY DEVIATIONS SHALL BE BROUGHT TO THE ARCHITECT/ENGINEER'S ATTENTION PRIOR TO INSTALLATION.
- WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER TO THE SATISFACTION OF THE ARCHITECT.
- JUNCTION AND PULL BOXES OF APPROPRIATE DIMENSIONS FOR CONDUITS AND CONDUCTORS NOTED SHALL BE INSTALLED WHERE SHOWN ON THE DRAWINGS AND IN ADDITION WHERE NECESSARY OR CONVENIENT FOR INSTALLING AND PULLING WIRE.
- SPICES IN EXTERIOR PULLBOXES SHALL BE MADE WATERPROOF USING "SCOTCHCAST" SPLICE KIT OR APPROVED EQUAL. SEAL ENDS OF CONDUITS AND DUCTS WITH "DUCISEAL" OR APPROVED EQUAL.
- PROTECT ALL RECEPTACLES SHOWN AS GFCI-PROTECTED IN LOCATIONS THAT ARE NOT "READILY ACCESSIBLE" (PER THE NEC) WITH GFCI-TYPE CIRCUIT BREAKERS IN LIEU OF GFCI-TYPE RECEPTACLE.
- PROVIDE A PERMANENTLY AFFIXED LABEL TO EACH INDIVIDUAL RECEPTACLE FACE/COVER PLATE, DISCONNECTING MEANS, SWITCH COVER, ETC., INDICATING THE PANEL AND THE CIRCUIT SERVING THE DEVICE. TYPICAL FOR ALL EQUIPMENT, RECEPTACLES, LIGHTING SWITCHES, AND DISCONNECTS.
- VERIFY EXACT LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES, PIPING, AND RACEWAY SYSTEMS PRIOR TO TRENCHING. PROVIDE NECESSARY TRENCHING, BACKFILL, EXCAVATION, SUPPORTS, SERVICE FEEDERS (CONDUIT AND/OR WIRE), PULLBOXES, SAWCUTTING AND PATCHING, CONCRETE/PAVING, ETC. REQUIRED. BACKFILL TRENCHES TO 90% COMPACTION AND PATCH TO MATCH EXISTING. CONTRACTOR SHALL OBTAIN AND VERIFY EXACT UTILITY COMPANY DRAWINGS AND REQUIREMENTS.
- PROVIDE ALL UNDERGROUND CONDUIT SIZES 2" AND LARGER WITH LONG SWEEP ELLS. (MINIMUM 36" RADIUS.)
- PROVIDE 4" HIGH CONCRETE EQUIPMENT PADS BENEATH.
- FINAL CONNECTIONS TO VIBRATING EQUIPMENT SHALL BE WITH LIQUIDTIGHT FLEX AND APPROVED FITTINGS. DO NOT SECURE CONDUITS, DISCONNECTS, OR DEVICES TO DUCTWORK OR MECHANICAL EQUIPMENT.
- ALL ELECTRICAL SYSTEMS COMPONENTS SHALL BE LISTED OR LABELED BY U.L. OR OTHER RECOGNIZED TESTING FACILITY.
- WIRE TERMINATION PROVISIONS FOR PANELBOARDS, CIRCUIT BREAKERS, SAFETY SWITCHES, AND ALL OTHER ELECTRICAL APPARATUS SHALL BE LISTED AS SUITABLE FOR AT LEAST 75°C. (CU/AL) OR AS NOTED IN MANUFACTURER'S INSTRUCTIONS, WHICHEVER IS GREATER.
- PROVIDE ALL PANELBOARDS WITH GROUND BUS SEPARATE FROM NEUTRAL BUS.
- FIRE ALARM SYSTEM SHALL BE DESIGNED AND SUBMITTED TO THE AUTHORITY HAVING JURISDICTION BY A LICENSED FIRE ALARM CONTRACTOR. FIRE ALARM CONTRACTOR SHALL PROVIDE DESIGN DRAWINGS WHICH ARE NFPA 72 COMPLIANT FOR AHJ APPROVAL. IN ADDITION, THE LICENSED FIRE ALARM CONTRACTOR SHALL PROVIDE APPROVED/STAMPED PLANS FOR PERMIT SUBMISSION. FIRE ALARM CONTRACTOR SHALL PROVIDE NEW COMPONENTS, ACCESSORIES, EQUIPMENT, AND DEVICES AS REQUIRED FOR A COMPLETE SYSTEM CAPABLE OF SERVING THE SCOPE OF WORK INDICATED.
- ADJUST SMOKE DETECTORS AS REQUIRED TO MAINTAIN MINIMUM 3' CLEARANCE FROM DIFFUSERS. TYPICAL THROUGHOUT.
- IT SHALL BE THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT ALL EQUIPMENT DISCONNECTS ARE PROPERLY

	208V, 1Ø	120V, 1Ø
#12 AWG	0 - 98 FT.	0 - 57 FT.
#10 AWG	99 - 157 FT.	58 - 91 FT.
#8 AWG	158 - 251 FT.	92 - 145 FT.
#6 AWG	252 - 397 FT.	146 - 229 FT.
#4 AWG	398 - 633 FT.	230 - 365 FT.

(VERIFY MINIMUM VOLTAGE DROP AND CONDUIT SIZE, PER N.E.C.)

**LIGHT FIXTURE SCHEDULE**

CALLOUT	LAMP	DESCRIPTION	MODEL	INPUT WATTS	VOLTS	NOTE 1
A	(1) 30W LED, 3000K	RECESSED DOWNLIGHT	LIGHTOLIER 6-R-N-Z6RDL-20-830-W-0-BK-Z10-U	30	120V 1P 2W	
AE	(1) 30W LED, 3000K	RECESSED DOWNLIGHT W/ BATTERY BACKUP PACK	LIGHTOLIER 6-R-N-Z6RDL-20-830-W-0-BK-Z10-U-EM	30	120V 1P 2W	
BE	(1) 55W LED, 4000K	ARCHITECTURAL FULL CUTOFF WALL SCENCE - WET LISTED WITH EMER. BATT. BACKUP PACK	SIGNIFY 101L-32L-700-WW-G1-3-UNV-DD-F1-BZ-EBPC	55	120V 1P 2W	COORDINATE EXACT MOUNTING HEIGHT WITH ARCHITECT.
C	(1) 20W LED	WALL SCENCE - WET LISTED	ECLIPSE LIGHTING SM-XL2-LED-3K-80CRI-UNV-BK-CB-0QT-D7A	20	120V 1P 2W	COORDINATE EXACT MOUNTING HEIGHT WITH ARCHITECT.
CE	(1) 20W LED	WALL SCENCE - WET LISTED - WITH EMER. BATT. BACKUP PACK	ECLIPSE LIGHTING SM-XL2-LED-3K-80CRI-UNV-BK-CB-0QT-D7A-ELBW	20	120V 1P 2W	BACKBOX REQUIRED FOR BATTERY BACK UP PACK FIXTURE. COORDINATE EXACT MOUNTING HEIGHT WITH ARCHITECT.
D	(1) 4.8W LED, 3500K	FULL CUTOFF WALL MOUNT	NEW STAR LIGHTING NWDEU-1-L35-UN-BK	4.8	120V 1P 2W	COORDINATE EXACT MOUNTING HEIGHT WITH ARCHITECT.
DE	(1) 4.8W LED, 3500K	FULL CUTOFF WALL MOUNT WITH EMERGENCY BATTERY BACKUP PACK	NEW STAR LIGHTING NWDEU-1-L35-UN-BK-EML	4.8	120V 1P 2W	COORDINATE EXACT MOUNTING HEIGHT WITH ARCHITECT.
F	(1) 31.1W LED	LED LINEAR	AMERICAN LINEAR LIGHTING LE-3S-LENGTH-UM-WH	31.1	120V 1P 2W	
TE	(1) 86W LED, 4000K	4' LED VAPOR TIGHT WALL MOUNT WITH EMERGENCY BATTERY BACKUP PACK	VERSALED VT8-4X35L-QT-RFA-40K-EM7	86	120V 1P 2W	COORDINATE EXACT MOUNTING HEIGHT WITH MANUFACTURER
X1	(1) LED	EXIT WITH EMER. BATTERY BACKUP PACK	LITHONIA LRP-XX-1-XX-120/277	2.7	120V 1P 2W	COORDINATE COLOR "XX" AND BACKGROUND "XX" WITH ARCHITECT PRIOR TO ORDERING/PURCHASING.
XE	(1) LED	EXIT WITH EMER. BATTERY BACKUP PACK - WET LISTED	LITHONIA WLTE-XX-1-XX-EL	2.7	120V 1P 2W	COORDINATE COLOR "XX" AND BACKGROUND "XX" WITH ARCHITECT PRIOR TO ORDERING/PURCHASING.

\*\*\* NOTE TO CONTRACTOR: VERIFY ALL FIXTURE SELECTIONS WITH THE ARCHITECT PRIOR TO ORDERING/PURCHASING. \*\*\*



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512.293.0007

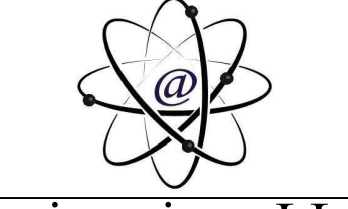
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- 06.20.22 - Revision 2
- 08.26.22 - City Comments



DRAWN BY: CA  
CHECKED BY: AD  
**AYS**



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08.26.2022  
CITY COMMENTS  
ELECTRICAL LEGEND, NOTES, AND SCHEDULE

SHEET: **E100**

PROJECT NO: 21099  
DRAWN BY:  
DATE: 01.28.2022  
PROJECT MGR:

**SHEET NOTES:**

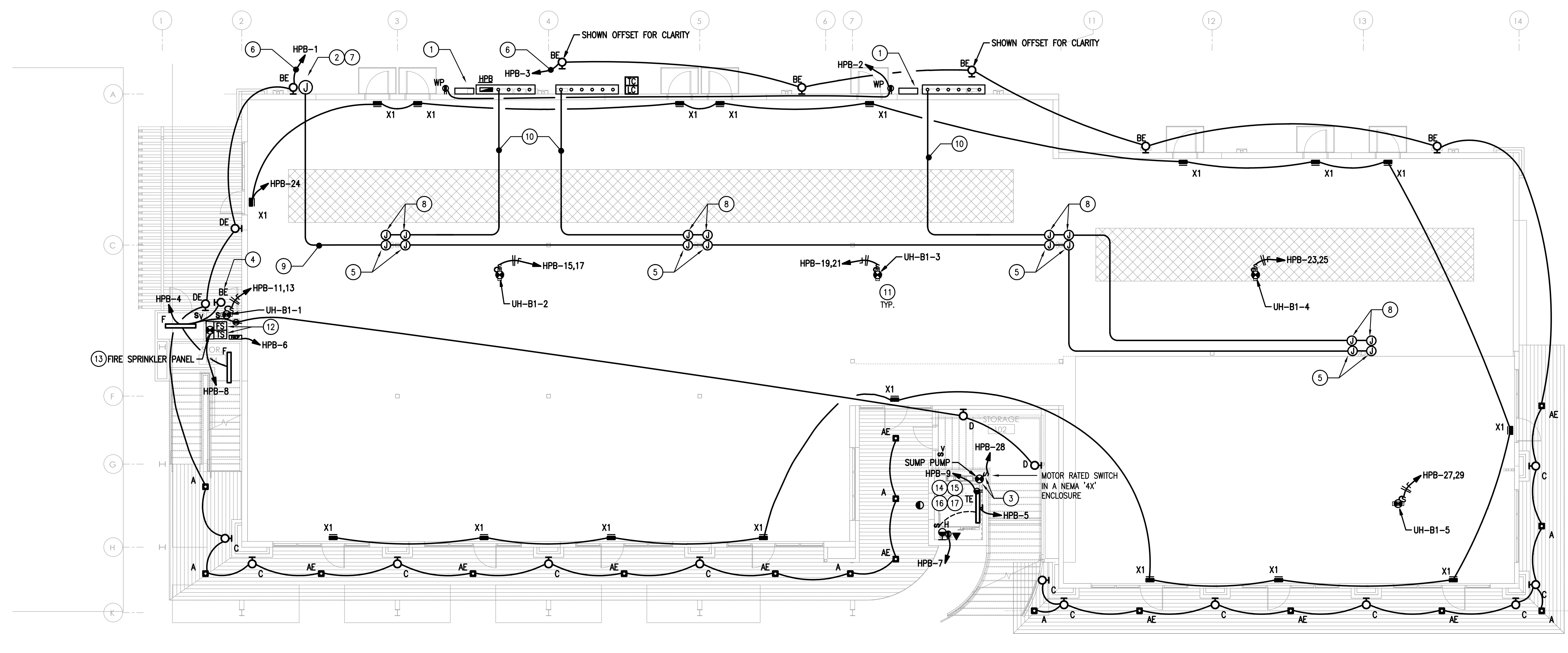
GENERAL: REFER ALSO TO GENERAL ELECTRICAL NOTES ON SHEET E100.

- COORDINATE WITH MECHANICAL CONTRACTOR FOR CONNECTION REQUIREMENTS AND LOCATIONS FOR EQUIPMENT.

**KEYED NOTES:**

GENERAL: REFER ALSO TO GENERAL ELECTRICAL NOTES ON SHEET E100.

