# **Commercial Project:**

# Hay Plus Offices-Pb Holdings LLC

# PRESCOTT, ARIZONA

# Alea Map

NOTE: THE EXISTING FIRE ALARM PANEL FOR THE EXISTING SHADE STRUCTURES (UNDER SEPARATE PERMIT) SHALL BE RELOCATED INTO THE JANITOR'S CLOSET.

# Project Information Seet Index

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> P.O. Box 11593 Prescott, AZ 86304

Sunwest Fabrication 2303 N. Rd. 1 East Chino Valley, AZ 86323

6648 Corsair Ave. ADDRESS: Prescott, AZ 86301

PARCEL NUMBER 103-01-567B

ZONING:

CONST. TYPE OCCUPANCY:

1st FLOOR AREA: 2nd FLOOR AREA:

CLIENT:

PREPARED BY:

CONTRACTOR:

**JOBSITE** 

AVENGER

NORTH ARROW INDICATOR

DETAIL DESIGNATOR

BUILDING SECTION DESIGNATOR

GRID LINE DESIGNATOR

**REVISION DESIGNATOR** 

**ELEVATION DESIGNATOR** 

DESCRIPTIVE NOTE DESIGNATOR

ROOM NUMBER / FINISH DESIGNATOR

DOOR TYPE DESIGNATOR

WALL TYPE DESIGNATOR

DOOR NUMBER DESIGNATOR

WINDOW TYPE DESIGNATOR

(#)

└ SITE

HWY 89A

Caphic Standards

EXISTING DOOR

DOOR

PROPOSED

**TOTAL BUILDING AREA: AWNING AREA:** TOTAL UNDER ROOF:

**BUILDING CODES** 

2018 International Building Code 2018 International Fire Code 2018 International Plumbing Code 2018 International Mechanical Code

1st Floor 3,350 S.F.

2nd Floor 1,459 S.F.

Awning 168 S.F.

4,809 S.F.

4,977 S.F.

2018 International Fuel Gas Code 2017 National Electrical Code 2018 International Energy Conservation Code

# Code Analysis

OCCUPANCY	BUSINESS
USE	B / S-2
BUILDING AREA	4,809
ALLOWABLE BUILDING AREA	9,000
ALLOWABLE BUILDING HEIGHT	40'
PROPOSED HEIGHT	25'-6"
ALLOWABLE STORIES	2
PROPOSED STORIES	2
CONSTRUCTION TYPE	V-B
FIRE PROTECTION SYSTEMS	ALARMS
OCCUPANT LOAD	17
EGRESS EXITS REQUIRED	1
EGRESS EXITS PROVIDED	2
OCCUPANCY SEPARATION	0
PARKING REQUIRED	9.1
PARKING PROVIDED	10

CS1 Occupancy / Egress Plan and Code Summary

Architectural Site Plan A0.1 Site Details Reference First Floor Plan A1.1 Reference Second Floor Plan

Dimension Floor Plans A2.0 First Floor Reflected Ceiling Plan A2.1 Second Floor Reflected Ceiling Plan A3.0 Roof Plan

**Building Sections Building Sections Exterior Elevations Exterior Elevations** 

**Enlarged Plans and Interior Elevations** Interior Elevations

Door and Window Schedule & Types, Materials Schedule

A8.0 Room Finish Plan A9.0 Details

## STRUCTURAL

**General Notes and Details** Foundation Mezzanine Framing Plan Roof Framing Plan Elevation and Frame Elevation and Frame Structural Details

Structural Details

Mechanical

First Floor Mechanical Plan M2.0 Second Floor Mechanical Plan Mechanical Schedules M4.0 Mechanical Details

Plumbing

P1.0 Plumbing First Floor Plan Plumbing Second Floor Plan P2.1 Plumbing Schedules and Details

Electrica

E1.1 Electrical Symbols, Specifications, One-Line Diagram and Notes

First Floor Lighting Plan E1.2 E1.3 First Floor Power Plan

E1.4 Second Floor Power and Lighting Plan

# **Project Description**

PB HOLDINGS INTENDS TO CONSTRUCT AN OFFICE BUILDING ON THEIR **EXISTING PROPERTY** 

NOTE: REFER TO PUBLIC WORKS PERMIT NUMBER ENG1807-017 THAT WAS PREVIOUSLY APPROVED FOR ALL GRADING & DRAINAGE AND WATER & SEWER UTILITIES INFORMATION

