

SOLAR DECATHLON_CRETE HOUSE



WASHINGTON UNIVERSITY IN ST. LOUIS CONSTRUCTION DOCUMENTATION MAY 19, 2017

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 SOLAR DECATHLON 2017
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MARK	DATE	DESCRIPTION

LOT NUMBER: 834 N. SKINKER BLVD.
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 COVER PAGE

G000

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SHEET INDEX	
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GENERAL NOTES

- ALL CONSTRUCTION IS IN ACCORDANCE WITH THE 2015 INTERNATIONAL RESIDENTIAL CODE, PUBLISHED BY THE INTERNATIONAL CODE COUNCIL WITH 2015 IBC AMENDMENTS (IRC), AND THE 2014 NATIONAL ELECTRIC CODE (NEC), PUBLISHED BY THE NATIONAL FIRE PROTECTION AGENCY (NFPA).
- ADDITIONALLY FOR BUILDING IN ST LOUIS COUNTY, WE ARE FOLLOWING ST LOUIS COUNTY ELECTRICAL CODE (CH. 1102 - 2008 NEC), MECHANICAL CODE (CH. 1108 - 2009 IMC), PLUMBING CODE (CH. 1109 - 2009 UPC), ENERGY CONSERVATION CODE (CH. 1115.13 - 2009 IBC/IMC), AND RESIDENTIAL CODE (CH. 1116 - 2009 IRC).
- ADDITIONALLY FOR BUILDING IN ST LOUIS CITY, WE ARE FOLLOWING THE 2009 INTERNATIONAL BUILDING CODE, THE 2009 INTERNATIONAL RESIDENTIAL CODE, THE 2009 INTERNATIONAL ENERGY CONSERVATION CODE, THE 2009 INTERNATIONAL FIRE CODE, THE 2009 INTERNATIONAL MECHANICAL CODE, THE 2011 NATIONAL ELECTRICAL CODE, AND THE CITY OF ST LOUIS ZONING ORDINANCES, ORDINANCE 59979.



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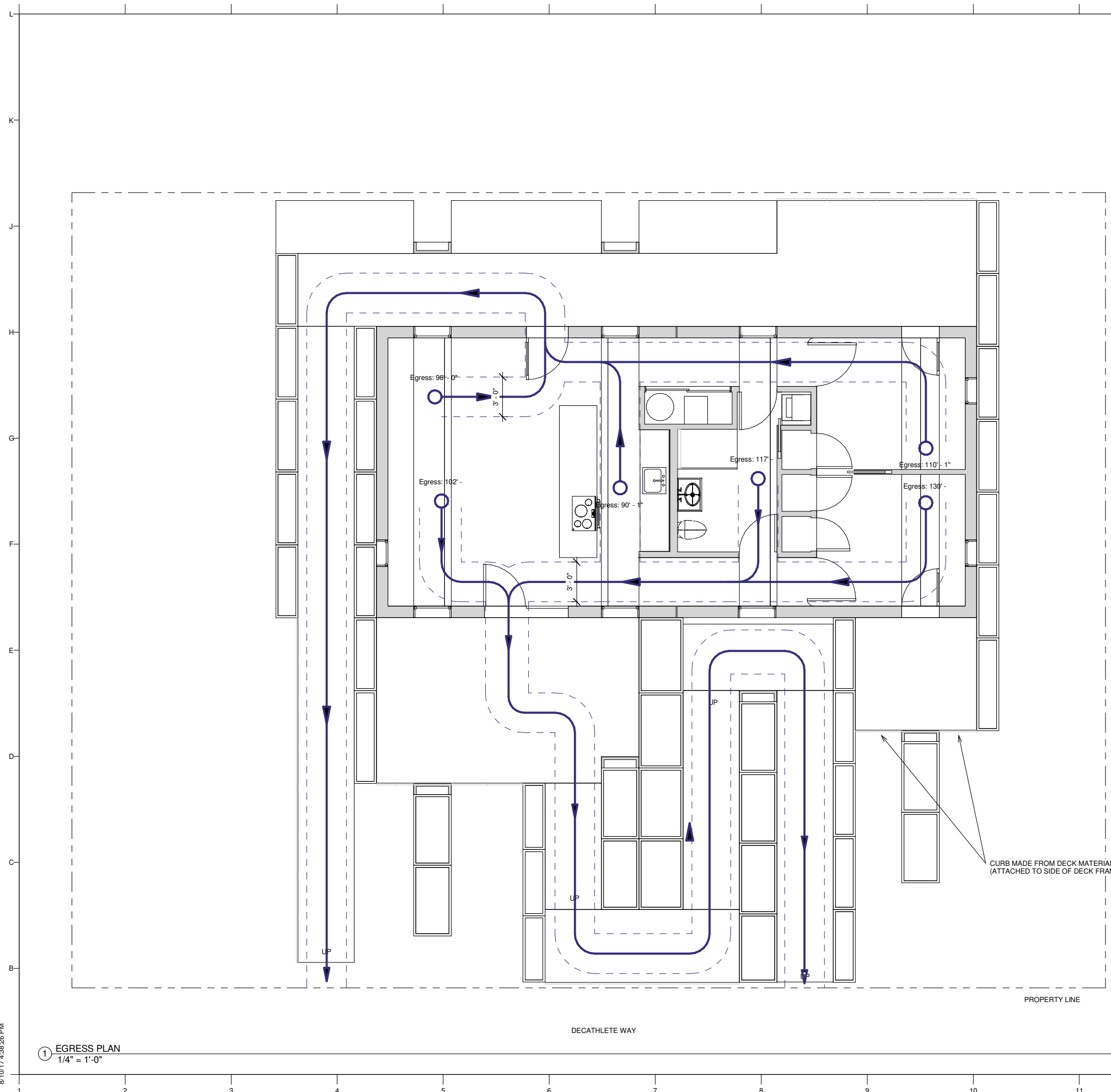


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SHEET TITLE
 SHEET INDEX, GENERAL
 SYMBOLS & NOTES

G001



GENERAL NOTES

1. ALL AREA CALCULATIONS ARE MEASURED IN ACCORDANCE WITH ANSI STANDARDS Z765-2003
2. TOTAL AREA = 995 SF
3. CALCULATION OF SQUARE FOOTAGE DEVELOPED BY USING THE PLANS OF THE HOUSE
4. FOR ALL ROOMS INCLUDED IN THE SQUARE FOOTAGE CALCULATION, THE FLOOR LOCATED UNDER SLOPING CEILINGS MEETS THE REQUIRED CLEARANCE OF AT LEAST 5 FEET, FURTHER, AT LEAST ONE-HALF THE SQUARE FOOTAGE IN THE ROOM AS AT LEAST 7 FEET IN HEIGHT.
5. ALL RAMP SLOPES ARE 1:20 OR LESS



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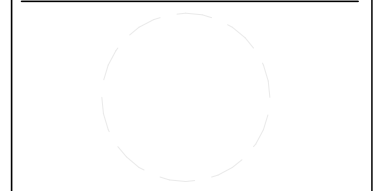
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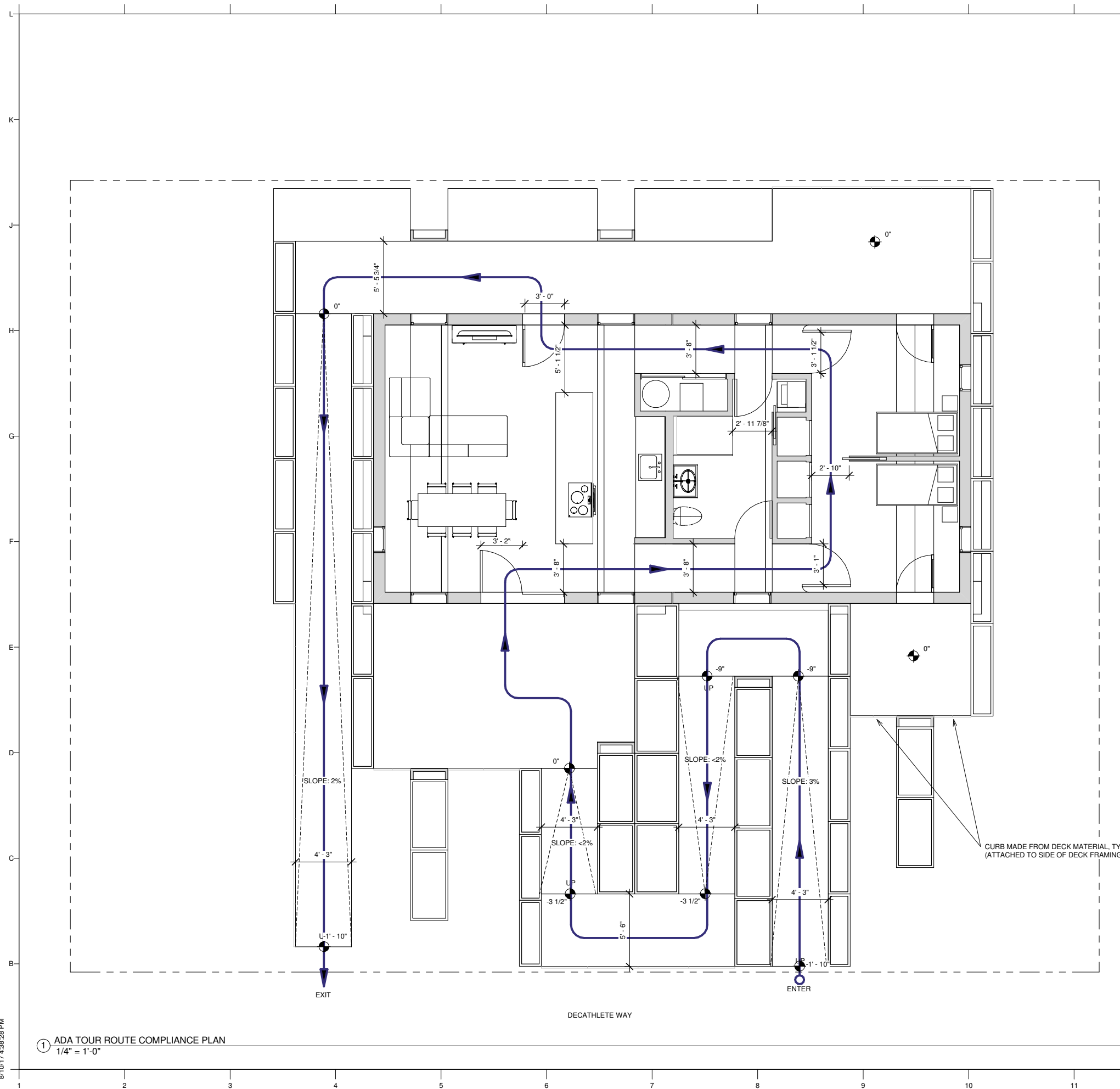
SHEET TITLE
 EGRESS PLAN

G101



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① EGRESS PLAN
 1/4" = 1'-0"



GENERAL NOTES

1. ALL AREA CALCULATIONS ARE MEASURED IN ACCORDANCE WITH ANSI STANDARDS Z765-2003
2. TOTAL AREA = 988 SF
3. CALCULATION OF SQUARE FOOTAGE DEVELOPED BY USING THE PLANS OF THE HOUSE
4. FOR ALL ROOMS INCLUDED IN THE SQUARE FOOTAGE CALCULATION, THE FLOOR LOCATED UNDER SLOPING CEILINGS MEETS THE REQUIRED CLEARANCE OF AT LEAST 5 FEET, FURTHER, AT LEAST ONE-HALF THE SQUARE FOOTAGE IN THE ROOM AS AT LEAST 7 FEET IN HEIGHT.
5. OCCUPANT LOAD: 49 MAX.
6. NUMBER OF EXITS REQUIRED: 1
7. 1 EXIT IS REQUIRED PER TABLE 1015.1 OF THE 2012 INTERNATIONAL BUILDING CODE.
8. NUMBER OF EXITS ACTUAL: 2
9. EACH BEDROOM AND LIVING SPACE EACH HAVE AT LEAST 1 DOOR AND AT LEAST 1 WINDOW THAT MEET EGRESS REQUIREMENTS. MAXIMUM TRAVEL DISTANCE ALLOWED: 200' PER NFPA 101.
10. ACTUAL TRAVEL DISTANCE: 130'
11. MINIMUM EGRESS WIDTH ALLOWED: 9.8"
12. MINIMUM EGRESS WIDTH ACTUAL: 32"
13. SPRINKLER SYSTEM COMPLIANT WITH 2015 IRC R313/NFPA 13D.
14. THE DESIGNATED TOUR ROUTE IS COMPLIANT WITH THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN. THE BATHROOM AREA, WHICH IS NOT PART OF THE DESIGNATED TOUR ROUTE, IS NOT COMPLIANT WITH ALL ADA REQUIREMENTS.



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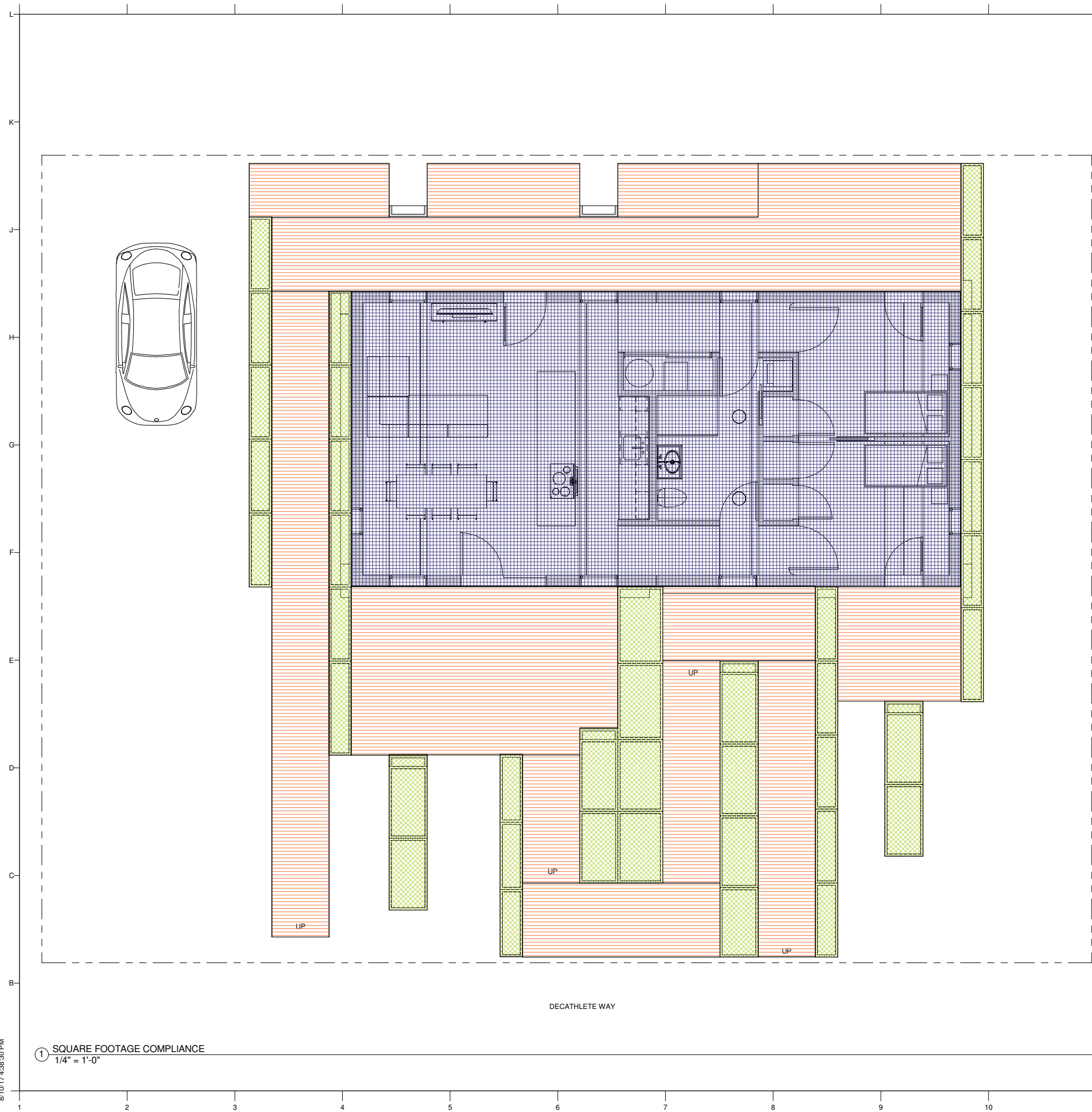
SHEET TITLE

ADA TOUR ROUTE COMPLIANCE PLAN

G102

① ADA TOUR ROUTE COMPLIANCE PLAN
 1/4" = 1'-0"

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- DECK - 1,345 GSF
 - PLANTS - 472 GSF
 - HOME - 995 GSF
- TOTAL - 2,812 GSF**

GENERAL NOTES

1. ALL AREA CALCULATIONS ARE MEASURED IN ACCORDANCE WITH ANSI STANDARDS Z765-2003
2. TOTAL AREA = 995 SF
3. CALCULATION OF SQUARE FOOTAGE DEVELOPED BY USING THE PLANS OF THE HOUSE
4. THE FINISHED SQUARE FOOTAGE OF THE HOUSE IS REPORTED TO THE NEAREST WHOLE SQUARE FOOT FOR ABOVE-GRADE FINISHED SQUARE FOOTAGE AND FOR BELOW-GRADE FINISHED SQUARE FOOTAGE
5. FOR ALL ROOMS INCLUDED IN THE SQUARE FOOTAGE CALCULATION, THE FLOOR LOCATED UNDER SLOPING CEILINGS MEETS THE REQUIRED CLEARANCE OF AT LEAST 5 FEET, FURTHER, AT LEAST ONE-HALF THE SQUARE FOOTAGE IN THE ROOM AS AT LEAST 7 FEET IN HEIGHT.



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SHEET TITLE

SQUARE FOOTAGE COMPLIANCE

G103

GENERAL NOTES



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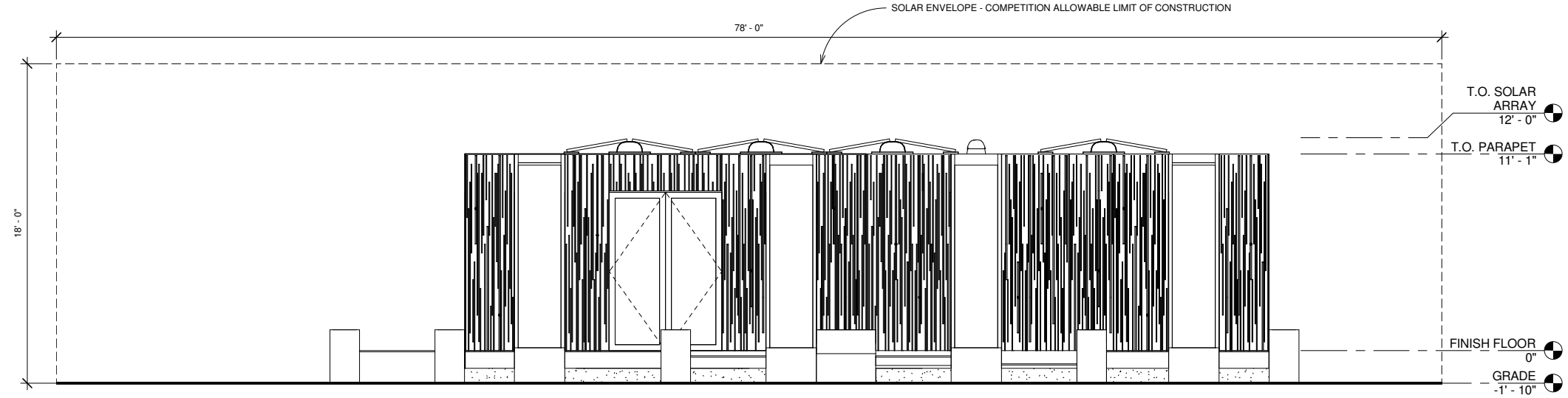
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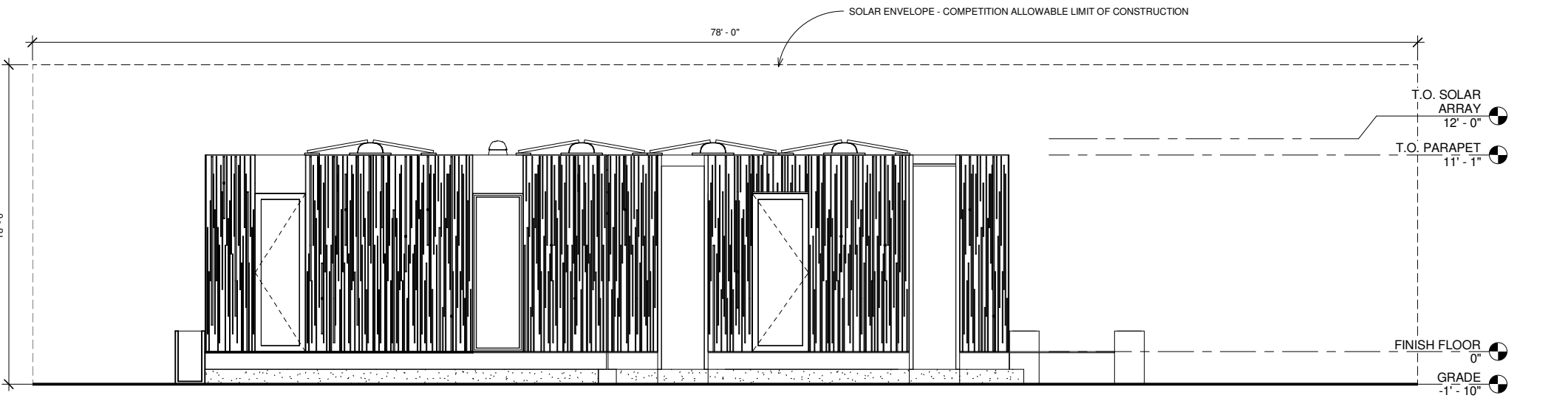
SHEET TITLE

SOLAR ENVELOPE
 COMPLIANCE
 ELEVATIONS

G601



② SOLAR COMPLIANCE SOUTH
 ELEVATIONS
 1/4" = 1'-0"



① SOLAR COMPLIANCE NORTH
 ELEVATION
 1/4" = 1'-0"

GENERAL NOTES



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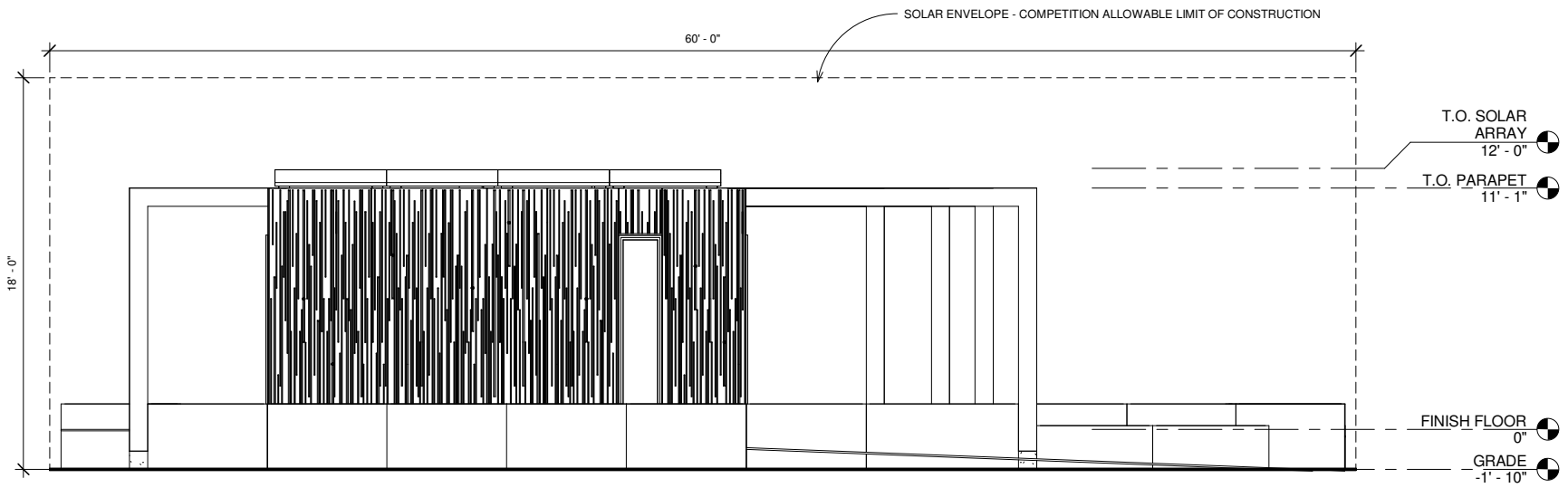


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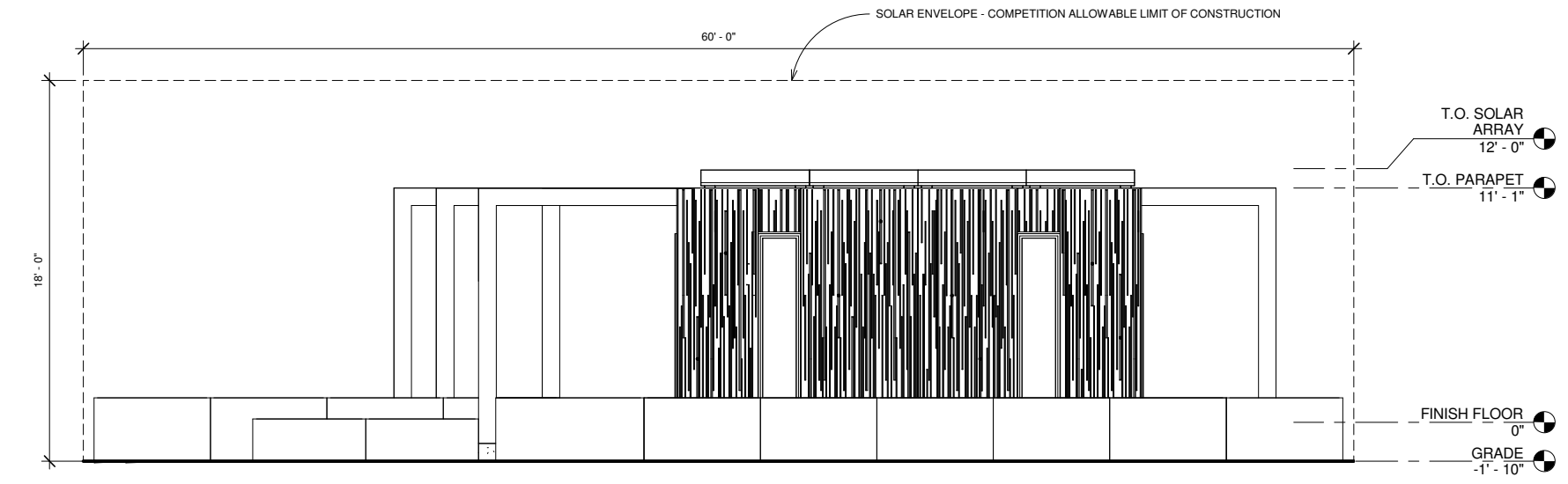
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SHEET TITLE
 SOLAR ENVELOPE COMPLIANCE ELEVATIONS

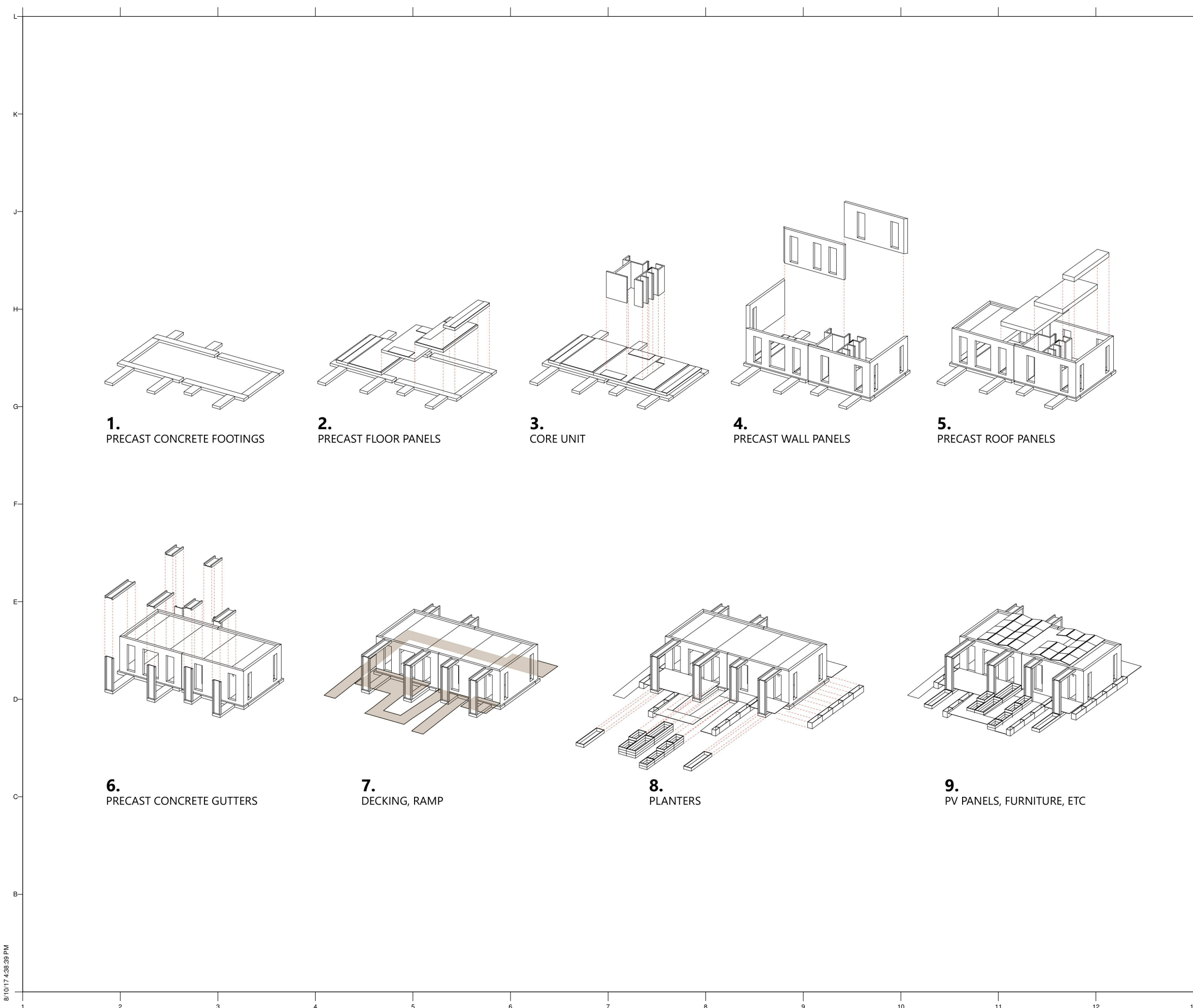
G602



② SOLAR COMPLIANCE WEST ELEVATION
 1/4" = 1'-0"



① SOLAR COMPLIANCE EAST ELEVATION
 1/4" = 1'-0"



1.
PRECAST CONCRETE FOOTINGS

2.
PRECAST FLOOR PANELS

3.
CORE UNIT

4.
PRECAST WALL PANELS

5.
PRECAST ROOF PANELS

6.
PRECAST CONCRETE GUTTERS

7.
DECKING, RAMP

8.
PLANTERS

9.
PV PANELS, FURNITURE, ETC

GENERAL NOTES



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CONSTRUCTION SEQUENCE

G801

ALL RENDERINGS ARE FOR REPRESENTATION PURPOSES ONLY. ALL FINISHES, FURNISHINGS, AND DESIGN ELEMENTS ARE SUBJECT TO CHANGE DURING THE CONSTRUCTION PROCESS.



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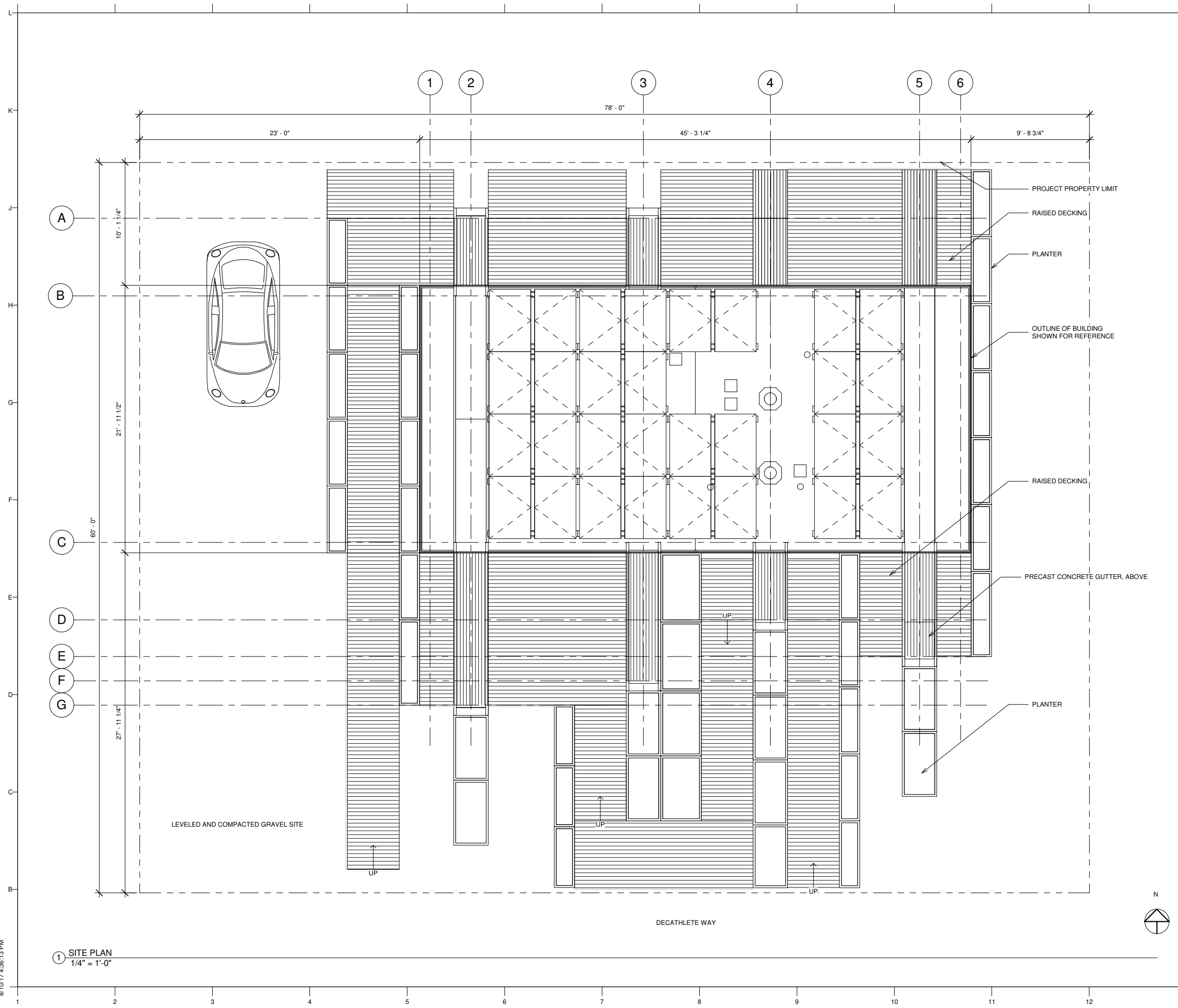


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 GENERAL PROJECT RENDERINGS

G901



GENERAL NOTES

1. FIELD VERIFY ALL EXISTING EXTERIOR AND SITE CONDITIONS PRIOR TO CONSTRUCTION.
2. REFER TO SHEET A121 "DECK PLAN" FOR LOCATION OF DECKING MODULES
3. REFER TO SHEET L101 "LANDSCAPE AND PLANTING PLAN" FOR PLANTER INFORMATION
4. VEHICLE SHOWN FOR REPRESENTATION ONLY.



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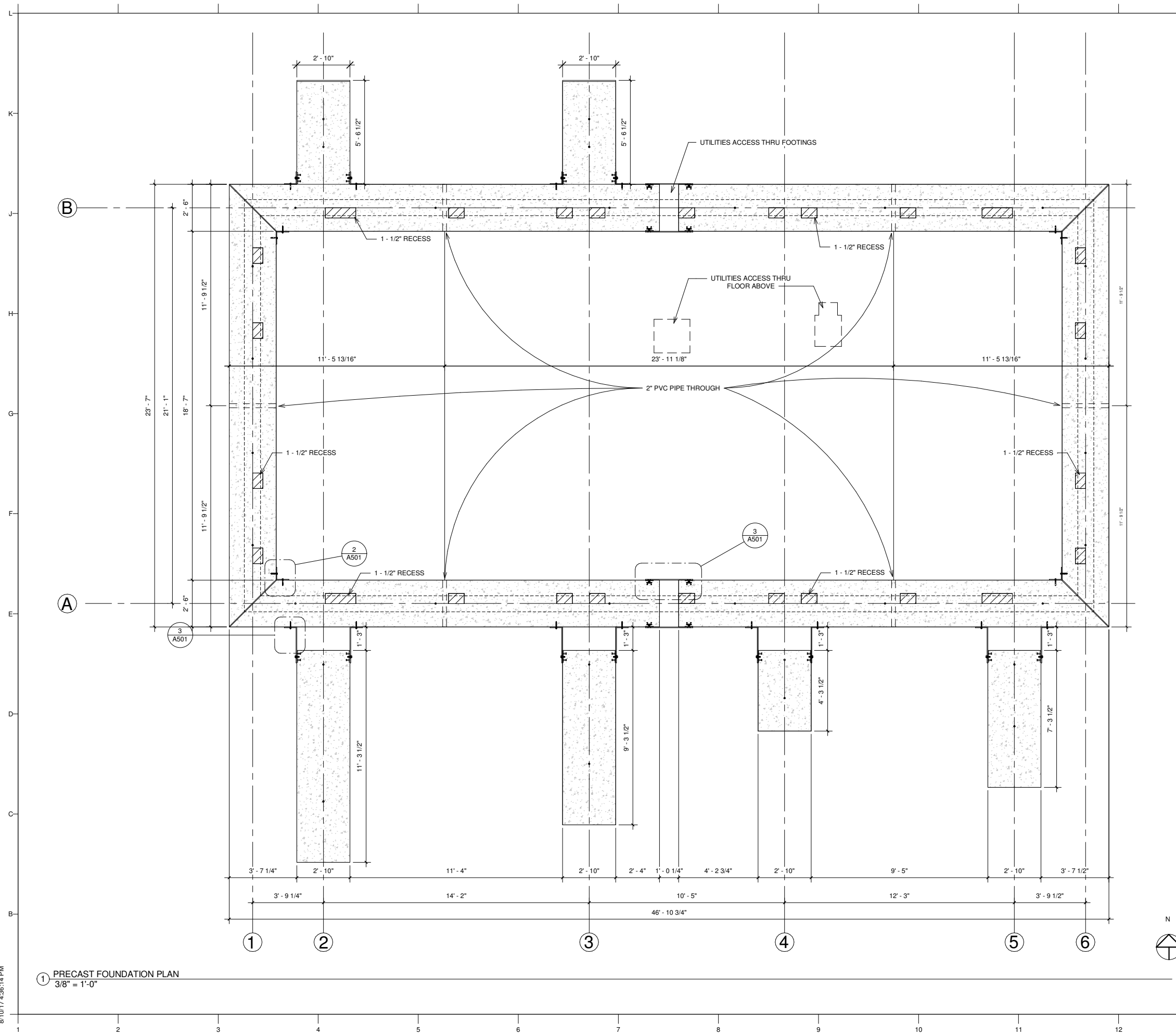


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SHEET TITLE
 SITE PLAN

A101



GENERAL NOTES

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY
2. FINAL SIZES OF PRECAST CONCRETE FOOTINGS ARE TO BE COORDINATED BY MANUFACTURER'S ENGINEERS AND DESIGN TEAM
3. ALL CONNECTIONS AND LOCATIONS ARE TO BE DETERMINED BY STRUCTURAL ENGINEER AND PRECAST CONCRETE MANUFACTURER
4. FOOTINGS DIMENSIONED FOR ALLOWABLE SOIL PRESSURE AT SITE @ 2500 PSF. SITE CONDITIONS WILL BE MODIFIED SO THAT 2500 PSF BEARING CAPACITY IS ENSURED.
5. SITE WILL BE LEVELED AND COMPACTED USING 3/4" MINUS LIMESTONE GRAVEL OR AS SPECIFIED BY THE GEOTECHNICAL ENGINEER.
6. REFER TO A701-A704 FOR ADDITIONAL INFORMATION



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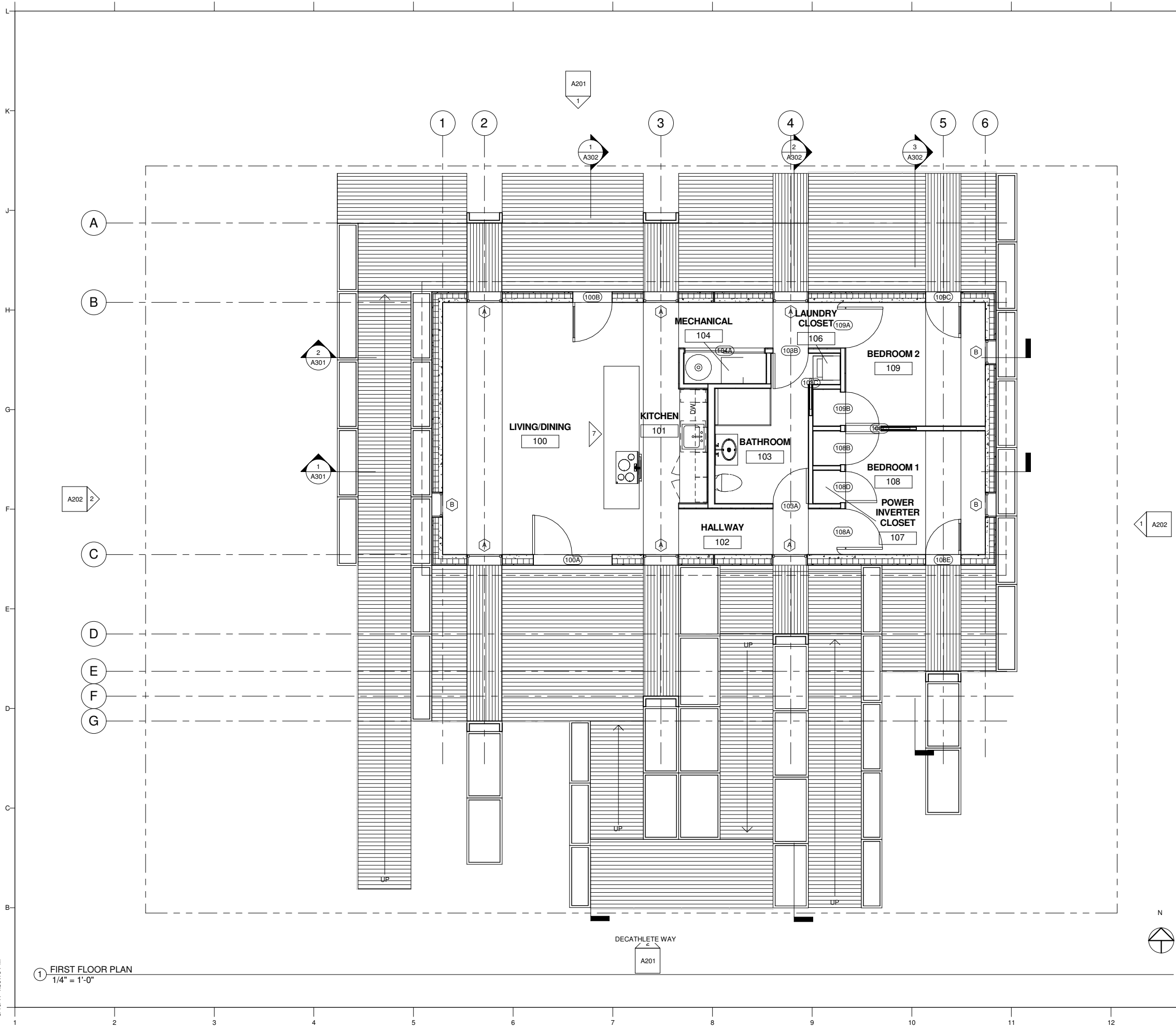
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SHEET TITLE
 FOUNDATION PLAN

A111

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① PRECAST FOUNDATION PLAN
 3/8" = 1'-0"



GENERAL NOTES

1. REFER TO SHEET A113 FOR PLAN DIMENSIONS
2. REFER TO SHEET A121 FOR DECK PLAN
3. REFER TO SHEET A511 FOR INTERIOR AND EXTERIOR FLOOR FINISHES



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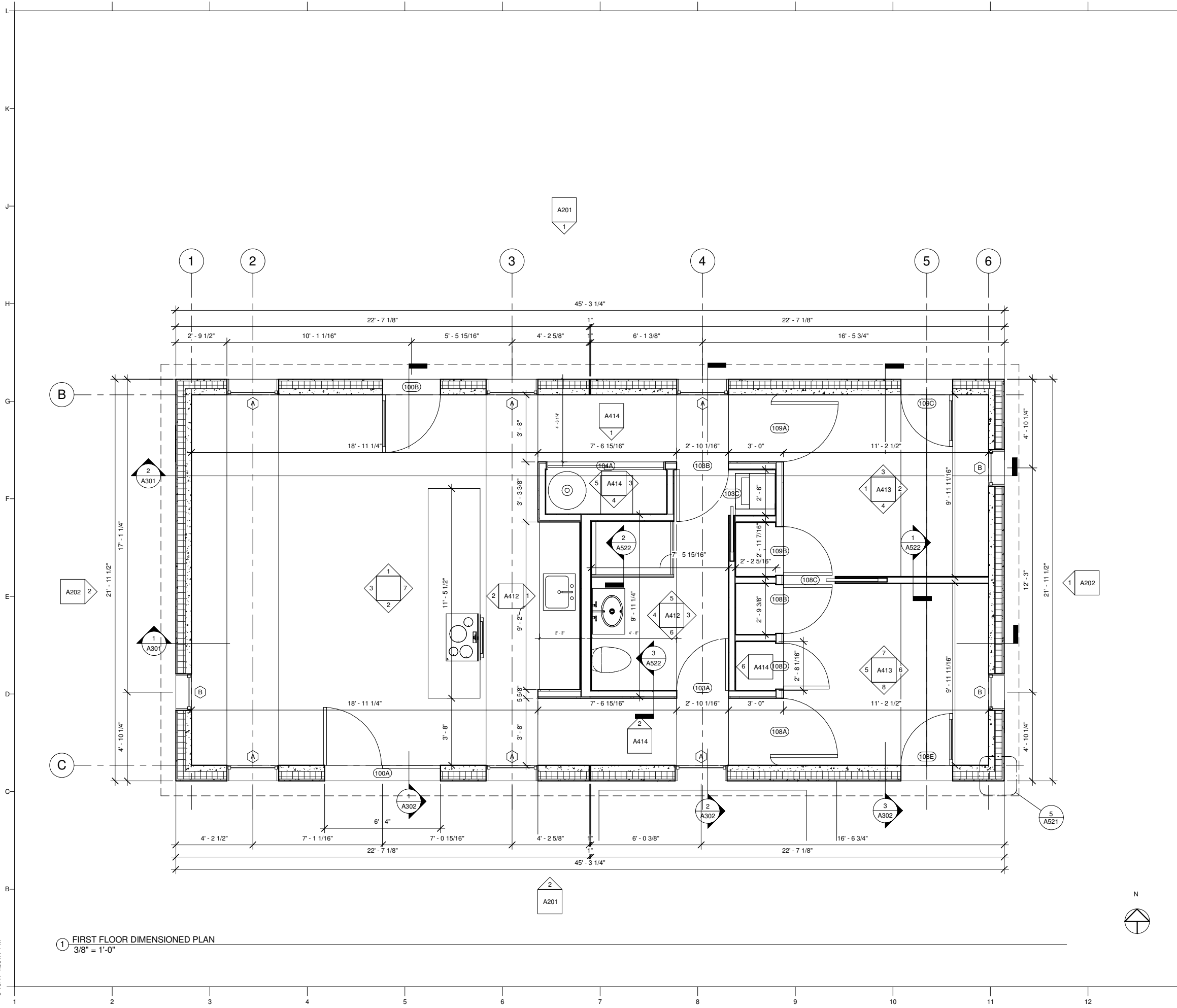


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SHEET TITLE
 FIRST FLOOR PLAN

A112



GENERAL NOTES

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY.
2. REFER TO SHEET A811 FOR CORE DIMENSIONS.



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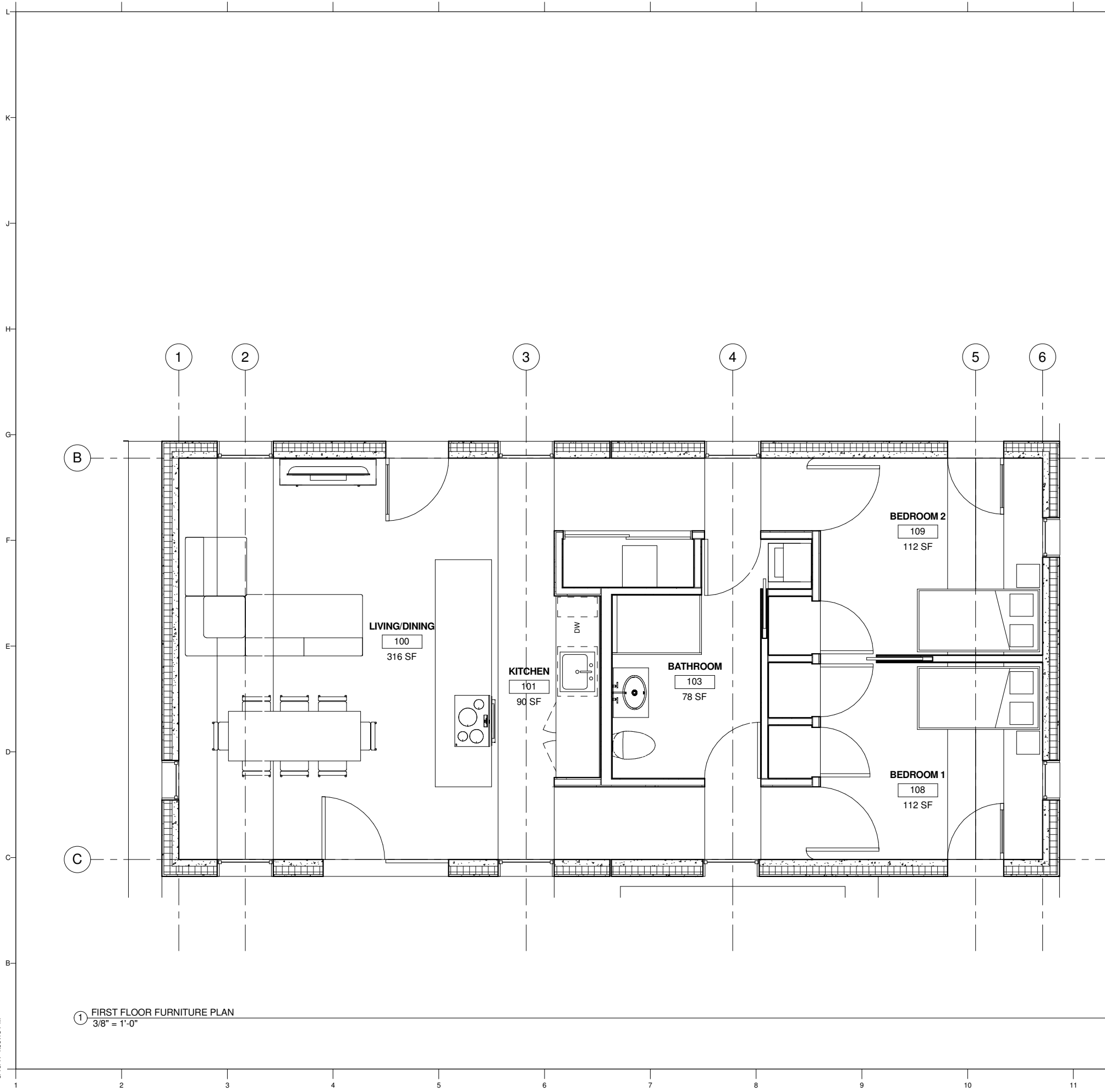
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**FIRST FLOOR
 DIMENSIONED PLAN**

A113

1 FIRST FLOOR DIMENSIONED PLAN
 3/8" = 1'-0"

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GENERAL NOTES

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY.