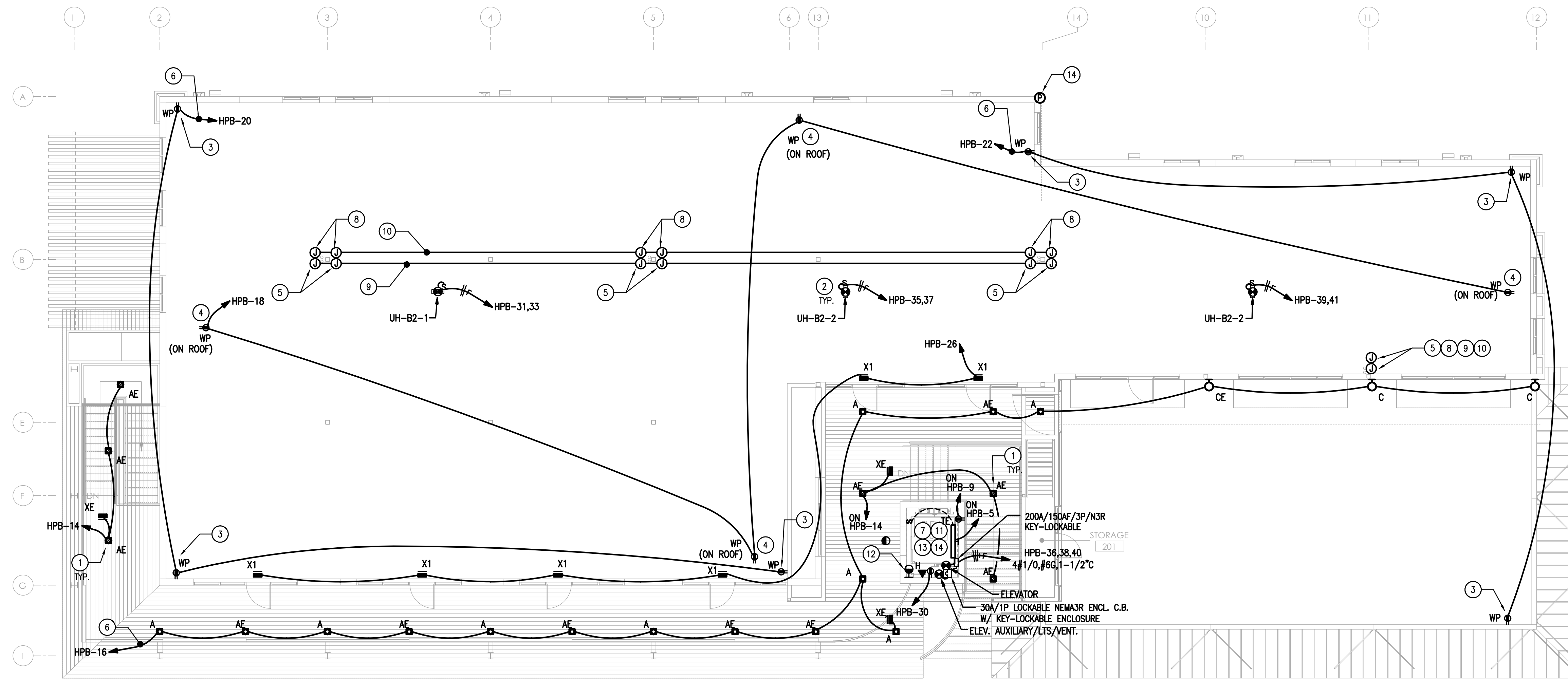
- ELECTRIC SERVICE ENTRANCE LOCATION. REFER TO ELECTRICAL RISER DIAGRAM ON SHEET E300 & SITE PLAN ON SHEET EU100.
- COORDINATE CONNECTION AND REQUIREMENTS FOR TELEPHONE SERVICE ENTRANCE WITH LOCAL TELEPHONE COMPANY. REFER TO SITE PLAN ON SHEET EU100.
- ELECTRICAL CONNECTION TO ELEVATOR SUMP PUMP. COORDINATE THE EXACT INSTALLATION, CONNECTION, AND CONTROL REQUIREMENTS WITH THE PUMP AND ELEVATOR MANUFACTURERS' RECOMMENDATIONS.
- FIXTURE 'BE' SHOWN OFFSET FOR CLARITY. REFERENCE ARCHITECTURAL PLAN FOR EXACT LOCATION IN FIRE RISER ROOM.
- PROVIDE J-BOX AND 2" CONDUIT W/ PULL STRING FROM FUTURE TENANT SPACE, FOR EACH 1ST AND 2ND FLOOR TENANT, AND BACK TO TELECOMMUNICATION SERVICE ENTRANCE.
- TIME CLOCK CONTROLLED. REFER TO LIGHTING CONTROLS DIAGRAM ON SHEET E300 FOR FURTHER INFORMATION.
- PROVIDE 12"x12"x18" N3R JUNCTION BOX ABOVE TELEPHONE PEDESTAL ON EXTERIOR WALL AT HEIGHT MATCHING INTERIOR BAR JOISTS. ROUTE 4" PVC CONDUIT (PAINTED WITH COLOR SPECIFIED BY ARCHITECT) W/ PULL STRING FROM TELEPHONE PEDESTAL TO J-BOX. CAULK AROUND BOX. SHOWN OFFSET FOR CLARITY.
- PROVIDE PULL BOX AT CEILING FOR TENANT FEEDERS, FOR EACH 1ST AND 2ND FLOOR TENANT. ROUTE 1-2" EMPTY CONDUIT WITH PULL STRINGS TO ABOVE ELECTRICAL SERVICE GUTTER.
- PROVIDE 2" CONDUITS WITH PULL STRINGS, (1) 2" CONDUIT FOR EACH TENANT TELECOMMUNICATION. REFER TO KEYED NOTE 5, THIS SHEET. CONTRACTOR TO RUN CONDUIT HIGH IN JOIST.
- PROVIDE 2" CONDUIT FOR TENANT FEEDERS WITH PULL STRINGS, (1) 2" CONDUIT FOR EACH TENANT FEEDERS. REFER TO KEYED NOTE 8, THIS SHEET. CONTRACTOR TO RUN CONDUIT HIGH IN JOIST.
- MOUNT 2-POLE TOGGLE DISCONNECT SWITCH TO NEAREST STRUCTURAL MEMBER WITH NEC-REQUIRED CLEARANCES ADJACENT TO UNIT SERVED. TYPICAL FOR ALL TOGGLE DISCONNECT SWITCHES, U.N.O.
- FLOW AND TAMPER SWITCHES AT SPRINKLER SYSTEM OS&Y VALVES TO BE MONITORED BY THE FIRE ALARM SYSTEM. COORDINATE THE EXACT LOCATION AND QUANTITY WITH THE SPRINKLER SYSTEM CONTRACTOR.
- PROVIDE SPRINKLER MONITORING SYSTEM PANEL MANUFACTURED BY EDWARDS TECHNOLOGY SYSTEM, OR APPROVED EQUAL. THE CONTRACTOR SHALL ROUTE (1) 1" EMPTY CONDUIT WITH PULLWIRE FROM SPRINKLER MONITORING SYSTEM PANEL TO BUILDING TELEPHONE SERVICE PANEL.
- ALL PIT CONDUITS SHALL BE ENCLOSED IN NEMA 4 CONDUIT PER ASME A17.1 RULE 102.2.
- FIRE ALARM CONTRACTOR TO PROGRAM FIRE ALARM SYSTEM, HEAT DETECTOR, ELEVATOR RECALL, ELEVATOR MAIN POWER SHUNT TRIP CIRCUIT BREAKER ACTIVATION, AND ALL OTHER ELEVATOR FIRE ALARM COMPONENTS AND ELEMENTS IN ACCORDANCE WITH NFPA 72.
- GROUND ALL ELECTRICAL EQUIPMENT, CONTROLLERS, AND MACHINES IN ACCORDANCE WITH NEC 620.81-82 AND ASME A17.1 RULE 102.1.
- COORDINATE EXACT LOCATION OF ALL CONNECTION POINTS AND ADDITIONAL REQUIREMENTS OF ALL ELEVATOR EQUIPMENT WITH ELEVATOR EQUIPMENT SUPPLIER PRIOR TO INSTALLATION OF ALL ASSOCIATED ELEVATOR EQUIPMENT. ALL EQUIPMENT INCLUDING ASSOCIATED ELECTRICAL DEVICES ETC. SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ANSI AND STATE ELEVATOR CODE. CONTRACTOR SHALL COORDINATE WITH ELEVATOR SUPPLIER/INSTALLER TO ENSURE COMPLIANCE WITH CURRENT ELEVATOR CODES AND PROVIDE AND INSTALL ANY ADDITIONAL ELECTRICAL DEVICES AS REQUIRED FOR COMPLIANCE.



1ST LEVEL  
**FLOOR PLAN - LIGHTING + POWER**  
SCALE: 1/8" = 1'-0"  
TRUE PLAN NORTH

DRAWN BY: CA    CHECKED BY: AD

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**SHEET NOTES:**

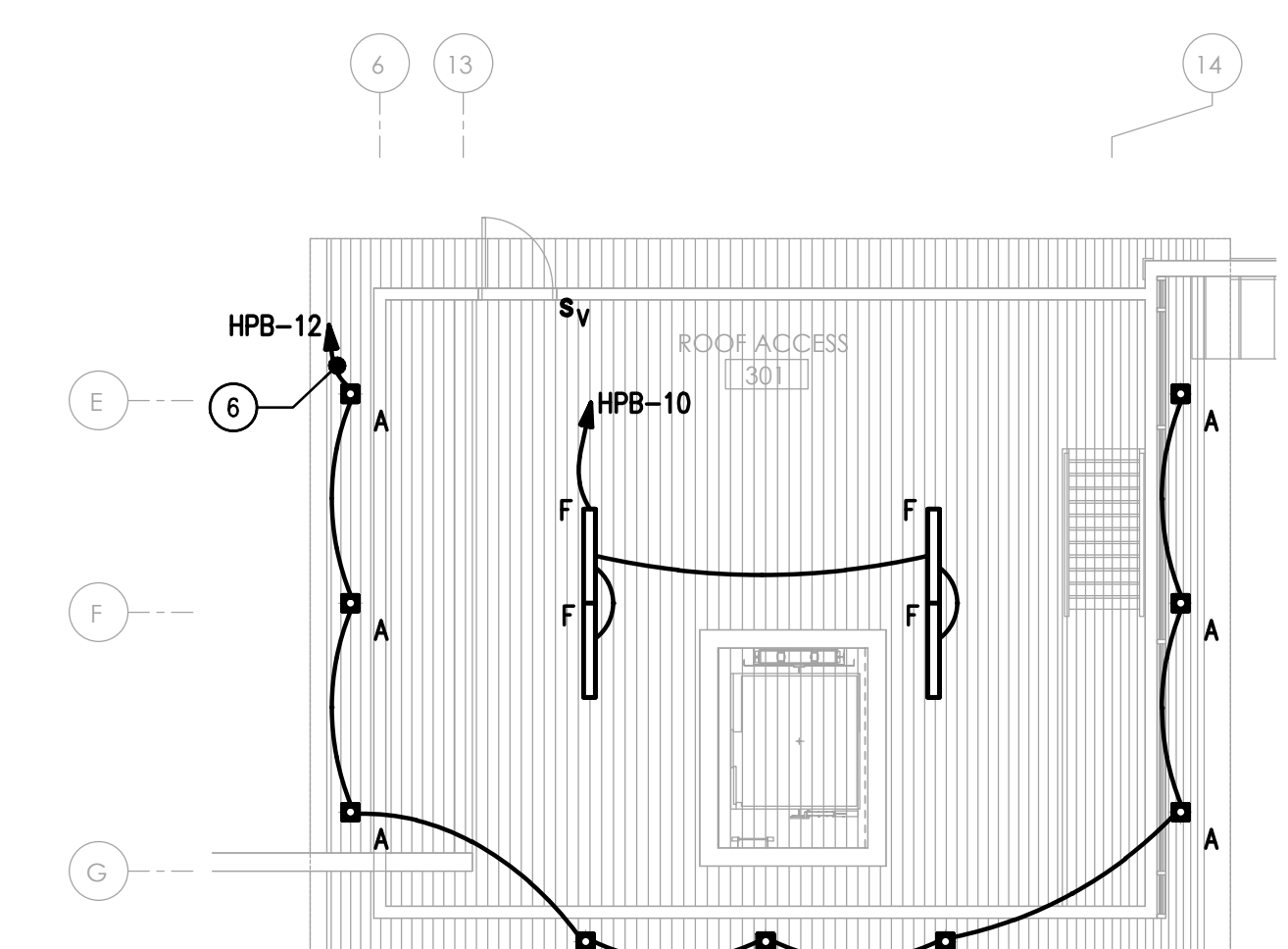
GENERAL: REFER ALSO TO GENERAL ELECTRICAL NOTES ON SHEET E100.  
 1. COORDINATE WITH MECHANICAL CONTRACTOR FOR CONNECTION REQUIREMENTS AND LOCATIONS FOR EQUIPMENT.

**KEYED NOTES:**

- GENERAL: REFER ALSO TO GENERAL ELECTRICAL NOTES ON SHEET E100.
- POWER TO FIXTURES IN STAIRWELL SHALL BE UNSWITCHED SO THAT THE FIXTURE MAY SERVE AS A NIGHT LIGHT. FIXTURE TO BE PROVIDED WITH BATTERY PACK OPTION FOR EMERGENCY OPERATION DURING POWER FAILURE. TYPICAL FOR ALL FIXTURES IN STAIRWELL, U.N.O.
  - MOUNT 2-POLE TOGGLE DISCONNECT SWITCH TO NEAREST STRUCTURAL MEMBER WITH NEC-REQUIRED CLEARANCES ADJACENT TO UNIT SERVED. TYPICAL FOR ALL TOGGLE DISCONNECT SWITCHES, U.N.O.
  - PROVIDE 120V, 20A, GFCI/WP/WR, DUPLEX RECEPTACLE FOR HOLIDAY LIGHTS. COORDINATE EXACT LOCATION, MOUNTING HEIGHT AND REQUIREMENTS WITH ARCHITECT PRIOR TO ROUGH-IN.
  - LOCATE 20A, 120 VOLT, DUPLEX RECEPTACLE AT ROOFTOP PARAPET WALL. VERIFY EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.
  - PROVIDE J-BOX AND 2" CONDUIT W/ PULL STRING FROM FUTURE TENANT SPACE, FOR EACH 1ST AND 2ND FLOOR TENANT, AND BACK TO TELECOMMUNICATION SERVICE ENTRANCE.
  - TIME CLOCK CONTROLLED. REFER TO LIGHTING CONTROLS DIAGRAM ON SHEET E300 FOR FURTHER INFORMATION.
  - FIRE ALARM CONTRACTOR TO PROGRAM FIRE ALARM SYSTEM, HEAT DETECTOR, ELEVATOR RECALL, ELEVATOR MAIN POWER SHUNT TRIP CIRCUIT BREAKER ACTIVATION, AND ALL OTHER ELEVATOR FIRE ALARM COMPONENTS AND ELEMENTS IN ACCORDANCE WITH NFPA 72.
  - PROVIDE PULL BOX AT CEILING FOR TENANT FEEDERS, FOR EACH 1ST AND 2ND FLOOR TENANT. ROUTE 1-2" EMPTY CONDUIT WITH PULL STRINGS TO ABOVE ELECTRICAL SERVICE GUTTER.
  - PROVIDE 2" CONDUITS WITH PULL STRINGS, (1) 2" CONDUIT FOR EACH TENANT TELECOMMUNICATION; REFER TO KEYED NOTE 5, THIS SHEET. CONTRACTOR TO RUN CONDUIT HIGH IN JOIST.
  - PROVIDE 2" CONDUIT FOR TENANT FEEDERS WITH PULL STRINGS, (1) 2" CONDUIT FOR EACH TENANT FEEDERS. REFER TO KEYED NOTE 8, THIS SHEET. CONTRACTOR TO RUN CONDUIT HIGH IN JOIST.

- GROUND ALL ELECTRICAL EQUIPMENT, CONTROLLERS, AND MACHINES IN ACCORDANCE WITH NEC 620.81-82 AND ASME A17.1 RULE 102.1.
- PROVIDE HEAT DETECTOR AT TOP OF ELEVATOR SHAFT NOT MORE THAN 2-FT FROM SPRINKLER HEAD. COORDINATE WITH PLUMBING CONTRACTOR FOR EXACT LOCATION OF SPRINKLER HEAD.
- COORDINATE EXACT LOCATION OF ALL CONNECTION POINTS AND ADDITIONAL REQUIREMENTS OF ALL ELEVATOR EQUIPMENT WITH ELEVATOR EQUIPMENT SUPPLIER PRIOR TO INSTALLATION OF ALL ASSOCIATED ELEVATOR EQUIPMENT. ALL EQUIPMENT INCLUDING ASSOCIATED ELECTRICAL DEVICES ETC. SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ANSI AND STATE ELEVATOR CODE. CONTRACTOR SHALL COORDINATE WITH ELEVATOR SUPPLIER/INSTALLER TO ENSURE COMPLIANCE WITH CURRENT ELEVATOR CODES AND PROVIDE AND INSTALL ANY ADDITIONAL ELECTRICAL DEVICES AS REQUIRED FOR COMPLIANCE.
- ALL PIT CONDUITS SHALL BE ENCLOSED IN NEMA 4 CONDUIT PER ASME A17.1 RULE 102.2.
- MOUNT PHOTOCELL HIGH ON WALL FACING NORTHEAST. REF. SHEET E300 FOR LIGHTING CONTROLS DIAGRAM.

