

PROJECT:

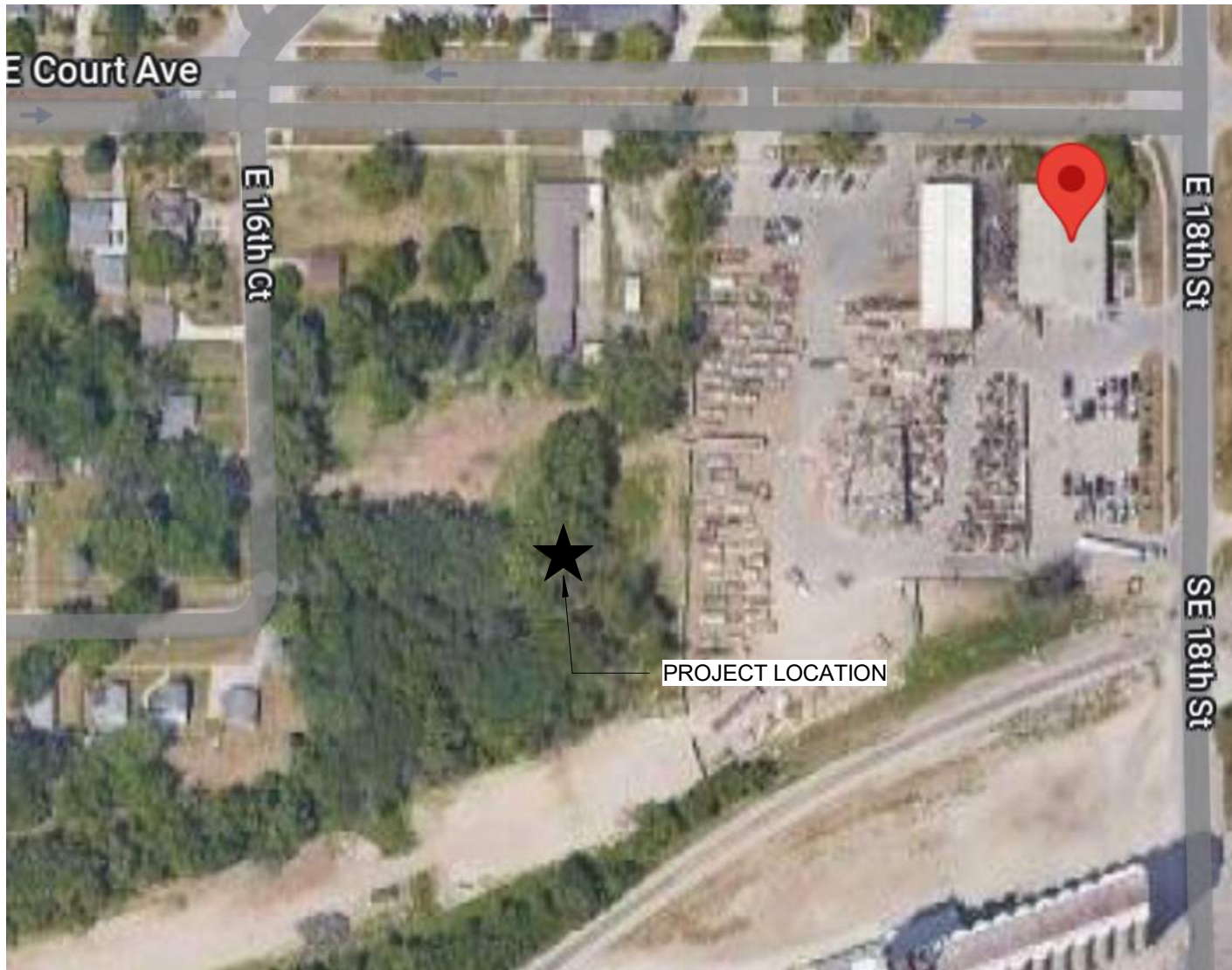
ROLL OFFS OF DES MOINES

1649 E COURT AVENUE , DES MOINES , IA 50316



ISSUED FOR: 75% CD - BUDGET SET

<div>OWNER:</div> <div>ROLL-OFF OF DES MOINES</div> <div>20 E. 18TH ST DES MOINES, IA 50316 CONTACT: TONY HOLT 515-441-2275</div>	<div>STRUCTURAL ENGINEER:</div> <div>LONG ENGINEERING</div> <div>URBANDALE, IA 50323 CONTACT: BEN LONG 515-361-5440</div>	<div>ARCHITECT:</div> <div>IMPRINT ARCHITECTS</div> <div>617 N. SW 3RD ST ST. 108 ANKENY, IA 50023 CONTACT: KARL CHAMBERS 515-965-5336</div>	<div>MECHANICAL / ELECTRICAL ENGINEER:</div> <div>DURANTEM MEP CONSULTING</div> <div>3737 WOODLAND AVE SUITE 420 WEST DES MOINES, IA 50266 CONTACT: CASEY ADAMS 515-452-8341</div>	<div>CIVIL ENGINEER:</div> <div>CIVIL ENGINEERING CONSULTANTS</div> <div>2400 86TH ST. #12 URBANDALE, IA 50322 CONTACT: PAT SHEPARD 515-276-4884</div>
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VICINITY MAP

SHEET LIST	
NO.	SHEET NAME
GENERAL	
G000	COVER SHEET
STRUCTURAL	
S001	GENERAL NOTES
S100	FOUNDATION PLAN
S101	LOWER LEVEL SLAB PLAN
S102	UPPER LEVEL FLOOR FRAMING PLAN
S103	UPPER LEVEL SLAB & FLOOR PLATE PLAN
S104	ROOF FRAMING PLAN
S300	STRUCTURAL BUILDING SECTIONS
S301	STRUCTURAL SECTIONS
S501	FOUNDATION DETAILS
S502	FOUNDATION DETAILS
S503	FLOOR FRAMING DETAILS
S505	ROOF FRAMING DETAILS
ARCHITECTURE	
A102	UPPER LEVEL
A104	ROOF PLAN
A200	EXTERIOR ELEVATIONS
A501	EXTERIOR DETAILS
A000	ARCHITECTURAL GENERAL INFORMATION
A001	ACCESSIBILITY
A010	CODE PLAN REVIEW
A101	LOWER LEVEL
A151	REFLECTED CEILING PLAN
A152	REFLECTED CEILING PLAN
A300	BUILDING SECTIONS
A301	BUILDING SECTIONS
A350	WALL SECTIONS
A351	WALL SECTIONS
A500	EXTERIOR DETAILS
A600	DOOR & FRAME SCHEDULE
A601	GARAGE OPENINGS

PLUMBING	
P000	PLUMBING NOTES & SCHEDULES
P100	LOWER LEVEL UNDERFLOOR PLUMBING PLAN
P101	LOWER LEVEL PLUMBING PLAN
P102	UPPER LEVEL PLUMBING PLAN
MECHANICAL	
M000	MECHANICAL NOTES & SCHEDULES
M101	LOWER LEVEL MECHANICAL PLAN
M102	UPPER LEVEL MECHANICAL PLAN
ELECTRICAL	
E000	ELECTRICAL NOTES & SCHEDULES
E101	LOWER LEVEL ELECTRICAL PLAN
E102	UPPER LEVEL ELECTRICAL PLAN
E201	LOWER LEVEL LIGHTING PLAN
E202	UPPER LEVEL LIGHTING PLAN

PRELIMINARY - NOT FOR CONSTRUCTION

PROJECT:

ROLL-OFFS OF DES MOINES

20 E. 18TH ST, DES MOIES IA 50316

DATE:	DRAWN BY:	CHKD BY:
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COVER SHEET

G000



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FOUNDATION PLAN

S100



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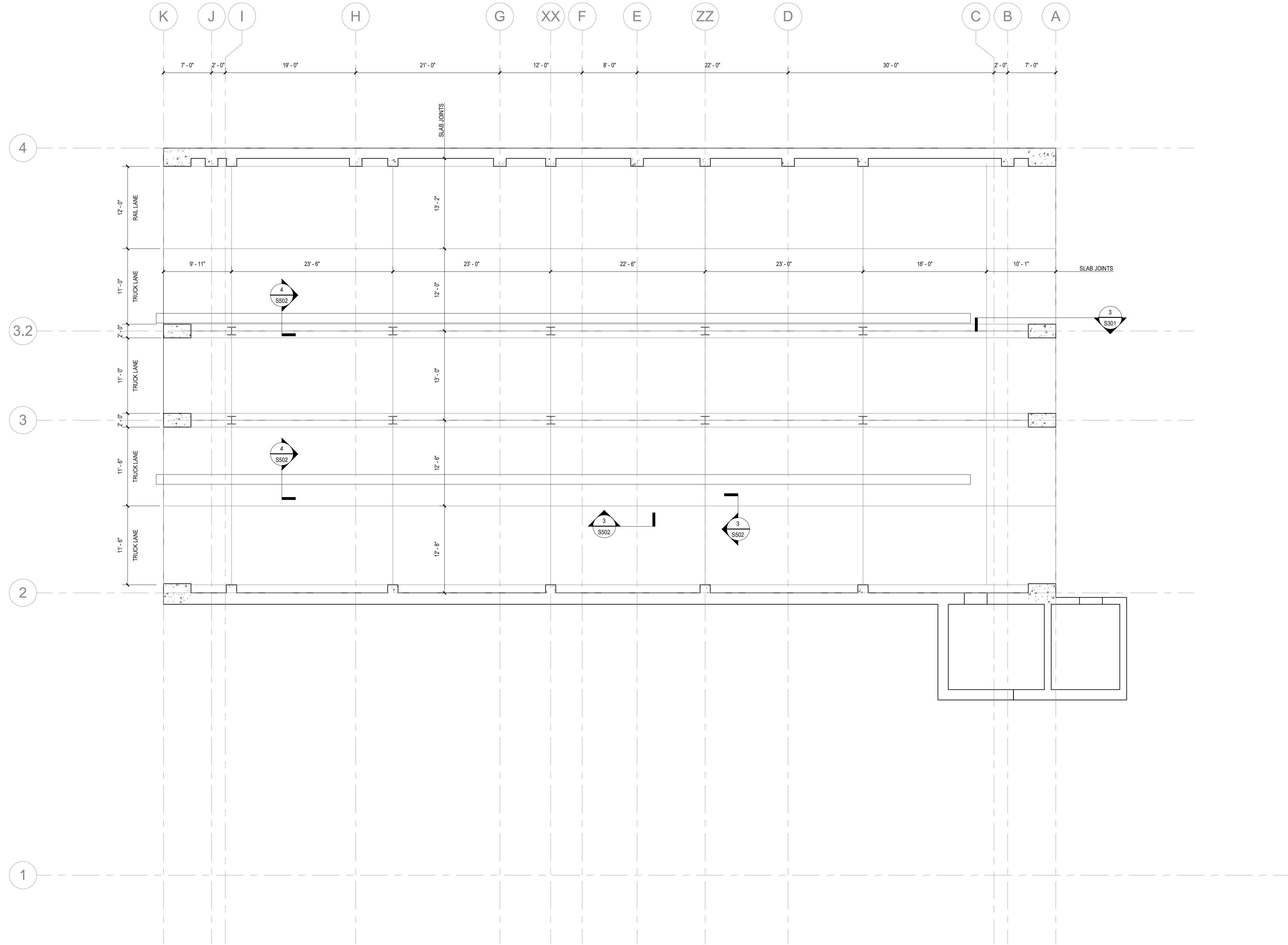
CONTINUOUS FOOTING SCHEDULE

CONTINUOUS FOOTING SCHEDULE				
MARK	WIDTH	THICKNESS	REINFORCING	
CF24	2' - 0"	1' - 0"	(3) #5 CONT.	
CF30	2' - 6"	1' - 0"	(3) #5 CONT. & #5 AT 24" O.C. TRANSVERSE	
CF8T	8"	3' - 6"	(2) #5 CONT. TOP & BOTTOM AND #4 VERTICAL AT 24" O.C.	
CF24T	2' - 0"	3' - 6"	(3) #5 CONT. TOP & BOTTOM & #4 TIES AT 24" O.C.	
CF30T	2' - 6"	3' - 6"	(4) #5 CONT. TOP & BOTTOM & #4 TIES AT 24" O.C.	

ISOLATED FOOTING SCHEDULE

ISOLATED FOOTING SCHEDULE				
MARK	LENGTH	WIDTH	THICKNES S	REINFORCING
F4	4' - 0"	4' - 0"	1' - 6"	(4) #5 EACH WAY
F6	6' - 0"	6' - 0"	1' - 6"	(8) #5 EACH WAY
F10T	10' - 0"	10' - 0"	3' - 6"	(12) #5 VERTICAL & #4 TIES AT 12" O.C.
F12T	12' - 0"	12' - 0"	3' - 6"	(12) #5 VERTICAL & #4 TIES AT 12" O.C.
F14T	14' - 0"	14' - 0"	3' - 6"	(12) #5 VERTICAL & #4 TIES AT 12" O.C.
F15T	15' - 0"	15' - 0"	3' - 6"	(12) #5 VERTICAL & #4 TIES AT 12" O.C.

1. FOUNDATION PLAN NOTES
 1. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS NOT SHOWN.
2. ALL ELEVATIONS REFERENCED TO LOWER LEVEL FINISH FLOOR ELEVATION = 100' 0".
3. TOP OF FOOTINGS = (X-Y) UNLESS NOTED OTHERWISE.
4. REINFORCE CAST-IN-PLACE CONCRETE FOUNDATION WALLS AS FOLLOWS:
 - A. 8" THICK: #4 AT 18" O.C. VERTICAL, #4 AT 12" O.C. HORIZONTAL, CENTERED
 - B. 12" THICK: #4 AT 18" O.C. VERTICAL, #4 AT 16" O.C. HORIZONTAL, EACH FACE
 - C. 16" THICK: #6 AT 12" O.C. VERTICAL, #5 AT 12" O.C. HORIZONTAL, EACH FACE
 - D. 20" THICK: #6 AT 12" O.C. VERTICAL, #5 AT 12" O.C. HORIZONTAL, EACH FACE
5. REFER TO SHEET S101 FOR LOWER LEVEL SLAB-ON-GRADE.
6. REFER TO SHEET S103 FOR UPPER LEVEL SLAB-ON-GRADE.



1 LOWER LEVEL SLAB-ON-GRADE

1/8" = 1'-0"

- SLAB-ON-GRADE PLAN NOTES
1. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS NOT SHOWN.
 2. ALL ELEVATIONS REFERENCED TO LOWER LEVEL FINISH FLOOR ELEVATION = 100'-0".
 3. 8" CONCRETE SLAB-ON-GRADE REINFORCED WITH #5 AT 12" ON CENTER EACH WAY OVER 2" RIGID INSULATION, OVER VAPOR BARRIER, OVER FREE DRAINING GRANULAR FILL.

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PROJECT:
ROLL OFFS OF DES MOINES
IMPRINT ARCHITECTURE
DES MOINES, IOWA

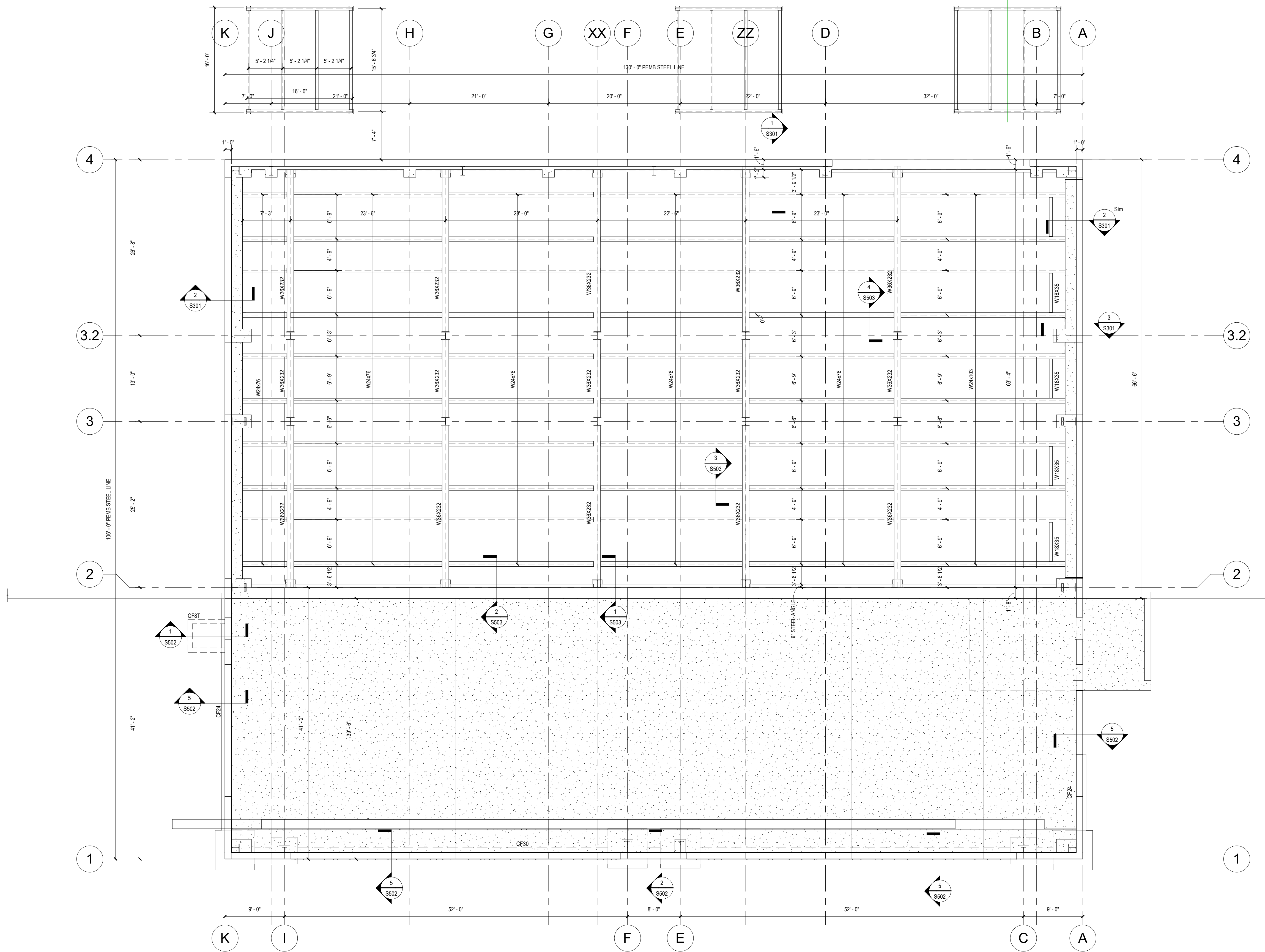
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LOWER LEVEL SLAB
PLAN

S101



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1 UPPER LEVEL FRAMING

1/8" = 1'-0"

- FLOOR FRAMING PLAN NOTES
1. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS NOT SHOWN.
 2. ALL ELEVATIONS REFERENCED TO LOWER LEVEL FINISH FLOOR ELEVATION = 100'-0".
 3. TOP OF STEEL = (+119'-11") U.N.O.
 4. SEE SHEET S103 FOR FLOOR PLATE PLAN AND DETAILS.
 5. 8" CONCRETE SLAB-ON-GRADE REINFORCED WITH #5 AT 12" ON CENTER EACH WAY OVER 2" RIGID INSULATION, OVER VAPOR BARRIER, OVER FREE DRAINING GRANULAR FILL.
 6. TOP OF FOOTINGS = (119'-4") UNLESS NOTED OTHERWISE.
 7. TOP OF FOUNDATION WALL = (119'-0") UNLESS NOTED OTHERWISE.

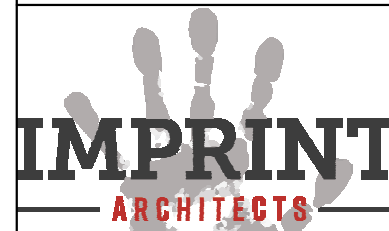
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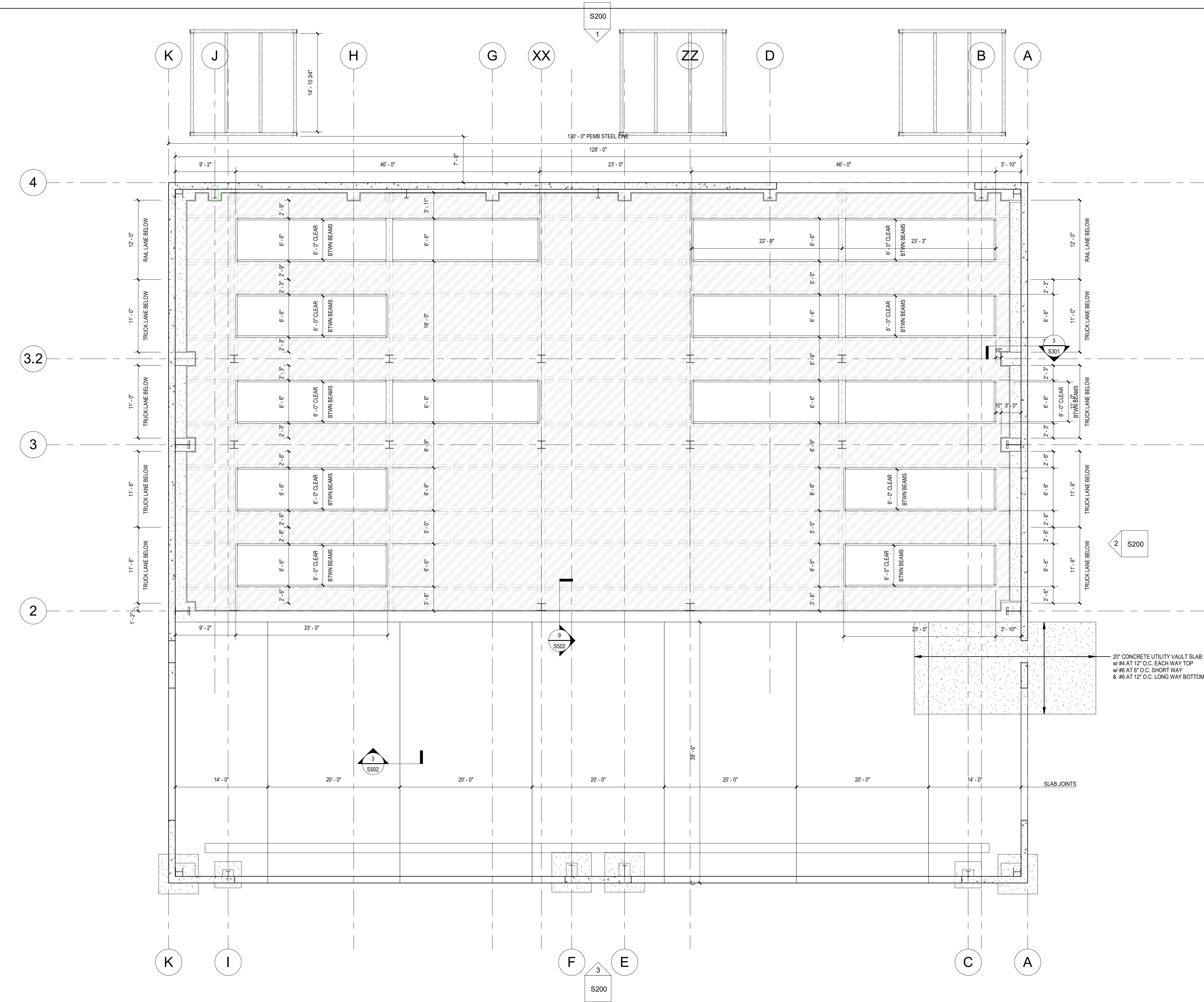
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UPPER LEVEL
FLOOR FRAMING
PLAN

S102



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SLAB-ON-GRADE PLAN NOTES

1. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS NOT SHOWN.
2. ALL ELEVATIONS REFERENCED TO LOWER LEVEL FINISH FLOOR ELEVATION = 100'-0".
3. 8" CONCRETE SLAB-ON-GRADE REINFORCED WITH #5 AT 12" ON CENTER EACH WAY OVER 2" RIGID INSULATION, OVER VAPOR BARRIER, OVER FREE DRAINING GRANULAR FILL.

FLOOR PLATE PLAN NOTES

1. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS NOT SHOWN.
2. ALL ELEVATIONS REFERENCED TO LOWER LEVEL FINISH FLOOR ELEVATION = 100'-0".
3. TOP OF STEEL FLOOR PLATES = (+120'-0") U.N.O.
4. ALL FLOOR PLATES TO BE 1" A36 STEEL.

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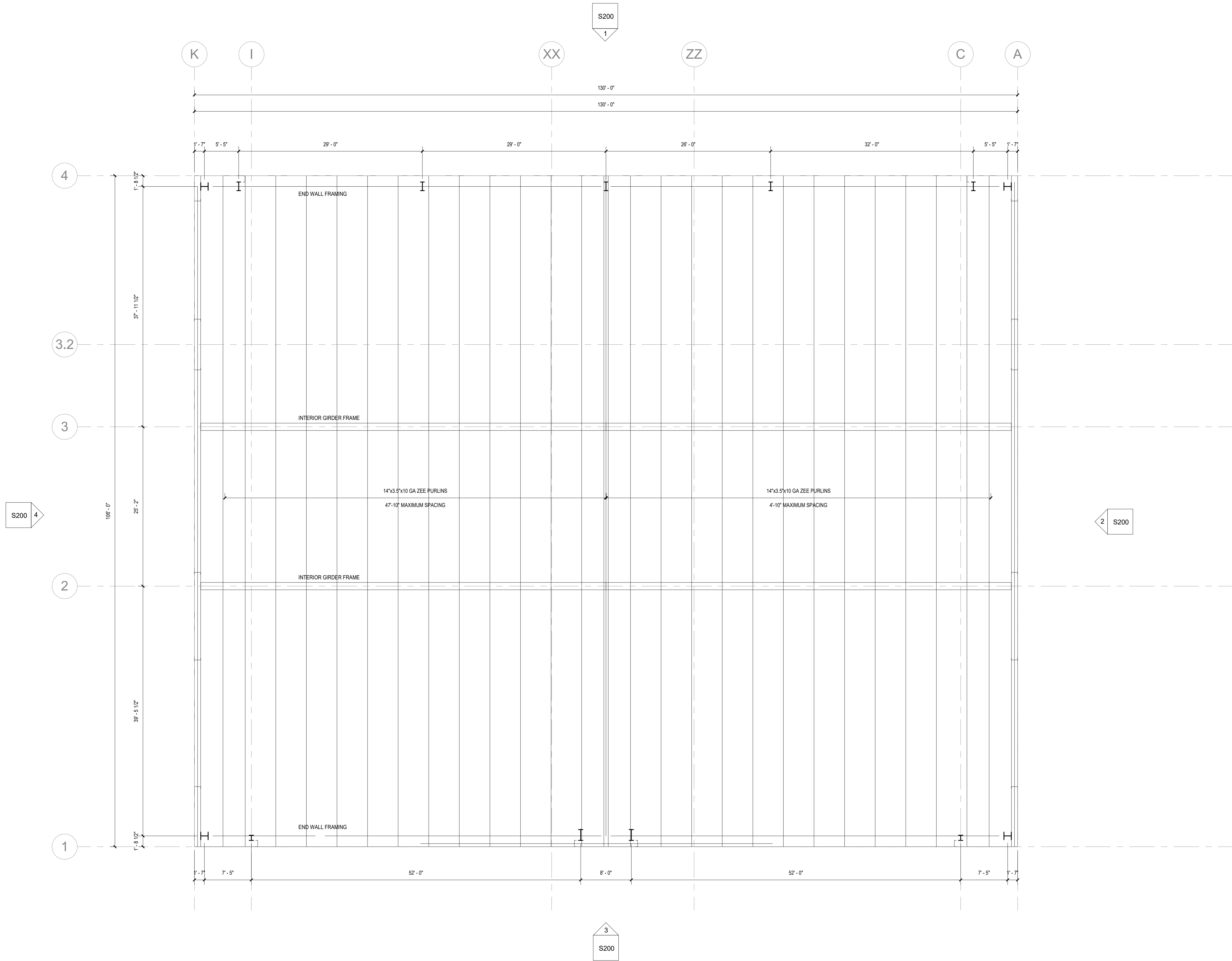
UPPER LEVEL SLAB
& FLOOR PLATE
PLAN

S103



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23034



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

PRELIMINARY - NOT FOR CONSTRUCTION

23034

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ROLL OFFS OF DES MOINES
IMPRINT ARCHITECTURE
DES MOINES, IOWA

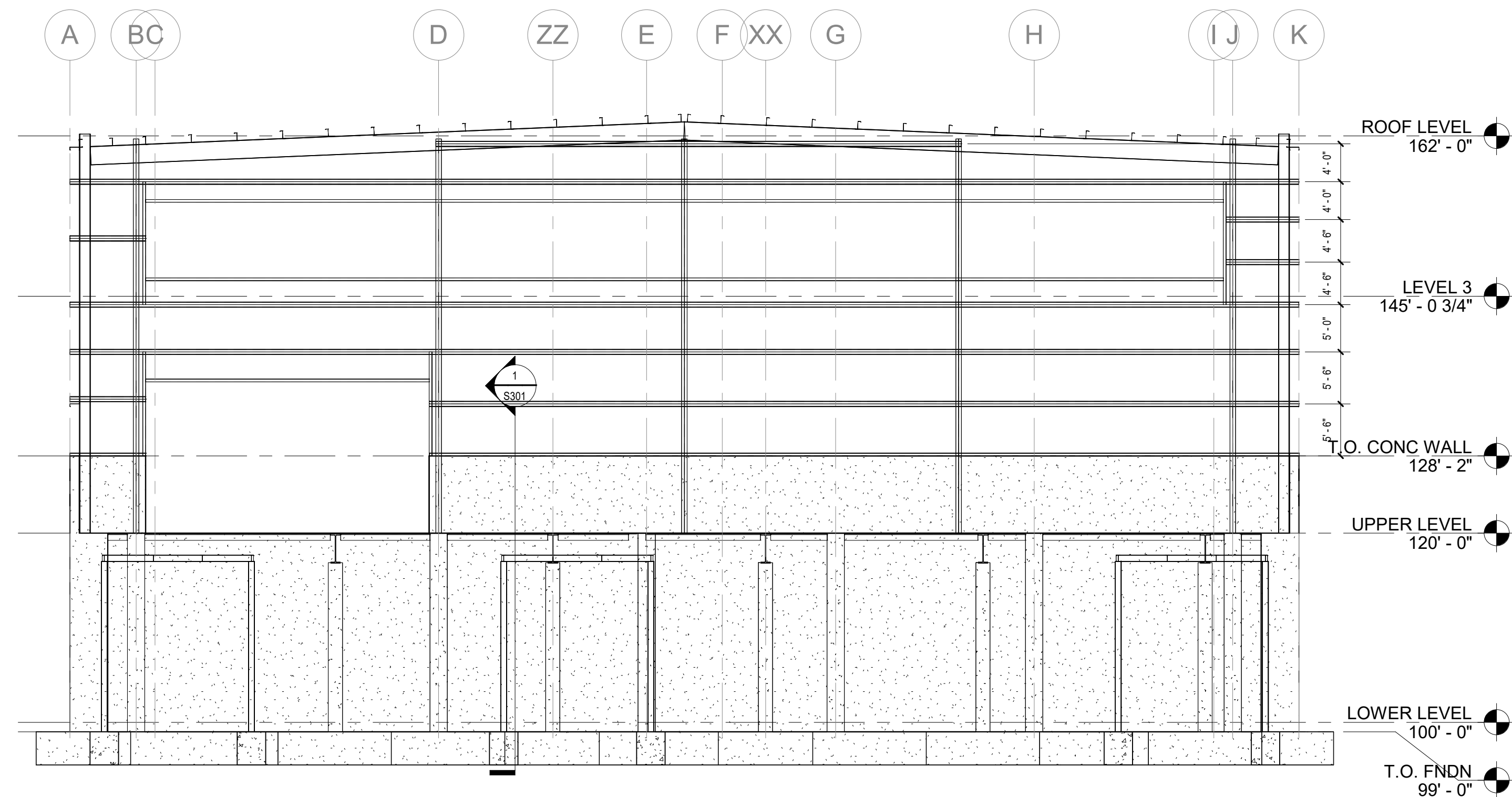
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ROOF FRAMING
PLAN

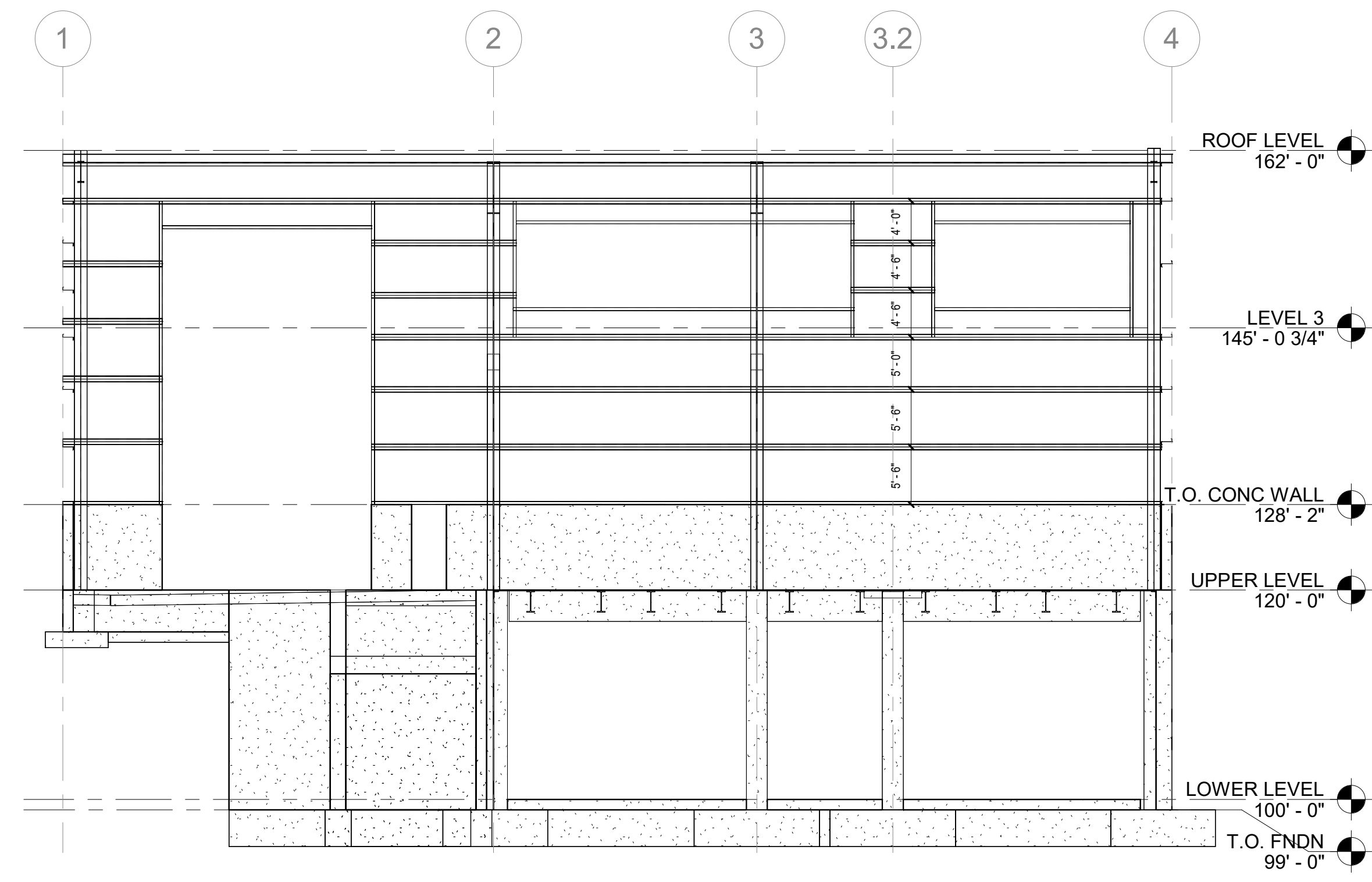
S104

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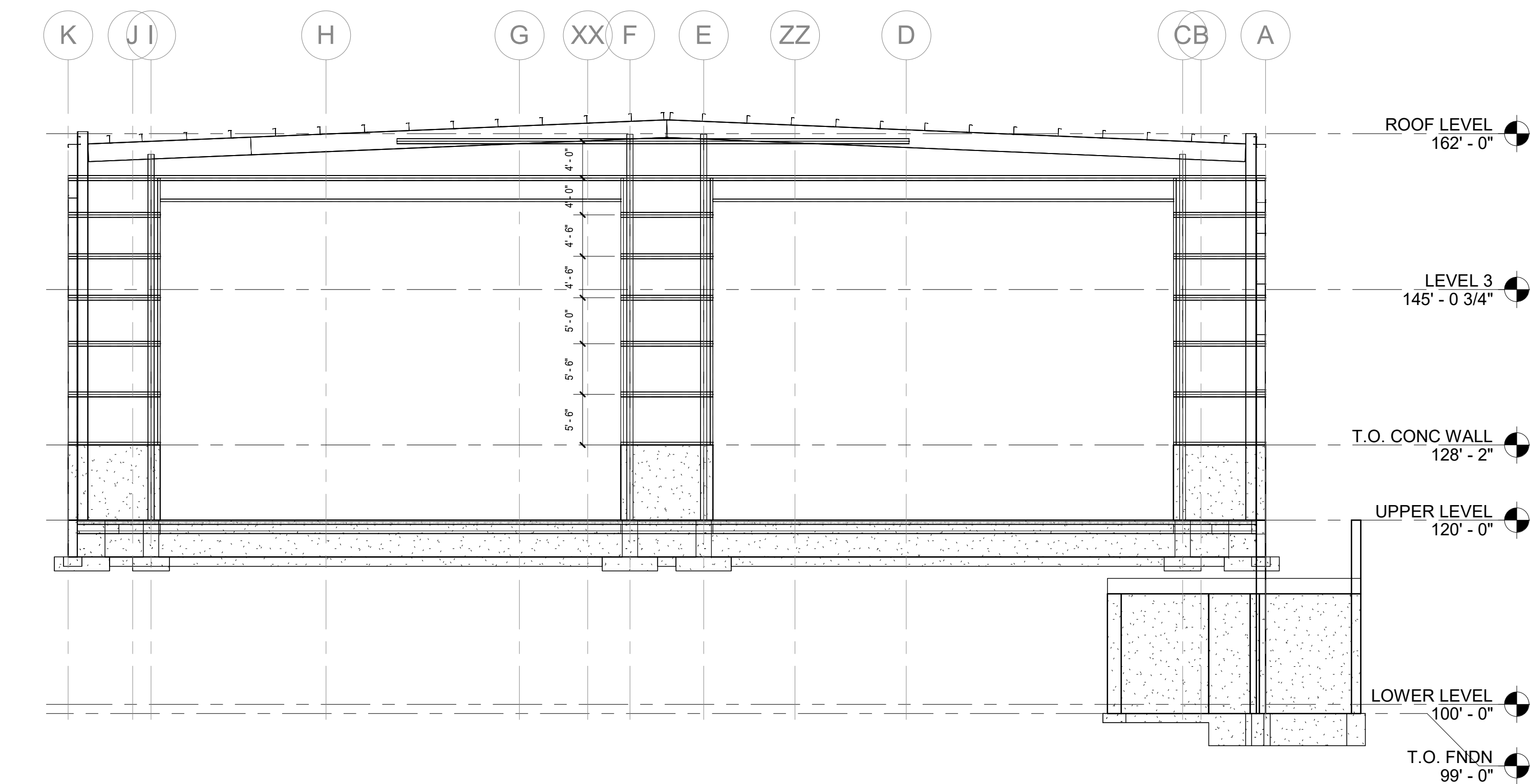


1 EAST ELEVATION
3/32" = 1'-0"

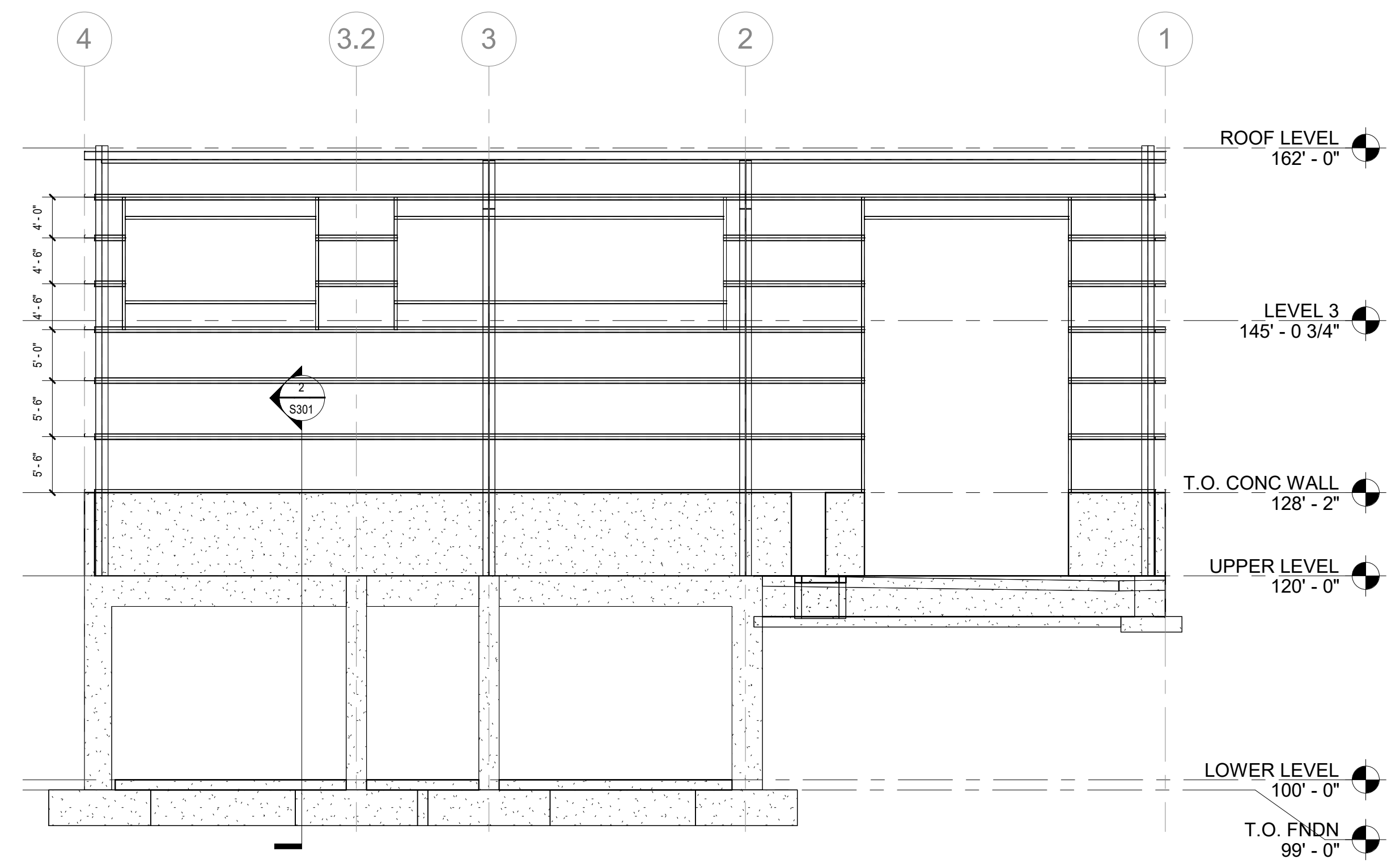


2 SOUTH ELEVATION
3/32" = 1'-0"

WALL FRAMING NOTES
1. ALL WALL GIRTS TO BE 12x3.5x10 GA ZEE.
2. ALL BASE GIRTS AND OPENING FRAMING TO BE 12 x 3.5 x 10 CEE.