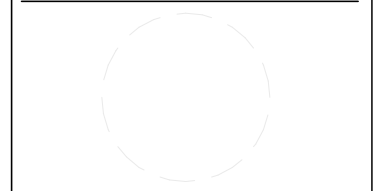
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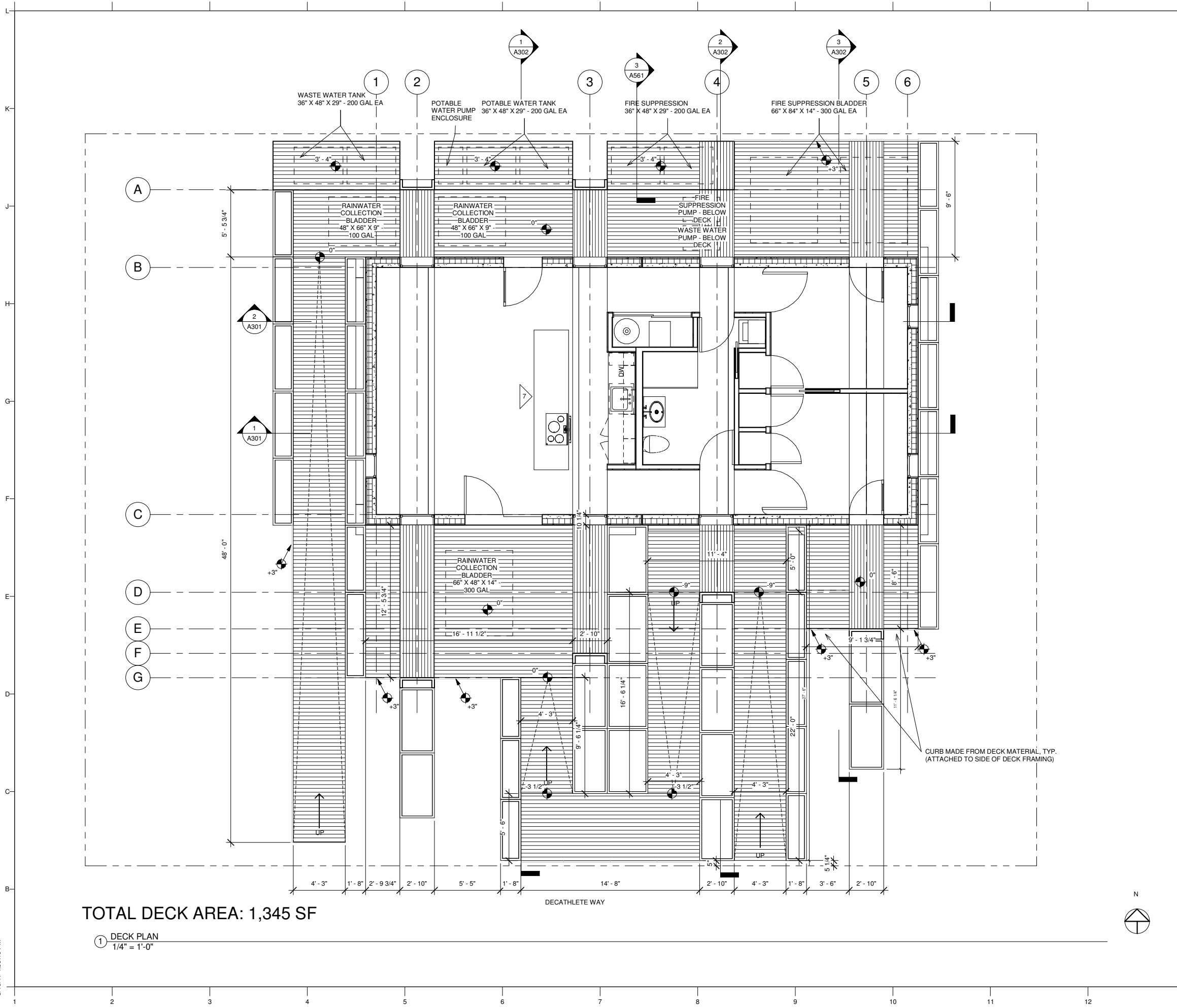
SHEET TITLE

FIRST FLOOR FURNITURE PLAN

A114

① FIRST FLOOR FURNITURE PLAN
 3/8" = 1'-0"

8/10/17 4:36:18 PM



GENERAL NOTES

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY.
2. REFER TO SHEET A122 "DECK FOOTING PLAN" FOR DETAILS ON LOCATION OF DECKING SUPPORT
3. REFER TO SHEET A123 "DECK MODULE LAYOUT" FOR INFORMATION ON DECKING ELEMENTS
4. REFER TO SHEET A124 "DECK FRAMING PLAN" FOR LOCATION OF DECK STRUCTURE



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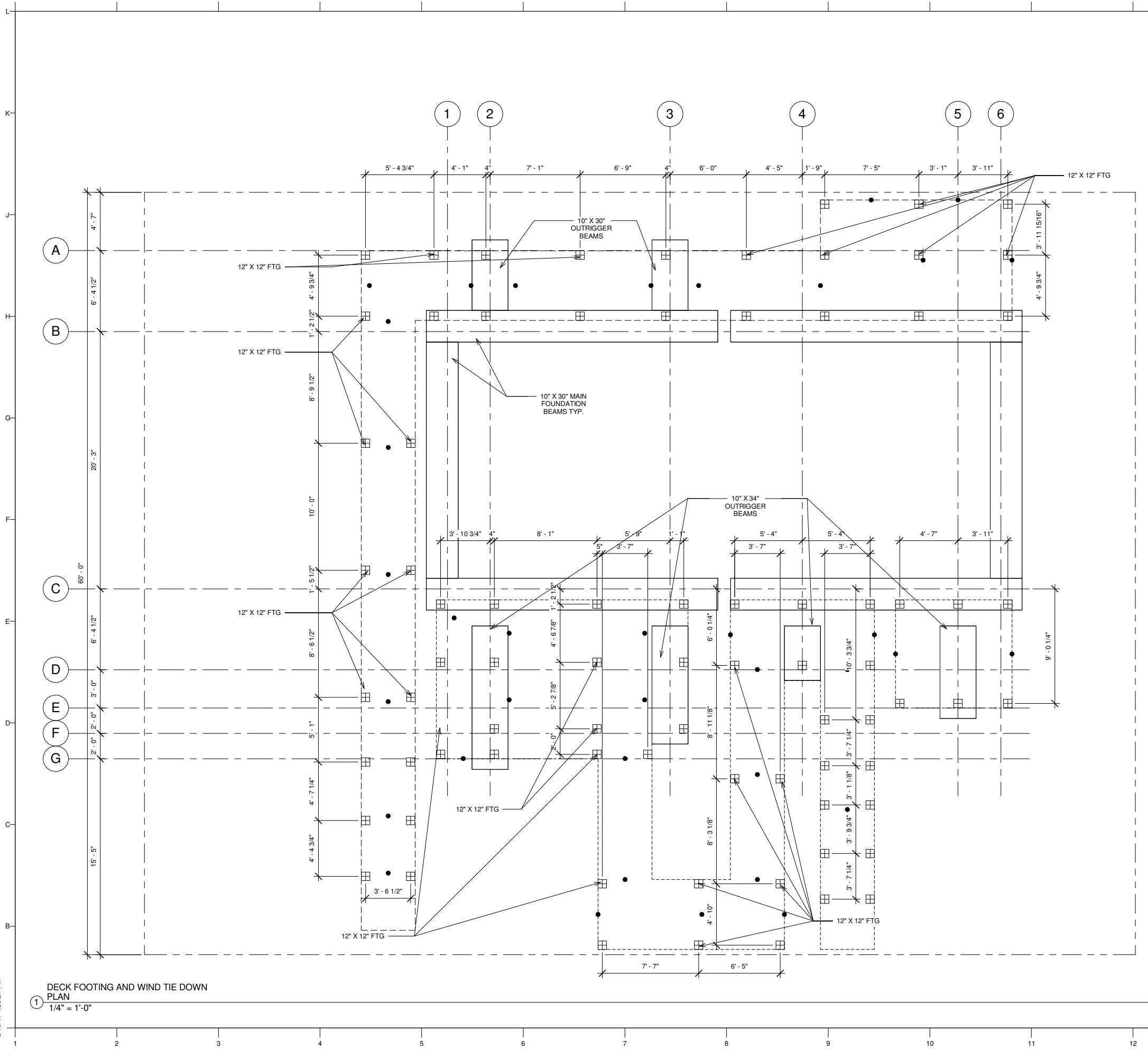
SHEET TITLE
 DECK PLAN

A121

TOTAL DECK AREA: 1,345 SF

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

⬆ DENOTES ELEVATION AT TOP OF FINISH AT DECK PLANKS. PLANKS TO BE 1" THICK TO TOP OF DECK FRAMING



GENERAL NOTES

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY.
2. ALL FOOTINGS TO BE 8" X 8" CDX UNLESS NOTED OTHERWISE
3. ALL WIND TIE DOWN LOCATIONS SHALL BE CAPABLE OF 1000# UPLIFT FOR A TRIBUTARY OF 50 SQUARE FEET
4. WIND TIE DOWN ANCHORAGE SHALL BE TESTED AT SITE TO DETERMINE TYPE & DEPTH. SEE DTEAIL ON A561



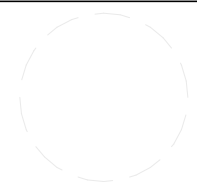
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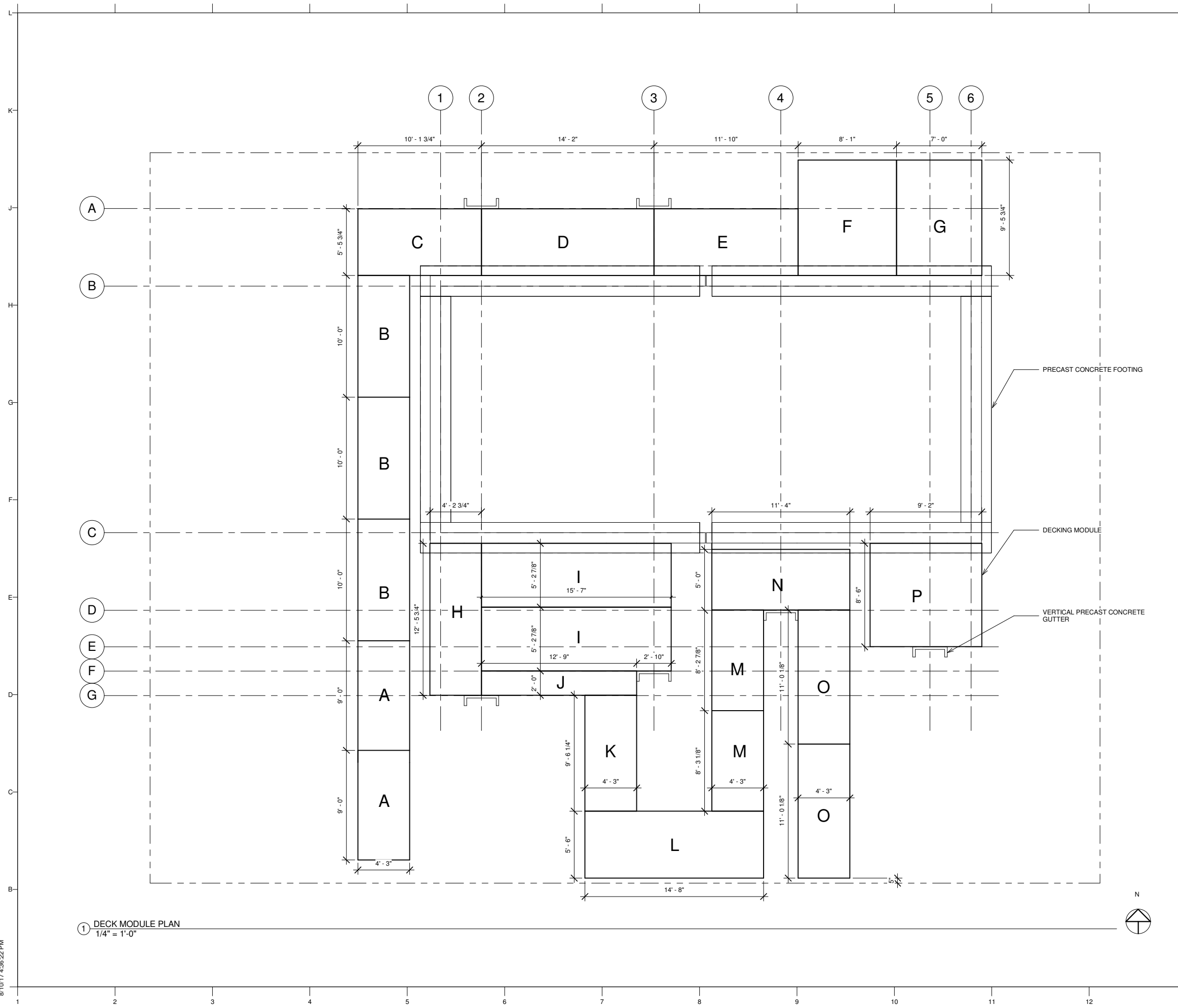
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SHEET TITLE
 DECK FOOTING PLAN

A122

- DENOTES FOOTING LOCATION. SEE DETAIL ON A561 FOR BEARING ON GROUND OR CONCRETE FOUNDATION
- DENOTES WIND TIE DOWN ANCHORAGE LOCATIONS. DETERMINE EXACT LOCATIONS IN THE FIELD

DECK FOOTING AND WIND TIE DOWN PLAN
 1/4" = 1'-0"



GENERAL NOTES

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY
2. FOR DECK MODULE ELEVATION SEE DECK PLAN - A121
3. DECK PLANK THICKNESS = 1" (EXACT)

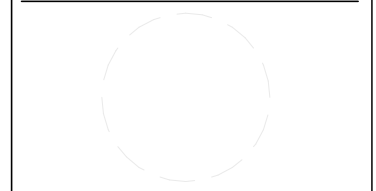


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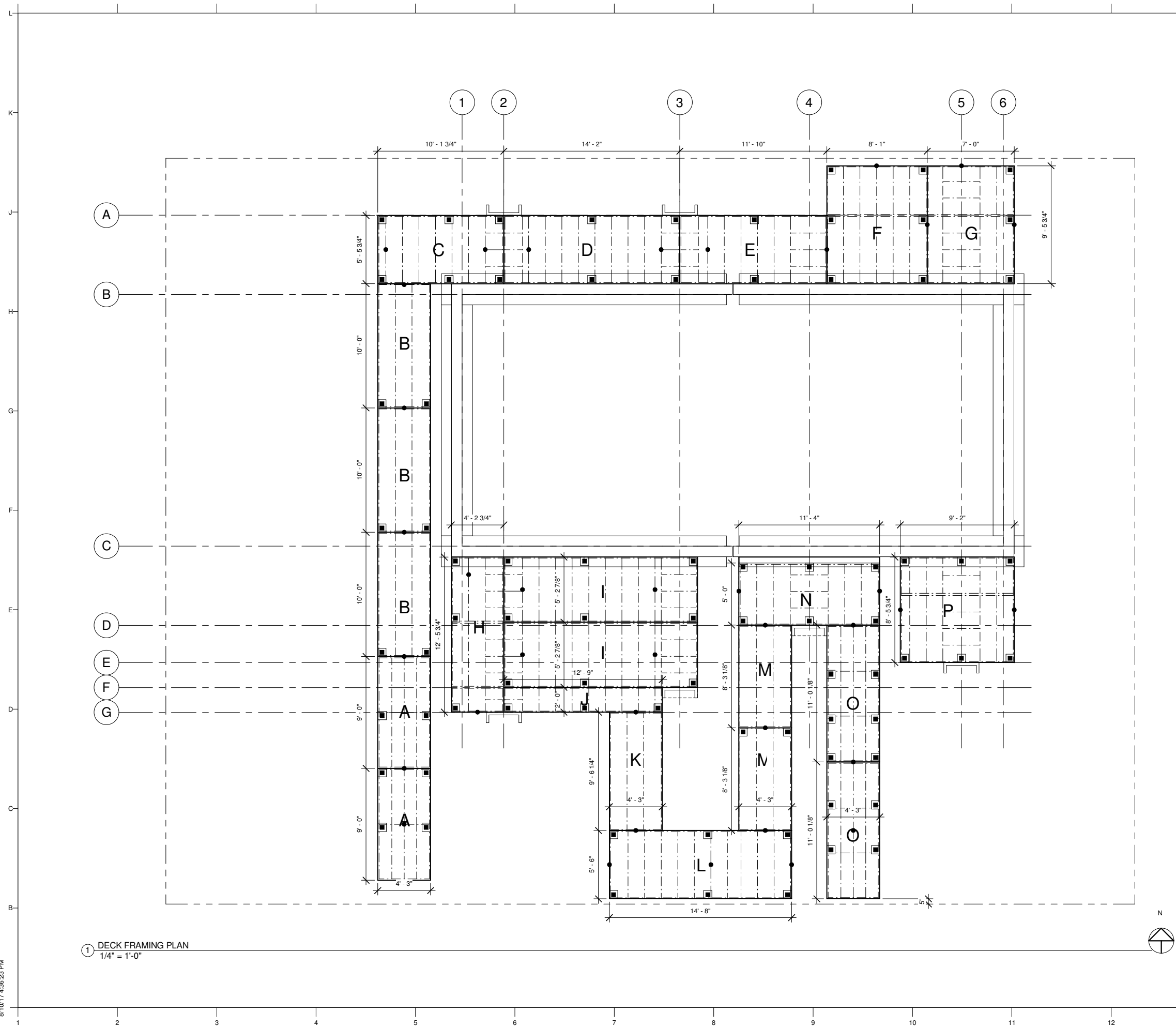
SHEET TITLE

DECK MODULE LAYOUT PLAN

A123

① DECK MODULE PLAN
 1/4" = 1'-0"

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GENERAL NOTES

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY.
2. FOR DECK MODULE ELEVATION SEE DECK PLAN - A121
3. DECK PLANK THICKNESS = 1" (EXACT)



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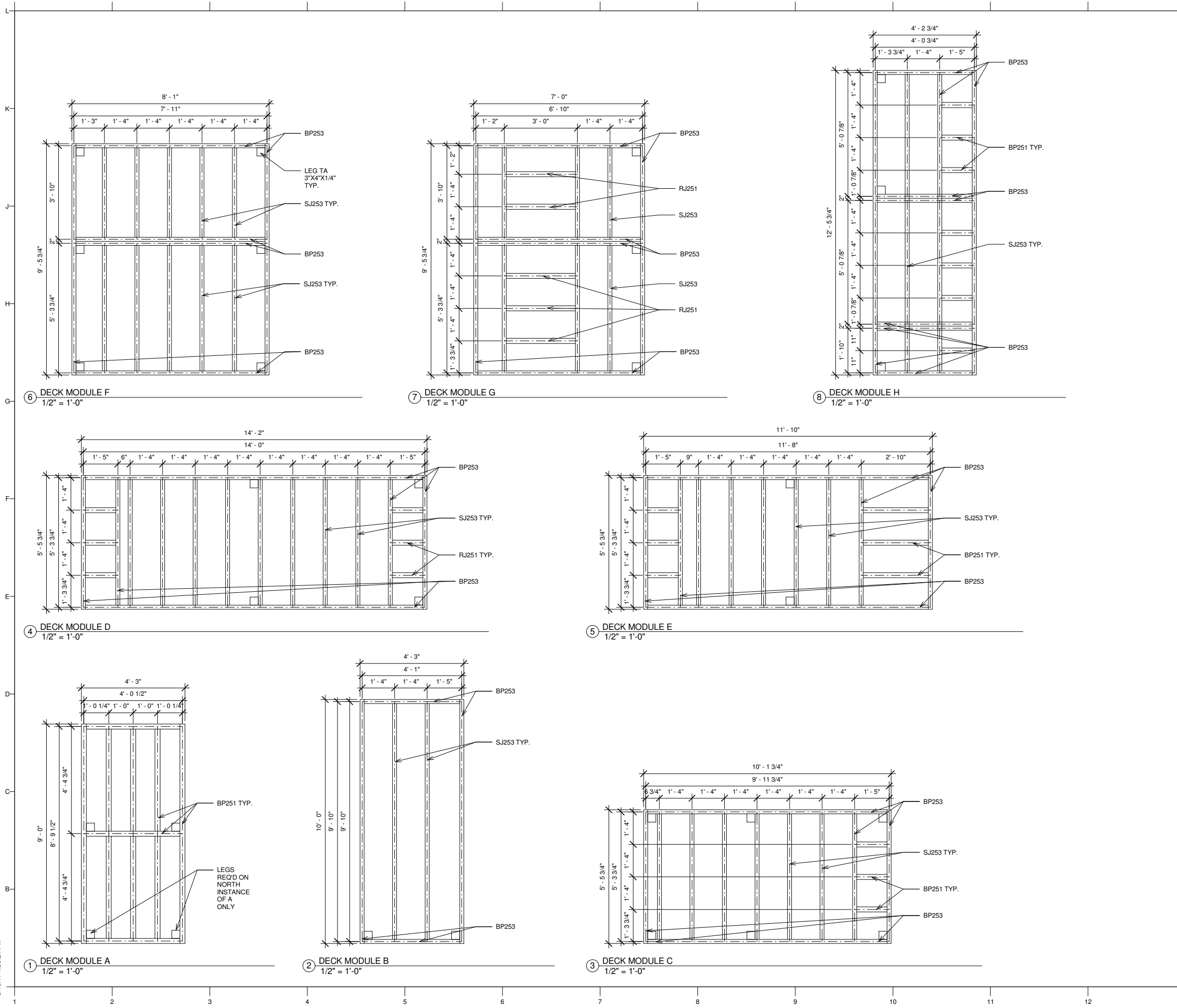
SHEET TITLE
 DECK FRAMING PLAN

A124

- DENOTES LOCATION OF DECK SUPPORT LEGS AND PLYWOOD FOOTING BELOW. FOOTINGS BEAR ON GROUND, CONCRETE FOUNDATION OR OUTRIGGER CONCRETE. SEE DETAIL ON A561
- DENOTES LOCATION OF WIND TIEDOWNS. SEE DETAIL ON A561



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



GENERAL NOTES

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY.
2. FOR DECK MODULE ELEVATION SEE DECK PLAN - A121
3. DECK PLANK THICKNESS = 1" (EXACT)



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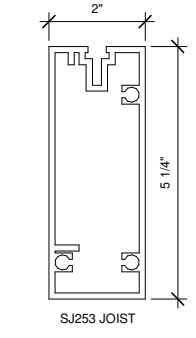
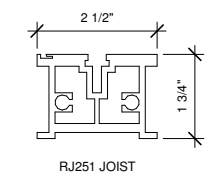
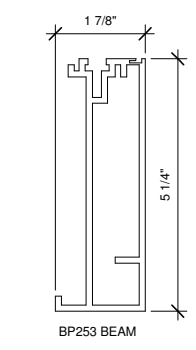
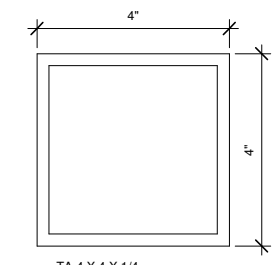


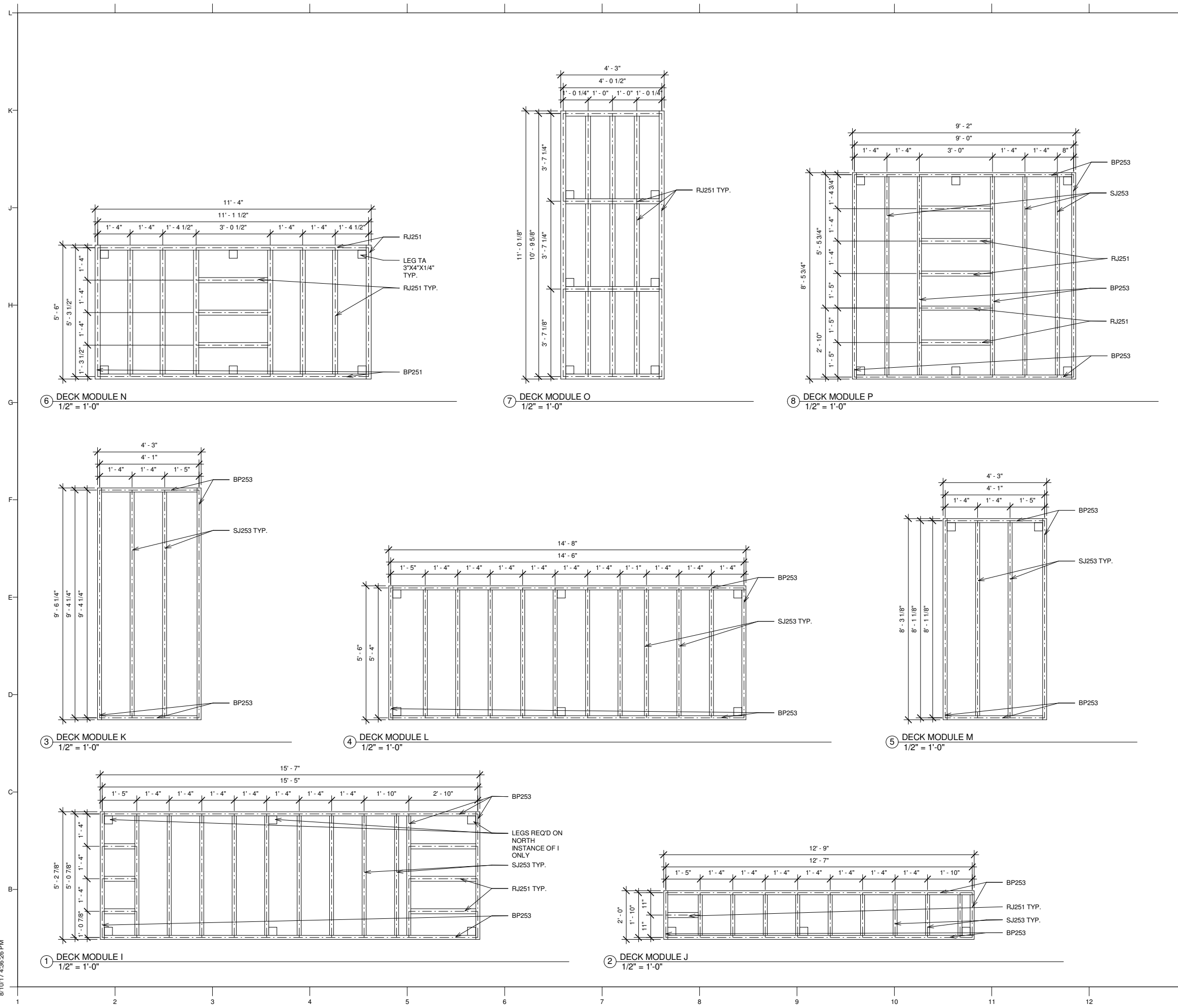
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SHEET TITLE
 DECK MODULE FRAMING PLANS

A125





GENERAL NOTES

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY.
2. FOR DECK MODULE ELEVATION SEE DECK PLAN - A121
3. DECK PLANK THICKNESS = 1" (EXACT)



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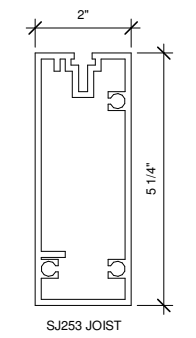
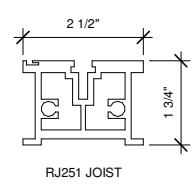
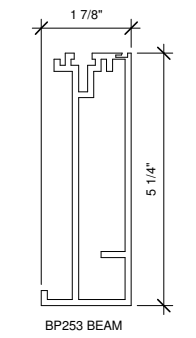
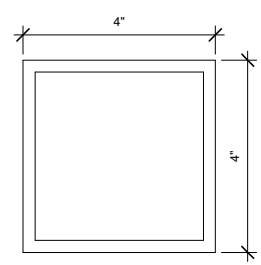
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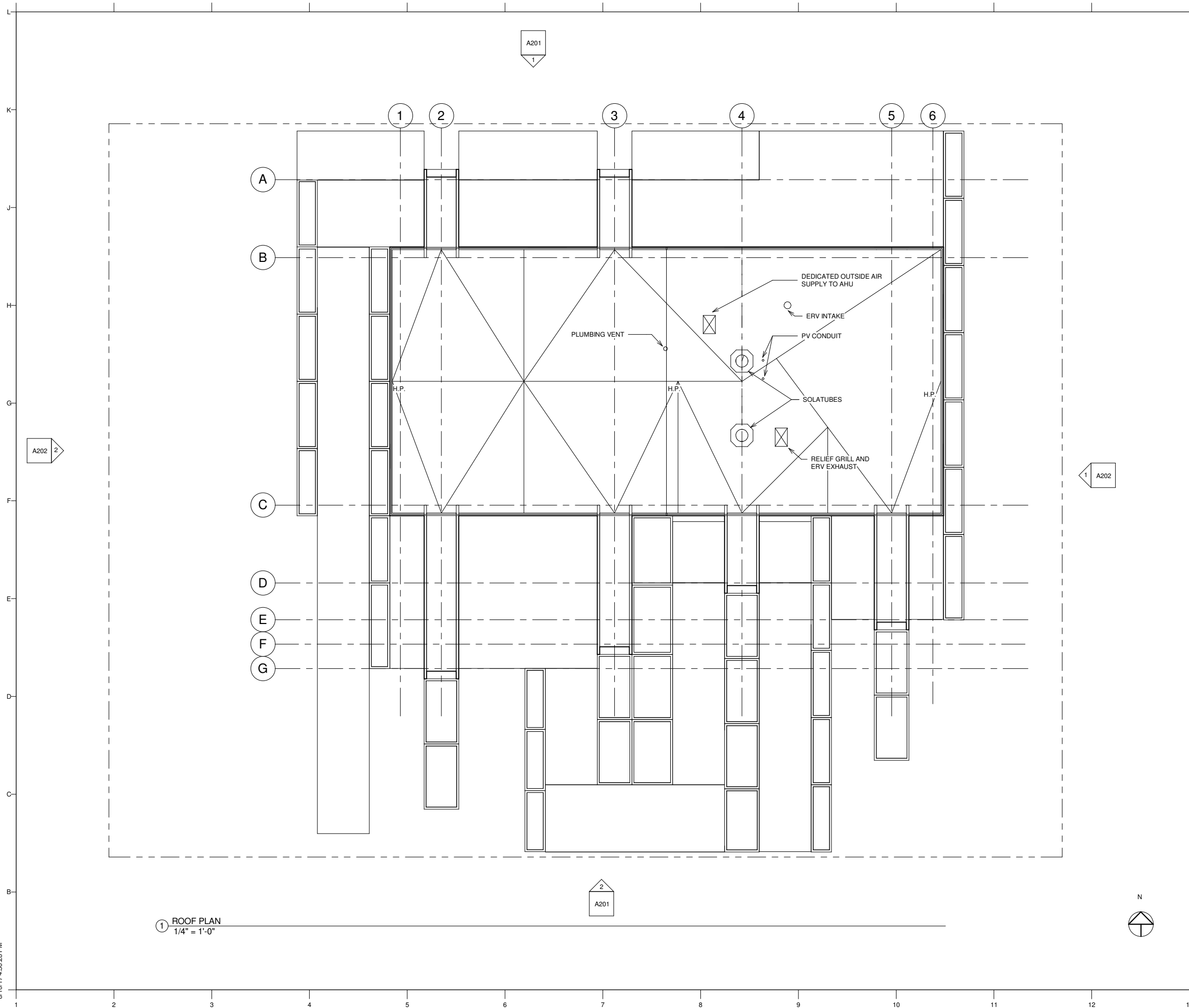
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SHEET TITLE

DECK MODULE FRAMING PLANS

A126





GENERAL NOTES

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY.
2. SEE A132 "PV ROOF PLAN" FOR LAYOUT OF PV PANELS



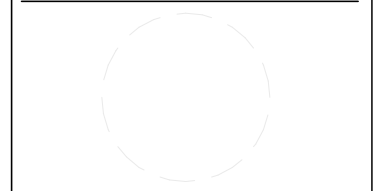
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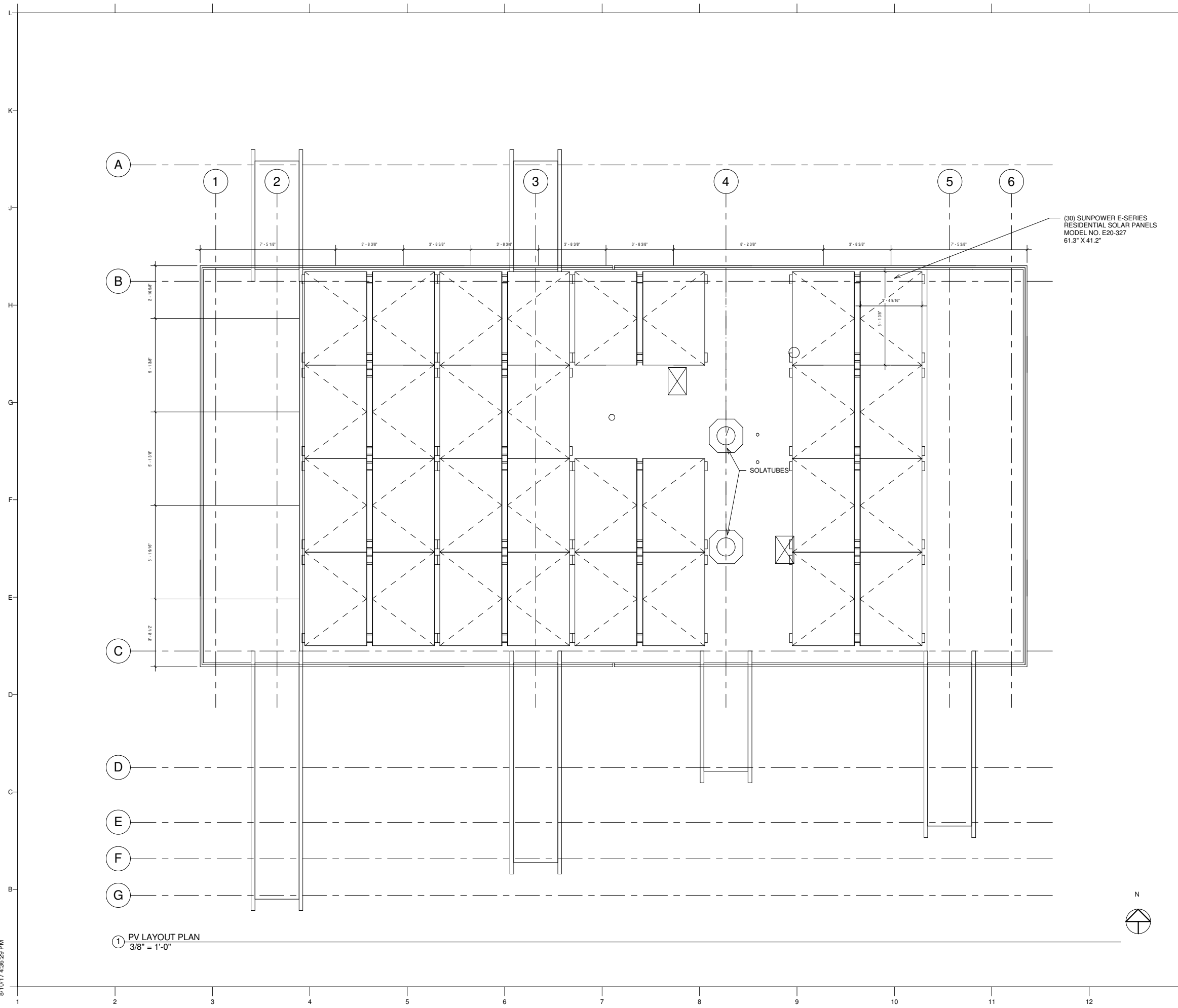
SHEET TITLE

ROOF PLAN

A131

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

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GENERAL NOTES

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY.
- 2.
3. SEE A131 "ROOF PLAN" FOR GENERAL LOCATIONS OF ROOF PENETRATIONS
3. SEE E114 "PV ARRAY WIRING PLAN" FOR LAYOUT OF PANEL WIRING
4. REFER TO SHEET A??? FOR PANEL MOUNTING DETAIL



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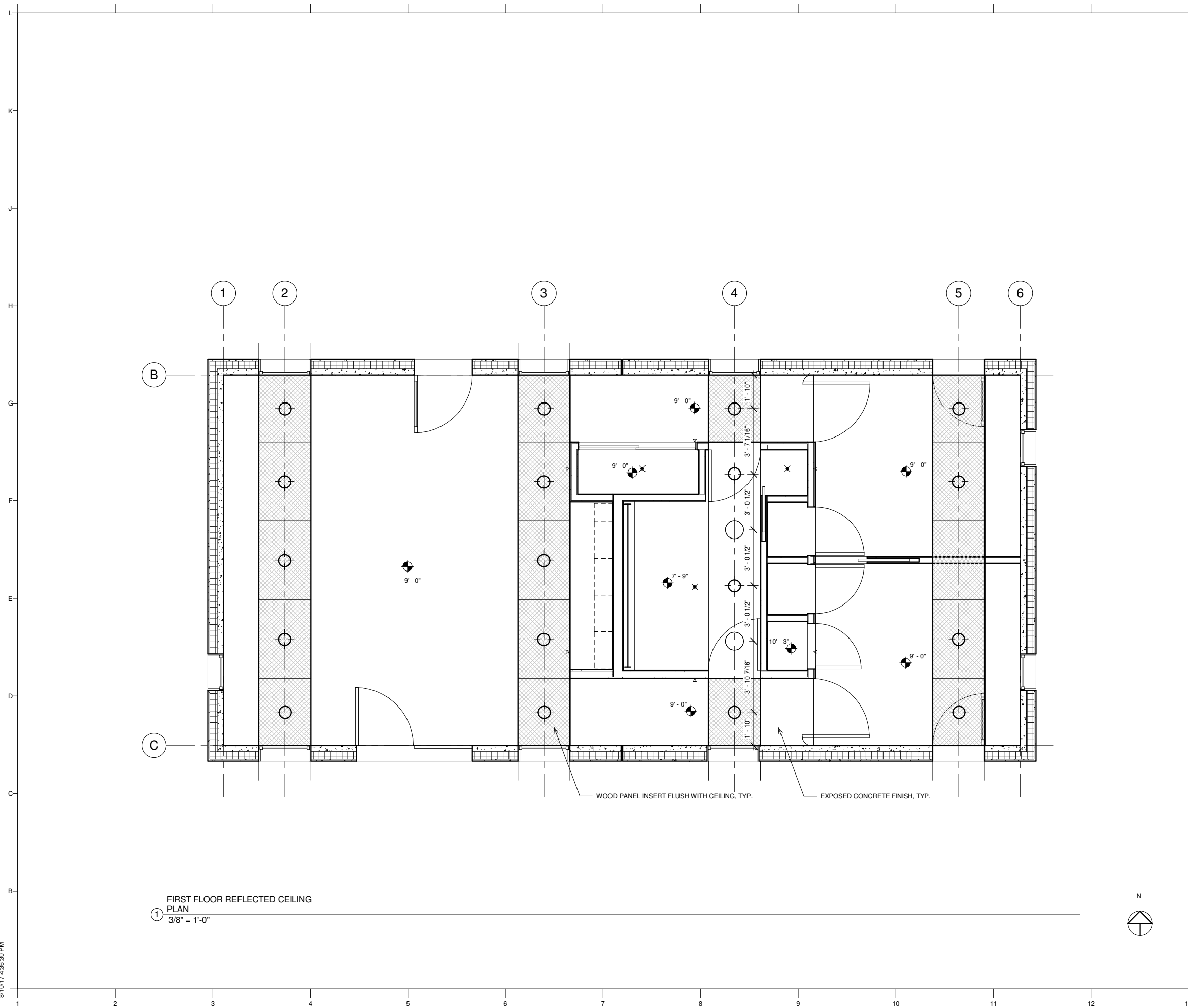


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SHEET TITLE
 PV ROOF PLAN

A132



FIRST FLOOR REFLECTED CEILING PLAN
 ① 3/8" = 1'-0"

GENERAL NOTES

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY.
2. FINAL LOCATION OF LIGHT FIXTURES TO BE VERIFIED IN FIELD



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SHEET TITLE
FIRST FLOOR REFLECTED CEILING PLAN

A141

GENERAL NOTES



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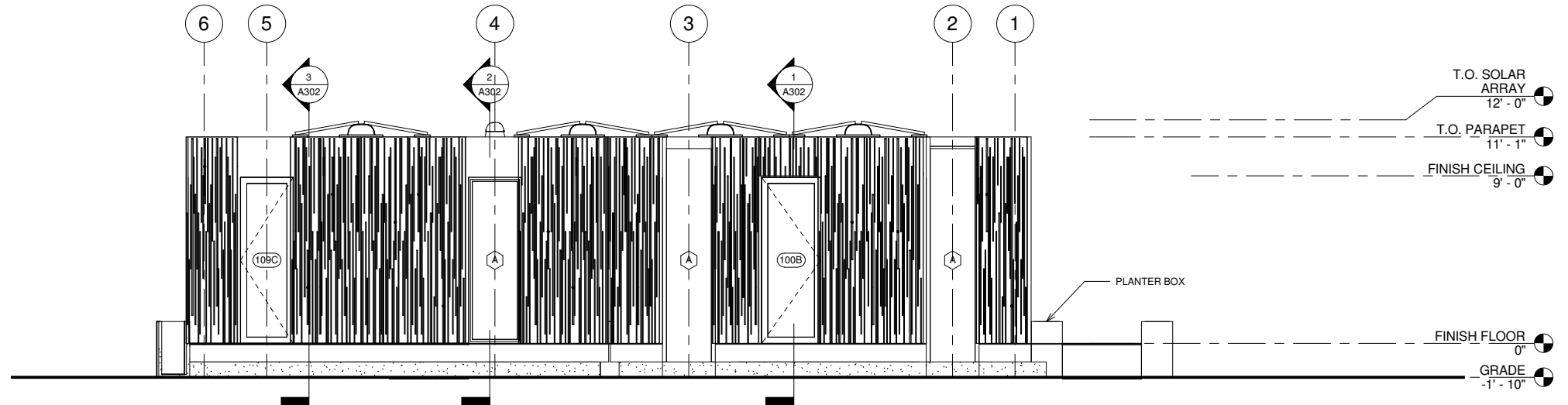


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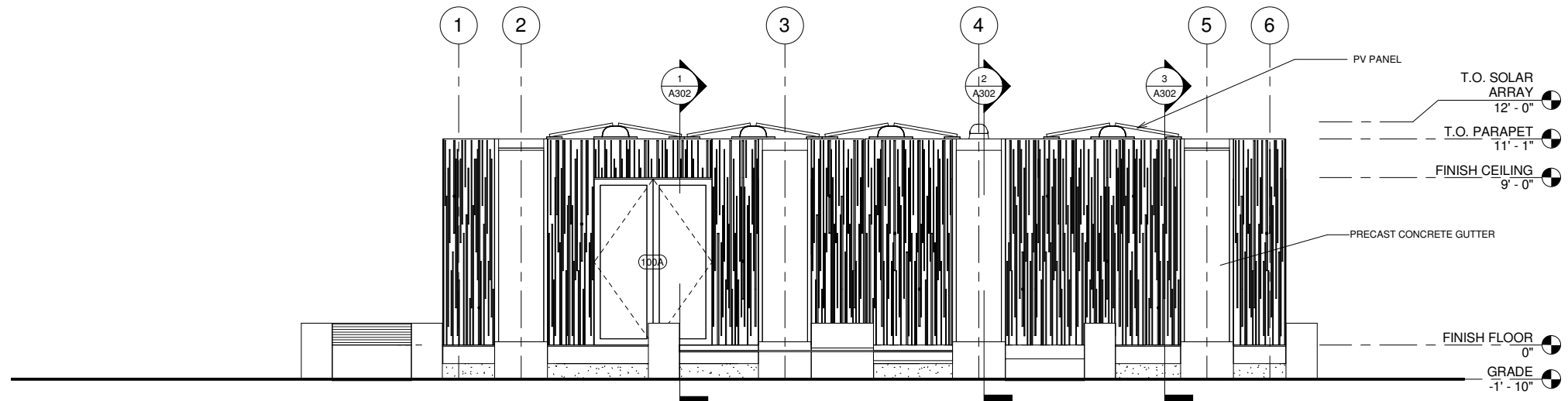
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SHEET TITLE
 EXTERIOR ELEVATIONS

A201



① NORTH ELEVATION
 1/4" = 1'-0"



② SOUTH ELEVATION
 1/4" = 1'-0"

GENERAL NOTES



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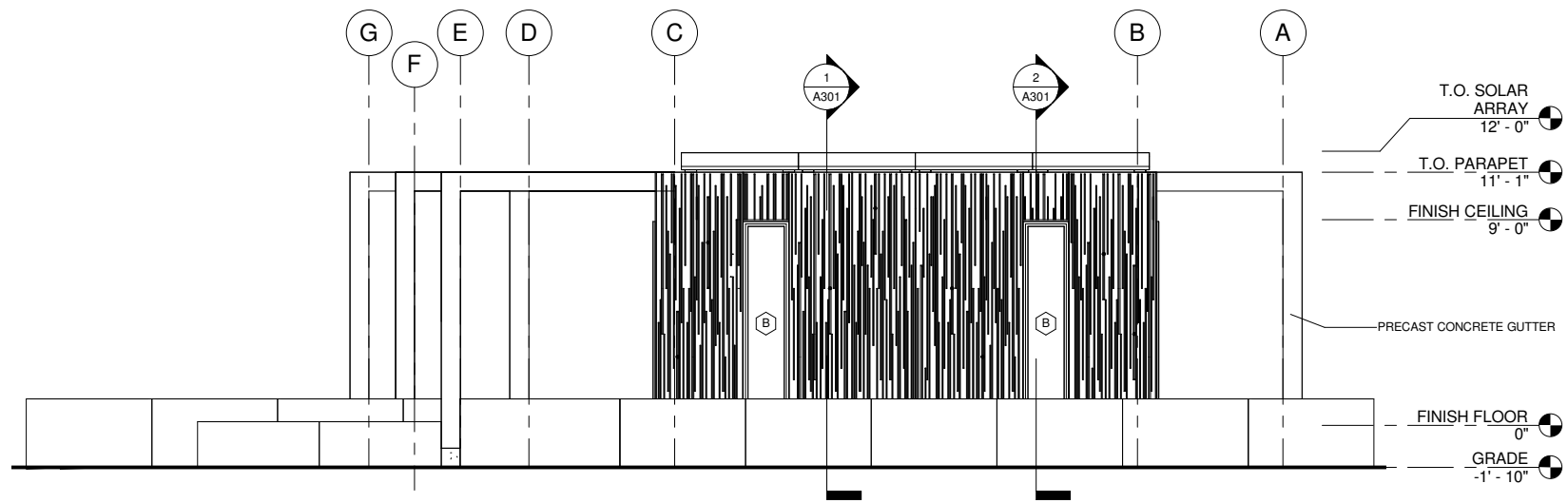


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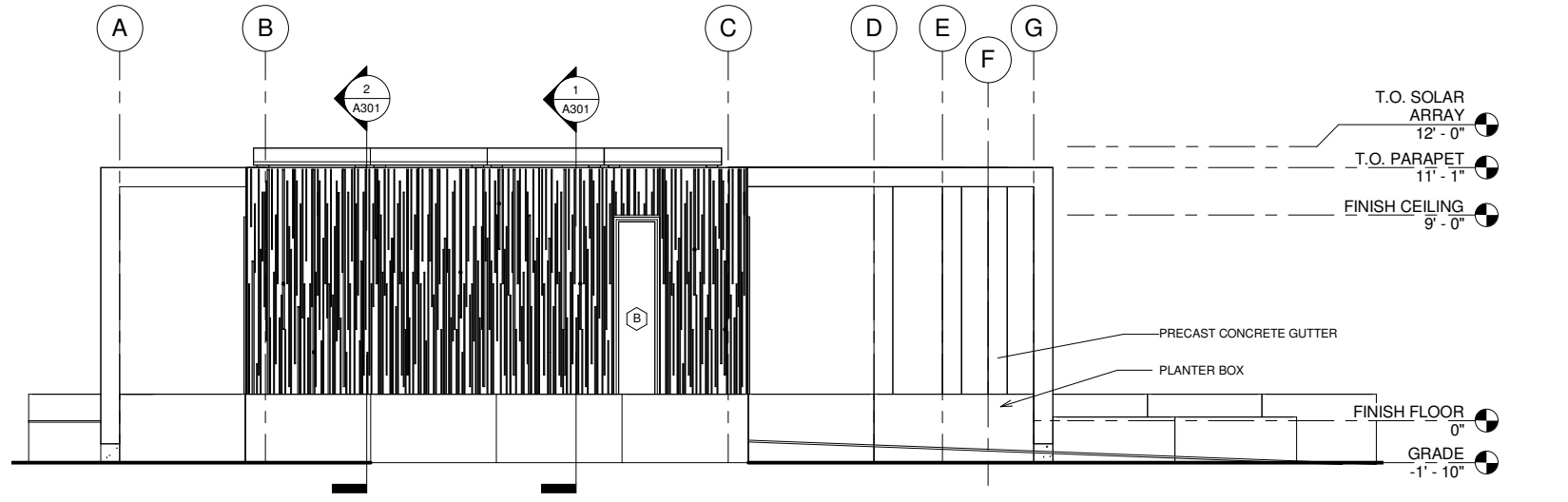
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SHEET TITLE
 EXTERIOR ELEVATIONS

A202



① EAST ELEVATION
 1/4" = 1'-0"



② WEST ELEVATION
 1/4" = 1'-0"



GENERAL NOTES

1. ALL AREA CALCULATIONS ARE MEASURED IN ACCORDANCE WITH ANSI STANDARDS Z765-2003
2. TOTAL AREA = 988 SF
3. CALCULATION OF SQUARE FOOTAGE DEVELOPED BY USING THE PLANS OF THE HOUSE
4. THE FINISHED SQUARE FOOTAGE OF THE HOUSE IS REPORTED TO THE NEAREST HOLE SQUARE FOOT FOR ABOVE-GRADE FINISHED SQUARE FOOTAGE AND FOR BELOW-GRADE FINISHED SQUARE FOOTAGE
5. FOR ALL ROOMS INCLUDED IN THE SQUARE FOOTAGE CALCULATION, THE FLOOR LOCATED UNDER SLOPING CEILINGS MEETS THE REQUIRED CLEARANCE OF AT LEAST 5 FEET, FURTHER, AT LEAST ONE-HALF THE SQUARE FOOTAGE IN THE ROOM AS AT LEAST 7 FEET IN HEIGHT.