2ND LEVEL  
**FLOOR PLAN - LIGHTING + POWER**  
 SCALE: 1/8" = 1'-0"  
 TRUE NORTH PLAN NORTH



3RD LEVEL  
**FLOOR PLAN - LIGHTING + POWER**  
 SCALE: 1/8" = 1'-0"  
 TRUE NORTH PLAN NORTH

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**BUILDING 2**  
 THE SQUARE AT CRYSTAL FALLS  
 1900 S. BAGDAD ROAD, BLDG. 2  
 LEANDER, TEXAS 78641

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06.20.22 - Revision 2



06.20.2022  
 REVISION 2  
 2ND & 3RD LEVEL FLOOR PLAN - LIGHTING & POWER

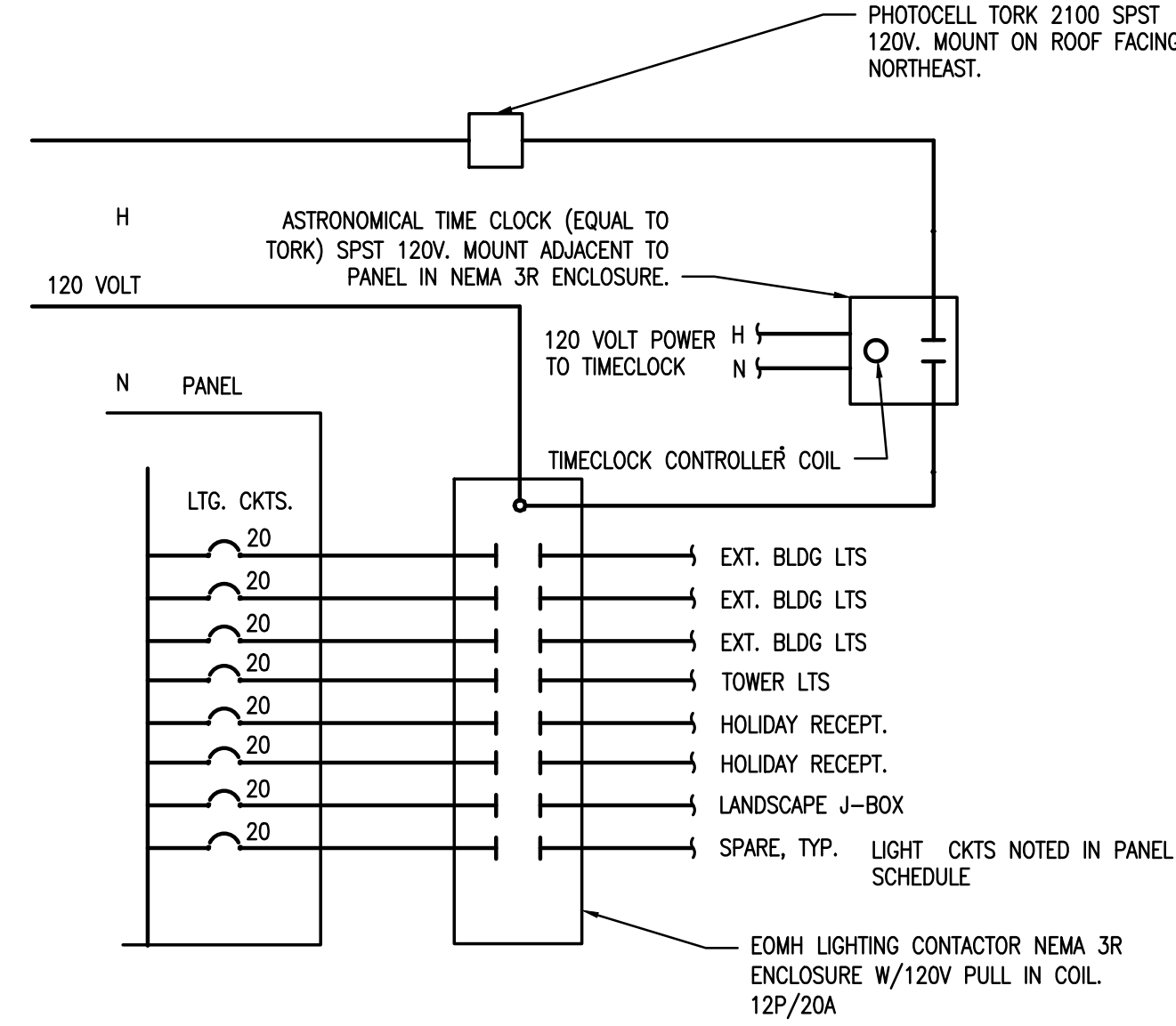
SHEET: **E201**

PROJECT NO: 21099  
 DRAWN BY: CA  
 DATE: 01.28.2022  
 PROJECT MGR:

HPB											
ROOM BLDG 2 EXTERIOR			VOLTS 208Y/120V 3P 4W			AIC 100,000					
MOUNTING SURFACE			BUS AMPS 400			MAIN BKR MLO					
FED FROM UTILITY			NEUTRAL 100%			LUGS STANDARD					
NOTE NEMA 3R											
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	20/1	EXTERIOR LIGHTING	0.465			2	20/1	EXTERIOR RECEPTACLE	0.36		
3	20/1	EXTERIOR LIGHTING		0.625		4	20/1	RISER/STOR LIGHTING, RECEPTACLE		0.307	
5	20/1	ELEVATOR LIGHTING			0.172	6	20/1	FACP			0.3
7	20/1	ELEV. RECEPTACLE	0.18			8	20/1	FIRE SPRINKLER PANEL	0.528		
9	20/1	ELEV. RECEPTACLE		0.36		10	20/1	TOWER INTERIOR LIGHTING		0.124	
11	20/2	UH-B1-1			1.65	12	20/1	TOWER EXTERIOR LIGHTING			0.27
13			1.65			14	20/1	STAIRWELL LIGHTING	0.18		
15	20/2	UH-B1-2		1.65		16	20/1	2ND FLR EXT. LIGHTING		0.48	
17					1.65	18	20/1	ROOFTOP RECEPTACLE			0.72
19	20/2	UH-B1-3	1.65			20	20/1	HOLIDAY RECEPTACLE	1.5		
21				1.65		22	20/1	HOLIDAY RECEPTACLE		1.5	
23	20/2	UH-B1-4			1.65	24	20/1	1ST FLR EXIT SIGN LIGHTING			0.049
25	20/2	UH-B1-5	1.65			26	20/1	2ND FLR EXIT SIGN LIGHTING	0.016		
27				1.65		28	20/1	SUMP PUMP		1.18	
29	20/2	UH-B2-1	1.65			30	20/1	RECEPTACLE			0.18
31				1.65		32	20/1	LANDSCAPE J-BOX	0.9		
33	20/2	UH-B2-2	1.65			34	-/1	SPACE		0	
35				1.65		36	150/3	ELEVATOR			11.4
37	20/2	UH-B2-2	1.65			38					
39	20/2	UH-B2-2			1.65	40					
41					1.65	42	-/1	**SHUNT TRIP**			0
TOTAL CONNECTED KVA BY PHASE									23.8	24.2	23
CONN KVA			CALC KVA			CONN KVA			CALC KVA		
LIGHTING	3.41	4.26	(125%)	RECEPTACLES	5.28	5.28	(50%>10)				
LARGEST MOTOR	34.2	8.56	(25%)	NONCONTINUOUS	1.18	1.18	(100%)				
MOTORS	34.8	34.8	(100%)	HEATING	26.4	26.4	(100%)				
TOTAL LOAD				80.4							
BALANCED 3-PHASE LOAD				223 A							

**PANELBOARD FOOT NOTES:**

- \* = PROVIDE LOCKABLE-TYPE CIRCUIT BREAKER.
- LC = LTG. CONTROLS ASSIGNMENT. REFER TO LTG. CTRL. SCHED. ON SHEET E301.
- ST = PROVIDE SHUNT TRIP.



**2 LIGHTING CONTROLS DIAGRAM**  
SCALE: NONE

DESIGNATION RANGE (D)	GROUNDING ELECTRODE CONDUCTOR CU WIRE SIZE FOR:		
	GROUND ROD	CONCRETE-ENCASED ELECTRODE	STRUCTURAL STEEL AND METAL WATER PIPING (IF ANY)
20G-100G	#8	#8	#8
125G-150G	#6	#6	#6
175G-200G	#6	#4	#4
225G-300G	#6	#4	#2
350G-500G	#6	#4	#1/0
600G-800G	#6	#4	#2/0
1000G+	#6	#4	#3/0

NOTES:

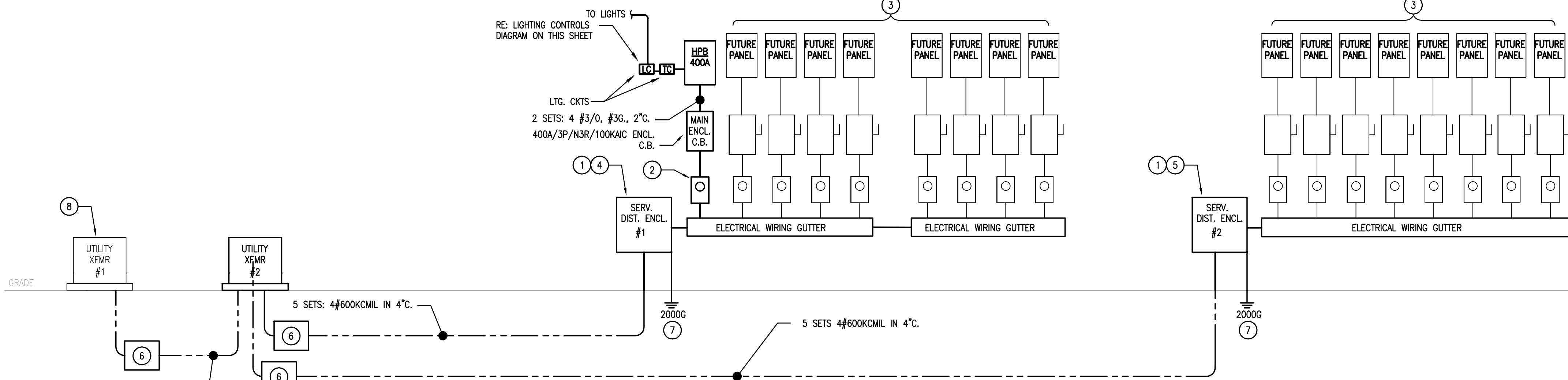
- DESIGNATIONS REFER TO AMPERAGE FOLLOWED BY A "G." FOR EXAMPLE, 30G WOULD FALL WITHIN THE 20G-100G RANGE.
- CONDUCTOR CONNECTED TO FIRST ELECTRODE IN SYSTEM SHALL BE SIZED ACCORDING TO THE GROUNDING ELECTRODE REQUIRING THE LARGEST CONDUCTOR. ONLY AVAILABLE GROUNDING ELECTRODES IN SYSTEM SHALL BE CONSIDERED. ALL BONDING BETWEEN REMAINING ELECTRODES SHALL BE SIZED ACCORDING TO VALUE LISTED IN TABLE.
- GROUNDING ELECTRODE SYSTEMS SHALL CONSIST OF ALL AVAILABLE GROUNDING ELECTRODES.
- THIS TABLE IS BASED ON ARTICLE 250.66 OF THE NEC.

ELECTRICAL LOAD ANALYSIS		LOAD KVA
RETAIL BUILDING 2 LOAD DESCRIPTION 120/208V, 3P, 4W		
FUTURE TENANT LOAD - (13,600 S.F. x 50W) RETAIL =		680
FUTURE TENANT LOAD - (3,400 S.F. x 65W) RESTAURANT =		221
HOUSE LOADS		
LIGHTING 1.7 KVA AT 1.25% =		3.3
RECEPTACLES AT 100% =		5.3
UNIT HEATERS AT 100% =		26.4
LARGEST MOTOR AT 25% =		8.6
OTHER MOTORS AT 100% =		34.8
TOTAL ESTIMATED CONNECTED LOAD =		979.4
282.4 KVA / 208 / √3 = AMPS		2720
BUILDING SERVICE AMPACITY		4000 AMPS
BUILDING SERVICE SPARE CAPACITY		3780 AMPS

THE SQUARE AT CRYSTAL FALLS BLDG 2 - SHORT CIRCUIT CALCULATIONS

Equipment Name	Feeder Length (ft)	Parallel Sets	Conduit	Wire Type	Wire Size	KVA	Voltage	%Z	C-Value	Load Served (A)	I[SCA]	F-Value	Multiplier (M)	Calculated Values (A)
Utility Transformer*						500	208	1.4		1387.9			71.429	99133
SERV. DIST. ENCL. #1	60	5	Non-mag	Copper	#600kcmil		208		28033		99133	0.353	0.739	73249
400A ENCL. C.B.	5	2	Steel	Copper	#3/0		208		12844		99133	0.161	0.862	85410
HPB Panel	5	2	Steel	Copper	#3/0		208		12844		85410	0.138	0.878	75024
SERV. DIST. ENCL. #2	120	5	Non-mag	Copper	#600kcmil		208		28033		99133	0.707	0.586	58083

\* = Assumed Values Used for Calculation



**1 ELECTRICAL RISER DIAGRAM**  
SCALE: NONE

**GENERAL NOTES:**

GENERAL: REFER ALSO TO GENERAL ELECTRICAL NOTES ON SHEET E100.

- UNDERGROUND INSTALLATIONS OF ELECTRICAL SERVICE SHALL COMPLY WITH THE 2014 NEC, SEC. 300.5(D).

- KEYED NOTES:**
- GENERAL: REFER ALSO TO GENERAL ELECTRICAL NOTES ON SHEET E100.
- PROVIDE SERVICE DISTRIBUTION ENCLOSURE, RATED FOR 2000A/3P/N3R/100KAC, IN ACCORDANCE WITH LOCAL ELECTRIC COMPANY STANDARDS. PROVIDE ARC FLASH LABELING TO ALL NEW EQUIPMENT.
  - PROVIDE ELECTRICAL SERVICE METER BASE PER LOCAL ELECTRIC COMPANY REQUIREMENTS.
  - FUTURE PANEL, METER & FUSED DISCONNECT TO BE PROVIDED UNDER THE TENANT FINISH-OUT CONTRACT.
  - PROVIDE SIGNAGE INDICATING TWO (2) SERVICES AND THEIR LOCATIONS. LABEL SERVICE DISTRIBUTION ENCLOSURE AS 1 OF 2.
  - PROVIDE SIGNAGE INDICATING TWO (2) SERVICES AND THEIR LOCATIONS. LABEL SERVICE DISTRIBUTION ENCLOSURE AS 2 OF 2.
  - PROVIDE PULLBOX AS REQUIRED BY THE UTILITY PROVIDER.
  - REFER TO GROUNDING ELECTRODE CONDUCTOR SCHEDULE ON THIS SHEET.
  - TRANSFORMER #1 IS ASSUMED BUILT UNDER PERMIT FOR BUILDING '3'.
  - PROVIDE SERVICE DISTRIBUTION ENCLOSURE, RATED FOR 2000A/3P/N3R/65KAC, IN ACCORDANCE WITH LOCAL ELECTRIC COMPANY STANDARDS. PROVIDE ARC FLASH LABELING TO ALL NEW EQUIPMENT.