# **Architect:**

# W. Alan Kenson & Associates, P.C.

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ARCHITECTURE & PLANNING



W. Alan Kenson & Associates P.

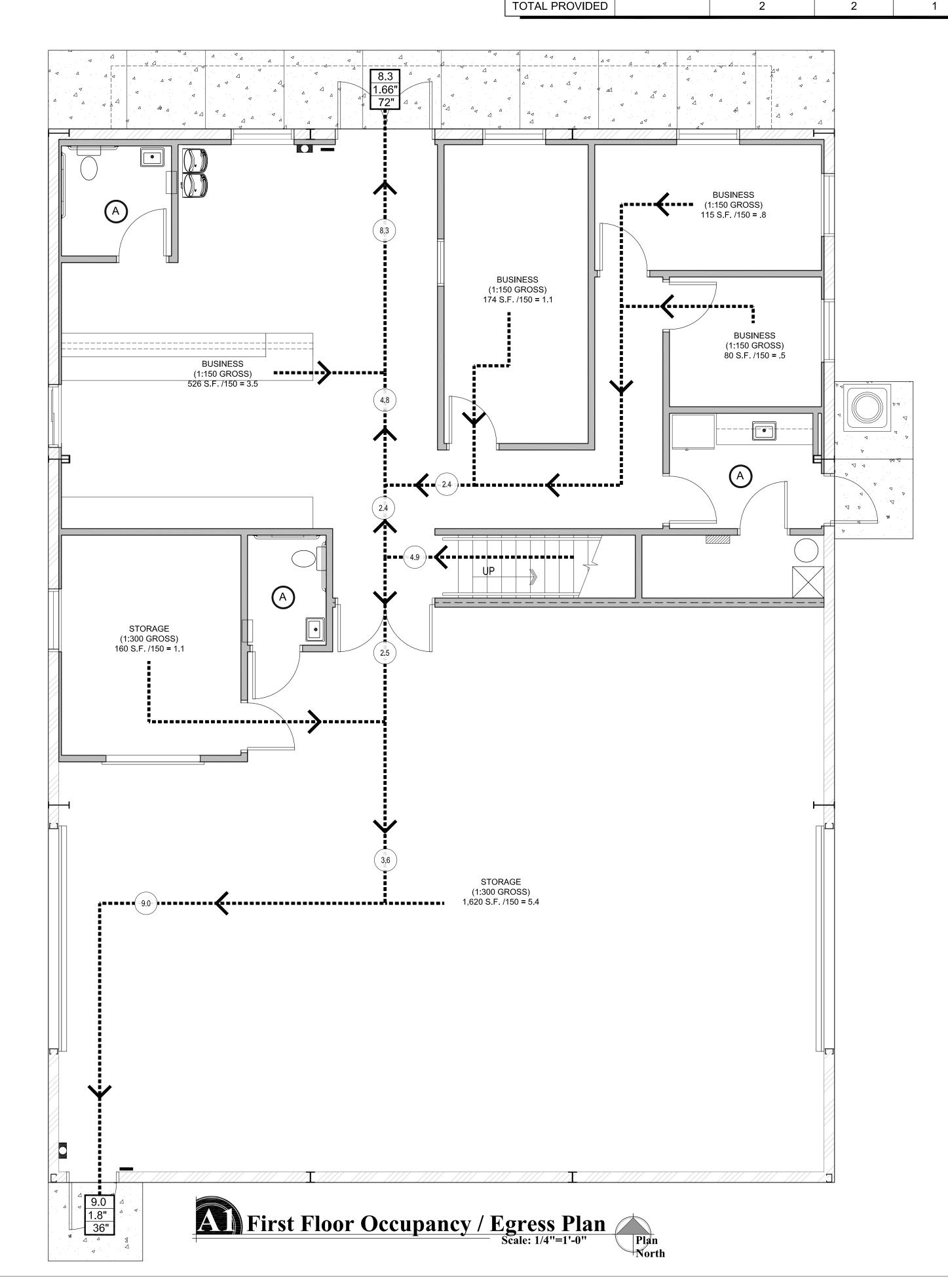
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EXIT SIGNS: -

• PROVIDE A 6"x9" BLUE TACTILE, BRAILLE, 'EXIT' SIGN AS MANUFACTURED BY 'SIMPLY EXIT SIGNS (#SE-1980)' OR EQUAL COMPLYING WITH ICC/ANSI A117.1 SECTION 703.1 AND IBC SECTIONS 1013 & 1111, ADJACENT TO EACH DOOR TO AN EXIT PASSAGEWAY AND THE EXIT DISCHARGE.