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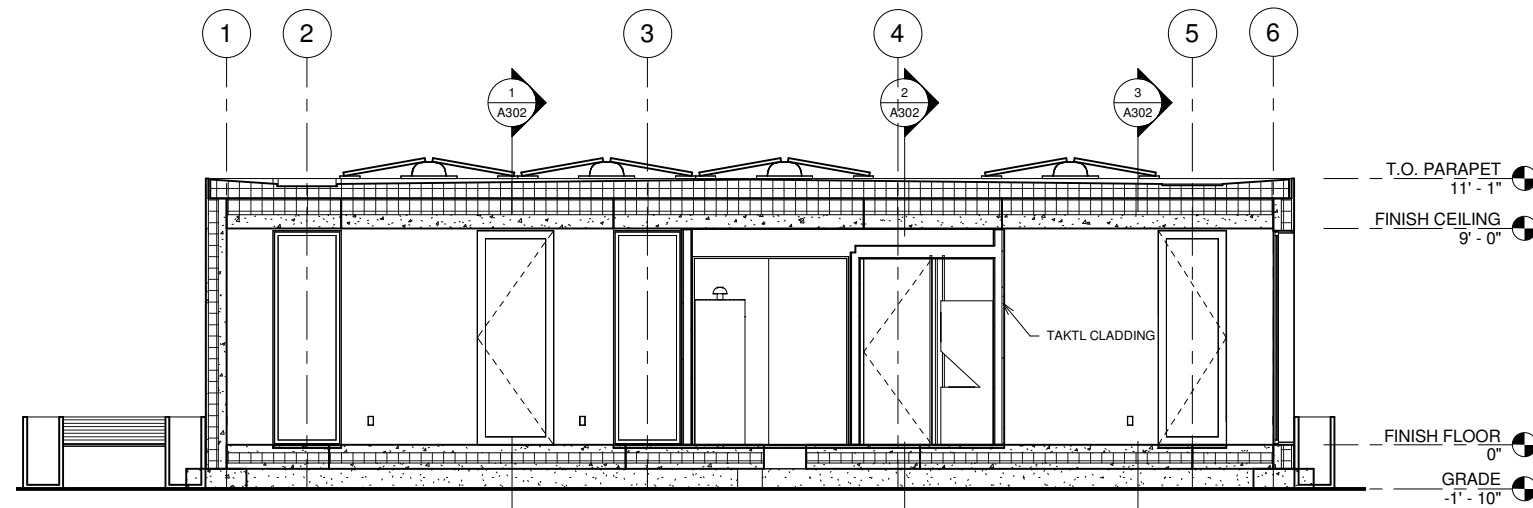
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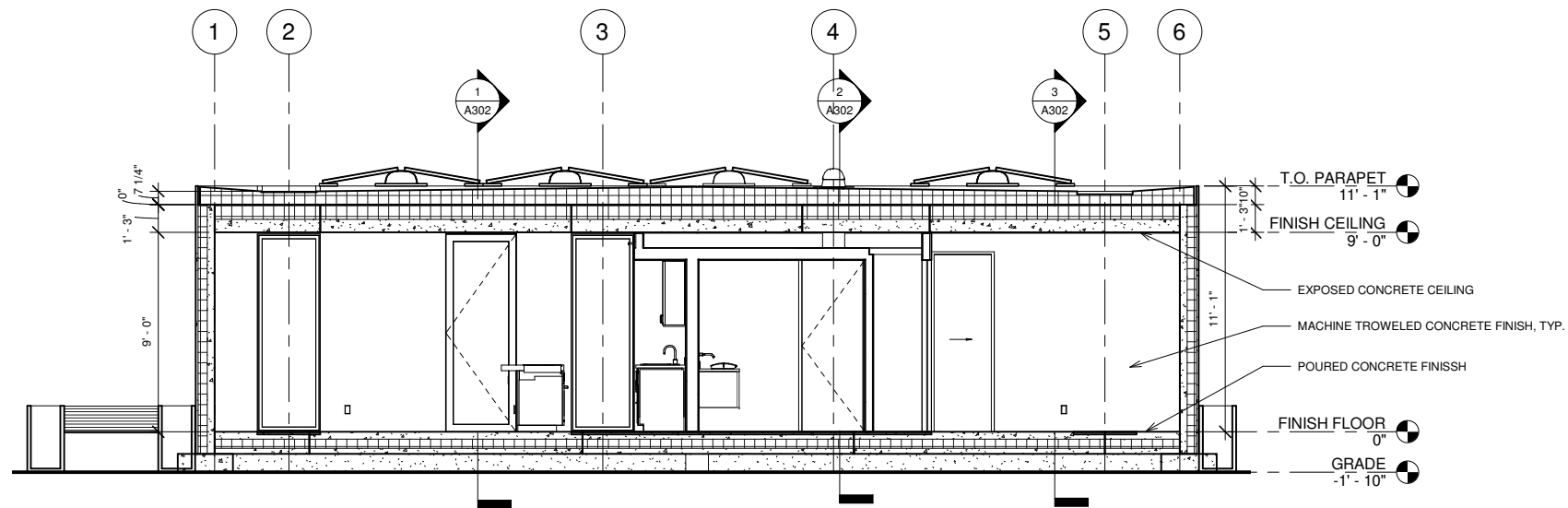
SHEET TITLE

**BUILDING SECTIONS
 EAST-WEST**

A301



② EAST-WEST SECTION B
 1/4" = 1'-0"



① EAST-WEST SECTION A
 1/4" = 1'-0"

GENERAL NOTES



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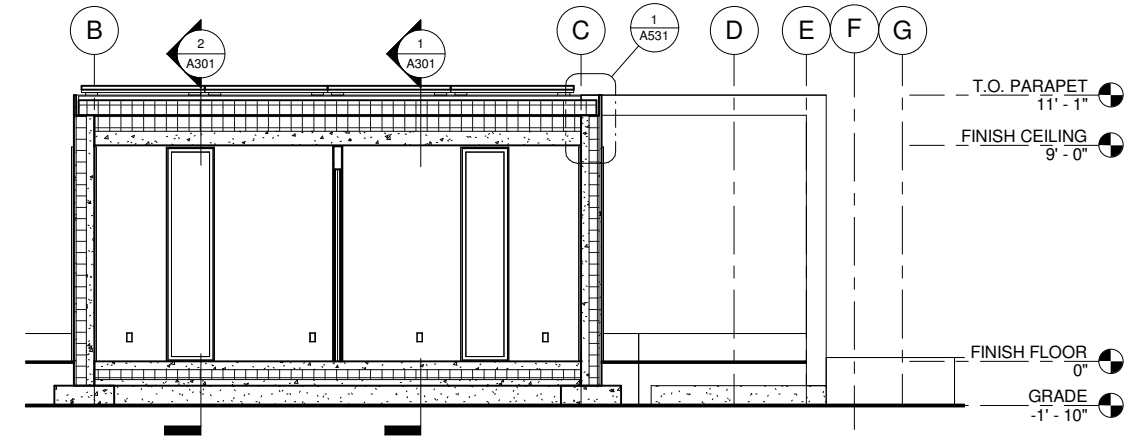


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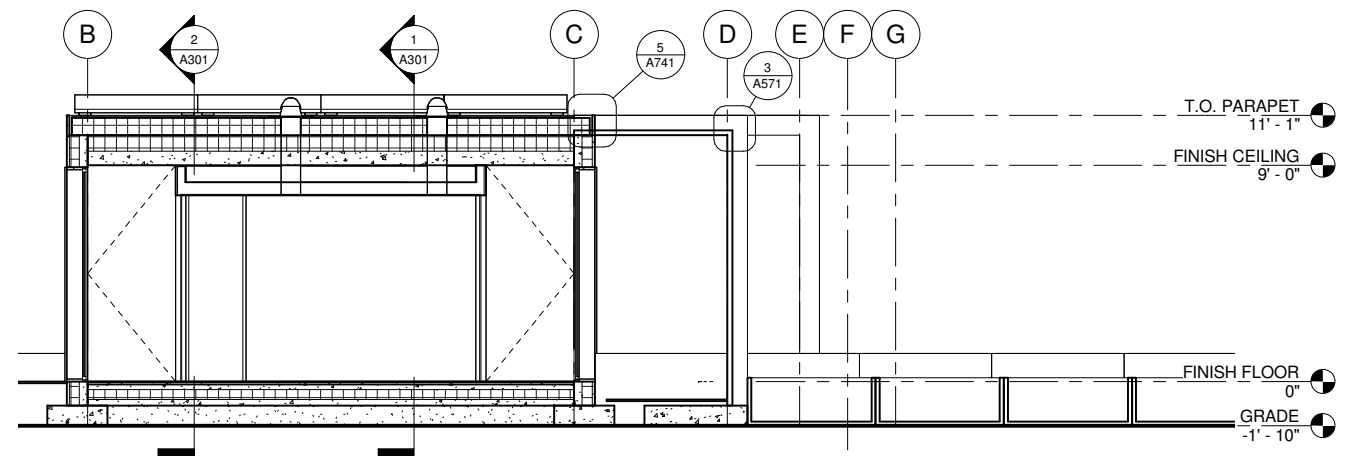
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SHEET TITLE
 BUILDING SECTIONS
 NORTH-SOUTH

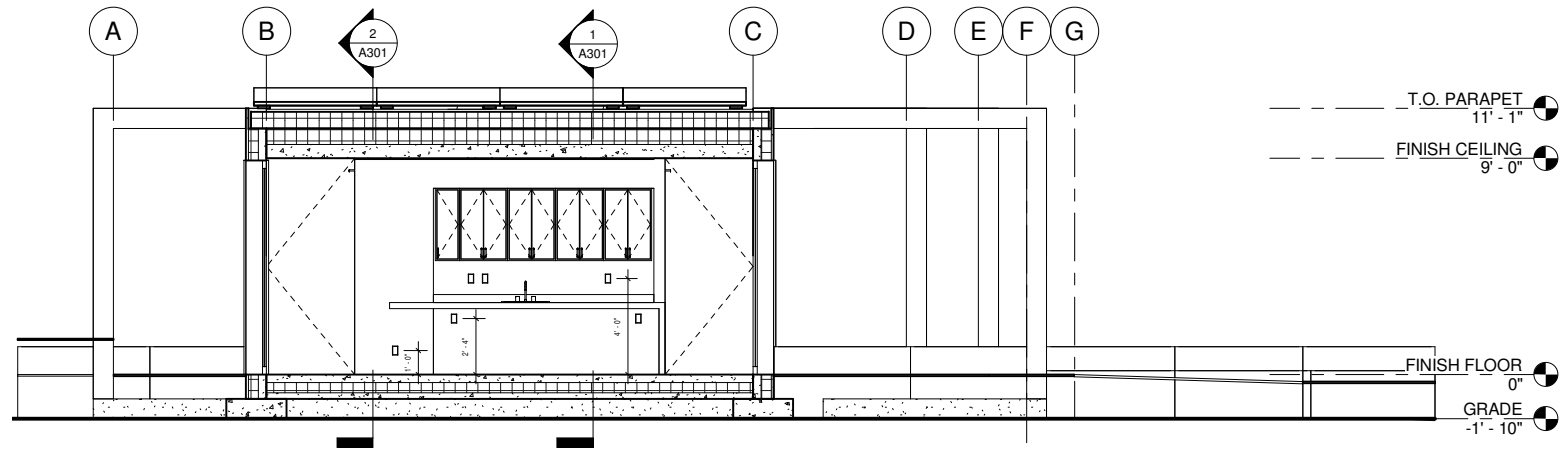
A302



③ NORTH-SOUTH SECTION C
 1/4" = 1'-0"



② NORTH-SOUTH SECTION B
 1/4" = 1'-0"



① NORTH-SOUTH SECTION A
 1/4" = 1'-0"

GENERAL NOTES



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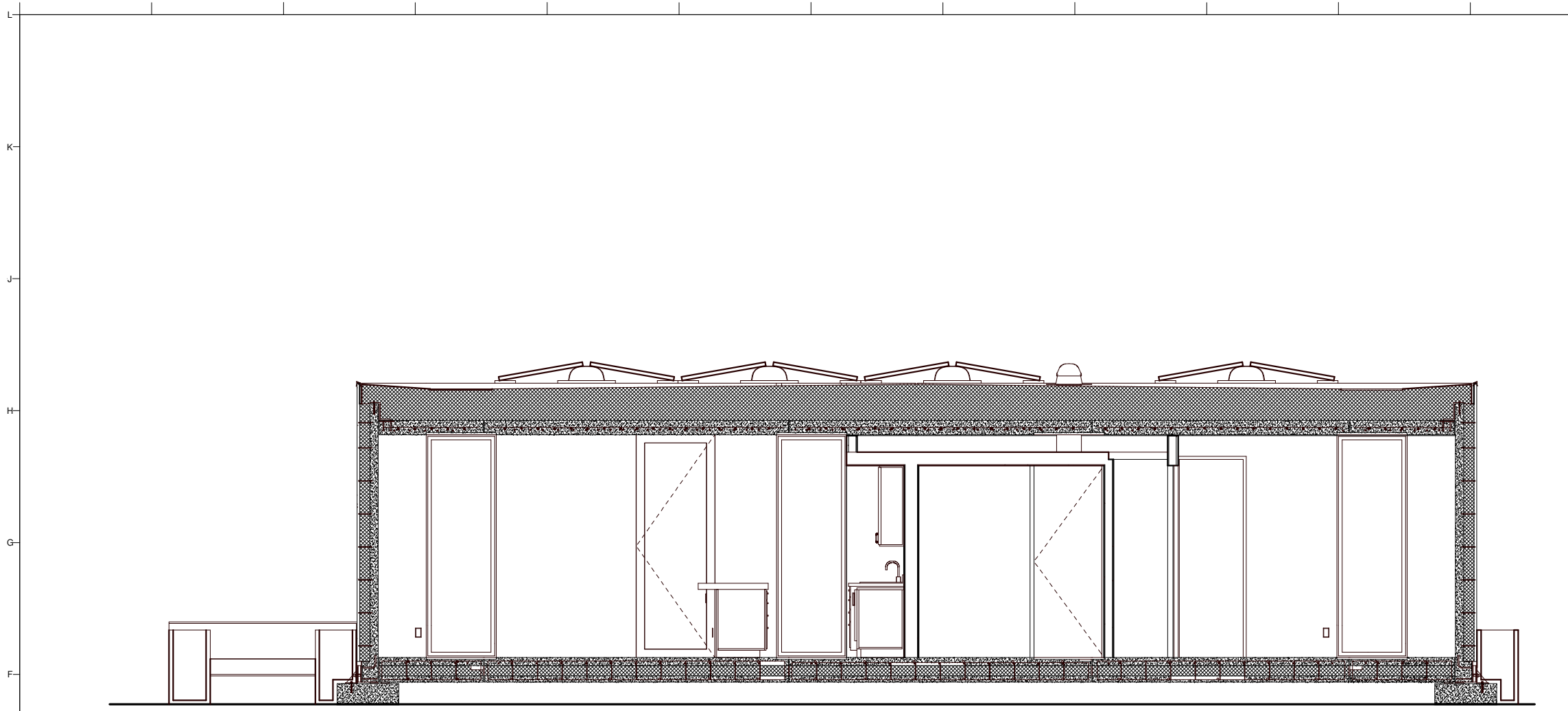


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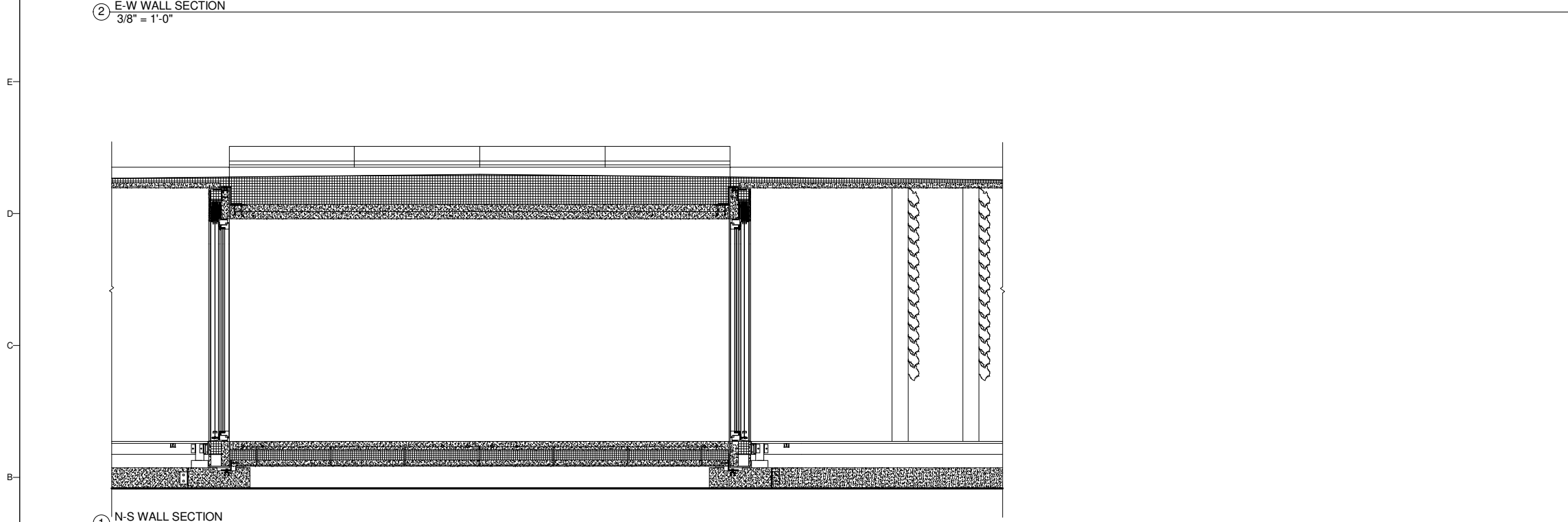
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SHEET TITLE
 WALL SECTIONS

A311



② E-W WALL SECTION
 3/8" = 1'-0"



① N-S WALL SECTION
 3/8" = 1'-0"

GENERAL NOTES



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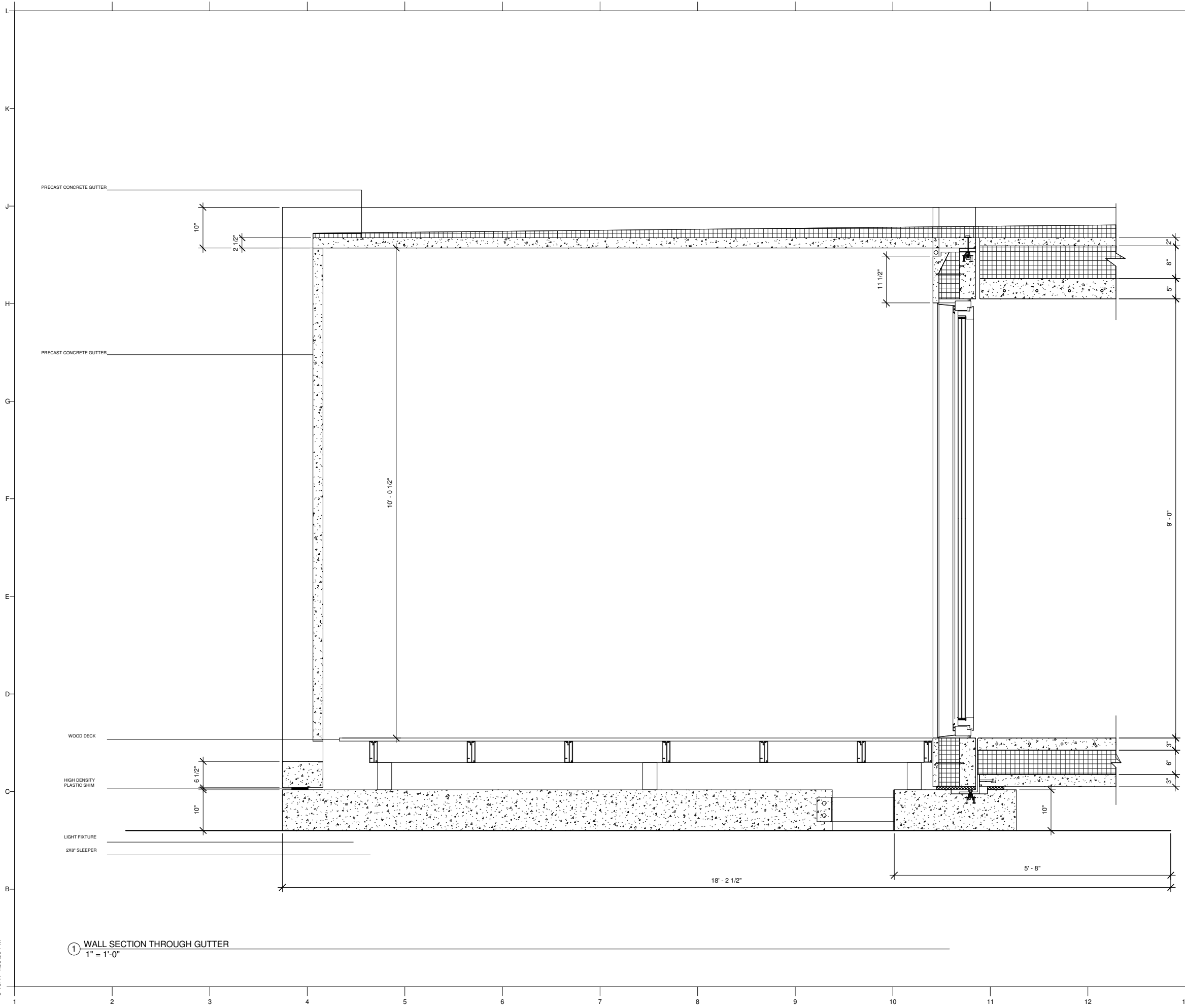
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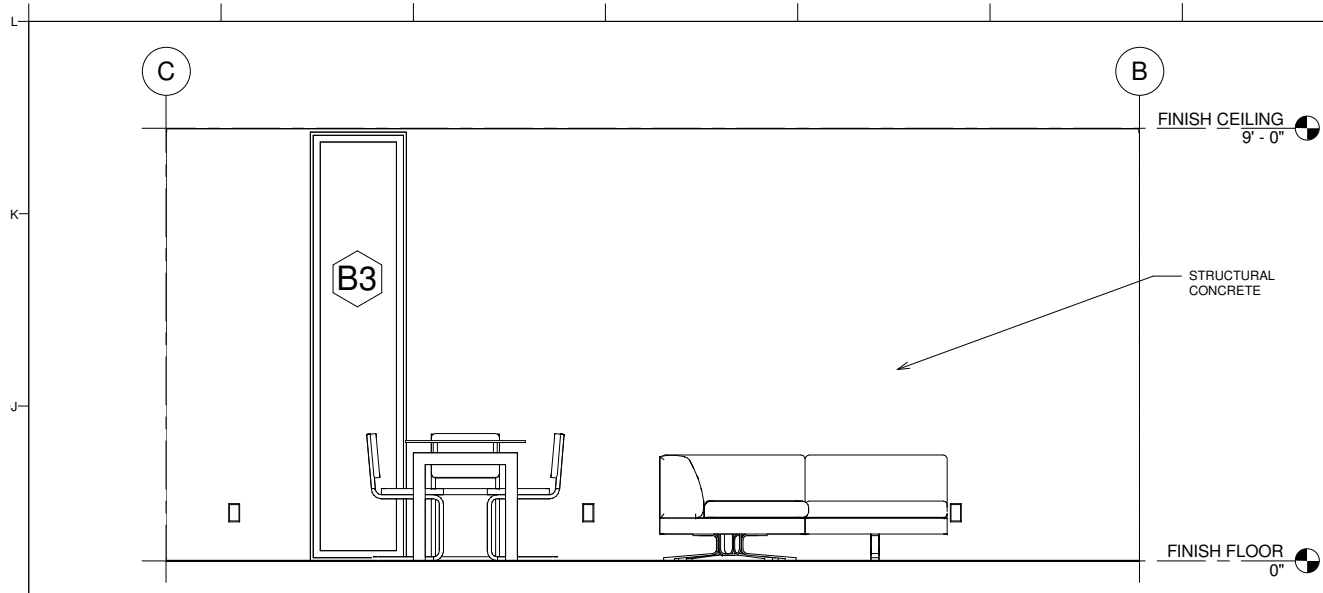
WALL SECTIONS

A312

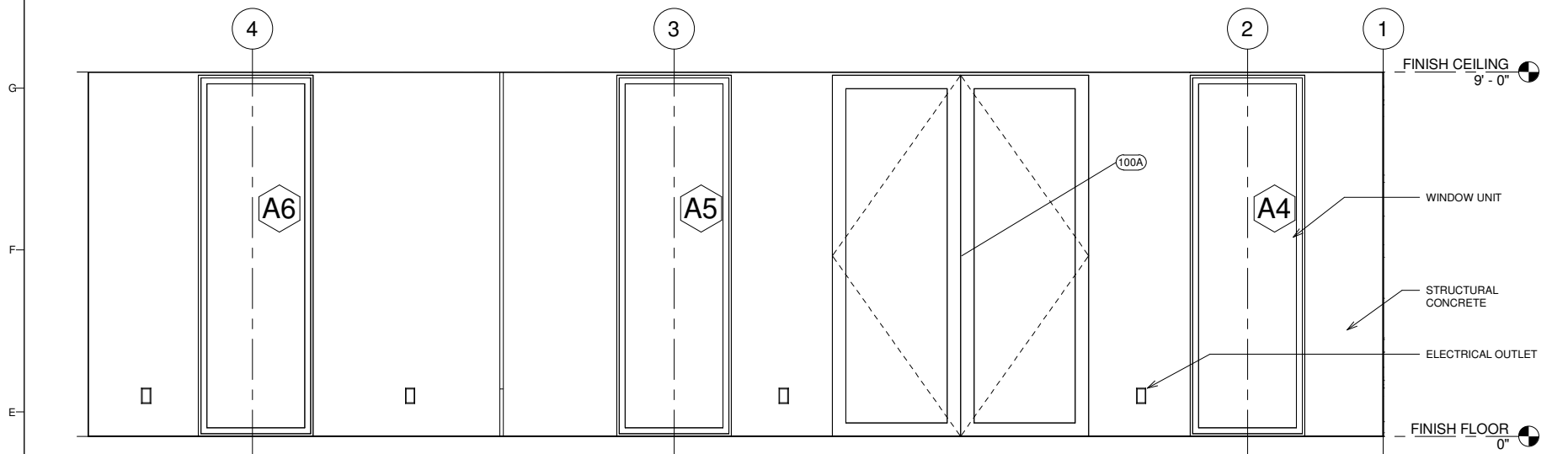


① WALL SECTION THROUGH GUTTER
 1" = 1'-0"

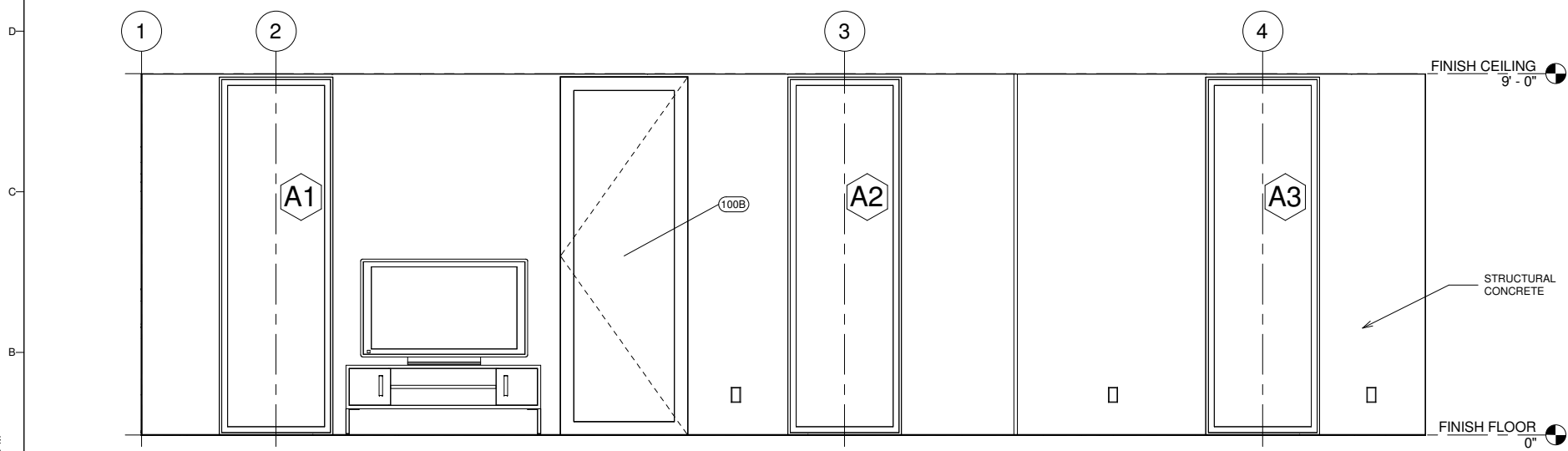
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3 LIVING/DINING ELEVATION WEST
1/2" = 1'-0"



2 LIVING/DINING ELEVATION SOUTH
1/2" = 1'-0"



1 LIVING/DINING ELEVATION NORTH
1/2" = 1'-0"

GENERAL NOTES

1. SEE SHEET A114 FOR FURNITURE LAYOUT
2. SEE WINDOW AND DOOR SCHEDULES FOR LOCATION OF UNITS



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SHEET TITLE
INTERIOR ELEVATIONS

A411

GENERAL NOTES

- SEE SHEET A114 FOR FURNITURE LAYOUT
- SEE WINDOW AND DOOR SCHEDULES FOR LOCATION OF UNITS
- ONLY COMPETITION TOUR ROUTE IS ADA COMPLIANT AT THIS TIME - BATHROOM NOT ADA COMPLIANT AS DESIGNED



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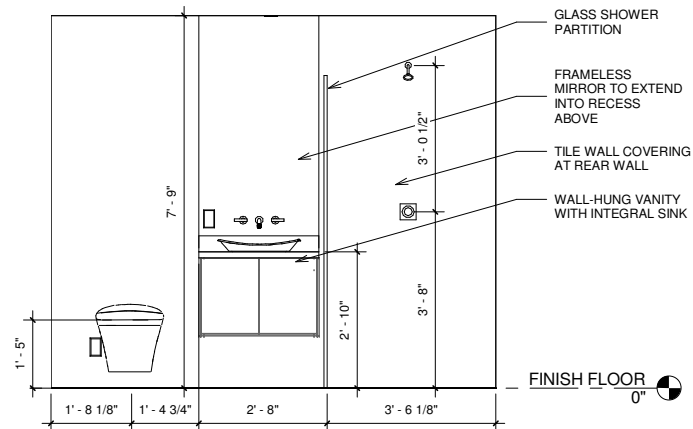
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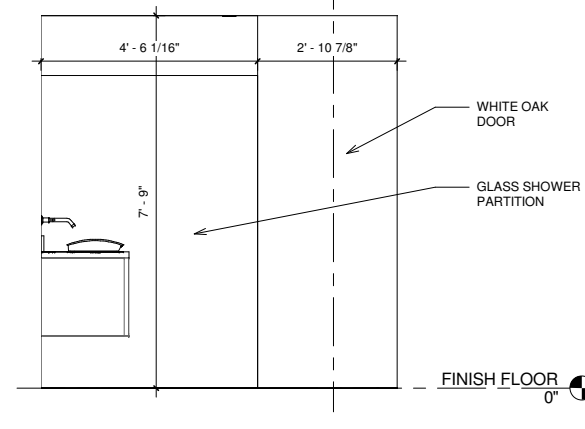
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INTERIOR ELEVATIONS

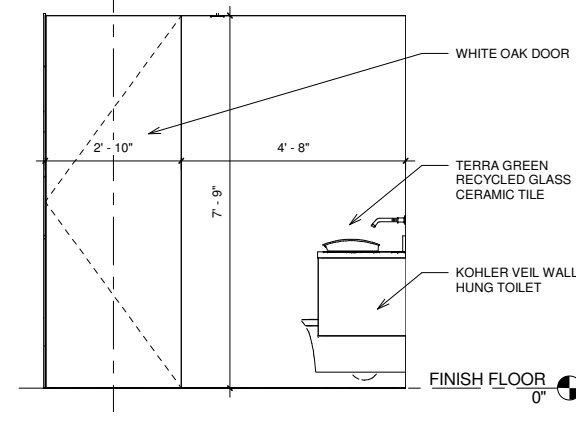
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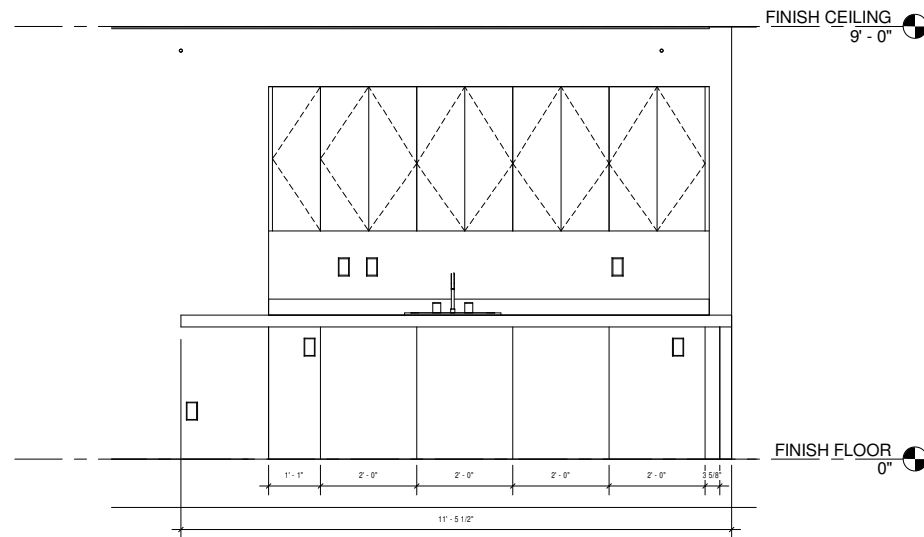
④ BATHROOM ELEVATION WEST
 1/2" = 1'-0"



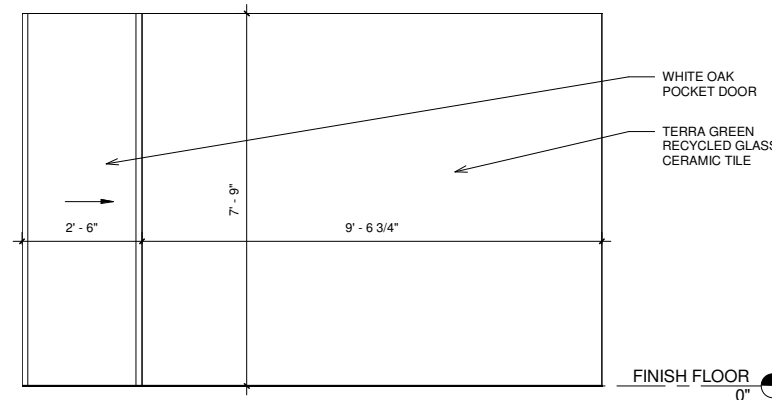
⑤ BATHROOM ELEVATION NORTH
 1/2" = 1'-0"



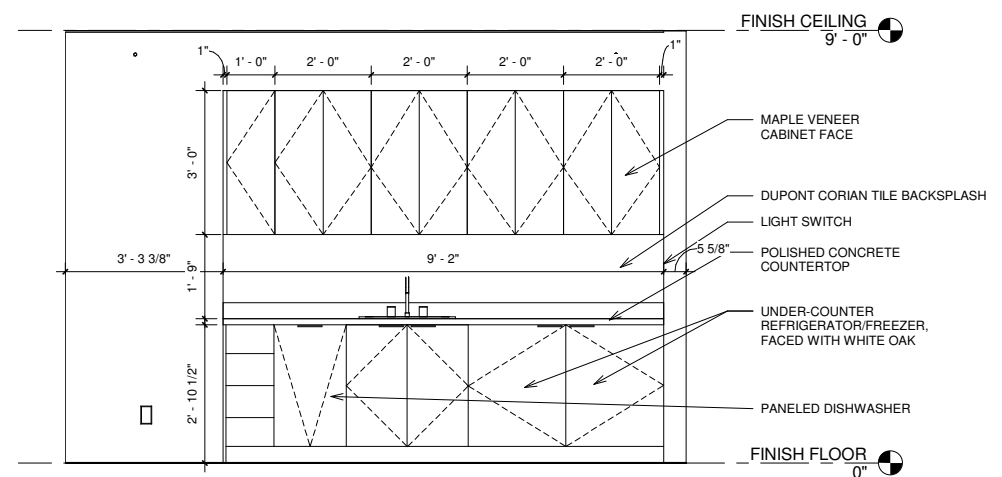
⑥ BATHROOM ELEVATION SOUTH
 1/2" = 1'-0"



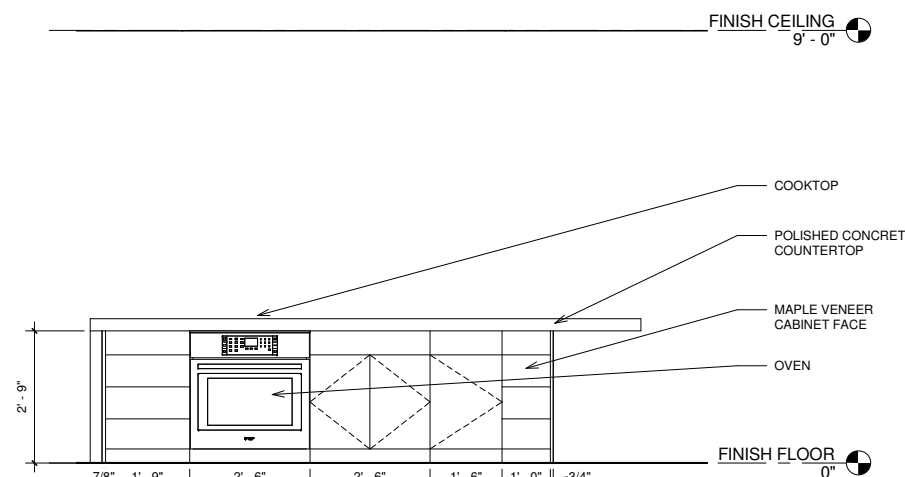
⑦ KITCHEN ELEVATION ISLAND BACK
 1/2" = 1'-0"



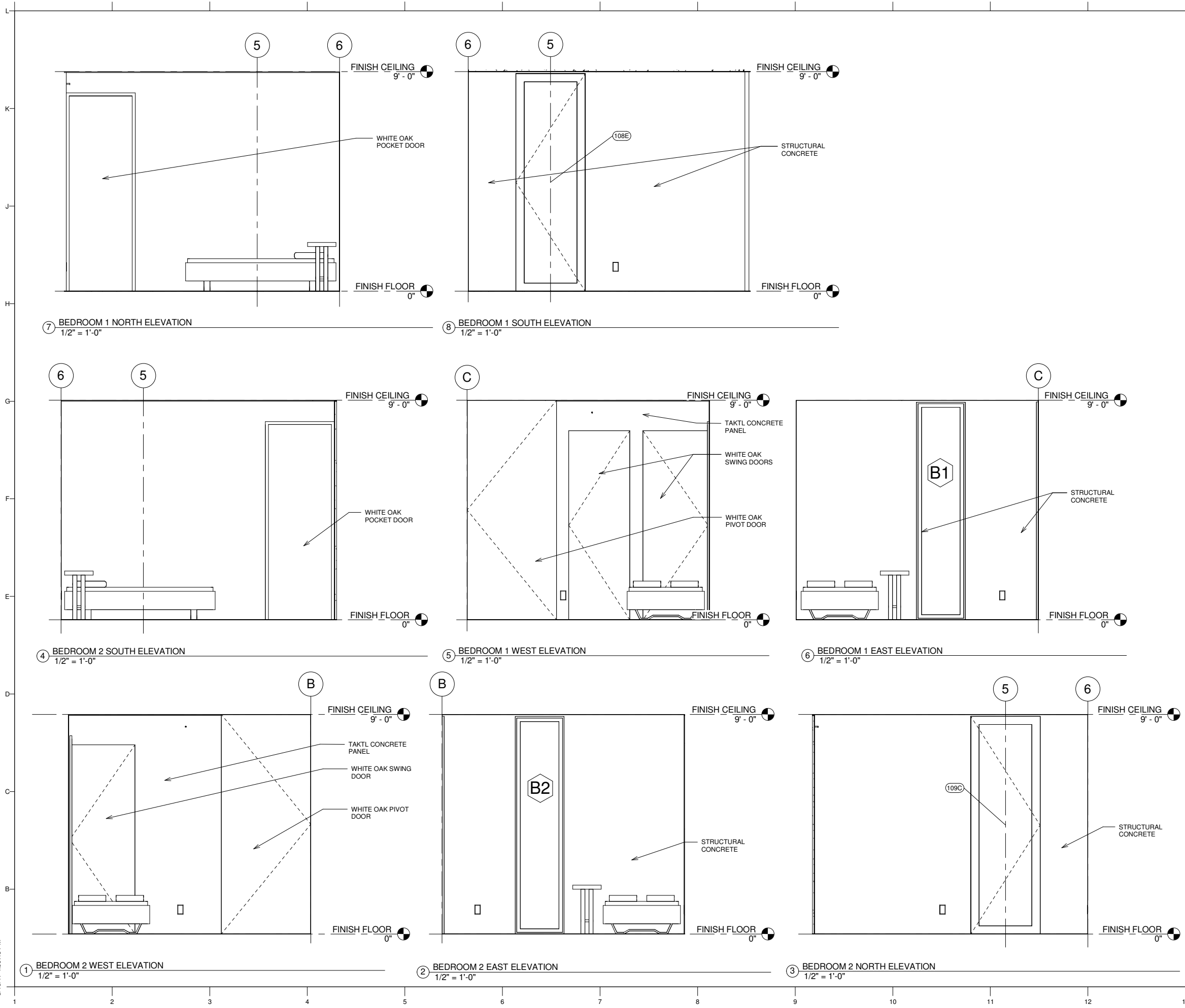
③ BATHROOM ELEVATION EAST
 1/2" = 1'-0"



① KITCHEN ELEVATION EAST
 1/2" = 1'-0"



② KITCHEN ELEVATION WEST
 1/2" = 1'-0"



GENERAL NOTES

1. SEE SHEET A114 FOR FURNITURE LAYOUT
2. SEE WINDOW AND DOOR SCHEDULES FOR LOCATION OF UNITS



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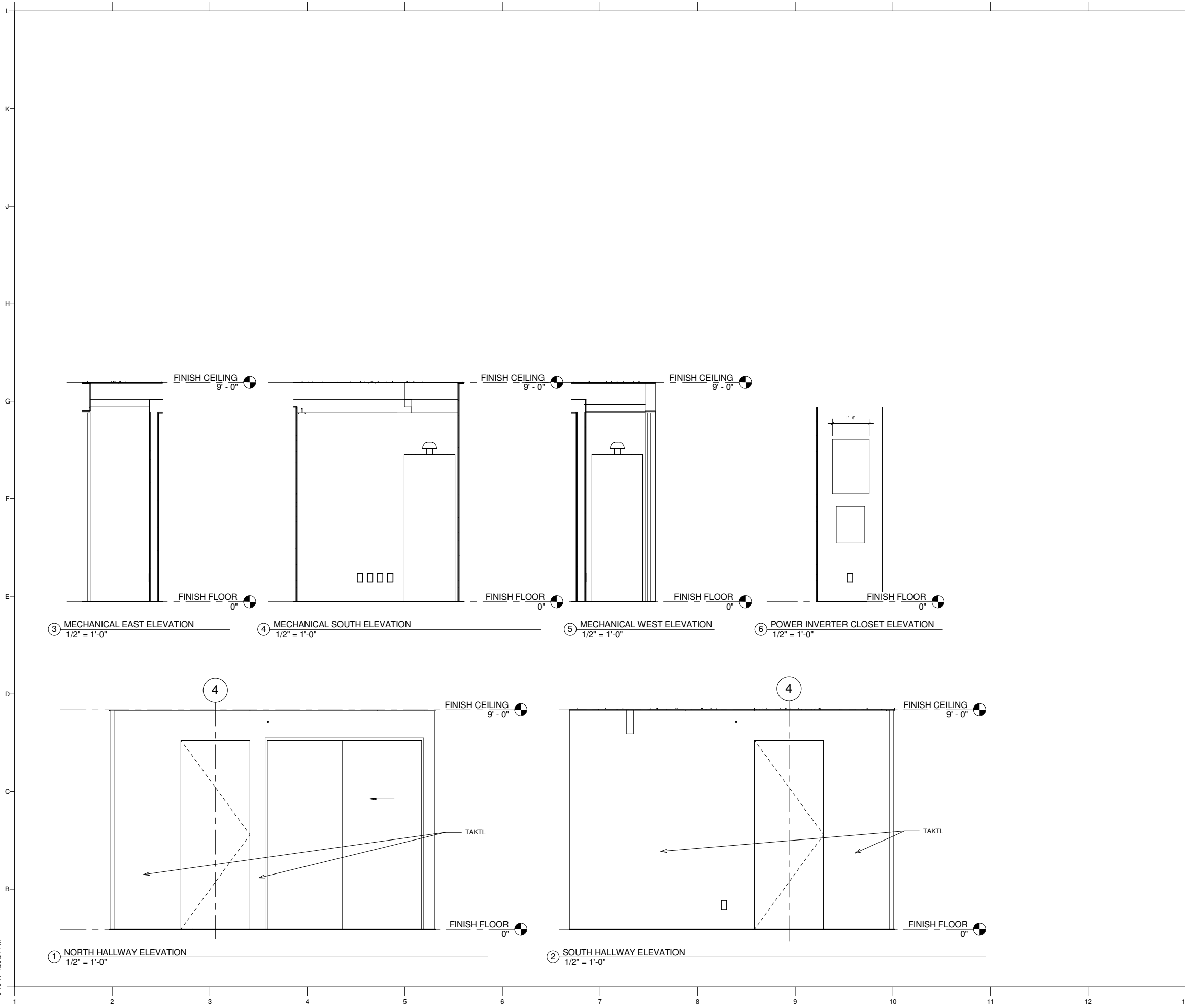
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SHEET TITLE
INTERIOR ELEVATIONS

A413

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GENERAL NOTES

1. SEE SHEET A114 FOR FURNITURE LAYOUT
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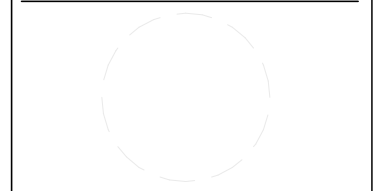
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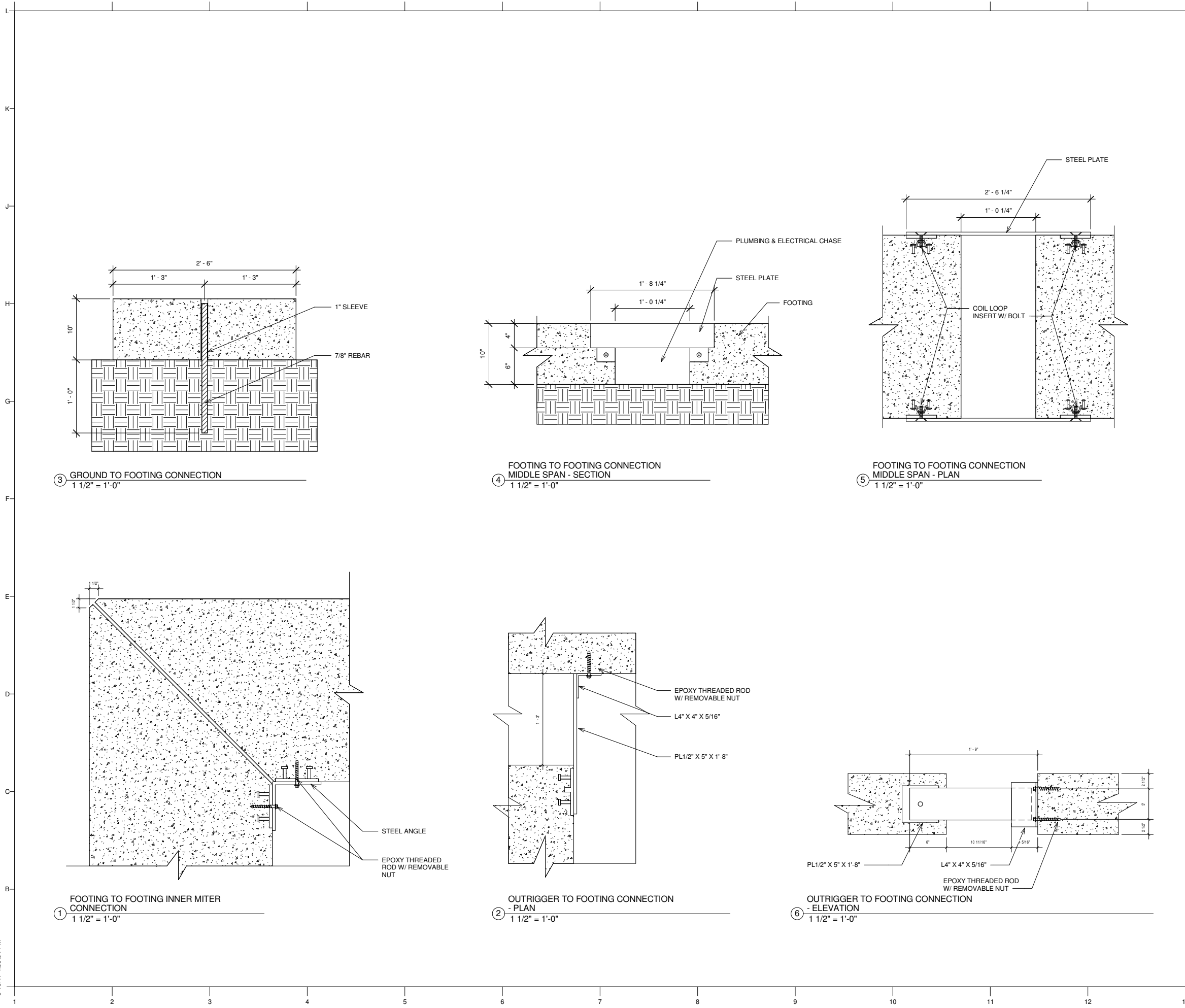


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SHEET TITLE
 INTERIOR ELEVATIONS

A414



GENERAL NOTES

1. REFER TO A701 FOR FOOTING LAYOUT
2. REFER TO A702, A703, A704 FOR SHOP DRAWINGS OF EACH INDIVIDUAL PRECAST FOOTING ELEMENTS, INCLUDING ALL CONNECTIONS AND LIFTING/BRACING POINTS

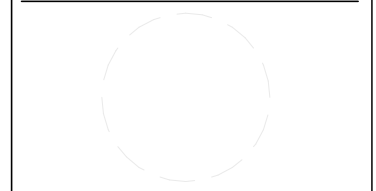


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SHEET TITLE

FOOTING DETAILS

A501

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GENERAL NOTES

- REFER TO SHEET A711 FOR LOCATIONS OF ALL CONNECTIONS AND BRACE POINTS INTEGRATED INTO THE FLOORSLAB ASSEMBLY



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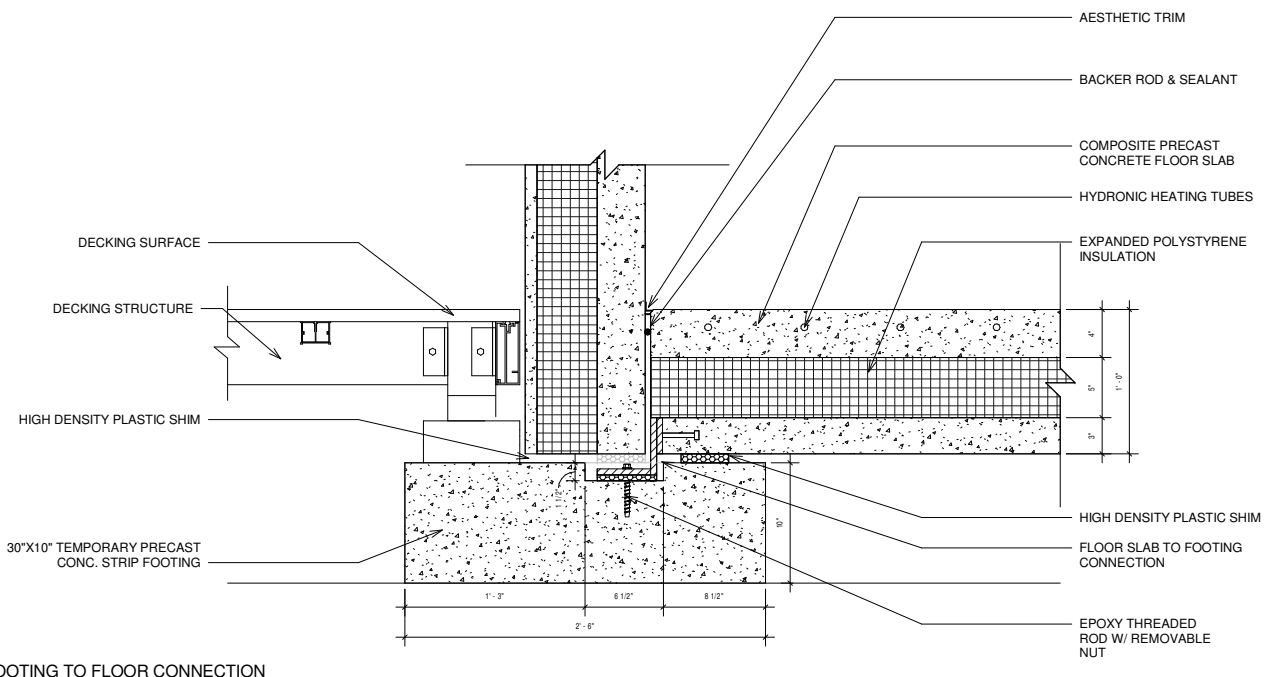


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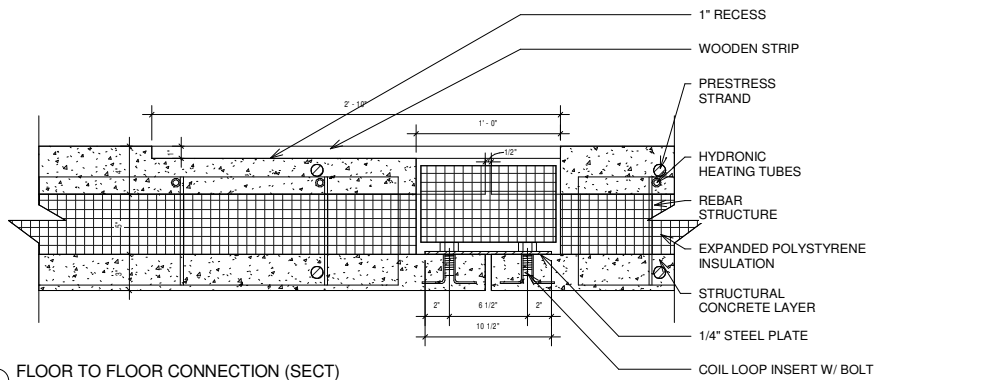
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SHEET TITLE
FLOOR DETAILS