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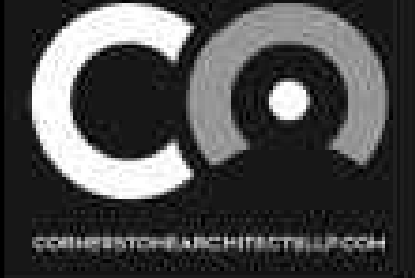
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- 2 06.20.22 - Revision 2
- 3 08.26.22 - City Comments



08.26.2022  
CITY COMMENTS  
ELECTRICAL RISER AND DIAGRAMS

SHEET: **E300**

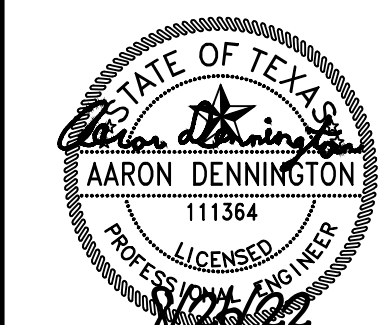
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PROJECT MGR:





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- 2 06.20.22 - Revision 2
- 3 08.26.22 - City Comments



08.26.2022  
CITY COMMENTS  
SITE PLAN - ELECTRICAL

SHEET: **EU100**

PROJECT NO: 21099  
DRAWN BY: [Signature]  
DATE: 01.28.2022  
PROJECT MGR: [Signature]

**SHEET NOTES:**

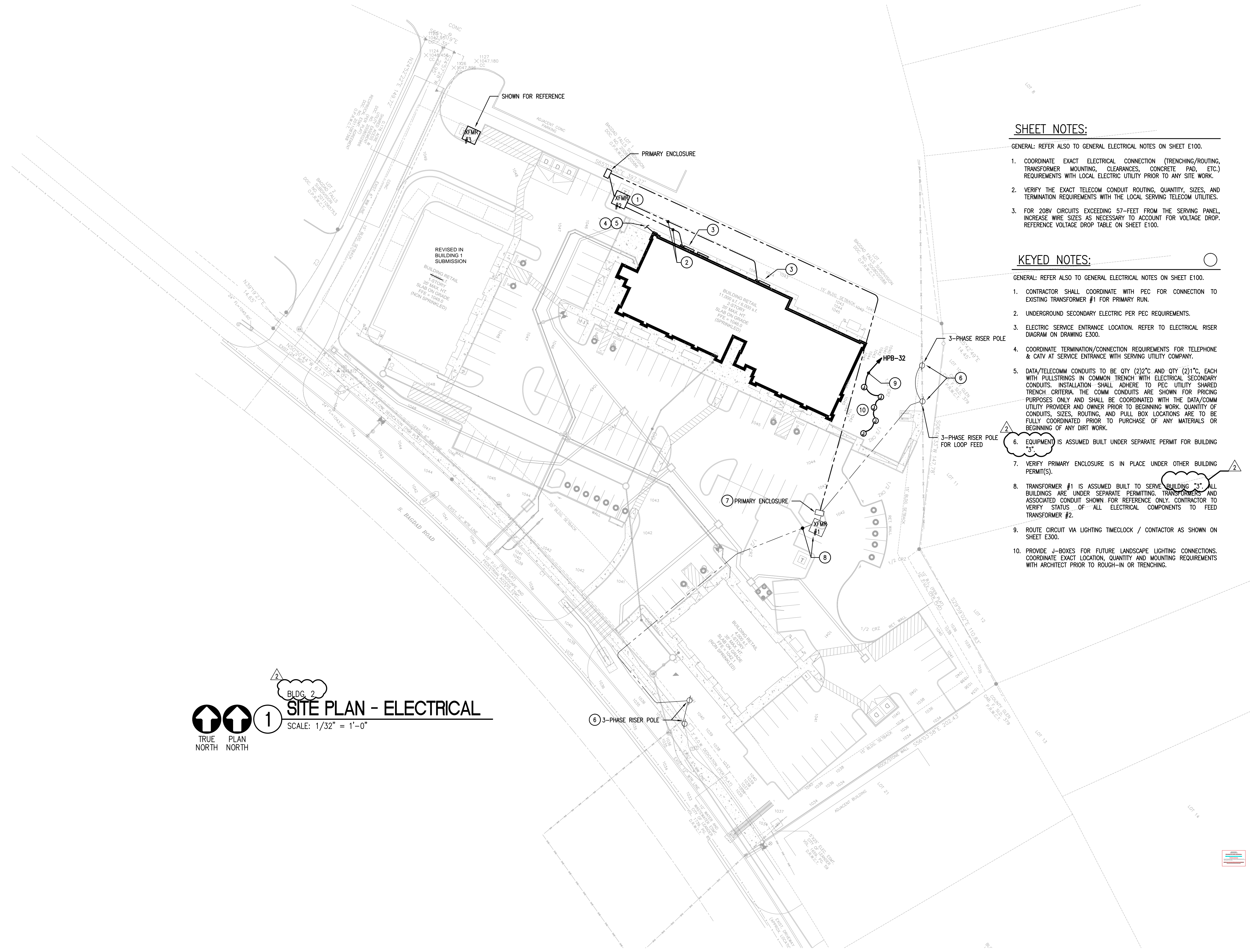
- GENERAL: REFER ALSO TO GENERAL ELECTRICAL NOTES ON SHEET E100.
- COORDINATE EXACT ELECTRICAL CONNECTION (TRENCHING/ROUTING, TRANSFORMER MOUNTING, CLEARANCES, CONCRETE PAD, ETC.) REQUIREMENTS WITH LOCAL ELECTRIC UTILITY PRIOR TO ANY SITE WORK.
  - VERIFY THE EXACT TELECOM CONDUIT ROUTING, QUANTITY, SIZES, AND TERMINATION REQUIREMENTS WITH THE LOCAL SERVING TELECOM UTILITIES.
  - FOR 208V CIRCUITS EXCEEDING 57- FEET FROM THE SERVING PANEL, INCREASE WIRE SIZES AS NECESSARY TO ACCOUNT FOR VOLTAGE DROP. REFERENCE VOLTAGE DROP TABLE ON SHEET E100.

**KEYED NOTES:**

- GENERAL: REFER ALSO TO GENERAL ELECTRICAL NOTES ON SHEET E100.
- CONTRACTOR SHALL COORDINATE WITH PEC FOR CONNECTION TO EXISTING TRANSFORMER #1 FOR PRIMARY RUN.
  - UNDERGROUND SECONDARY ELECTRIC PER PEC REQUIREMENTS.
  - ELECTRIC SERVICE ENTRANCE LOCATION. REFER TO ELECTRICAL RISER DIAGRAM ON DRAWING E300.
  - COORDINATE TERMINATION/CONNECTION REQUIREMENTS FOR TELEPHONE & CATV AT SERVICE ENTRANCE WITH SERVING UTILITY COMPANY.
  - DATA/TELECOMM CONDUITS TO BE QTY (2)2" AND QTY (2)1", EACH WITH PULLSTRINGS IN COMMON TRENCH WITH ELECTRICAL SECONDARY CONDUITS. INSTALLATION SHALL ADHERE TO PEC UTILITY SHARED TRENCH CRITERIA. THE COMM CONDUITS ARE SHOWN FOR PRICING PURPOSES ONLY AND SHALL BE COORDINATED WITH THE DATA/COMM UTILITY PROVIDER AND OWNER PRIOR TO BEGINNING WORK. QUANTITY OF CONDUITS, SIZES, ROUTING, AND PULL BOX LOCATIONS ARE TO BE FULLY COORDINATED PRIOR TO PURCHASE OF ANY MATERIALS OR BEGINNING OF ANY DIRT WORK.
  - EQUIPMENT IS ASSUMED BUILT UNDER SEPARATE PERMIT FOR BUILDING "3".
  - VERIFY PRIMARY ENCLOSURE IS IN PLACE UNDER OTHER BUILDING PERMIT(S).
  - TRANSFORMER #1 IS ASSUMED BUILT TO SERVE BUILDING "3". ALL BUILDINGS ARE UNDER SEPARATE PERMITTING. TRANSFORMERS AND ASSOCIATED CONDUIT SHOWN FOR REFERENCE ONLY. CONTRACTOR TO VERIFY STATUS OF ALL ELECTRICAL COMPONENTS TO FEED TRANSFORMER #2.
  - ROUTE CIRCUIT VIA LIGHTING TIMECLOCK / CONTACTOR AS SHOWN ON SHEET E300.
  - PROVIDE J-BOXES FOR FUTURE LANDSCAPE LIGHTING CONNECTIONS. COORDINATE EXACT LOCATION, QUANTITY AND MOUNTING REQUIREMENTS WITH ARCHITECT PRIOR TO ROUGH-IN OR TRENCHING.

**1** BLDG. 2  
**1** **SITE PLAN - ELECTRICAL**  
SCALE: 1/32" = 1'-0"

TRUE NORTH  
PLAN NORTH





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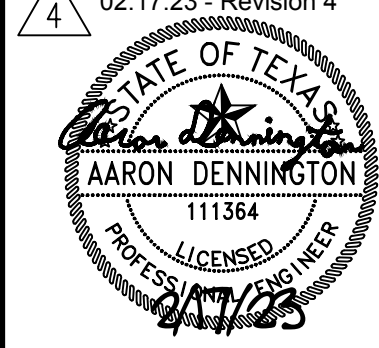
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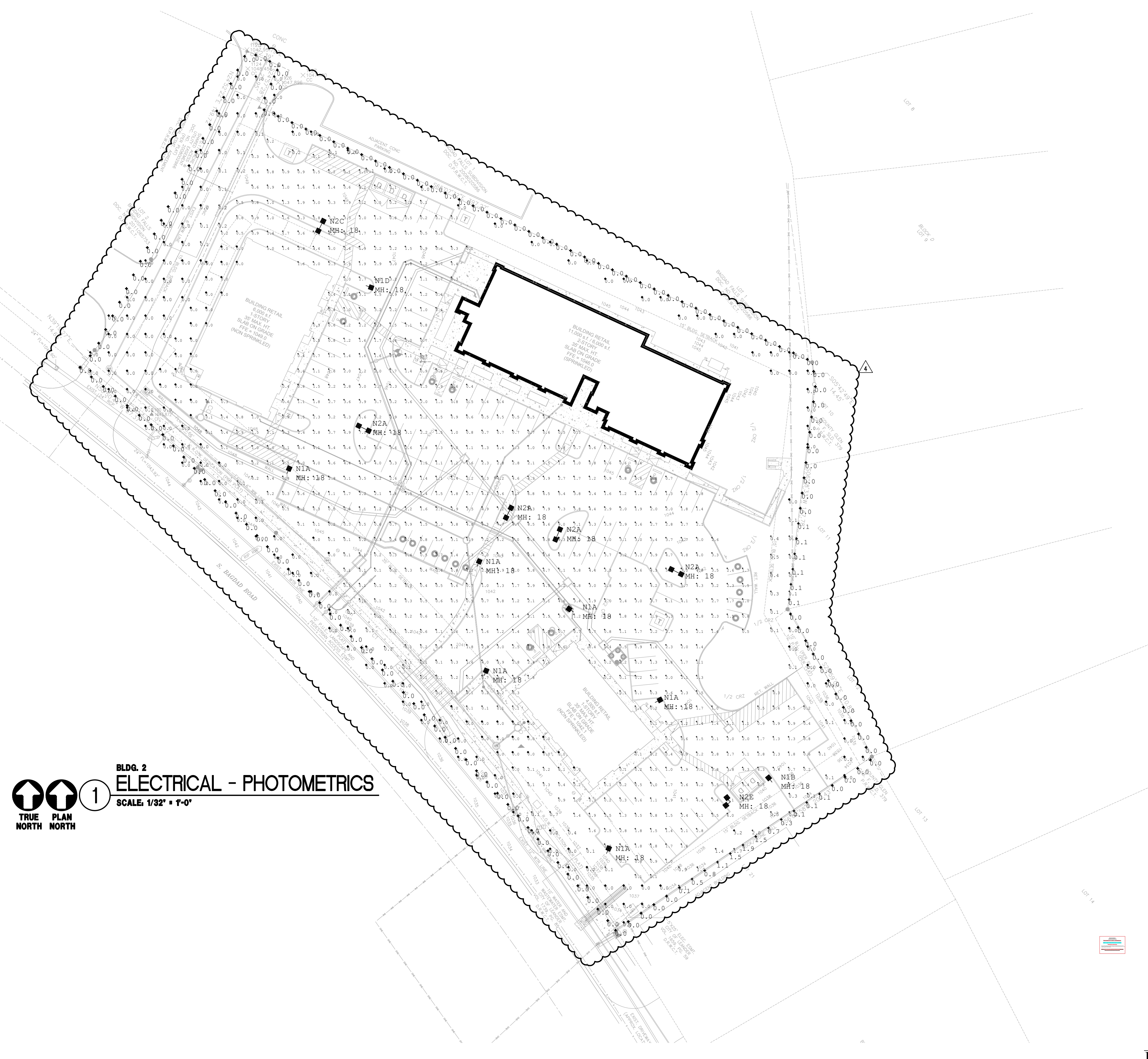
- 2 06.20.22 - Revision 2
- 3 08.26.22 - City Comments
- 4 02.17.23 - Revision 4



02.17.2023  
REVISION 4  
ELECTRICAL - PHOTOMETRICS

SHEET: **EU200**

PROJECT NO: 21099  
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DATE: 01.28.2022  
PROJECT MGR:

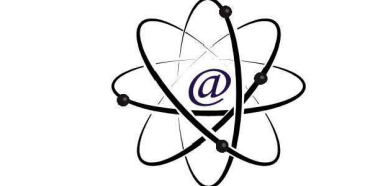


**BLDG. 2**  
**ELECTRICAL - PHOTOMETRICS**  
SCALE: 1/32" = 1'-0"

TRUE NORTH  
PLAN NORTH



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DRAWING ABBREVIATIONS AND SYMBOLS			
ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
ABV	ABOVE CLEANOUT	REF	REFERENCE
CO	COLD WATER	RD	ROOF DRAIN
CW	COLD WATER	SAN	SANITARY SEWER
EXT FCO	EXTERIOR FLOOR CLEANOUT	S/S	STAINLESS STEEL
FCO	FLOOR CLEAN OUT	TYP	TYPICAL
FF	FINISH FLOOR	V	SANITARY VENT
G	NATURAL GAS	VTR	VENT THROUGH ROOF
HPG	HIGH PRESSURE NATURAL GAS	W/O	WATER HAMMER ARRESTOR
WHA	WATER HAMMER ARRESTOR		

GENERAL SYMBOL LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
①	NOTE BY SYMBOL DESIGNATION	→	CONTINUATION OF SYSTEM OR LINE

NOTES:

- ALL ABBREVIATIONS AND SYMBOLS ARE NOT NECESSARILY USED.
- ALL MATERIALS, LABOR, COORDINATION, AND SUPERVISION IS BY CONTRACTOR UNLESS SPECIFICALLY NOTED "BY OWNER" OR "NIC". CONTRACTOR SHALL COORDINATE AND INSTALL EQUIPMENT WHEN NOTED "OWNER FURNISHED".
- SYMBOLS USED, BUT NOT ON THE LEGEND ARE NOTED ON THE PLAN.