3 WEST ELEVATION
3/32" = 1'-0"



4 NORTH ELEVATION
3/32" = 1'-0"

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STRUCTURAL
ELEVATIONS

S200

IMPRINT
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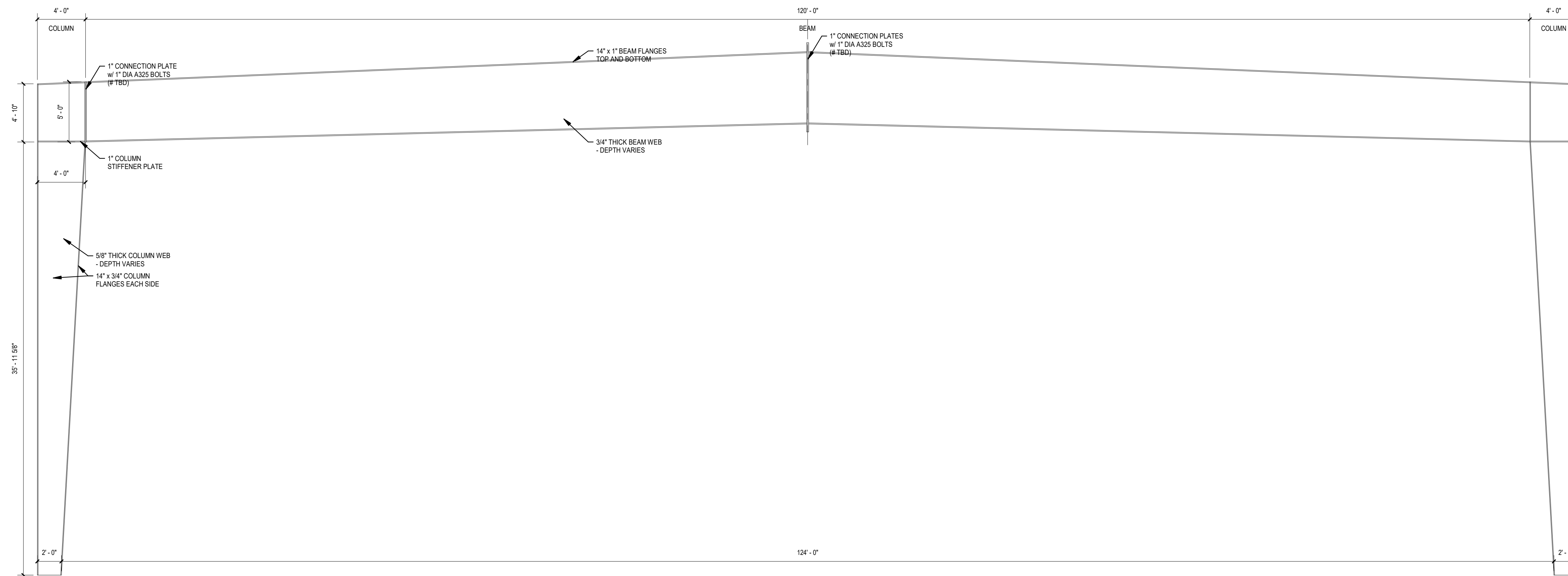
STRUCTURAL BUILDING SECTIONS

S300



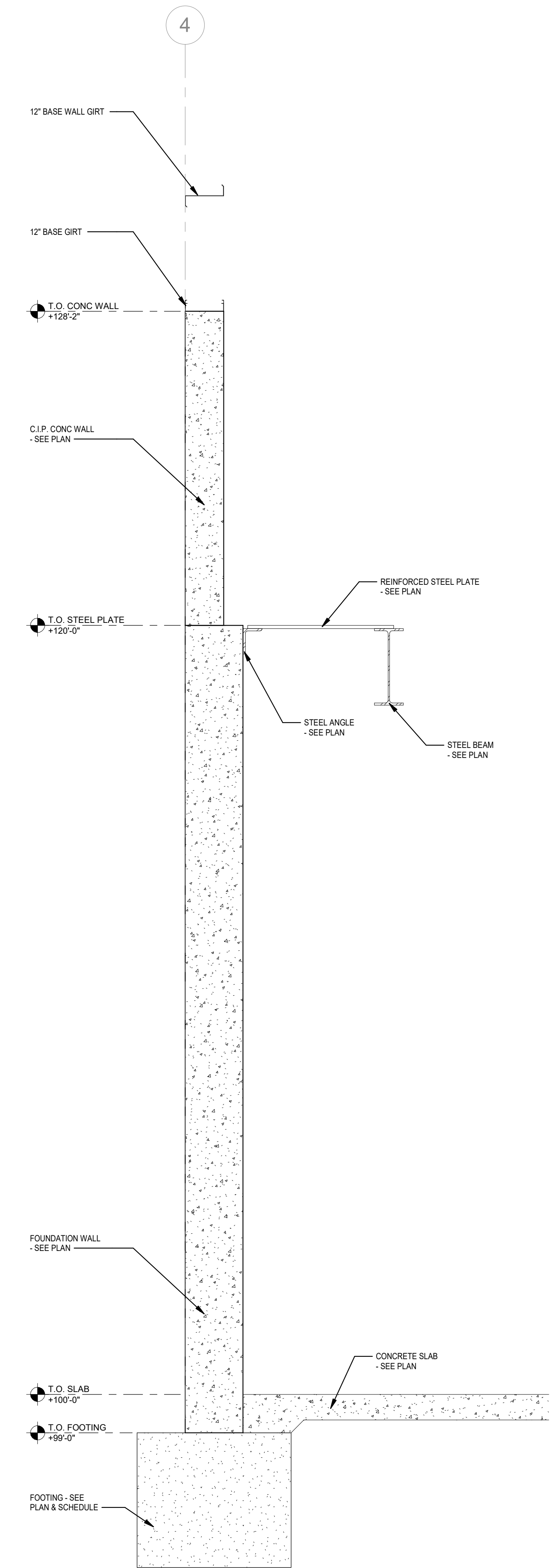
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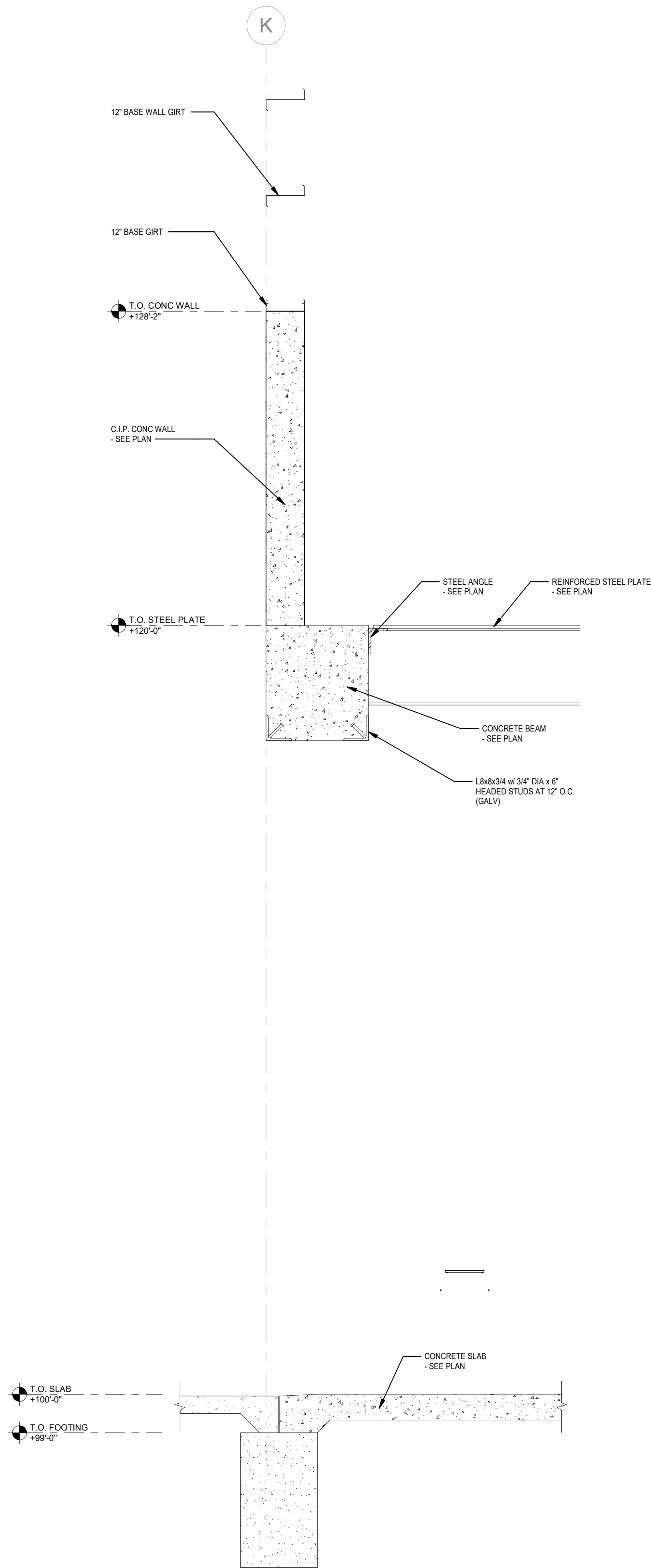


1 INTERIOR GIRDER FRAME

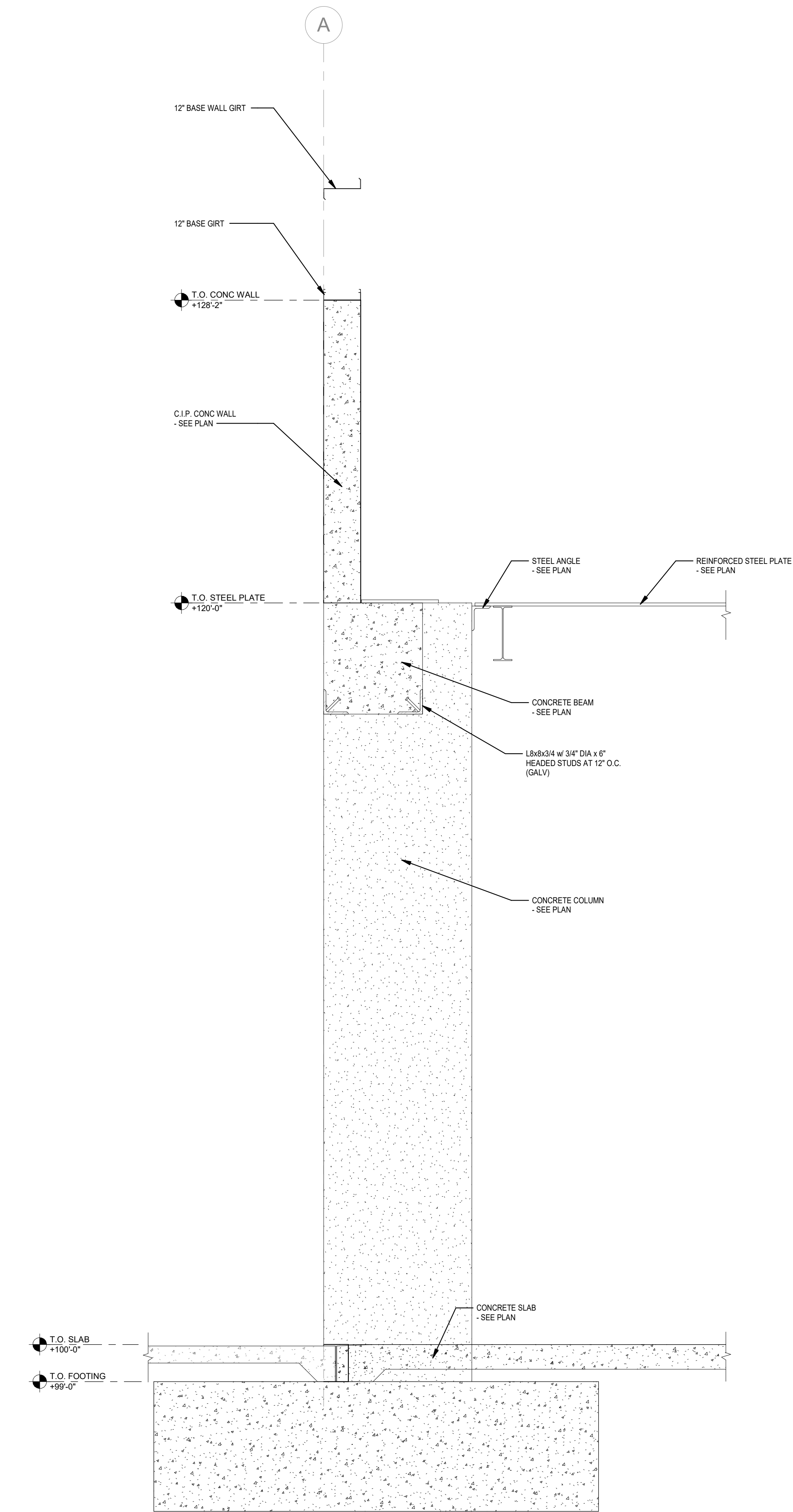
$$3/16'' = 1'-0'$$



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



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



3 SECTION 3
1/2" = 1'-0"

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STRUCTURAL
SECTIONS

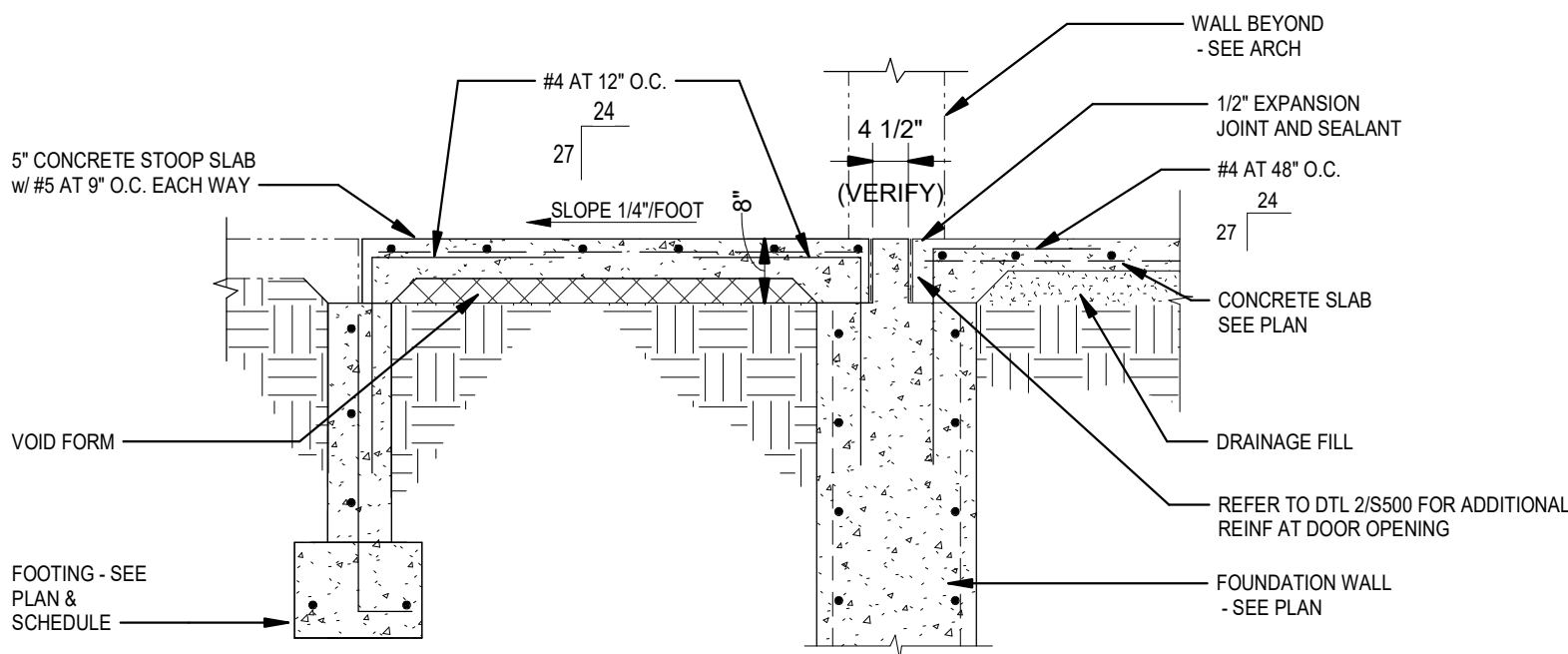
S301



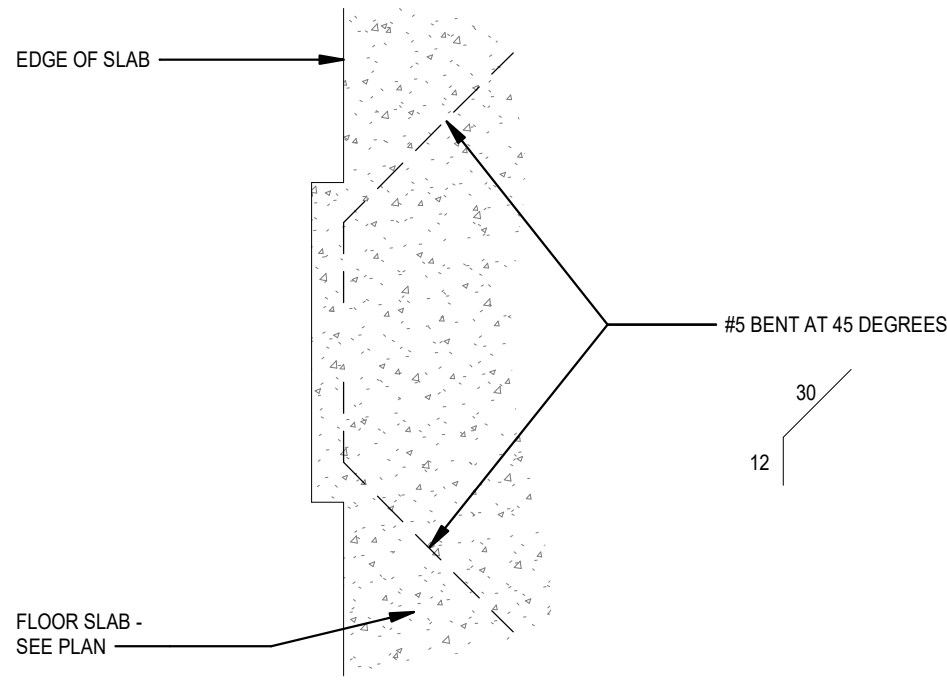
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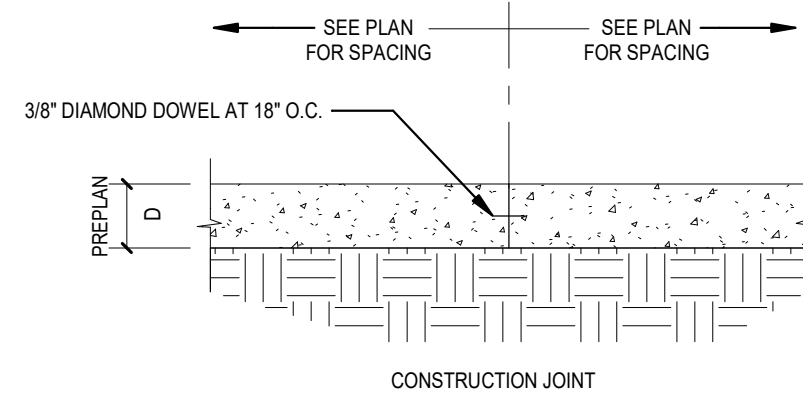




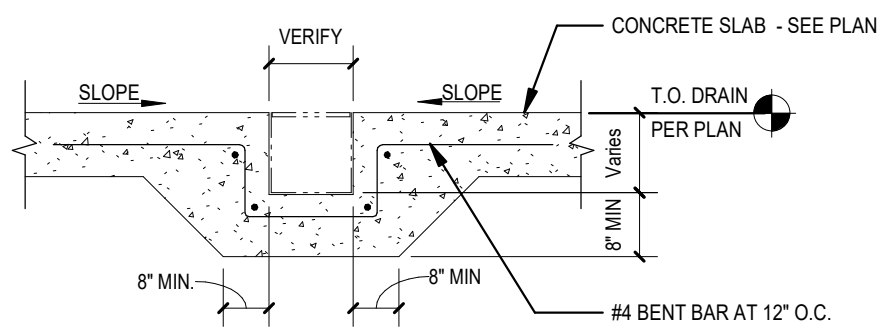
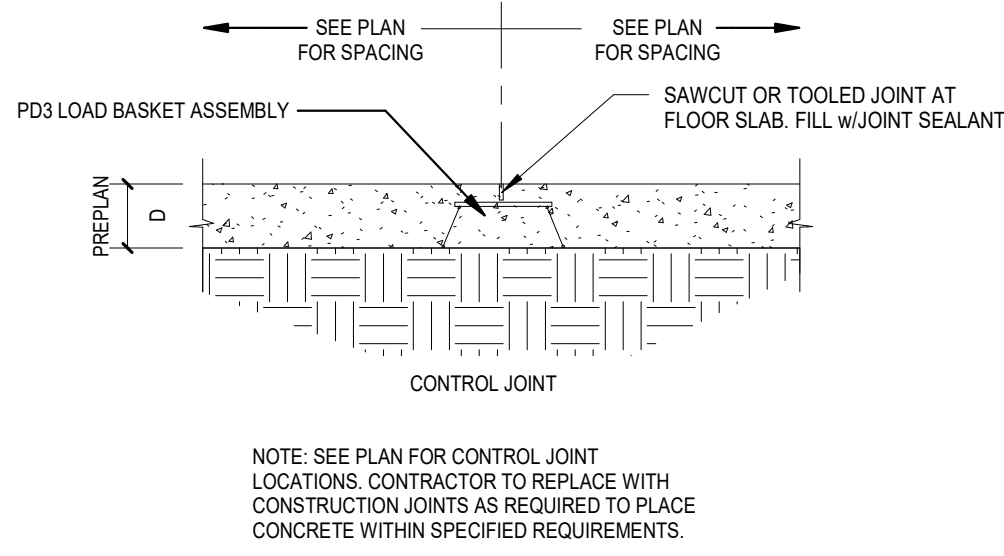
1 STOOP
1/2" = 1'-0"



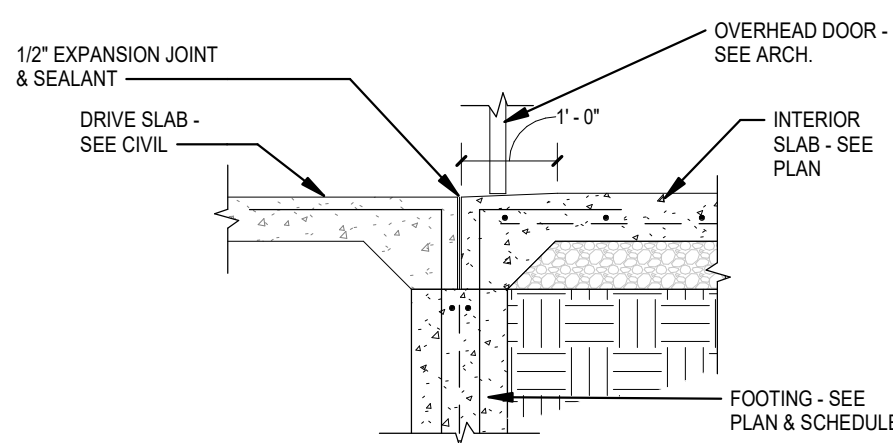
2 SLAB REINFORCING AT DOORS
1/2" = 1'-0"



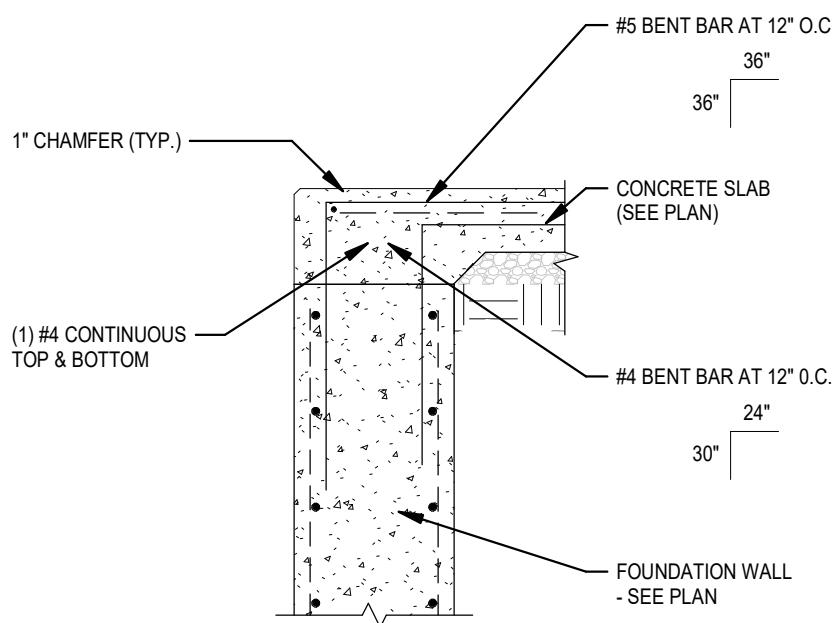
3 SLAB ON GRADE JOINT
1/2" = 1'-0"



4 TRENCH DRAIN
1/2" = 1'-0"



5 DRIVE DOOR FOUNDATION
1/2" = 1'-0"



9 SLAB STEP DOWN
1/2" = 1'-0"

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DES MOINES, IOWA

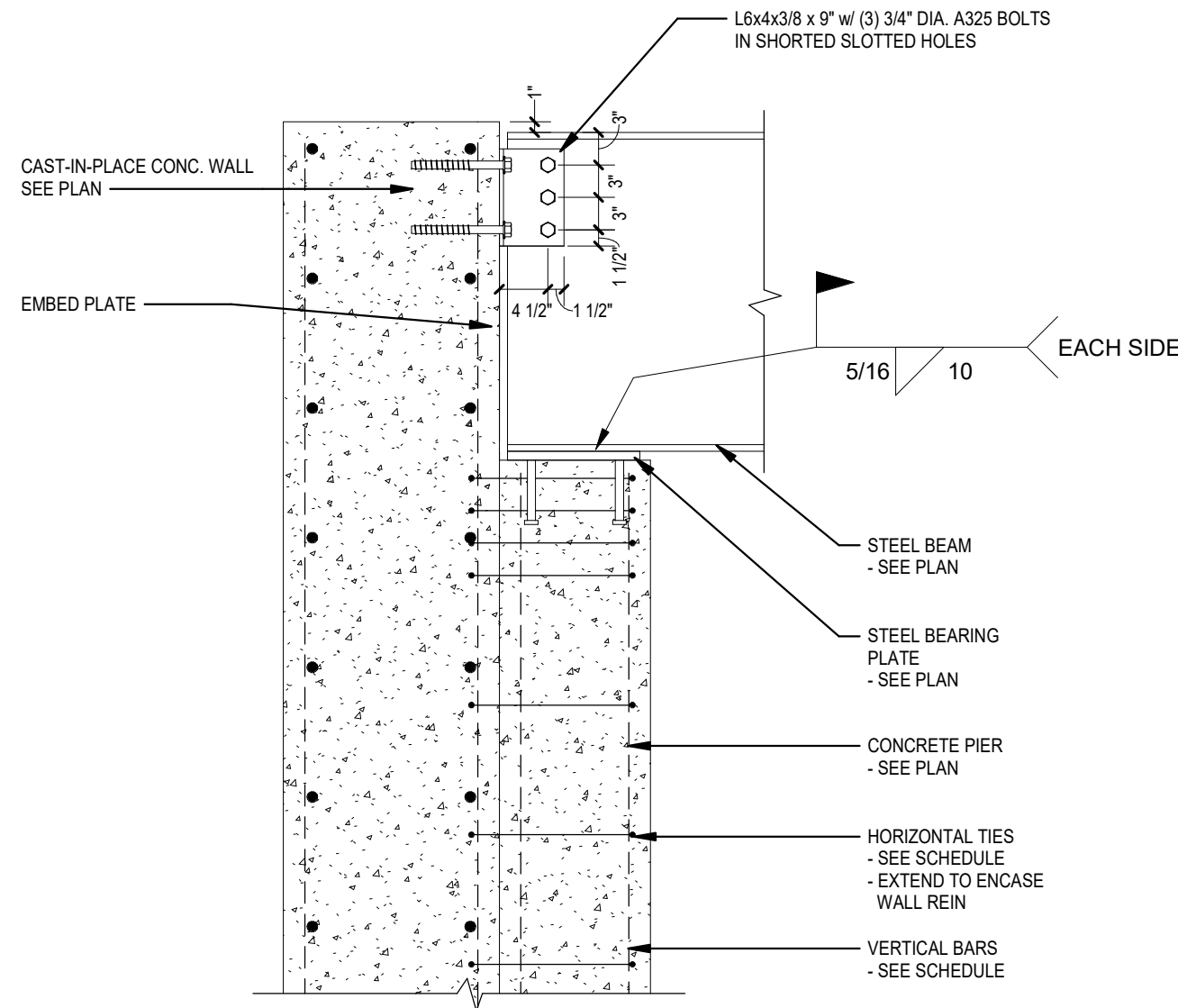
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FOUNDATION
DETAILS

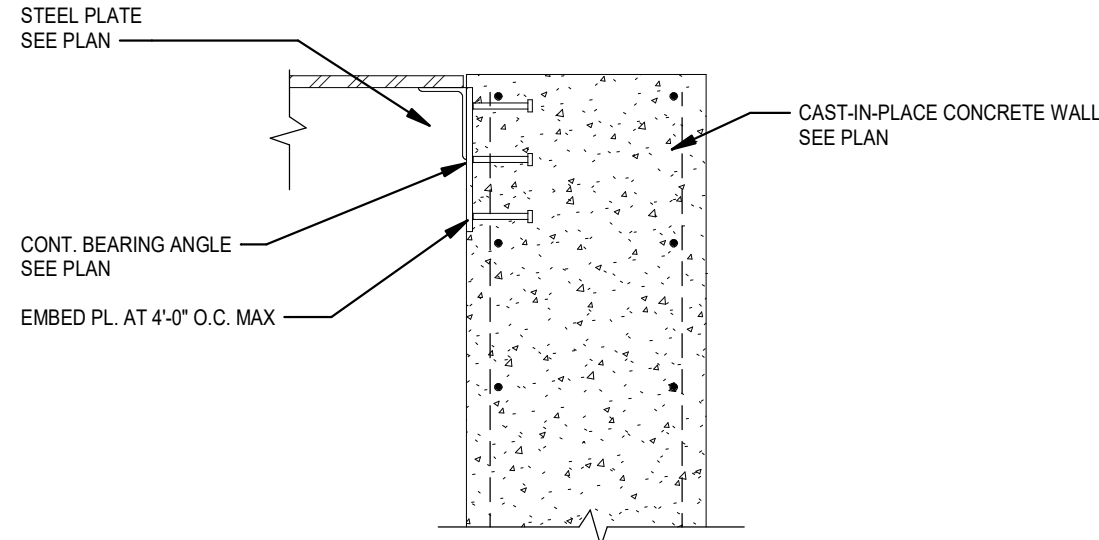
S502



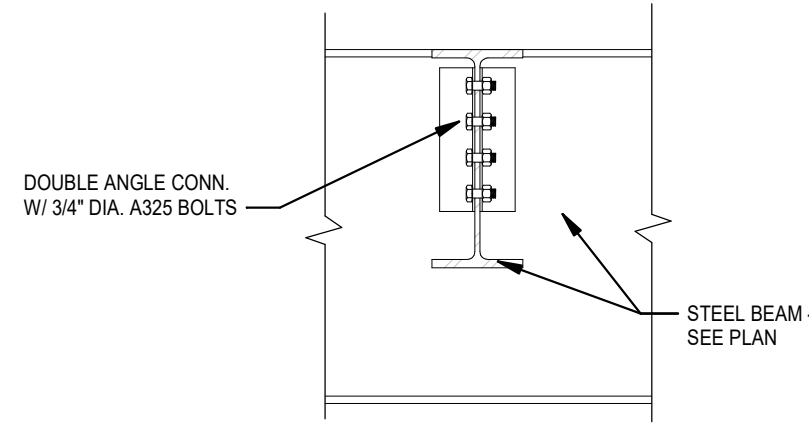
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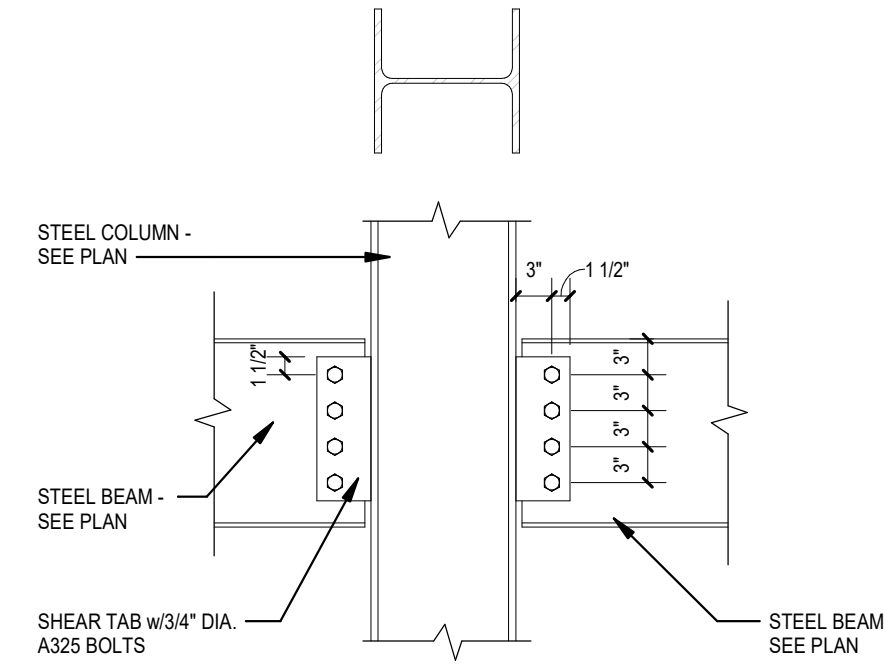
1 BEAM BEARING AT CONCRETE WALL
3/4" = 1'-0"