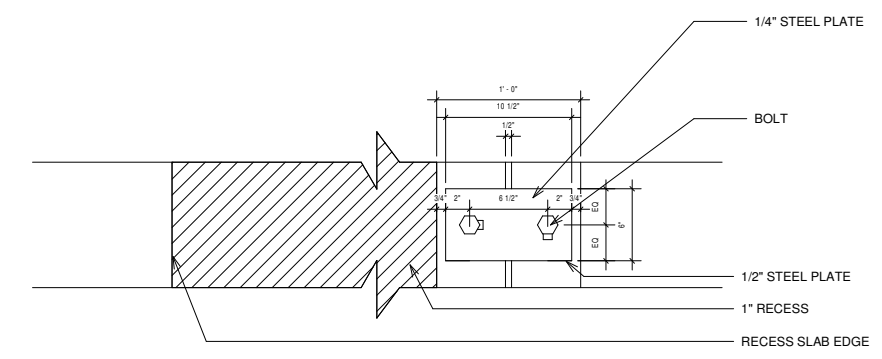
A511



③ FOOTING TO FLOOR CONNECTION
 1 1/2" = 1'-0"



① FLOOR TO FLOOR CONNECTION (SECT)
 1 1/2" = 1'-0"



② FLOOR TO FLOOR CONNECTION (PLAN)
 1 1/2" = 1'-0"



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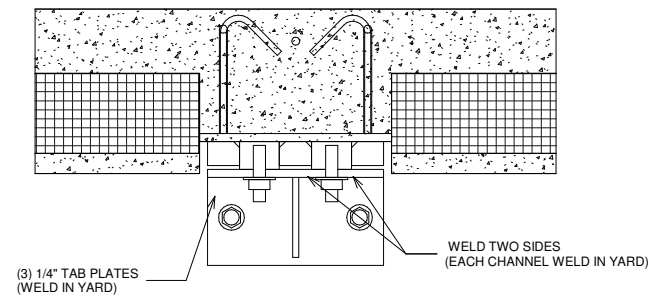


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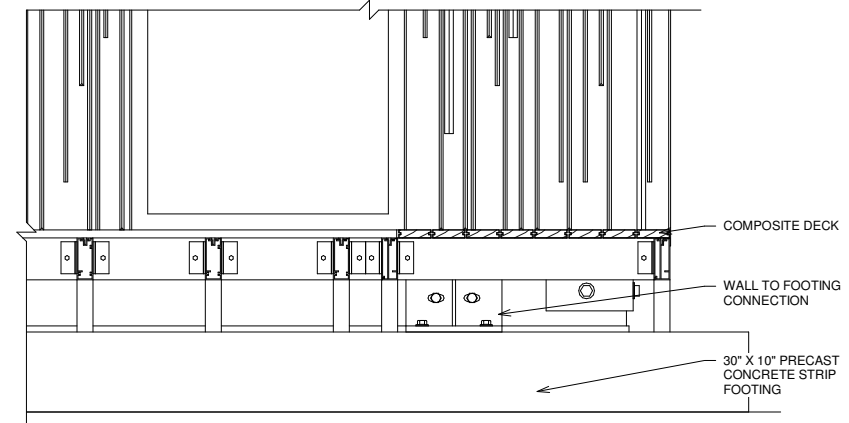
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SHEET TITLE
 EXTERIOR WALL DETAILS

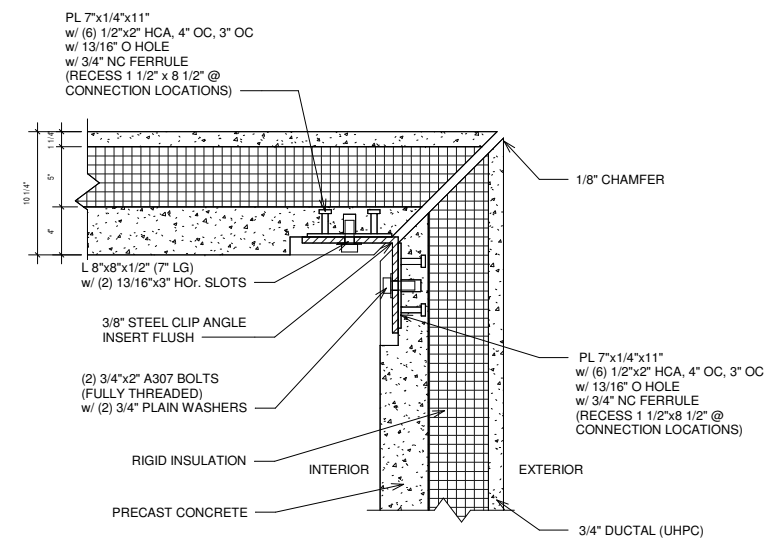
A521



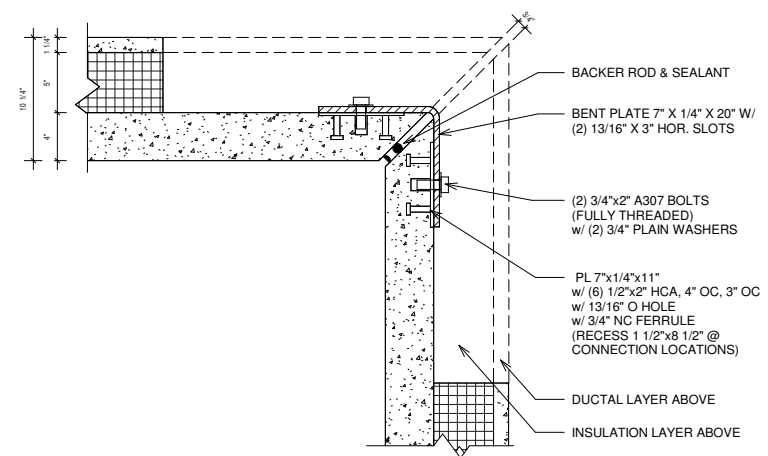
⑦ FOUNDATION TO WALL PANEL (PLAN)
 1" = 1'-0"



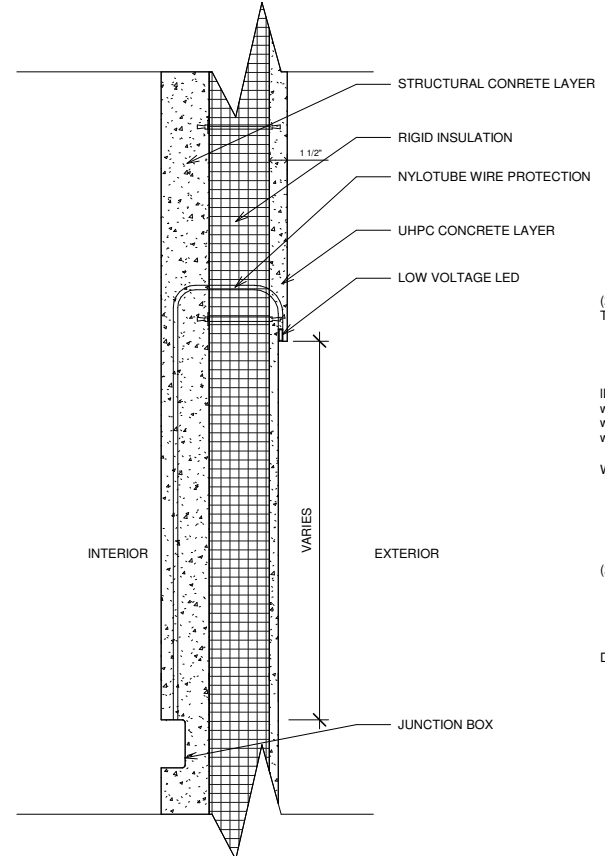
④ FOOTING TO WALL CONNECTION - ELEV
 1" = 1'-0"



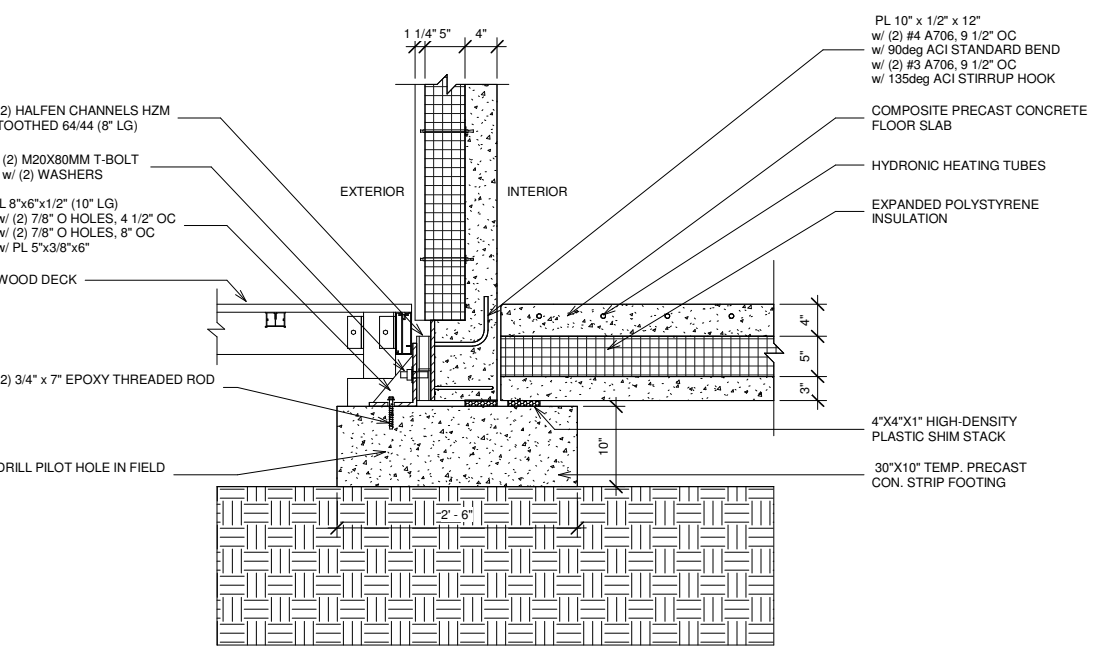
⑤ WALL TO WALL CORNER TOP
 1 1/2" = 1'-0"



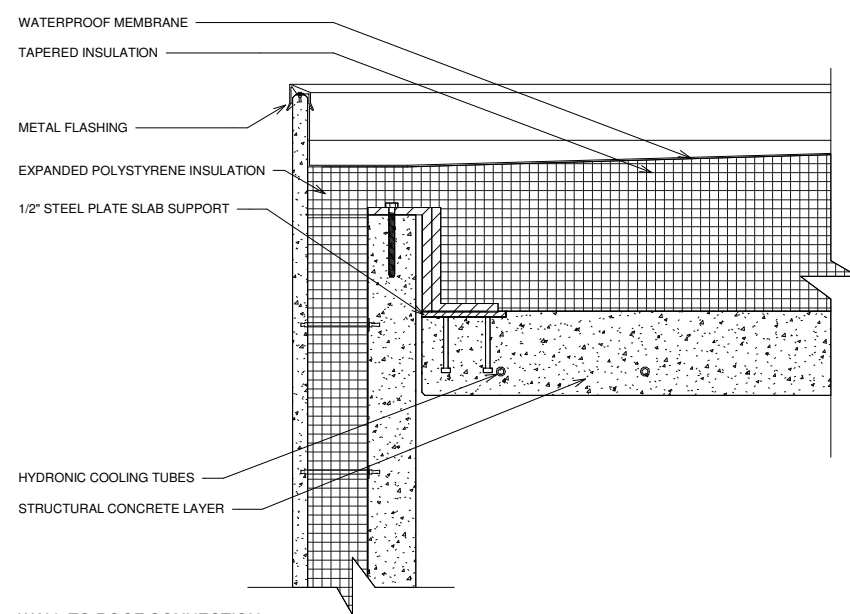
⑥ WALL TO WALL CORNER BOTTOM
 1 1/2" = 1'-0"



① WALL PANEL SECTION WITH LED
 1 1/2" = 1'-0"



② FOOTING TO WALL CONNECTION - SECT
 1" = 1'-0"



③ WALL TO ROOF CONNECTION (SECTION)
 1 1/2" = 1'-0"

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GENERAL NOTES



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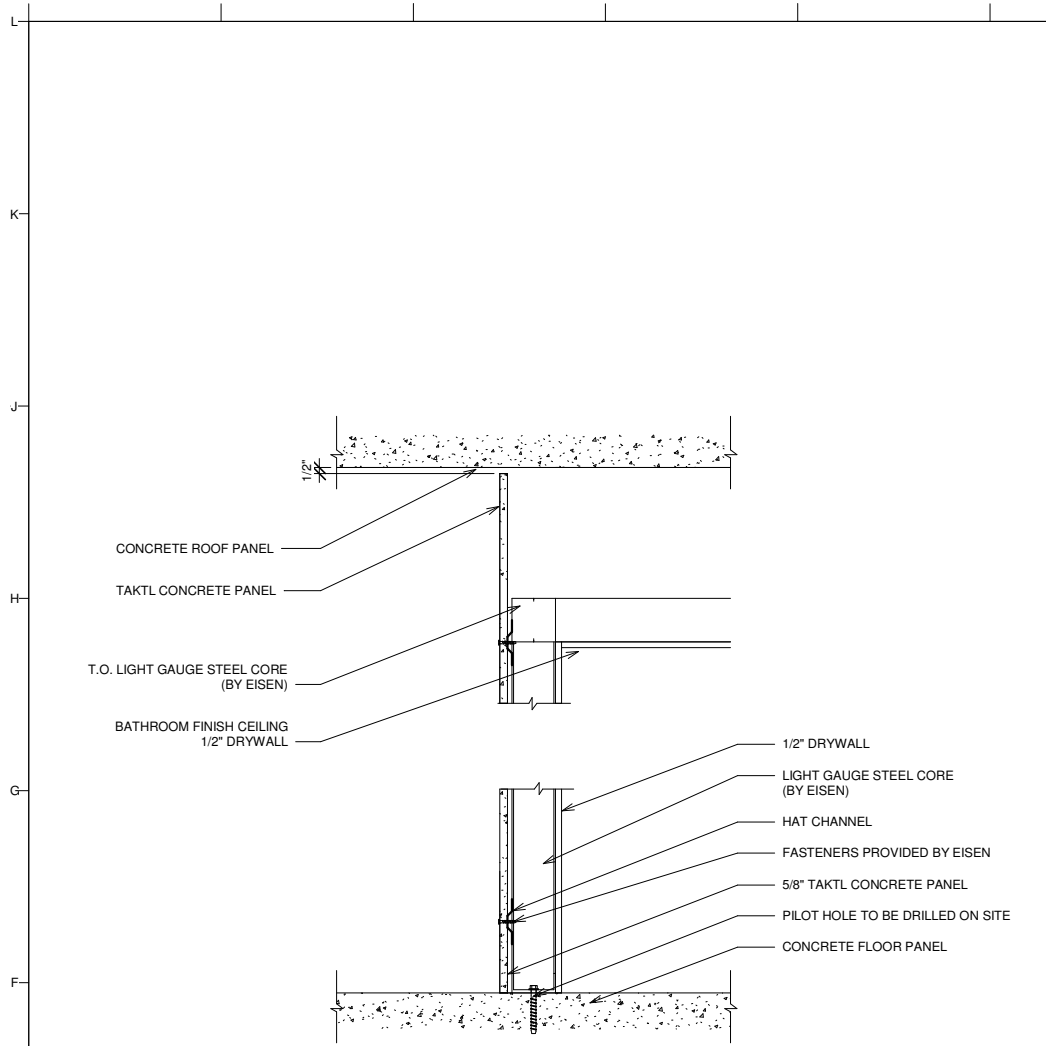


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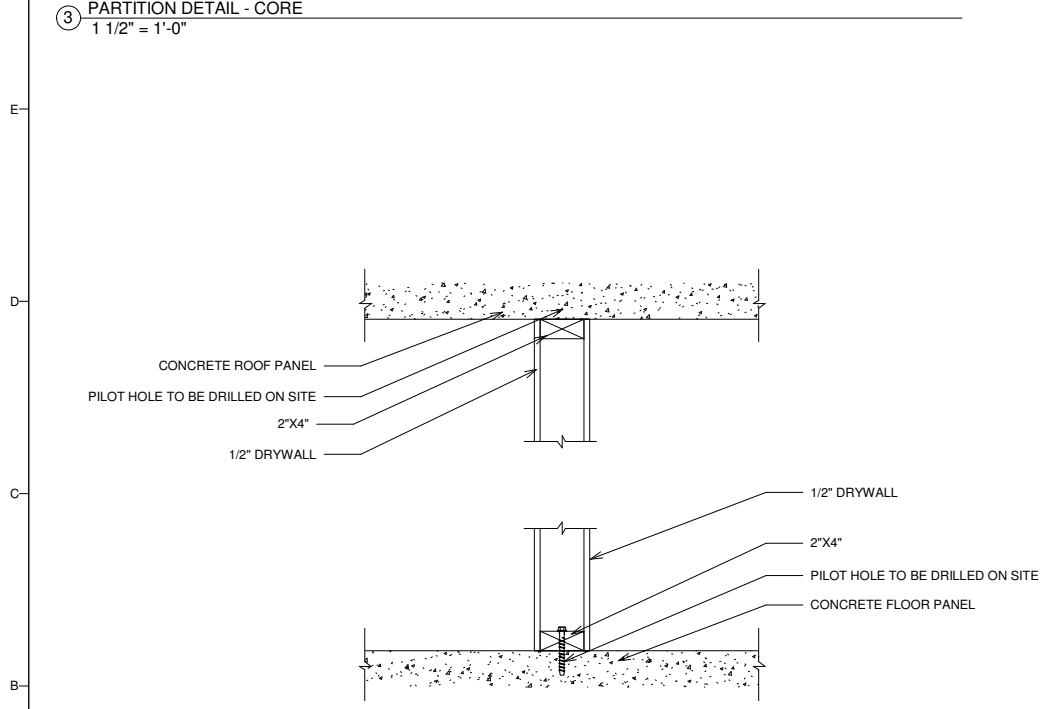
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SHEET TITLE
INTERIOR WALL DETAILS

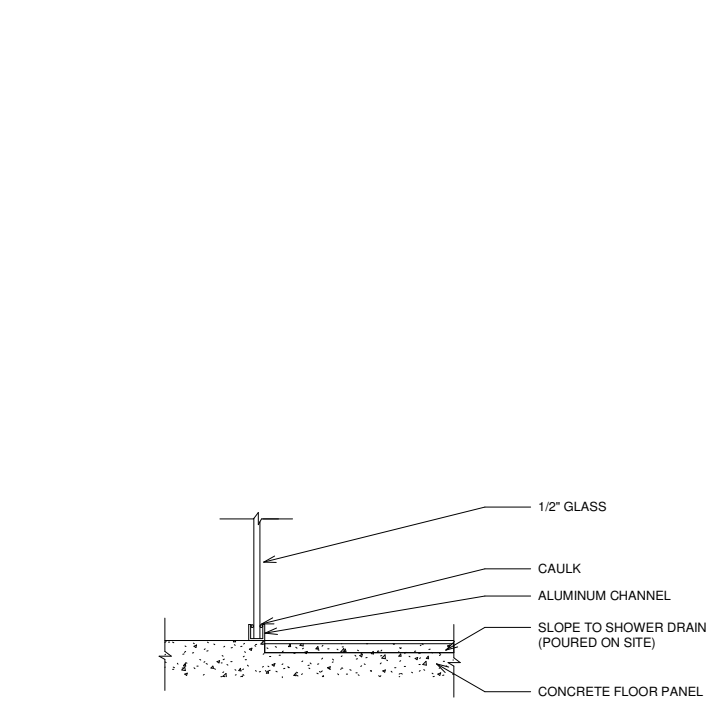
A522



③ PARTITION DETAIL - CORE
 1 1/2" = 1'-0"



① PARTITION DETAIL - BEDROOM
 1 1/2" = 1'-0"



② PARTITION DETAIL - SHOWER GLASS
 1 1/2" = 1'-0"



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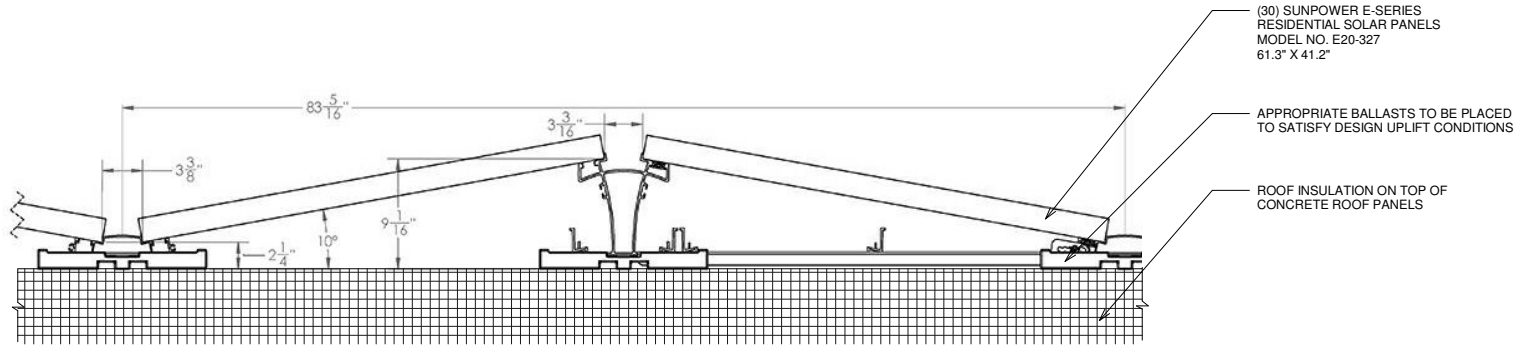
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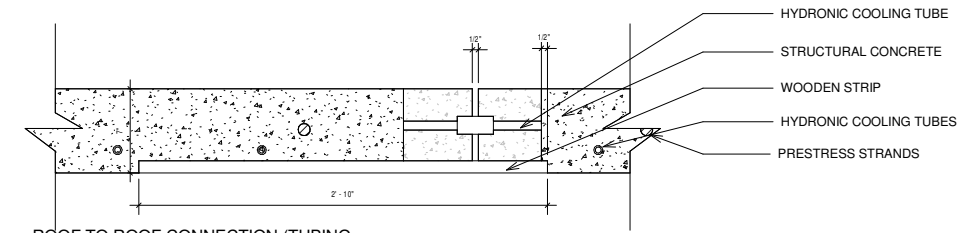
SHEET TITLE

ROOF DETAILS

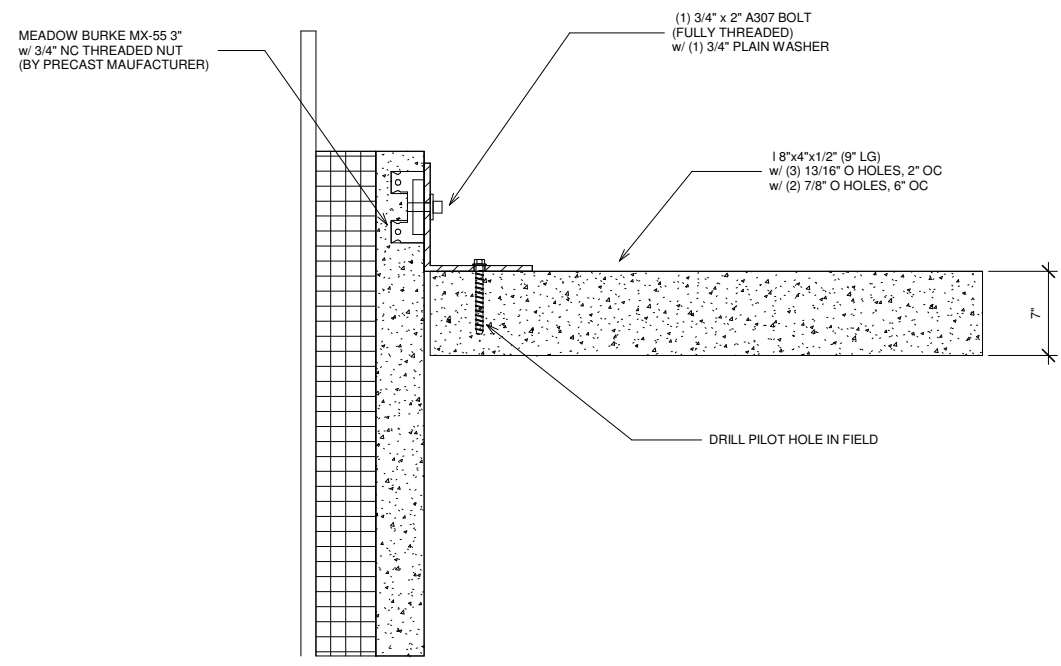
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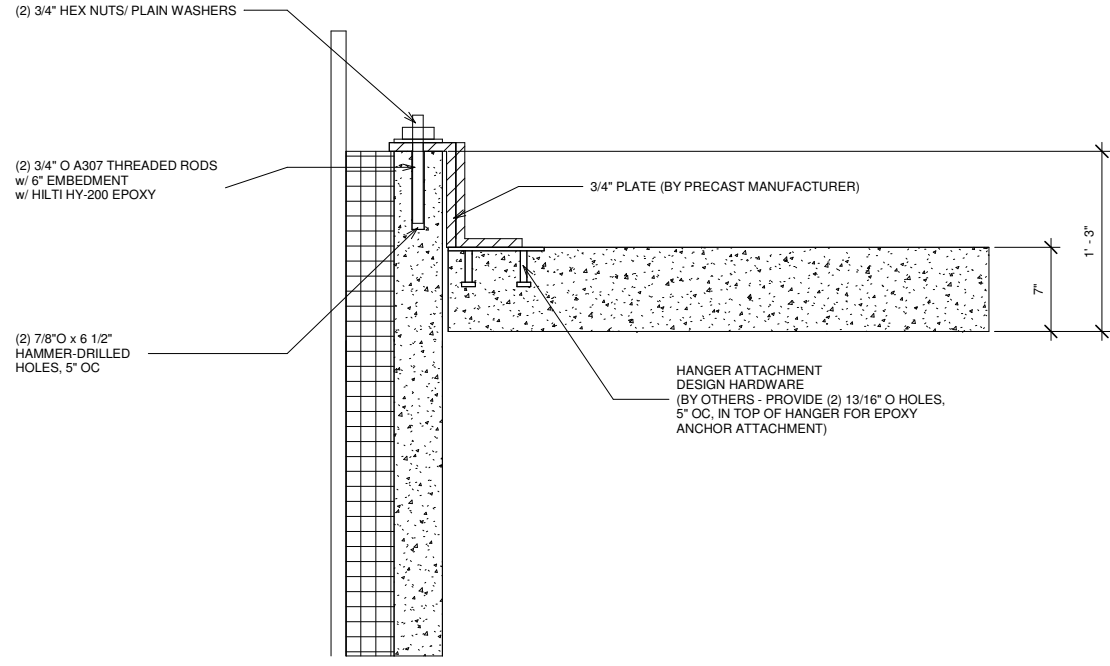
7 ROOF TO SOLAR PANEL CONNECTION
 1 1/2" = 1'-0"



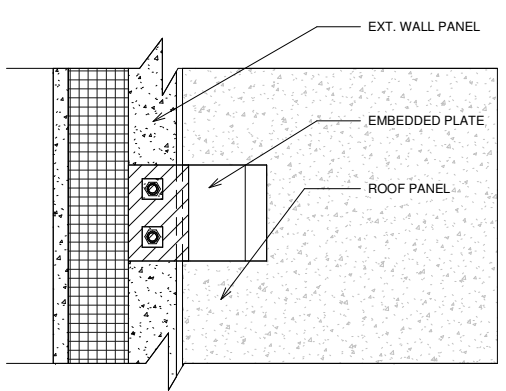
8 ROOF TO ROOF CONNECTION (TUBING SECTION)
 1 1/2" = 1'-0"



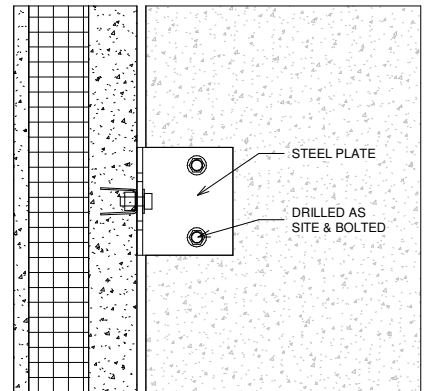
5 WALL TO ROOF (SHEAR WALL)
 1 1/2" = 1'-0"



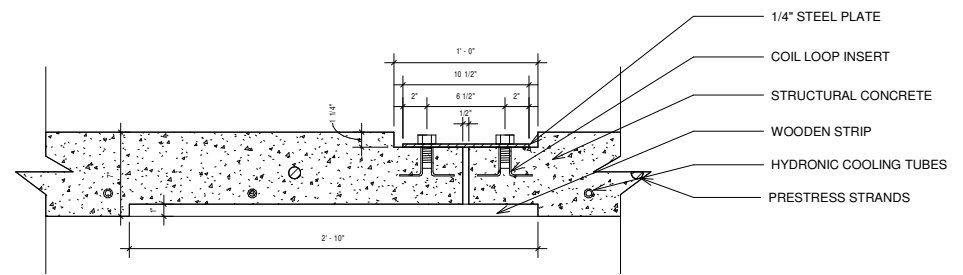
6 WALL TO ROOF (LOAD BEARING WALL)
 1 1/2" = 1'-0"



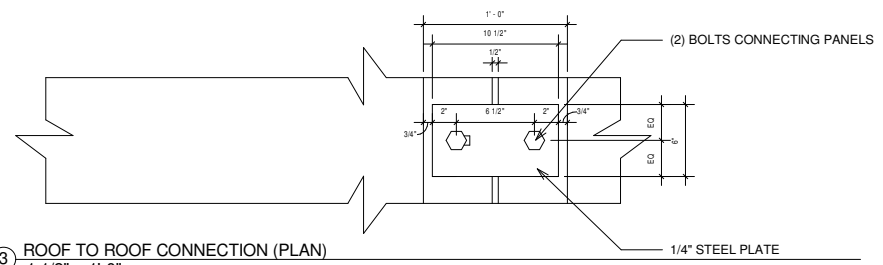
1 WALL TO ROOF (LOAD BEARING CONNECTION)
 1 1/2" = 1'-0"



2 WALL TO ROOF (SHEAR WALL CONNECTION)
 1 1/2" = 1'-0"



4 ROOF TO ROOF CONNECTION (SECTION)
 1 1/2" = 1'-0"



3 ROOF TO ROOF CONNECTION (PLAN)
 1 1/2" = 1'-0"

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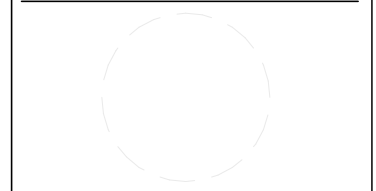
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GENERAL NOTES



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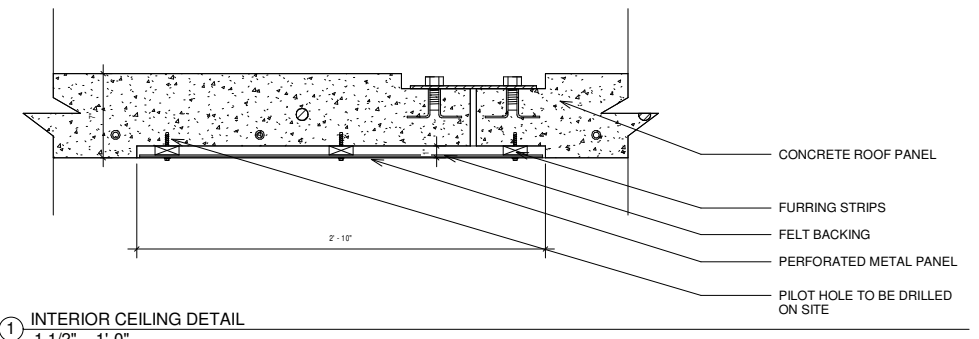
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SHEET TITLE

INTERIOR CEILING DETAILS

A532



① INTERIOR CEILING DETAIL
 1 1/2" = 1'-0"

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GENERAL NOTES

- REFER TO A601 FOR DOOR AND HARDWARE SCHEDULES



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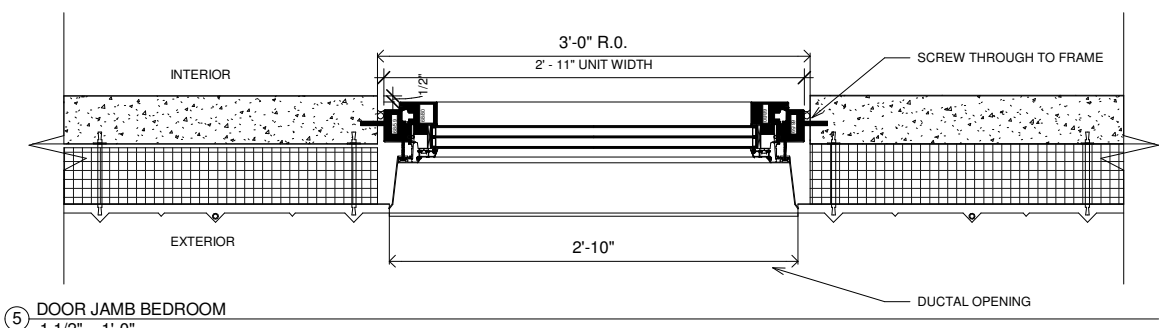


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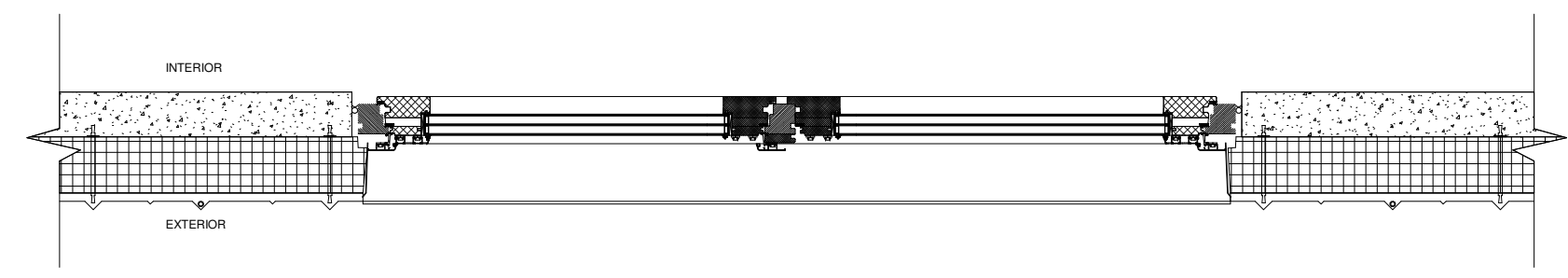
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SHEET TITLE
DOOR DETAILS

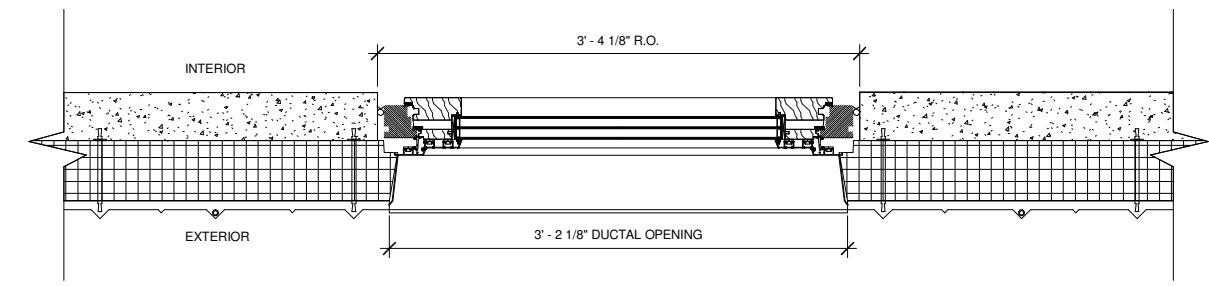
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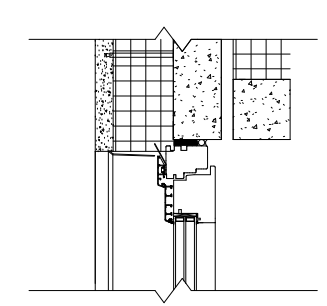
⑤ DOOR JAMB BEDROOM
 1 1/2" = 1'-0"



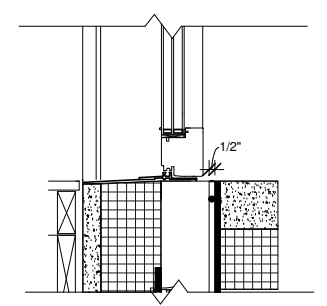
④ DOOR JAMB DETAIL AT SOUTH ENTRANCE
 1 1/2" = 1'-0"



③ DOOR JAMB DETAIL AT NORTH ENTRANCE
 1 1/2" = 1'-0"



① DOOR HEAD DETAIL
 1 1/2" = 1'-0"



② DOOR SILL DETAIL
 1 1/2" = 1'-0"

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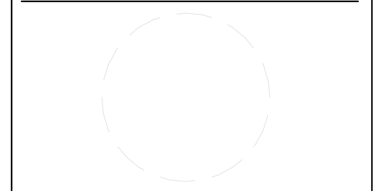
GENERAL NOTES

- REFER TO A601 FOR WINDOW SCHEDULE



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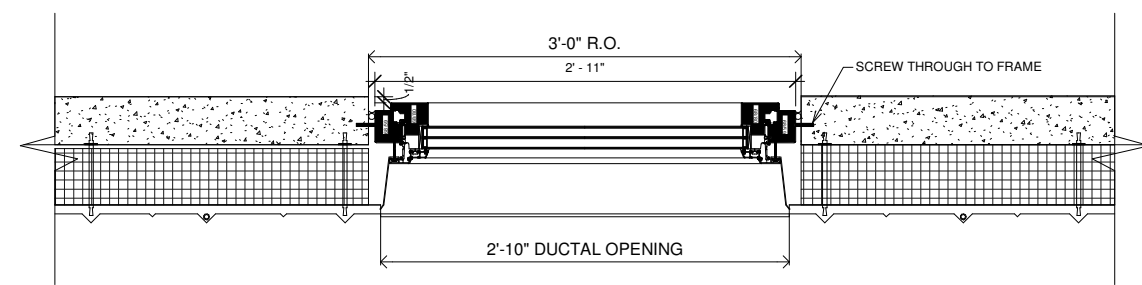
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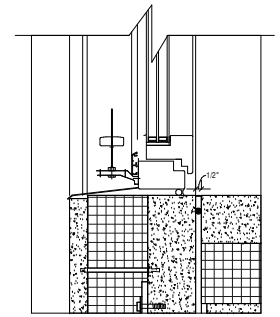
SHEET TITLE

WINDOW DETAILS

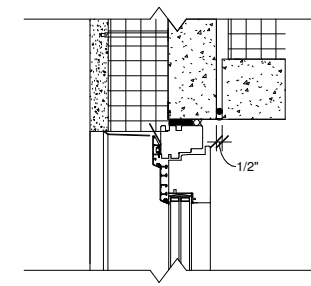
A551



① WINDOW JAMB
 1 1/2" = 1'-0"



② WINDOW SILL
 1 1/2" = 1'-0"



③ WINDOW HEAD
 1 1/2" = 1'-0"

1 2 3 4 5 6 7 8 9 10 11 12 13 14

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GENERAL NOTES

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY.
2. WIND TIE DOWN ANCHOR SHALL BE TESTED IN FIELD AT DEPT SHOWN. TYPE AT DEPTH SHALL BE CAPABLE OF 1000# UPLIFT



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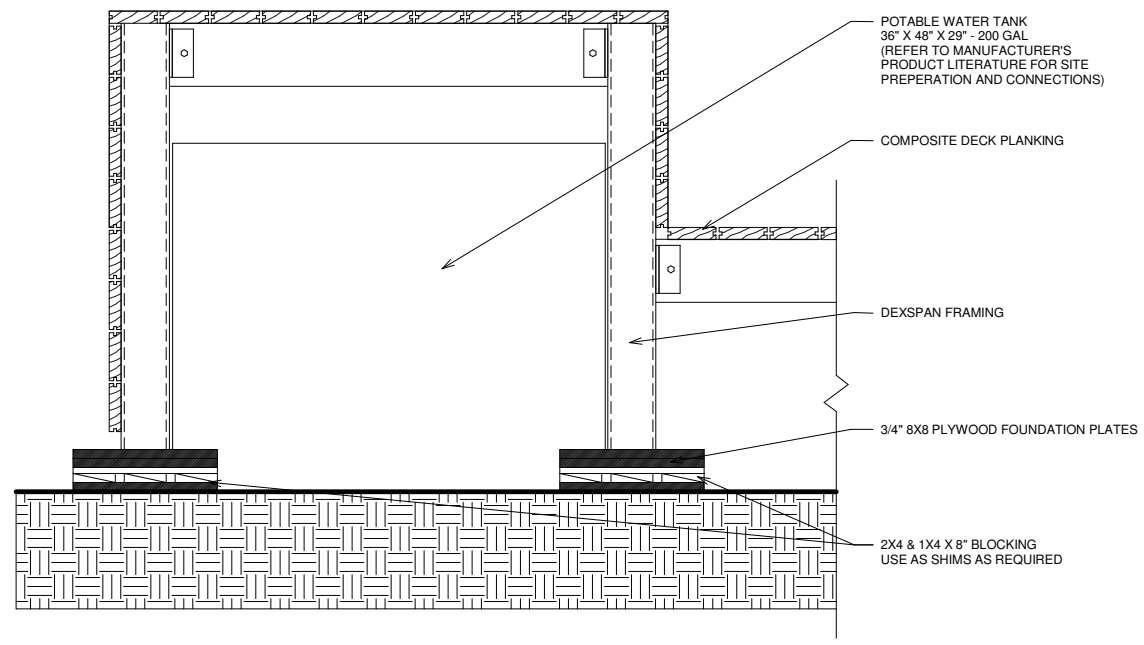


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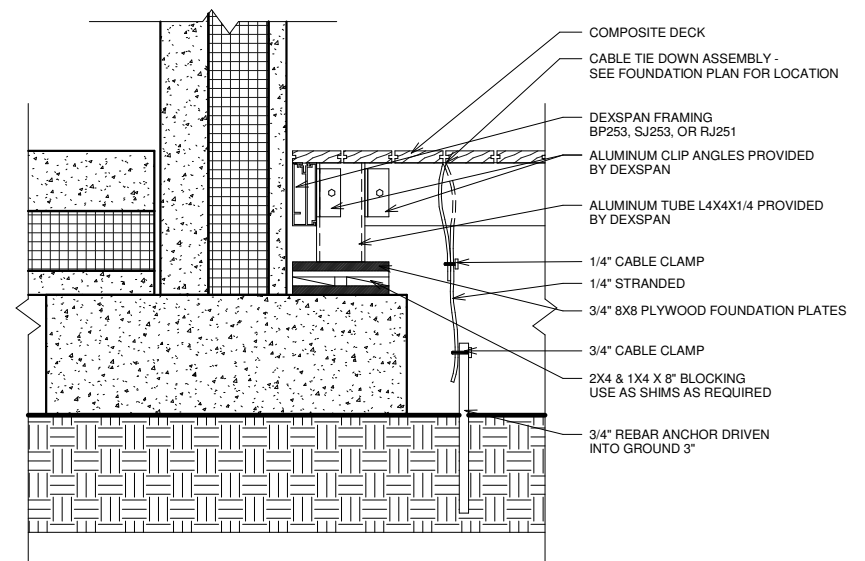
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SHEET TITLE
 DECK DETAILS

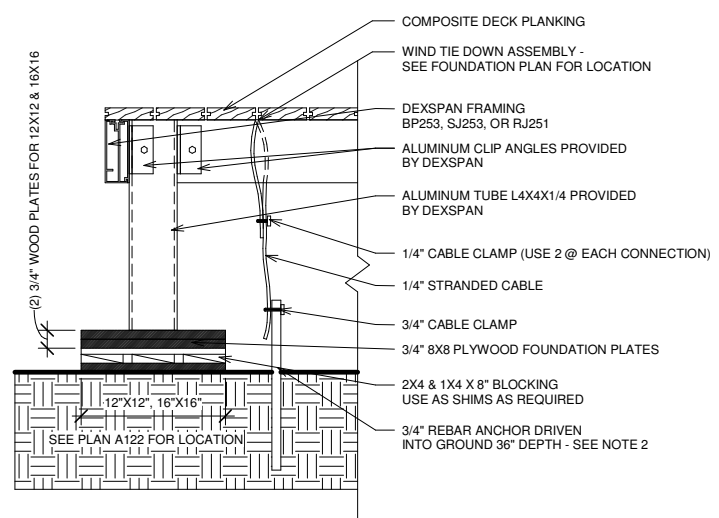
A561



③ DECK WATER STORAGE DETAIL
 1 1/2" = 1'-0"



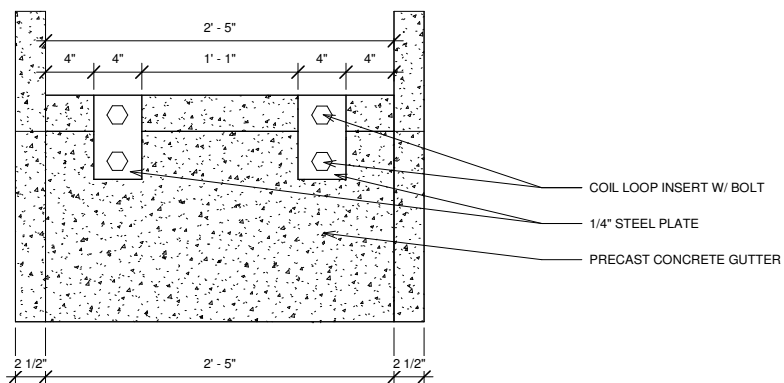
① DECK SUPPORT AT CONCRETE FOOTING
 1 1/2" = 1'-0"



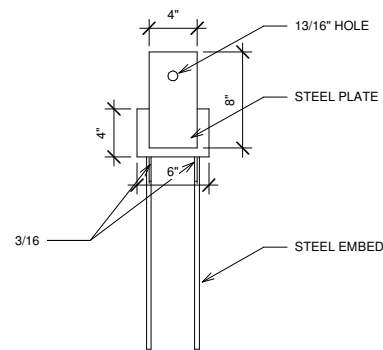
② DECK SUPPORT AT GRADE
 1 1/2" = 1'-0"

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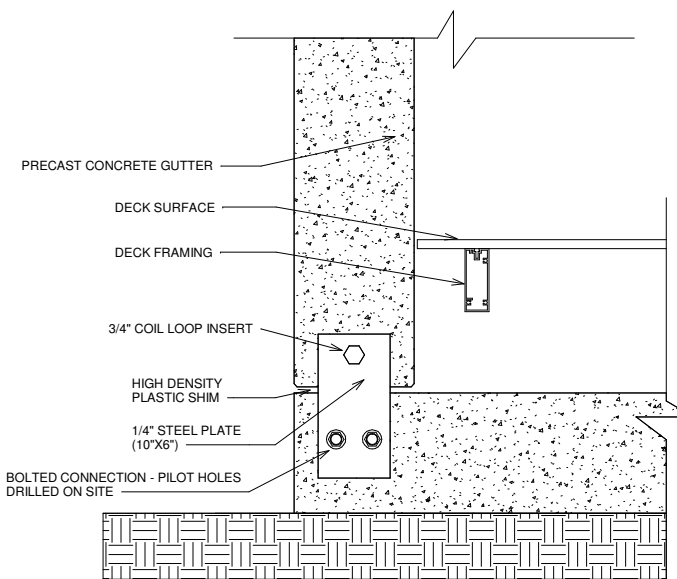
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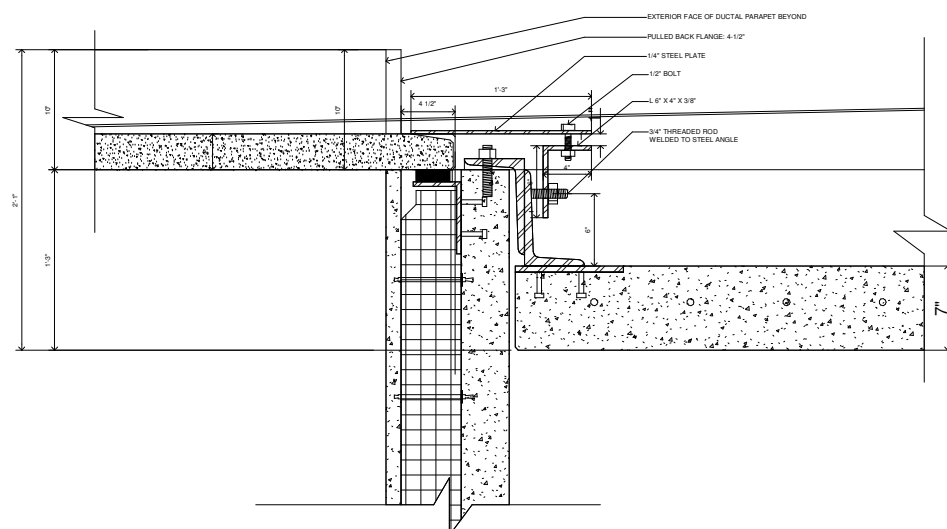
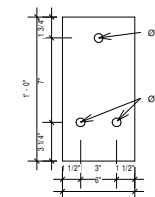
③ GUTTER TO GUTTER CONNECTION (ELEVATION)
1 1/2" = 1'-0"



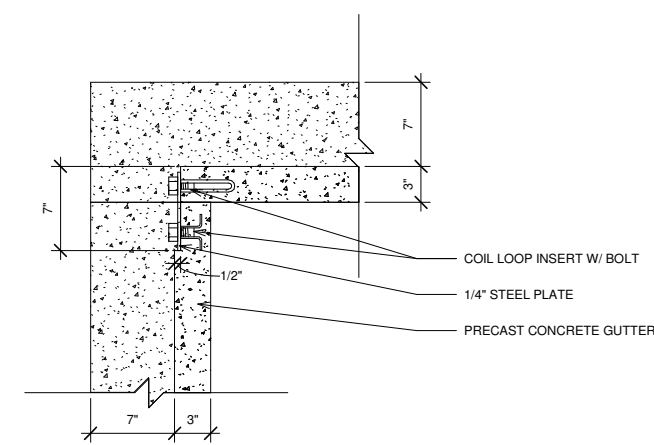
④ GUTTER TO WALL EMBED (PLAN)
1 1/2" = 1'-0"



⑤ GUTTER TO OUTRIGGER FOOTING CONNECTION
1 1/2" = 1'-0"



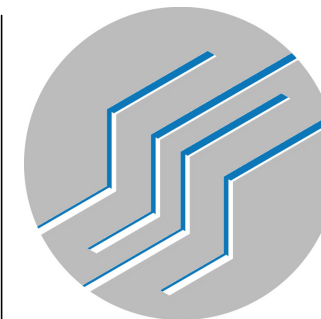
① GUTTER TO WALL CONNECTION FINAL
1 1/2" = 1'-0"



② GUTTER TO GUTTER CONNECTION (SECTION)
1 1/2" = 1'-0"

GENERAL NOTES

- REFER TO A743 FOR ALL PRECAST GUTTER COMPONENT DRAWINGS, INCLUDING CONNECTIONS AND BRACKING LOCATIONS



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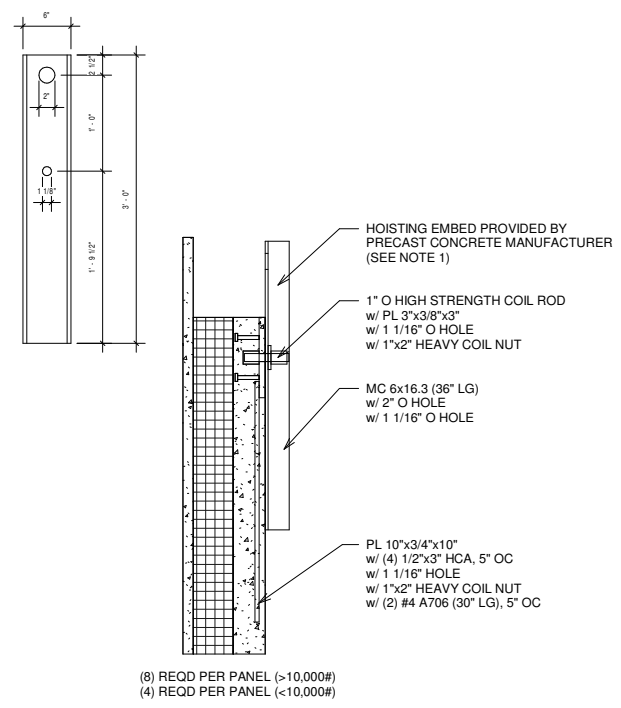
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SHEET TITLE
CONCRETE GUTTER DETAILS