PLUMBING SYMBOL LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
---	SANITARY SEWER	FCO	FLOOR CLEANOUT
---	PLUMBING VENT	WCO	WALL CLEANOUT
SD	STORM DRAIN	EXT FCO	EXTERIOR FLOOR CLEANOUT
---	DOMESTIC COLD WATER	DBL EXT FCO	DOUBLE TWO-WAY EXTERIOR FLOOR CLEANOUT
---	DOMESTIC HOT WATER		
G	GAS LINE		
→	DIRECTION OF FLOW		
○	BALL VALVE		
	UNION		
P	SANITARY WASTE OR VENT STACK WASTE OR VENT NO.		
⊗	GATE VALVE WITH C.I. VALVE BOX		
→	STRAINER W/ BLOWDOWN GATE VALVE		
WH	WALL HYDRANT		
RD	ROOF DRAIN		
VTR	VENT THRU ROOF		

PIPING SCHEDULE					
SYMBOL	SERVICE	PIPE MATERIAL	TYPE JOINT	FITTINGS	TEST
---	SANITARY WASTE STORM DRAIN PIPING	SCHEDULE 40 DWV PVC	SOLVENT WELD (PER MANUFACTURER'S RECOMMENDATIONS)	SCHEDULE 40 DWV PVC	10 ft. FOR 6-HOURS
---	SANITARY VENT	SCHEDULE 40 DWV PVC	SOLVENT WELD (PER MANUFACTURER'S RECOMMENDATIONS)	SCHEDULE 40 DWV PVC	10 ft. FOR 6-HOURS
---	DOMESTIC WATER AND ABOVE GROUND HVAC CONDENSATE DRAIN	TYPE 1" HARD DRAWN COPPER (TYPE "K" FOR UNDERGROUND)	SWEAT WITH LEAD FREE SOLDER, SILVER SOLDER FOR UNDERGROUND	WROUGHT COPPER (CONTINUOUS NO JOINTS UNDER- FLOOR SLAB)	150 ft. FOR 24 HOURS

PLUMBING FIXTURE SCHEDULE					
CONNECTION SIZE				ITEM	DESCRIPTION
W.	V.	C.W.	H.W.		
-	-	3/4"	-	WH-1 NON-FREEZE WATER HYDRANT	WATTS #HY-330-K-3 VACUUM BREAKER, 3/4" NPT OUTLET AND "T" HANDLE. DEPTH AS REQUIRED FOR WALL THICKNESS.
4"	2"	-	-	FS-1 - FLOOR SINK	WATTS #FS-790-L-4-NH-FC-5-21-150; STAINLESS STEEL FLOOR SINK WITH HEAVY DUTY STAINLESS STEEL 1/2" STRAINER AND SEMI-FLEX BACKETS.
6"	-	-	-	RD/EOD - ROOF DRAIN / EMERGENCY OVERFLOW DRAIN	WATTS #RD-700; ONE-PIECE COMBINATION ROOF DRAIN & SECONDARY OVERFLOW.
AS NOTED ON PLANS				WALL CLEANOUT: (WCO)	MIFAB No. C1400-R6-36, STAINLESS STEEL ROUND WALL CLEANOUT ACCESS COVER.
AS NOTED ON PLANS				CLEANOUT: (CO) (FCO)	MIFAB No. C1000 SERIES, STAINLESS STEEL ROUND FLOOR CLEANOUT ACCESS COVER. HEAVY DUTY TOP, TAPER THREAD BRONZE PLUG, NICKLE BRONZE TOP
AS NOTED ON PLANS				WATER HAMMER ARRESTORS (WHA)	WATER HAMMER ARRESTORS MIFAB WHB-SERIES STAINLESS STEEL BELOWS TYPE

**GENERAL PLUMBING NOTES:**

(THESE NOTES APPLY TO ALL SHEETS)  
(REFER TO SHEETS FOR ANY ADDITIONAL GENERAL NOTES)

- CONTRACTOR TO CHANGE LOCATION OF NEW PIPING, AS SHOWN, TO MEET FIELD CONDITIONS.
- CONTRACTOR SHALL NOT SCALE DRAWINGS.
- CONTRACTOR SHALL LAYOUT HIS WORK FROM ACTUAL FIELD MEASUREMENTS AND ACTUAL DIMENSIONS OF EQUIPMENT INSTALLED, ALL PIPING AND EQUIPMENT OF ALL TRADES SHALL BE PROPERLY COORDINATED AND SET TO MAINTAIN REQUIRED CLEARANCES. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL LOCATIONS SUBJECT TO APPROVAL OF ARCHITECT.
- REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ALL WALLS, PARTITIONS, CEILING HEIGHTS, AND EQUIPMENT.
- ROUTE ALL PIPING CONCEALED, HIDDEN FROM VIEW AND AS HIGH AS POSSIBLE ABOVE CEILING LEVELS.
- PRIOR TO BID SUBMITTAL THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ARCHITECTURAL DRAWINGS. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS TO VERIFY FLOOR PLAN SCALE OF MECHANICAL DRAWINGS PRIOR TO ANY QUALITATIVE TAKE - OFF OF MATERIAL.
- INSULATE ALL DOMESTIC WATER SUPPLY (HOT AND COLD) PIPING WITH 1-INCH THICK FIBERGLASS PIPE INSULATION. FIBERGLASS PIPE INSULATION SHALL HAVE AN ALL SERVICE JACKET (ASJ) WITH SELF-SEALING LAPS (OWENS CORNING SSL-11 OR EQUAL). ALL PIPING INSULATION USED ON THE PROJECT SHALL HAVE A FLAME SPREAD RATING NOT EXCEEDING 25 AN A SMOKE DEVELOPED RATING NOT EXCEEDING 50 AS DETERMINED BY TEST PROCEDURES ASTM E 84 NFPA 225 AND U.L. 723. THESE RATINGS MUST BE AS TESTED ON THE COMPOSITE OF INSULATION JACKET OR FACING AND ADHESIVE. COMPONENTS SUCH AS ADHESIVES MASTIC AND CEMENTS SHALL MEET THE SAME INDIVIDUAL RATINGS AS THE MINIMUM REQUIREMENTS.
- SUPPORT INSULATION AT HANGERS AND SUPPORTS WITH A SHIELD OF GALVANIZED METAL EXTENDING NOT LESS THAN 4-INCHES ON EITHER SIDE OF THE SUPPORT BEARING AREA COVERING AT LEAST HALF OF THE PIPE CIRCUMFERENCE.
- PERFORM WORK IN ACCORDANCE WITH APPLICABLE STATUTES, ORDINANCES, CODES, AND REGULATIONS OF GOVERNMENTAL AUTHORITIES HAVING JURISDICTION. OBTAIN AND PAY FOR ALL PERMITS AND INSPECTIONS.

**PLUMBING SPECIFICATIONS**

**PART 1 - GENERAL**

- MATERIALS AND INSTALLATION SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL CODES AND REQUIREMENTS.
- OBTAIN AND PAY FOR ALL REQUIRED PERMITS, INSPECTION FEES, TAPPING FEES, CONNECTION CHARGES, AND UTILITY COMPANY SERVICE CHARGES.
- INSTALLATION SHALL BE DONE IN A NEAT AND WORKABLE MANNER.
- DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED FOR EXACT SIZES OR LOCATIONS. THEY ARE NOT INTENDED TO DISCLOSE ABSOLUTE OR UNCONDITIONAL KNOWLEDGE OF ACTUAL FIELD CONDITIONS.

**PART 2 - PRODUCTS**

- ALL DOMESTIC WATER PIPING INSIDE THE BUILDING ABOVE SLAB SHALL BE TYPE 1" HARD DRAWN COPPER (TYPE "K" FOR UNDERGROUND) WITH WROUGHT COPPER FITTINGS, SWEAT WITH LEAD FREE SOLDER.
- ALL CONDENSATE PIPING ON THE ROOF SHALL BE TYPE "M" COPPER, OR PVC WHERE ALLOWED BY CODE.
- DOMESTIC WATER AND CONDENSATE DRAIN PIPING BELOW SLAB AND OUTSIDE SHALL BE TYPE "K" SOFT SEAMLESS. NO JOINTS SHALL BE ALLOWED BELOW SLAB. ALL SLAB PENETRATIONS SHALL BE SLEEVED TO PROTECT PIPING FROM CORROSION BY CONCRETE.
- COPPER PIPE FITTINGS SHALL BE WROUGHT COPPER SWEEP PATTERN FITTINGS, SOLDERED USING 95-5 LEAD-FREE SOLDER OR BRAZED WITH SIL-FOS.
- ALL SANITARY WASTE, VENT AND STORM DRAINAGE PIPING INSIDE AND EXTENDING 30" OUTSIDE THE BUILDING SHALL BE SCHEDULE 40 PVC DWV EQUIVALENT TO CHARLOTTE PIPE AND MEET ASTM D-2665. EXTERIOR PVC PIPING 30" FROM BUILDING SHALL BE TYPE SDR-26 AND ASTM D-3034.
- JOINTS FOR PVC PIPING SHALL BE SOLVENT WELD TYPE INSIDE AND UNDERSLAB TO A POINT 30" OUTSIDE THE BUILDING AND NEOPRENE PUSH-ON TYPE JOINTS BEYOND OUTSIDE 30" FROM THE BUILDING.
- INSULATE AND HEAT TRACE ALL DOMESTIC HOT AND COLD WATER PIPING LOCATED IN AREAS SUBJECT TO FREEZING. INSULATION SHALL BE 1" THICK FIBERGLASS AS MANUFACTURED BY MANVILLE, OWENS-CORNING, OR KNAUF.
- ALL NATURAL GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL WITH SCREWED OR WELDED FITTINGS AND GASKET TYPE UNIONS AND FLANGES. 2" AND SMALLER - SCREWED, 2 1/4" AND LARGER WELDED.
- ALL UNDERGROUND NATURAL GAS PIPING SHALL BE POLYETHYLENE (PE-2306) WITH HEAT FUSION JOINTS.

**PART 3 - EXECUTION**

- EXCAVATION, BACKFILLING AND TRENCH WORK SHALL BE DONE IN ACCORDANCE WITH O.S.H.A. AND EXISTING SAFETY STANDARDS.
  - PROVIDE SHORING AND CLEANING NECESSARY TO KEEP TRENCHES IN GOOD WORKING CONDITION, INCLUDING PUMPING OUT WATER.
  - IN MOSTLY ROCK MATERIAL, TRENCHES SHALL BE EXCAVATED TO AT LEAST 6" BELOW THE ELEVATION OF THE BOTTOM OF THE PIPES. AFTER EXCAVATION, TRENCH SHALL THEN BE FILLED TO THE PROPER ELEVATION WITH CRUSHED LIMESTONE GRAVEL SHALL BE SCOOPED OUT UNDER PIPE BELLS SO THE PIPE RESTS FIRMLY ON THE TRENCH BOTTOM.
  - IN MOSTLY EARTH OR SAND MATERIAL, THE LAST 6" OF EXCAVATION SHALL BE DONE BY HAND. TRENCH BOTTOM SHALL BE SCOOPED OUT AT PIPE BELLS SO THE PIPE RESTS FIRMLY ON THE TRENCH BOTTOM.
  - BACKFILLING AND TAMPING SHALL BE CAREFULLY DONE BY HAND SIMULTANEOUSLY ALONG BOTH SIDES OF THE PIPE USING ROCK FREE EARTH, CRUSHED STONE OR SAND UNTIL THE PIPE IS COVERED TO A DEPTH OF AT LEAST 12". THE REST OF THE FILL-UP TO THE TOPSOIL LAYER MAY BE GRAVEL OR ROCK FREE EARTH. ACCEPTABLE SOIL MATERIALS FOR BACK FILL AND FILL SHALL BE FREE OF CLAY, ROCK OR GRAVEL LARGER THAN 2" IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS AND OTHER DELETERIOUS MATTER HAVING A PLASTICITY INDEX LESS THAN 30. BACKFILL SHALL BE DONE IN LAYERS OF NOT MORE THAN 8" AND EACH LAYER SHALL BE COMPACTED. THE LAST 12" OF BACKFILL SHALL BE ROCK FREE TOPSOIL.
  - SURFACE SHALL BE RESTORED TO ITS ORIGINAL CONDITION.
- PRESSURE REDUCING VALVE SHALL BE SET AT 70 PSI MAXIMUM. PRESSURE RELIEF VALVE SHALL BE SET AT 80 PSI MAXIMUM.
- EXPOSED HOT AND COLD WATER TRIM IN FINISHED AREAS SHALL BE CHROME FINISHED.
- ALL HORIZONTAL AND VERTICAL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL CODE RECOMMENDATIONS. SUPPORTS SHALL SECURELY HOLD PIPING, PREVENT VIBRATION, COMPENSATE FOR ALL STATIC AND OPERATIONAL CONDITIONS OF THE VARIOUS SYSTEMS AND SHALL NOT BE SUBJECT TO ELECTROLYTIC ACTION. SHOCK ABSORBERS SERVICING FIXTURES WITH FLUSH VALVES SHALL BE SECURELY ANCHORED IN THEIR VERTICAL POSITION. ACCEPTABLE METHODS OF SUPPORT WILL BE THE SUMMER SYSTEM, POSIFIX, STAKFIX, PIPEFIX, HOLDRITE OR CHANNEL.
- PROVIDE J.R. SMITH OR APPROVED EQUAL SHOCK ABSORBERS #5005 THRU 5050 SIZE AS RECOMMENDED BY MANUFACTURER INSTALLED ON HOT AND COLD WATER BRANCH LINES CONTAINING SINGLE LEVER FAUCETS, FLUSH VALVES OR EQUIPMENT WITH QUICK CLOSING VALVES BETWEEN THE LAST TWO FIXTURES AS SHOWN ON THE CONTRACT DRAWINGS.
- SANITARY WASTE LINES SHALL BE UNIFORMLY GRADED TO ELEVATIONS SHOWN. IF NO ELEVATIONS ARE GIVEN, SEWERS SHALL BE PITCHED NOT LESS THAN 1/4" PER FOOT FOR ALL PIPING 2-1/2" IN DIAMETER AND SMALLER AND 1/8" PER FOOT FOR ALL PIPING 3" IN DIAMETER AND LARGER.
- SUPPORT HORIZONTAL PIPING AS FOLLOWS:
 

NOMINAL PIPE SIZE (IN.)	MAXIMUM DISTANCE BETWEEN SUPPORT (FT.)	MINIMUM HANGER DIAMETER (IN.)
1/2	6	
3/4 TO 1-1/2	6	3/8
2 TO 2-1/2	10	3/8
3 TO 6	12	1/2
- HANGERS FOR PIPING GREATER THAN 1" SHALL PASS OVER THE INSULATION. PROVIDE SADDLES FOR INSULATED PIPING.
- INSULATION SHALL BE APPLIED WITH JOINTS TIGHTLY BUTTED. OPEN CRACKS, VOIDS AND DEPRESSIONS SHALL BE FILLED WITH HYDRAULIC SETTING CEMENT. LAPPING MATCHING THE FINISH SHALL BE PASTED NEATLY OVER JOINTS.
- FITTINGS AND VALVES SHALL BE INSULATED WITH THE SAME TYPE INSULATION AS THE PIPING OR WITH HYDRAULIC SETTING CEMENT, BUILT-UP TO THE SAME THICKNESS AS LINES. COVER SHALL BE SAME AS ADJACENT PIPING OR PVC PREFORMED JACKET.
- PROVIDE AND INSTALL A CUT-OFF VALVE, UNION AND FULL SIZE DIRT LEG AT CONNECTION TO EACH GAS-FIRED PIECE OF EQUIPMENT.
- THE SYSTEM TESTS DESCRIBED HEREIN ARE MINIMUM REQUIREMENTS. HOWEVER, ADDITIONAL TESTS AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION SHALL ALSO BE PERFORMED.
- DOMESTIC WATER PIPING SHALL BE TESTED HYDROSTATICALLY AT 85 PSI IN ADDITION PIPING SHALL BE TESTED IN ACCORDANCE WITH APPLICABLE CODE REQUIREMENTS.
- THE DOMESTIC WATER SYSTEM SHALL BE FLUSHED OUT PROGRESSIVELY BY OPENING OUTLETS AND FLOWING WATER UNTIL IT RUNS CLEAR. AFTER PIPE CLEANING IS COMPLETED, THE STRAINERS SHALL BE REMOVED, CLEANED, AND REPLACED. THEN THE ENTIRE DOMESTIC WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION.
- THE SANITARY WASTE SYSTEM SHALL BE FLUSHED OUT PROGRESSIVELY WITH FLOWING WATER UNTIL IT RUNS CLEAR.
- THE ENTIRE SANITARY WASTE SYSTEM SHALL BE TESTED AGAINST A HEAD PRESSURE OF 10', FOR 6 HOURS WITHOUT LEAKAGE.