2 DECK BEARING AT PRECAST WALL
3/4" = 1'-0"



3 BEAM TO BEAM CONNECTION
3/4" = 1'-0"



4 BEAM TO COLUMN CONNECTION
3/4" = 1'-0"

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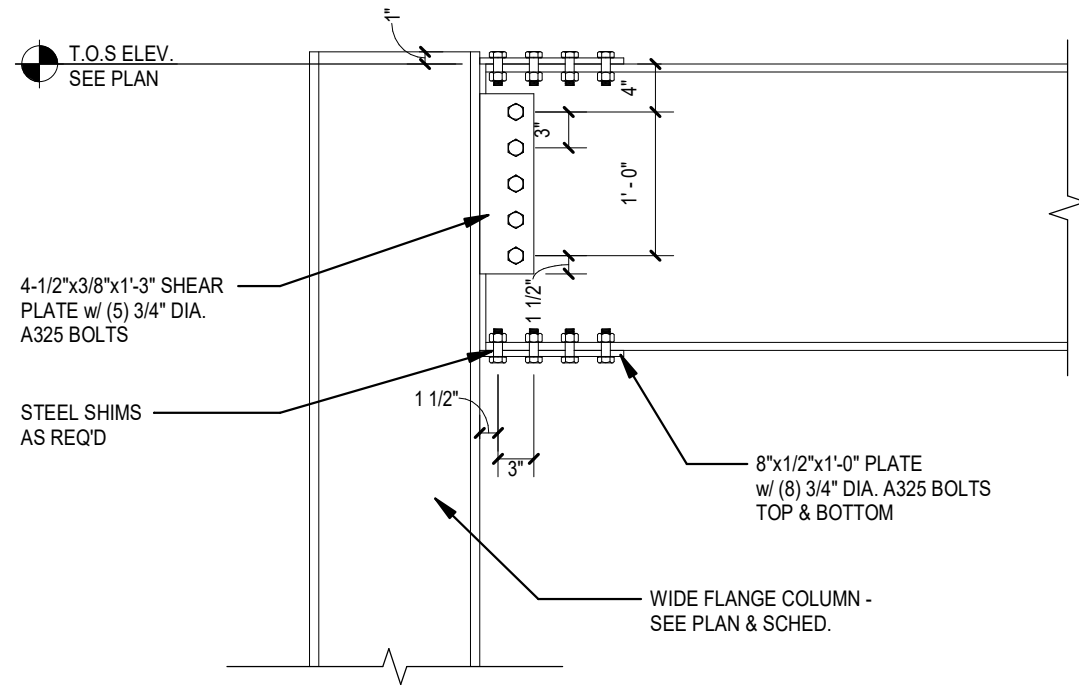
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FLOOR FRAMING
DETAILS

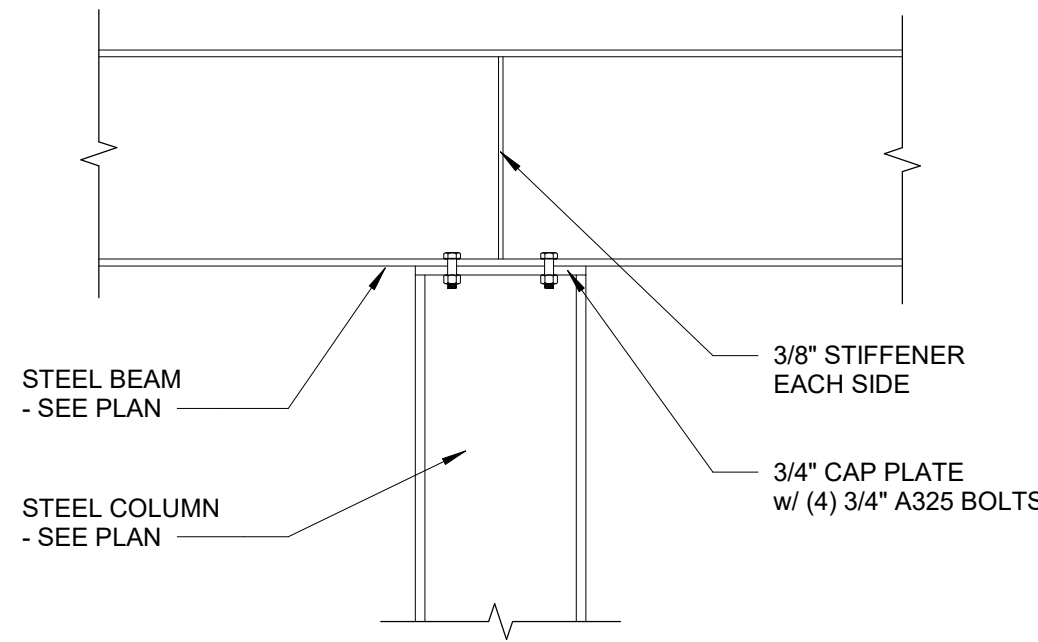
S503



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1 GIRDER MOMENT CONNECTION
3/4" = 1'-0"



2 BEAM OVER COLUMN
3/4" = 1'-0"

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DES MOINES, IOWA

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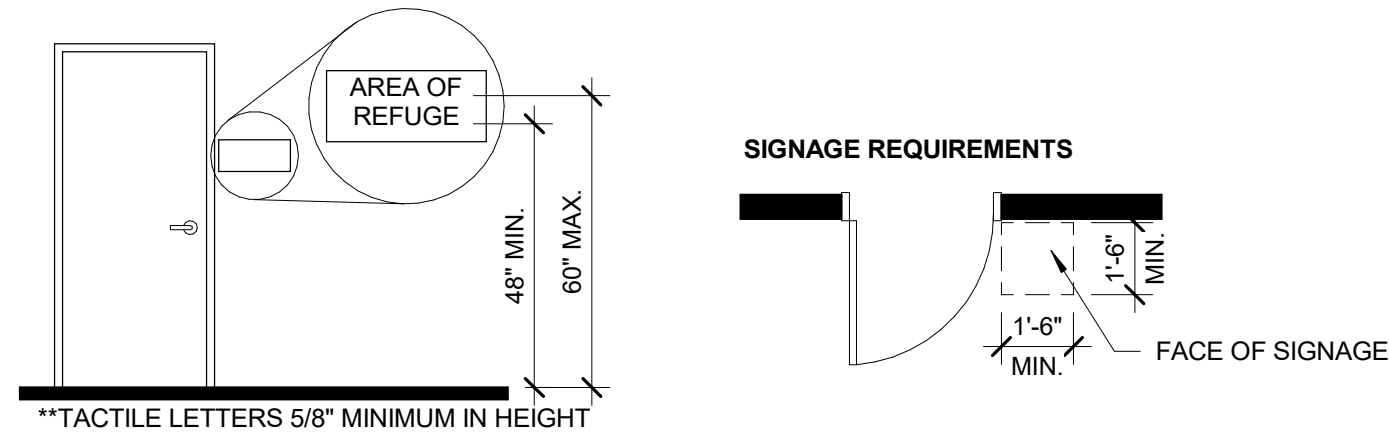
ROOF FRAMING
DETAILS

S504

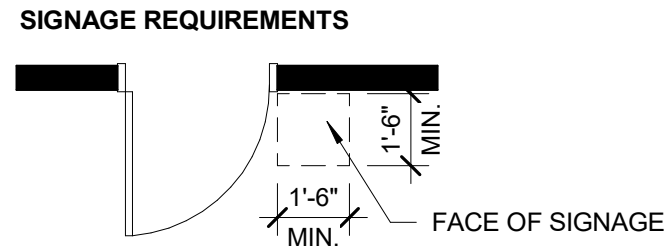


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703.4.1 - LOCATION OF
TACTILE CHARACTERS
A.F.F.



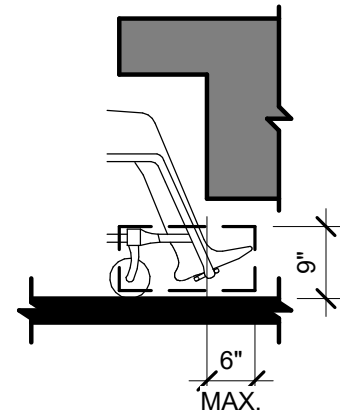
703.4.2 - LOCATION OF
TACTILE SIGNS AT DOORS

SIGNAGE GENERAL NOTES:

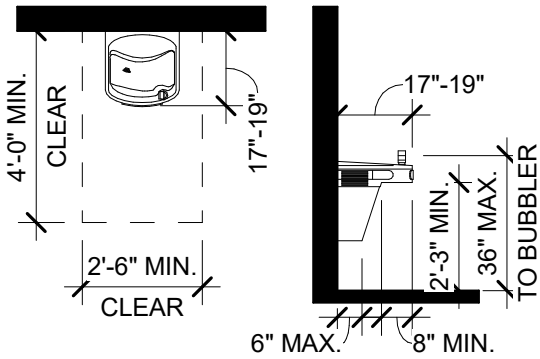
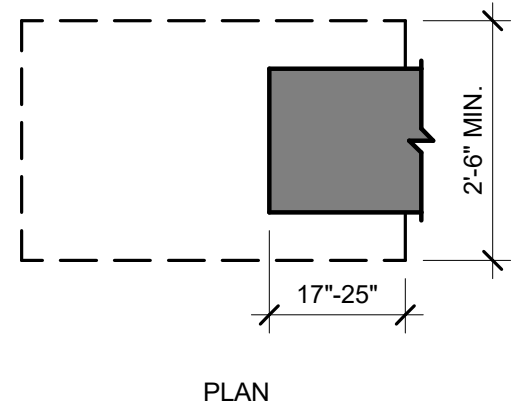
- SIGNAGE PROPORTION:** LETTERS AND NUMBERS ON SIGNS SHALL HAVE A WIDTH-TO-HEIGHT RATIO BETWEEN 3:5 AND 1:1 AND A STROKE-WIDTH-TO-HEIGHT RATIO BETWEEN 1:5 AND 1:10.
- CHARACTER HEIGHT:** CHARACTERS AND NUMBERS ON SIGNS SHALL BE SIZED ACCORDING TO THE VIEWING DISTANCE FROM WHICH THEY ARE TO BE READ. THE MINIMUM HEIGHT IS MEASURED USING AN UPPER CASE X. LOWER CASE CHARACTERS ARE PERMITTED. 3 INCH MINIMUM HEIGHT.
- RAISED AND BRAILLED CHARACTER AND PICTORIAL SYMBOL SIGNS:** LETTERS AND NUMERALS SHALL BE RAISED 1/32 INCH IN UPPER CASE SANS SERIF OR SIMPLE SERIF TYPE AND SHALL BE ACCOMPANIED WITH GRADE 2 BRAILLE. RAISED CHARACTERS SHALL BE AT LEAST 5/8 INCH HIGH, BUT NO HIGHER THAN 2 INCHES. PICTOGRAMS SHALL BE ACCOMPANIED BY THE EQUIVALENT VERBAL DESCRIPTION PLACED DIRECTLY BELOW THE PICTOGRAM. THE BORDER DIMENSION OF THE PICTOGRAM SHALL BE 6 INCHES MINIMUM IN HEIGHT.
- FINISH AND CONTRAST:** THE CHARACTERS AND BACKGROUND OF SIGNS SHALL BE EGGSHELL, MATTE, OR OTHER NON-GLARE FINISH. CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND - EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.
- MOUNTING LOCATION AND HEIGHT:** WHERE PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE TO THE LATCH SIDE OF THE DOOR, INCLUDING AT DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL. MOUNTING HEIGHT SHALL BE 60 INCHES ABOVE THE FINISH FLOOR TO THE CENTERLINE OF THE SIGN. MOUNTING LOCATION FOR SUCH SIGNAGE SHALL BE SO THAT A PERSON MAY APPROACH WITHIN 3 INCHES OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR.

2009 ANSI A117.1 STANDARDS GENERAL NOTES:

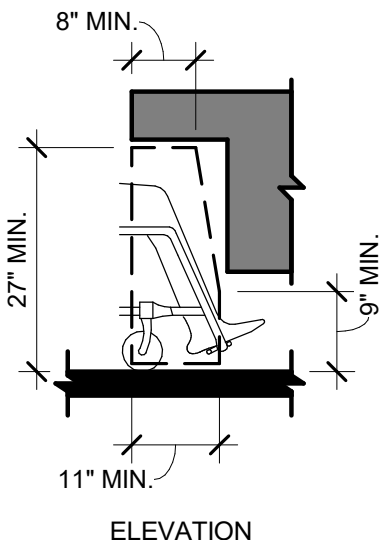
THIS DATA IS PROVIDED AS AN ADDITIONAL RESOURCE TO THE TEAM OF OWNER, CLIENT, ARCHITECT, ENGINEER, AND SPECIFICALLY, CONTRACTOR. THIS IS A TOOL TO APPRISE ALL PARTIES OF GENERAL ACCESSIBLE CONDITIONS AS PUBLISHED PER THE "ICC ANSI A117.1-2009 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES". THE DIAGRAMS ARE VERBATIM DUPLICATIONS OF THE STANDARDS AND ARE NOT INDICATIVE OF ALL CONDITIONS AND CERTAINLY DO NOT FULLY REPRESENT THE ENTIRETY OF THE WRITTEN GUIDELINES AS CONTAINED IN THE STANDARDS. THIS DATA IS IN SUPPORT OF GENERAL ARCHITECTURAL AND ENGINEERING DOCUMENTATION, WHICH IS INTENDED TO BE CONSISTENT WITH ACCESSIBLE CONDITIONS. THIS DATA IS PROVIDED TO ACT AS AN ADDED SAFEGUARD TO FULLY FAMILIARIZE THE TEAM WITH EXPECTATIONS ASSOCIATED WITH THE 2009 ANSI STANDARDS AND TO ASSIST THE TEAM IN ACHIEVING FULLY ACCESSIBLE CONDITIONS AS REQUIRED BY CIVIL LAW. WE ENCOURAGE THE DETAILED REVIEW BY OWNER AND CONTRACTOR.



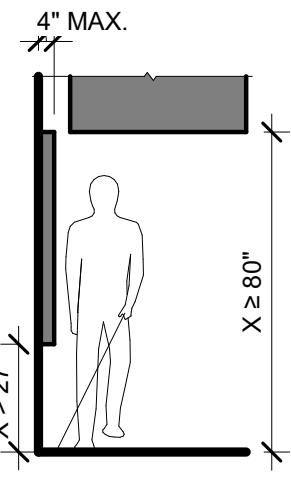
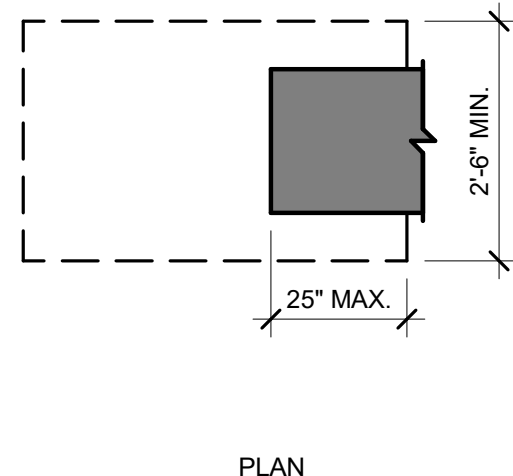
306.2 TOE CLEARANCE



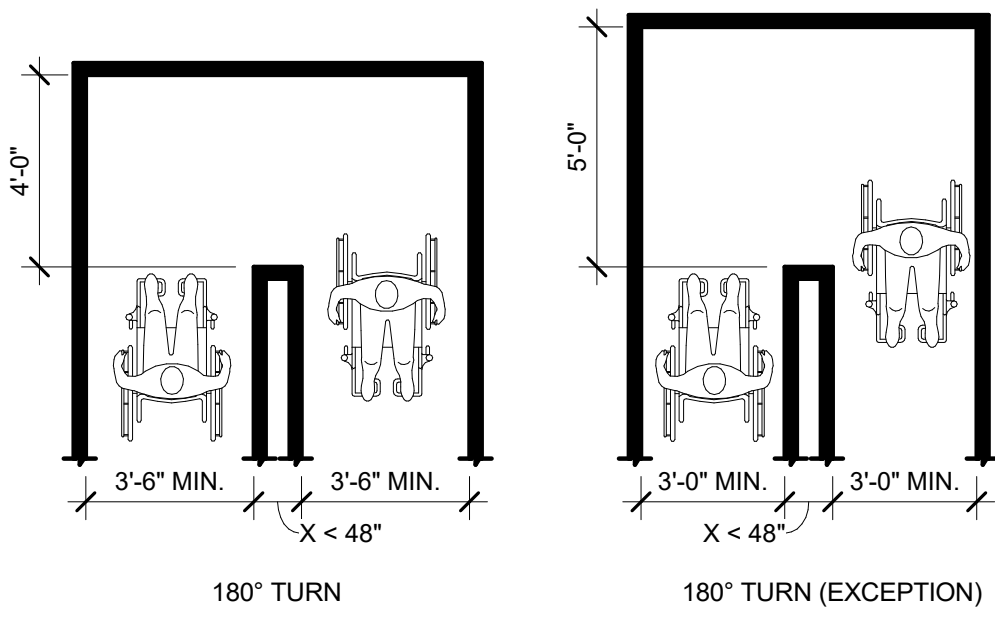
DRINKING FOUNTAIN/WATER
COOLER CLEARANCES



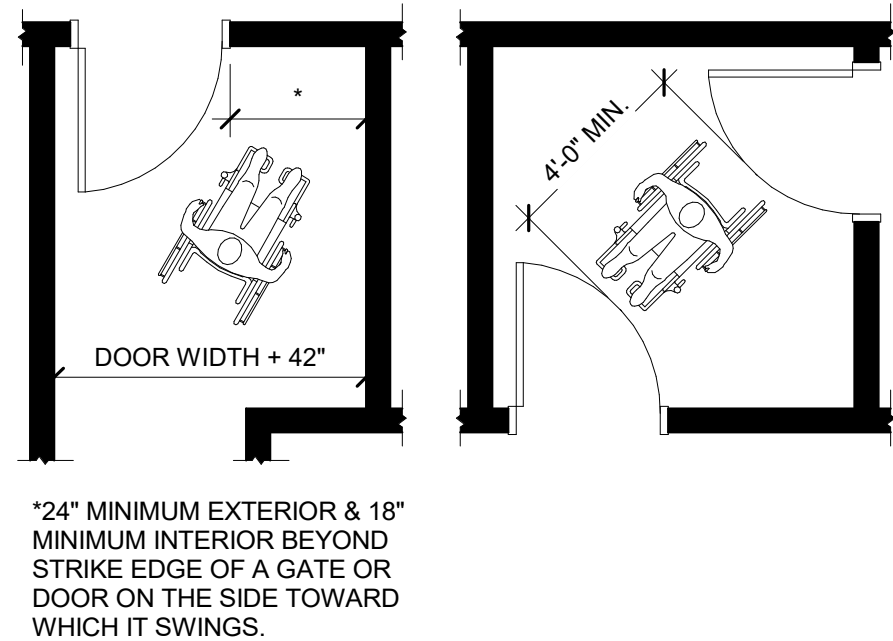
306.3 KNEE CLEARANCE



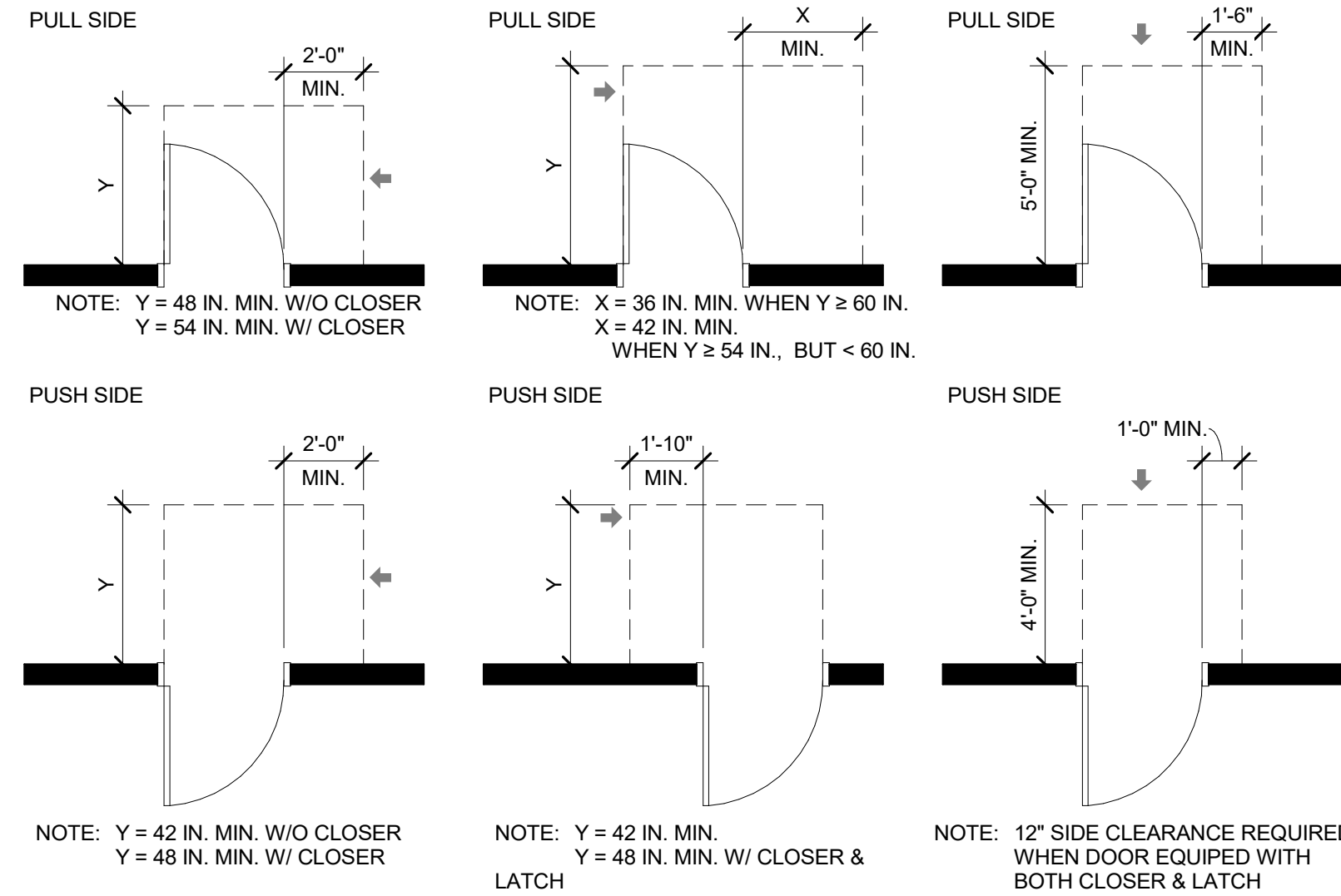
307.2 WALL PROTRUSION &
CEILING CLEARANCES



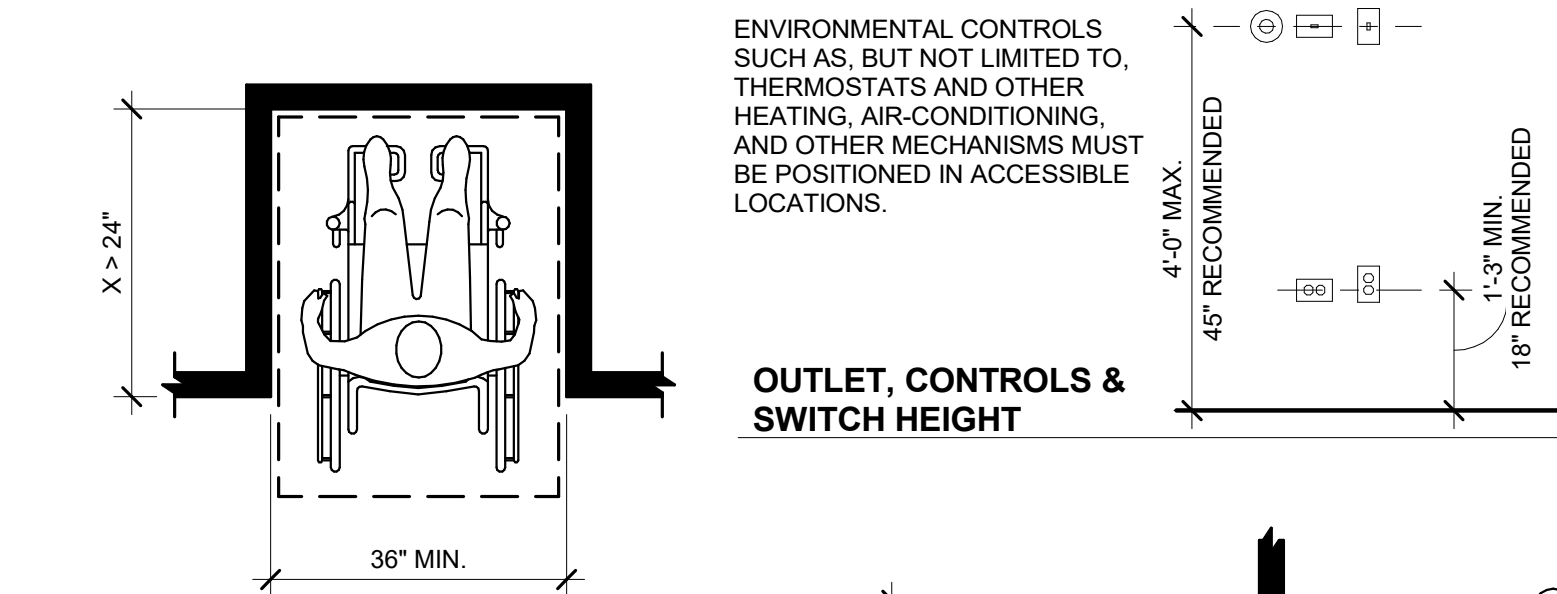
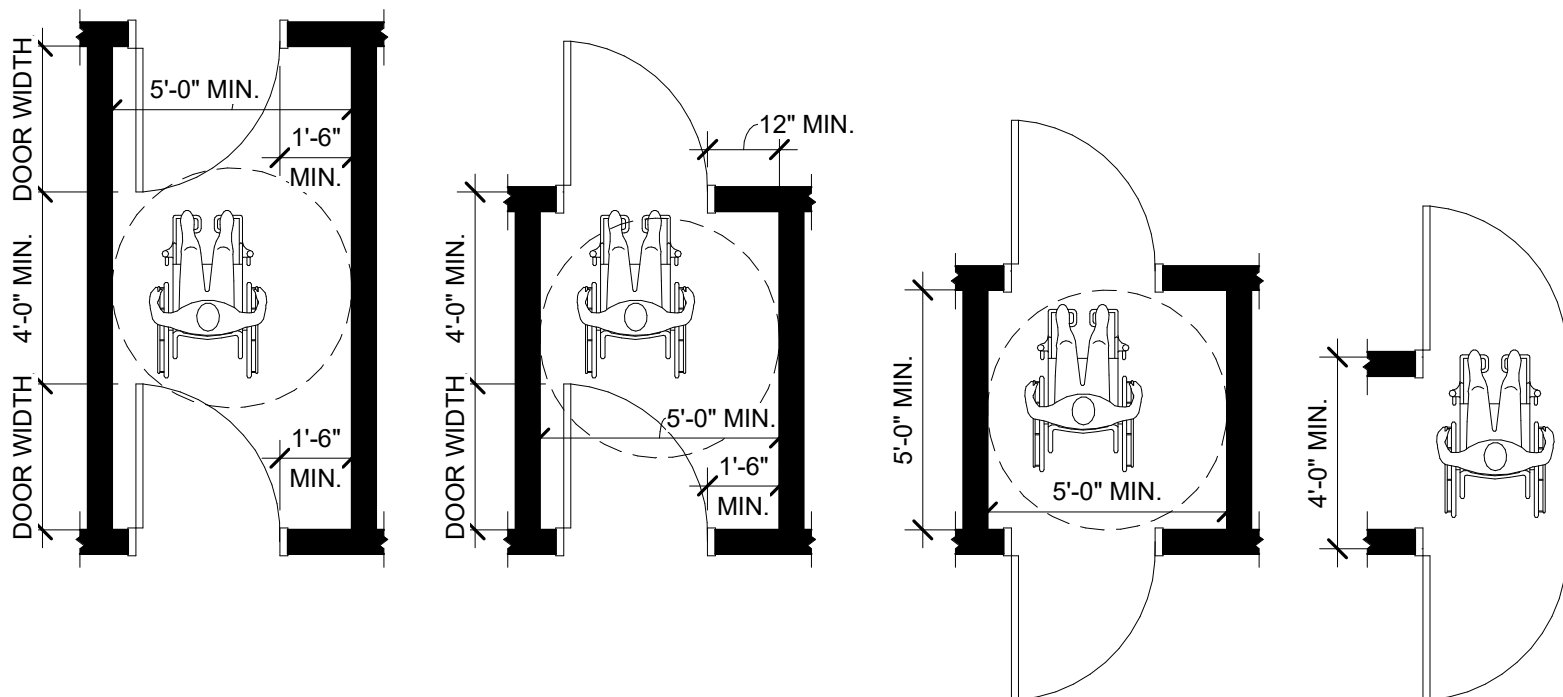
403.5.1 CLEAR WIDTH AT 180° TURN



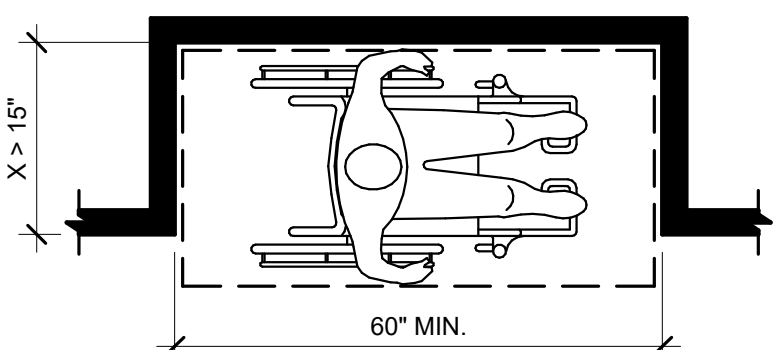
404.2.5 TWO DOORS IN A SERIES



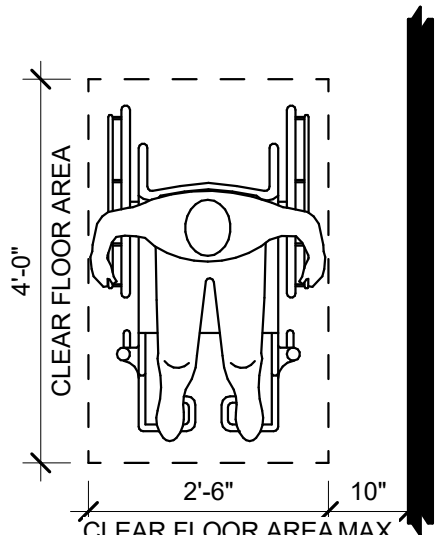
404.2.4.1 - MANEUVERING CLEARANCES AT DOORS



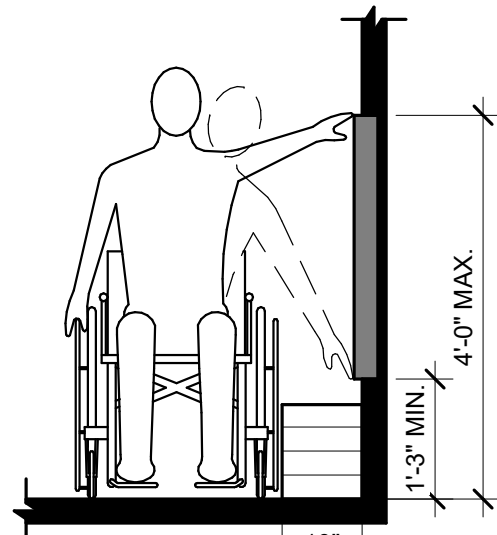
OUTLET, CONTROLS &
SWITCH HEIGHT



305.7 MANUEVERING CLEARANCE IN AN ALCOVE



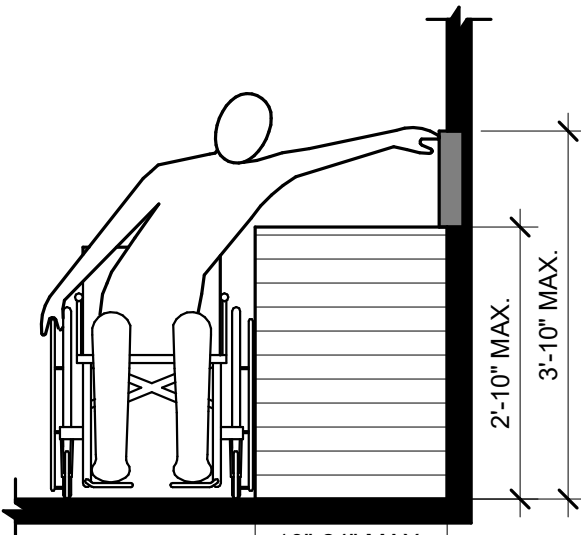
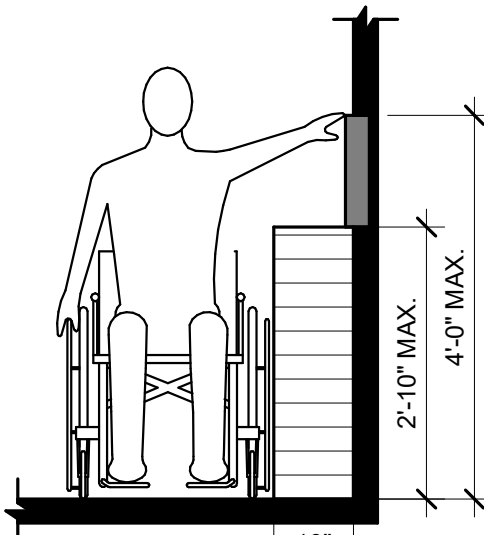
308.3.1 SIDE REACH LIMITS



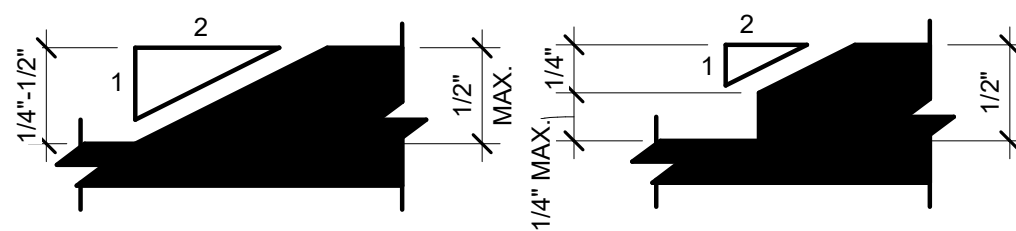
HUNG TYPE

TYPE

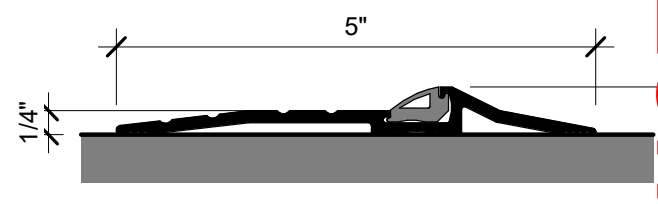
GRAB BAR REINFORCING



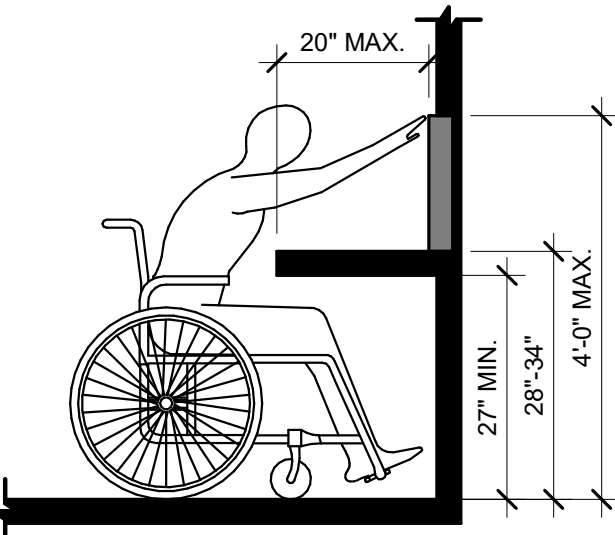
303.2 VERTICAL CHANGE IN LEVEL



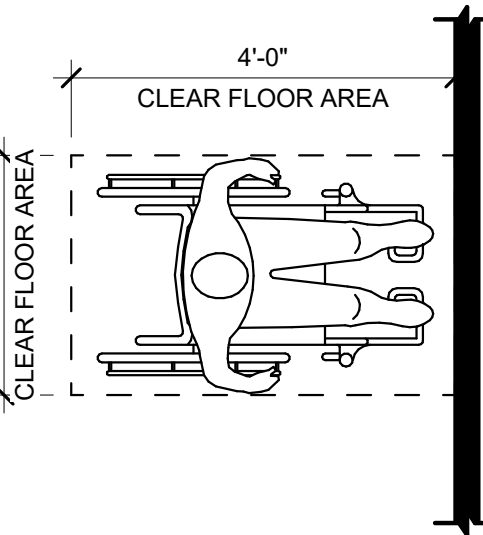
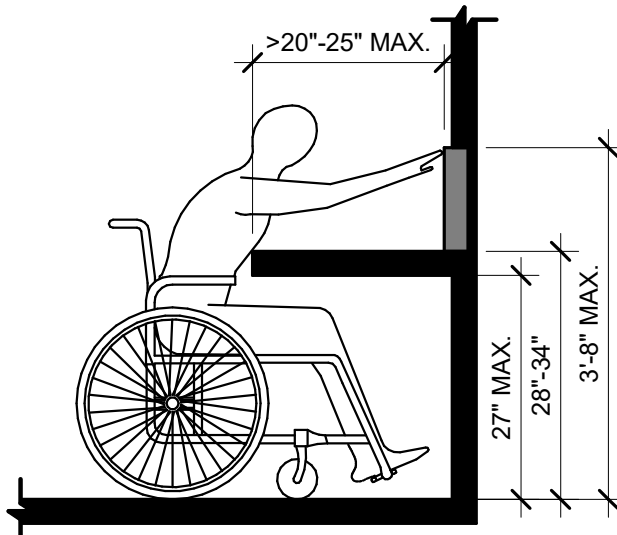
303.3 BEVELED CHANGES IN LEVEL