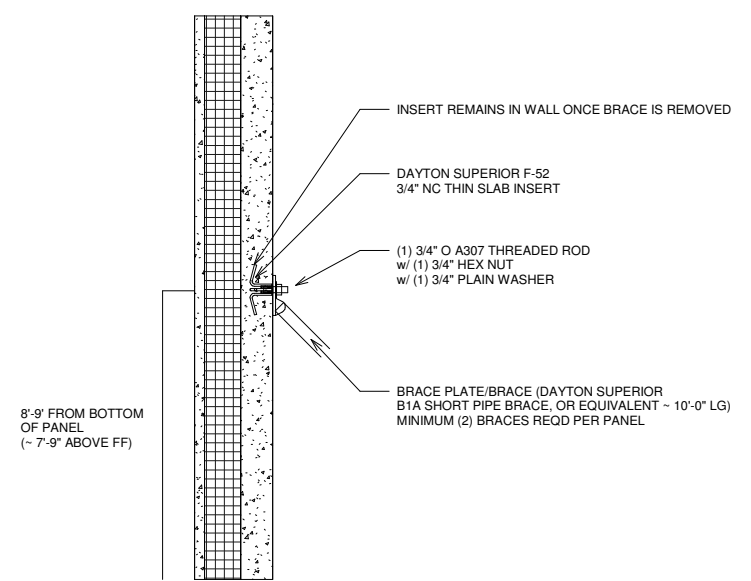
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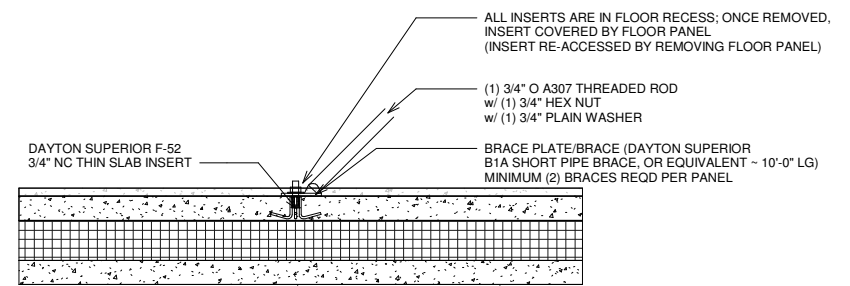
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① TEMPORARY WALL HOISTING CONNECTION
1" = 1'-0"



② TEMPORARY WALL BRACING
1" = 1'-0"



③ TEMPORARY FLOOR BRACING
1" = 1'-0"

GENERAL NOTES

- 4:1 SAFETY RATIO
- 8 PER PANEL ON LOAD BEARING WALLS
- 4 PER PANEL ON SHEAR PANEL



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SHEET TITLE

TEMPORARY PRECAST DETAILS

A581

GENERAL NOTES

- ROUGH OPENINGS ARE MEASURED IN THE OUTER LAYER OF CONCRETE IN EACH WALL PANEL, WHICH ENCRONCH ON EACH WINDOW AND DOORS USABLE SPACE



DOOR SCHEDULE

MARK	DOOR DIMENSIONS		ROUGH OPENING (MEASURED BY GATE)		MANUFACTURER	MODEL	SWING TYPE	FRAME TYPE	FIRE RATING	DETAIL			MATERIALS AND FINISHES	
	HEIGHT	WIDTH	HEIGHT	WIDTH						HEAD	JAMB	SILL	DOOR	FRAME
100A	8' - 11 1/4"	6' - 5 3/4"	9'-0"	6'-6 1/4"	MFRG		B	TYP.	N/A	3 / A541	4 / A541	2 / A541		Prefinished
100B	8' - 11 1/4"	3' - 3 1/2"	9'-0"	3'-4"	MFRG		A	TYP.	N/A	3 / A541	1 / A541	2 / A541		Prefinished
108E	8' - 11 1/4"	2' - 11 1/4"	9'-0"	3'-0"	MFRG									
109C	8' - 11 1/4"	2' - 11 1/4"	8'-11 5/8"	2'-11 3/4"	MFRG									

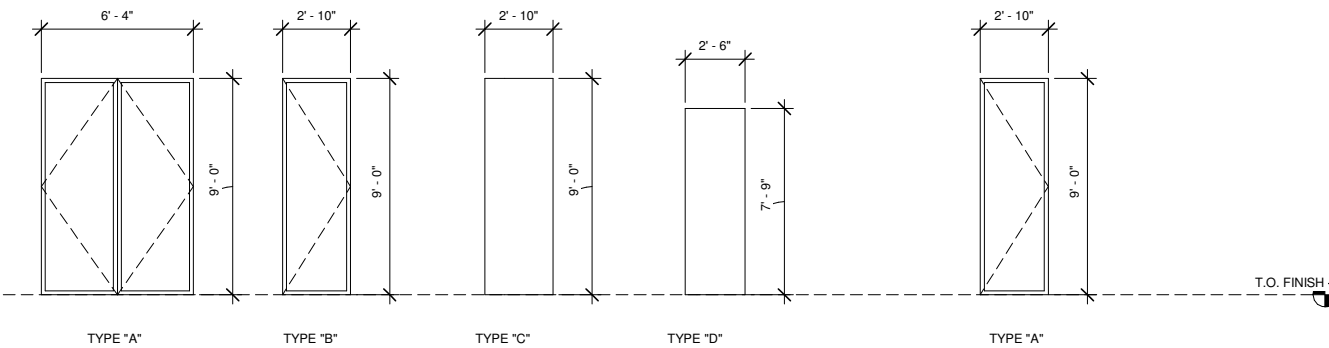
WINDOW SCHEDULE

MARK	DESIGNED DIMENSIONS		ROUGH OPENING (MEASURED BY GATE)		MANUFACTURER	MODEL	MATERIAL	FINISH	DETAIL			GLAZING		HEAD HEIGHT
	HEIGHT	WIDTH	HEIGHT	WIDTH					JAMB	HEAD	SILL	THICKNESS	TYPE	
A1	8' - 11 1/4"	2' - 11 1/4"	8'-11 3/4"	3'-0"	MFRG			Prefinished	1 / A531	3 / A531	2 / A531	1 7/8"	Insulated Triple Pane LowE	8' - 11"
A2	8' - 11 1/4"	2' - 11 1/4"	9'-0"	3'-0"	MFRG			Prefinished	1 / A531	3 / A531	2 / A531	1 7/8"	Insulated Triple Pane LowE	8' - 11"
A3	8' - 11 1/4"	2' - 11 1/4"	9'-0"	2'-11 3/4"	MFRG			Prefinished	1 / A531	3 / A531	2 / A531	1 7/8"	Insulated Triple Pane LowE	8' - 11"
A4	8' - 11 1/4"	2' - 11 1/4"	9'-0"	3'-0"	MFRG			Prefinished	1 / A531	3 / A531	2 / A531	1 7/8"	Insulated Triple Pane LowE	8' - 11"
A5	8' - 11 1/4"	2' - 11 1/4"	8' - 11 7/8"	3'-0 3/16"	MFRG			Prefinished	1 / A531	3 / A531	2 / A531	1 7/8"	Insulated Triple Pane LowE	8' - 11"
A6	8' - 11 1/4"	2' - 11 1/4"	9'-0 1/8"	3'-0"	MFRG			Prefinished	1 / A531	3 / A531	2 / A531	1 7/8"	Insulated Triple Pane LowE	8' - 11"
B1	8' - 11 1/4"	2' - 1 1/2"	8'-11 13/16"	2'-2"	MFRG			Prefinished	1 / A531	3 / A531	2 / A531	1 7/8"	Insulated Triple Pane LowE	8' - 11"
B2	8' - 11 1/4"	2' - 1 1/2"	8'-11 7/8"	2'-2"	MFRG			Prefinished	1 / A531	3 / A531	2 / A531	1 7/8"	Insulated Triple Pane LowE	8' - 11"
B3	8' - 11 1/4"	2' - 1 1/2"	9'-0"	2'-2"	MFRG			Prefinished	1 / A531	3 / A531	2 / A531	1 7/8"	Insulated Triple Pane LowE	8' - 11"

DOOR TYPES

WINDOW TYPES

DOOR HARDWARE



- ALL DOOR HARDWARE WILL COMPLY WITH SECTION 404.2.7 OF THE ADA STANDARDS.
- HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERABLE PARTS ON DOORS SHALL COMPLY WITH 309.4.
- OPERABLE PARTS OF SUCH HARDWARE SHOULD BE 34" MIN. AND 48" MAX. ABOVE THE FINISH FLOOR OR GROUND.

1 DOOR, WINDOW, & FRAME TYPES

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SHEET TITLE
 ARCHITECTURAL SCHEDULES

A601



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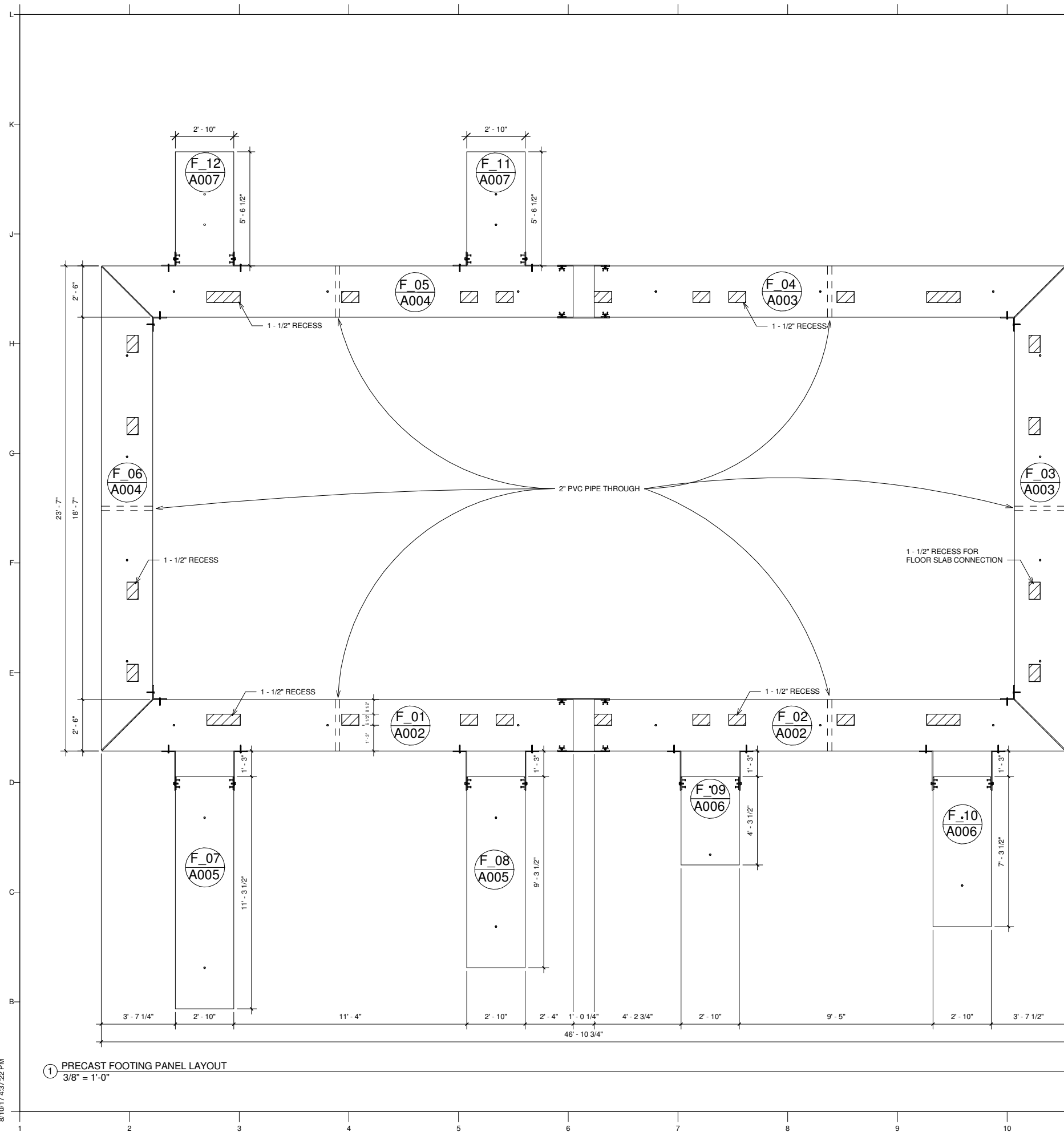


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SHEET TITLE
 STRUCTURAL PRECAST
 CONCRETE FOOTINGS

A701



① PRECAST FOOTING PANEL LAYOUT
 3/8" = 1'-0"

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GENERAL NOTES



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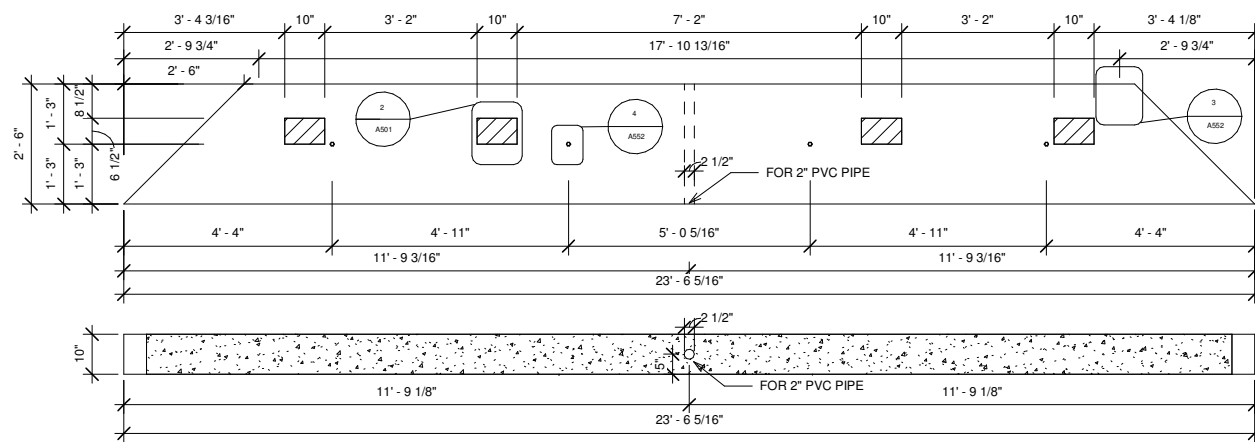


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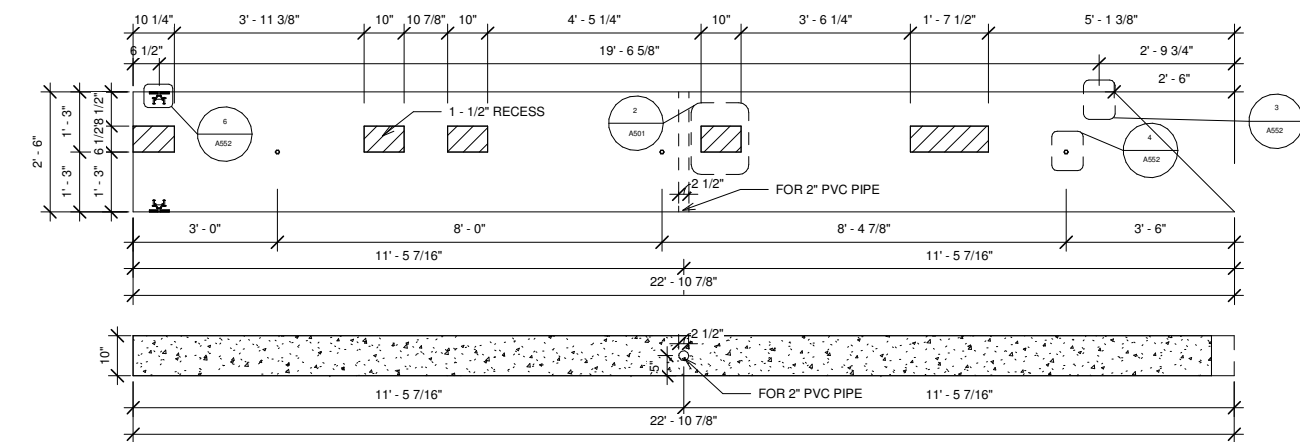
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SHEET TITLE
 STRUCTURAL PRECAST
 CONCRETE FOOTINGS

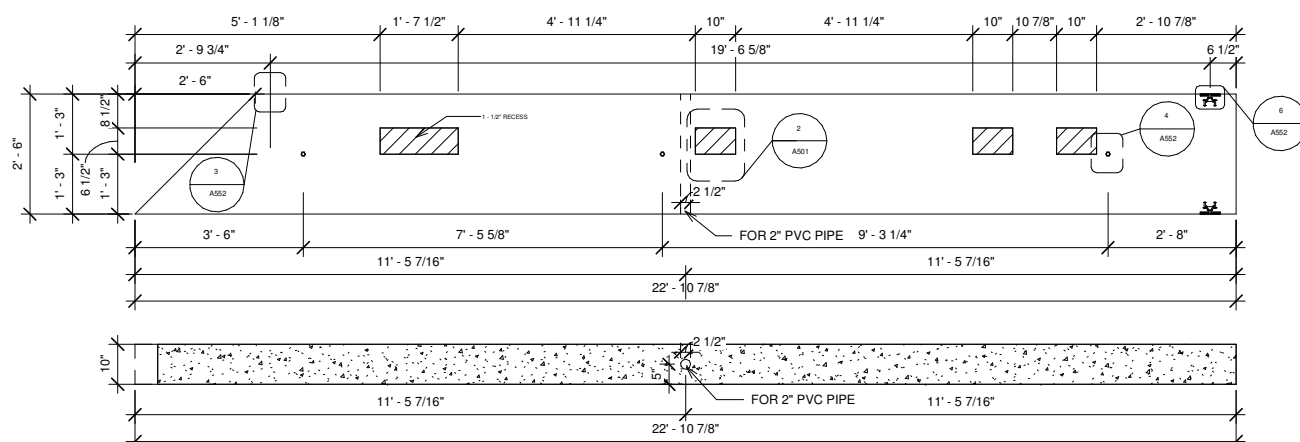
A702



③ PRECAST FOOTING PANELS 03
 1/2" = 1'-0"



② PRECAST FOOTING PANELS 02
 1/2" = 1'-0"



① PRECAST FOOTING PANELS 01
 1/2" = 1'-0"

GENERAL NOTES



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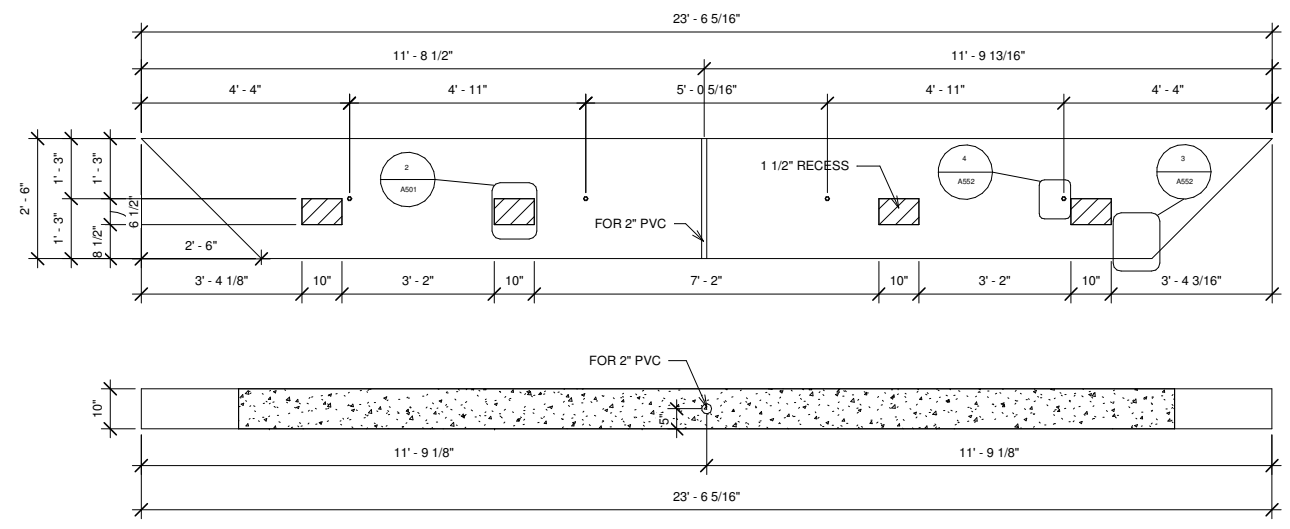


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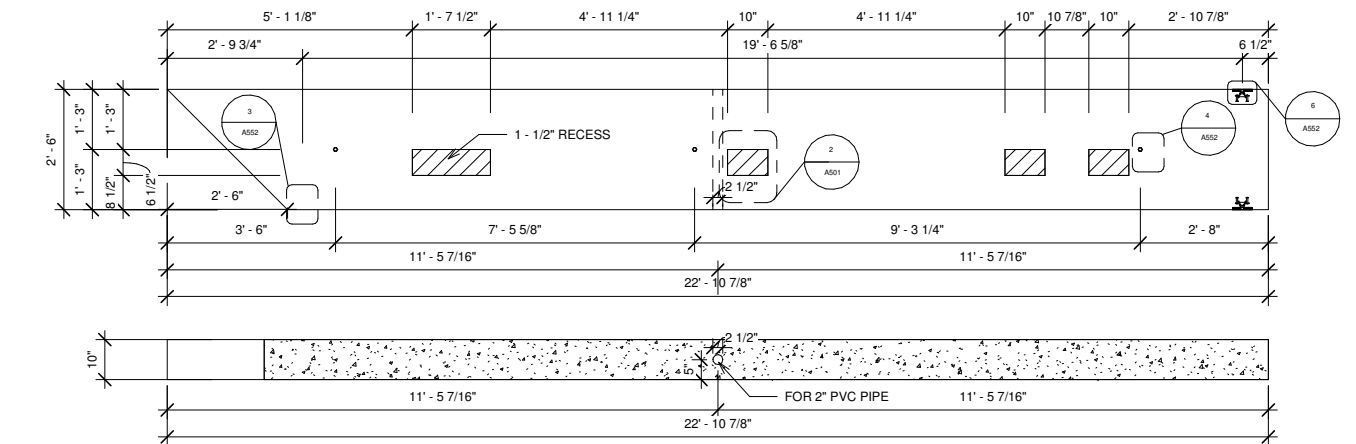
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SHEET TITLE
 STRUCTURAL PRECAST
 CONCRETE FOOTINGS

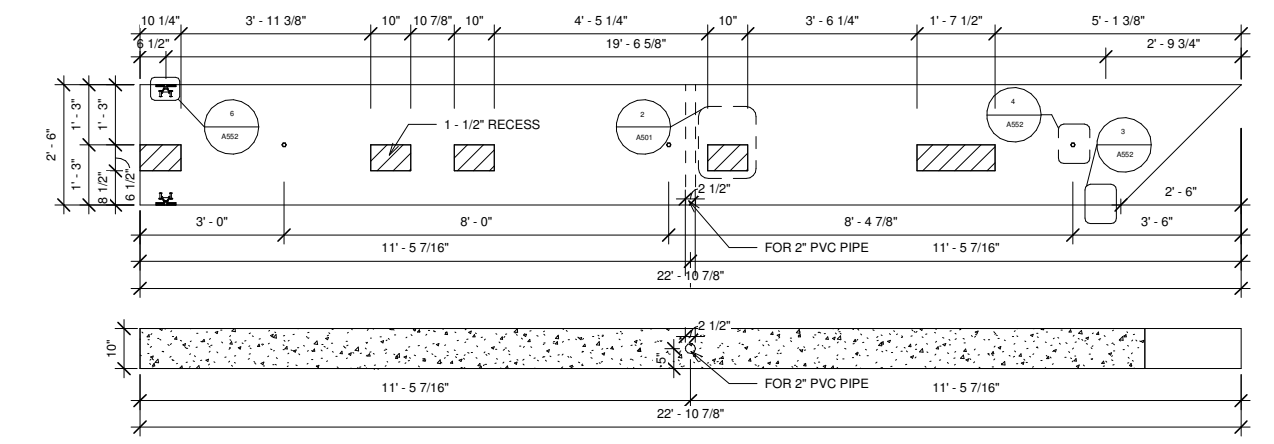
A703



③ PRECAST FOOTING PANELS 06
 1/2" = 1'-0"



② PRECAST FOOTING PANELS 05
 1/2" = 1'-0"



① PRECAST FOOTING PANELS 04
 1/2" = 1'-0"

GENERAL NOTES



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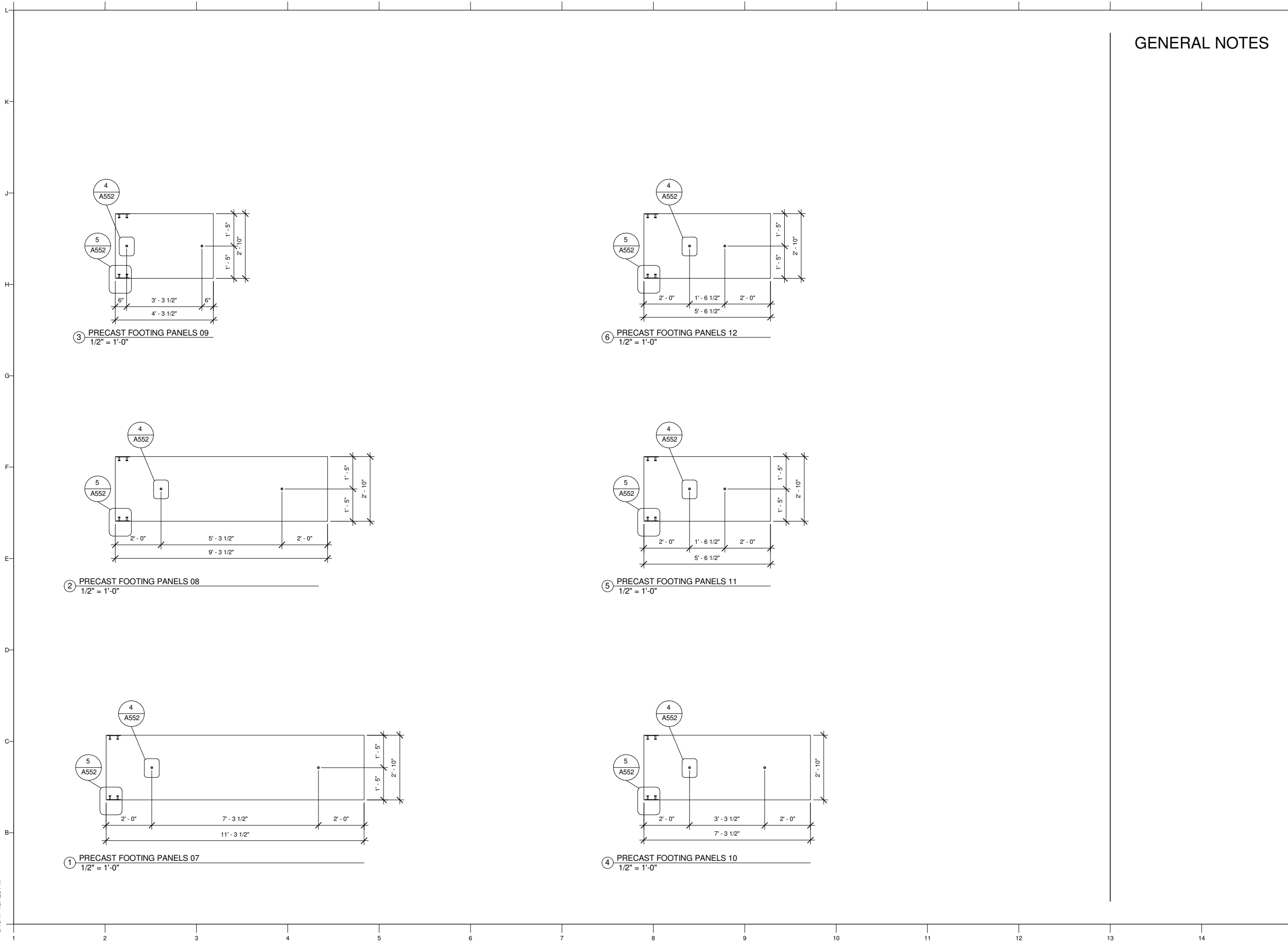
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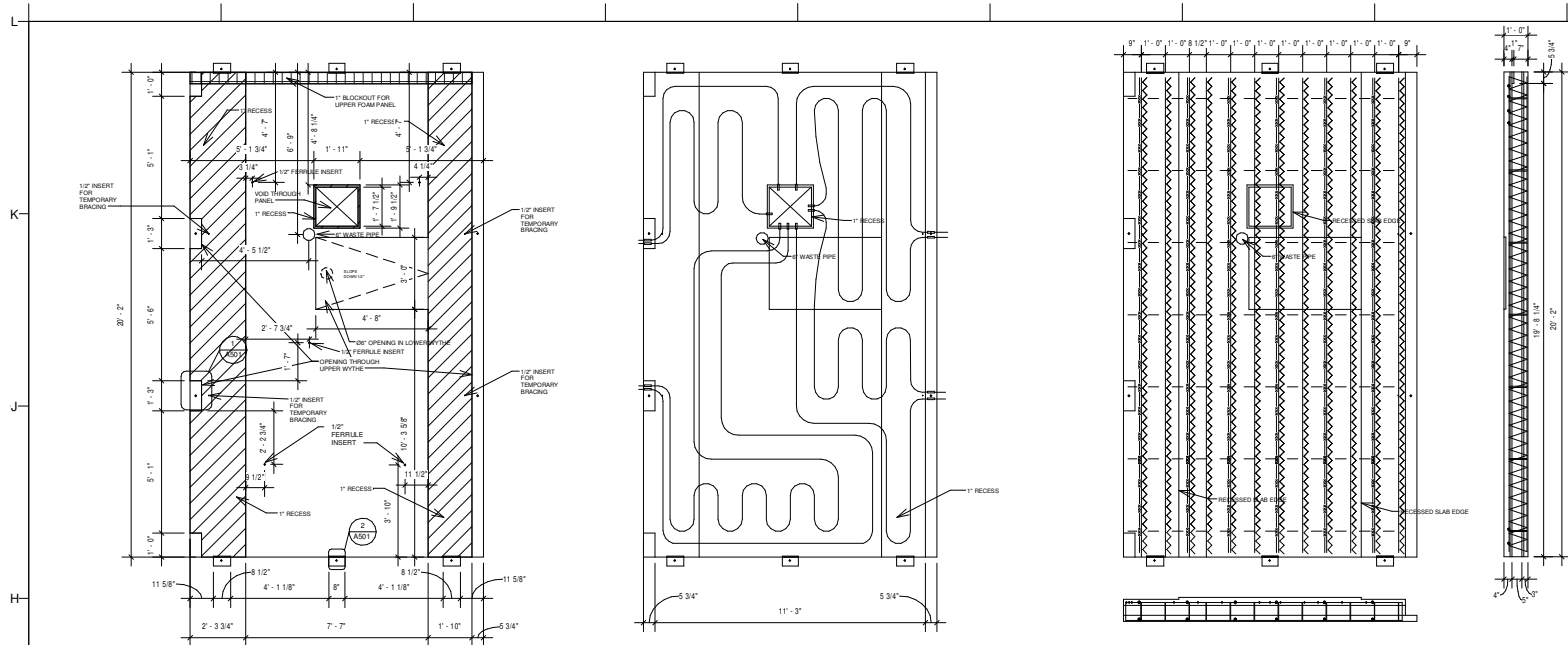
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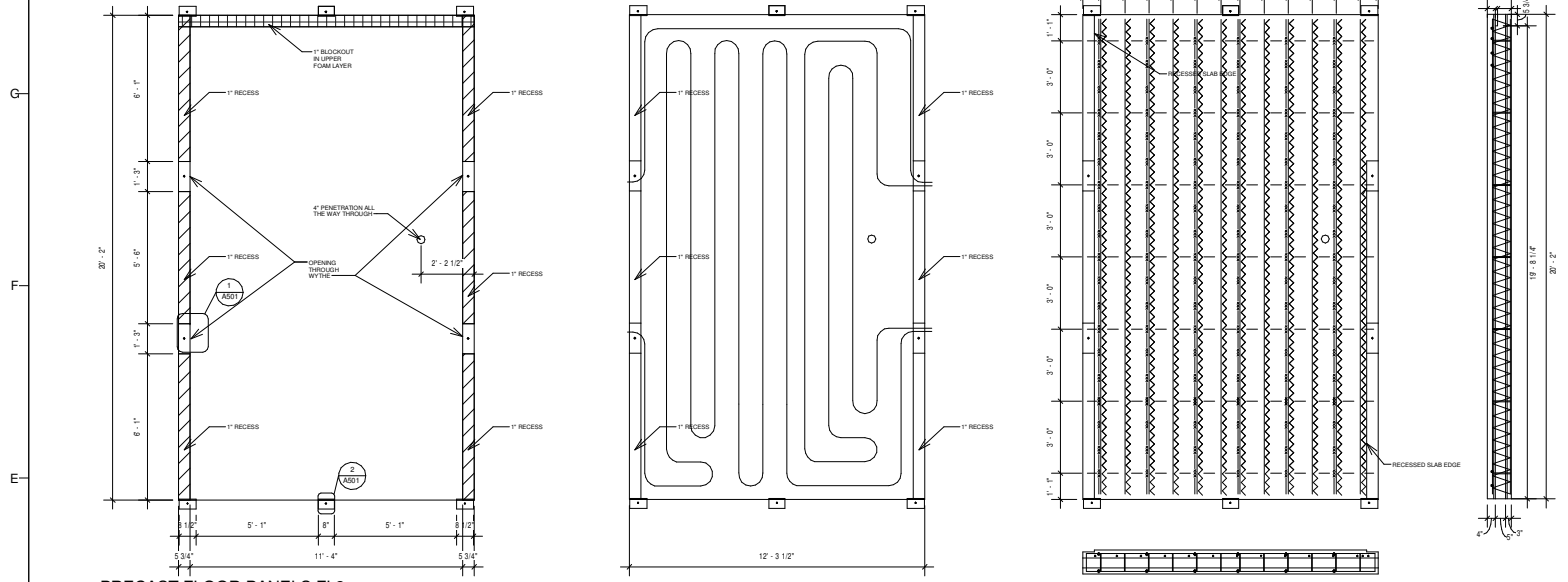
STRUCTURAL PRECAST
 CONCRETE FOOTINGS

A704

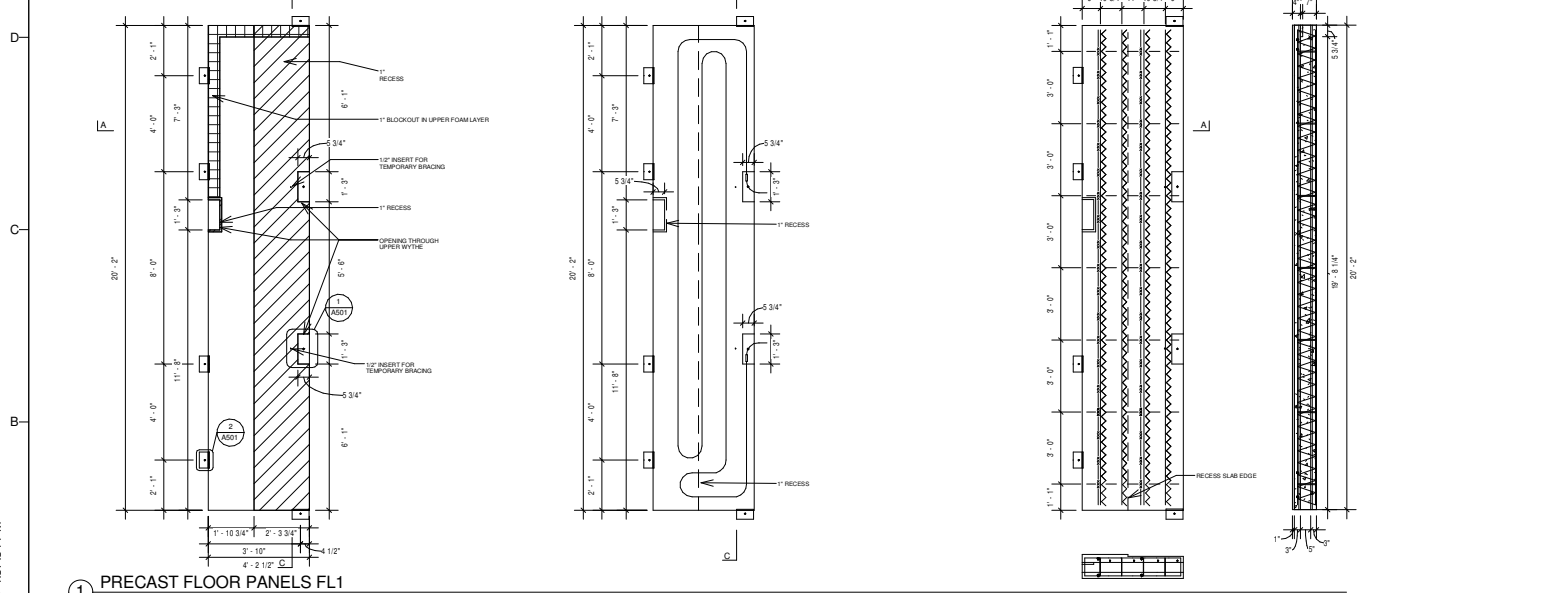




3 PRECAST FLOOR PANELS FL3
1/4" = 1'-0"



2 PRECAST FLOOR PANELS FL2
1/4" = 1'-0"



1 PRECAST FLOOR PANELS FL1
1/4" = 1'-0"

GENERAL NOTES

1. ALL PENETRATIONS CAST BY MANUFACTURER.



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SHEET TITLE
 STRUCTURAL PRECAST
 CONCRETE FLOOR
 PANELS

A712

GENERAL NOTES



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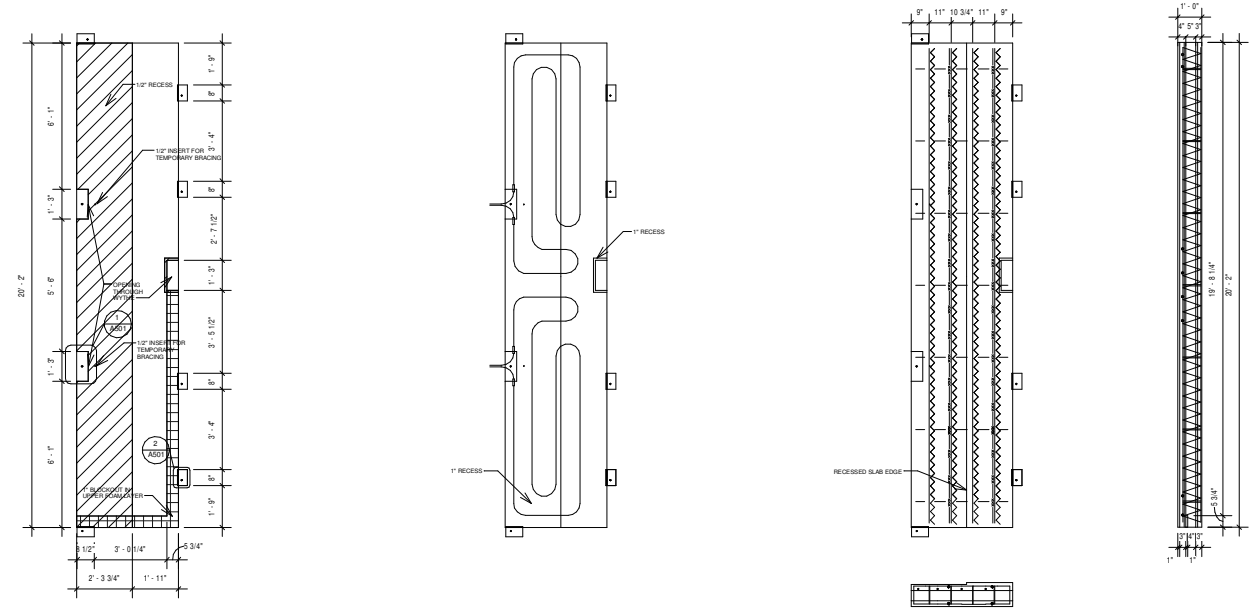
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SHEET TITLE
 STRUCTURAL PRECAST
 CONCRETE FLOOR
 PANELS

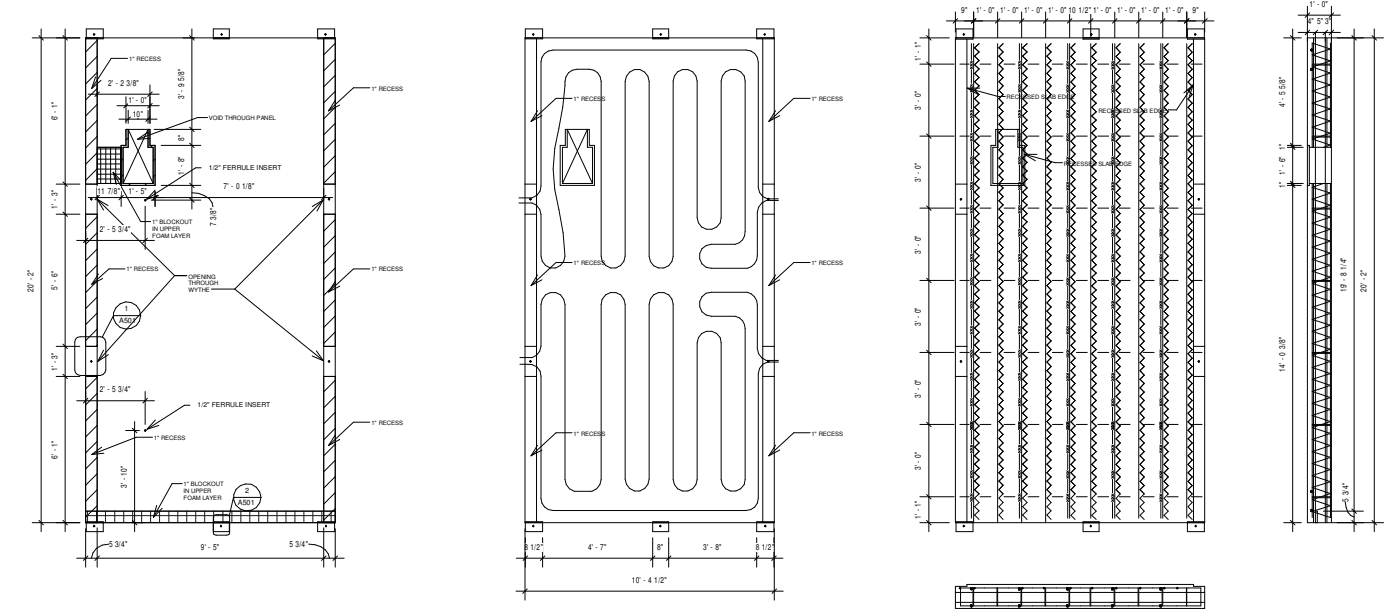
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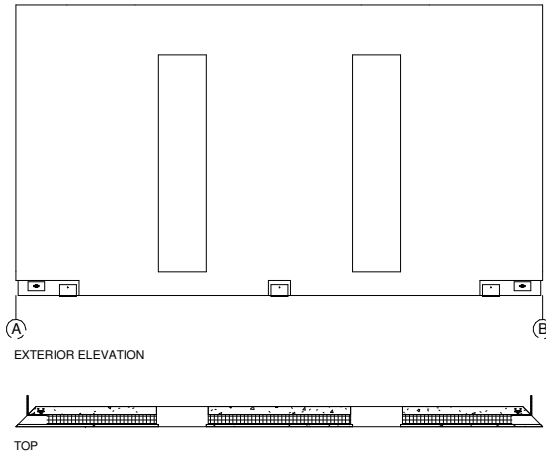


② PRECAST FLOOR PANELS FL5
 1/4" = 1'-0"

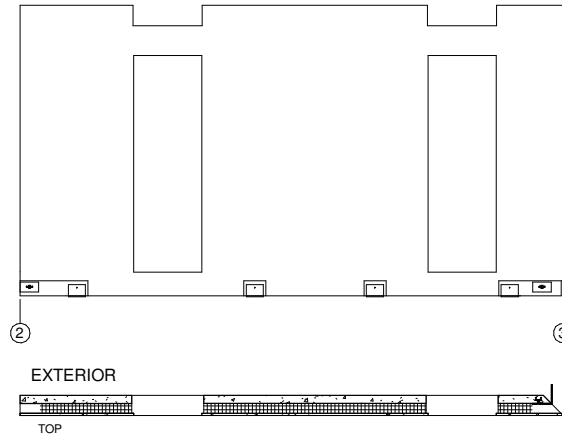
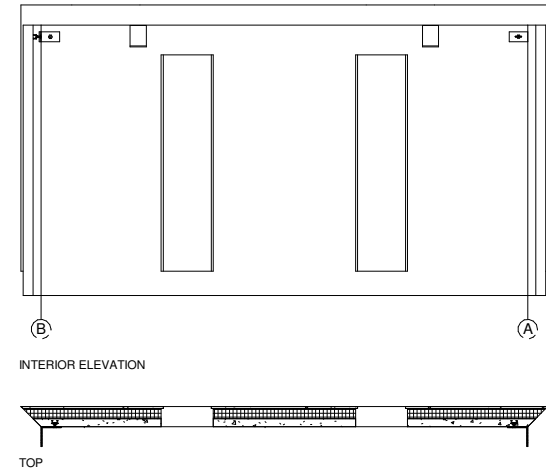


① PRECAST FLOOR PANELS FL4
 1/4" = 1'-0"

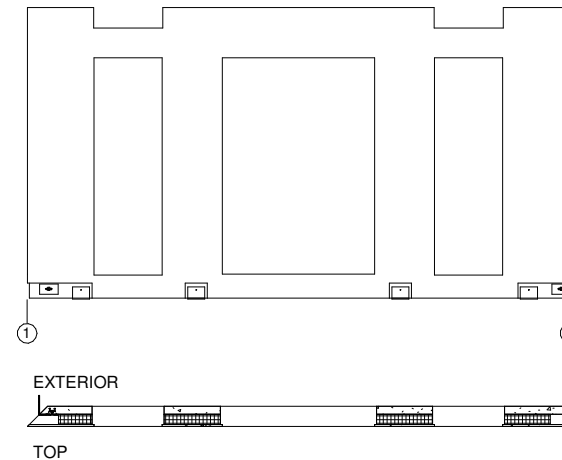
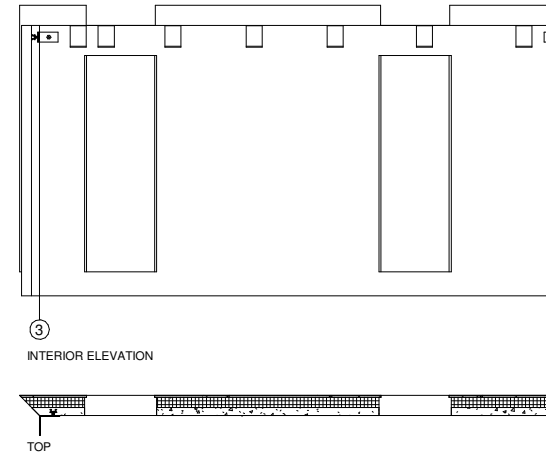
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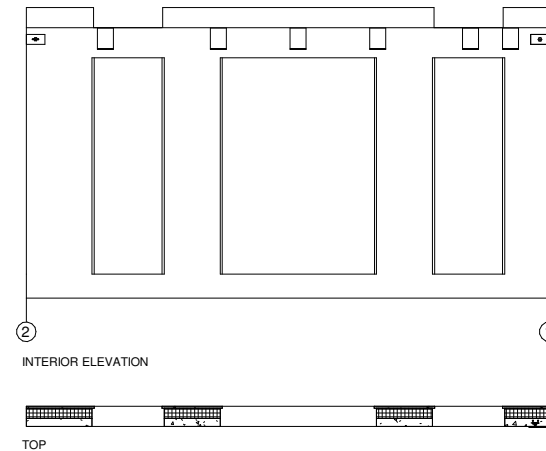
③ PRECAST WALL PANEL 3
1/4" = 1'-0"



② PRECAST WALL PANEL 2
1/4" = 1'-0"



① PRECAST WALL PANEL 1
1/4" = 1'-0"



GENERAL NOTES



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MARK	DATE	DESCRIPTION

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SHEET TITLE

STRUCTURAL PRECAST
 CONCRETE WALL
 PANELS

A721

1 2 3 4 5 6 7 8 9 10 11 12 13 14

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GENERAL NOTES



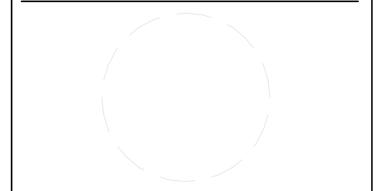
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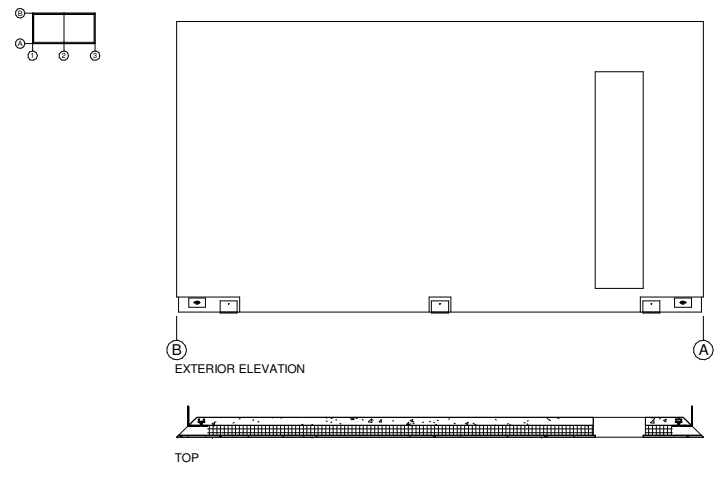


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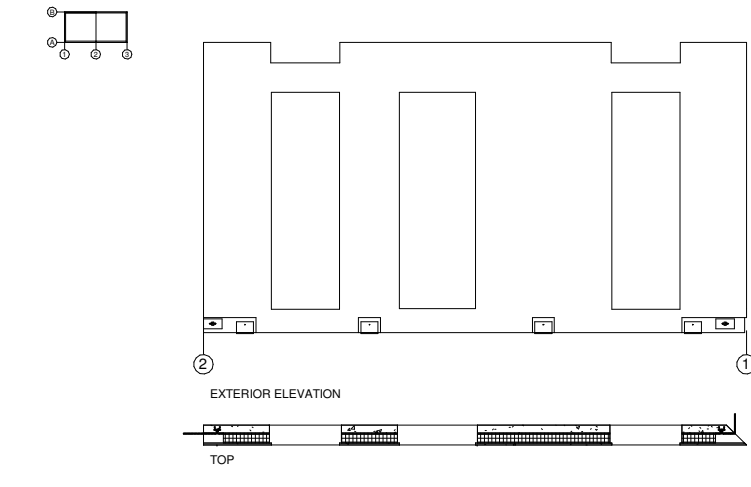
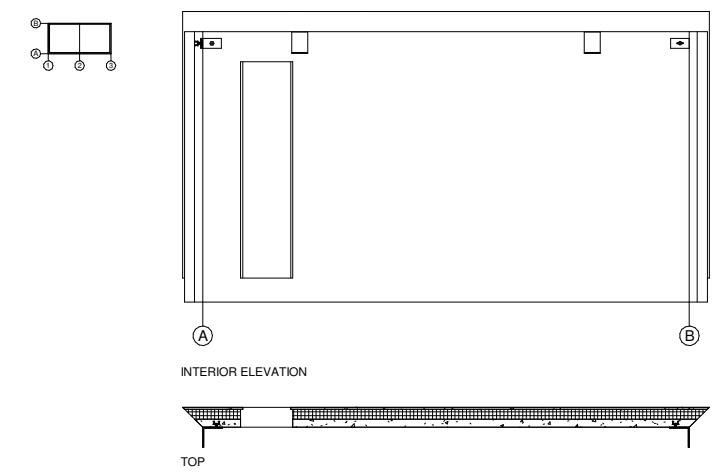
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SHEET TITLE
 STRUCTURAL PRECAST
 CONCRETE WALL
 PANELS