③

**CITY OF LEANDER**  
**PLUMBING PLAN CHECKING NOTES**

- NEW WATER METER RECEIPT (FROM CITY OF LEANDER TAP SALES OFFICE) WILL BE PROVIDED BY THE OWNER AND THE CIVIL ENGINEER. THESE DRAWINGS DO NOT INCLUDE WATER SUPPLY PIPING BEYOND 5'-0" FROM THE BUILDING. SITE UTILITY ITEMS SUCH AS WATER METERS ARE THE RESPONSIBILITY OF THE CIVIL ENGINEER.
- APPROVED CITY OF LEANDER WATER AND WASTE WATER DEPT. UTILITY PLOT PLANS SHOWING THE NEW WATER METER WILL BE PROVIDED BY THE OWNER AND THE CIVIL ENGINEER THESE PLUMBING DRAWINGS DO NOT INCLUDE WATER SUPPLY PIPING BEYOND 5'-0" FROM THE BUILDING. SITE UTILITY ITEMS SUCH AS WATER METERS ARE THE RESPONSIBILITY OF THE CIVIL ENGINEER.

**GENERAL NOTE:**  
(THIS NOTE APPLIES TO ALL SHEETS)  
ALL MATERIALS, FIXTURES AND DEVICES SHALL CONFORM TO APPROVED APPLICABLE STANDARDS

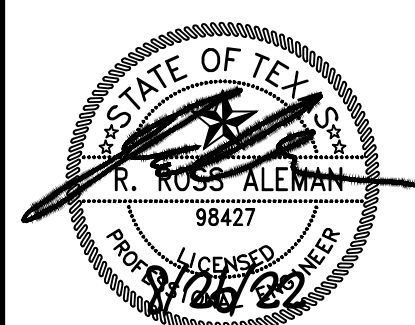
**GENERAL NOTE:**  
(THIS NOTE APPLIES TO ALL SHEETS)  
ALL PLUMBING SHALL BE IN ACCORDANCE WITH CITY OF LEANDER PLUMBING CODES

**NOTE:**

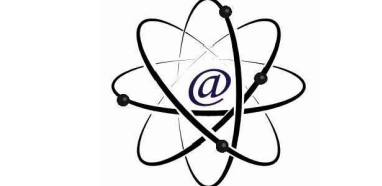
- ROUTE ALL PIPING HIDDEN FROM VIEW AS HIGH AS POSSIBLE ABV. CLG.
- COORDINATE ROUTING OF ALL PIPING WITH ALL OTHER TRADES. OFFSET PIPING AS NECESSARY.
- UNLESS OTHERWISE NOTED, ALL PIPING SHOWN SHALL BE ROUTED ABV. CLG.
- REFERENCE PLUMBING RISER DIAGRAMS FOR ADDITIONAL SIZES, WHA SIZES AND LOCATIONS, AND ADDITIONAL INFO.

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- ② 06.20.22 - Revision 2
- ③ 08.26.22 - City Comments



DRAWN BY: ET CHECKED BY: SL



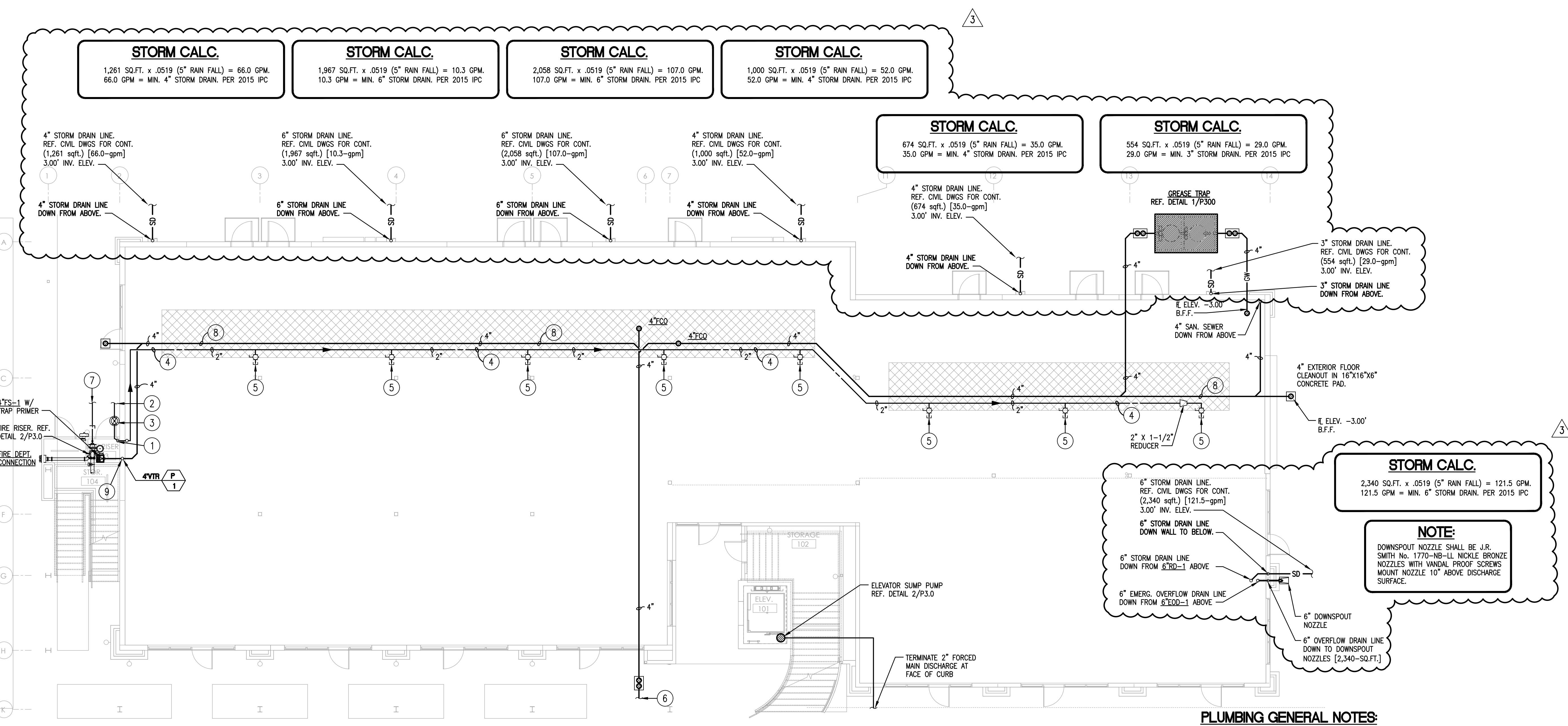
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08.26.2022  
CITY COMMENTS  
PLUMBING LEGEND, NOTES, AND SCHEDULE

SHEET: P100

PROJECT NO: 21099  
DRAWN BY: ET  
DATE: 01.28.2022  
PROJECT MGR:





**STORM CALC.**  
1,261 SQ.FT. x .0519 (5" RAIN FALL) = 66.0 GPM.  
66.0 GPM = MIN. 4" STORM DRAIN. PER 2015 IPC

**STORM CALC.**  
1,967 SQ.FT. x .0519 (5" RAIN FALL) = 10.3 GPM.  
10.3 GPM = MIN. 6" STORM DRAIN. PER 2015 IPC

**STORM CALC.**  
2,058 SQ.FT. x .0519 (5" RAIN FALL) = 107.0 GPM.  
107.0 GPM = MIN. 6" STORM DRAIN. PER 2015 IPC

**STORM CALC.**  
1,000 SQ.FT. x .0519 (5" RAIN FALL) = 52.0 GPM.  
52.0 GPM = MIN. 4" STORM DRAIN. PER 2015 IPC

**STORM CALC.**  
674 SQ.FT. x .0519 (5" RAIN FALL) = 35.0 GPM.  
35.0 GPM = MIN. 4" STORM DRAIN. PER 2015 IPC

**STORM CALC.**  
554 SQ.FT. x .0519 (5" RAIN FALL) = 29.0 GPM.  
29.0 GPM = MIN. 3" STORM DRAIN. PER 2015 IPC

**STORM CALC.**  
2,340 SQ.FT. x .0519 (5" RAIN FALL) = 121.5 GPM.  
121.5 GPM = MIN. 6" STORM DRAIN. PER 2015 IPC

**NOTE:**  
DOWNSPOUT NOZZLE SHALL BE J.R. SMITH NO. 1770-NB-LL NICKLE BRONZE NOZZLES WITH VANDAL PROOF SCREWS. MOUNT NOZZLE 10" ABOVE DISCHARGE SURFACE.

**PLUMBING GENERAL NOTES:**

- INSULATE ALL WATER SUPPLY AND ABOVEGROUND VENT PIPING WITH 1-INCH THICK FIBERGLASS PIPE INSULATION. FIBERGLASS PIPE INSULATION SHALL HAVE AN ALL SERVICE JACKET (ASJ) WITH SELF-SEALING LAPS (OWENS CORNING SSL-11 OR EQUAL). ALL PIPING INSULATION USED ON THE PROJECT SHALL HAVE A FLAME SPREAD RATING NOT EXCEEDING 25 AND A SMOKE DEVELOPED RATING NOT EXCEEDING 50 AS DETERMINED BY TEST PROCEDURES ASTM E 84 NFPA 225 AND U.L. 723. THESE RATINGS SHALL BE AS TESTED ON THE COMPOSITE OF INSULATION JACKET OR FACING AND ADHESIVE. COMPONENTS SUCH AS ADHESIVES MASTIC AND CEMENTS SHALL MEET THE SAME INDIVIDUAL RATINGS AS THE MINIMUM REQUIREMENTS.
- SUPPORT INSULATED PIPE AT HANGERS AND SUPPORTS WITH A SHIELD OF GALVANIZED METAL EXTENDING NOT LESS THAN 4-INCHES ON EITHER SIDE OF THE SUPPORT BEARING AREA COVERING AT LEAST HALF OF THE PIPE CIRCUMFERENCE.
- PERFORM WORK IN ACCORDANCE WITH APPLICABLE STATUTES, ORDINANCES, CODES, AND REGULATIONS OF GOVERNMENTAL AUTHORITIES HAVING JURISDICTION. OBTAIN AND PAY FOR ALL PERMITS AND INSPECTIONS.
- ROUTE ALL ABOVEGROUND HORIZONTAL PIPING CONCEALED, HIDDEN FROM VIEW AND AS HIGH AS POSSIBLE IN ROOF JOIST SPACE (WATER AND VENT PIPING).

**PLUMBING KEYED NOTES:**

- 2" COLD WATER SUPPLY LINE UP FROM UNDERFLOOR. RISE WITH 1-1/2" LINE UP AS HIGH AS POSSIBLE A.F.F.
- 2" COLD WATER SUPPLY LINE. REF. CIVIL DWGS. FOR CONT.
- 2" GATE VALVE IN CAST IRON VALVE BOX.
- COLD WATER MAIN. ROUTE IN JOIST SPACE. DIRECTLY OVER SANITARY SEWER. LINE SHOWN OFFSET FOR CLARITY.
- VALVE AND CAP 1-1/2" BRANCH LINE FOR FUTURE CONNECTION (IN JOIST SPACE).
- 4" SANITARY SEWER LINE. REF. CIVIL DWGS FOR CONT. FLOW LINE = -5.50' B.F.F.
- 6" FIRE SUPPLY LINE. REF. CIVIL DWGS FOR CONT.
- SLOPE BUILDING DRAIN AT 1/8" PER FOOT TYP.
- 4" VENT UP FROM UNDERFLOOR PROVIDE 4" WALL CLEANOUT ON VERTICAL.

**CITY OF LEANDER PLUMBING PLAN CHECKING NOTES**

- NEW WATER METER RECEIPT (FROM CITY OF LEANDER TAP SALES OFFICE) WILL BE PROVIDED BY THE OWNER AND THE CIVIL ENGINEER. THESE DRAWINGS DO NOT INCLUDE WATER SUPPLY PIPING BEYOND 5'-0" FROM THE BUILDING. SITE UTILITY ITEMS SUCH AS WATER METERS ARE THE RESPONSIBILITY OF THE CIVIL ENGINEER.
- APPROVED CITY OF LEANDER WATER AND WASTE WATER DEPT. UTILITY PLOT PLANS SHOWING THE NEW WATER METER WILL BE PROVIDED BY THE OWNER AND THE CIVIL ENGINEER. THESE PLUMBING DRAWING DO NOT INCLUDE WATER SUPPLY PIPING BEYOND 5'-0" FROM THE BUILDING SITE UTILITY ITEMS SUCH AS WATER METERS ARE THE RESPONSIBILITY OF THE CIVIL ENGINEER.