### **P**umbing Calculations SERVICE OCCUPANCY OCCUPANCY DRINKING WATER CLOSETS | LAVATORIES FOUNTAINS COUNT CLASSIFICATION SINK **BUSINESS** .24 .15 STORAGE .11 .11 TOTAL REQUIRED .35 .26



# Accessibility Notes

- 1. ACCESS TO THESE FACILITIES SHALL BE AT PRIMARY ENTRANCES.
- 2. THE SLOPE OF PUBLIC WALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 2%.
- 3. WALKING SURFACES GREATER THAN 2% SHALL BE SLIP RESISTANT.
- 4. PROVIDE A 44"x60" MINIMUM LANDING ON THE STRIKE SIDE OF THE ENTRANCE DOOR WITH 44" MINIMUM WIDTH IN THE DIRECTION OF TRAVEL.
- 5. WALLS SHALL EXTEND 18" TO THE SIDE OF THE STRIKE EDGE OF A DOOR OR GATE THAT SWINGS TOWARDS THE OCCUPANT.
- 6. RAMPS SHALL HAVE A NON-SLIP SURFACE.
- 7. RAMPS SHALL BE A MINIMUM OF 36" WIDE.
- 8. EVERY REQUIRED EXIT DOORWAY SHALL BE SIZED FOR A DOOR NOT LESS THAN 36" WIDE BY NOT LESS THAN 6'-8" HIGH CAPABLE OF OPENING 90 DEGREES AND MOUNTED SO THE CLEAR WIDTH OF THE EXIT WAY IS 32" MINIMUM.
- 9. THRESHOLDS TO BE A MAXIMUM OF 1/4" ABOVE ADJACENT FLOOR FINISH. ONE-HALF INCH THRESHOLD MAY BE USED IF BEVELED PER A.D.A. STANDARDS.
- 10. MAXIMUM EFFORT TO OPERATE A DOOR SHALL NOT EXCEED 5 POUNDS.
- 11. THE BOTTOM 10 INCHES OF ALL DOORS EXCEPT AUTOMATIC AND SLIDING DOORS SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE.
- 12. PROVIDE LEVER TYPE HARDWARE, PANIC BARS, PUSH AND PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE. (30" TO 44" A.F.F.)

# Deress Legend:

**EXIT ACCESS** 

ACCESSORY USE (NO OCCUPANCY)