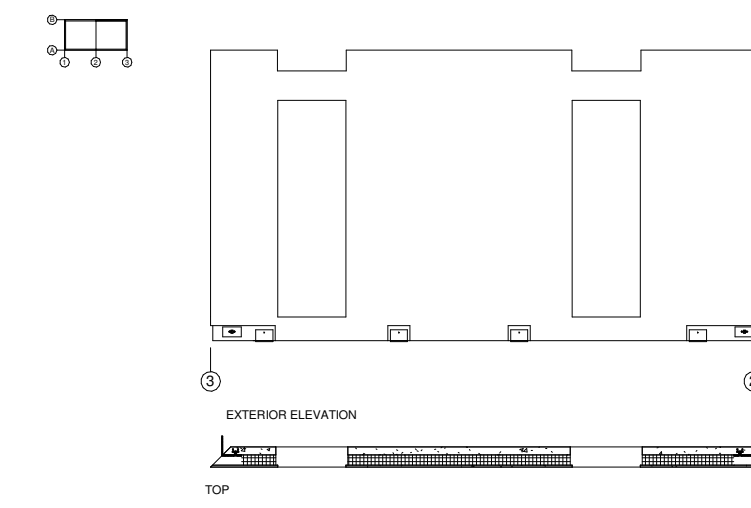
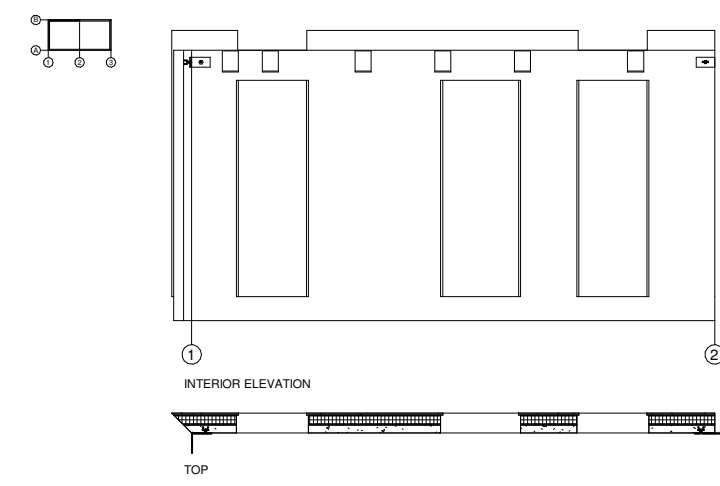
A722



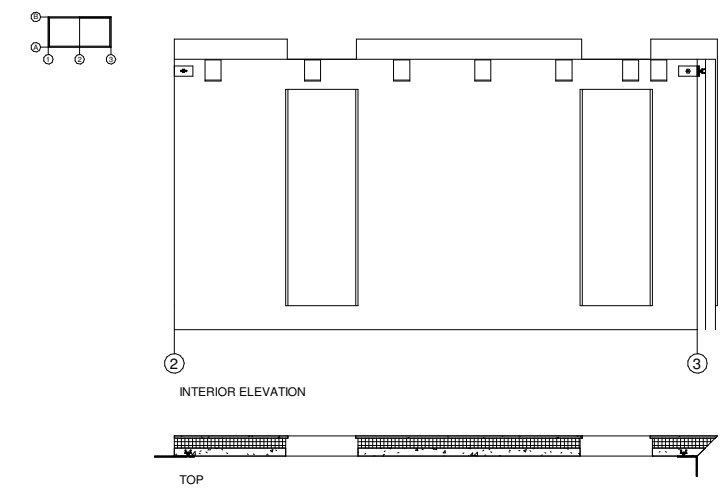
③ PRECAST WALL PANEL 6
 1/4" = 1'-0"



② PRECAST WALL PANEL 5
 1/4" = 1'-0"



① PRECAST WALL PANEL 4
 1/4" = 1'-0"





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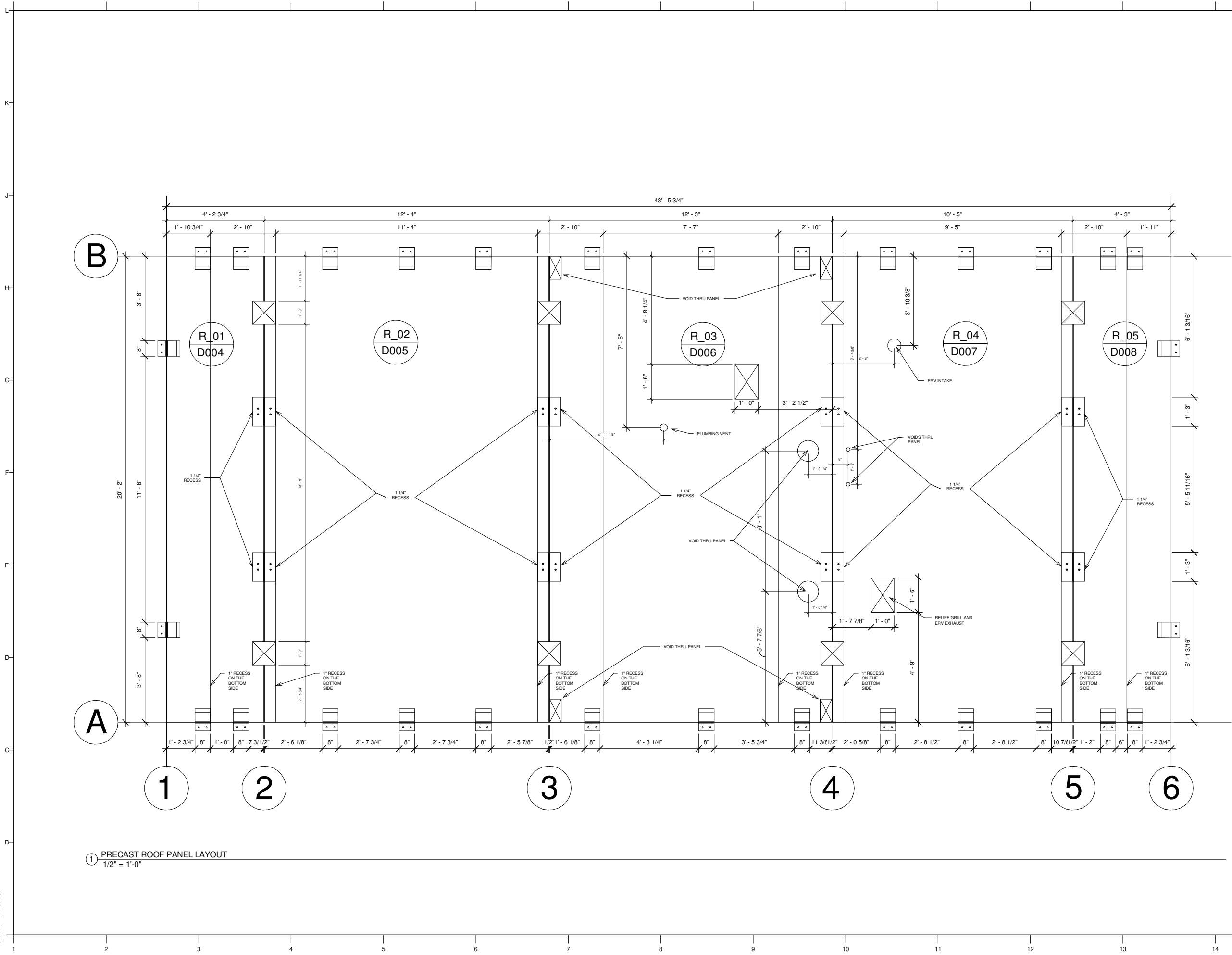
MARK	DATE	DESCRIPTION

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SHEET TITLE

**STRUCTURAL PRECAST
 CONCRETE ROOF
 PANELS**

A731



① PRECAST ROOF PANEL LAYOUT
 1/2" = 1'-0"

8/10/17 4:37:44 PM

8/10/17 4:37:46 PM

GENERAL NOTES



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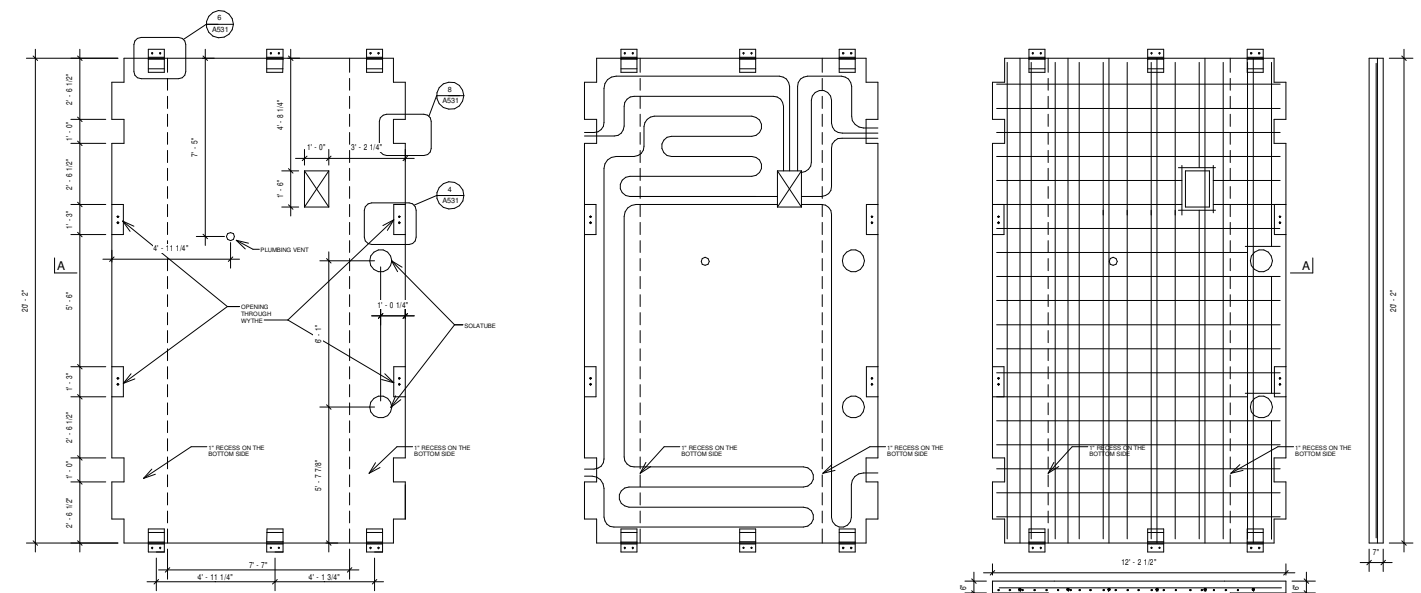
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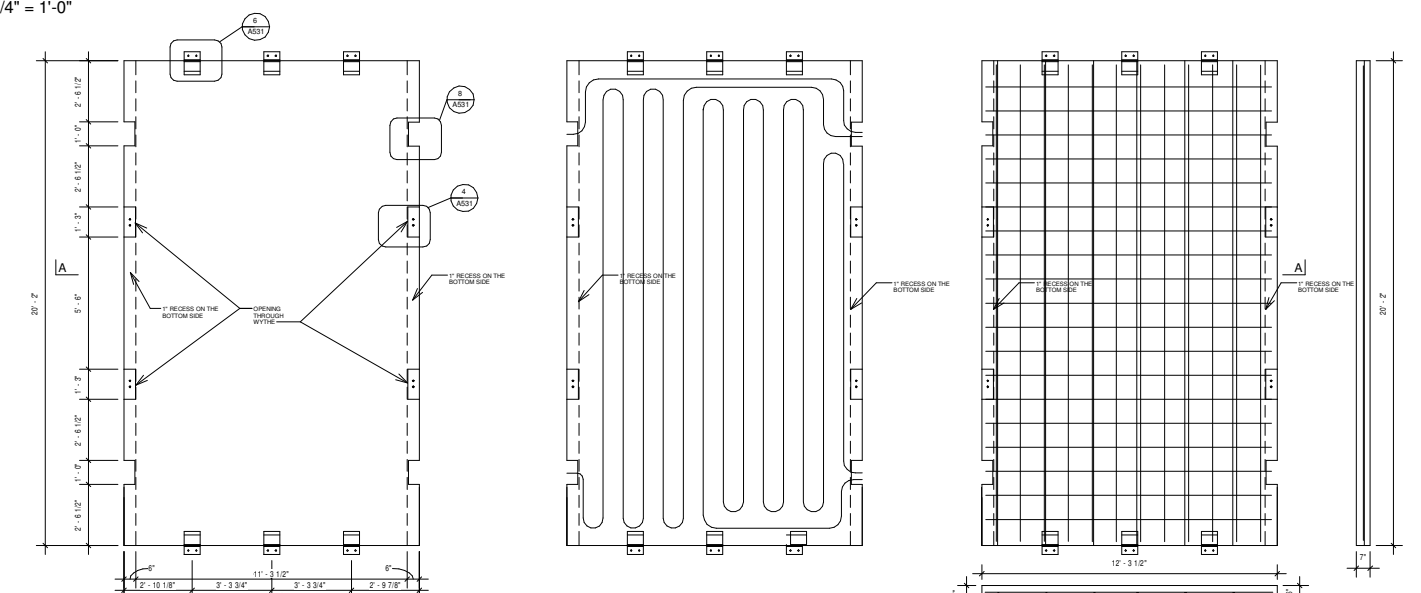
STRUCTURAL PRECAST
 CONCRETE ROOF
 PANELS

A732

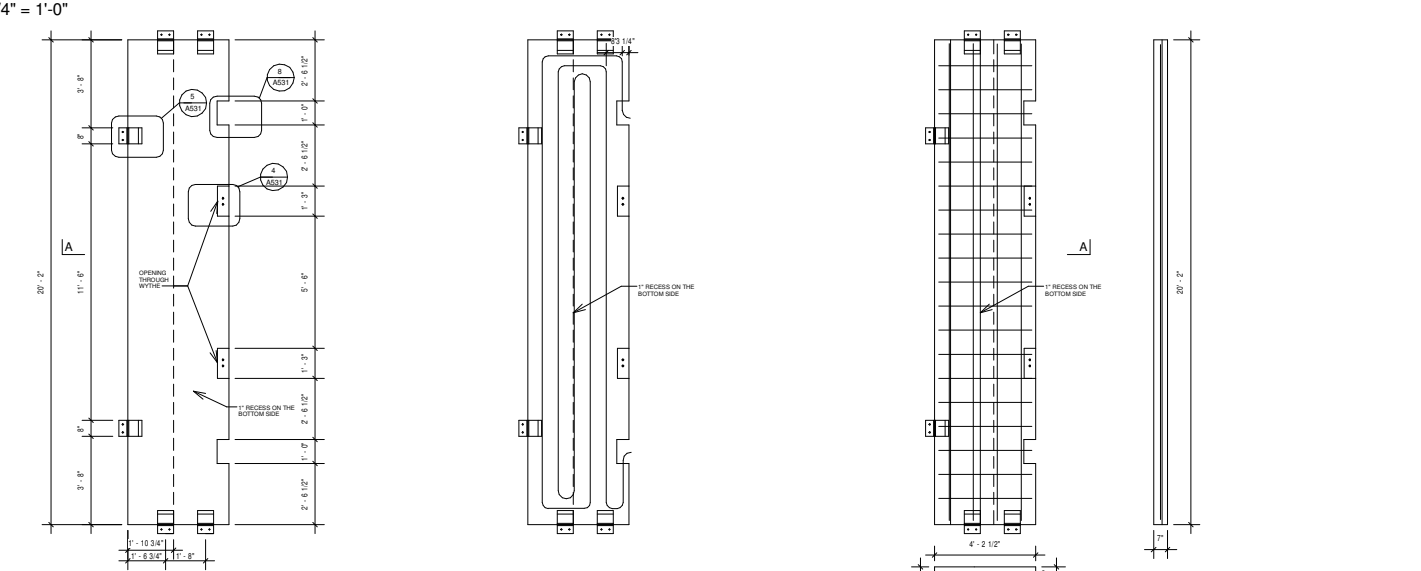
3 PRECAST ROOF PANELS R03
 1/4" = 1'-0"

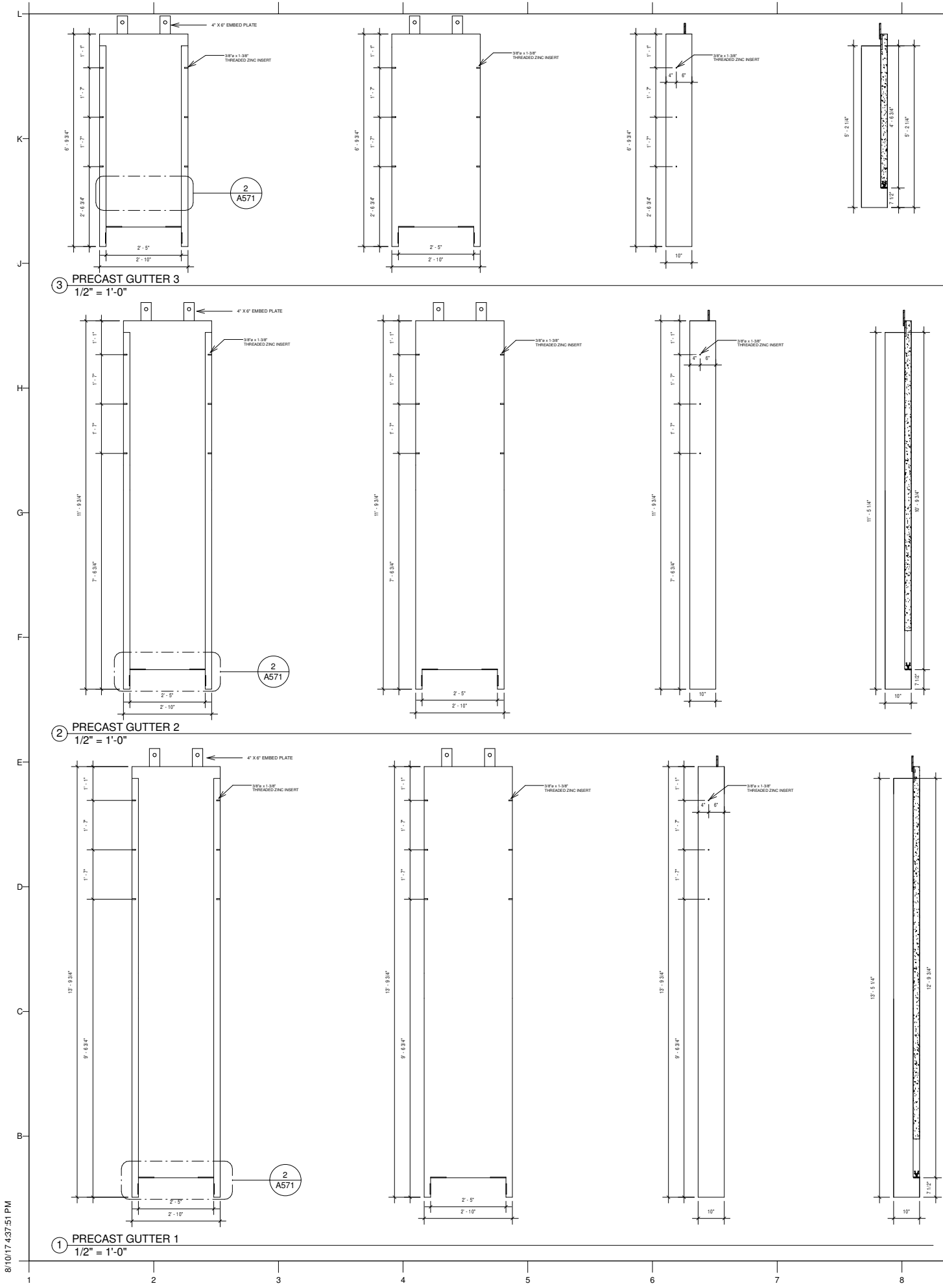


2 PRECAST ROOF PANELS R02
 1/4" = 1'-0"



1 PRECAST ROOF PANELS R01
 1/4" = 1'-0"





GENERAL NOTES

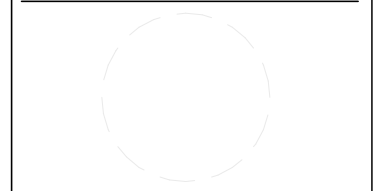


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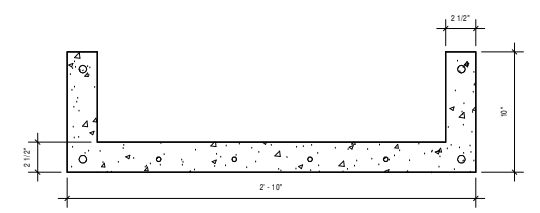


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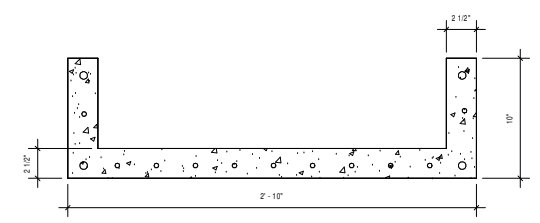
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SHEET TITLE
PRECAST CONCRETE GUTTERS

A741



⑤ GUTTER CROSS SECTION - VERTICAL
 1 1/2" = 1'-0"



④ GUTTER CROSS SECTION - HORIZONTAL
 1 1/2" = 1'-0"

GENERAL NOTES



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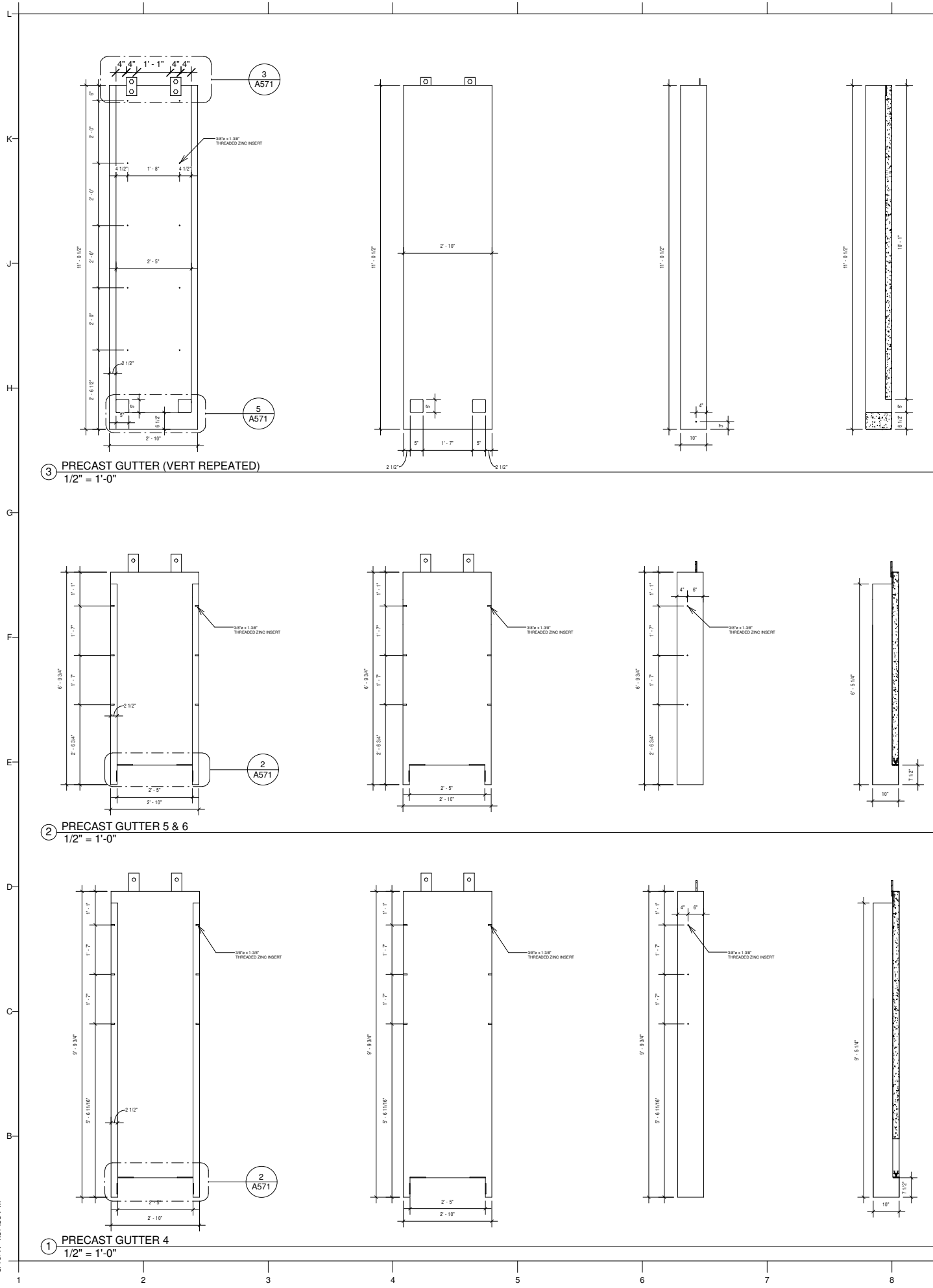


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SHEET TITLE
 PRECAST CONCRETE
 GUTTERS

A742





TEAM NAME: TEAM WASHU
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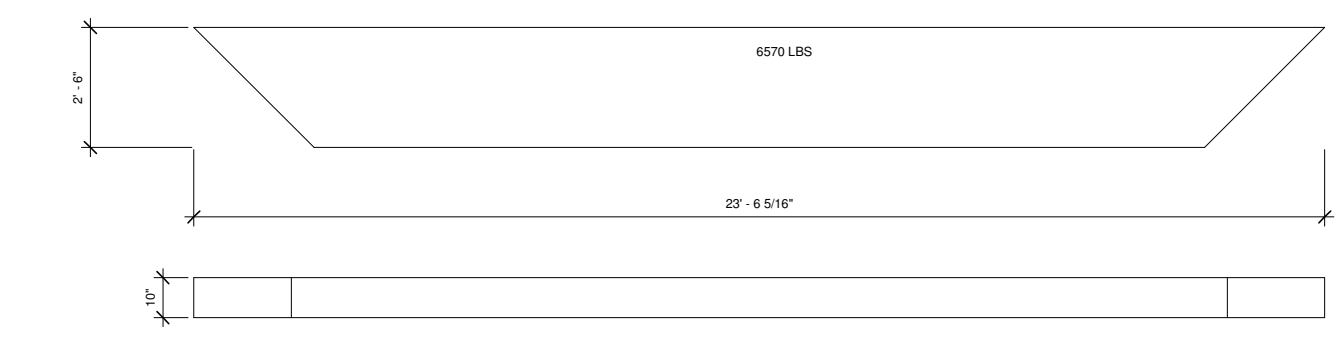
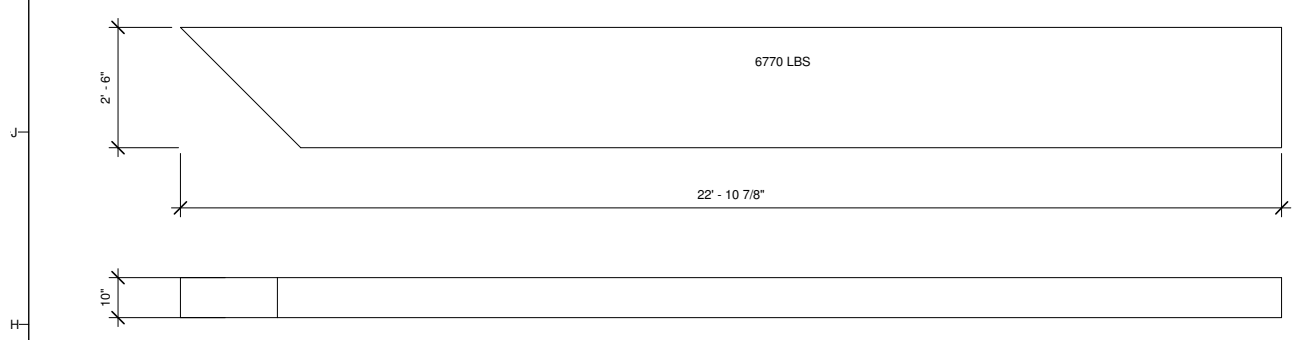
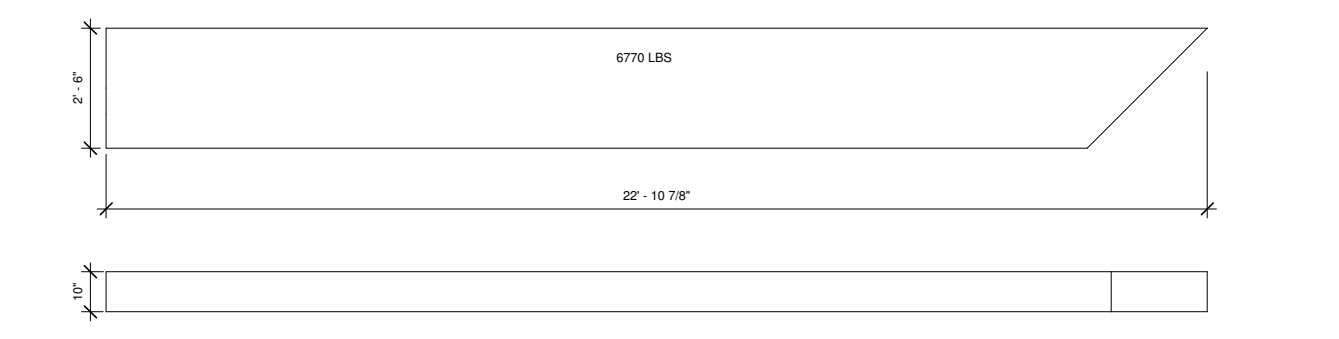
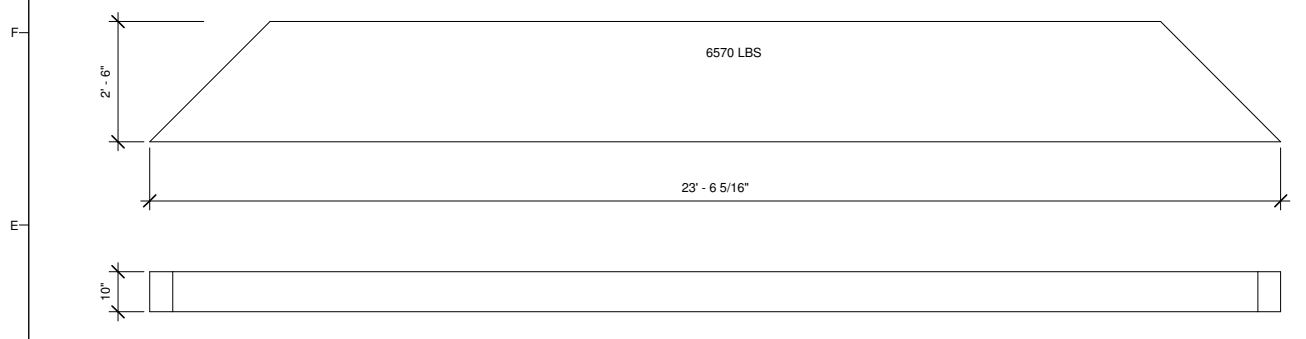
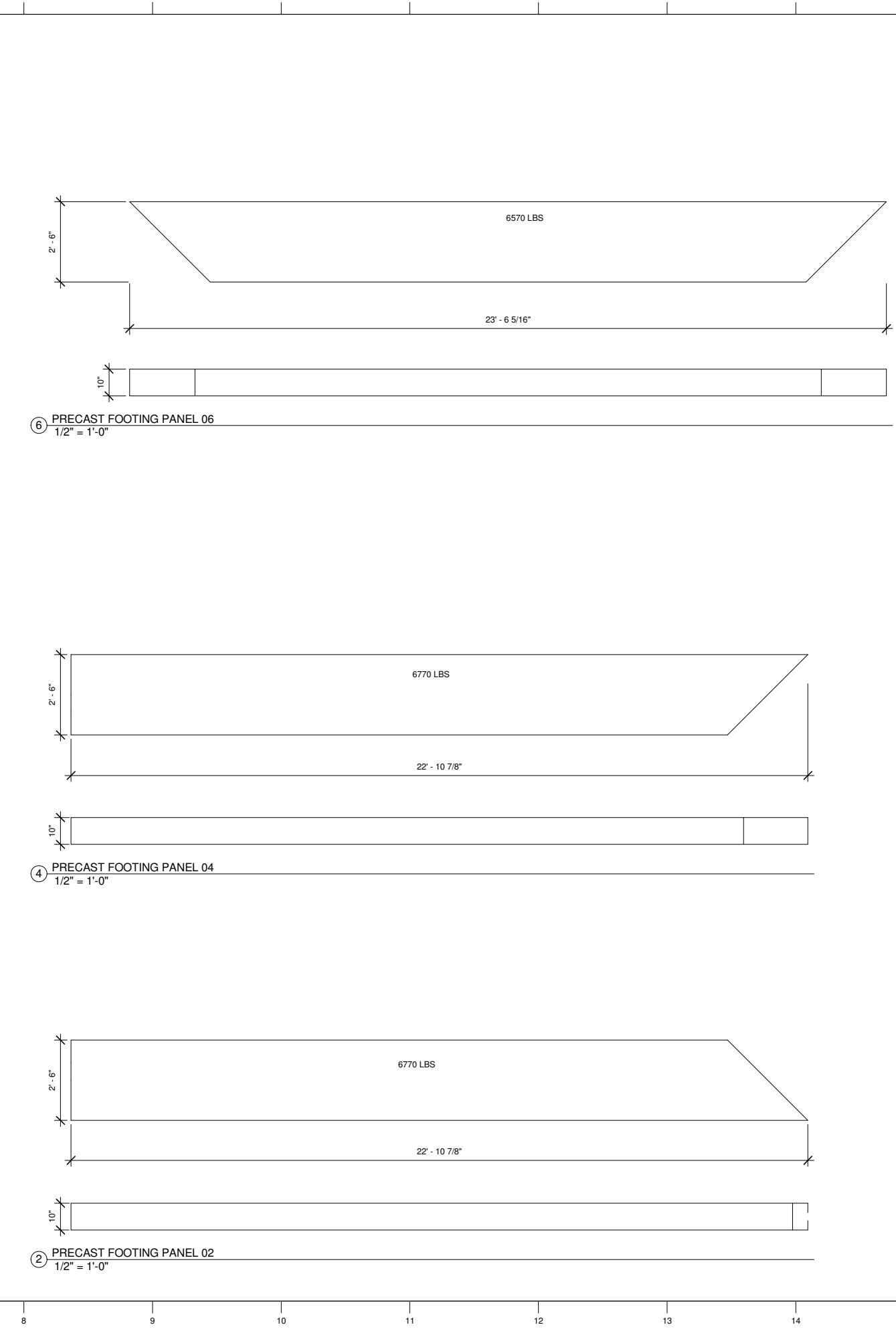
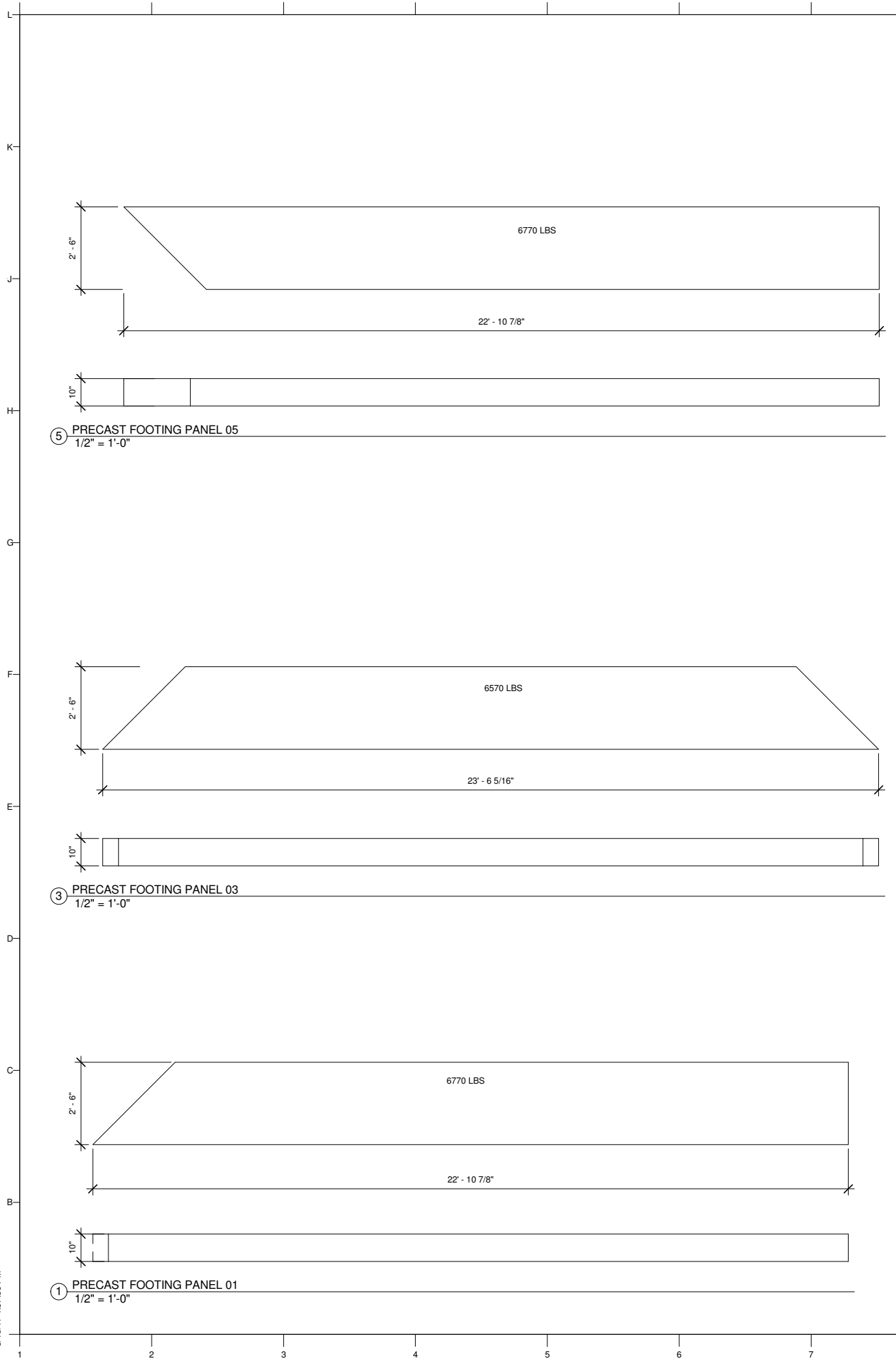
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SHEET TITLE

PRECAST ERECTOR SET FOOTINGS

A751



GENERAL NOTES



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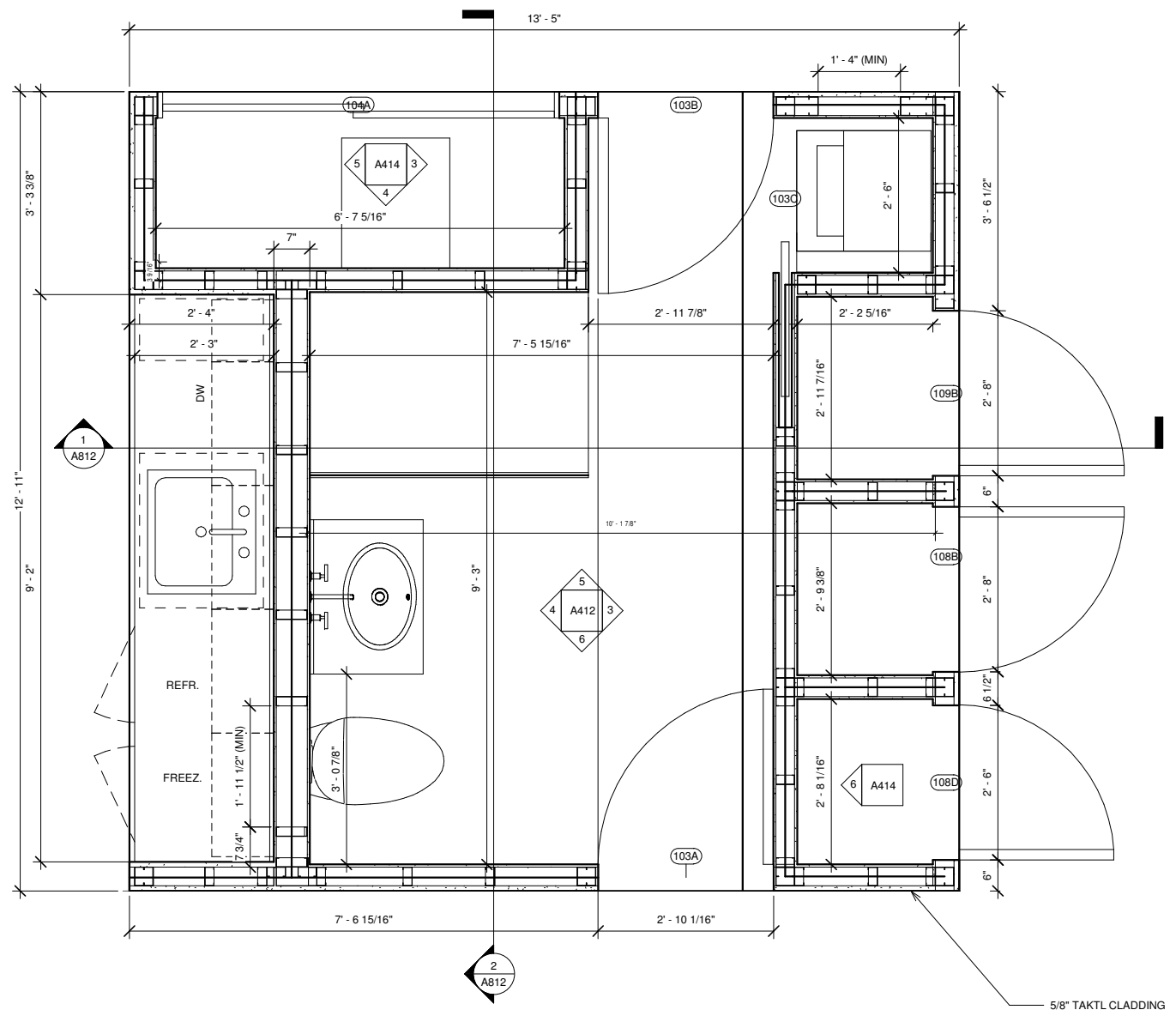


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SHEET TITLE
 LIGHT GAUGE CORE FLOOR PLAN

A811



① FIRST FLOOR PLAN CORE
 3/4" = 1'-0"



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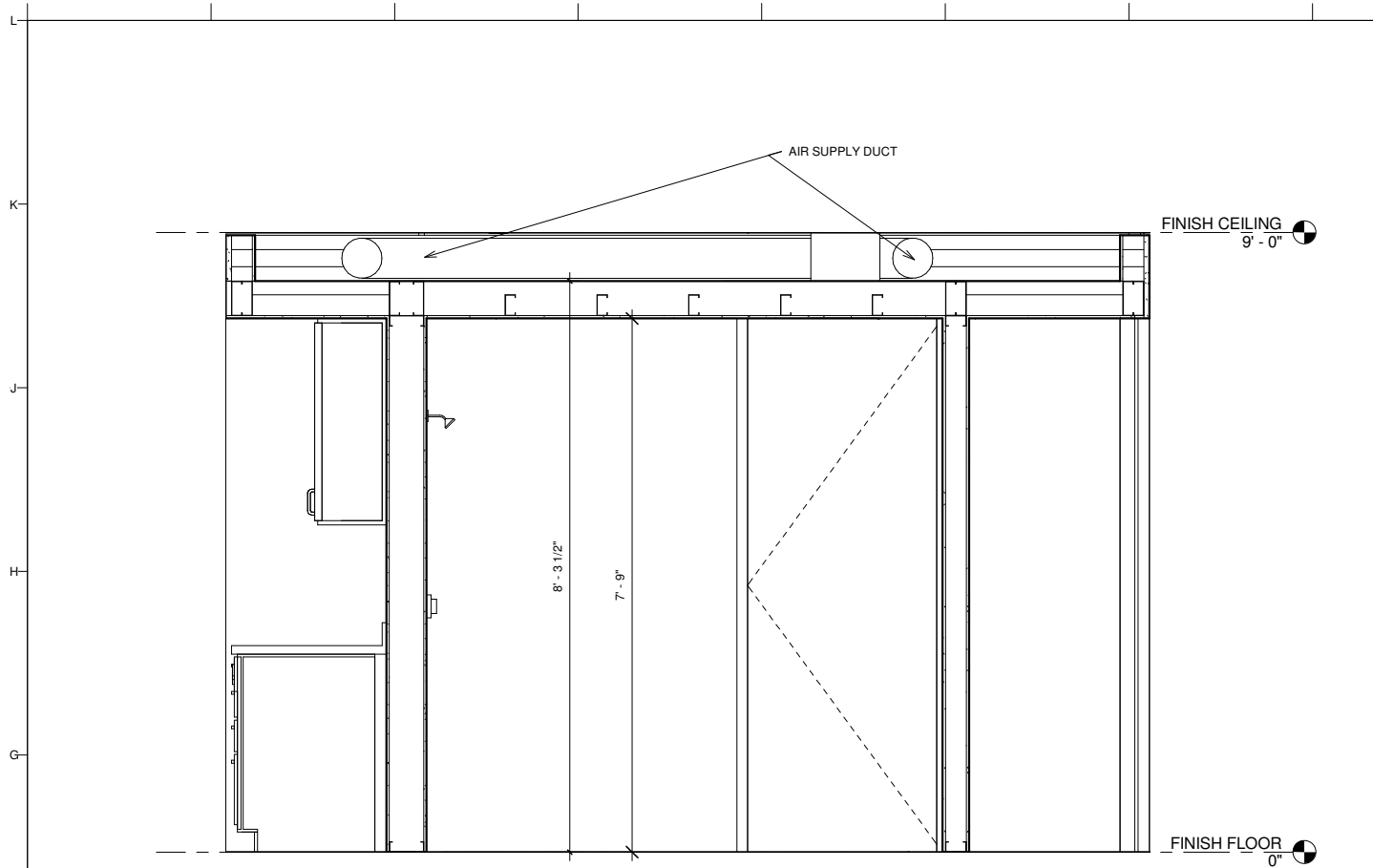
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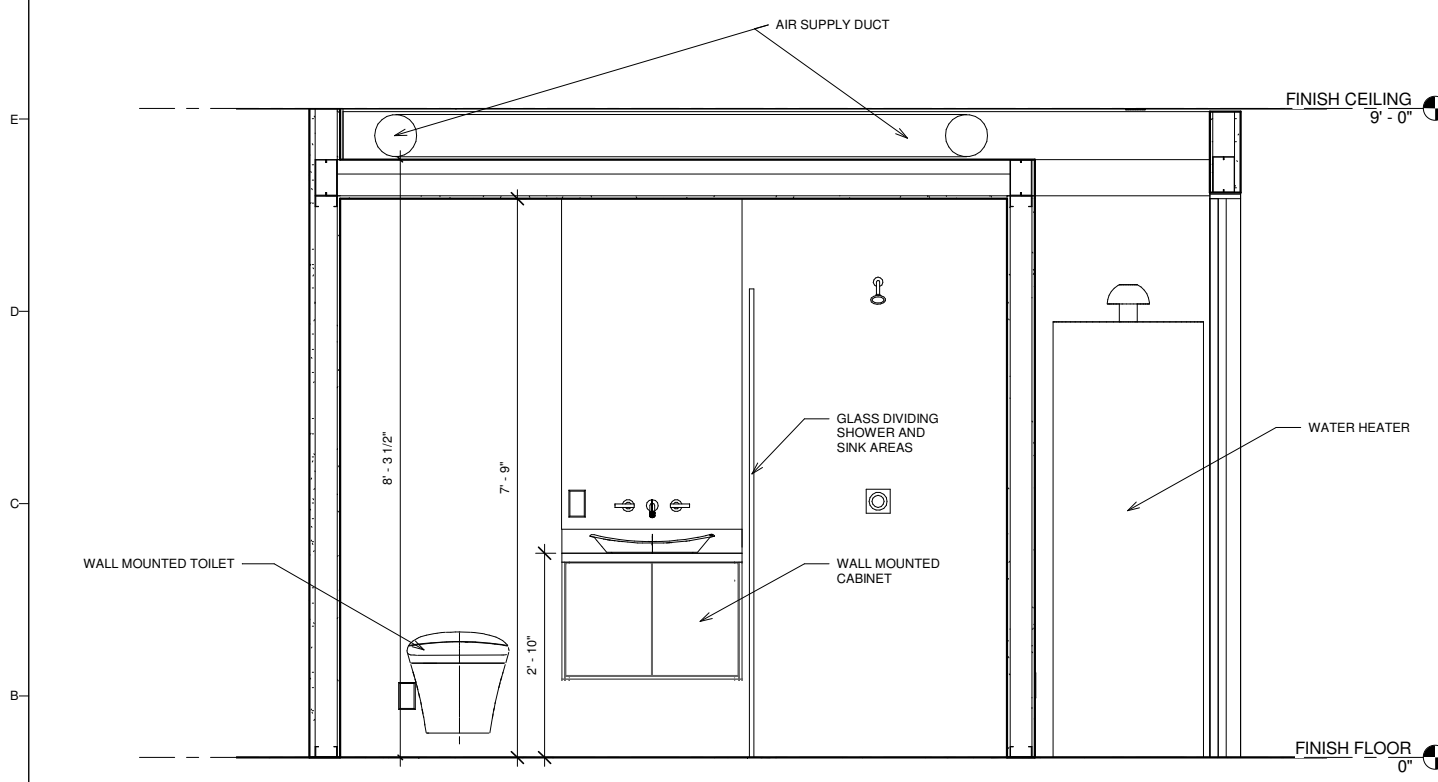
SHEET TITLE

LIGHT GAUGE CORE SECTIONS

A812



① CORE SECTION E-W
 3/4" = 1'-0"



② CORE SECTION N-S
 3/4" = 1'-0"

8/10/17 4:38:00 PM



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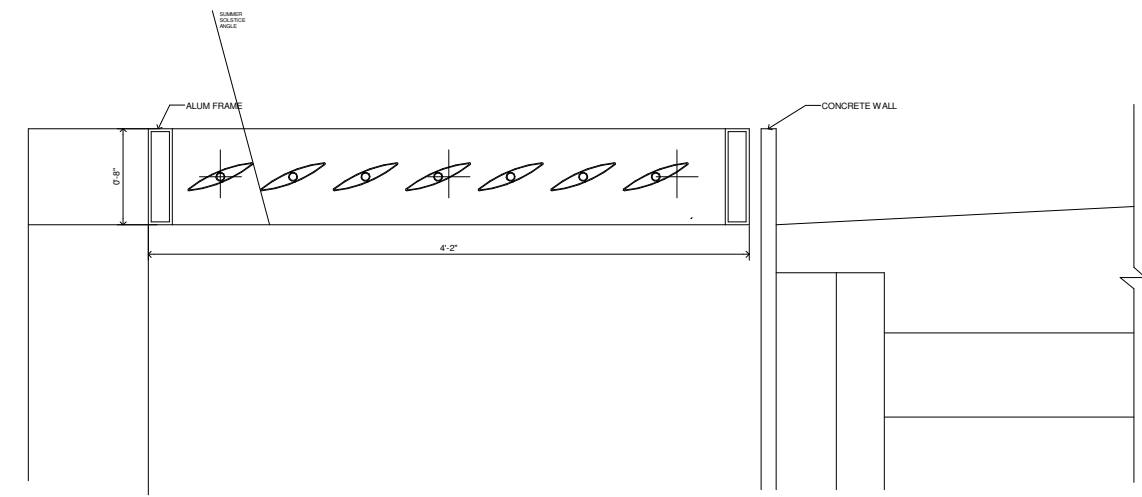


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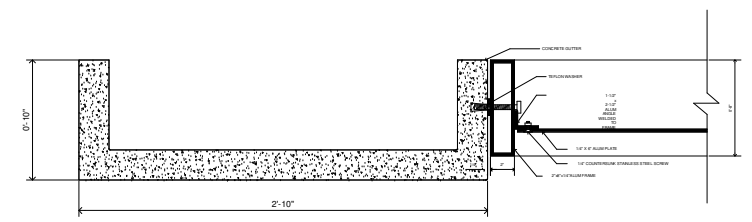
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SHEET TITLE
 SUN SHADING DETAILS

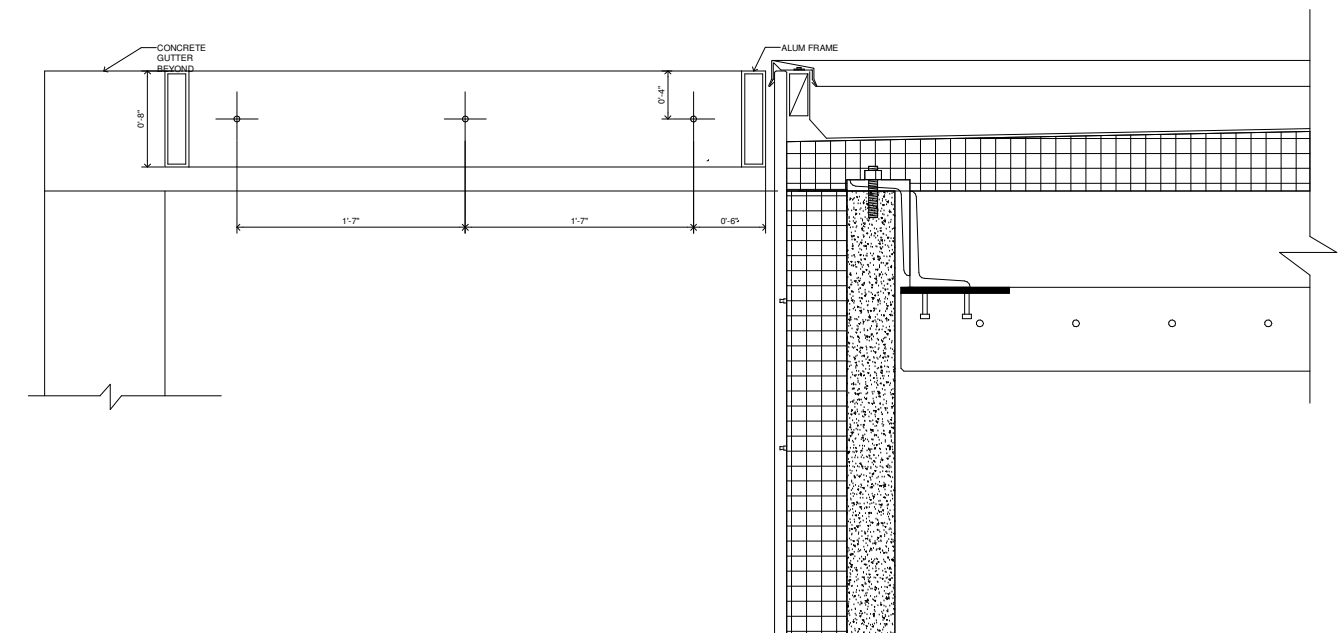
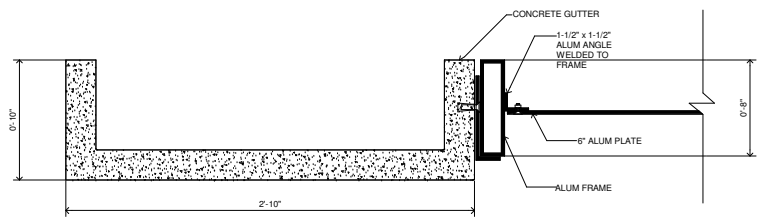
A901



③ SUN SHADE SECTION DETAIL
 1 1/2" = 1'-0"



② SUN SHADE GUTTER CONNECTION DETAIL
 1 1/2" = 1'-0"



① SUN SHADE FRAME SECTION DETAIL
 1 1/2" = 1'-0"

8/10/17 4:38:01 PM

GENERAL NOTES

1. THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY EXISTING CONDITIONS.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL OTHER APPLICABLE ORDINANCES.
3. ALL EQUIPMENT SHALL BE U.L. LISTED.
4. E.C. SHALL PAY FOR ALL PERMITS AND ALL INSPECTIONS AND SHALL PROVIDE APPLICABLE CERTIFICATES TO OWNER.
5. E.C. SHALL MEGGER TEST ALL MOTORS AND FEEDERS PRIOR TO ENERGIZING. REPLACE DEFECTIVE FEEDERS AND NOTIFY OWNER OF ANY DEFECTIVE MOTORS. TEST FOR SHORT CIRCUITS AND ELIMINATE SHORTS PRIOR TO ENERGIZING FEEDERS OR BRANCH CIRCUITS.
6. ELECTRICAL EQUIPMENT EXPOSED TO WEATHER SHALL BE WEATHERPROOF.
7. ALL CONDUCTORS SHALL BE COPPER TYPE THW OR THWN. MINIMUM SIZE SHALL BE #14 AWG. VERIFY ALTERNATES WITH OWNER. ALUMINUM WIRING IS NOT PERMITTED.
8. CONDUCTORS ABOVE GRADE SHALL BE INSTALLED IN ENT, EMT OR RIGID GALVANIZED STEEL CONDUIT. WHERE ALLOWED BY AUTHORITIES, SCHEDULE 40 PVC MAY BE USED BELOW SLAB OR 36" BELOW GRADE FOR EXTERIOR WORK. FLEX CONDUIT IS ALLOWED IN DRY LOCATIONS INDOORS FOR FINAL CONNECTIONS TO LIGHTS, MOTORS, ETC. PROVIDE CODE SIZED GROUND WIRE IN ENT, EMT, PVC, AND FLEX. MINIMUM CONDUIT SIZE SHALL BE 1/2" TYPE NM CABLE OR MC CABLE WITH GROUND MAY BE USED WHERE ALLOWED BY CODE WHERE CONCEALED IN DRY LOCATIONS.
9. EXTERIOR CONDUIT ABOVE GRADE SHALL BE RIGID GALVANIZED STEEL OR AS SPECIFIED.
10. CONDUIT BELOW FLOOR OR GRADE SHALL BE RIGID GALVANIZED STEEL, PVC, OR AS SPECIFIED. TRANSITIONS OR BENDS FROM BELOW FLOOR OR GRADE TO ABOVE FLOOR OR GRADE SHALL BE MADE WITH RIGID GALVANIZED STEEL CONDUIT OR ELBOWS.
11. ALL CONDUIT CONNECTIONS TO MOTORIZED OR VIBRATING EQUIPMENT SHALL BE MADE WITH "SEALTITE" FLEX CONDUIT. PROVIDE MOLDED NEOPRENE PADS OR VIBRATION ISOLATORS FOR MOTORIZED OR VIBRATING EQUIPMENT.
12. CONDUIT SHALL BE CONCEALED WHERE POSSIBLE AND SHALL BE RUN PARALLEL OR PERPENDICULAR TO WALLS OR FLOORS.
13. UNLESS NOTED OTHERWISE, ALL FUSES SHALL BE BUSSMANN FUSETRONS OF APPROPRIATE VOLTAGE RATING.
14. WIRING DEVICES SHALL BE EITHER 15 OR 20 AMP SPECIFICATION GRADE WITH NYLON COVERPLATES. VERIFY COLORS FOR DEVICES AND COVERPLATES WITH OWNER.
15. E.C. SHALL PROVIDE LIGHT FIXTURES AS INDICATED ON DRAWINGS. COORDINATE FIXTURE TYPES WITH OWNER. PROVIDE ALL SUPPORTS REQUIRED.
16. SEAL ALL PENETRATIONS THROUGH WALLS OR FLOORS WITH APPROPRIATE CAULK OR GROUT. SEAL PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS, OR CEILINGS WITH UL LISTED FIRE STOP COMPOUND.
17. ELECTRICAL PANELS SHALL BE SQUARE D TYPE MOOD FOR 240 VOLTS OR LESS. TYPE QO LOAD CENTERS WITH COPPER BUS BARS SHALL BE ALLOWED SUBJECT TO OWNER APPROVAL. EQUIVALENT PANELS BY CUTLER-HAMMER, GE, OR SIEMENS WILL BE CONSIDERED FOR APPROVAL.
18. PROVIDE PLASTIC BUSHINGS AT OPEN ENDS OF ALL CONDUITS WITH LOW VOLTAGE WIRING.
19. WORKMEN SHALL COMPLY WITH ALL APPLICABLE SAFETY STANDARDS. WORK ON ENERGIZED EQUIPMENT OR CONDUCTORS IS NOT ALLOWED. SHUTDOWN SHALL BE COORDINATED WITH ALL PARTIES INVOLVED. PROVIDE TYPEWRITTEN PANEL DIRECTORIES. PROVIDE EQUIPMENT LABELS WHERE REQUIRED BY NEC OR OTHER REGULATIONS.
- 20.