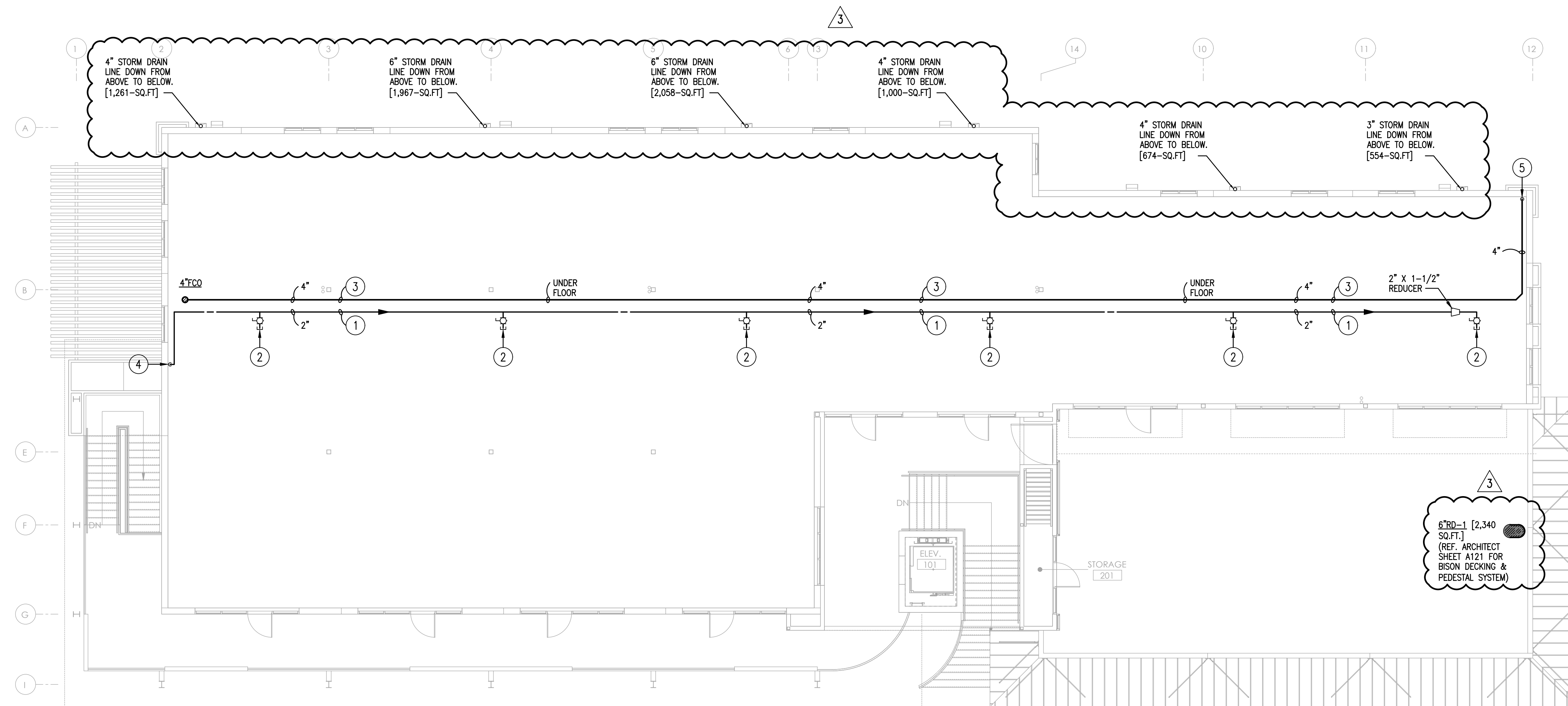
**GENERAL NOTE:**  
(THIS NOTE APPLIES TO ALL SHEETS)  
ALL MATERIALS, FIXTURES AND DEVICES SHALL CONFORM TO APPROVED APPLICABLE STANDARDS

**1ST LEVEL FLOOR PLAN - PLUMBING**  
SCALE: 1/8" = 1'-0"  
TRUE PLAN NORTH NORTH

DRAWN BY: ET CHECKED BY: SL

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**2ND LEVEL FLOOR PLAN - PLUMBING**  
 SCALE: 1/8" = 1'-0"  
 TRUE PLAN NORTH NORTH

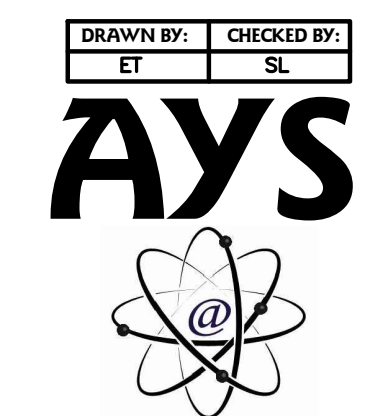
**PLUMBING GENERAL NOTES:**

1. INSULATE ALL WATER SUPPLY AND ABOVEGROUND VENT PIPING WITH 1-INCH THICK FIBERGLASS PIPE INSULATION. FIBERGLASS PIPE INSULATION SHALL HAVE AN ALL SERVICE JACKET (ASJ) WITH SELF-SEALING LAPS (OWENS CORNING SSL-11 OR EQUAL). ALL PIPING INSULATION USED ON THE PROJECT SHALL HAVE A FLAME SPREAD RATING NOT EXCEEDING 25 AND A SMOKE DEVELOPED RATING NOT EXCEEDING 50 AS DETERMINED BY TEST PROCEDURES ASTM E 84 NFPA 225 AND U.L. 723. THESE RATINGS SHALL BE AS TESTED ON THE COMPOSITE OF INSULATION JACKET OR FACING AND ADHESIVE. COMPONENTS SUCH AS ADHESIVES MASTIC AND CEMENTS SHALL MEET THE SAME INDIVIDUAL RATINGS AS THE MINIMUM REQUIREMENTS.
2. SUPPORT INSULATED PIPE AT HANGERS AND SUPPORTS WITH A SHIELD OF GALVANIZED METAL EXTENDING NOT LESS THAN 4-INCHES ON EITHER SIDE OF THE SUPPORT BEARING AREA COVERING AT LEAST HALF OF THE PIPE CIRCUMFERENCE.
3. PERFORM WORK IN ACCORDANCE WITH APPLICABLE STATUTES, ORDINANCES, CODES, AND REGULATIONS OF GOVERNMENTAL AUTHORITIES HAVING JURISDICTION. OBTAIN AND PAY FOR ALL PERMITS AND INSPECTIONS.
4. ROUTE ALL ABOVEGROUND HORIZONTAL PIPING CONCEALED, HIDDEN FROM VIEW AND AS HIGH AS POSSIBLE IN ROOF JOIST SPACE (WATER AND VENT PIPING).

**PLUMBING KEYED NOTES:**

- ① COLD WATER MAIN. ROUTE IN JOIST SPACE. DIRECTLY OVER SANITARY SEWER. LINE SHOWN OFFSET FOR CLARITY.
- ② VALVE AND CAP 1-1/2" BRANCH LINE FOR FUTURE CONNECTION (IN JOIST SPACE).
- ③ SLOPE BUILDING DRAIN AT 1/8" PER FOOT TYP.
- ④ 2" CW MAIN UP FROM BELOW.
- ⑤ 4" SANITARY SEWER DOWN TO BELOW.

③  
 6" PD-1 [2,340 SQ.FT.]  
 (REF. ARCHITECT SHEET A121 FOR BISON DECKING & PEDESTAL SYSTEM)



DRAWN BY: ET  
 CHECKED BY: SL  
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**CORNERSTONE**  
 ARCHITECTS  
 7000 BEE CAVES RD. SUITE 300  
 AUSTIN, TX 78746  
 512.329.0007

**BUILDING 2**  
 THE SQUARE AT CRYSTAL FALLS  
 1900 S. BAGDAD ROAD, BLDG. 2  
 LEANDER, TEXAS 78641

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- ② 06.20.22 - Revision 2
- ③ 08.26.22 - City Comments

08.26.2022  
 CITY COMMENTS  
 2ND LEVEL FLOOR PLAN - PLUMBING

SHEET: **P201**

PROJECT NO: 21099  
 DRAWN BY:  
 DATE: 01.28.2022  
 PROJECT MGR:



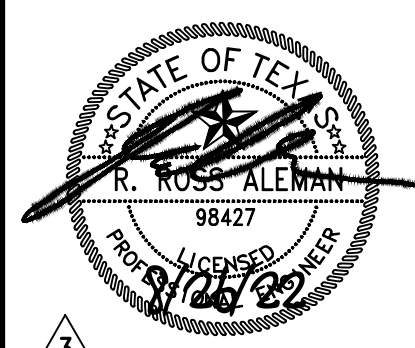
**CORNERSTONE**  
ARCHITECTS

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**BUILDING 2**  
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- 2 06.20.22 - Revision 2
- 3 08.26.22 - City Comments



08.26.2022  
CITY COMMENTS  
SITE PLAN - PLUMBING

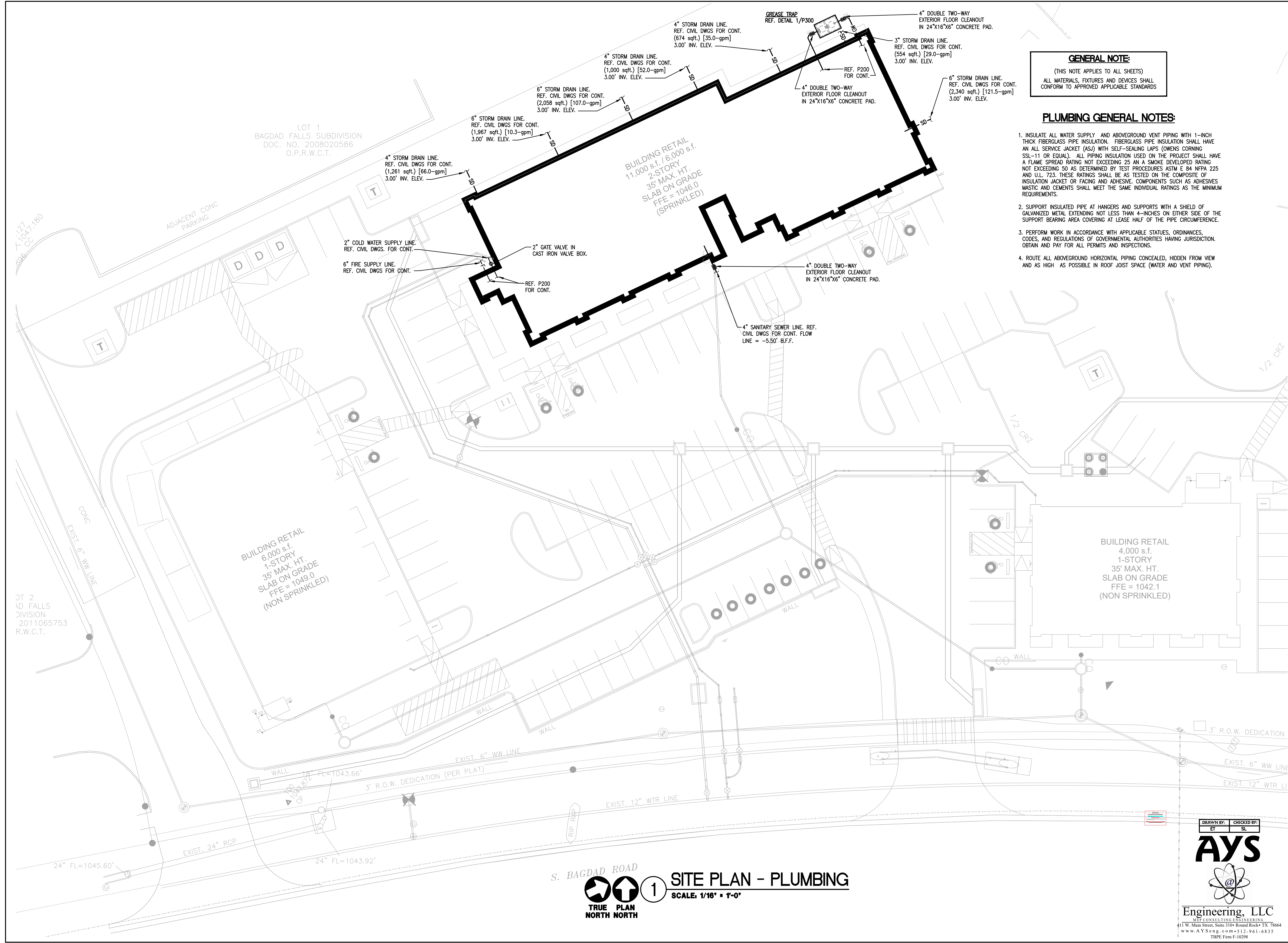
SHEET: **P202**

PROJECT NO: 21099  
DRAWN BY: [Signature]  
DATE: 01.28.2022  
PROJECT MGR: [Signature]

**GENERAL NOTE:**  
(THIS NOTE APPLIES TO ALL SHEETS)  
ALL MATERIALS, FIXTURES AND DEVICES SHALL  
CONFORM TO APPROVED APPLICABLE STANDARDS

**PLUMBING GENERAL NOTES:**

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**S. BAGDAD ROAD**

**1 SITE PLAN - PLUMBING**  
SCALE: 1/16" = 1'-0"

TRUE PLAN NORTH

DRAWN BY: [Signature] CHECKED BY: [Signature]  
ET SL

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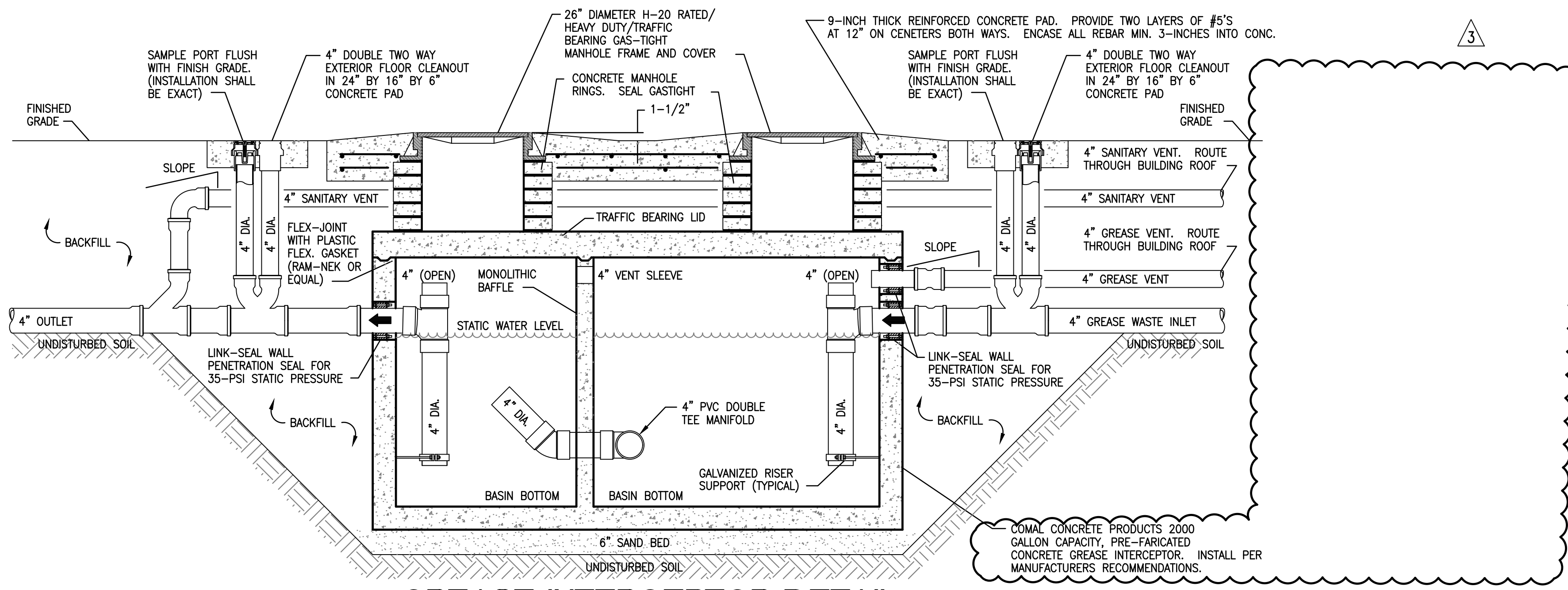
LOT 1  
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DOC. NO. 2008020586  
O.P.R.W.C.T.

OT 2  
AD FALLS  
DIVISION  
2011065753  
R.W.C.T.