XX ROOM OCCUPANCY LOAD (xx

SUBTOTAL OCCUPANCY LOAD

XX XX XX

OCCUPANCY TOTAL REQUIRED EXIT WIDTH (FACTOR = 0.2) PROVIDED EXIT WIDTH

WORST CASE TRAVEL DISTANCE TO COMMON PATH OF EGRESS TRAVEL

**FUNCTION OF SPACE** OCCUPANT LOAD FACTOR

**BUSINESS** STORAGE

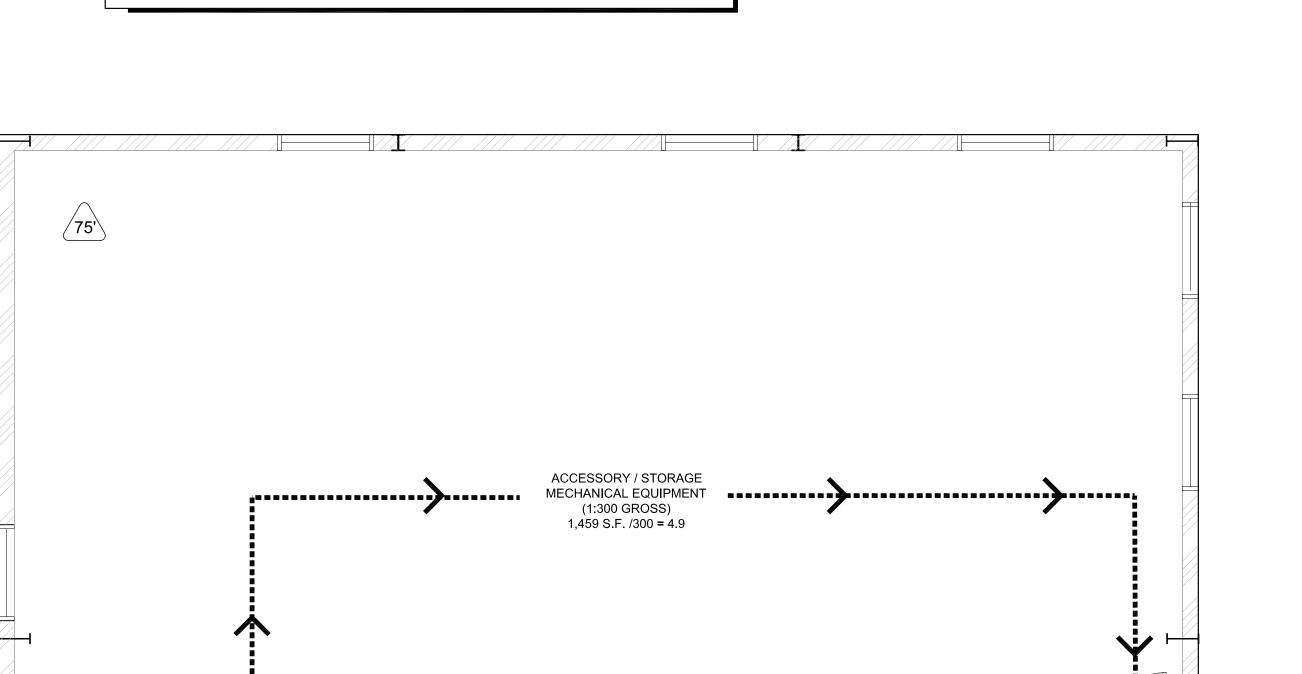
150 GROSS 300 GROSS

**Occupant load** 

GROSS SQUARE FOOTAGE LISTED BELOW DOES NOT INCLUDE ACCESSORY AREAS.

**BUSINESS AREA** STORAGE AREA TOTAL:

895 SQ. FT. 6 OCCUPANTS 3,191 SQ. FT. 11 OCCUPANTS 4,045 SQ. FT. 17 OCCUPANTS



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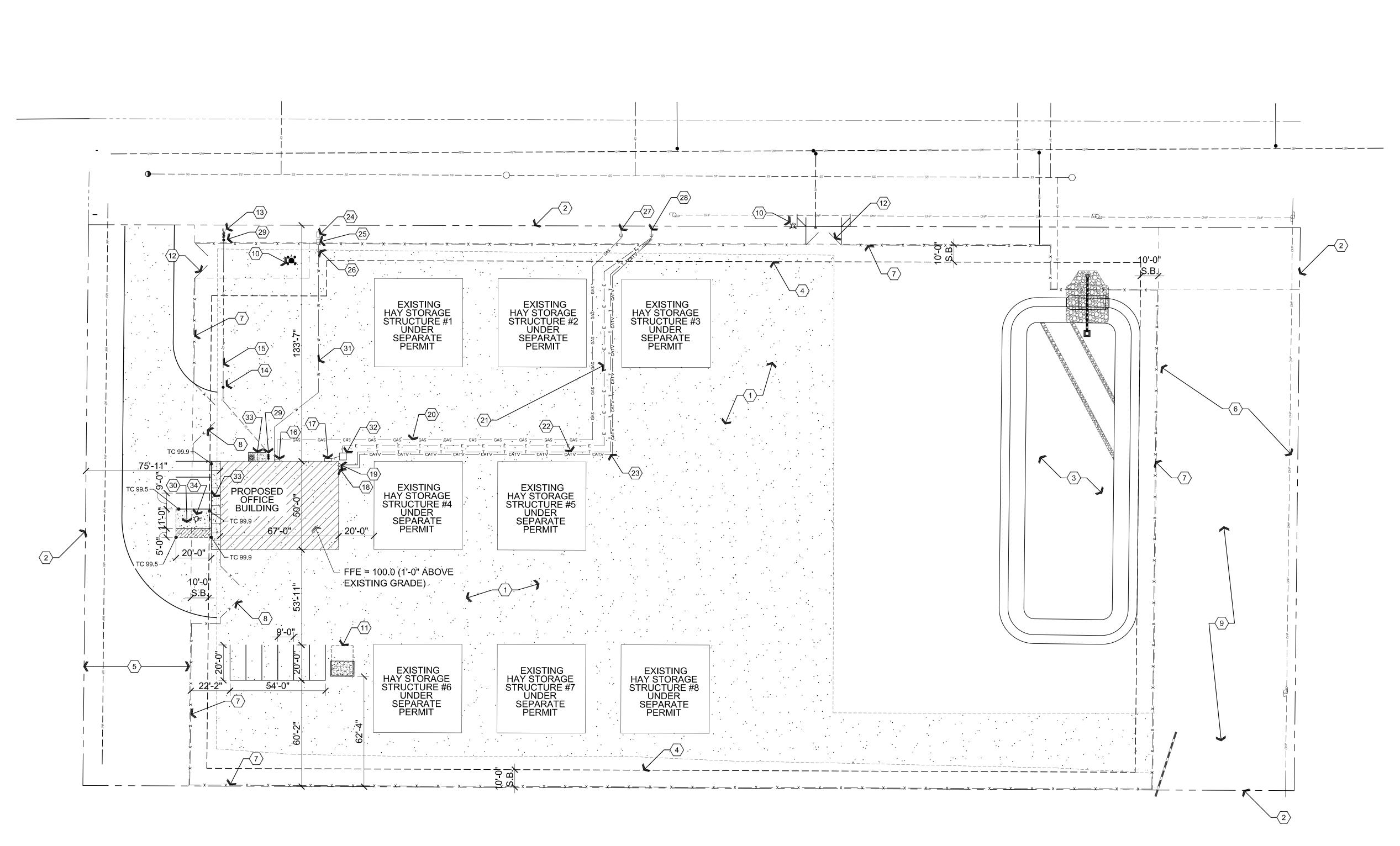
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Second Floor Occupancy / Egress Plan
Scale: 1/4"=1'-0"