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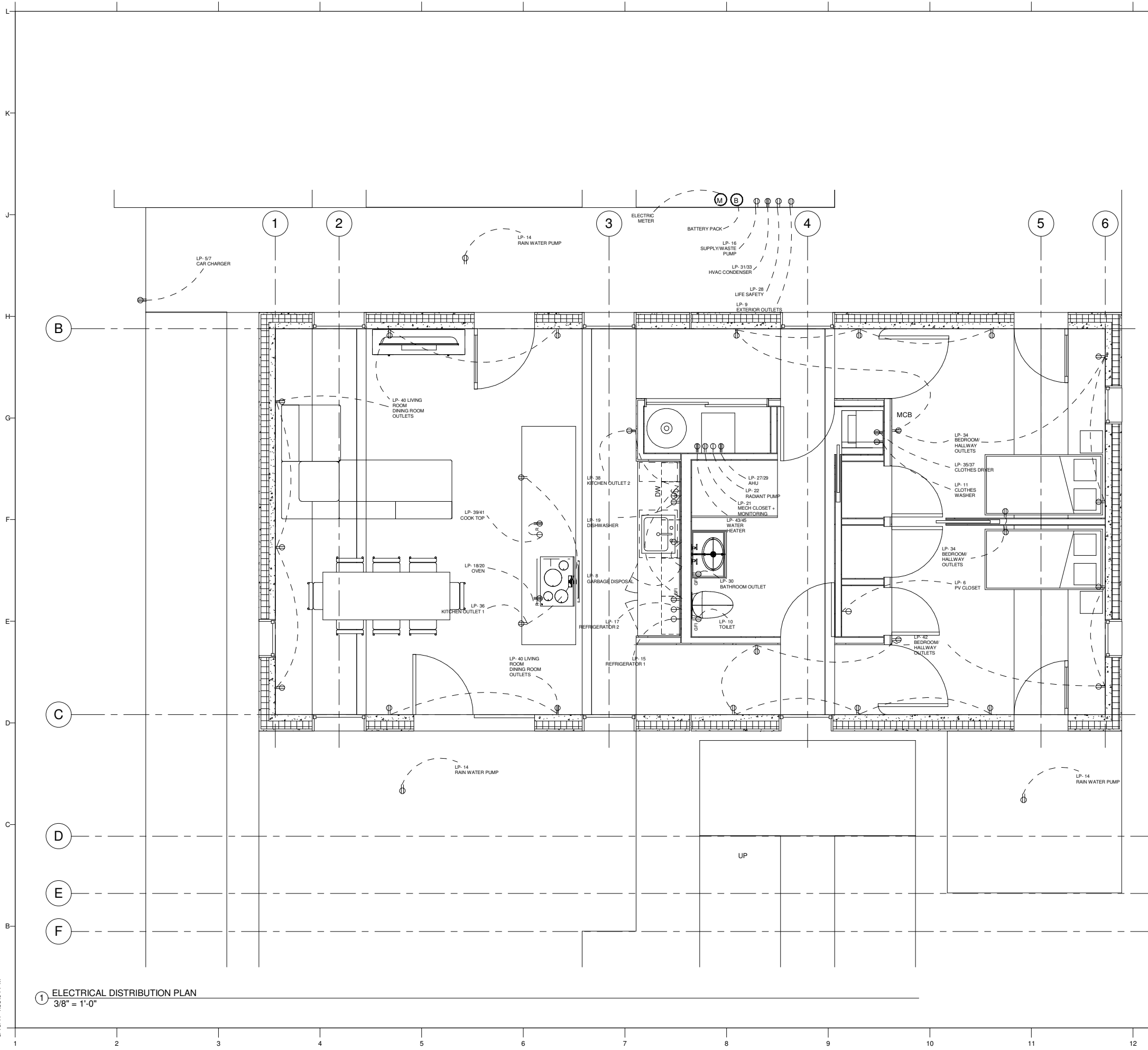


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SHEET TITLE
 ELECTRICAL SYMBOLS AND NOTES

E001



GENERAL NOTES

1. ALL ELECTRICAL SYSTEM TO COMPLY WITH NEC 2014.



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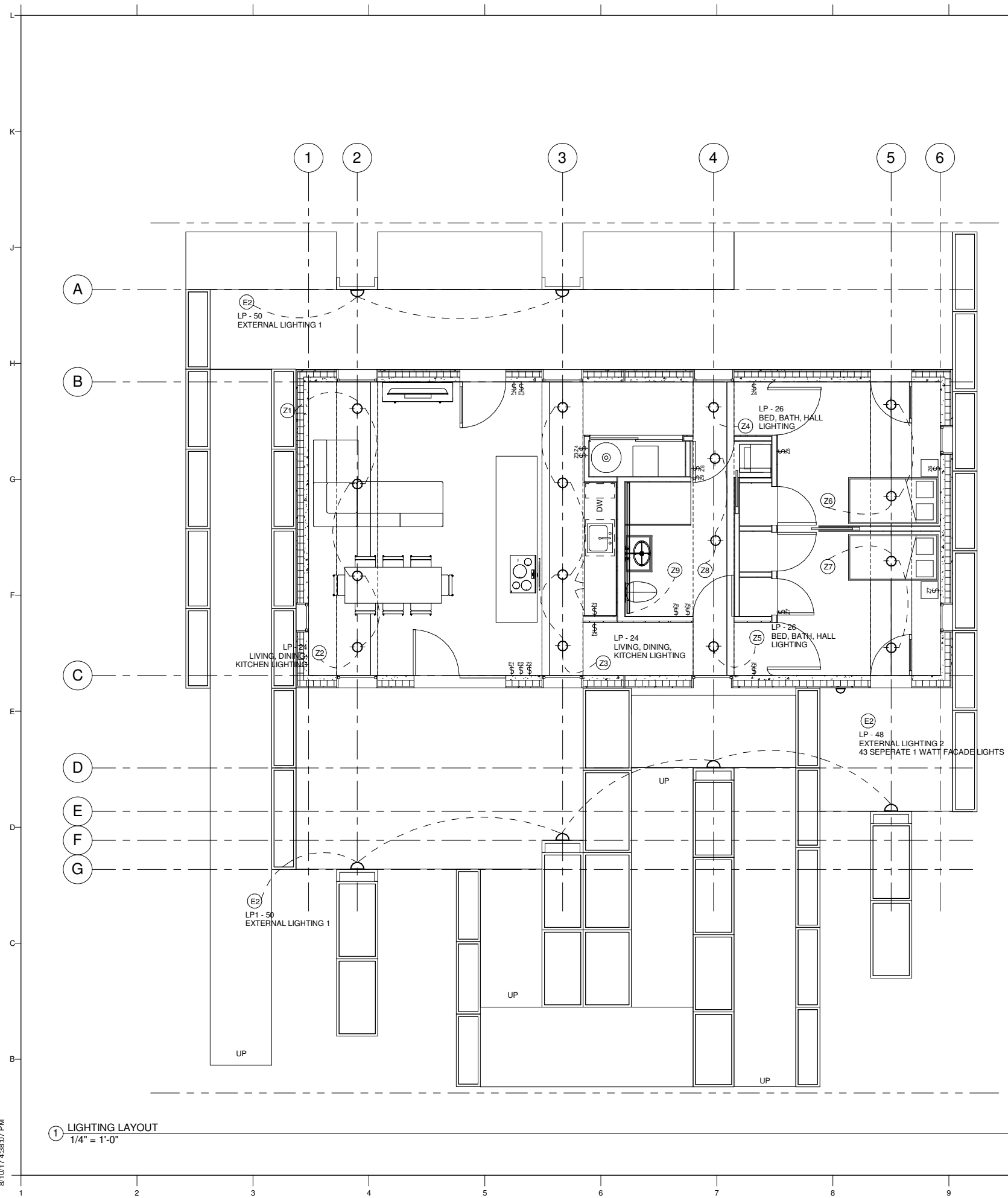
SHEET TITLE

ELECTRICAL DISTRIBUTION PLAN

E111

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1 ELECTRICAL DISTRIBUTION PLAN
 3/8" = 1'-0"



GENERAL NOTES

1. ALL ELECTRICAL SYSTEM TO COMPLY WITH NEC 2014.



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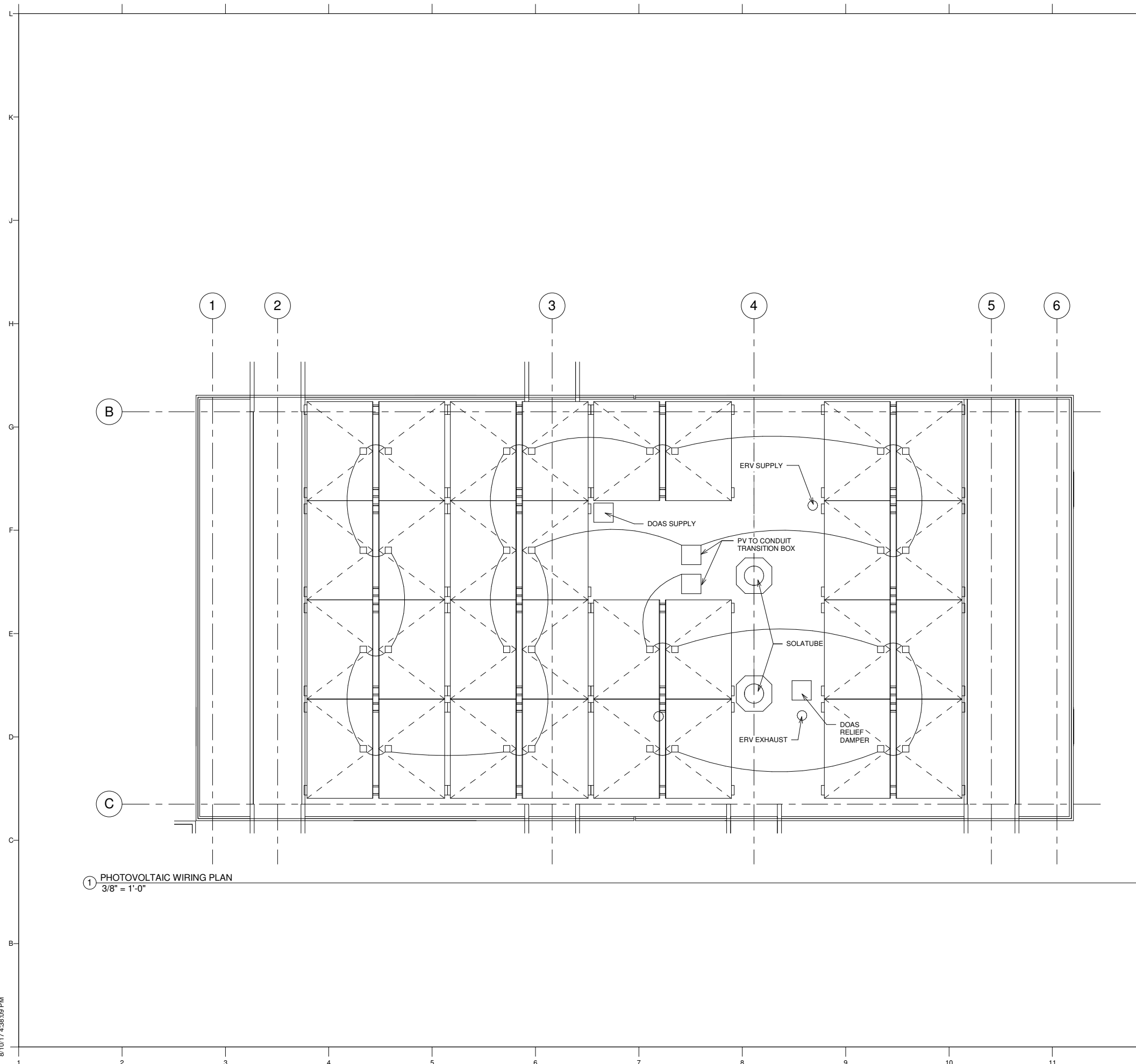
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SHEET TITLE
 LIGHTING PLAN

E112

① LIGHTING LAYOUT
 1/4" = 1'-0"

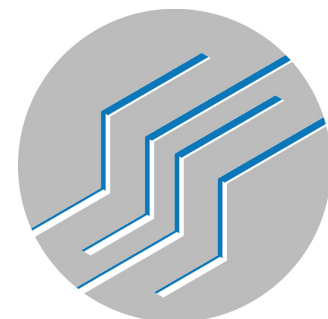




1 PHOTOVOLTAIC WIRING PLAN
3/8" = 1'-0"

GENERAL NOTES

1. ALL ELECTRICAL SYSTEM TO COMPLY WITH NEC 2014.

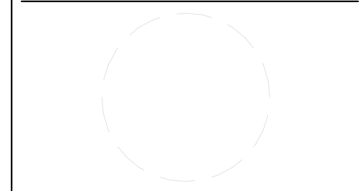


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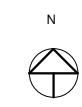


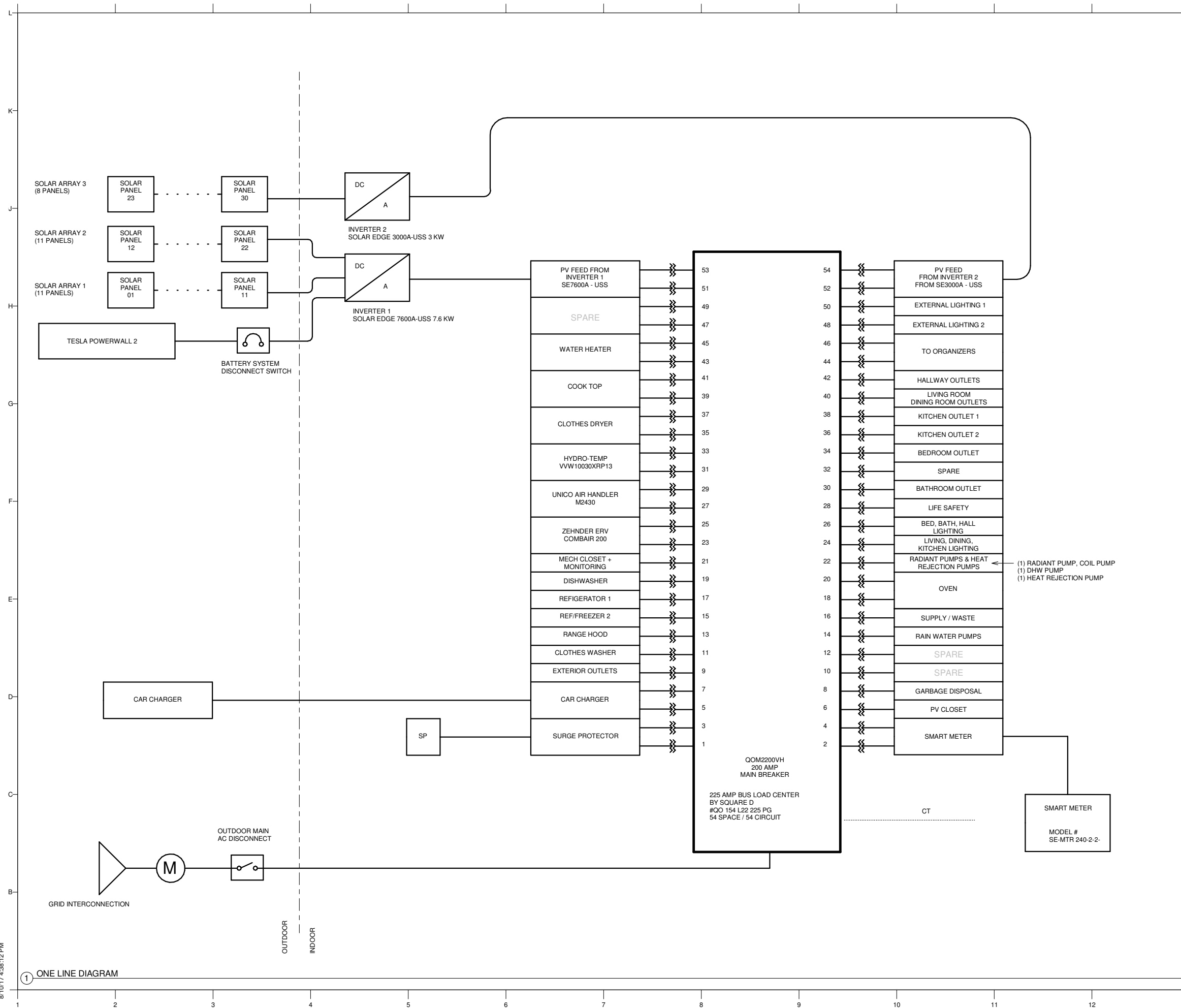
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SHEET TITLE
PV ARRAY WIRING PLAN

E113





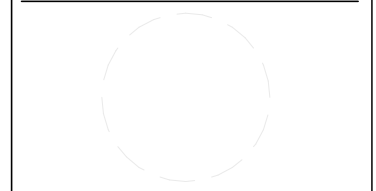
GENERAL NOTES

1. ALL ELECTRICAL SYSTEM TO COMPLY WITH NEC 2014.
2. INVERTERS HAVE INTEGRAL DC DISCONNECTS AND RAPID SHUTDOWN



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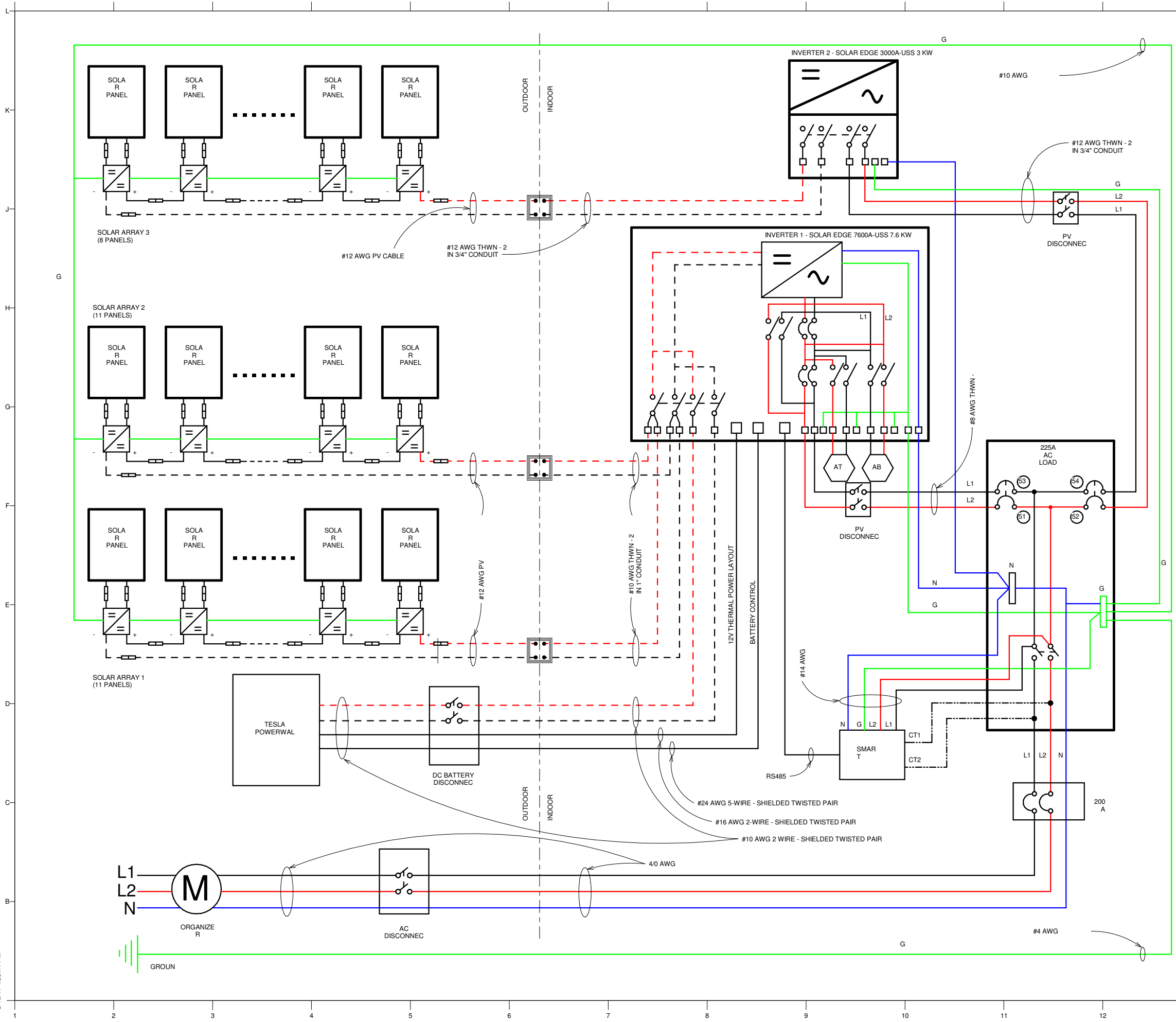
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SHEET TITLE
 ONE-LINE DIAGRAM

E601

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① ONE LINE DIAGRAM



GENERAL NOTES

- ALL ELECTRICAL SYSTEM TO COMPLY WITH NEC 2014.



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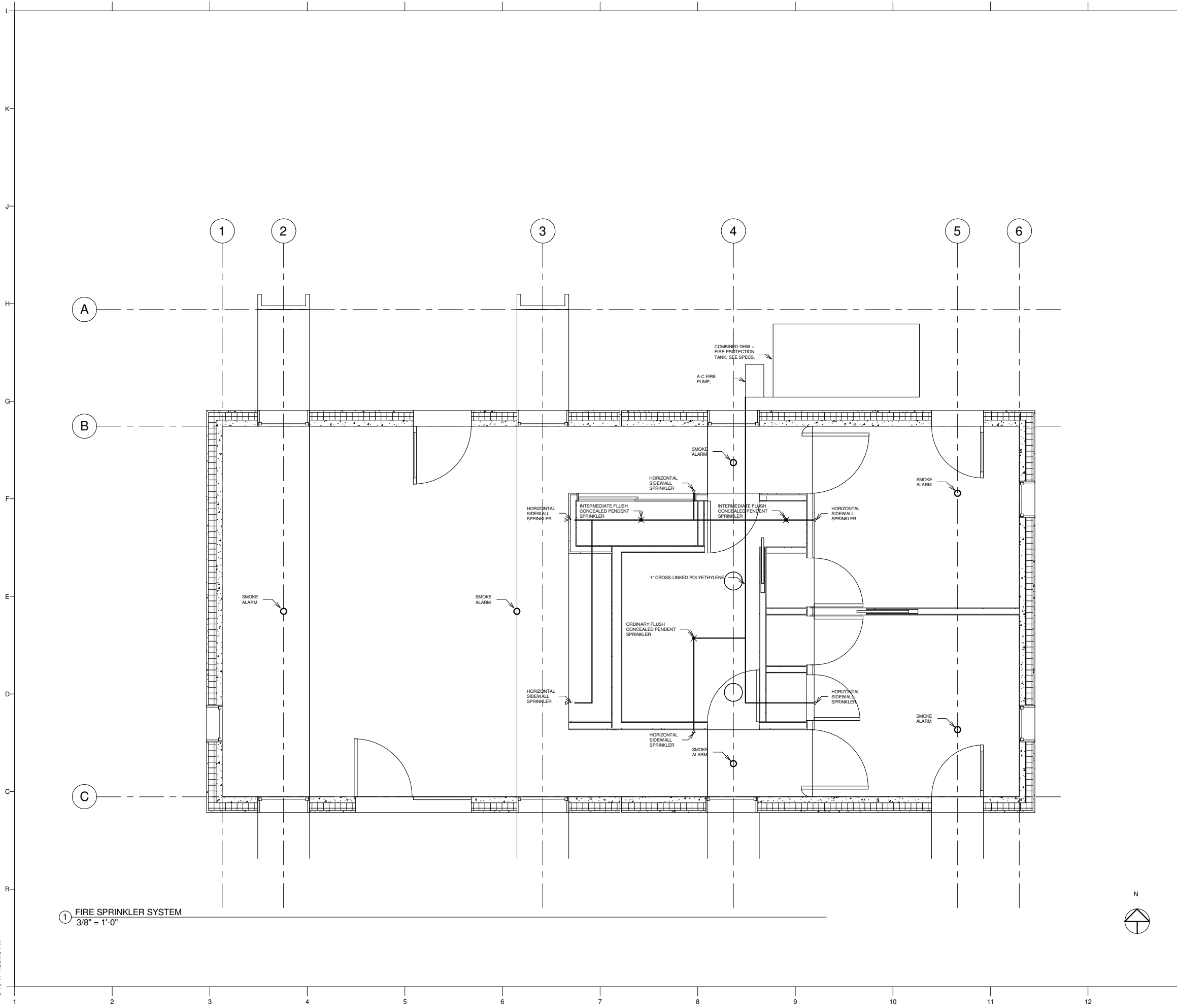
SHEET TITLE

ELECTRICALTHREE-LINE DIAGRAM

E602

- WIRE**
- L1
 - L2
 - NEUTRA
 - POSITIVE
 - NEGATIV
 - GROUN

- SYMBOL**
- CIRCUIT
 - CIRCUIT
 - PV TO CONDUIT TRANSITION BOX
 - AUTO TRANSFORMER
 - AC BACKUP TO BACKUP
 - SOLAR EDGE POWER OPTIMIZER
 - MC4



GENERAL NOTES

1. ALL WORK TO BE PERFORMED BY QUALIFIED PERSONS ONLY.
2. 2015 IRC SECTION R313 REQUIRES FIRE-SUPPRESSION SPRINKLER SYSTEMS IN ALL SINGLE-FAMILY DWELLINGS.
3. ALL SYSTEMS, FIXTURES, AND PIPING TO COMPLY WITH NFPA 13D AND IRC SECTION P2904.
4. ALL SPRINKLER HEADS TO BE LOCATED 4" - 6" FROM FINISHED CEILING LEVEL.
5. HORIZONTAL THROW TO HIT NO LESS THAN 28" FROM FINISHED CEILING LEVEL.
6. LOW-LEAD VERSION CONSISTENT WITH NSF STANDARDS FOR DRINKABLE WATER.
7. THE WATER TANK TO WHICH THE FIRE SUPPRESSION PUMP IS PLUMBED WILL PROVIDE SITE-STORED WATER FOR SPRINKLER OPERATIONS PLUS AN ADDITIONAL VOLUME TO MAINTAIN A PRIMED PUMP.
8. PUMP WILL BE MOUNTED TO A PORTABLE SKID AND SHALL BE TESTED TO BE FUNCTIONAL PRIOR TO BUILDING COMPLETION.
9. ALL VALVES ON THE FIRE SUPPRESSION PIPING SHALL BE A TYPE THAT CAN BE LOCKED OPEN.
10. A TEST AND DRAIN VALVE SHALL BE PLACED IN AN ACCESSIBLE POSITION AT THE MOST REMOTE POINT OF THE SPRINKLER SYSTEM AND WILL BE OPERATED DURING THE BUILDING COMMISSIONING AND INSPECTION PERIOD.



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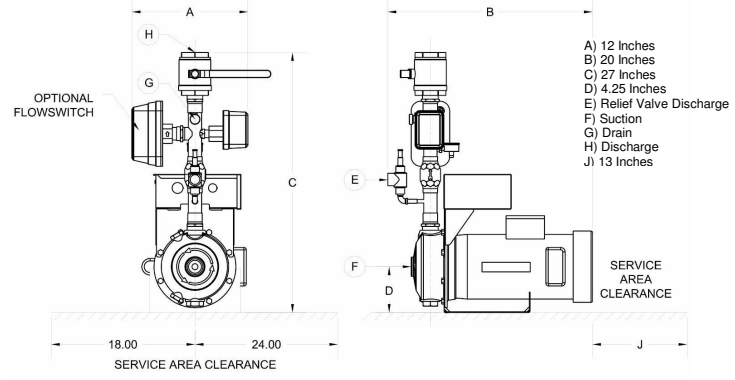
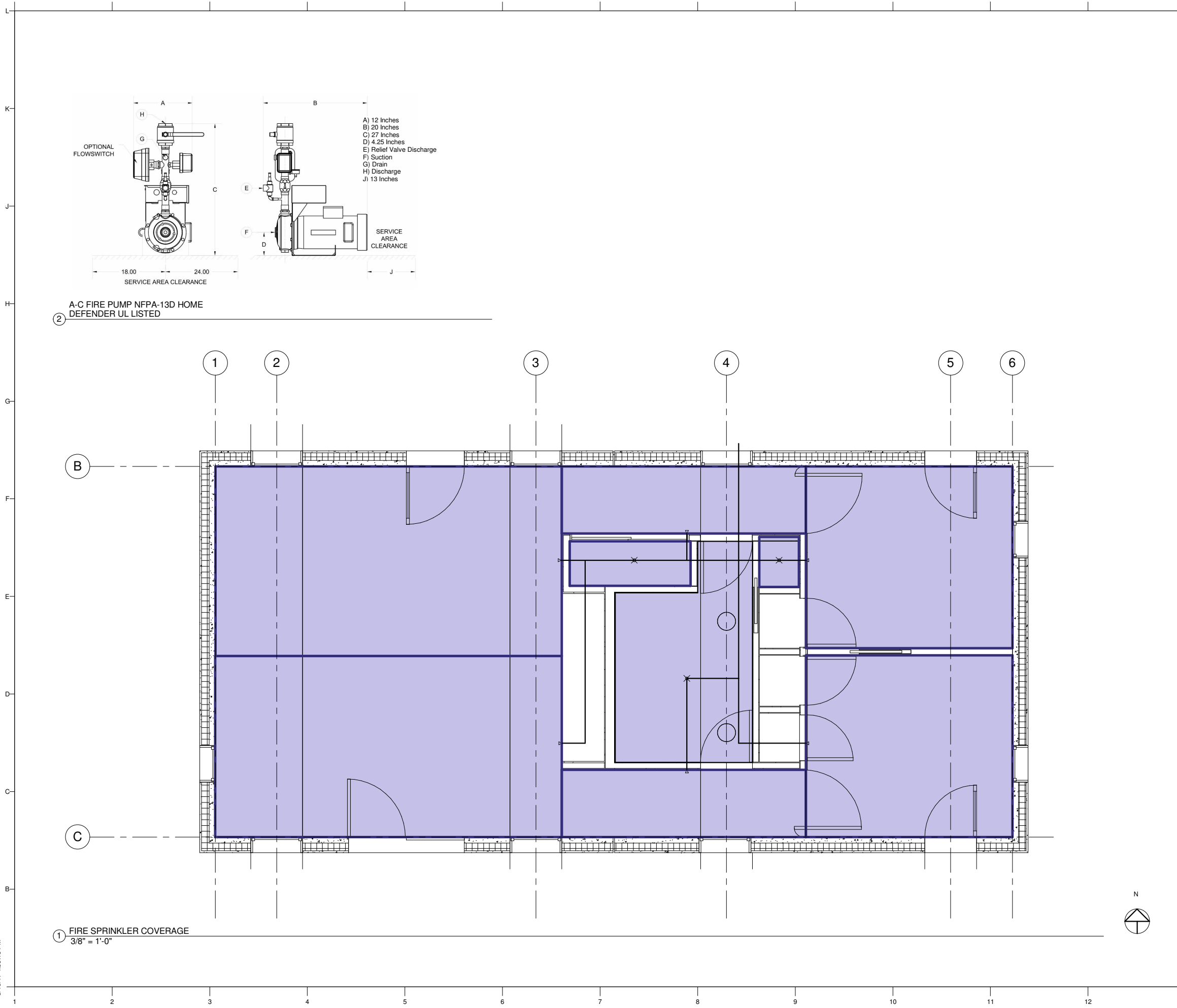
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SHEET TITLE
FIRE SPRINKLER PLAN AND ALARM

F111

8/10/17 4:38:16 PM



② A-C FIRE PUMP NFPA-13D HOME DEFENDER UL LISTED

① FIRE SPRINKLER COVERAGE
 3/8" = 1'-0"

GENERAL NOTES

1. ALL WORK TO BE PERFORMED BY QUALIFIED PERSONS ONLY.
2. ALL SYSTEMS, FIXTURES, AND PIPING TO COMPLY WITH NFPA 13-D.
3. ALL SPRINKLER HEADS TO BE LOCATED 4" - 6" FROM FINISHED CEILING LEVEL.
4. HORIZONTAL THROW TO HIT NO LESS THAN 28" FROM FINISHED CEILING LEVEL.
5. LOW-LEAD VERSION CONSISTENT WITH NSF STANDARDS FOR DRINKABLE WATER.

KEY

1. FIRE WATER DISTRIBUTION AREA



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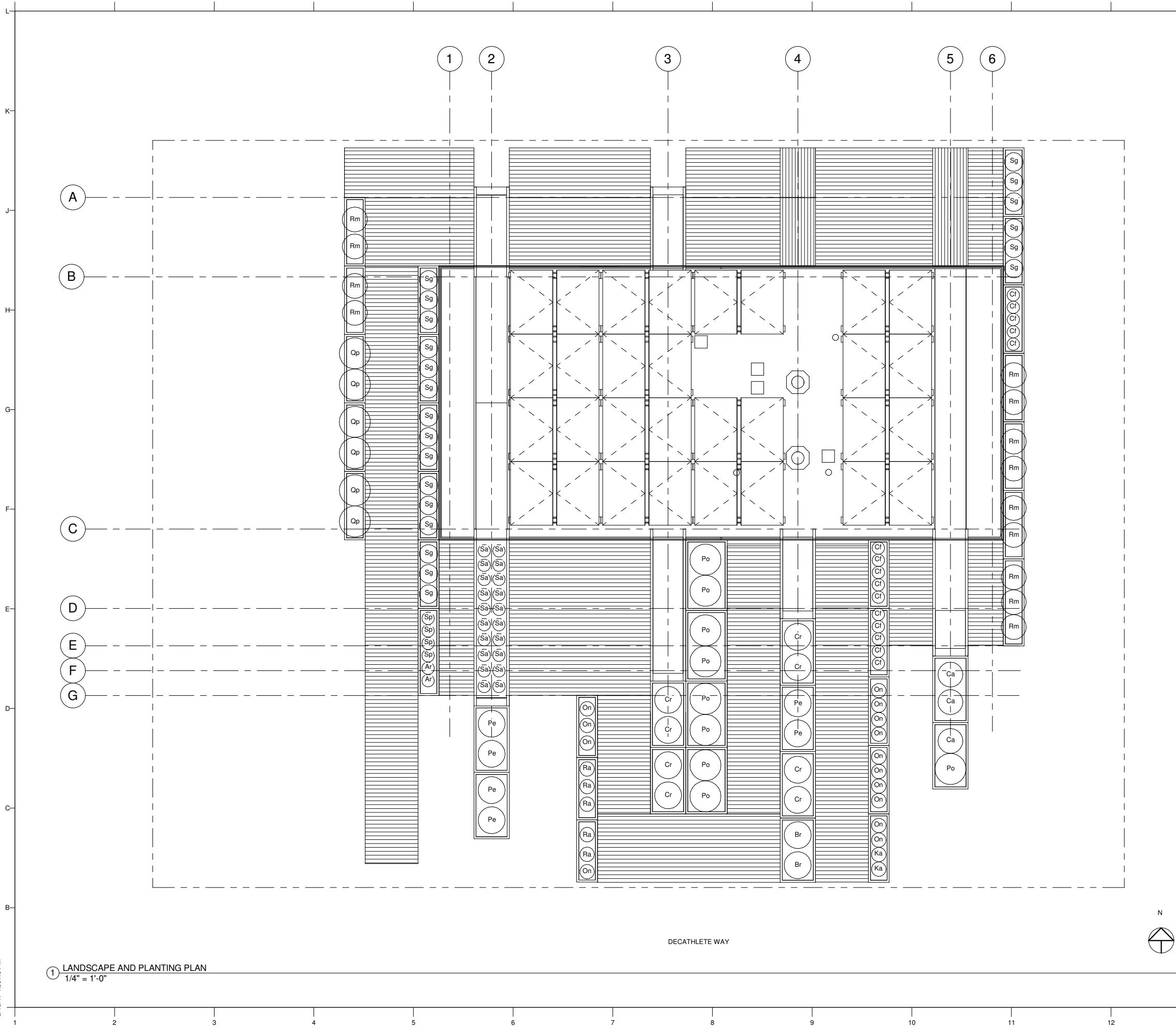


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SHEET TITLE
 FIRE SPRINKLER COVERAGE AND TANK/
 PUMP LAYOUT

F112



GENERAL NOTES

PLANTING			
KEY	PLANT NAME	LOCATION	QUANTITY
Br	Broccoli	South	2
Ka	Kale	South	2
Ar	Arugula	South	2
Sp	Spinach	South	4
Cr	Carrots	South	8
Ra	Radish	South	5
Pe	Green Peas	South	6
Po	Potato	South	9
Ca	Cabbage	South	3
On	Onion	South	14
Ch	Chives	South Channels	30
Mn	Mint	North Channels	60
Ba	Basil	South Channels	30
Ci	Cilantro	South Channels	30
Ro	Rosemary	North Channels	60
Ps	Parsely	North Channels	60
Sa	Sage	South Channels	30
Ty	Thyme	North Channels	60
Rm	Rosemallo w	South and East	15
Qp	Queen of the Prairie	South	6
Cf	Cardinal Flower	South and East	15
Sg	Switchgras s	West	18



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SHEET TITLE

LANDSCAPE AND PLANTING SITE PLAN

L101

1 LANDSCAPE AND PLANTING PLAN
 1/4" = 1'-0"

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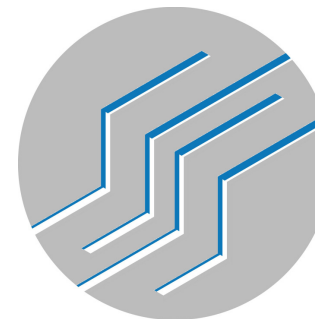
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GENERAL NOTES

1. ALL MECHANICAL EQUIP TO COMPLY WITH 2015 IRC AND 2015 IBC
2. COORDINATE DUCT SIZES & LOCATIONS PRIOR TO FABRICATING DUCTWORK. COORDINATE DIFFUSER, GRILLE, & DUCT LOCATIONS WITH LIGHTS, PLUMBING, SPRINKLER SYSTEM, STRUCTURAL MEMBERS, ETC.
3. ALL DIFFUSERS & GRILLES SHALL HAVE BAKED WHITE ENAMEL FINISH OR OTHER FINISH AS NOTED. ALL DIFFUSERS SHALL HAVE OPPOSED BLADE DAMPERS OR ACCESSIBLE MANUAL DAMPERS AT TAKE-OFFS.
4. DUCTWORK SHALL CONFORM WITH SMACNA STANDARDS.
5. ALL INTERIOR DUCTWORK SHALL BE INSULATED WITH FIBERGLASS DUCT WRAP OR INSULATION WITH VAPOR BARRIER SEAL. R-VALUES SHALL BE R-5 FOR INTERIOR DUCTWORK OR AS REQUIRED BY ENERGY CODE. FLEXIBLE DUCTWORK SHALL BE THERMAFLEX #M-KE R-6 OR AS SPECIFIED.
6. DUCT DIMENSIONS SHOWN ON PLANS ARE NET FREE INTERIOR DIMENSIONS.
7. PROVIDE TURNING VANES OR RADIUS ELBOWS (RW OR R/D≥1.5) AT ALL ELBOWS. PROVIDE 45° FITTINGS AND VOLUME DAMPERS AT ALL TAKE-OFFS.
8. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES & REGULATIONS. PROVIDE SEISMIC BRACING FOR DUCTWORK & EQUIPMENT PER SMACNA STANDARDS.
9. ALL EQUIPMENT, INSULATION, AND INSTALLATION SHALL MEET THE REQUIREMENTS OF ASHRAE STANDARD 90.1 OR APPLICABLE ENERGY CODE.
10. CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ALL FEES REQUIRED FOR HIS WORK.
11. CONTRACTOR SHALL VISIT THE JOB SITE TO VERIFY CONDITIONS PRIOR TO BID.
12. PROVIDE WRITTEN OPERATING INSTRUCTIONS, PARTS LISTS, AND PARTS SUPPLIER INFORMATION TO OWNER. SCHEDULE WALK-THRU WITH OWNER'S REPRESENTATIVE FOR OPERATING AND SERVICE DEMONSTRATION.
13. CLEAN UP AT COMPLETION OF PROJECT.