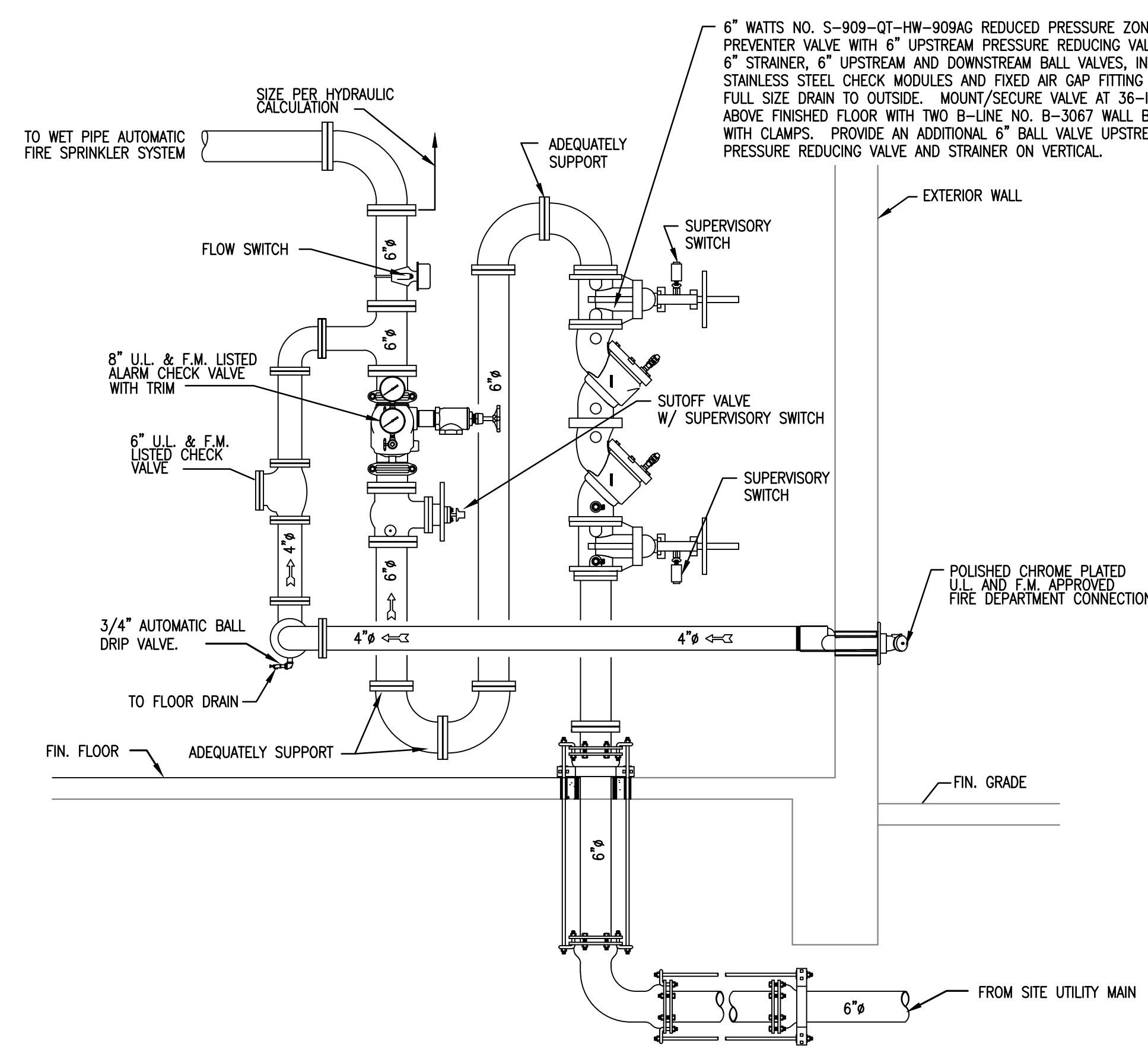
BUILDING RETAIL  
6,000 s.f.  
1-STORY  
35' MAX. HT.  
SLAB ON GRADE  
FFE = 1049.0  
(NON SPRINKLED)

BUILDING RETAIL  
11,000 s.f. / 6,000 s.f.  
2-STORY  
35' MAX. HT.  
SLAB ON GRADE  
FFE = 1046.0  
(SPRINKLED)

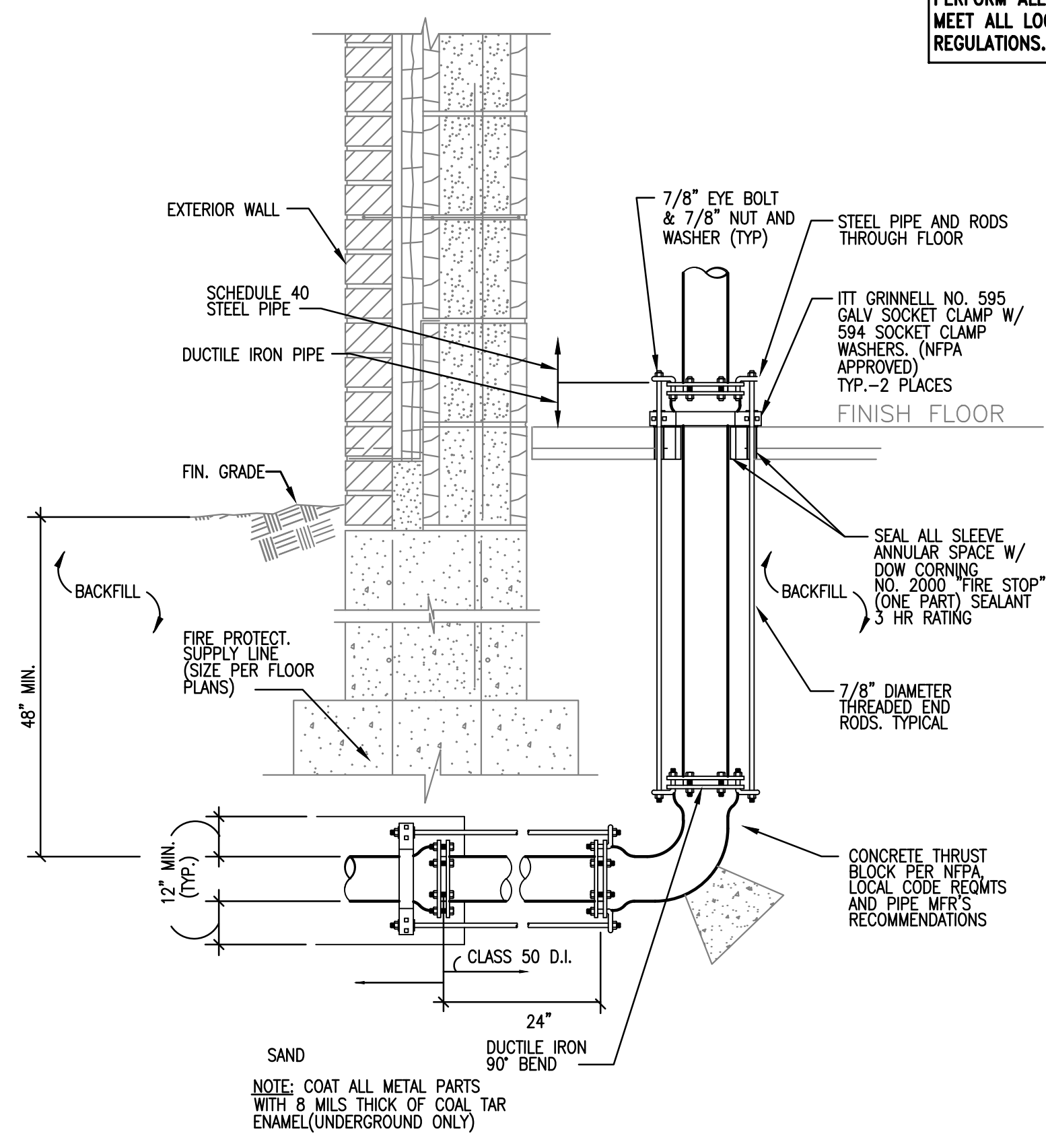
BUILDING RETAIL  
4,000 s.f.  
1-STORY  
35' MAX. HT.  
SLAB ON GRADE  
FFE = 1042.1  
(NON SPRINKLED)



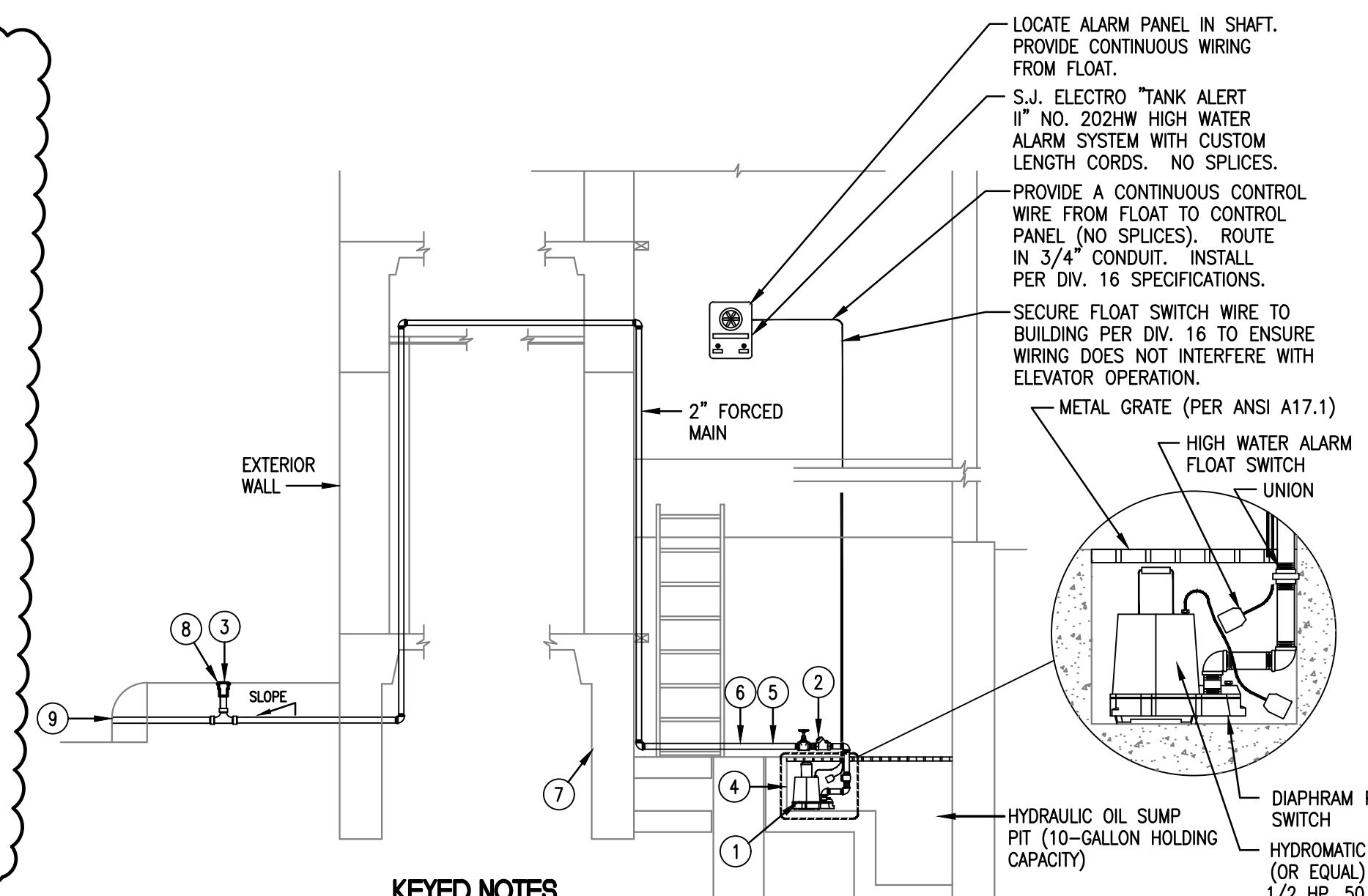
**1 GREASE INTERCEPTOR DETAIL**  
SCALE: NOT TO SCALE



**3 FIRE SPRINKLER RISER DETAIL**  
SCALE: NOT TO SCALE



**4 FIRE RISER SUPPORT DETAIL**  
SCALE: NOT TO SCALE



**KEYED NOTES**

- 1 ELEVATOR SUMP PUMP
- 2 CHECK VALVE
- 3 SINGLE RISER 2-WAY CLEANOUT
- 4 SUMP PIT
- 5 COORDINATE ROUTING WITH ARCHITECT AND ELEVATOR MANUFACTURER
- 6 SLOPE PIPING TO DRAIN BY GRAVITY DOWNSTREAM OF CHECK VALVE
- 7 SEAL WATER TIGHT
- 8 2" EXTERIOR FLOOR CLEAN OUT (SAMPLE WELL) IN 16"x16"x6" CONCRETE PAD. COORDINATE EXACT LOCATION WITH THE CITY OF AUSTIN INDUSTRIAL WASTE DEPT. FINAL LOCATION SHALL BE DETERMINED BY INDUSTRIAL WASTE DEPT.
- 9 TERMINATE 2" DISCHARGE PIPING AT FACE OF CURB

**NOTES**

- 1. SUMP PUMP SHALL BE FULLY AUTOMATIC AND SHALL NOT REQUIRE HUMAN INTERVENTION TO OPERATE.
- 2. ELEVATOR SUMP PUMP, POWER AND LABELING PER THE STATE ELEVATOR LICENSING AND REGULATION AGENCY AND LOCAL AHJ REQUIREMENTS.
- 3. SUMP PUMP DISCHARGE PIPING, ROUTE THE PIPING AROUND THE PERIMETER OF THE HOISTWAY AND EXTEND UP ALONG THE SIDE OF THE HOISTWAY LADDER. PIPING SHALL RISE TO AN ELEVATION 12" ABOVE LOCAL 100 YEAR FLOOD PLAN LEVEL BEFORE DRAINING BY GRAVITY. REFER TO PLANS FOR SAMPLE PORT LOCATION.
- 4. CHECK VALVE. INSTALL AT HIGHEST POINT IN PIPING BEFORE GRAVITY DRAINAGE.

**2 ELEVATOR SUMP PUMP DETAIL**  
SCALE: NOT TO SCALE

PERFORM ALL WORK NECESSARY TO MEET ALL LOCAL CODES AND REGULATIONS.



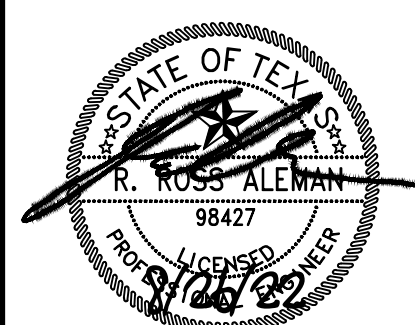
**CORNERSTONE**  
ARCHITECTS

7000 BEE CAVES RD. SUITE 300, AUSTIN TX 78746 512.293.0007

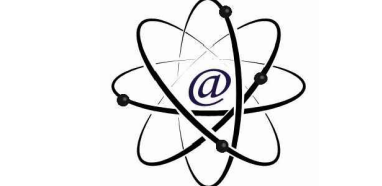
**BUILDING 2**  
THE SQUARE AT CRYSTAL FALLS  
1900 S. BAGDAD ROAD, BLDG. 2  
LEANDER, TEXAS 78641

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- 2 06.20.22 - Revision 2
- 3 08.26.22 - City Comments



DRAWN BY: ET  
CHECKED BY: SL



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www.AYSEng.com • 512-961-6835  
TBPE Firm F-10298

08.26.2022  
CITY COMMENTS  
PLUMBING DETAILS

SHEET: P300

PROJECT NO: 21099  
DRAWN BY: [Signature]  
DATE: 01.28.2022  
PROJECT MGR: [Signature]