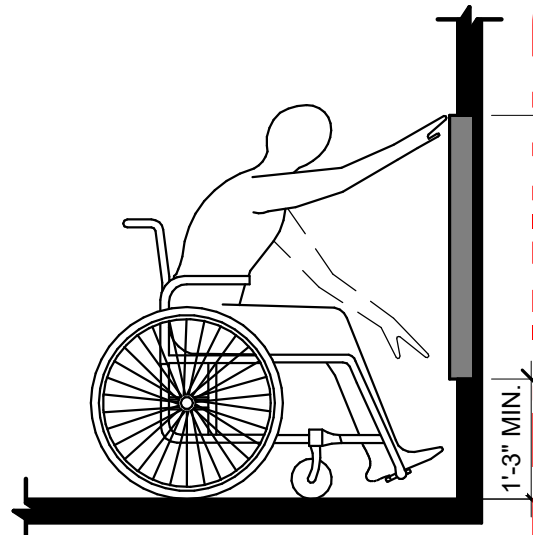
EXTERIOR DOOR THRESHOLD
302 & 303 - FLOOR SURFACES & CHANGES IN LEVEL



308.2.2 FORWARD REACH @ COUNTER



308.2.1 FORWARD REACH



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PROJECT:
ROLL-OFFS OF DES MOINES

20 E. 18TH ST, DES MOINES IA 50316

DATE: 02/24/2025
DRAWN BY: RSL
CHKD BY: JS
REVISED:

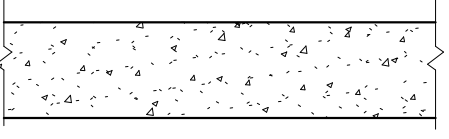

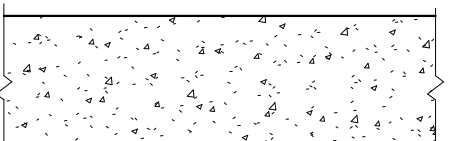
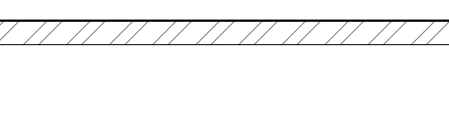
ACCESSIBILITY

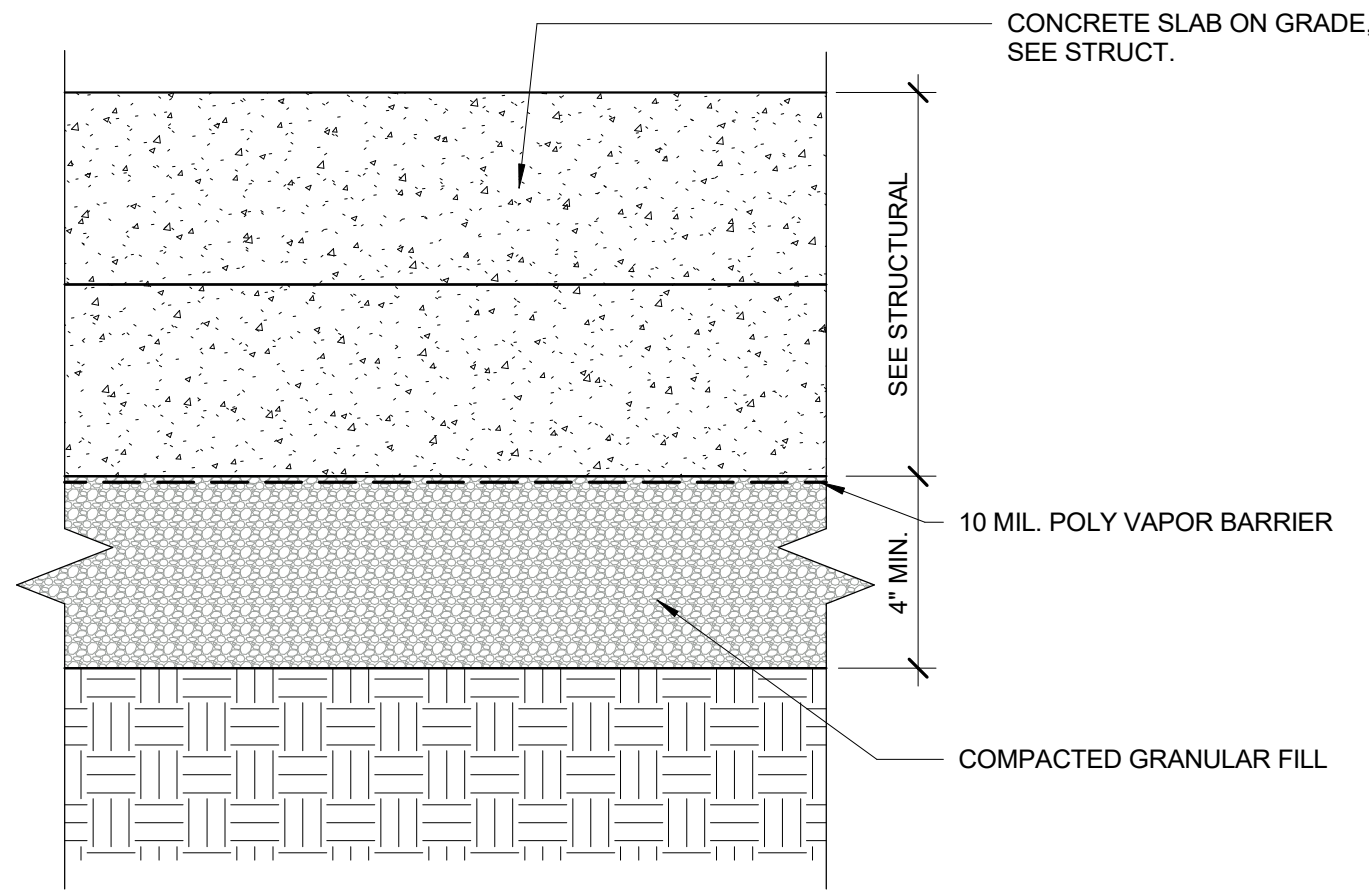
A001



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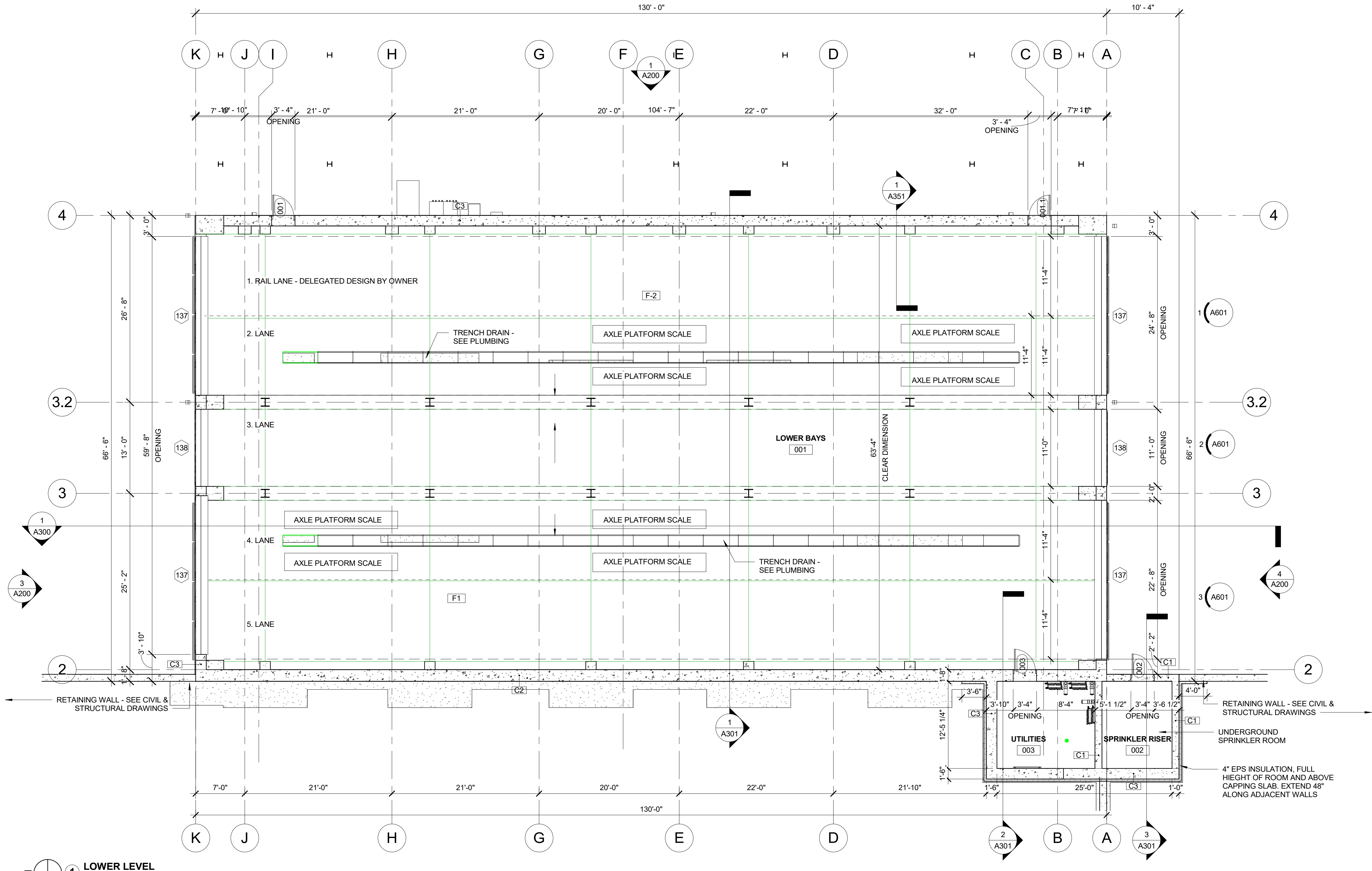
EXTERIOR WALL LEGEND

MARK	WALL LAYERS DESCRIPTION	FIRE RATING	RATING SOURCE	NOTES
C 1	 12" REINFORCED CONCRETE WALL	NA	NA	TYP. EXTERIOR LOWER LEVEL AND UPPER BASE WALL; SEE STRUCTURAL FOR DETAILS
C 2	 20" REINFORCED CONCRETE WALL	NA	NA	BUILDING RETAINING WALL; LOWWER LEVEL; SEE STRUCTURAL FOR DETAILS
C 3	 18" REINFORCED CONCRETE WALL	NA	NA	BUILDING RETAINING WALL; LOWER LEVEL; SEE STRUCTURAL FOR DETAILS
E 2	 KINGSPAN KS 3" INSULATED PANEL 10" P.E.M.B. 2 GRT P.E.M.B. INSTALLATION	N/A	N/A	TYP. EXTERIOR KINGSPAN KS SHADOWLINE 3" INSULATED PANEL REFER TO MANUFACTURER FOR ADDITIONAL INFORMATION AND SPECIFICATIONS.



*SEE MEP FOR ADDITIONAL INFORMATION REGARDING RADIANT HEAT FLOORING SYSTEM
*SEE STRUCTURAL FOR THICKNESS, REINFORCING AND CONTROL JOINTS

2 PEMB - TYP. FLOOR ASSEMBLY - SLAB ON GRADE
3" = 1'-0"



FLOOR PLAN GENERAL NOTE:

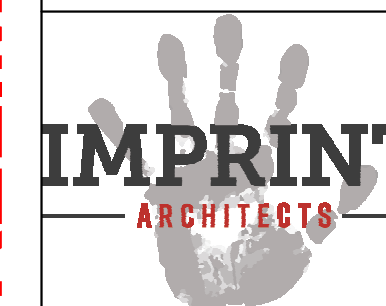
- REFER TO ADDITIONAL NOTES AND REQUIREMENTS ON ALL OTHER DOCUMENTS, DISCIPLINES AND SPECIFICATIONS.
- USE DIMENSIONAL INFORMATION GIVEN. DO NOT SCALE DRAWINGS.
- EXTERIOR DIMENSIONS ARE TYPICALLY INDICATED TO THE EXTERIOR FACE OF THE STEEL STRUCTURE/GRID LINE UNLESS OTHERWISE NOTED.
- INTERIOR PARTITION DIMENSIONS ARE TYPICALLY INDICATED TO THE FACE OF STUDS OR CMU UNLESS OTHERWISE NOTED.
- ALL SITE INFO, FIXTURES AND EQUIPMENT SHOWN ON THIS SHEET IS PROVIDED FOR COORDINATION PURPOSES ONLY. THE LAYOUT IS CONSIDERED CONCEPTUAL. REFER TO CIVIL, MECHANICAL, ELECTRICAL, PLUMBING, FIRE SPRINKLER, LIFE-SAFETY, ETC. DOCUMENTS FOR SPECIFIC DESIGN INFORMATION.
- FOR WALL TYPES NOT SEEN ON PLAN REFER TO WALL SECTIONS AND DETAILS.
- REFER TO ENLARGED PLANS IF ITS AVAILABLE FOR ADDITIONAL EXTERIOR AND INTERIOR INFORMATION.
- BUILDING STRUCTURAL ELEMENTS SUCH MAIN FRAMES AND COLUMNS ARE SHOWN FOR REFERENCE ONLY. SEE STRUCTURAL AND PEMB DRAWINGS FOR DETAILS.
- P.E.M.B. MANUFACTURER TO COORDINATE STRUCTURAL ELEMENT WITH ARCHITECTURAL FLOOR PLAN.
- EQUIPMENT PROVIDED BY OWNER SHOWN FOR REFERENCE ONLY. G.C. TO COORDINATE LOCATION OF EQUIPMENT AS REQUIRED.

PROJECT:

DATE:	DRAWN BY:	CHK BY:
02/24/2025	CR	KC
REVISED:		

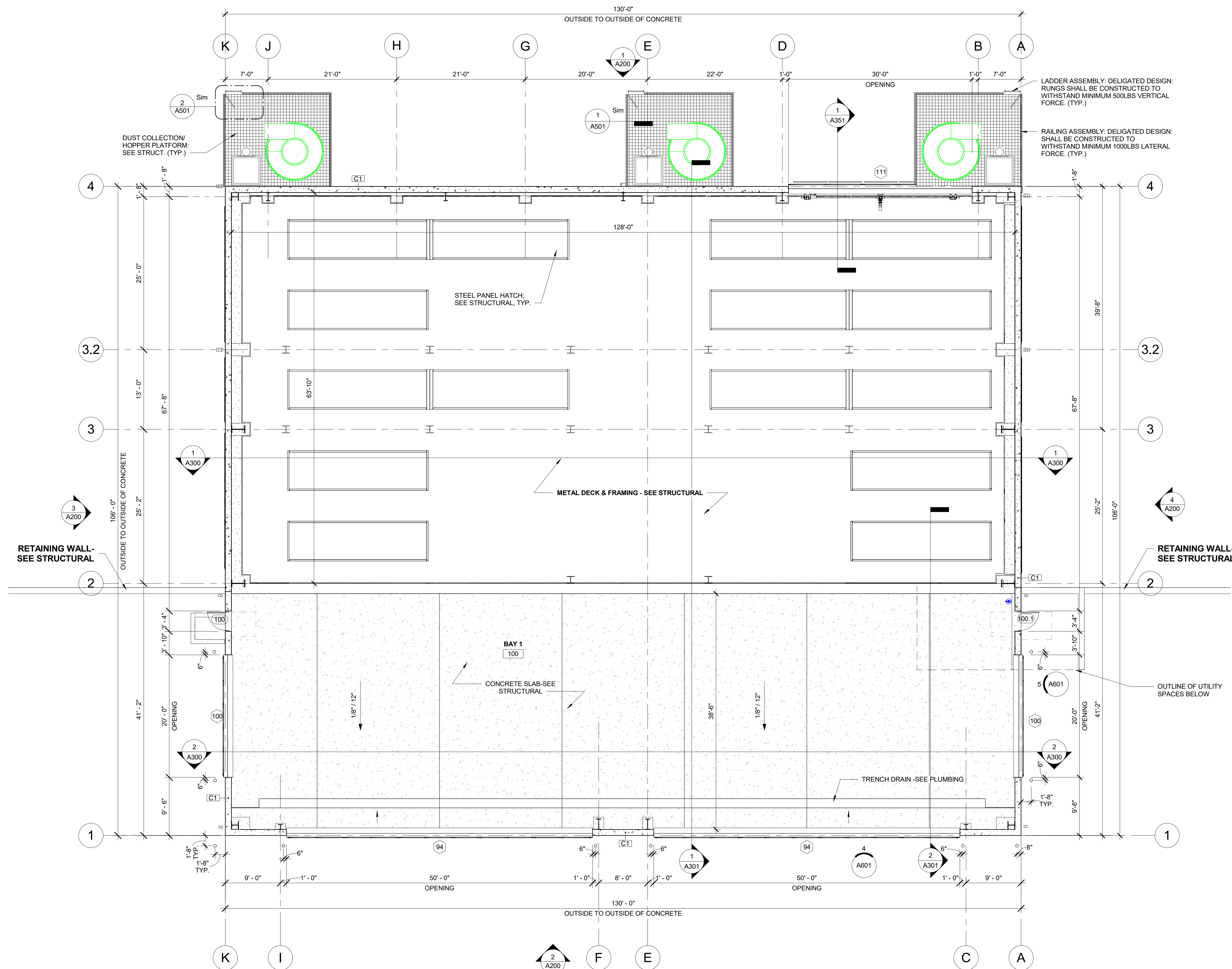
UPPER LEVEL

A102



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1. REFER TO ADDITIONAL NOTES AND REQUIREMENTS ON ALL OTHER DOCUMENTS, DISCIPLINES AND SPECIFICATIONS.
2. USE DIMENSIONAL INFORMATION GIVEN. DO NOT SCALE DRAWINGS.
3. EXTERIOR DIMENSIONS ARE TYPICALLY INDICATED TO THE EXTERIOR FACE OF THE STEEL STRUCTURE/GRID LINE UNLESS OTHERWISE NOTED.
4. INTERIOR PARTITION DIMENSIONS ARE TYPICALLY INDICATED TO THE FACE OF STUDS OR CMU UNLESS OTHERWISE NOTED.
5. ALL SITE INFO, FIXTURES AND EQUIPMENT SHOWN ON THIS SHEET IS PROVIDED FOR COORDINATION PURPOSES ONLY. THE LAYOUT IS CONSIDERED CONCEPTUAL. REFER TO CIVIL, MECHANICAL, ELECTRICAL, PLUMBING, FIRE SPRINKLER, LIFE-SAFETY, ETC. DOCUMENTS FOR SPECIFIC DESIGN INFORMATION.
6. FOR WALL TYPES NOT SEEN ON PLAN REFER TO WALL SECTIONS AND DETAILS.
7. REFER TO ENLARGED PLANS IF ITS AVAILABLE FOR ADDITIONAL EXTERIOR AND INTERIOR INFORMATION.
8. BUILDING STRUCTURAL ELEMENTS SUCH MAIN FRAMES AND COLUMNS ARE SHOWN FOR REFERENCE ONLY. SEE STRUCTURAL AND PEMB DRAWINGS FOR DETAILS.
9. P.E.M.B. MANUFACTURER TO COORDINATE STRUCTURAL ELEMENT WITH ARCHITECTURAL FLOOR PLAN.
10. EQUIPMENT PROVIDED BY OWNER SHOWN FOR REFERENCE ONLY. G.C. TO COORDINATE LOCATION OF EQUIPMENT AS REQUIRED.



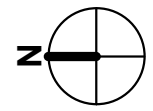
1 UPPER LEVEL PLAN
1/8" = 1'-0"

A circle with a horizontal radius extending from the center to the left edge, labeled with the letter z .

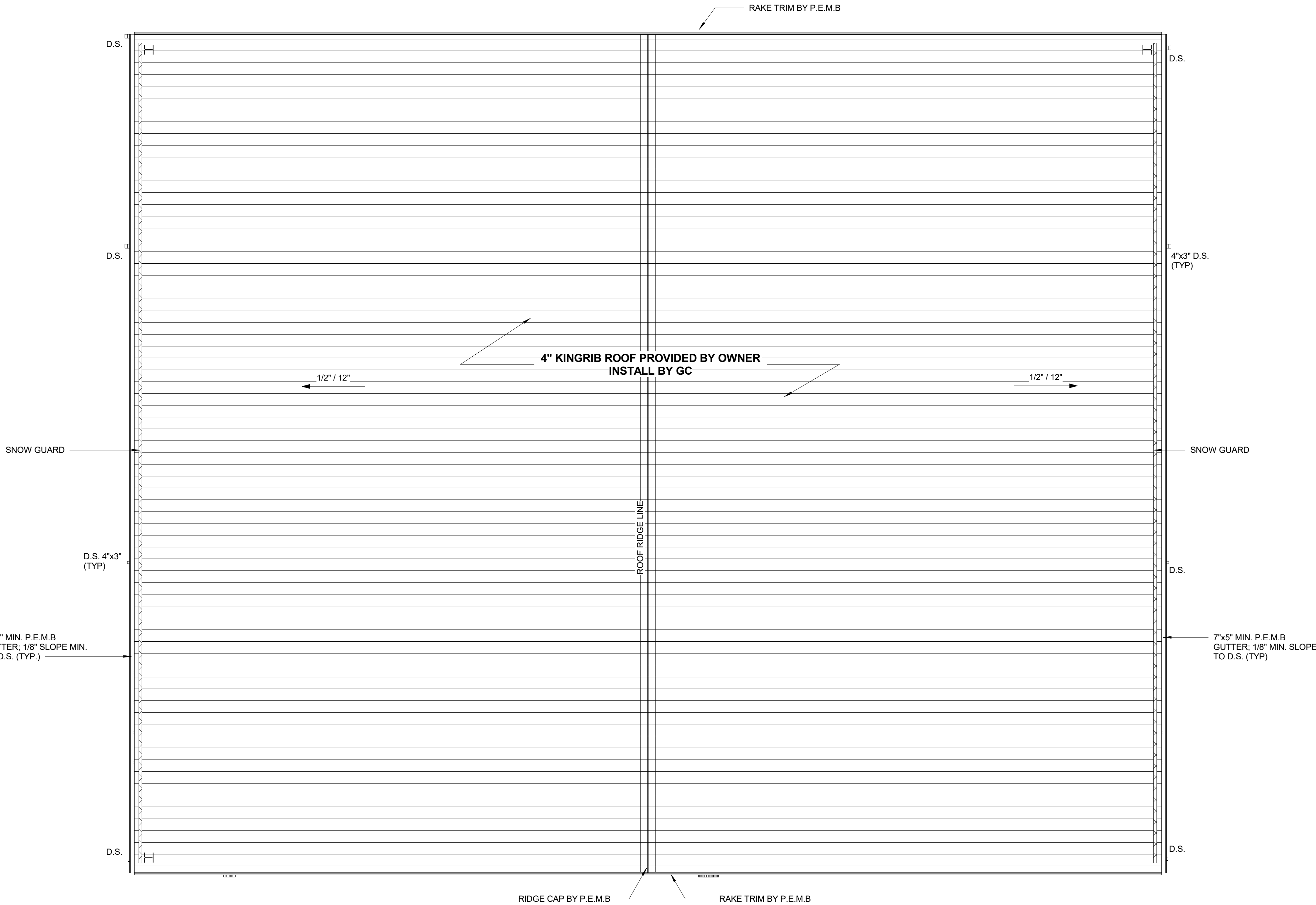
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PRELIMINARY - NOT FOR CONSTRUCTION



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



ROOF PLAN GENERAL NOTE:

1. REFER TO ADDITIONAL NOTES AND REQUIREMENTS ON ALL OTHER DOCUMENTS AND OTHER DISCIPLINES DOCUMENTS.
2. ALL MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT SHOWN ON THIS SHEET IS PROVIDED FOR COORDINATION PURPOSES ONLY. REFER TO MECHANICAL AND ELECTRICAL DOCUMENTS FOR SPECIFIC DESIGN INFORMATION. REFER TO STRUCTURAL DRAWINGS FOR ROOF OPENING STRUCTURAL FRAMING.
3. ALL ROOF SLOPES, INCLUDING FLATTENED ROOF AREAS TO OBTAIN POSITIVE DRAINAGE. PROVIDE TAPERED RIGID INSULATION TO MAINTAIN MINIMUM 1/4" PER FOOT SLOPE AT ALL FLATTENED ROOF AREAS AND CRICKETS.
4. INSULATE AND SEAL TO ENSURE ADEQUATE AIR INFILTRATION BARRIER AROUND ALL EXTERIOR PENETRATIONS TO PREVENT WATER AND SPRINKLER PIPE FREEZING.
5. ALL CURBS AND VENTS SHALL MEET THE 8" MIN. FLASHING HEIGHT REQUIREMENT.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING WATER TIGHT CONDITION AT ALL TIMES DURING CONSTRUCTION.
7. SEE EXTERIOR ELEVATION FOR INFORMATION REGARDING DOWNSPOUTS. SEE STRUCTURAL FOR SLEEVE FOOTING DETAIL.
8. PROVIDE PARAPET BRACING AS REQUIRED.

DOWNSPOUT AND GUTTERS

- MIN. GUTTER SIZE: 7" WIDE X 5" DEPTH
- MIN. DOWNSPOUT: 4" WIDE X 3" DEPTH

SEE EXTERIOR ELEVATION FOR ADDITIONAL INFORMATION AND FINISH

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PROJECT:

ROLL-OFFS OF DES MOINES

20 E. 18TH ST, DES MOINES IA 50316

DATE:	DRAWN BY:	CHKD BY:
02/24/2025	CR	JS
REVISED:		




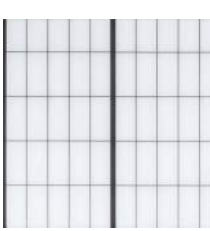
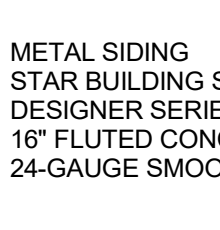
ROOF PLAN

A104



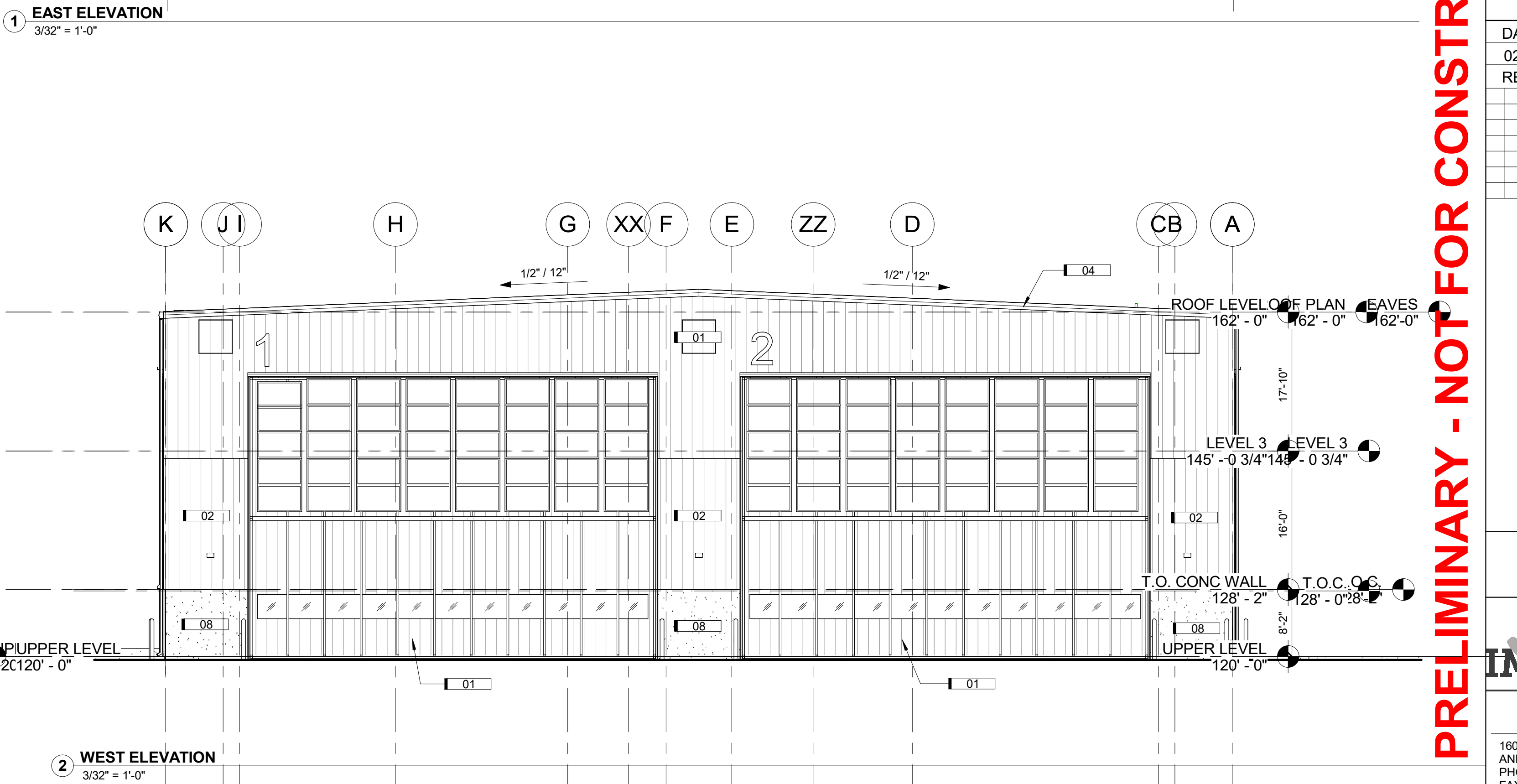
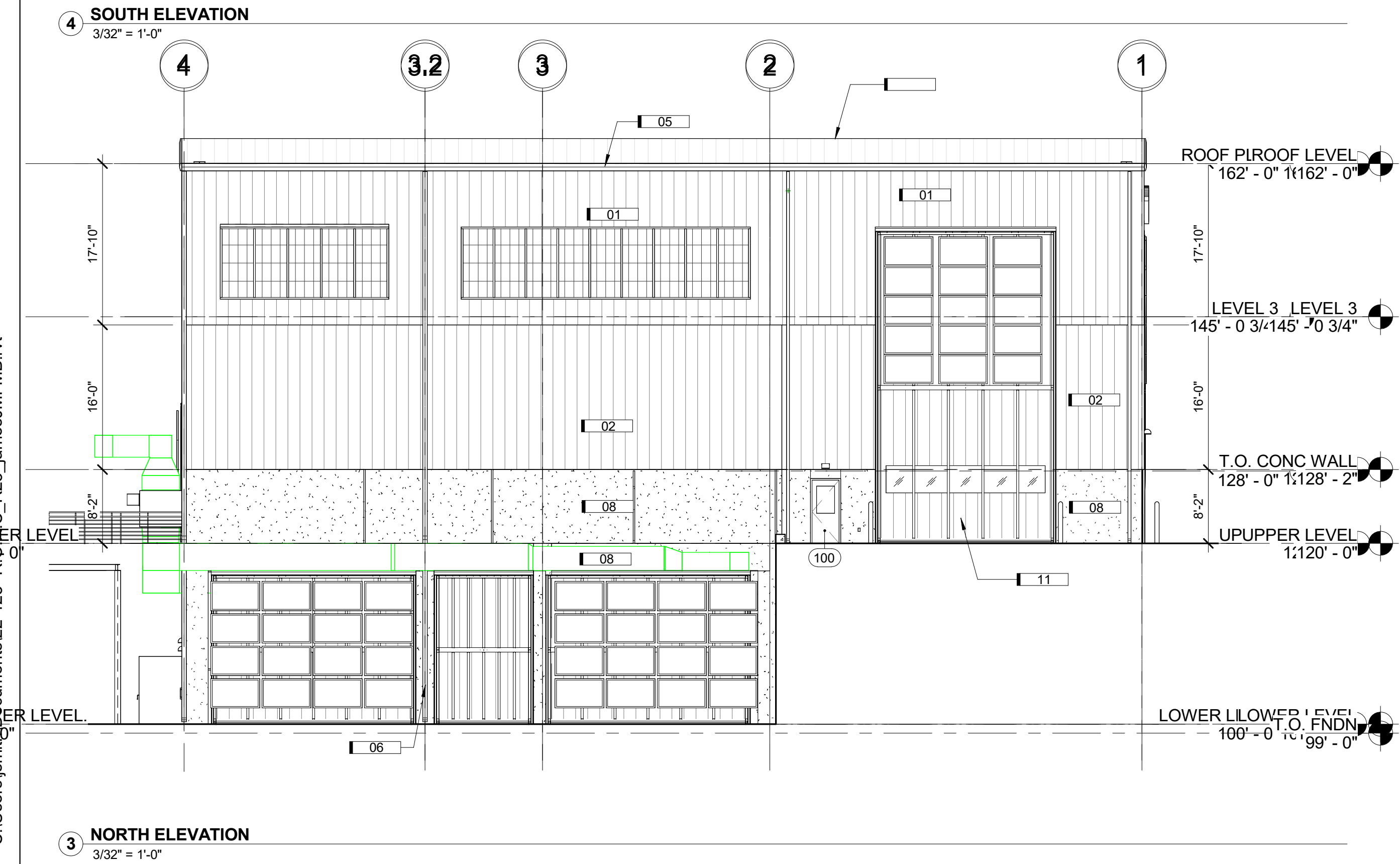
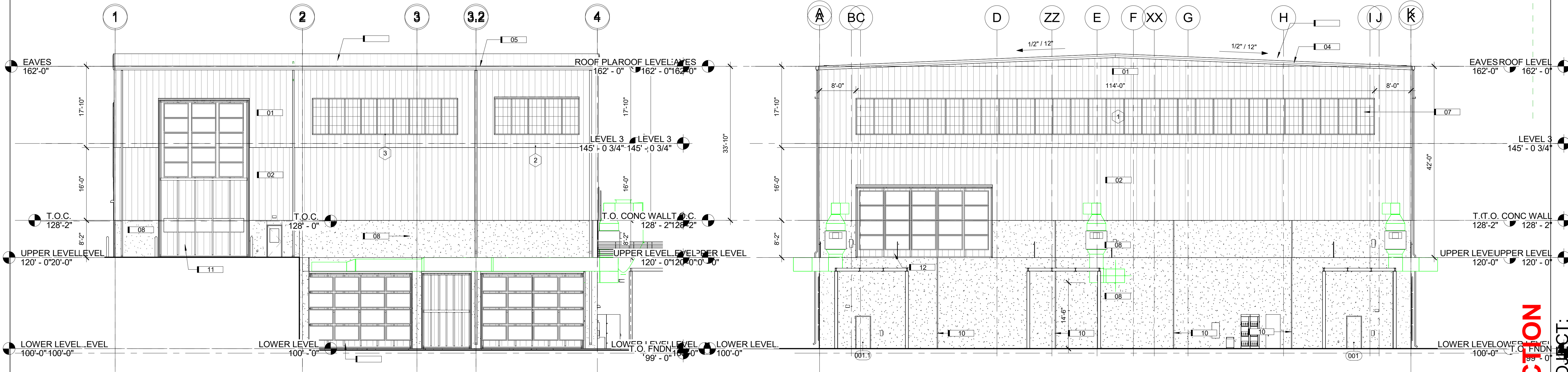
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EXTERIOR MATERIAL LEGEND

 METAL SIDING 1 MANUFACTURER: STAR COLOR: LIGHT STONE	 CAST IN PLACE CONCRETE MANUFACTURER: TBD COLOR: TBD
 METAL SIDING 2 MANUFACTURER: STAR COLOR: MIDNIGHT BRONZE	 THERMALLY BROKEN TRANSLUCENT WALL SYSTEM MANUFACTURER: KALL WALL COLOR: EXTERIOR CRYSTAL FINISH INTERIOR WHITE FINISH 2 3/4" STANDARD THICKNESS
 METAL SIDING STAR BUILDING SYSTEM: DESIGNER SERIES PANEL 16" FLUTED CONCEALED FASTENING SYSTEM 24-GAUGE SMOOTH FINISH	

KEYNOTE LEGEND	
KEY	NOTE
01	P.E.M.B. METAL SIDING 1
02	P.E.M.B. METAL SIDING 2
04	P.E.M.B. RAKE TRIM
05	P.E.M.B. GUTTER
06	P.E.M.B. DOWNSPOUT
07	KALL WALL
08	CAST IN PLACE CONCRETE
10	CONTROL JOINT
11	BI-FOLD DOOR
12	HYDRAULIC DOORS

- EXTERIOR ELEVATION GENERAL NOTES
1. ARCHITECTURAL 100' - 0" = SURVEY xxx & xxx - SEE CIVIL
 2. DO NOT SCALE DRAWINGS. DRAWN DIMENSIONS SHALL TAKE PRECEDENCE. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES IMMEDIATELY.
 3. REFER TO DOOR AND WINDOW SCHEDULES FOR MORE INFORMATION.
 4. SEE CIVIL DRAWINGS FOR DRAINAGE REQUIREMENTS.
 5. GRADE SOIL AWAY FROM BUILDING TO DRAIN. SEE CIVIL AND LANDSCAPE DRAWINGS FOR MORE INFORMATION.
 6. EXTERIOR LIGHTING FIXTURE ARE SHOWN FOR REFERENCE. CONTRACTOR TO COORDINATE POWER WITH ELECTRICAL ENGINEER AND QUANTITIES WITH VENDOR.