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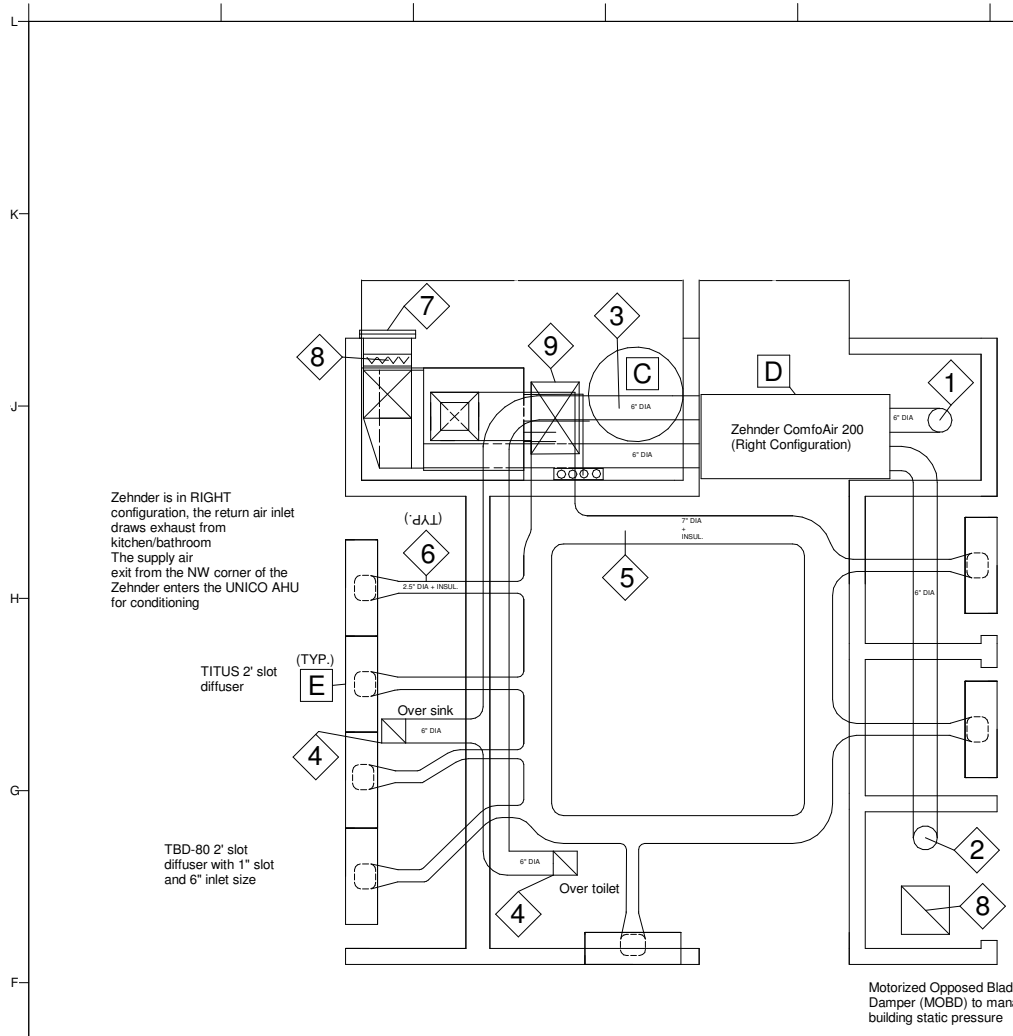


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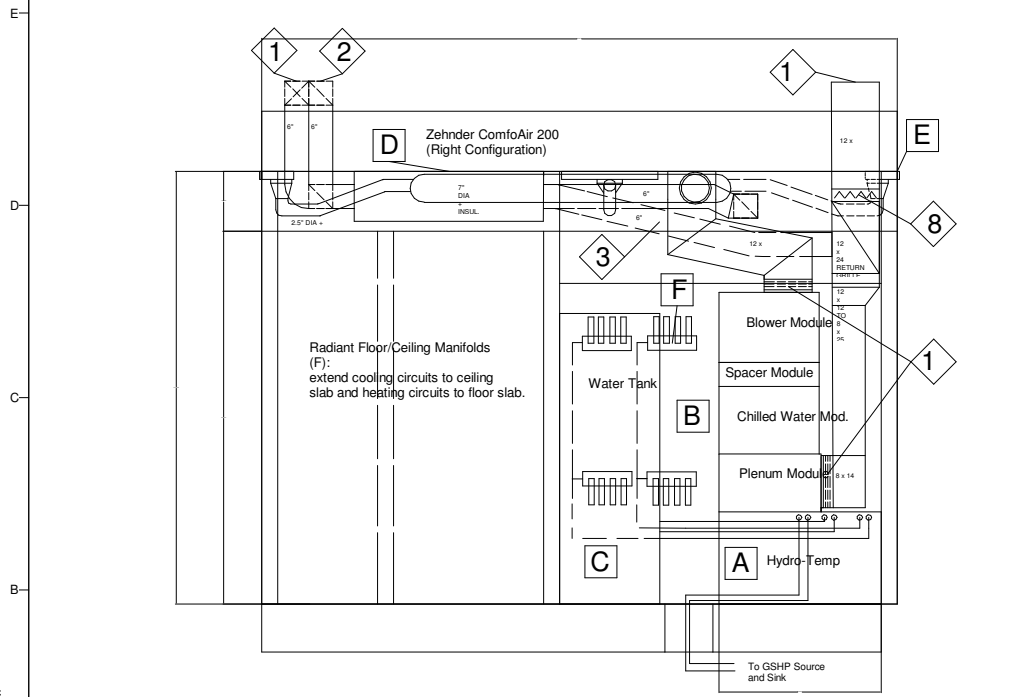
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SHEET TITLE
 MECHANICAL SYMBOLS AND NOTES

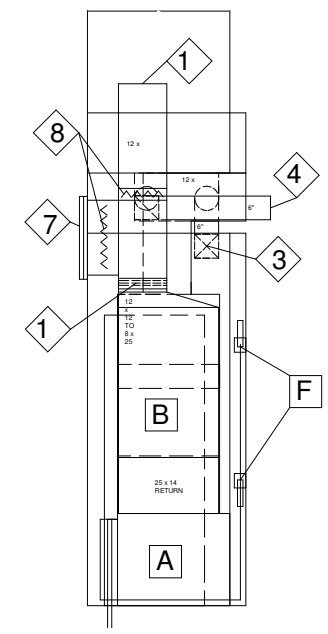
M001



③ MECHANICAL PLAN
1/2" = 1'-0"



① MECHANICAL ELEVATION
1/2" = 1'-0"



② MECHANICAL CLOSET
1/2" = 1'-0"

GENERAL NOTES

1. ALL MECHANICAL EQUIP TO COMPLY WITH 2015 IRC AND 2015 IBC



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KEY

- A. W2W Heat Pump (HYDRO-TEMP VVW10030XRP13)
- B. UNICO AHU (M2430)
- C. DHW Tank
- D. ZEHNDER ERV (COMFOAIR 200)
- E. TITUS Slot Diffuser
- F. Radiant Floor/Ceiling Manifold

1. ERV INTAKE
2. ERV EXHAUST
3. ERV SUPPLY TO AHU
4. ERV RETURN AIR
5. 7" DIA SUPPLY HEADER
6. 3" DIA SUPPLY DUCT
7. RETURN GRILLE
8. MOB Damper
9. Floor Slab Opening
10. OA Supply
11. Flexible Duct Connector

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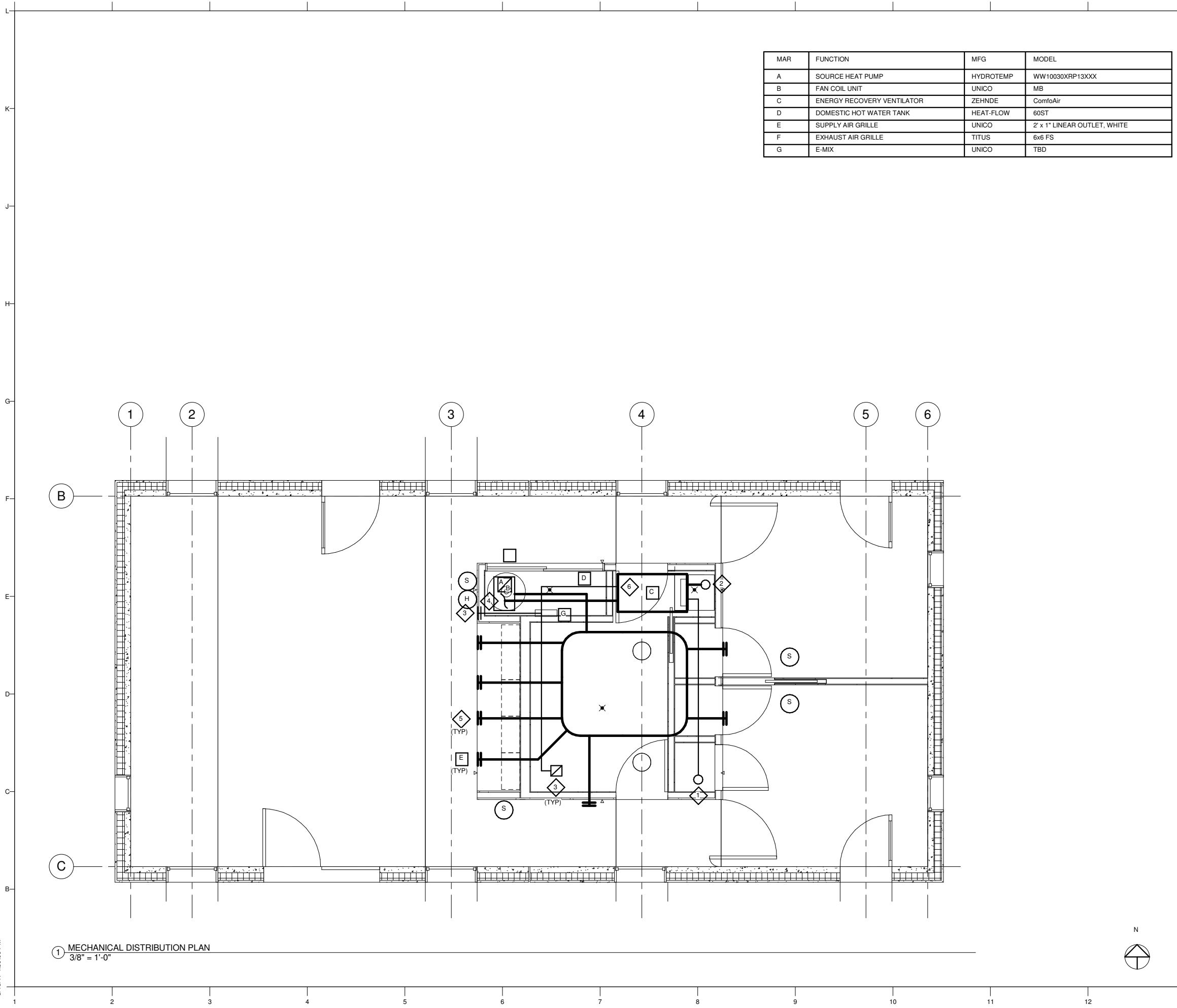


MARK	DATE	DESCRIPTION

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SHEET TITLE
MECHANICAL ROOM PLAN AND ELEVATIONS

M111



MAR	FUNCTION	MFG	MODEL
A	SOURCE HEAT PUMP	HYDROTEMP	WW10030XRP13XXX
B	FAN COIL UNIT	UNICO	MB
C	ENERGY RECOVERY VENTILATOR	ZEHNDE	ComfoAir
D	DOMESTIC HOT WATER TANK	HEAT-FLOW	60ST
E	SUPPLY AIR GRILLE	UNICO	2' x 1" LINEAR OUTLET, WHITE
F	EXHAUST AIR GRILLE	TITUS	6x6 FS
G	E-MIX	UNICO	TBD

GENERAL NOTES

- ALL MECHANICAL EQUIP TO COMPLY WITH 2015 IRC AND 2015 IBC



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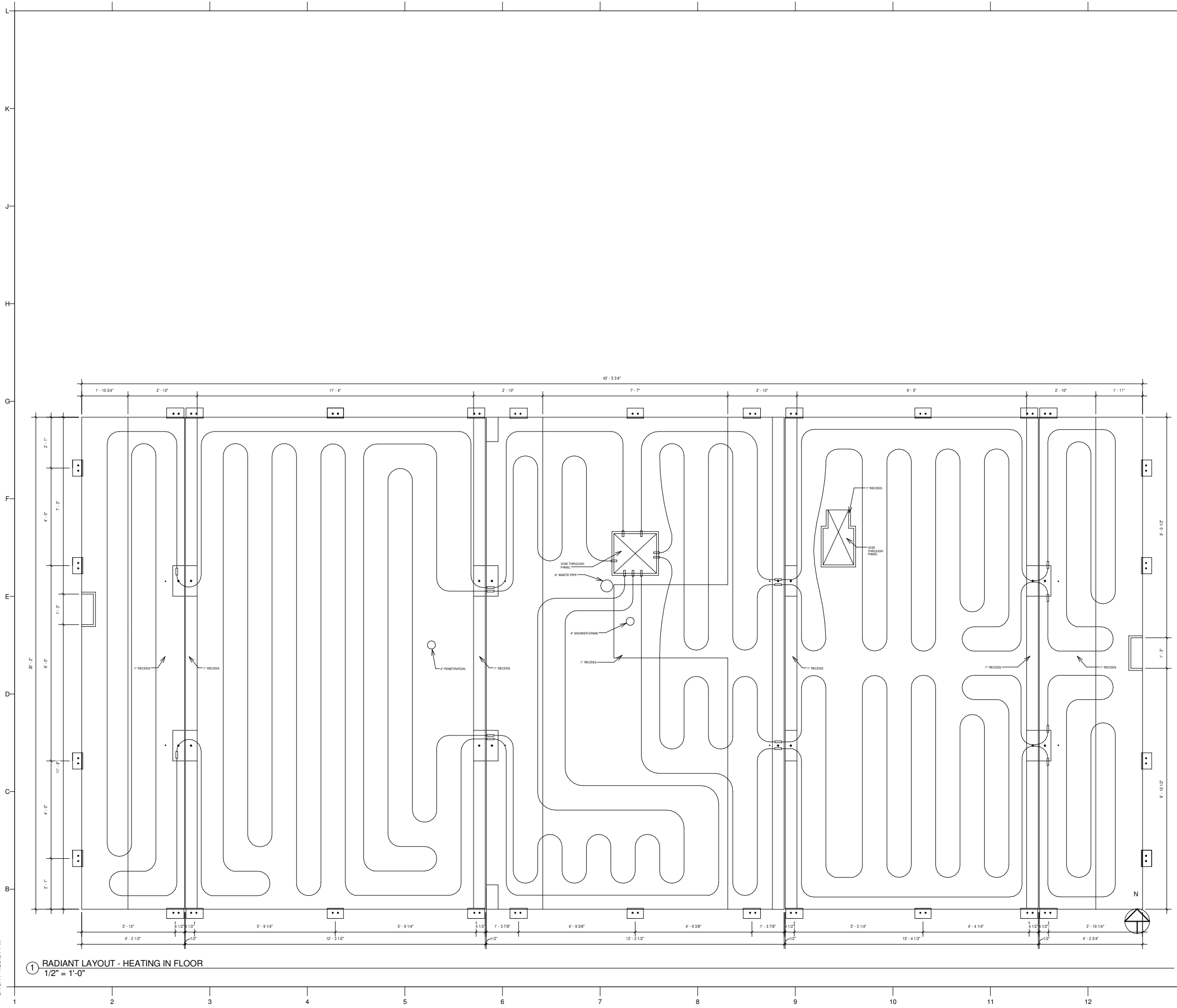
SHEET TITLE

MECHANICAL DISTRIBUTION PLAN

M112

① MECHANICAL DISTRIBUTION PLAN
 3/8" = 1'-0"

8/10/17 4:39:00 PM



GENERAL NOTES

1. ALL MECHANICAL EQUIP TO COMPLY WITH 2015 IRC AND 2015 IBC



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SHEET TITLE
 HYDRONIC HEATING TUBING LAYOUT

M113

8/10/17 4:39:01 PM

① **RADIANT LAYOUT - HEATING IN FLOOR**
 1/2" = 1'-0"

8/10/17 4:39:04 PM

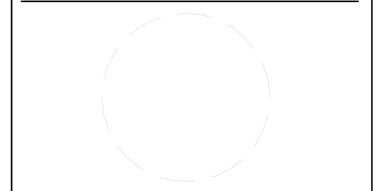
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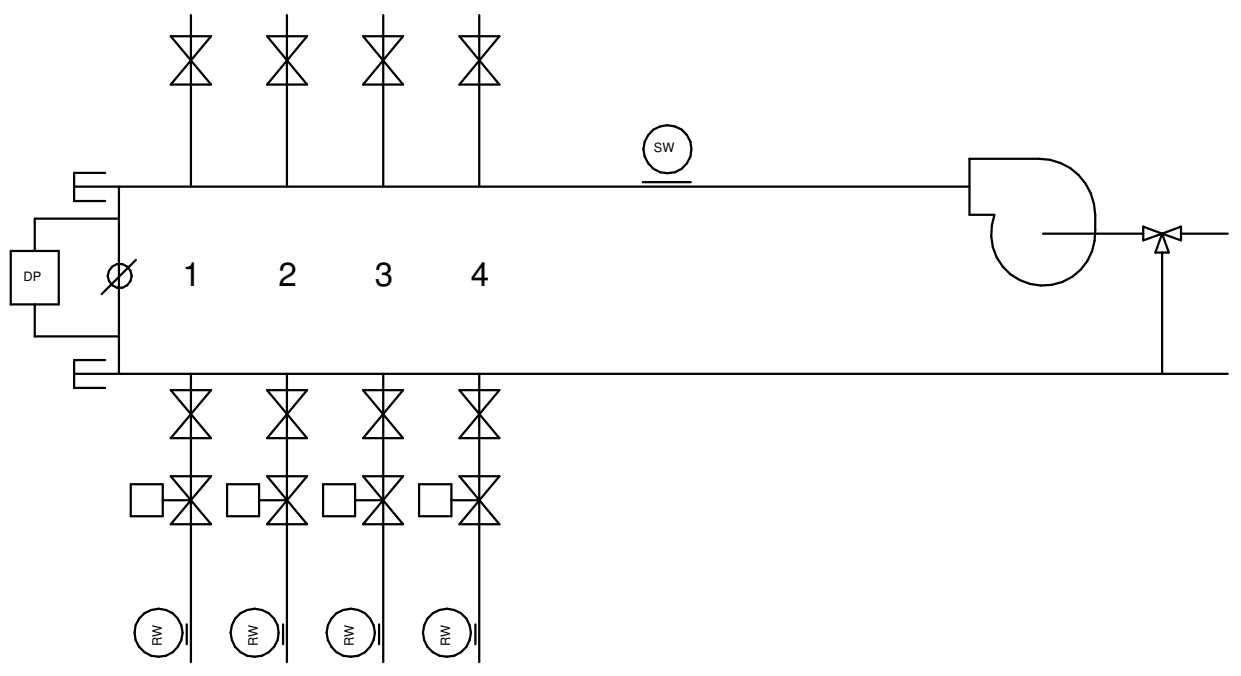
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SHEET TITLE

RADIANT PEX MANIFOLD LAYOUT

M601



- PEX MANIFOLD
- (SW) SUPPLY WATER TEMP
 - (RW) RETURN WATER TEMP
 - [DP] DIFFERENTIAL PRESSURE SENSOR
 - [3-WAY] 3 WAY MIXING VALVE
 - [2-WAY] 2 WAY MODULATING VALVE
 - [BALL] ISOLATION VALVE (BALL)
 - [CIRCUIT] CIRCUIT SETTER IN BYPASS
 - (F) FLOOR TEMP SENSOR
 - (C) CEILING TEMP SENSOR
 - (S) SPACE TEMP SENSOR
 - (RH) RELATIVE HUMIDITY

① RADIANT PEX MANIFOLD LAYOUT

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GENERAL NOTES

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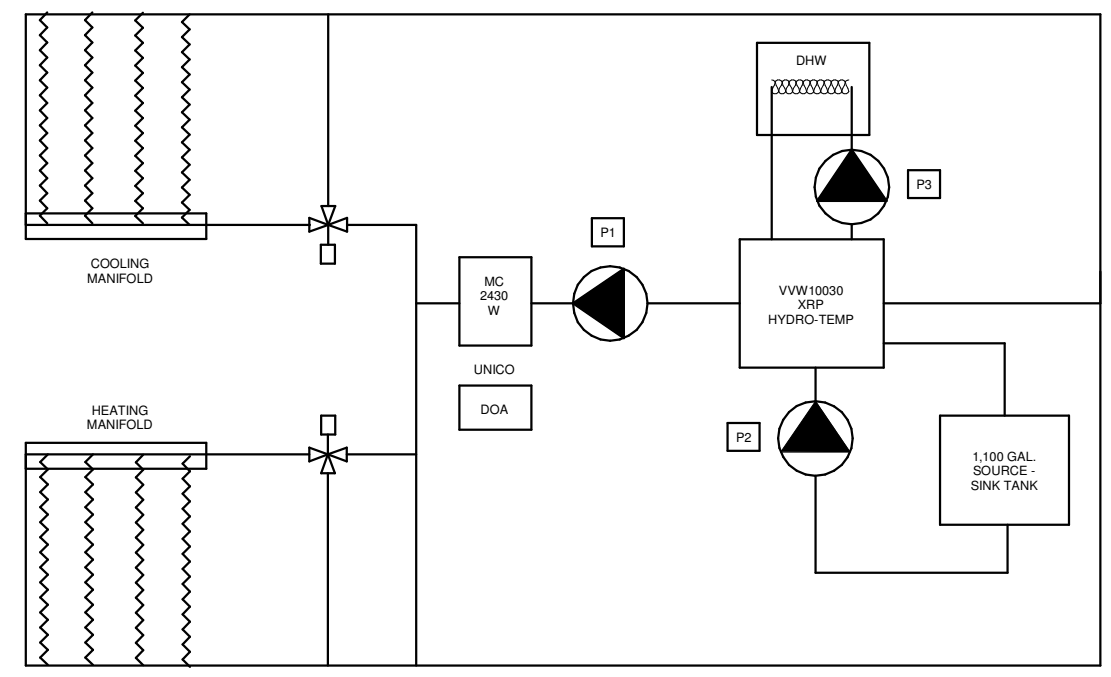
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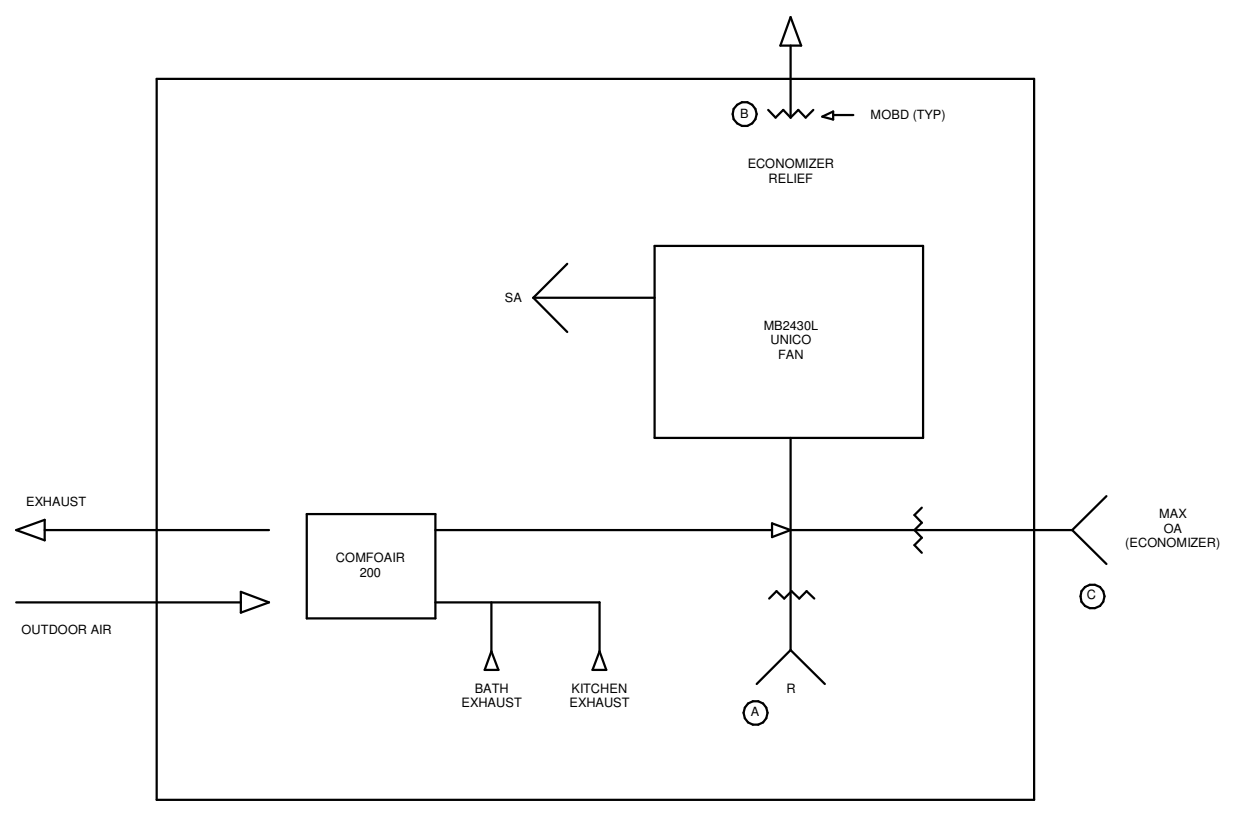
SHEET TITLE

HYDRONIC AND AIR SYSTEM DIAGRAM

M602



② HYDRONIC SYSTEM DIAGRAM



① AIR SYSTEM DIAGRAM

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GENERAL NOTES

1. THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY EXISTING CONDITIONS.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES AND ORDINANCES.
3. ALL EQUIPMENT SHALL BE LISTED OR CERTIFIED BY AN ACCREDITED TESTING LABORATORY.
4. PROVIDE SEISMIC RESTRAINTS FOR ALL EQUIPMENT AND PIPING PER APPLICABLE SEISMIC ZONE.
5. WHERE REQUIRED, EQUIPMENT AND INSTALLATION SHALL CONFORM WITH ADA REGULATIONS.
6. COORDINATE WORK WITH OTHER TRADES.
7. CLEAN EQUIPMENT AND SITE AT COMPLETION OF PROJECT.
8. PROVIDE SLEEVES AND SEAL ALL PENETRATIONS THROUGH WALLS OR FLOORS WITH APPROPRIATE CAULK OR GROUT. SEAL PENETRATIONS THROUGH FIRE RATED WALLS OR FLOORS WITH UL LISTED FIRE STOP COMPOUND.
9. PROVIDE OPERATING AND MAINTENANCE MANUAL FOR OWNER. MANUAL SHALL HAVE CUT SHEETS OF EQUIPMENT, PARTS LISTS, AND OPERATING AND MAINTENANCE INSTRUCTIONS.
10. PROVIDE MARKED-UP "AS-BUILT" DRAWINGS FOR OWNER AT COMPLETION OF PROJECT.
11. CONTRACTOR SHALL PAY FOR ALL PERMITS AND INSPECTIONS AND SHALL PROVIDE APPLICABLE CERTIFICATION TO OWNER.
12. INTERIOR WATER PIPING SHALL BE TYPE L COPPER OR PEX WITH INSULATION PER ENERGY CODE. JOINTS SHALL BE COMPATIBLE WITH PIPING SYTEM. PIPING SHALL BE SUPPORTED FROM STRUCTURAL MEMBERS AND SHALL BE CONCEALED WHERE POSSIBLE. INSULATION FLAME/SMOKE RATING SHALL BE 25/50 OR LESS.
13. SANITARY, WASTE, AND VENT PIPING SHALL BE SCHEDULE 40 SOLID CORE PVC UNDER FLOOR SLAB OR BELOW GRADE WHERE ACCEPTABLE TO LOCAL AUTHORITIES.
14. WHERE APPLICABLE, PIPE INSTALLATION SHALL COMPLY WITH IPC SECTION 309 FOR FLOOD HAZARD REQUIREMENTS.
15. PROVIDE ACCESS PANELS FOR CONCEALED VALVES OR EQUIPMENT.
16. PROVIDE CLEANOUTS WHERE INDICATED ON DRAWINGS OR AS REQUIRED BY CODE. CLEANOUTS SHALL BE JOSAM, WADE, ZURN, OR J. R. SMITH. SET FLUSH WITH FINISHED FLOOR OR WALL.
17. FLOOR DRAINS SHALL BE WADE TYPE 1100 WITH DEEP SEAL 3" TRAPS AND BRASS OR NICKEL COVERS OR EQUAL BY JOSAM, ZURN, OR J. R. SMITH.
18. COORDINATE ALL PLUMBING FIXTURE TYPES WITH OWNER OR ARCHITECT PRIOR TO PURCHASE. COORDINATE LOCATIONS PRIOR TO INSTALLATION.
19. PROVIDE TEMPERATURE AND PRESSURE RELIEF VALVES FOR ALL WATER HEATERS. PIPE FULL SIZE TO DISCHARGE AT NEAREST FLOOR DRAIN OR MOP SINK.
20. PROVIDE QUARTER TURN STOP VALVES IN WATER SUPPLY LINES TO ALL PLUMBING FIXTURES.
21. PROVIDE WATER HAMMER ARRESTERS AT WATER CONNECTIONS TO ALL FIXTURES. WATER HAMMER ARRESTERS SHALL BE SIOUX CHIEF "MINI-RESTER" OR EQUAL.
22. SLOPE WATER PIPING AND PROVIDE DRAIN VALVES TO ENABLE OWNER TO DRAIN PIPING SYSTEM.
23. WATER PIPING SHALL BE CLEANED, FLUSHED, AND DISINFECTED PER AWWA STANDARDS C651 OR C652.
24. WATER PIPING SHALL BE TESTED AT 125 PSI FOR A MINIMUM OF 12 HOURS. ANY LEAKS SHALL BE REPAIRED AND THE TEST REPEATED UNTIL PROVEN LEAK-FREE. PRIOR TO TESTING, REMOVE OR ISOLATE ANY EQUIPMENT NOT DESIGNED FOR THE TEST PRESSURE.
25. SOIL, WASTE, AND VENT PIPING SHALL BE TESTED WITH A MINIMUM 10 FOOT WATER COLUMN FOR 15 MINUTES WITH NO DROP IN WATER LEVEL.
26. BRASS USED IN VALVES, FITTINGS, AND SPECIALTIES SHALL NOT CONTAIN OVER 15% ZINC BY MASS. THE MANUFACTURER SHALL DOCUMENT THE ZINC CONTENT.



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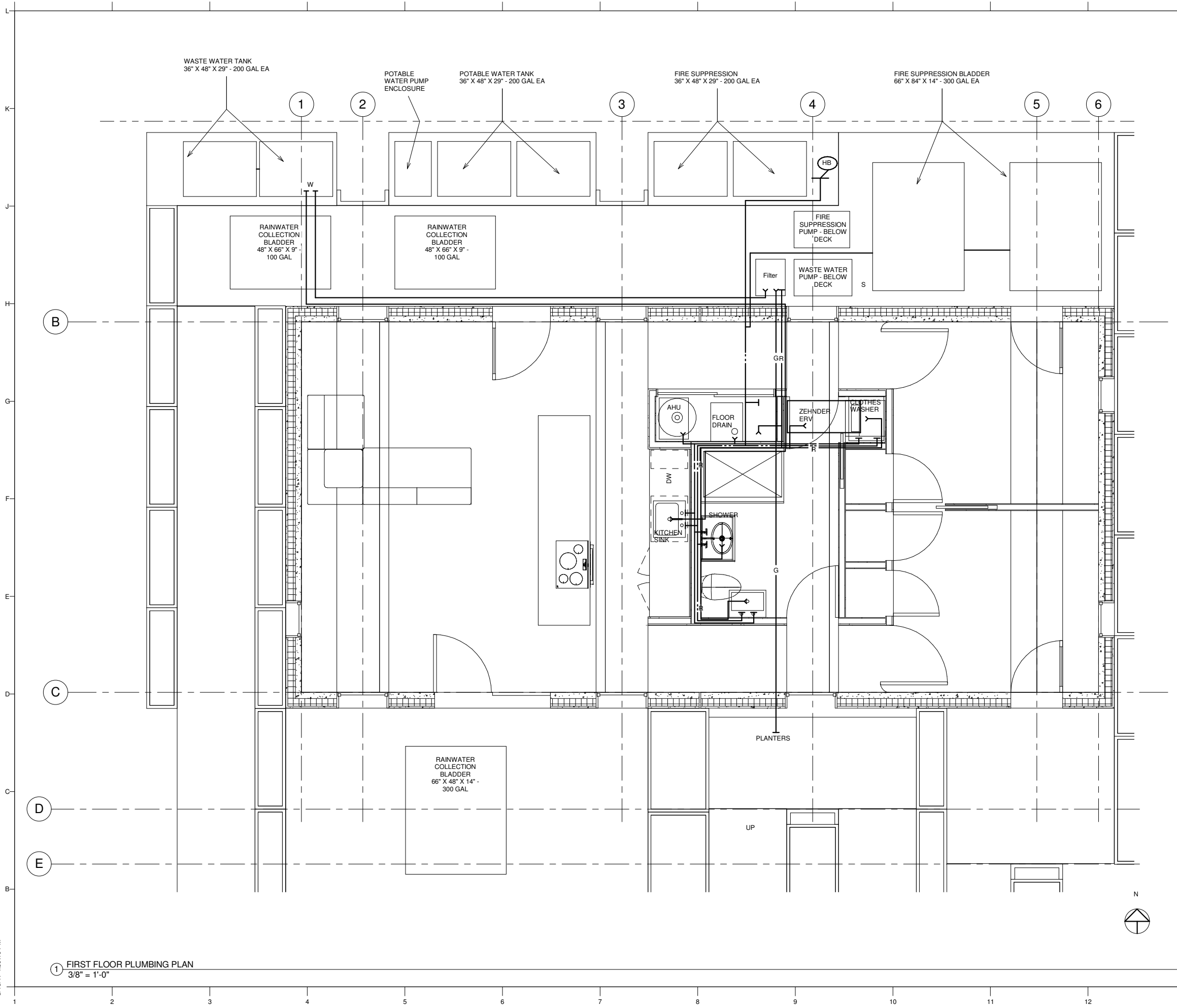
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SHEET TITLE

PLUMBING NOTES AND SYMBOLS

P001



GENERAL NOTES

- KEY
- POTABLE WATER SUPPLY
 - DOMESTIC HOT WATER
 - WASTE WATER
 - G --- GREY WATER SUPPLY
 - R --- GREY WATER RETURN
 - HB HOSE BIBB



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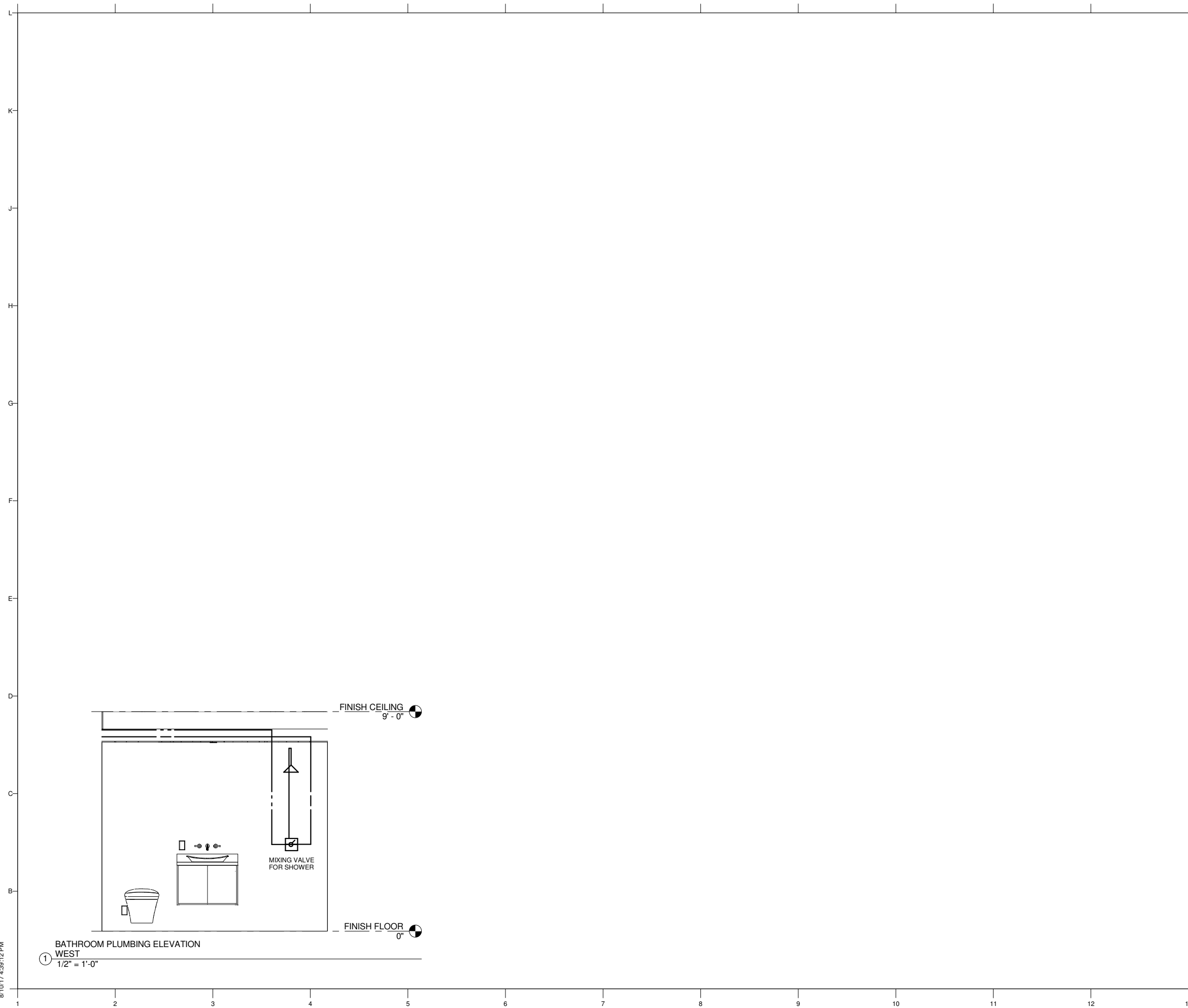
SHEET TITLE
PLUMBING DISTRIBUTION PLAN

P111

① FIRST FLOOR PLUMBING PLAN
 3/8" = 1'-0"

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8/10/17 4:39:12 PM



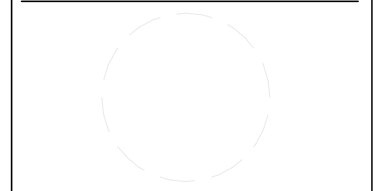
BATHROOM PLUMBING ELEVATION
WEST
1/2" = 1'-0"

GENERAL NOTES



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SHEET TITLE
PLUMBING ELEVATION

P401



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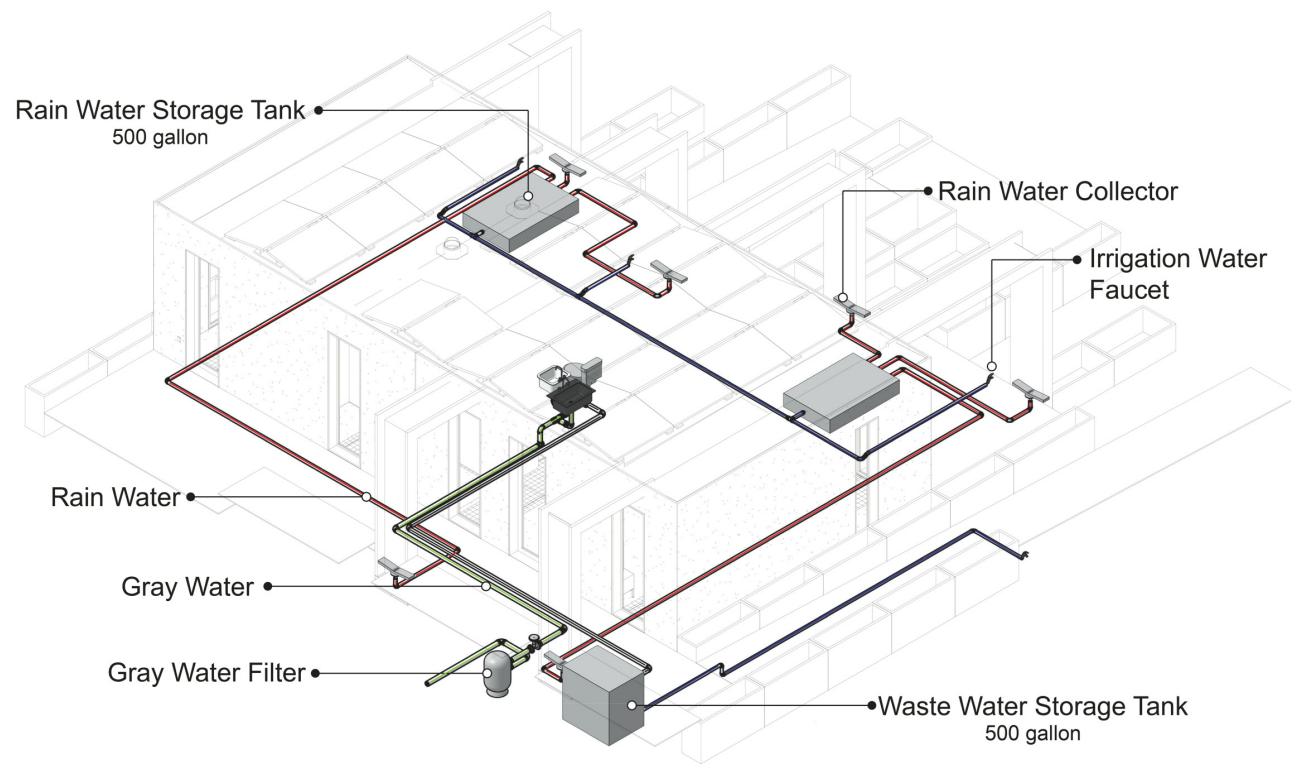


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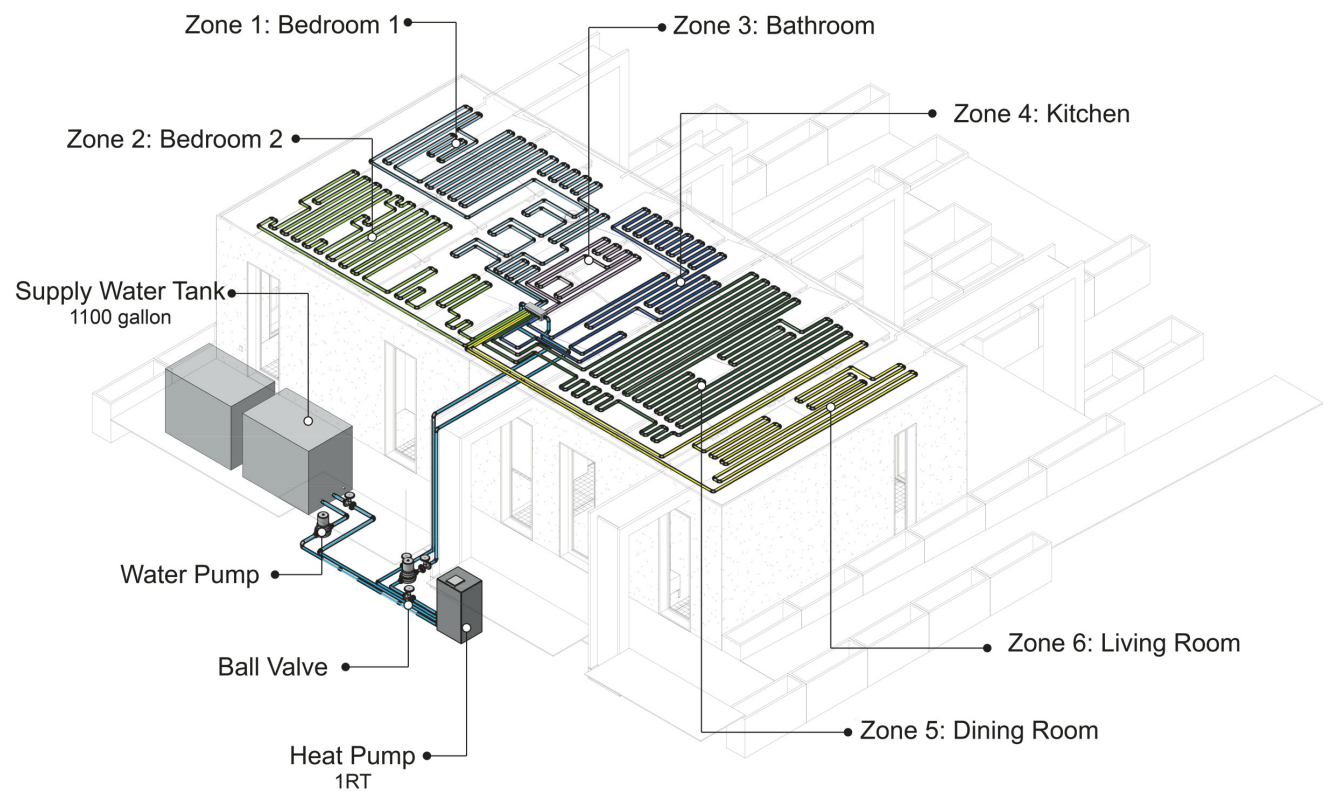
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SHEET TITLE
 PLUMBING DIAGRAMS

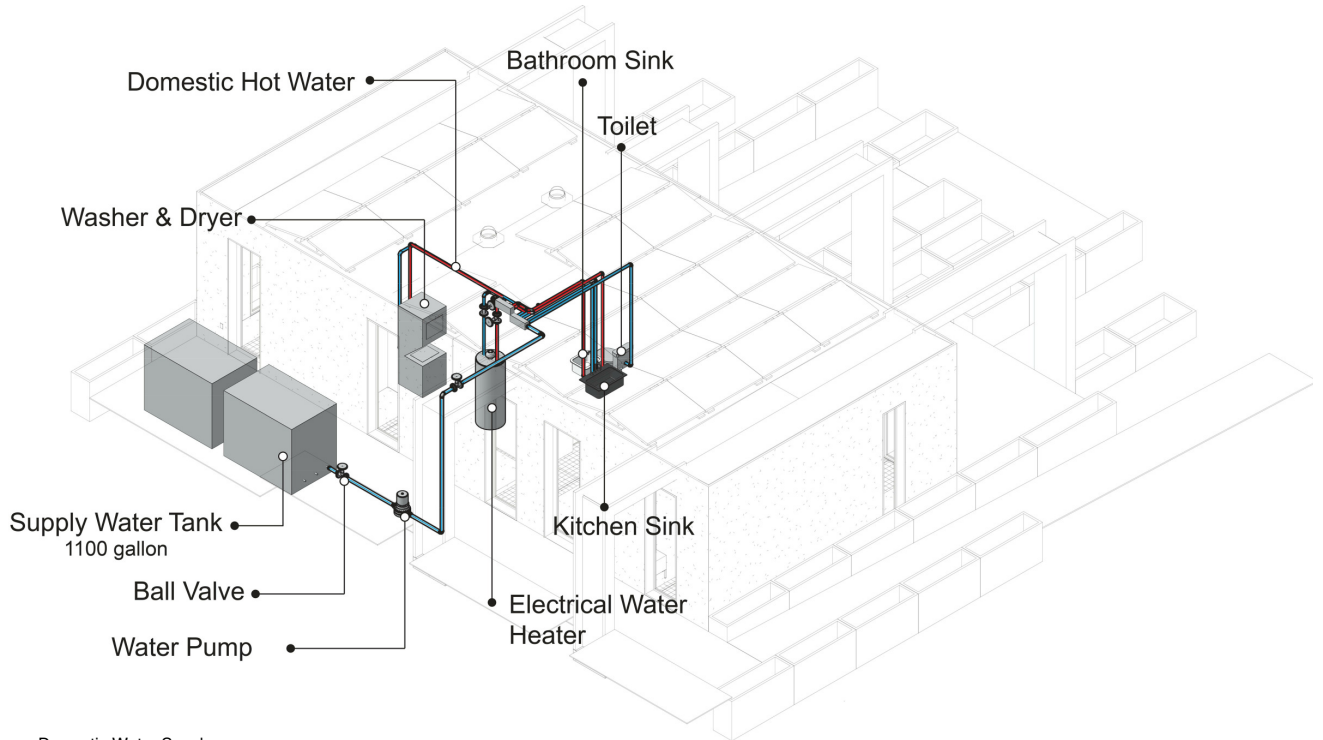
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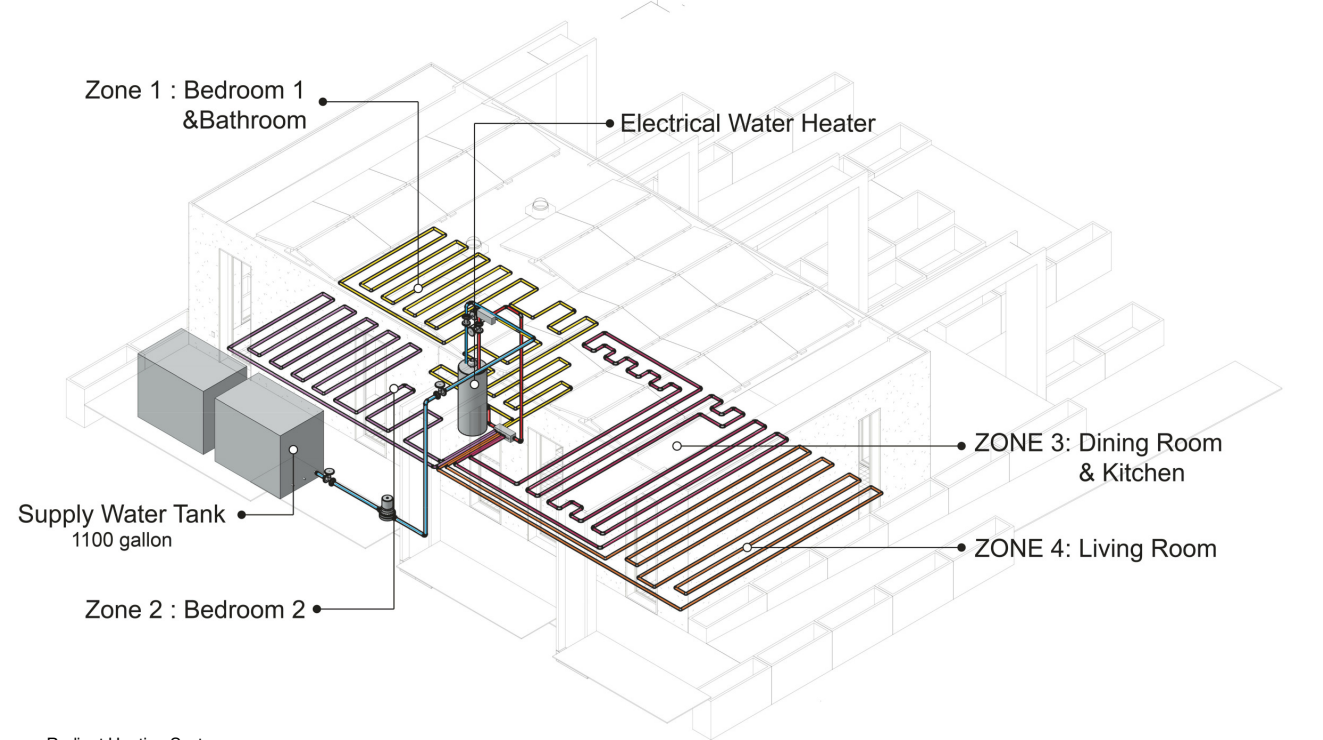
③ Greywater and Rainwater Harvesting
 3/8" = 1'-0"



④ Radiant Cooling System
 3/8" = 1'-0"



① Domestic Water Supply
 3/8" = 1'-0"

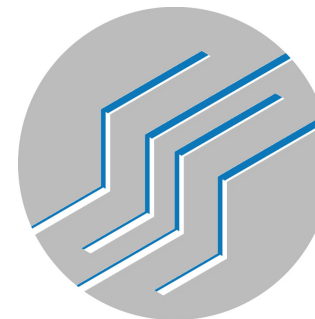


② Radiant Heating System
 3/8" = 1'-0"

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GENERAL NOTES



- KEY
- VTR VENT THROUGH ROOF
 - VALVE
 - VENT
 - PUMP
 - FITTINGS

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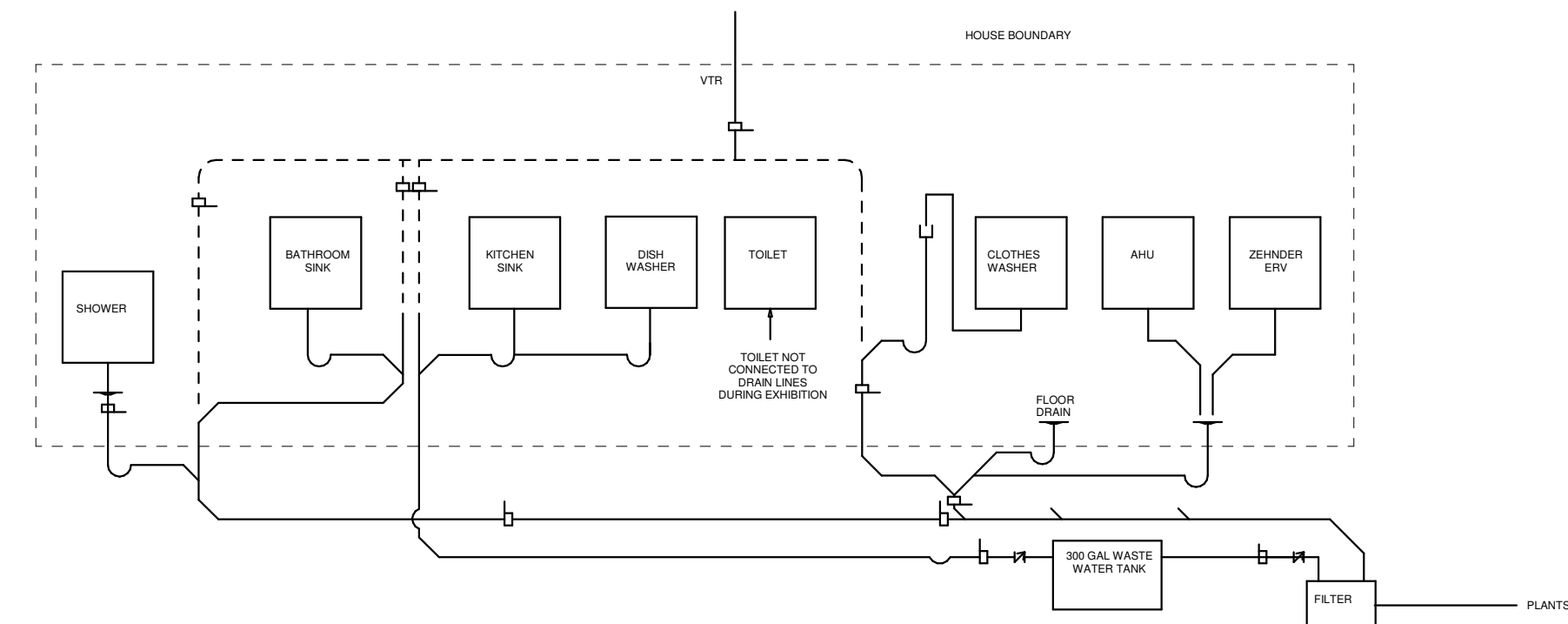


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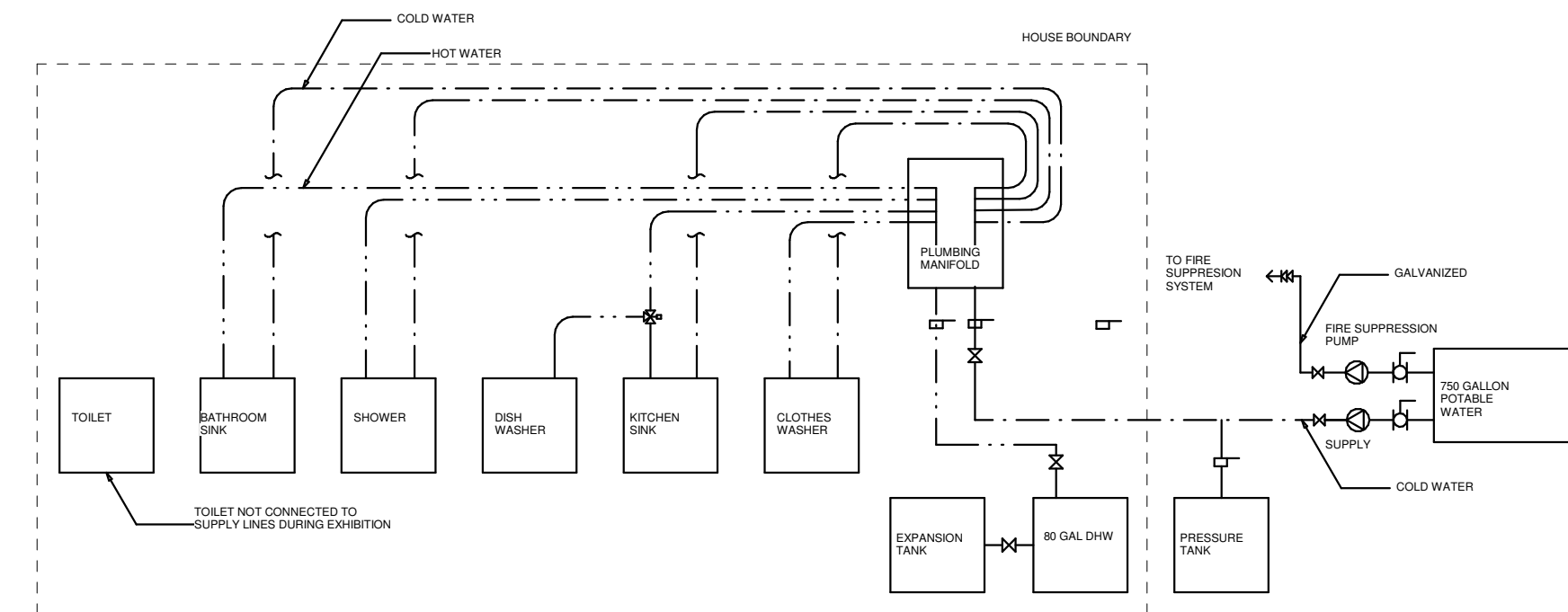
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SHEET TITLE
 DOMESTIC SUPPLY AND RETURN DIAGRAMS

P602



② WASTE AND VENT RISER DIAGRAM



① DOMESTIC WATER SUPPLY RISER DIAGRAM