Discriptive Keynotes (

1. EXISTING CRUSHED ASPHALT MILLINGS.

2. PROPERTY LINE. EXISTING DETENTION BASIN.

4. BUILDING SETBACK LINE.

60' UTILITY EASEMENT. EXISTING ACCESS EASEMENT.

EXISTING 6' HIGH CHAIN LINK FENCE.

8. EXISTING 6' HIGH CHAIN LINK GATE.

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9. EXISTING PRIVATE ROAD. 10. EXISTING FIRE HYDRANT.

11. EXISTING DUMPSTER ENCLOSURE

12. EXISTING FIRE DEPARTMENT ACCESS

GATE AND ENTRANCE. 13. 6" SEWER STUB OUT.

14. 4" CLEAN OUT.

15. 4" SDR 35 WASTE LINE.

16. NATURAL GAS METER / REGULATOR. 17. 400 AMP 120/208 THREE PHASE

SERVICE ENTRANCE SECTION. 18. CABLE TV CLOSURE.

19. TELEPHONE CLOSURE. 20. POLYETHELENE NATURAL GAS LINE BY UNISOURCE.

21. 4" DB 120 ELECTRICAL CONDUIT AS REQUIRED BY APS. 22. 2" DB 120 ELECTRICAL CONDUIT FOR

TELEPHONE. 23. 2" DB 120 ELECTRICAL CONDUIT FOR

CABLE TV.

24. EXISTING 1" WATER METER. 25. EXISTING REDUCED PRESSURE

BACKFLOW PREVENTION DEVICE. 26. EXISTING 1" WATER STUB OUT.

27. EXISTING NATURAL GAS STUB OUT. 28. EXISTING ELECTRIC / CABLE TV / TELEPHONE STUB OUT.

29. 4" TWO WAY CLEAN OUT AND BACKWATER VALVE, REFER TO COP STANDARD DETAIL 440P-3 ON SHEET

30. 5" CONCRETE SLAB W/ #4 @ 3'-0" O.C. EACH WAY, OVER 4" COMPACTED A.B.C.

31. PROVIDE 1-1/4" SCHEDULE 40 PVC DOMESTIC WATER LINE.

32. ELECTRICAL TRANSFORMER BY APS. 33. 4" CONCRETE SIDEWALK WITH #3 @ 2'-0" O.C. EACH WAY OVER 4" COMPACTED ABC.

34. PROVIDE ADA COMPLIANT HANDICAP STRIPING AND SIGNAGE PER QUAD CITY STANDARD DETAIL 131Q.

NOTE: REFER TO CITY OF PRESCOTT STANDARD DETAILS ON SHEET A0.1 FOR MORE INFORMATION.