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PROJECT: ROLL-OFFS OF DES MOINES

20 E. 18TH ST, DES MOINES IA 50316

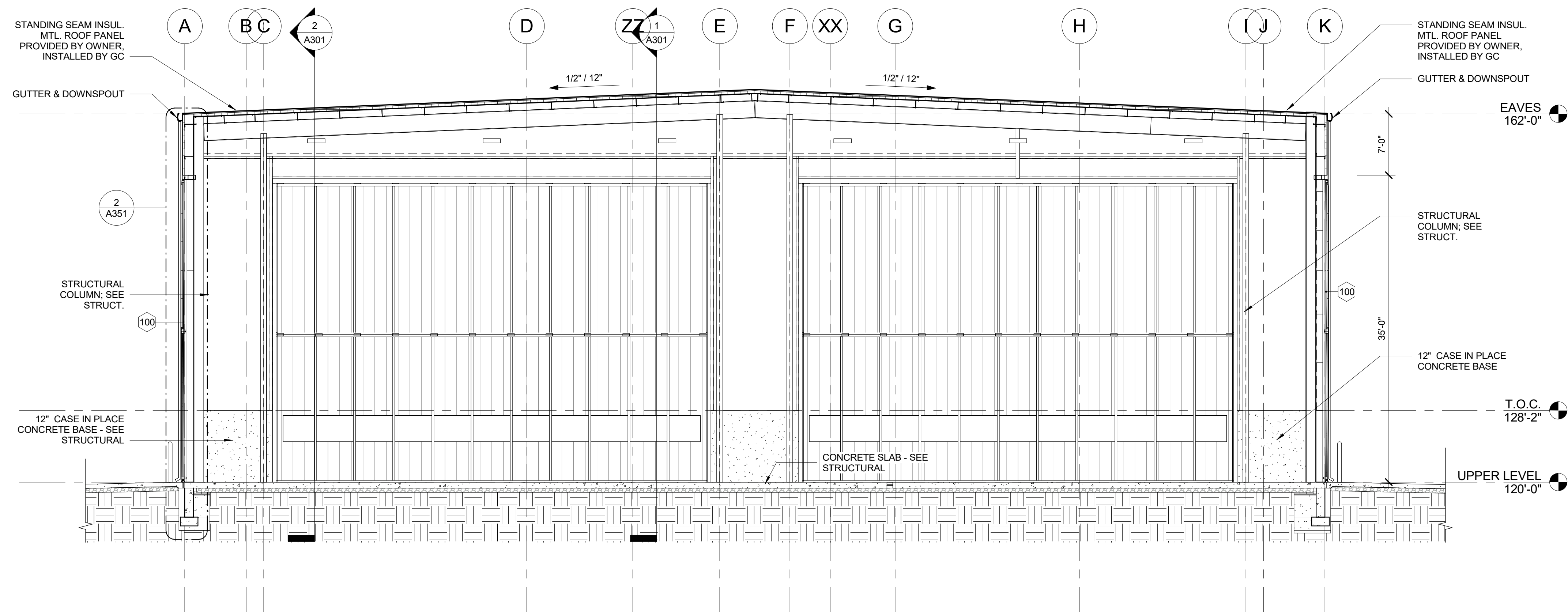
DATE: 02/24/2025
DRAWN BY: CR
CHKD BY: KC
REVISED:

EXTERIOR ELEVATIONS

A200

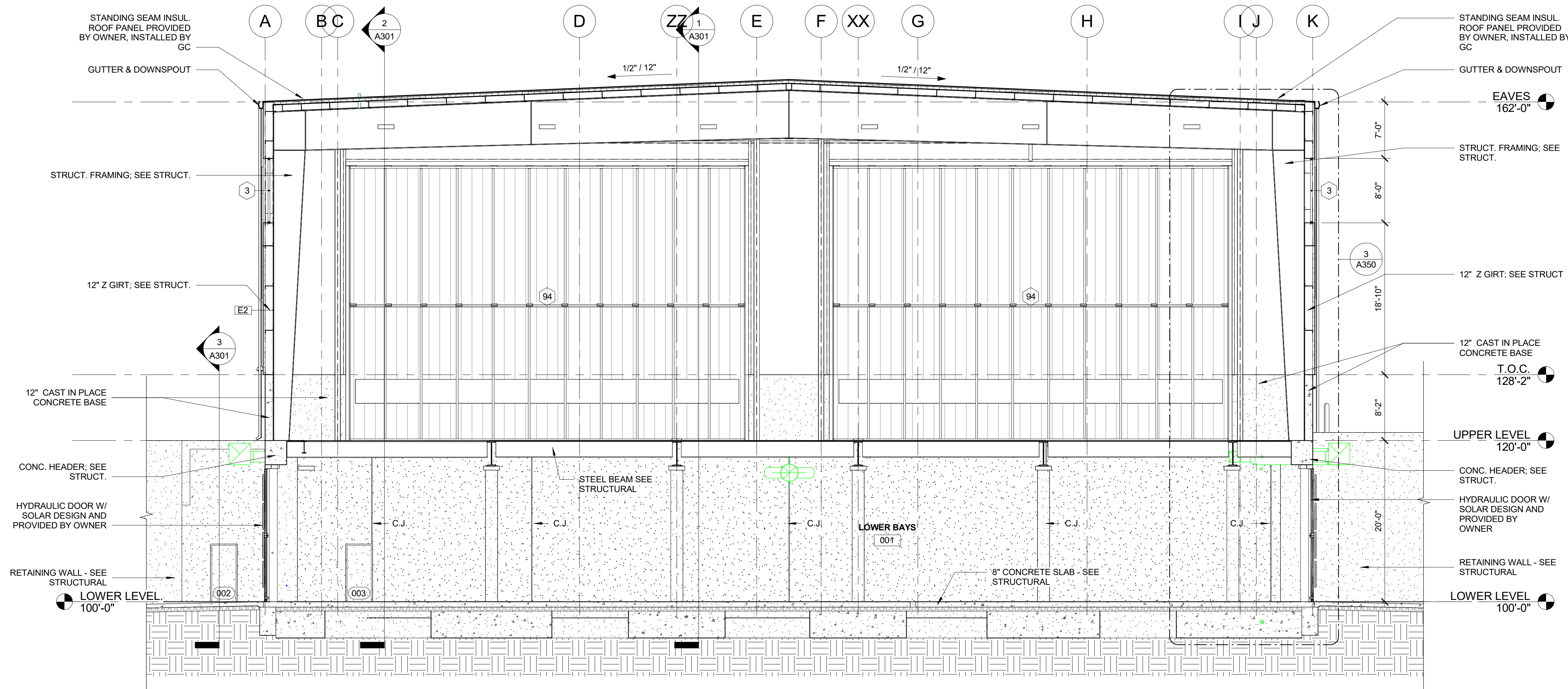


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2 LONGITUDINAL BUILDING SECTION B-B - UPPER LEVEL

1/8" = 1'-0"



1 LONGITUDINAL BUILDING SECTION B-B - UPPER AND LOWER LEVEL

1/8" = 1'-0"

PRELIMINARY - NOT FOR CONSTRUCTION

PROJECT: **ROLL-OFFS OF DES MOINES**

20 E. 18TH ST, DES MOINES IA 50316

DATE: 02/24/2025
 DRAWN BY: CR
 CHKD BY: KC

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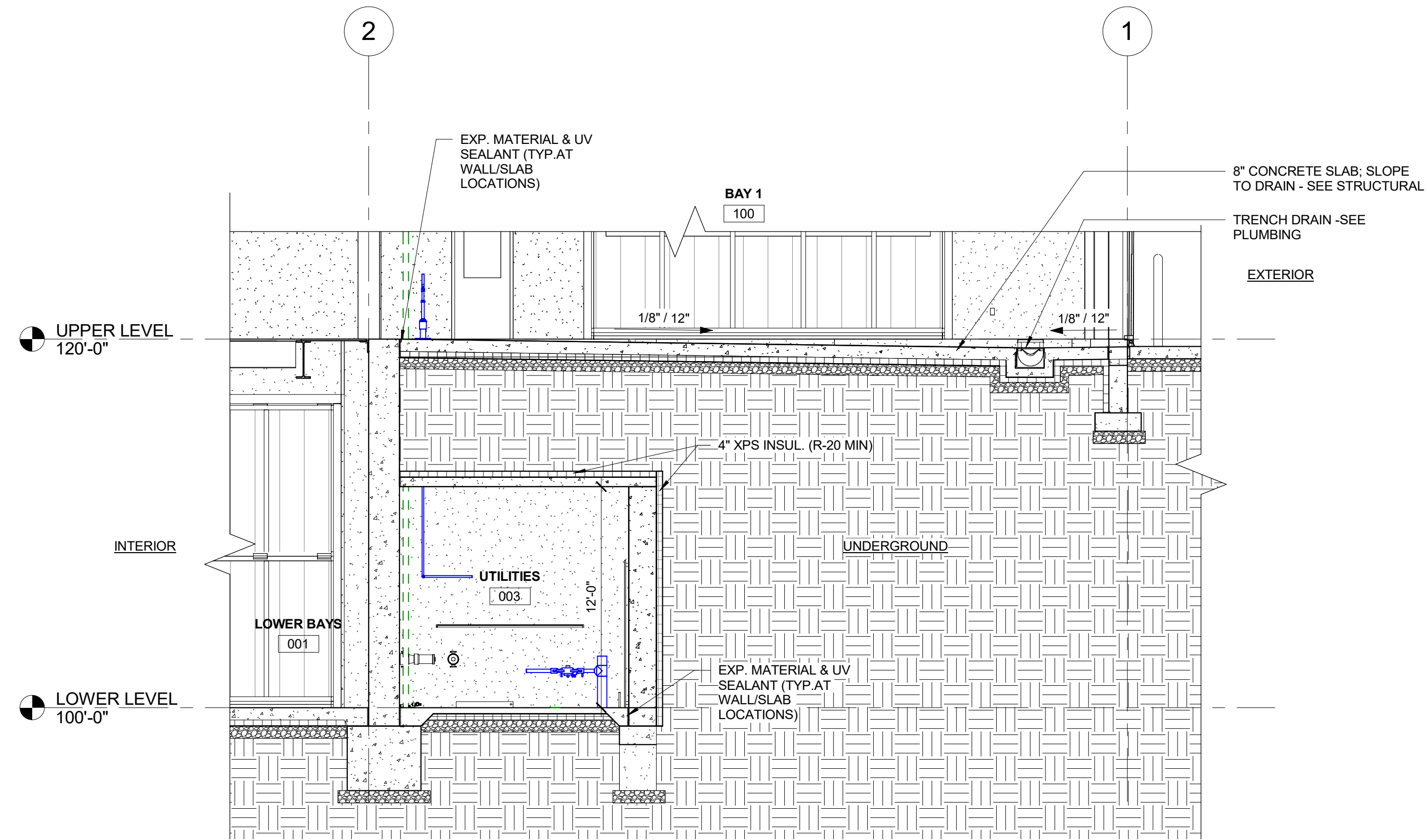
BUILDING SECTIONS

A300

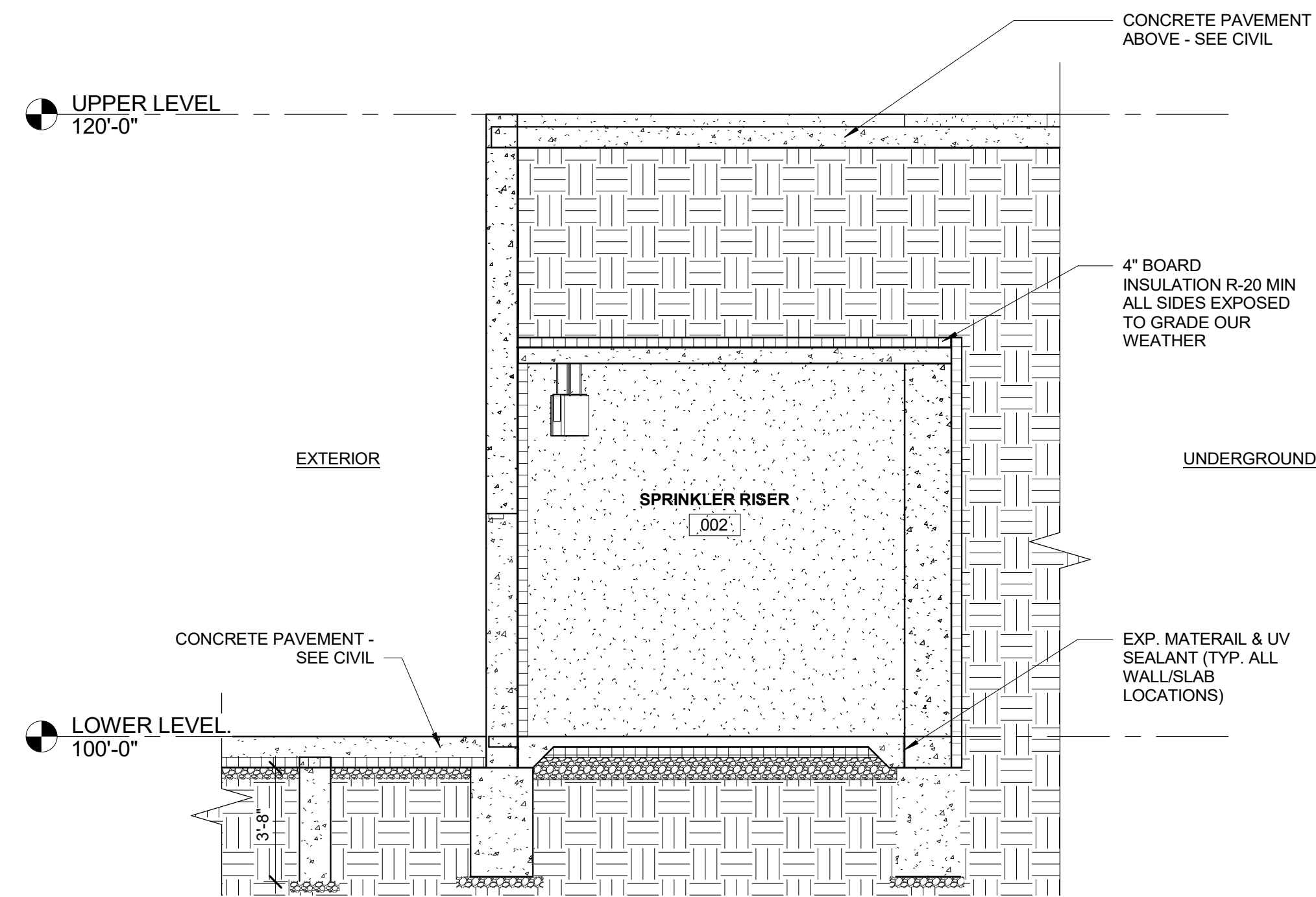


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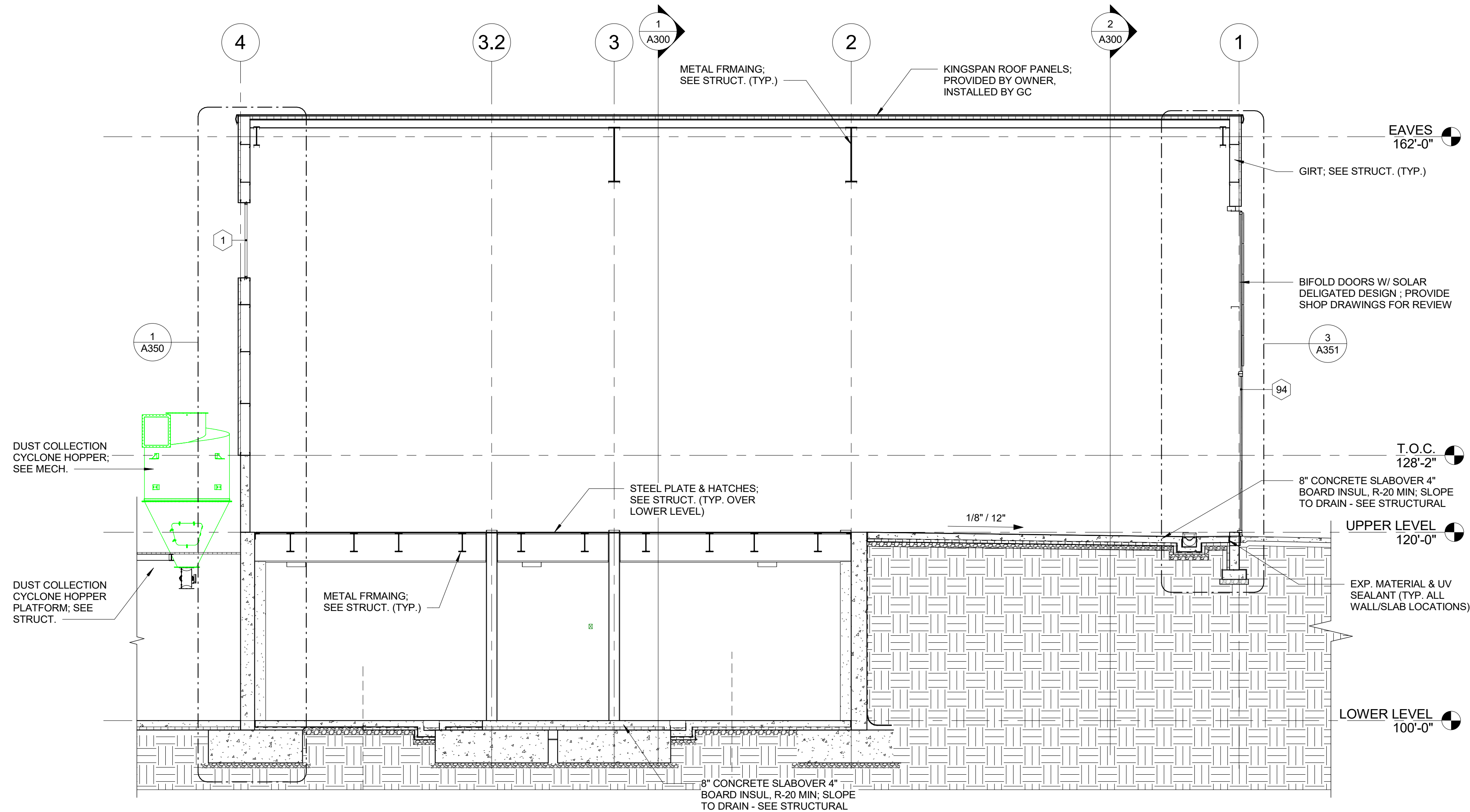
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2 CROSS BUILDING SECTION
3/16" = 1'-0"



3 CROSS BUILDING SECTION
1/4" = 1'-0"



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

PRELIMINARY - NOT FOR CONSTRUCTION

PROJECT:
ROLL-OFFS OF DES MOINES

20 E. 18TH ST, DES MOINES IA 50316

DATE: 02/24/2025
DRAWN BY: CR
CHKD BY: KC
REVISED:

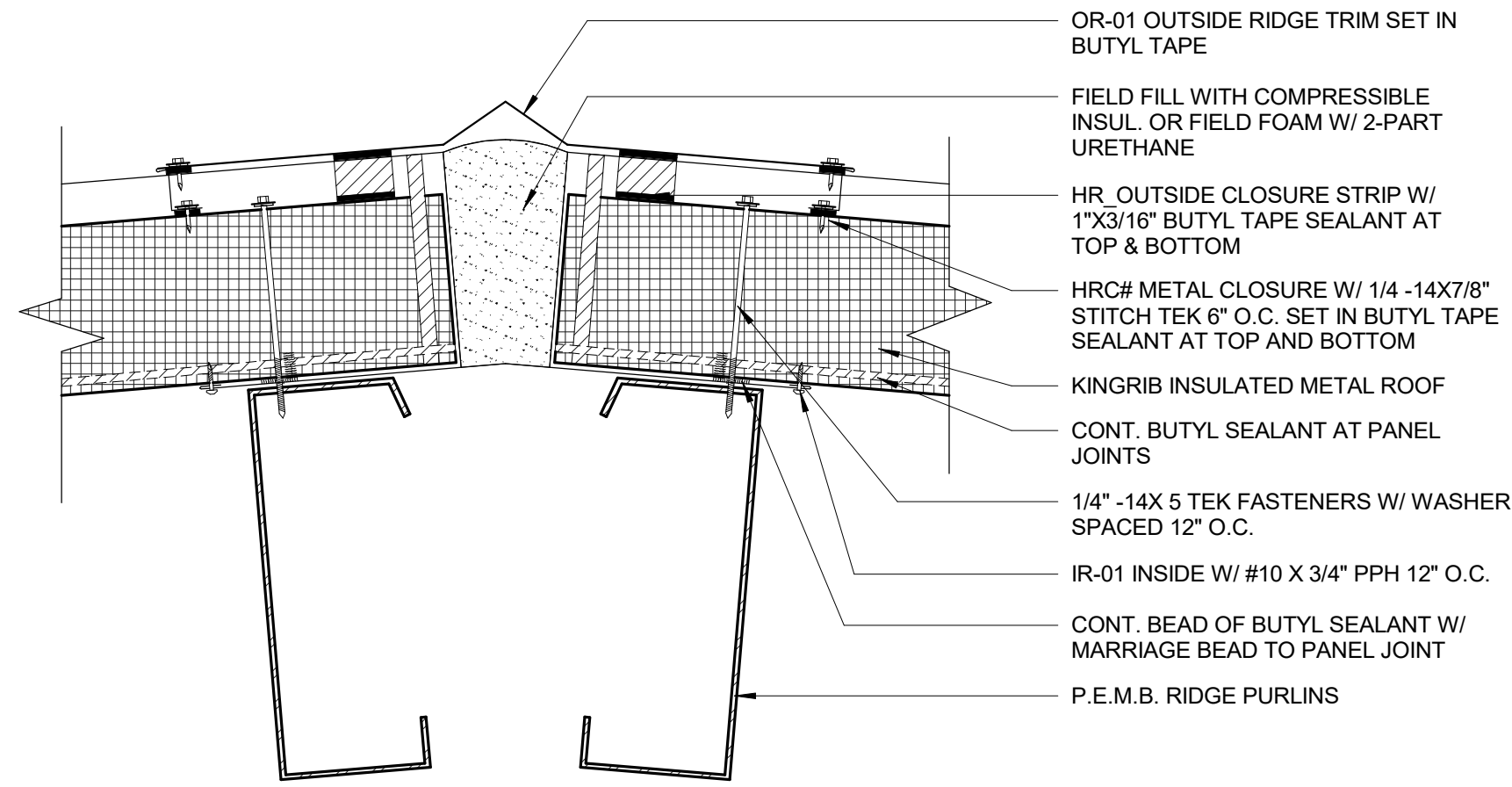
BUILDING SECTIONS

A301

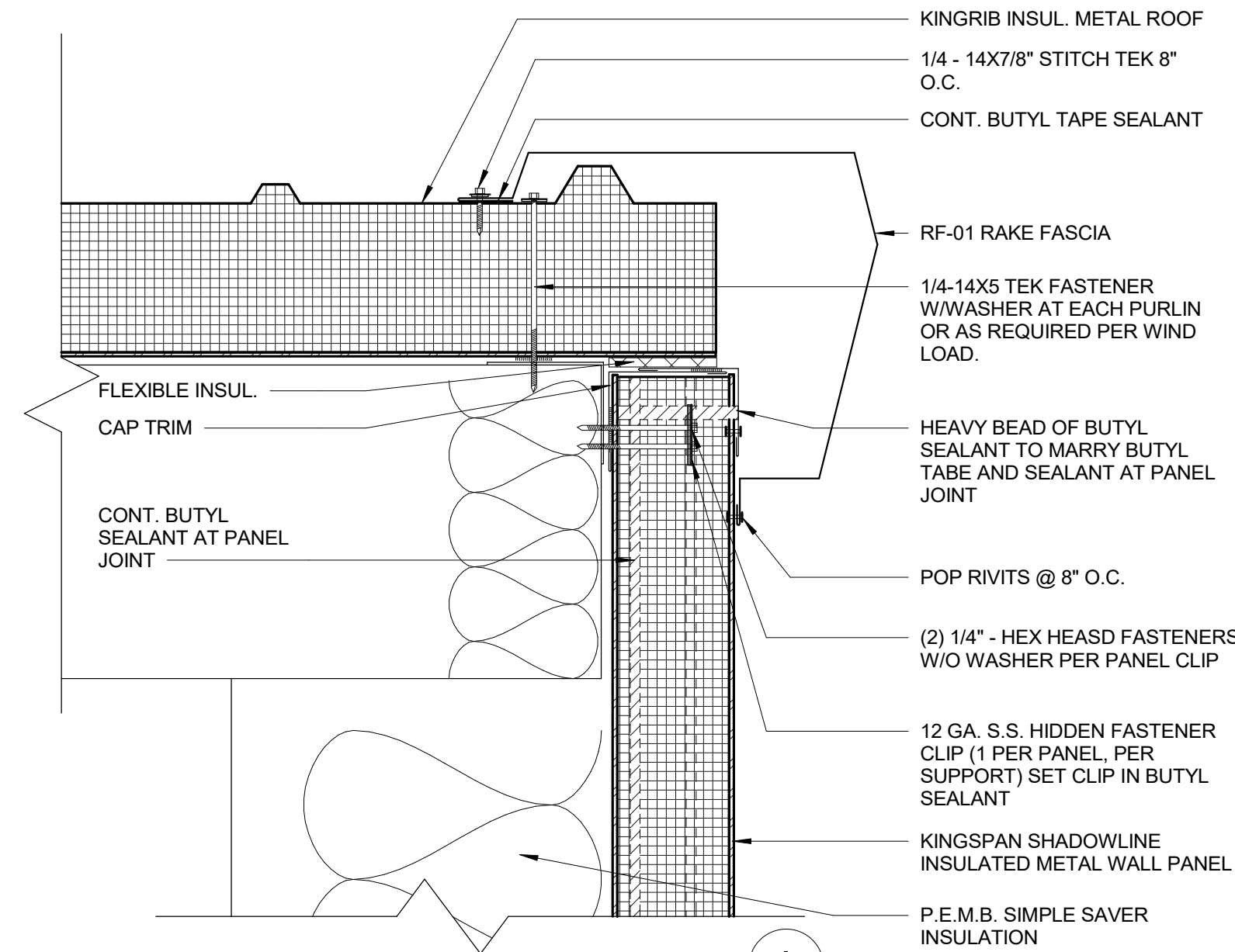


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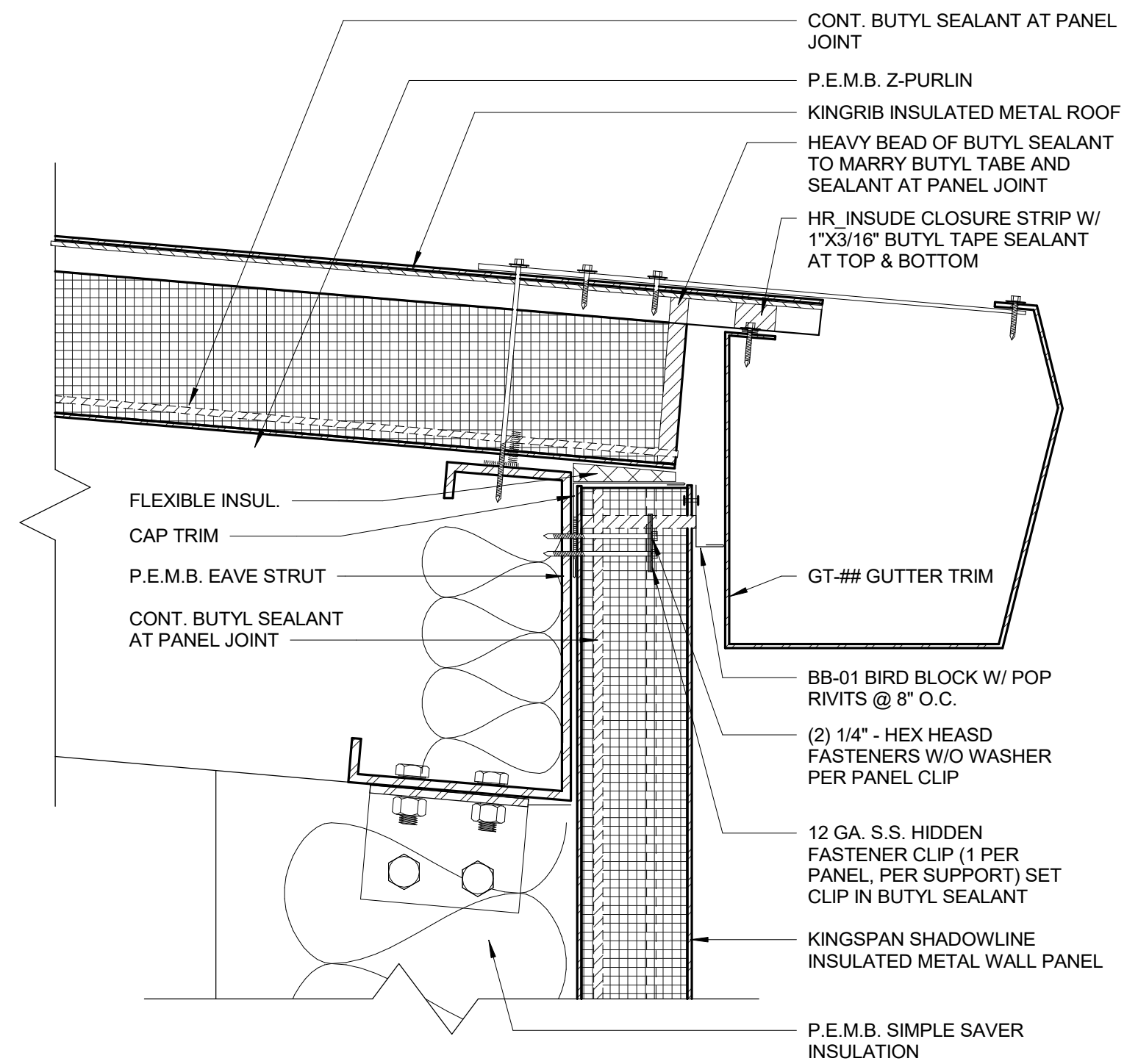
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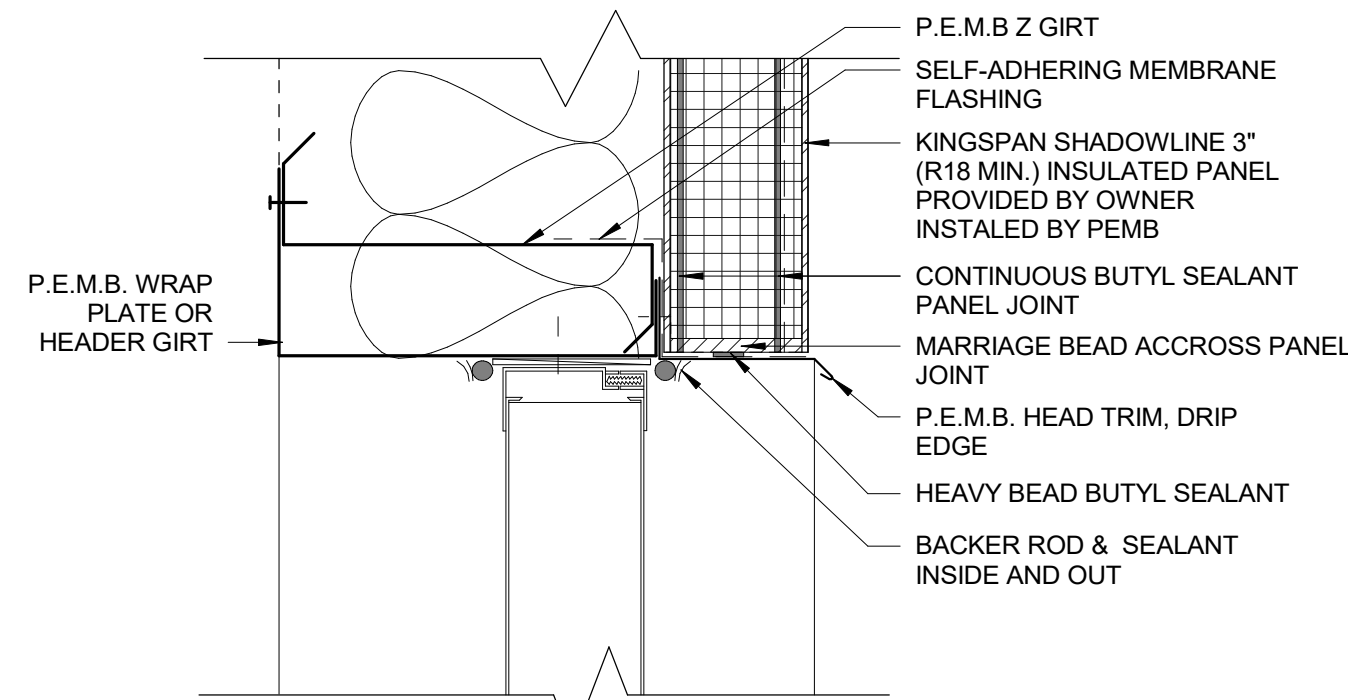
7 PEMB - KINSPAN RIDGE DETAIL
3" = 1'-0"



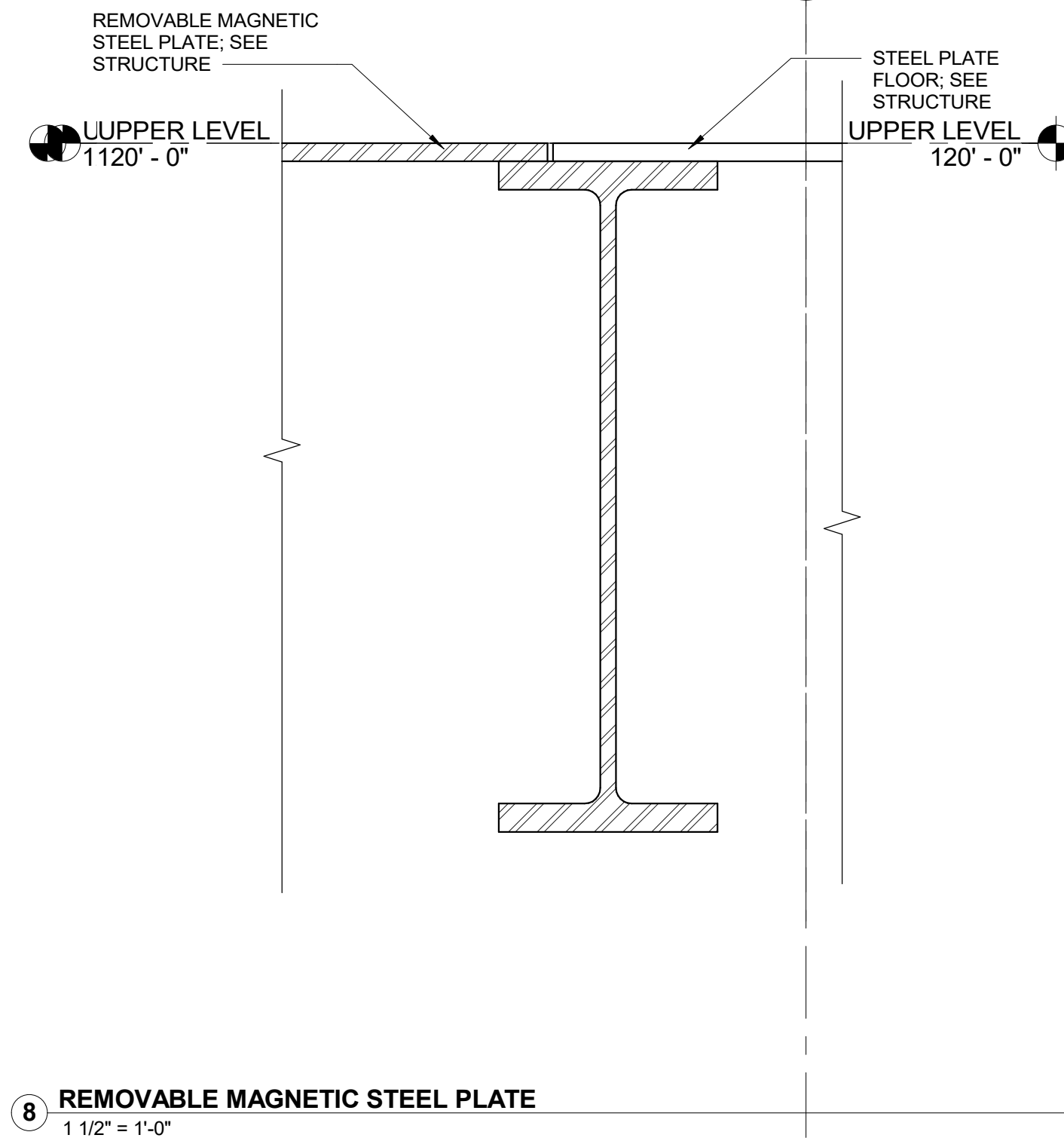
2 PEMB - KINSPAN RAKE DETAIL
3" = 1'-0"



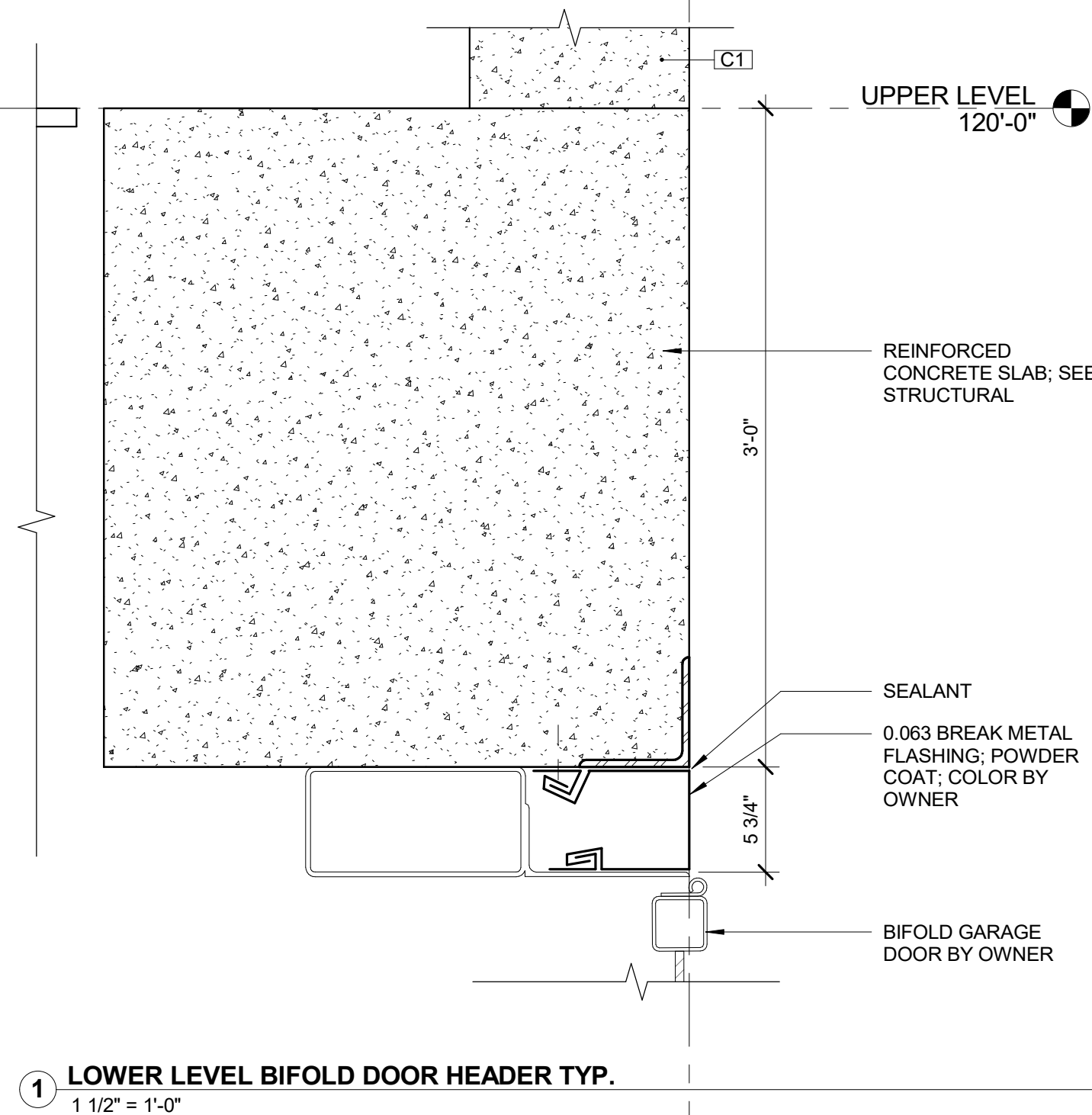
10 PEMB - KINSPAN EAVE GUTTER DETAIL
3" = 1'-0"