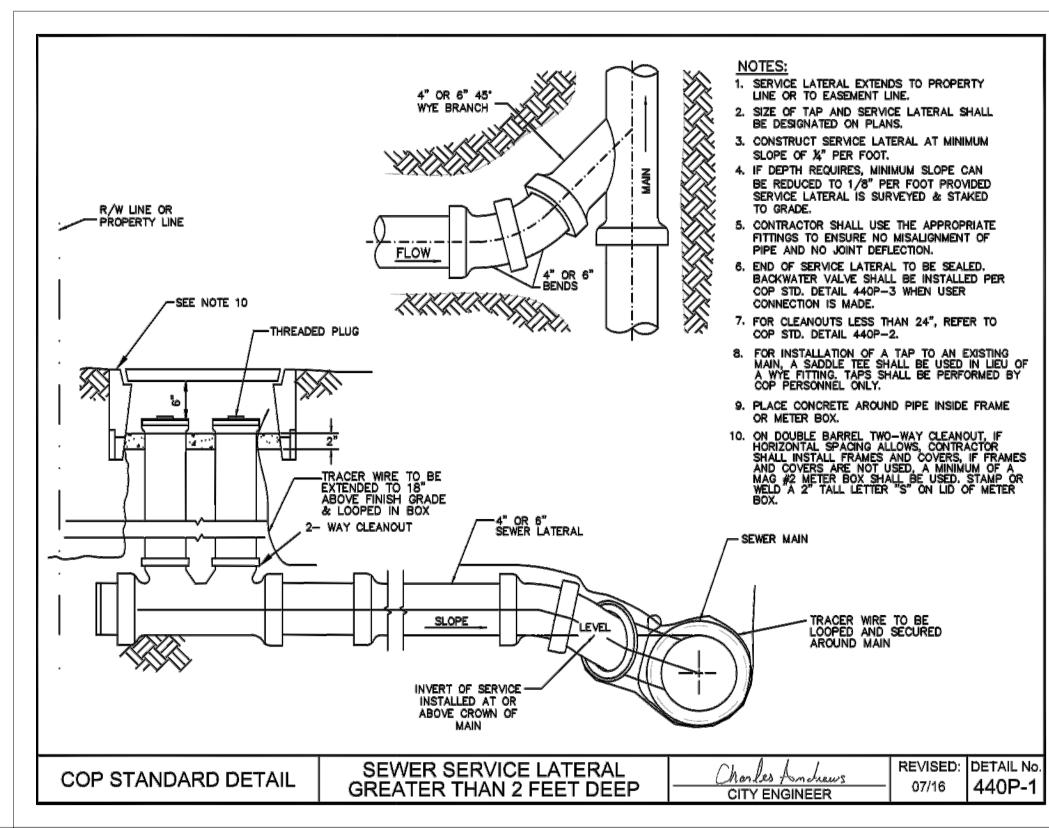
NOTE: REFER TO PUBLIC WORKS PERMIT NUMBER ENG1807-017

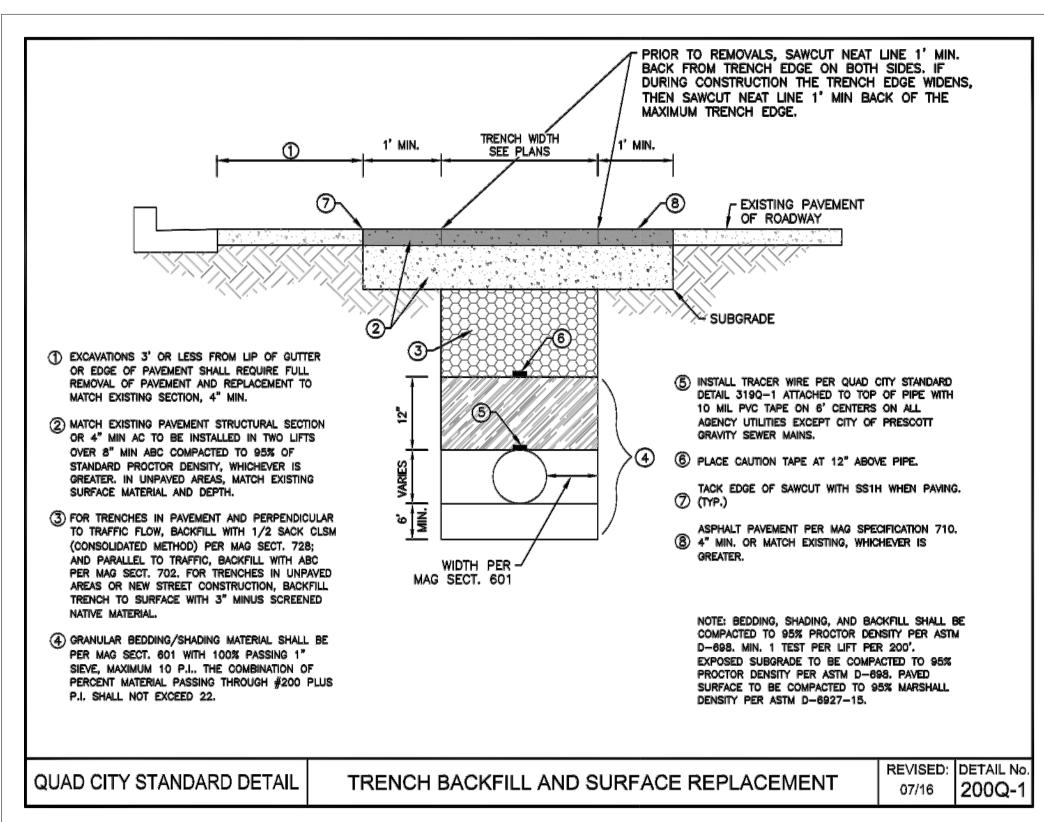
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