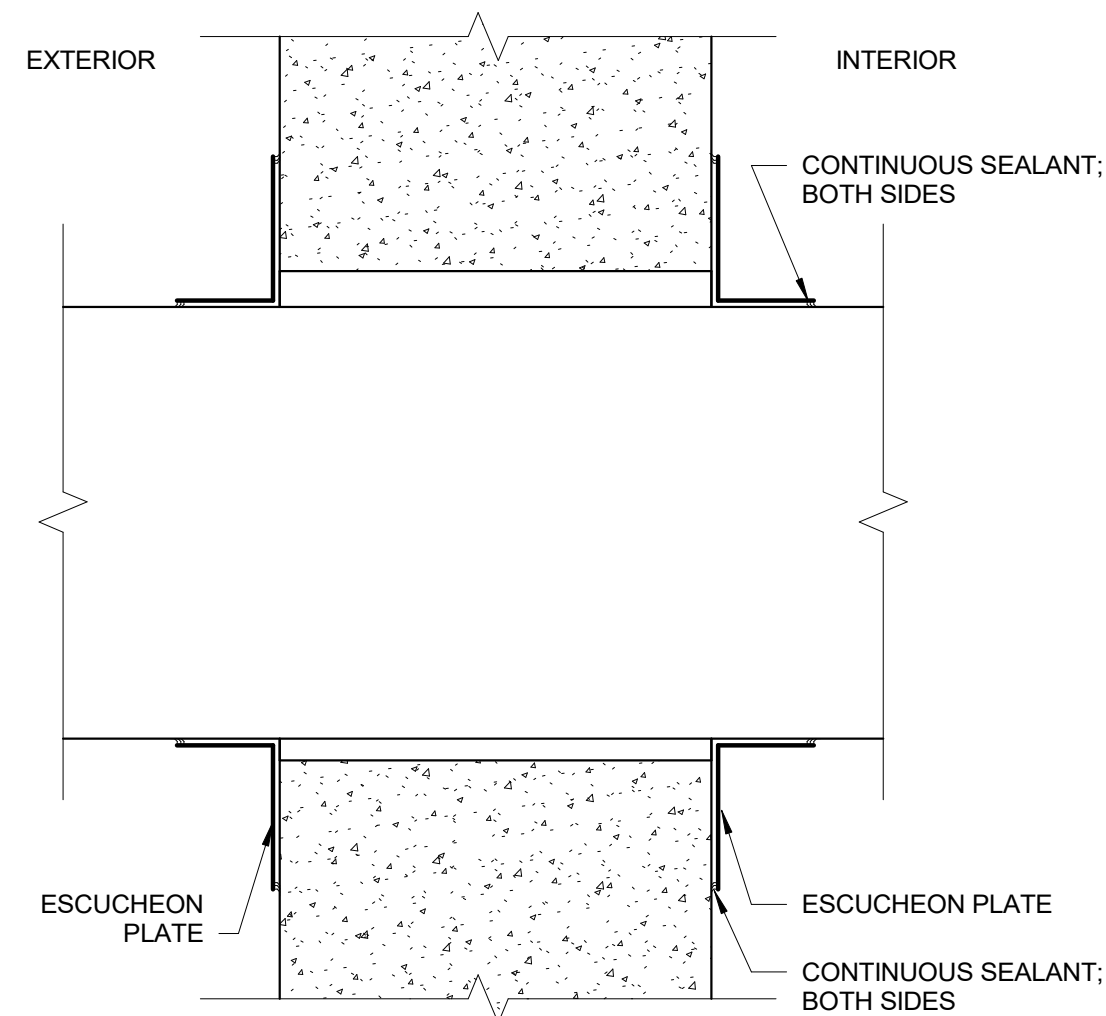
3 PEMB - WINDOW HEAD DETAIL
3" = 1'-0"



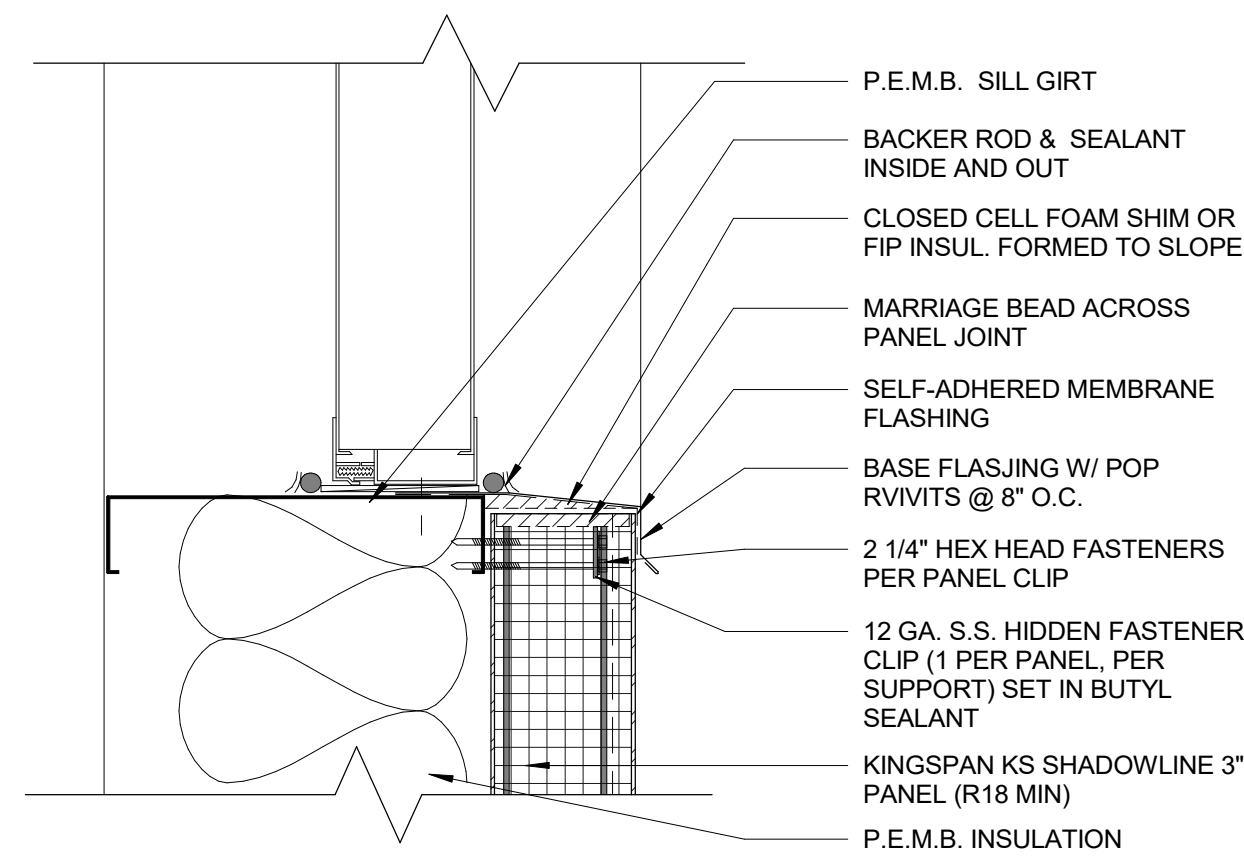
8 REMOVABLE MAGNETIC STEEL PLATE
1 1/2" = 1'-0"



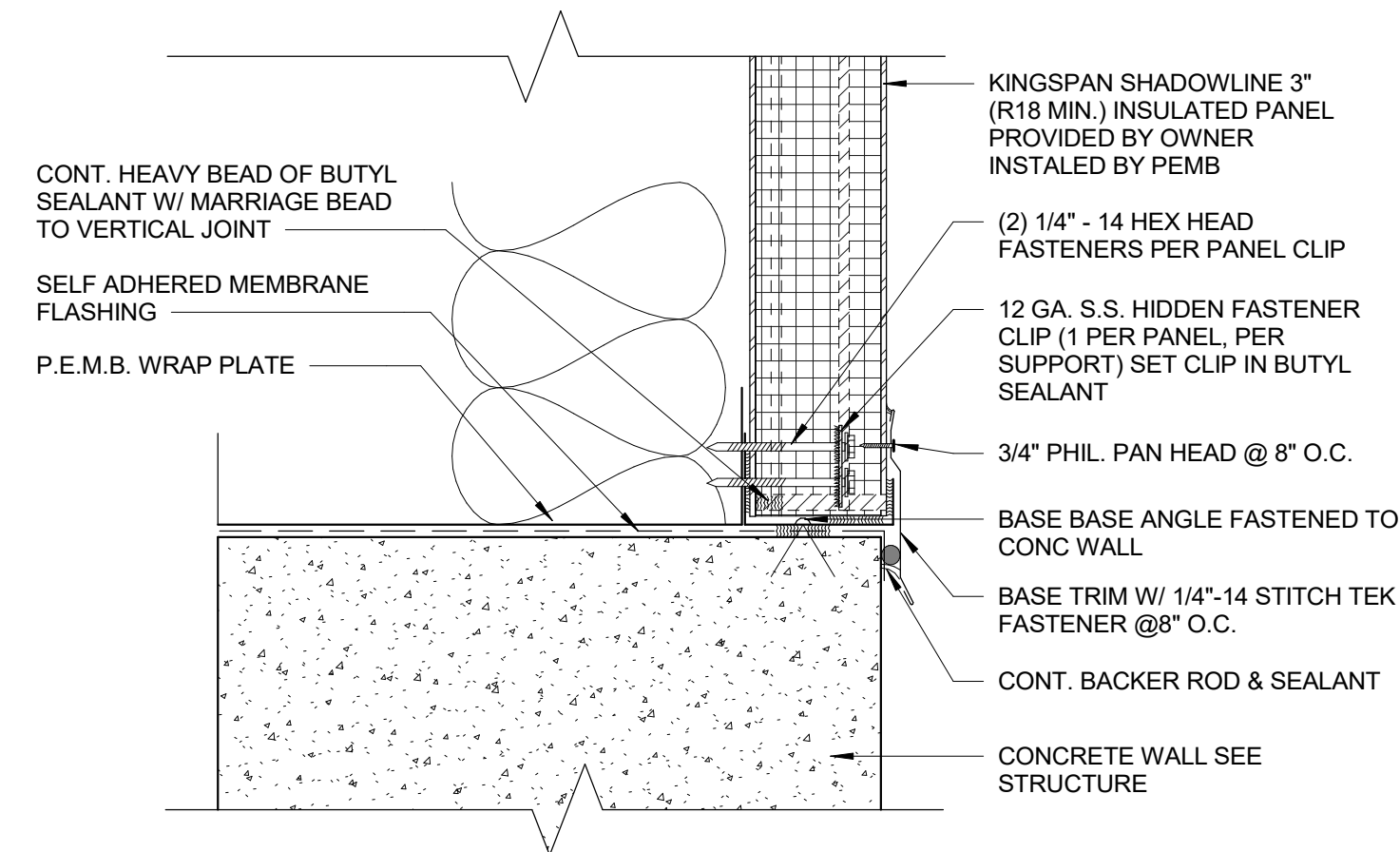
1 LOWER LEVEL BIFOLD DOOR HEADER TYP.
1 1/2" = 1'-0"



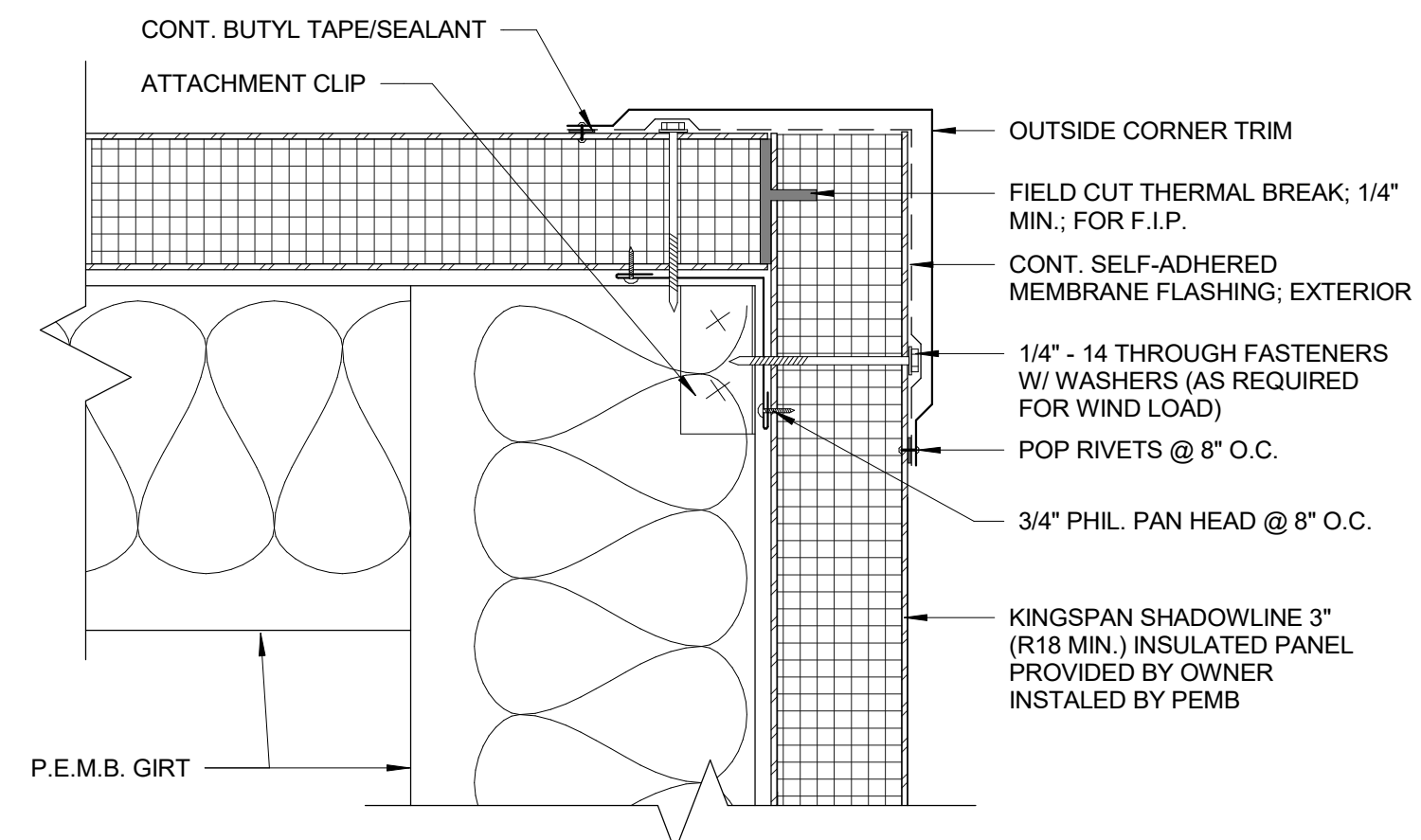
9 DUCT WALL PENETRATION
1 1/2" = 1'-0"



4 PEMB - WINDOW SILL W/ METAL SIDING
3" = 1'-0"



6 PEMB - SILL PLATE
3" = 1'-0"



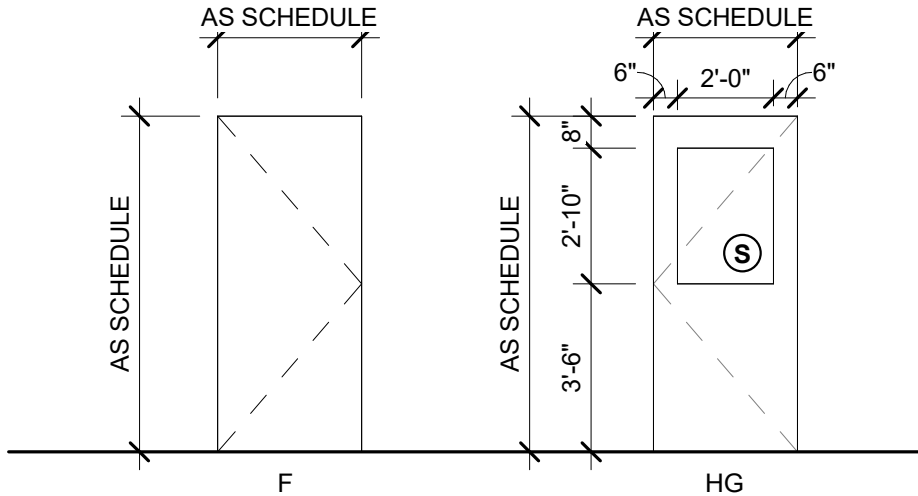
5 PEMB - OUTSIDE CORNER
3" = 1'-0"

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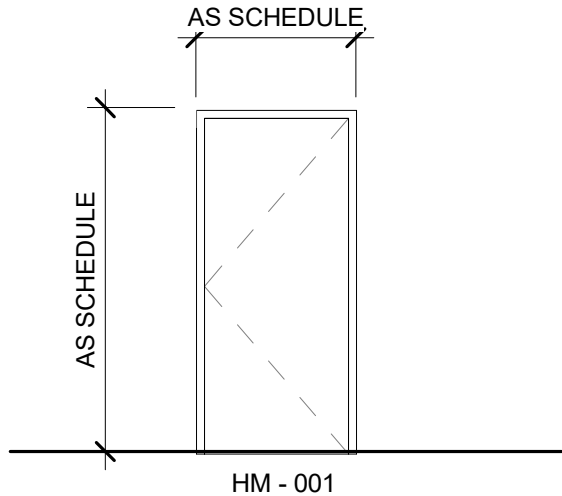
DOOR & FRAME SCHEDULE												
DOOR NO.	ROOM	DOOR			TYPE	MTR L	GLAZ	FRAME				REMARKS
		WD	HT	TK				TYPE	MTRL	GLAZ	HDWR	
001	LOWER BAYS	3'-0"	7'-0"	1 3/4"	F	HM	--	HM-001	HM	--	1	GALVANIZED H.M. H.D.
001.1	LOWER BAYS	3'-0"	7'-0"	1 3/4"	F	HM	--	HM-001	HM	--	1	GALVANIZED H.M. H.D.
002	SPRINKLER RISER	3'-0"	7'-0"	1 3/4"	F	HM	--	HM-001	HM	--	2	GALVANIZED H.M. H.D. INSULATED
003	UTILITIES	3'-0"	7'-0"	1 3/4"	F	HM	--	HM-001	HM	--	2	GALVANIZED H.M. H.D.
100	BAY 1	3'-0"	7'-0"	1 3/4"	HG	HM	GLAZING	HM-001	HM	--	1	GALVANIZED H.M. H.D.
100.1	BAY 1	3'-0"	7'-0"	1 3/4"	HG	HM	GLAZING	HM-001	HM	--	1	GALVANIZED H.M. H.D.

**G.C. TO PROVIDE AND COORDINATE POWER IN CASE ANY OF THE DOORS REQUIRED SECURITY OR ANY ADDITIONAL TECHNOLOGY.

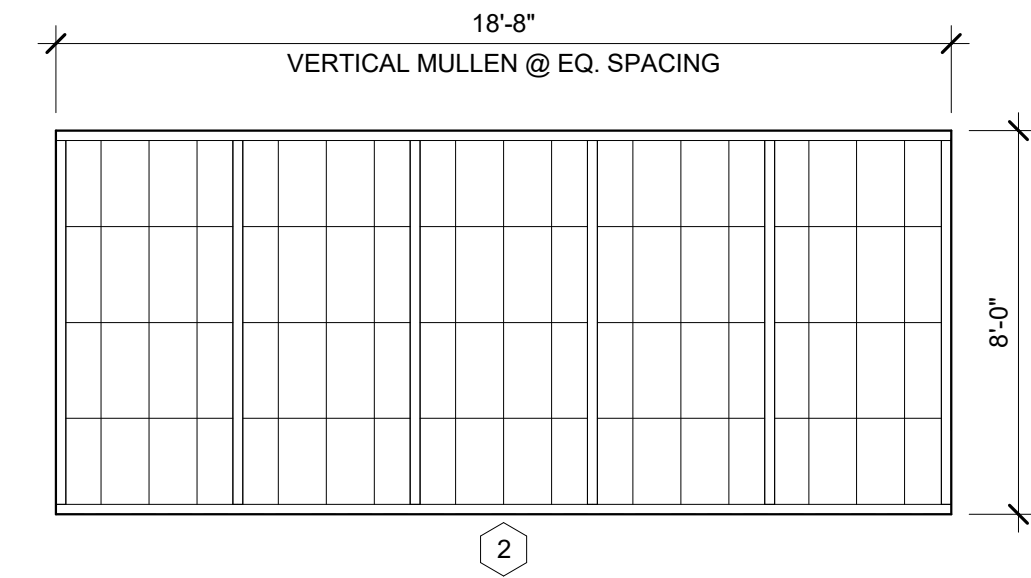
- HARDWARE SET 1**
 - ENTRY LOCKSET
 - (3) HINGE
 - EXIT HARDWARE
 - (3) SILENCER
 - CLOSER
 - RESTRICTOR BAR
 - KICKPLATE
 - THRESHOLD
 - RAIN GUARD
 - DOOR SWEEP
- HARDWARE SET 2**
 - STORAGE LOCKSET
 - (3) HINGE
 - EXIT HARDWARE
 - (3) SILENCER
 - CLOSER
 - RESTRICTOR BAR
 - KICKPLATE
 - THRESHOLD
 - RAIN GUARD
 - DOOR SWEEP



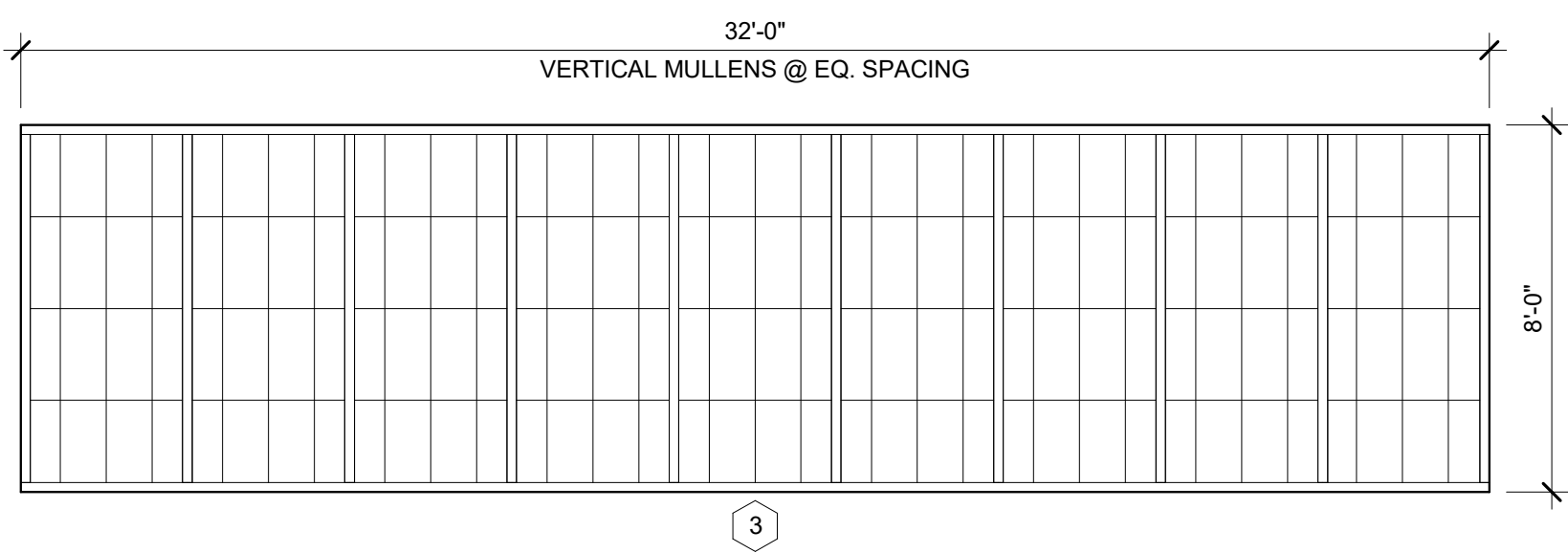
DOOR ELEVATION



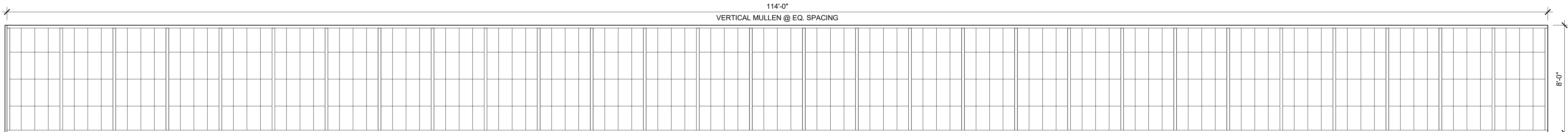
DOOR FRAME



1 TRANSLUCENT PANEL SYSTEM - 2 - SEE NORTH & SOUTH ELEVATION
1/4" = 1'-0"



2 TRANSLUCENT PANEL SYSTEM - 3 - SEE NORTH & SOUTH ELEVATION
1/4" = 1'-0"



3 TRANSLUCENT PANEL SYSTEM - 1 - SEE EAST ELEVATION
1/4" = 1'-0"

- DOOR AND FRAME GENERAL NOTES**
- G.C. TO COORDINATE PLAN OPENING WIDTH DIMENSIONS W/ SCHEDULE.
 - SAFETY GLAZING SHOULD BE INSTALLED AT THE FOLLOWING LOCATIONS:
INGRESS AND EGRESS DOORS
A. FIXED AND SLIDING PANELS OF SLIDING DOOR ASSEMBLIES AND PANELS IN SWINGING DOORS.
B. FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24" ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60" ABOVE THE WALKING SURFACE.
C. GLAZING IN AN INDIVIDUAL OR OPERABLE PANEL, OTHER THAN THOSE LOCATIONS NOTED ABOVE THAT MEETS ALL OF THE FOLLOWING CONDITIONS:
1. EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 SQ. FT.
2. EXPOSED TOP EDGE GREATER THAN 36" ABOVE THE FLOOR.
3. ONE OR MORE WALKING SURFACES WITHIN 36" HORIZONTALLY OF THE PLANE OF THE GLASS.
4. EXPOSED BOTTOM EDGE LESS THAN 18" ABOVE THE FLOOR.
D. AS OTHERWISE SPECIFIED.
 - INSTALL FIRE RESISTANT GLASS AS REQUIRED FOR RATING AT ALL RATED DOOR/ FRAME OPENINGS WITH GLASS.
 - NO WIRE GLASS ALLOWED ON PROJECT. PROVIDE TEMPERED OR LAMINATED GLASS AS REQ'D. FOR SAFETY GLASS, AND FIRE RATED GLASS AT FIRE RATED LOCATIONS.
 - ALL HOLLOW METAL DOORS, DOOR FRAMES, & WINDOW FRAMES TO BE PAINTED UNLESS NOTED OTHERWISE.
 - ALL DOORS ARE TO BE 1 3/4" THICK GALV. H.M. COMERCIAL GRADE 1 HEAVY DUTY UNLESS OTHERWISE NOTED OR SCHEDULED.
 - DOOR/FRAME GLAZING IS TO BE 1/4" FLOAT GLASS UNLESS REQUIRED TO BE SAFETY GLASS AS STATED IN GENERAL NOTES. NOTES FOR OBSCURE GLASS & FIRE RATED CLEAR GLASS STILL APPLY. OPENINGS NOTED AS SOUND REDUCTION ASSEMBLY ARE TO HAVE LAMINATED GLASS EXCEPT AT RATED OPENINGS. EXTERIOR DOORS TO HAVE DOUBLE PANE INSULATING GLASS AS SPEC'D.
 - DOORS NEXT TO WALLS, NOT LOCATED BY DIMENSION ON PLANS OR DETAILS SHALL BE INSTALLED SUCH THAT THE DOOR, WHEN IN THE FULL OPEN POSITION AGAINST WALL STOP, IS PARALLEL TO ADJACENT WALL. COORDINATE WITH DOOR HARDWARE.
 - HM FRAMES TO BE PROVIDED FULL DEPTH OF WALL ASSEMBLY UNLESS NOTED OTHERWISE.

- DOOR HARDWARE GENERAL NOTES**
- ALL LOCKS SHALL BE REMOVABLE CYLINDER TYPE, MASTER KEYED (CONTRACTOR TO COORDINATE KEYING WITH OWNER)
 - THUMBS TURN LOCKS ARE NOT ALLOWED . DEADBOLTS ARE ONLY ALLOWED PER CODE.
 - PROVIDE HARDWARE FOR ALL DOORS AS NOTED. HARDWARE SHALL BE HEAVY DUTY COMMERCIAL GRADE
 - ALL EXTERIOR DOORS: (UNLESS OTHERWISE NOTED)
A. SHALL BE FULLY INSULATED, HEAVY-DUTY CONSTRUCTION.
B. FRAMES SHALL BE HEAVY-DUTY HOLLOW METAL CONSTRUCTION.
C. SHALL HAVE LEVER STYLE ADA DOOR HANDLES AND/OR PULLS.
D. SHALL HAVE LOCKING DEVICES, PANIC HARDWARE AT REQUIRED EXITS.
 - ALL INTERIOR DOORS: (UNLESS OTHERWISE NOTED)
A. SHALL BE SOLID-CORE, WOOD.
B. DOORS BETWEEN FULL HVAC AND REDUCED HVAC SPACES SHALL BE FULLY INSULATED.
C. FRAMES SHALL BE HEAVY DUTY HOLLOW METAL CONSTRUCTION.

- GLASS KEY**
- SAFETY GLAZING
 - VISION GLASS
 - SPANDREL GLASS

TRANSLUCENT PANEL SYSTEM BASIS OF DESIGN:

-MANUFACTURER: KALLWALL

-THERMALLY BROKEN STANDARD WALL SYSTEM

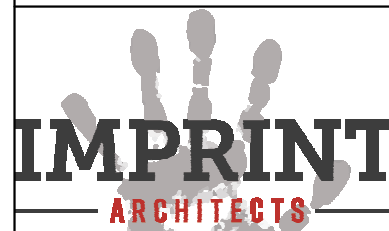
- 2 3/4" CONTINUOUS TRANSLUCENT PANEL SYSTEM. CRYSTAL EXTERIOR FINISH AND WHITE INTERIOR FINISH.

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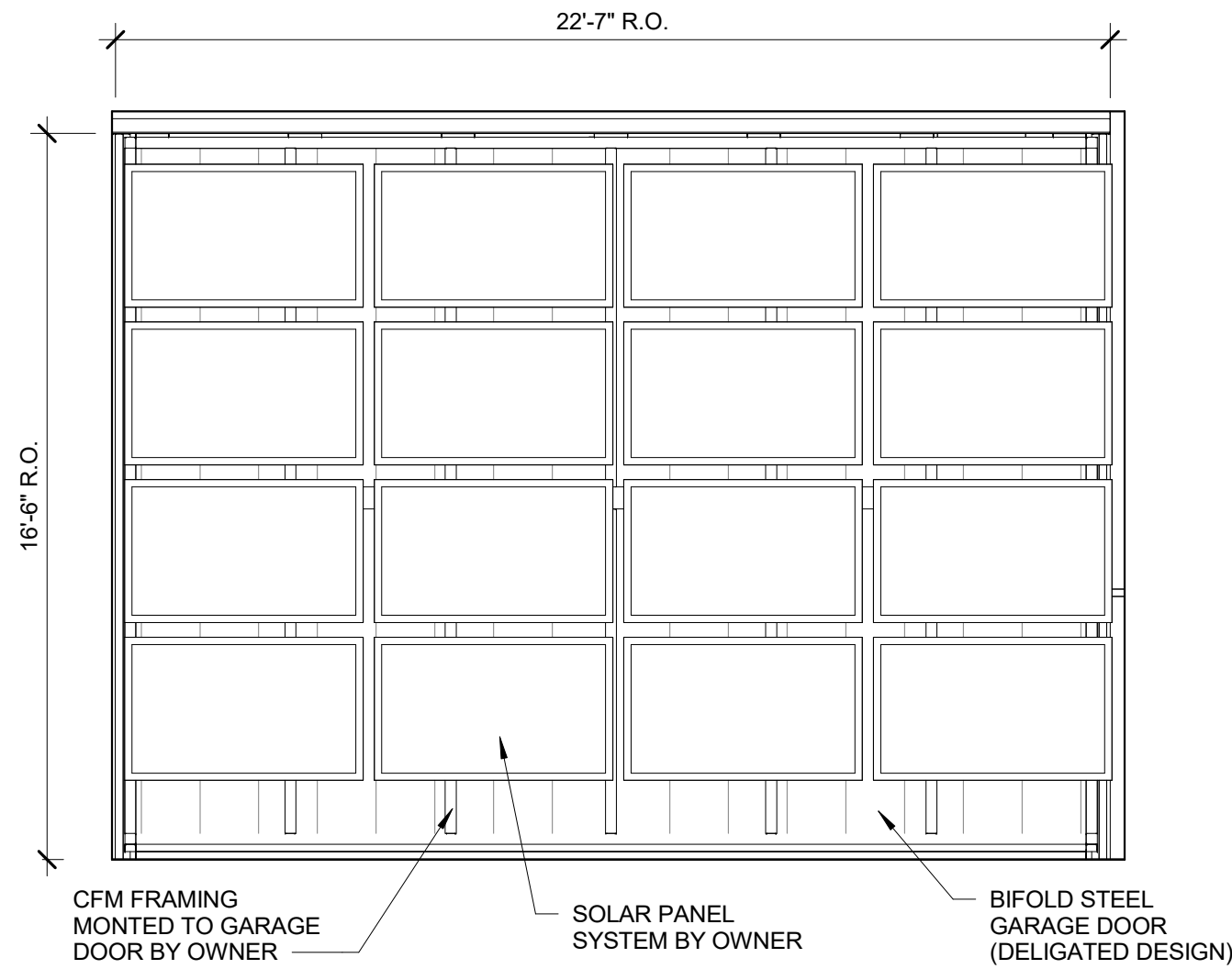
PROJECT:
ROLL-OFFS OF DES MOINES
20 E. 18TH ST, DES MOIES IA 50316

DOOR & FRAME
SCHEDULE

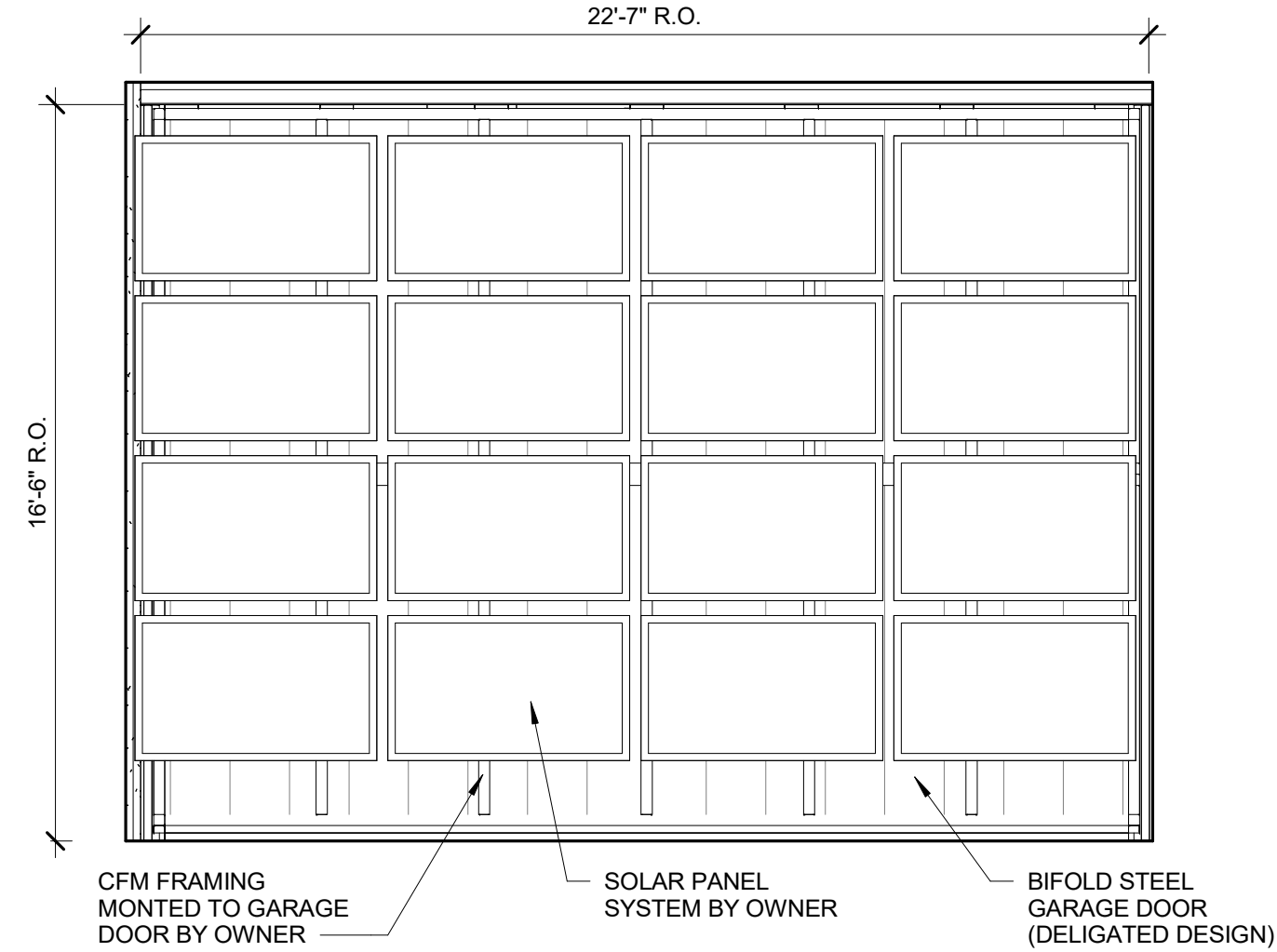
A600



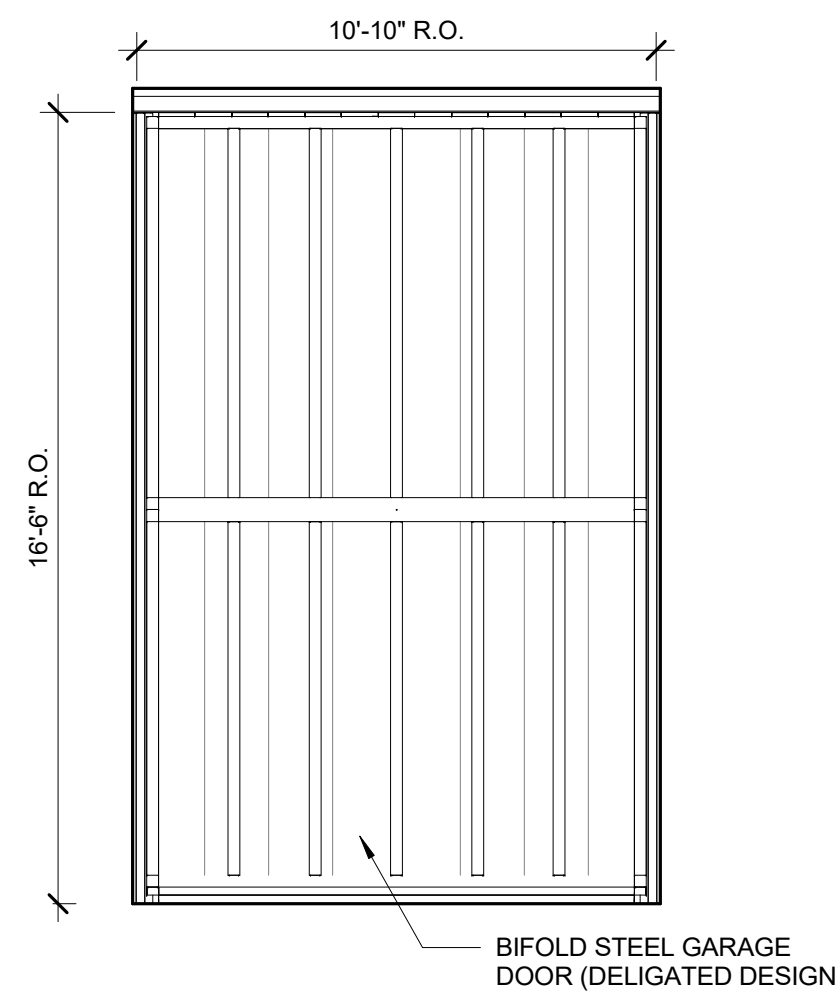
LEVEL 3
145' - 0 3/4"
005 N. ANKENY BLVD #130
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1 NORTH & SOUTH LOWER LEVEL DOOR 1
1/4" = 1'-0"



3 NORTH & SOUTH LOWER LEVEL DOOR 2
1/4" = 1'-0"



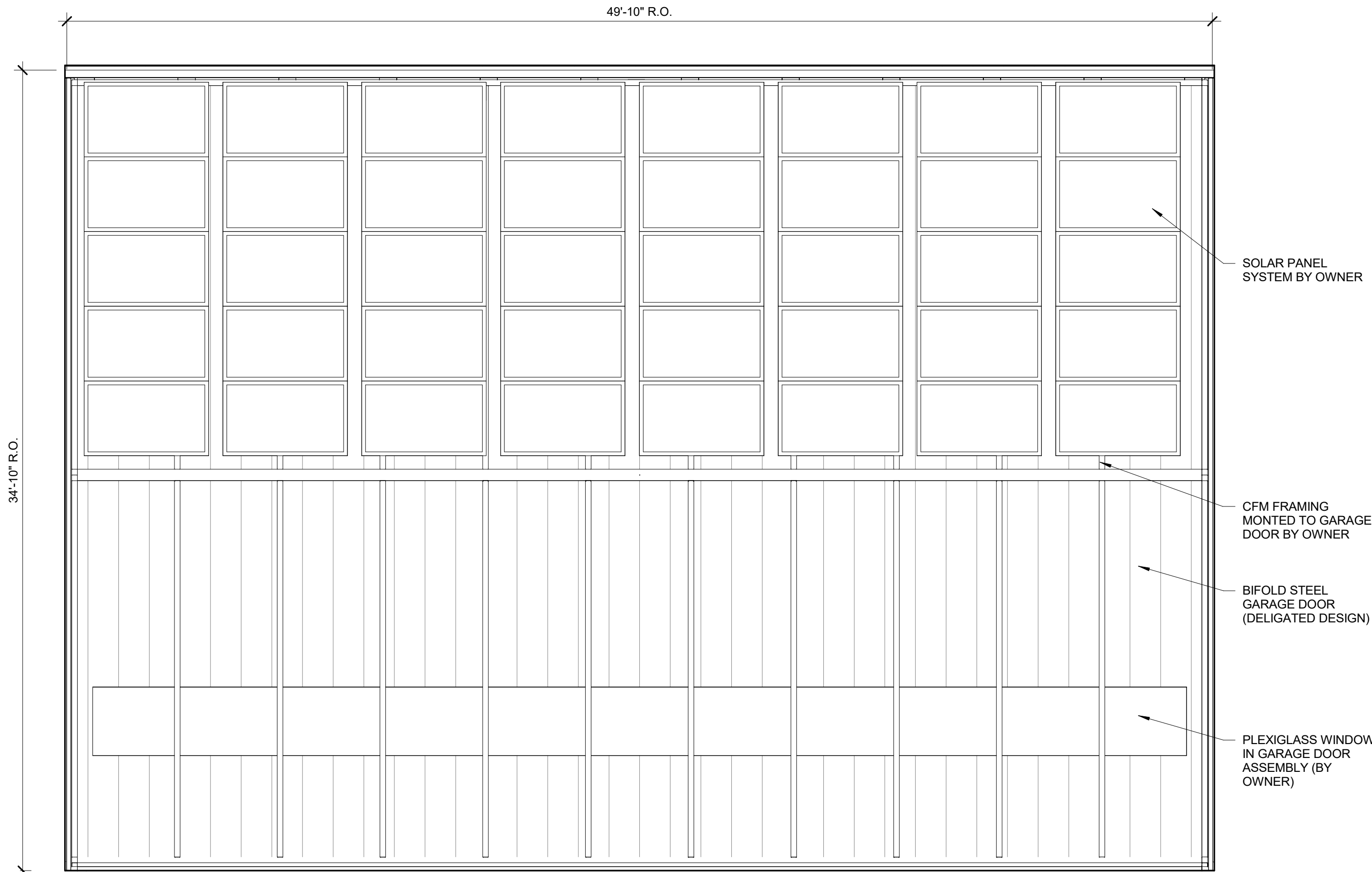
2 NORTH & SOUTH LOWER LEVEL DOOR 3
1/4" = 1'-0"

BI-FOLD DOOR AND FRAME GENERAL NOTES

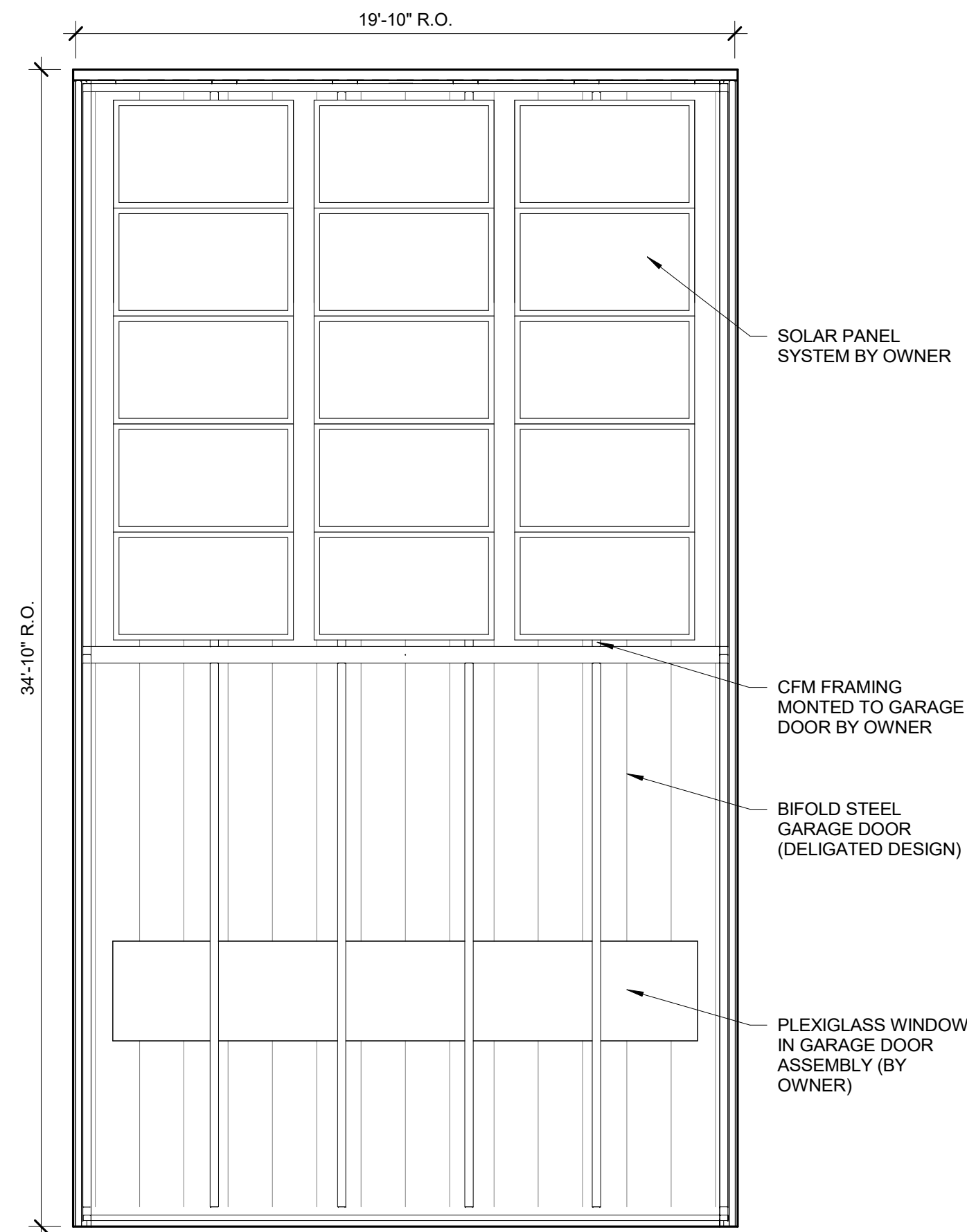
1. ALL BI-FOLD DOORS SHALL BE DELIGATED DESIGN. PROVIDE SHOP DRAWINGS AND CALCULATIONS WITH ALL STRUCTURAL AND ASSEMBLY COMPONENTS LABELED, SIZED, DIMENSIONED, AND REACTIONS STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF IOWA FOR DESIGN TEAM REVIEW. FABRICATION SPECIAL INSPECTIONS SHALL BE REQUIRED FOR ALL GC SELF FABRICATED COMPONENTS; SEE STRUCTURAL DRAWINGS.
2. ALL ITEMS, EQUIPMENT, AND FIXTURES MOUNTED TO DOOR PANELS SHALL BE INCLUDED IN SHOP DRAWINGS AND DOOR, FRAME, AND REACTION CALCULATIONS.
3. G.C. TO COORDINATE PLAN OPENING/FRAME WIDTH DIMENSIONS.
4. LAMINATED POLYCARBONATE GLAZING SHOULD BE INSTALLED ON ALL BI-FOLD DOORS WHERE GLAZING IS SHOWN.

BI-FOLD DOOR HARDWARE GENERAL NOTES

1. ALL LOCKS AND HARDWARE SETS SHALL BE INCLUDED WITH DOOR SHOP DRAWINGS AND INCLUDE REMOVABLE CYLINDER TYPE, MASTER KEYED (CONTRACTOR TO COORDINATE KEYING WITH OWNER)
2. BI-FOLD DOOR HARDWARE SHALL BE HEAVY DUTY COMMERCIAL GRADE A.



4 WEST UPPER LEVEL DOORS
1/4" = 1'-0"



5 NORTH & SOUTH UPPER LEVEL DOORS
1/4" = 1'-0"

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PROJECT:
ROLL-OFFS OF DES MOINES

20 E. 18TH ST, DES MOIES IA 50316

DATE:	DRAWN BY:	CHKD BY:
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REVISED:		

GARAGE OPENINGS

A601



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1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES, AS WELL AS TO LOCAL UTILITY REQUIREMENTS. PROVIDE ALL REQUIRED ACCESSORIES AND EQUIPMENT FOR A COMPLETE OPERATIONAL SYSTEM AND MAINTAIN WARRANTY REQUIREMENTS. VERIFY ALL EQUIPMENT PROVIDED IS SUITABLE FOR INTENDED USE.
2. WORK NOT SPECIFICALLY SHOWN IN DETAIL, REFERENCED, OR OTHERWISE IMPLIED, SHALL BE PROVIDED IN ACCORDANCE WITH TRADE OR INDUSTRY BEST STANDARD PRACTICES TO PROVIDE A COMPLETE OPERATIONAL SYSTEM.
3. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL CONFORM TO GRADE, QUALITY, AND STANDARDS SPECIFIED HEREIN.
4. ALL EQUIPMENT LISTED UNDER THESE SPECIFICATIONS SHALL BE LIMITED TO PRODUCTS REGULARLY PRODUCED AND RECOMMENDED FOR SERVICE IN ACCORDANCE WITH ENGINEERING DATA, RATINGS, OR OTHER COMPREHENSIVE LITERATURE MADE AVAILABLE TO THE PUBLIC AND IN EFFECT AT THE TIME OF OPENING OF BIDS.
5. INSTALL HANGERS AND SUPPORTS AS REQUIRED TO ADEQUATELY AND SECURELY SUPPORT MECHANICAL SYSTEM COMPONENTS IN A NEAT AND WORKMANLIKE MANNER. DO NOT FASTEN SUPPORTS TO PIPES, DUCTS, MECHANICAL EQUIPMENT, OR CONDUIT.
6. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS FOR TYPE AND CAPACITY OF EACH PIECE OF EQUIPMENT USED.
7. ALL EXPOSED PIPES PASSING THROUGH WALLS, FLOORS, CEILINGS, ETC. SHALL BE PROVIDED WITH SOLID PATTERN HEAVY WALL POLYETHYLENE WITH SET SCHEDULE UNLESS OTHERWISE NOTED. ESCUTCHEONS AND PLATES SHALL BE STEEL OR MALLEABLE IRON WITH PRIME COAT READY FOR PAINTING.
8. PLUMBING SYSTEMS SHALL BE TESTED WITH WATER OR AIR AND PROVEN TIGHT TO THE SATISFACTION OF REPRESENTATIVES OF THE OWNER AND/OR CODE INSPECTORS.
9. ALL WATER PIPING SHALL BE STERILIZED IN ACCORDANCE WITH A.W.W.A. SPECIFICATION C601-53T.
10. SANITARY AND VENT PIPING:
 - A. PVC PIPE: ASTM D2665 OR ASTM D3034
 - a. FITTINGS: PVC/DWV PATTERN
 - b. JOINTS: SOLVENT WELDED, WITH ASTM D2564 SOLVENT CEMENT.
11. DOMESTIC WATER PIPING:
 - A. BELOW GRADE:
 - a. COPPER PIPE: ASTM B42, HARD DRAWN.
 - FITTINGS: ASME B36.18, CAST COPPER ALLOY OR ASME B36.22, WROUGHT COPPER AND BRONZE.
 - b. CROSS-LINKED POLYETHYLENE (PEX) PIPE: ASTM F876 OR ASTM F877.
 - PPI TR-4 PRESSURE DESIGN BASIS.
 - 160 PSIG AT MAXIMUM 73 DEGREES F.
 - B. ABOVE GRADE:
 - a. COPPER TUBE: ASTM B88 (ASTM B88M), TYPE L (B), DRAWN (H).
 - FITTINGS: ASME B36.18, CAST COPPER ALLOY OR ASME B36.22, WROUGHT COPPER AND BRONZE.
 - JOINTS: ASTM B32, ALLOY 50% SOLDER.
 - MECHANICAL PRESS SEAL FITTINGS: DOUBLE-PRESSED TYPE, NSF 61 AND NSF 372 APPROVED OR CERTIFIED, UTILIZING EPDM, NONTXIC, SYNTHETIC RUBBER SEALING ELEMENTS.
 - b. CROSS-LINKED POLYETHYLENE (PEX) PIPE: ASTM F876 OR ASTM F877.
 - MANUFACTURERS:
 1. SHARKBITE, A BRAND OF RELIANCE WORLDWIDE CORPORATION: WWW.SHARKBITE.COM
 2. UPONOR, INC.: WWW.UPONORENGINEERING.COM
 3. VEGA LLC: WWW.VEGAUS.COM
 4. ZURN INDUSTRIES, LLC: WWW.ZURN.COM
 - PPI TR-4 PRESSURE DESIGN BASIS.
 - 160 PSIG AT MAXIMUM 73 DEGREES F.
 - FITTINGS: BRASS AND COPPER.
 - FITTINGS: BRASS AND ENGINEERED POLYMER (EP) ASTM F1960.
 - JOINTS: ASTM F1960 COLD-EXPANSION FITTINGS.
14. NO LOADS SHALL BE PERMITTED TO BE HUNG FROM ROOF DECKING, ALL HANGERS SHALL BE HUNG DIRECTLY FROM STRUCTURE OR TRUSSES.
15. PROVIDE SHUT OFF VALVES ON DOMESTIC COLD WATER PIPE BRANCHES AND ALL FIXTURE/EQUIPMENT CONNECTIONS.
16. PROVIDE CLEANOUTS WHERE SHOWN ON DRAWINGS, AT MINIMUM OF 100 FT INTERVALS AND AS REQUIRED BY CODE. COORDINATE LOCATIONS WITH ENGINEER.
17. CONTRACTOR(S) SHALL UNCONDITIONALLY WARRANTY IN WRITING ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP FOR ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER. CONTRACTOR(S) SHALL PROVIDE FREE SERVICE FOR ALL EQUIPMENT INVOLVED IN THEIR CONTRACT DURING THE WARRANTY PERIOD.
18. PROVIDE O&M MANUALS FOR ALL PLUMBING SYSTEMS AND EQUIPMENT TO OWNER WITHIN 30 DAYS OF FINAL COMPLETION.
19. COORDINATE UNDERFLOOR STUB-UP LOCATIONS AND INVERT ELEVATIONS PRIOR TO START OF WORK.
20. COORDINATE LOCATIONS OF PLUMBING FIXTURES WITH ARCHITECTURAL PLANS AND ALL OTHER TRADES PRIOR TO ROUGH-IN.

PLUMBING FIXTURE SCHEDULE											
Mark	Description	Basis of Design				Connection Size				Approved Manufacturers	Notes
		Manufacturer	Model	Description	Trim	CW	HW	Waste	Vent		
RH-1	Roof Hydrant	Woodford	SRH-MS	Freezeless, level handle hydrant specifically designed for roof installation with integral double check backflr prenenor. Hydrant shall drain when hose is disconnected. Provide cast iron hydrant support including under deck flange, seal, and EPDM boot.	---	3/4"	---	---	---	Watts, Zurn	---
TD-1	Trench Drain - 12' Wide	Zurn	Z874-12-HDG	Internally sloped, high density polyethylene trench drain system. Provide catch basins at outlet.	Class E ductile iron sloted grate, ductile iron top rails.	---	---	4"	---	Smiths, Watts	---
TD-2	Trench Drain - 18' Wide	Zurn	Z874-18-HDG	Internally sloped, high density polyethylene trench drain system. Provide catch basins at outlet.	Class E ductile iron sloted grate, ductile iron top rails.	---	---	4"	---	Smiths, Watts	---

1. Provide with extra key.

1. Provide with extra key.

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PLUMBING NOTES & SCHEDULES

P000



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PROJECT:

ROLL-OFFS OF DES MOINES

20 E. 18TH ST. DES MOINES IA 50316

[illegible]

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PROJECT:
ROLL-OFFS OF DES MOINES
20 E. 18TH ST, DES MOINES IA 50316

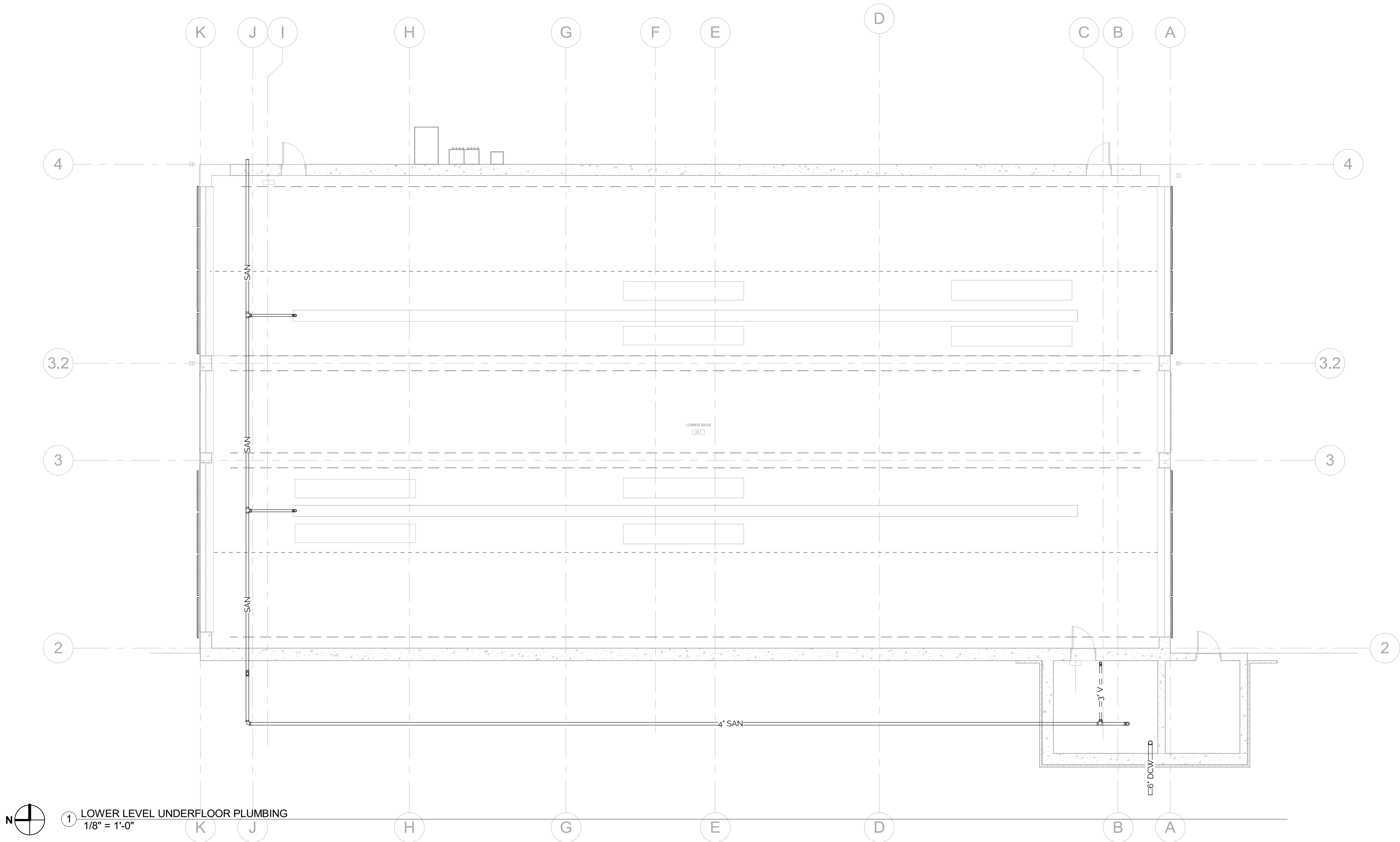
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02/24/2025		
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LOWER LEVEL
UNDERFLOOR
PLUMBING PLAN

P100



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ROLL-OFFS OF DES MOINES
20 E. 18TH ST, DES MOINES IA 50316

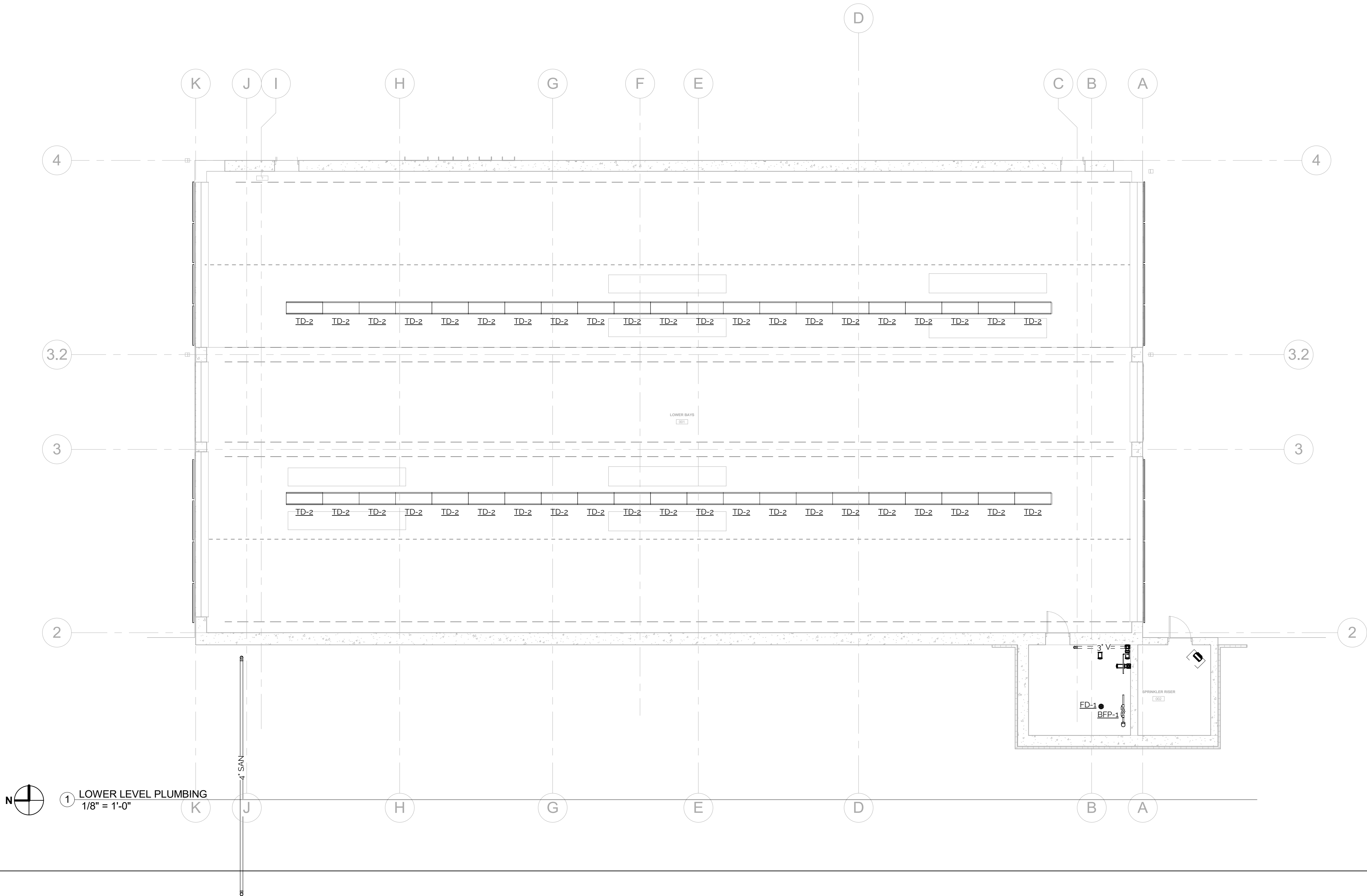
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LOWER LEVEL
PLUMBING PLAN

P101



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PROJECT:
ROLL-OFFS OF DES MOINES
20 E. 18TH ST, DES MOINES IA 50316

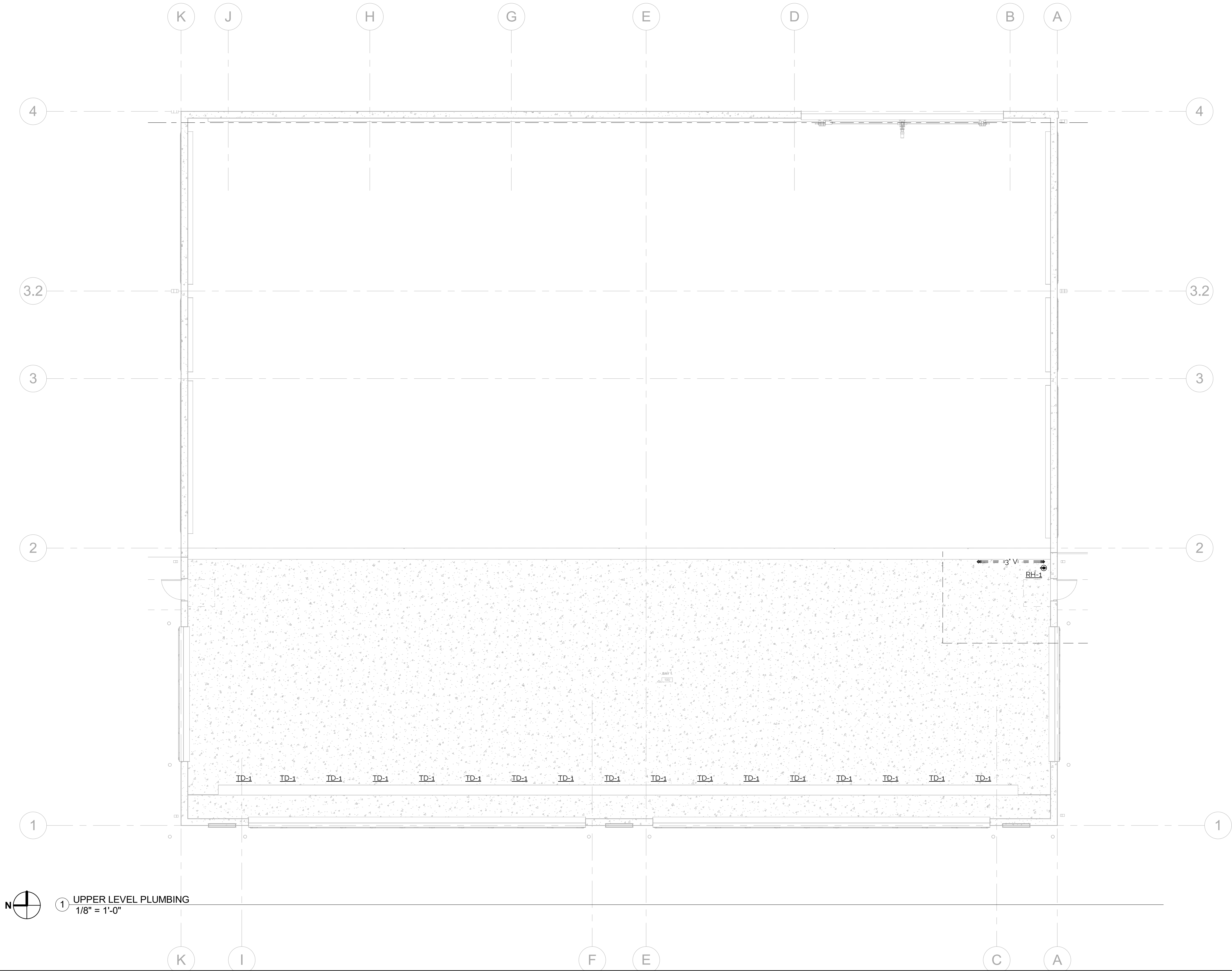
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UPPER LEVEL
PLUMBING PLAN

P102



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MECHANICAL NOTES:

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2. WORK NOT SPECIFICALLY SHOWN IN DETAIL, REFERENCED, OR OTHERWISE IMPLIED, SHALL BE PROVIDED IN ACCORDANCE WITH TRADE OR INDUSTRY BEST STANDARD PRACTICES TO PROVIDE A COMPLETE OPERATIONAL SYSTEM.
3. ALL MATERIALS SHALL BE NEW AND SHALL BE OF THE TYPE AND SHALL MEET THE CAPACITIES OF EQUIPMENT SPECIFIED ON THE DRAWINGS.
4. ALL EQUIPMENT LISTED UNDER THESE SPECIFICATIONS SHALL BE LIMITED TO PRODUCTS REGULARLY PRODUCED AND RECOMMENDED FOR SERVICE IN ACCORDANCE WITH ENGINEERING DATA, RATINGS, OR OTHER COMPREHENSIVE LITERATURE MADE AVAILABLE TO THE PUBLIC AND IN EFFECT AT THE TIME OF OPENING BIDS.
5. EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND CODE REQUIREMENTS FOR TYPE AND CAPACITY OF EACH PIECE OF EQUIPMENT USED.
6. ALL CUTTING AND PATCHING REQUIRED FOR MECHANICAL WORK SHALL BE PERFORMED BY THE MECHANICAL CONTRACTOR UNLESS NOTED OTHERWISE. ALL FINISHED SURFACES THAT ARE CUT SHALL BE REPLACED IN KIND SO THERE IS NO VISIBLE EVIDENCE OF CUTTING AND/OR PATCHING.
7. INSTALL HANGERS AND SUPPORTS AS REQUIRED TO ADEQUATELY AND SECURELY SUPPORT MECHANICAL SYSTEM COMPONENTS IN A NEAT AND WORKMANLIKE MANNER. DO NOT FASTEN SUPPORTS TO PIPES, DUCTS, MECHANICAL EQUIPMENT, OR CONDUIT.
8. ALL ROOF PENETRATIONS SHALL BE SEALED BY ROOFING CONTRACTOR. COORDINATE PENETRATIONS WITH ALL TRADES.
9. ALL DUCTWORK, ELBOWS, TRANSITIONS, CONNECTIONS, ETC SHALL BE BUILT AND SEALED IN ACCORDANCE WITH SMACNA AND NFPA 90A STANDARDS AND GUIDELINES.

A. DUCTS: G60 GALVANIZED STEEL, UNLESS OTHERWISE INDICATED.

B. LOW PRESSURE SUPPLY (HEATING SYSTEMS): 2 INCH W.G. PRESSURE CLASS, GALVANIZED STEEL.

C. LOW PRESSURE SUPPLY (SYSTEM WITH COOLING COILS): 2 INCH W.G. PRESSURE CLASS, GALVANIZED STEEL.

D. RETURN AND RELIEF: 1 INCH W.G. PRESSURE CLASS, GALVANIZED STEEL.

E. GENERAL EXHAUST: 1 INCH W.G. PRESSURE CLASS, GALVANIZED STEEL.

F. FLAT OVAL DUCTS: MACHINE MADE FROM ROUND SPIRAL LOCKSEAM DUCT.

G. SPIRAL DUCTS: ROUND SPIRAL LOCKSEAM DUCT WITH GALVANIZED STEEL OUTER WALL.

H. ROUND DUCTS: ROUND LOCKSEAM DUCT WITH GALVANIZED STEEL OUTER WALL.

I. FLEXIBLE DUCTS: TWO PLY VINYL FILM SUPPORTED BY HELICALLY WOUND SPRING STEEL WIRE.

a. PRESSURE RATING: 10 INCHES WG (2.50 KPA) POSITIVE AND 1.0 INCHES WG (250 PA) NEGATIVE.
10. ALL EXPOSED DUCTWORK AND ACCESSORIES IN FINISHED AREAS SHALL BE PAINTED. REFER TO ARCHITECTURAL FOR COLOR.
11. COORDINATE DUCTWORK ROUTING AND EQUIPMENT WITH BUILDING STRUCTURE AND ALL OTHER TRADES.
12. DUCTWORK DIMENSIONS ARE INTERNAL FREE AREA DIMENSIONS. LINED DUCTWORK SIZE SHALL BE INCREASED TO MAINTAIN REQUIRED FREE AREA. MAXIMUM HEIGHT OF DUCTWORK AND INSULATION SHALL BE LESS THAN 16'.
13. DUCTWORK SUPPORTS SHALL BE SECURED TO STRUCTURE AT 5'-0" ON CENTER.
14. FLEXIBLE DUCTWORK SHALL ONLY BE ALLOWED WITHIN 5'-0" OF AIR TERMINAL. FLEXIBLE DUCTWORK SHALL BE PROPERLY SUPPORTED IF TURNING AN ANGLE GREATER THAN 30-DEGREES.
15. PROVIDE VIBRATION ISOLATORS FOR MOTORIZED EQUIPMENT HUNG FROM STRUCTURE. HANG EQUIPMENT IN ACCORDANCE WITH THE INTERNATIONAL MECHANICAL CODE AND ALL OTHER REQUIREMENTS.
16. PROVIDE FLEXIBLE DUCT CONNECTIONS IMMEDIATELY UPSTREAM AND DOWNSTREAM OF ALL MOTORIZED EQUIPMENT.
17. PROVIDE BALANCING DAMPERS ON ALL DUCT BRANCHES AS REQUIRED TO BALANCE SYSTEM. DAMPERS INCLUDED WITH DIFFUSERS AND GRILLES DO NOT CONSTITUTE AS BALANCING DAMPERS.
18. DUCT INSULATION:

A. GLASS FIBER, FLEXIBLE

a. INSULATION: ASTM C553; FLEXIBLE, NONCOMBUSTIBLE BLANKET.

b. VAPOR BARRIER JACKET: KRAFT PAPER WITH GLASS FIBER YARN AND BONDED TO ALUMINIZED FILM.

B. GLASS FIBER, RIGID

a. INSULATION: ASTM C612; RIGID, NONCOMBUSTIBLE BLANKET.

b. VAPOR BARRIER JACKET: KRAFT PAPER WITH GLASS FIBER YARN AND BONDED TO ALUMINIZED FILM.

C. DUCT LINER

a. GLASS FIBER INSULATION: NON-CORROSIVE, INCOMBUSTIBLE GLASS FIBER COMPLYING WITH ASTM C1071; FLEXIBLE BLANKET AND RIGID BOARD; IMPREGNATED SURFACE AND EDGES COATED WITH POLY VINYL ACETATE POLYMER, ACRYLIC POLYMER, OR BLACK COMPOSITE.

D. INSULATION SCHEDULE:

a. SUPPLY DUCT IN CONCEALED AREAS: 1-1/2" FLEXIBLE WRAP

b. SUPPLY DUCT IN UNCONDITIONED/EXTERIOR AREAS: 2" RIGID GLASS FIBER

c. OUTSIDE AIR DUCT: 2" RIGID GLASS FIBER

d. EXHAUST DUCT WITH-IN 3' OF EXTERIOR WALL OR ROOF: 1-1/2" FLEXIBLE WRAP.

e. RETURN DUCT, SOUND ELBOWS AND TRANSFER DUCT: 1" LINER

19. ALL EXPOSED MATERIALS SHALL BE PLENUM RATED.

20. NO LOADS SHALL BE PERMITTED TO BE HUNG FROM ROOF DECKING. ALL HANGERS SHALL BE HUNG DIRECTLY FROM STRUCTURE.

21. OUTSIDE AIR INTAKES SHALL BE LOCATED A MINIMUM OF TEN (10) FEET HORIZONTALLY OR THREE (3) FEET VERTICALLY BELOW ANY EXHAUST OUTLET OR PLUMBING VENT AS REQUIRED BY THE INTERNATIONAL MECHANICAL CODE AND ALL OTHER REQUIREMENTS.

22. PROVIDE THIRD PARTY TESTING AND BALANCING OF MECHANICAL SYSTEM. REPORT RESULTS TO OWNER.

23. PROVIDE AS-BUILT DRAWINGS FOR MECHANICAL SYSTEMS WITHIN 30 DAYS OF FINAL COMPLETION.

24. PROVIDE O&M MANUALS FOR ALL SYSTEMS AND EQUIPMENT TO OWNER WITHIN 30 DAYS OF FINAL COMPLETION.

25. COORDINATE LOCATIONS OF CEILING FIXTURES AND DEVICES WITH ALL TRADES. ALIGN CENTERLINE OF FIXTURES AND DEVICES WHEREVER POSSIBLE.

PUMP SCHEDULE																
Mark	Manufacturer	Model	Configuration	Serves	Suction Size (in)	Discharge Size (in)	Impeller Diameter (in)	Flow (gpm)	Head (ft)	Fluid	Motor					Notes
											bHP	HP	RPM	Voltage	Phase	
CP-1	Wilo	Star E 21	Close Coupled Inline	RFM-1				7.6	8.2	Water	0.05	0.25	3,603	115	1	1,2,3
CP-2	Wilo	Star E 21	Close Coupled Inline	RFM-2				7.7	5.1	Water	0.03	0.25	3,135	115	1	1,2,3
CP-3	Wilo	Stratos-MAXO 1.5x3-52 1	Close Coupled Inline	SMM-1				32.7	42.6	Water	0.59	1.05	3,518	115	1	1,2,3

- Notes:
1. Provide with integral speed controller.
2. Pump shall be non-overloading.
3. Approved manufacturers: Bell & Gossett, Taco, Wilo

RADIANT FLOOR MANIFOLD SCHEDULE												
Mark	Zone Qty	Circuit Qty	Pipe Spacing (in)	Area (sqft)	Output (Btuh/sqft)	Surface Temp (°F)	Circuit Length (ft)	Flowrate (gpm)	Head Loss (ft)	EWT (°F)	LWT (°F)	Notes
RFM-1	2	10	12	2.110	27.4	95.1	2,795	7.58	10.1	95	75	1,2,3,4
RFM-2	2	11	12	2.132	27.4	95.1	2,939	7.66	7.0	95	75	1,2,3,4
SMM-1	1	11	9	2.195	1,974.4	85	3,252	32.65	47.3	149	119	1,2,3,4

- Notes:
1. 5/8" diameter PEX pipe.
2. Provide stainless steel manifold system with individual loop balancing valves and flow gauge.
3. Provide floor sensor for each zone.
4. Each manifold shall include isolation valves on supply and return piping.

EXHAUST FAN SCHEDULE												
Mark	Manufacturer	Model	Equipment Served	Drive	Airflow (cfm)	ESP (in W/C)	RPM	Power (hp)	Electrical		dBA	Notes
									Volts	Phase		
EF-1	Cook	290-MHA-HD	DC-1	Belt	32,000	1.5	845	50	460	3	89	1,2,3
EF-2	Cook	290-MHA-HD	DC-2	Belt	32,000	1.5	845	50	460	3	89	1,2,3
EF-3	Cook	290-MHA-HD	DC-3	Belt	32,000	1.5	845	50	460	3	89	1,2,3

- Notes:
1. Provide with premium efficiency motor, shaft grounding ring, hinged access door, drain, and OSHA shaft w/ belt guard.
2. Approved manufacturers: Acme, Cook, Twin City Fans

ELECTRIC HEATER SCHEDULE										
Mark	Manufacturer	Model	Type	Airflow (cfm)	Capacity (W)	Electrical				Notes
						Voltage	Phase	MCA	MOCP	
EUH-1	Qmark	MUH0381	Unit Heater	350	3.0	208	1	15	20	1.2

- Notes:
1. Provide with ceiling mounting bracket, integral disconnect, and integral thermostat.
2. Approved Manufacturers: Berko, Indeeco, Markel, Qmark, Redd-i

PRELIMINARY - NOT FOR CONSTRUCTION

PROJECT:

ROLL-OFFS OF DES MOINES

20 E. 18TH ST, DES MOINES IA 50316

MECHANICAL NOTES
& SCHEDULES

M000



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02/24/2025		
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M101



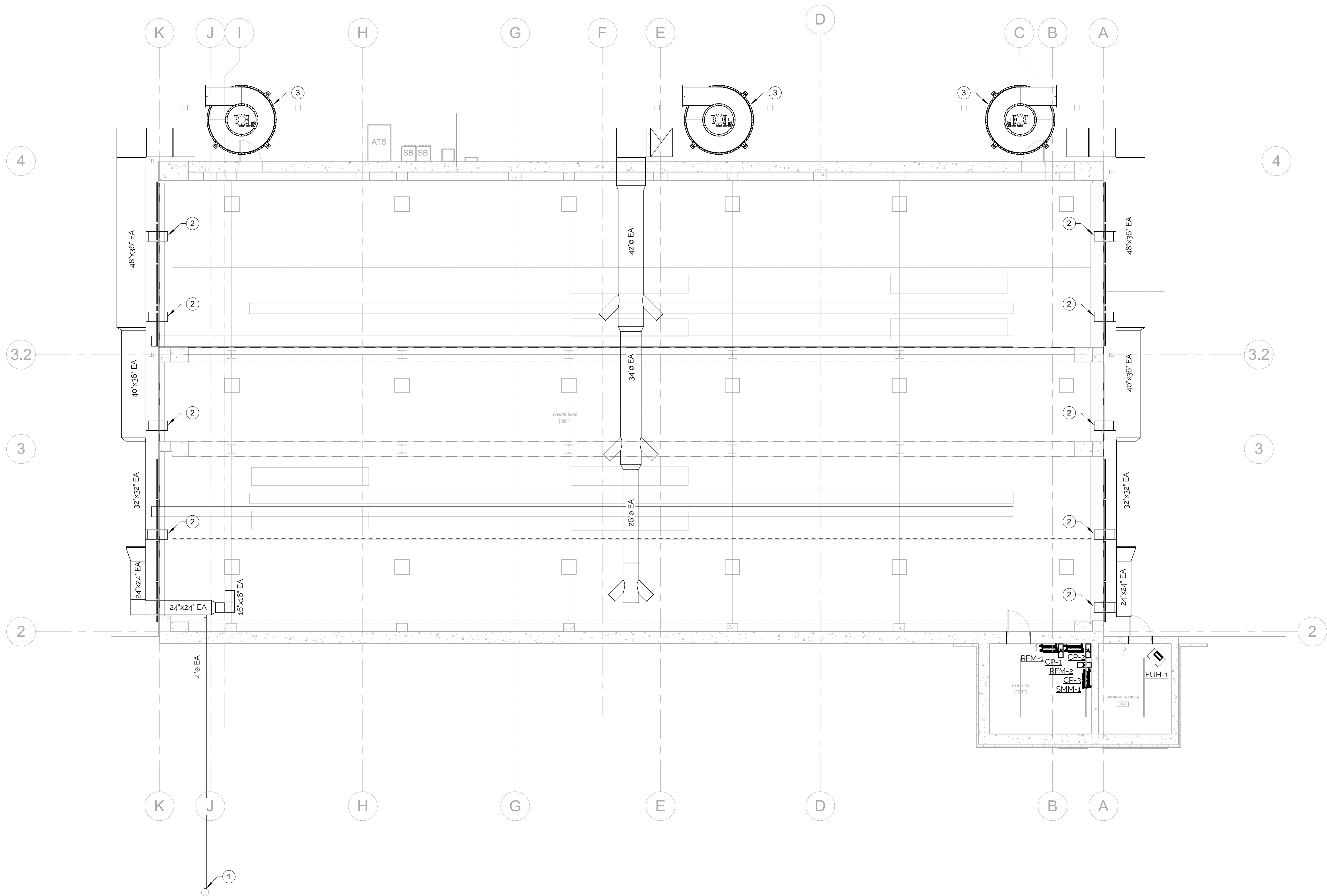
CONSTRUCTION

PROJECT:

ROLL-OFFS OF DES MOINES

20 E. 18TH ST, DES MOINES IA 50316

1 ROUTE 4"Ø EA BELOW GRADE AND CONNECT TO VERTICAL SANITARY PIPING
FROM TRENCH DRAIN.
2 16"x16" EA THROUGH WALL. TERMINATE OPEN DUCT -6" INSIDE WALL.
3 PROVIDE AERODYNE GPC-84V DUST COLLECTION CYCLONE SYSTEM WITH
POWERED ROTARY VALVE. MOUNT BOTTOM OF SYSTEM AT 15'-0" AFG.
COORDINATE WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS.



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KEYED NOTES - UPPER LEVEL MECHANICAL

22-125

PROJECT:
ROLL-OFFS OF DES MOINES
20 E. 18TH ST, DES MOINES IA 50316

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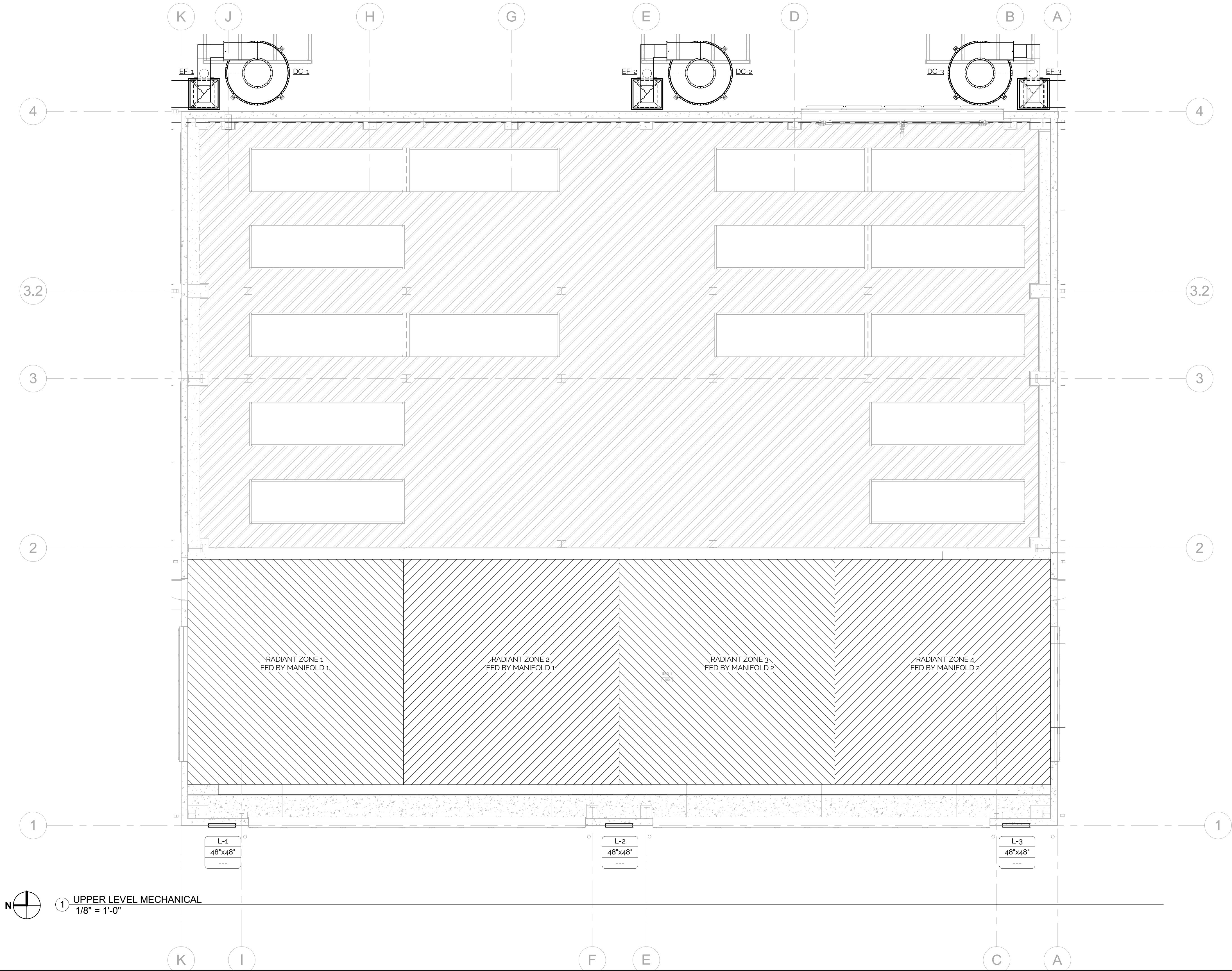
UPPER LEVEL
MECHANICAL PLAN

M102



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ELECTRICAL NOTES:

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES, AS WELL AS LOCAL UTILITY REQUIREMENTS. PROVIDE ALL REQUIRED ACCESSORIES AND EQUIPMENT FOR A COMPLETE OPERATIONAL SYSTEM AND MAINTAIN WARRANTY REQUIREMENTS. VERIFY ALL EQUIPMENT PROVIDED IS SUITABLE FOR INTENDED USE. INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. WORK NOT SPECIFICALLY SHOWN IN DETAIL, REFERENCED, OR OTHERWISE IMPLIED, SHALL BE PROVIDED IN ACCORDANCE WITH TRADE OR INDUSTRY BEST STANDARD PRACTICES TO PROVIDE A COMPLETE OPERATIONAL SYSTEM.
3. CIRCUIT ROUTING INDICATED IS DIAGRAMMATIC. WHEN CIRCUIT DESTINATION IS INDICATED AND ROUTING IS NOT SHOWN, DETERMINE EXACT ROUTING REQUIRED.
4. COORDINATE EXACT WIRING REQUIREMENTS WITH MANUFACTURER'S REQUIREMENTS FOR EACH FIXTURE AND PIECE OF EQUIPMENT.
5. CONDUCTORS:

A. MATERIAL

a. ALL CONDUCTORS SHALL BE COPPER. ALUMINUM CONDUCTORS ARE NOT PERMITTED UNLESS OTHERWISE NOTED.

b. NONMETALLIC SHEATHED CABLE, ARMORED CABLE, AND METAL-CLAD CABLE ARE NOT PERMITTED.

EXCEPTION: MC CABLING IS ALLOWED FOR CONNECTIONS TO RECESSED LIGHT FIXTURES. LENGTH SHALL NOT EXCEED 5'-0".

B. SIZING

a. 20A CIRCUITS UP TO 75' SHALL BE MINIMUM SIZE #12 AWG CONDUCTORS.

b. 20A CIRCUITS FROM OVER 75' AND UNDER 150' SHALL BE MINIMUM SIZE #10 AWG CONDUCTORS.

c. 20A CIRCUITS OVER 150' AND UNDER 250' SHALL BE MINIMUM SIZE #8 AWG CONDUCTORS.

d. 20A CIRCUITS ABOVE 250' SHALL BE MINIMUM SIZE #6 AWG CONDUCTORS.

e. CONTROL CIRCUITS SHALL BE MINIMUM SIZE #14 AWG CONDUCTORS.

f. WHERE CONDUCTOR SIZING IS NOT INDICATED, SIZE TO COMPLY WITH NFPA 70 AND MANUFACTURER'S REQUIREMENTS. COMPLY WITH LARGEST SIZE REQUIRED.

C. SINGLE CONDUCTOR BUILDING WIRE

a. FEEDERS AND BRANCH CIRCUITS

• SIZE #10 AWG AND SMALLER: SOLID

• SIZE #8 AWG AND LARGER: STRANDED

• CONTROL CIRCUITS: STRANDED

b. INSULATION

• VOLTAGE RATING: 600V

• COPPER BUILDING WIRE: TYPE THHN/THWN OR THHN/THWN-2 EXCEPT AS NOTED BELOW:

1. SIZE #4 AWG AND LARGER: TYPE XHHW-2

2. INSTALLED UNDERGROUND: TYPE XHHW-2

6. INSTALL HANGERS AND SUPPORTS AS REQUIRED TO ADEQUATELY AND SECURELY SUPPORT ELECTRICAL SYSTEM COMPONENTS IN A NEAT AND WORKMANLIKE MANNER AS SPECIFIED IN NECA 1. DO NOT FASTEN SUPPORTS TO PIPES, DUCTS, MECHANICAL EQUIPMENT, OR CONDUIT.

7. CONDUIT

A. INSTALL CONDUIT SECURELY IN A NEAT AND WORKMANLIKE MANNER AS SPECIFIED IN NECA 1.

B. INSTALL NO MORE THAN ONE EQUIVALENT OF THREE 90 DEGREE BENDS BETWEEN BOXES. USE CONDUIT BODIES TO MAKE SHARP CHANGES IN DIRECTION, AS AROUND BEAMS. SUPPORT CONDUIT USING COATED STEEL OR MALLEABLE IRON STRAPS, LAY-IN ADJUSTABLE HANGERS, CLEVIS HANGERS, AND SPLIT HANGERS.

C. APPLICATIONS

a. UNDERGROUND: RIGID PVC.

b. CONCEALED WITHIN MASONRY OR HOLLOW STUD WALLS OR ABOVE ACCESSIBLE CEILINGS: ELECTRICAL METALLIC TUBING (EMT).

c. INTERIOR DAMP OR WET LOCATIONS: GALVANIZED STEEL RIGID METAL CONDUIT.

d. EXPOSED INTERIOR, NOT SUBJECT TO PHYSICAL DAMAGE: ELECTRICAL METALLIC TUBING (EMT).

e. EXPOSED INTERIOR, SUBJECT TO PHYSICAL DAMAGE: GALVANIZED STEEL RIGID METAL CONDUIT OR INTERMEDIATE METAL CONDUIT (IMC).

f. LOCATIONS SUBJECT TO PHYSICAL DAMAGE INCLUDE, BUT ARE NOT LIMITED, TO LOCATIONS WHERE CONDUIT IS EXPOSED BELOW 8'-0", EXCEPT WITHIN ELECTRICAL/COMMUNICATIONS ROOMS AND CLOSETS.

g. EXPOSED EXTERIOR: GALVANIZED STEEL RIGID METAL CONDUIT OR PVC-COATED GALVANIZED STEEL RIGID METAL CONDUIT.

h. CONNECTIONS TO VIBRATING EQUIPMENT.

i. DRY LOCATIONS: FLEXIBLE METAL CONDUIT.

j. DAMP, WET, OR CORROSIVE LOCATIONS: LIQUIDTIGHT FLEXIBLE METAL CONDUIT.

k. MAXIMUM LENGTH: 6 FEET UNLESS OTHERWISE INDICATED.

D. SIZE

a. BRANCH CIRCUITS: 1/2" TRADE SIZE.

b. BRANCH CIRCUIT HOMERUNS: 3/4" TRADE SIZE.

c. FLEXIBLE CONNECTIONS TO LUMINAIRES: 3/8" TRADE SIZE.

d. UNDERGROUND, INTERIOR: 3/4" TRADE SIZE.

e. UNDERGROUND, EXTERIOR: 1" TRADE SIZE.

f. WHERE CONDUIT SIZE IS NOT INDICATED, SIZE TO COMPLY WITH NFPA 70 BUT NOT LESS THAN APPLICABLE MINIMUM SIZE REQUIREMENTS SPECIFIED.

8. INSTALL DISCONNECT SWITCHES, CONTROLLERS, CONTROL STATIONS, AND CONTROL DEVICES TO COMPLETE EQUIPMENT WIRING REQUIREMENTS.

9. JUNCTION BOXES SHALL NOT BE LOCATED IN NON-ACCESSIBLE LOCATIONS.

10. USE FAR-SIDE SUPPORT TO SECURE FLUSH-MOUNTED BOXES SUPPORTED FROM SINGLE STUD IN HOLLOW STUD WALLS. REPAIR OR REPLACE SUPPORTS FOR BOXES THAT PERMIT EXCESSIVE MOVEMENT.

11. NO LOADS SHALL BE PERMITTED TO BE HUNG FROM ROOF DECKING. ALL HANGERS SHALL BE HUNG DIRECTLY FROM STRUCTURE OR SUPPLEMENTARY MEMBERS ACCEPTABLE TO THE STRUCTURAL ENGINEER AND ONLY WITH PRIOR APPROVAL.

12. LIGHTING CONTROLS

A. LIGHTING CONTROL SYSTEM SHOWN IS DIAGRAMMATIC ONLY. COORDINATE EXACT CONTROLS LOCATIONS WITH MANUFACTURER'S RECOMMENDATIONS.

B. TEST LIGHTING SYSTEMS TO ENSURE PROPER CALIBRATION, ADJUSTMENT, PROGRAMMING, AND OPERATION.

C. TIME SWITCHES

a. MANUFACTURERS: INTERMATIC, TORK.

b. ASTRONOMICAL TIME SWITCHES

• SINGLE CHANNEL, CAPABLE OF DIFFERENT SCHEDULE FOR EACH DAY OF THE WEEK WITH ADDITIONAL HOLIDAY SCHEDULE AVAILABLE TO OVERRIDE NORMAL SCHEDULE FOR SELECTED DAYS AND FIELD-CONFIGURABLE ASTRONOMIC FEATURE TO AUTOMATICALLY ADJUST FOR SEASONAL CHANGES IN SUNRISE AND SUNSET TIMES.

• SCHEDULE CAPACITY: NOT LESS THAN 16 PROGRAMMABLE ON/OFF OPERATIONS.

• PROVIDE AUTOMATIC DAYLIGHT SAVINGS TIME AND LEAP YEAR COMPENSATION.

• PROVIDE POWER OUTAGE BACKUP TO RETAIN PROGRAMMING AND MAINTAIN CLOCK.

• MANUAL OVERRIDE: CAPABLE OF OVERRIDING CURRENT SCHEDULE BOTH PERMANENTLY AND TEMPORARILY UNTIL NEXT SCHEDULED EVENT.

• PROVIDE REMOTE PHOTOCELL INPUT WITH LIGHT LEVEL ADJUSTMENT.

• INPUT SUPPLY VOLTAGE: AS REQUIRED ON DRAWINGS.

D. OUTDOOR PHOTO CONTROLS

a. MANUFACTURERS: INTERMATIC, TORK.

b. BUTTON TYPE OUTDOOR PHOTO CONTROLS

• DIRECT-WIRED PHOTO CONTROL UNIT COMPLYING WITH ANSI C136.24 WITH WEATHERPROOF GASKETED WALL PLATE, LISTED AND LABELED AS COMPLYING WITH UL 773A.

• HOUSING: WEATHER RESISTANT POLYCARBONATE.

• PHOTO SENSOR: CADMIUM SULFIDE.

• LIGHT LEVEL ACTIVATION: 1 TO 3 FOOTCANDLES TURN-ON AND 3 TO 1 TURN-OFF TO TURN-ON RATIO WITH DELAYED TURN-OFF.

• VOLTAGE: AS REQUIRED ON DRAWINGS.

• FAILURE MODE: FAILS IN THE ON POSITION.

• LOAD RATING: AS REQUIRED TO CONTROL THE LOAD INDICATED ON DRAWINGS.

13. REFER TO PANEL SCHEDULES FOR CIRCUITING OF DEVICES SHOWN ON FLOOR PLANS.

14. PROVIDE TYPE-WRITTEN PANEL DIRECTORY ON ELECTRICAL PANELS. HANDWRITTEN TEXT IS NOT ACCEPTABLE.

15. LABEL CIRCUITS WITH TYPE-WRITTEN LABELS AT ALL EQUIPMENT AND RECEPTACLE LOCATIONS. LABELS IN COMMON AREAS AND OFFICES SHALL BE ON THE BACKSIDE OF COVER PLATES.

16. COORDINATE COLOR OF RECEPTACLES AND COVER PLATES TO MATCH THE COLOR SCHEME PER ARCHITECTURAL DRAWINGS.

17. EMERGENCY LIGHTS AND EXIT SIGNS SHALL BE CONNECTED TO UNSWITCHED LEG OF CIRCUIT SERVING ADJACENT LIGHTING WITHIN THE AREA.

18. COORDINATE LOCATIONS OF CEILING FIXTURES AND DEVICES WITH ALL TRADES. ALIGN CENTERLINE OF FIXTURES AND DEVICES WHEREVER POSSIBLE.

19. ALL EXPOSED CABLING SHALL BE PLENUM RATED.

20. PROVIDE AS-BUILT DRAWINGS FOR ELECTRICAL SYSTEMS WITHIN 30 DAYS OF FINAL COMPLETION.

21. PROVIDE O&M MANUALS FOR ALL SYSTEMS AND EQUIPMENT TO OWNER WITHIN 30 DAYS OF FINAL COMPLETION.

LIGHT FIXTURE SCHEDULE																		
Mark	Fixture Description	Basis of Design		Fixture Data							Mounting Type						Options	Notes
											Location			Arrangement				
		Manufacturer	Model	Driver	Delivered Lumens	Watts	Efficacy (lm/w)	Voltage	Color Temp	CRI (min)	Ceiling	Wall	Pole	Grade	Recessed	Surface		
A1	High Bay	Keystone	KT-HBLED185-2F-8XX-VDIM-P/G2	0-10V	27935	185	151	120-277	5000K	80	X					X	Mount to Bottom of Structure	

TRANSFORMER SCHEDULE								
Mark	Manufacturer	Model	Type	KVA	Voltage		Enclosure	Weight
					Primary	Secondary		
T1	Square D	EXN45T3H	Dry	45	480 Delta	208Y/120	NEMA 3R	370

Notes:

1. Approved Manufacturers: Eaton, Square D

Switchboard: MDP-1

Location:
Enclosure: NEMA 3R
Mounting:

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Rating: 1800 A
MCB Rating: 1800 A

Notes:

CKT	Load Name	Rating	Number of Poles	True Load Phase A	True Load Phase B	True Load Phase C
1	EF-1	100 A	3	9967 VA	9967 VA	9967 VA
2	EF-2	100 A	3	9967 VA	9967 VA	9967 VA
3	EF-3	100 A	3	9967 VA	9967 VA	9967 VA
4						
5						
6						
7						
8						
9						
10						
11						
12						
Total Load:				29900 VA	29900 VA	29900 VA
Total Amps:				108 A	108 A	108 A

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Switchboard Totals
Cooling	89700 VA	100.00%	89700 VA	Total Conn. Load: 89700 VA
Default				Total Est. Demand: 89700 VA
Equipment				Total Conn. Current: 108 A
Motor				Total Est. Demand Current: 108 A
Power	0 VA	Not Computed	0 VA	

Notes:

Branch Panel: L-1

Location:
Supply From:
Mounting: Surface
Enclosure: NEMA 3R

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 225 A
MCB Rating: 225 A

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	Rotary Valve 1	15 A	2	559 VA	559 VA				Rotary Valve 2	2
3					559 VA	559 VA	2	15 A		4
5						559 VA	3016...	2	20 A	6
7	Rotary Valve 3	15 A	2	559 VA	0 VA				EUH-1	8
9	CP-1	15 A	1		186 VA	186 VA		2	15 A	10
11	CP-3	15 A	1			746 VA		1		12
13										14
15										16
17										18
19										20
21										22
23										24
25										26
27										28
29										30
31										32
33										34
35										36
37										38
39										40
41										42
Total Load:				1678 VA	1434 VA	4196 VA				
Total Amps:				14 A	12 A	35 A				

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	3016 VA	100.00%	3016 VA	Total Conn. Load: 7297 VA
Motor	4303 VA	100.00%	4303 VA	Total Est. Demand: 7297 VA
Power	0 VA	0.00%	0 VA	Total Conn. Current: 20 A
				Total Est. Demand Current: 20 A

Notes:

22-125

PROJECT:
ROLL-OFFS OF DES MOINES
20 E. 18TH ST, DES MOINES IA 50316

DATE: 02/24/2025
DRAWN BY: Auto
CHKD BY: Checker

REVISED:

ELECTRICAL NOTES
& SCHEDULES

E000

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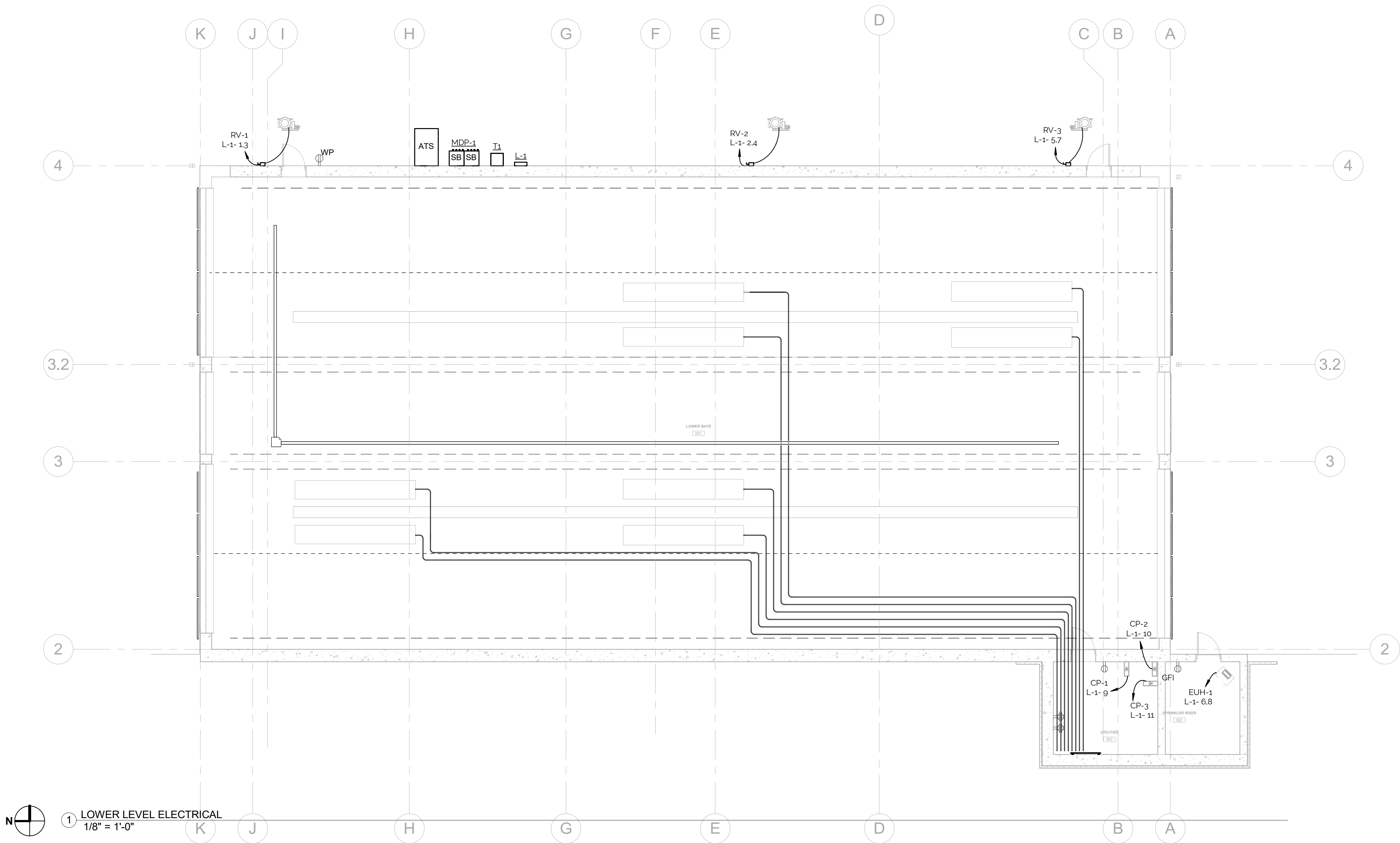
LOWER LEVEL
ELECTRICAL PLAN

E101



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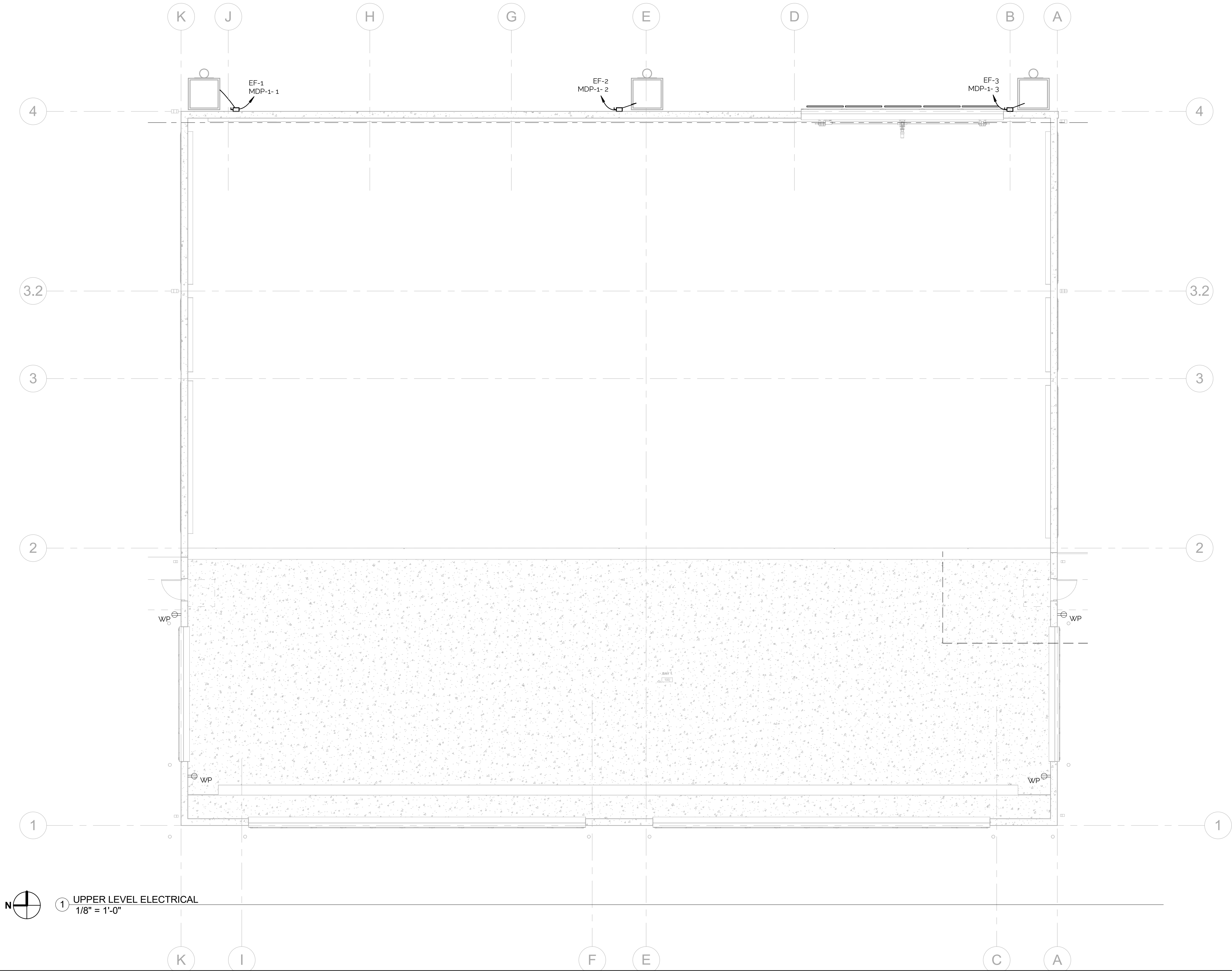
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UPPER LEVEL
ELECTRICAL PLAN

E102



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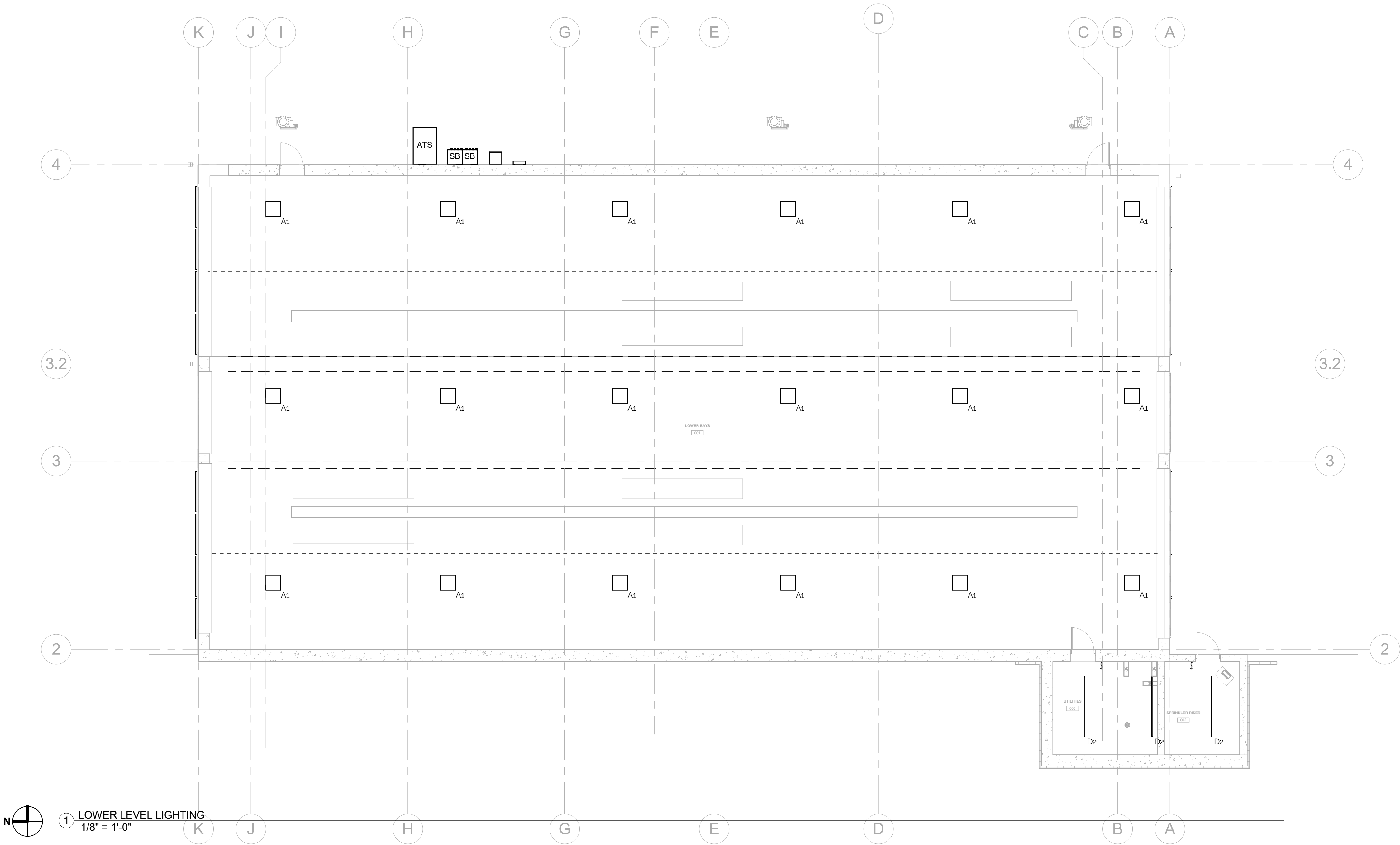
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LOWER LEVEL
LIGHTING PLAN

E201



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UPPER LEVEL
LIGHTING PLAN

E202



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