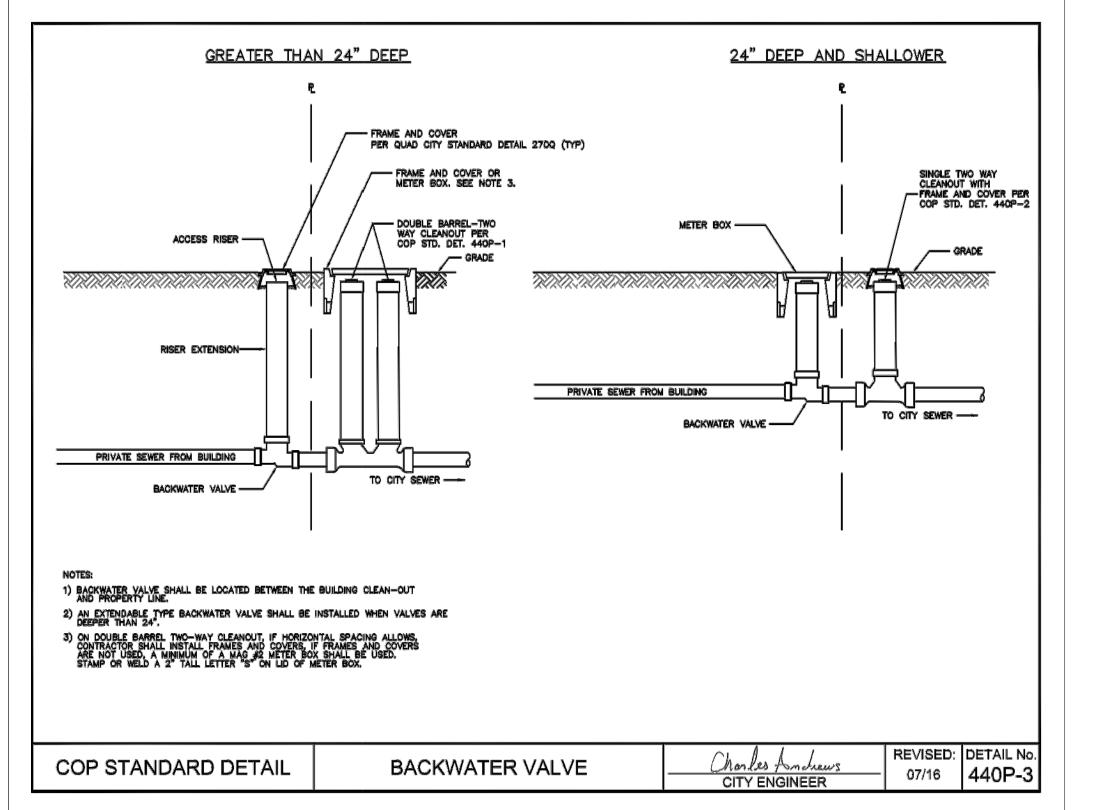
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Architectural Site Plan









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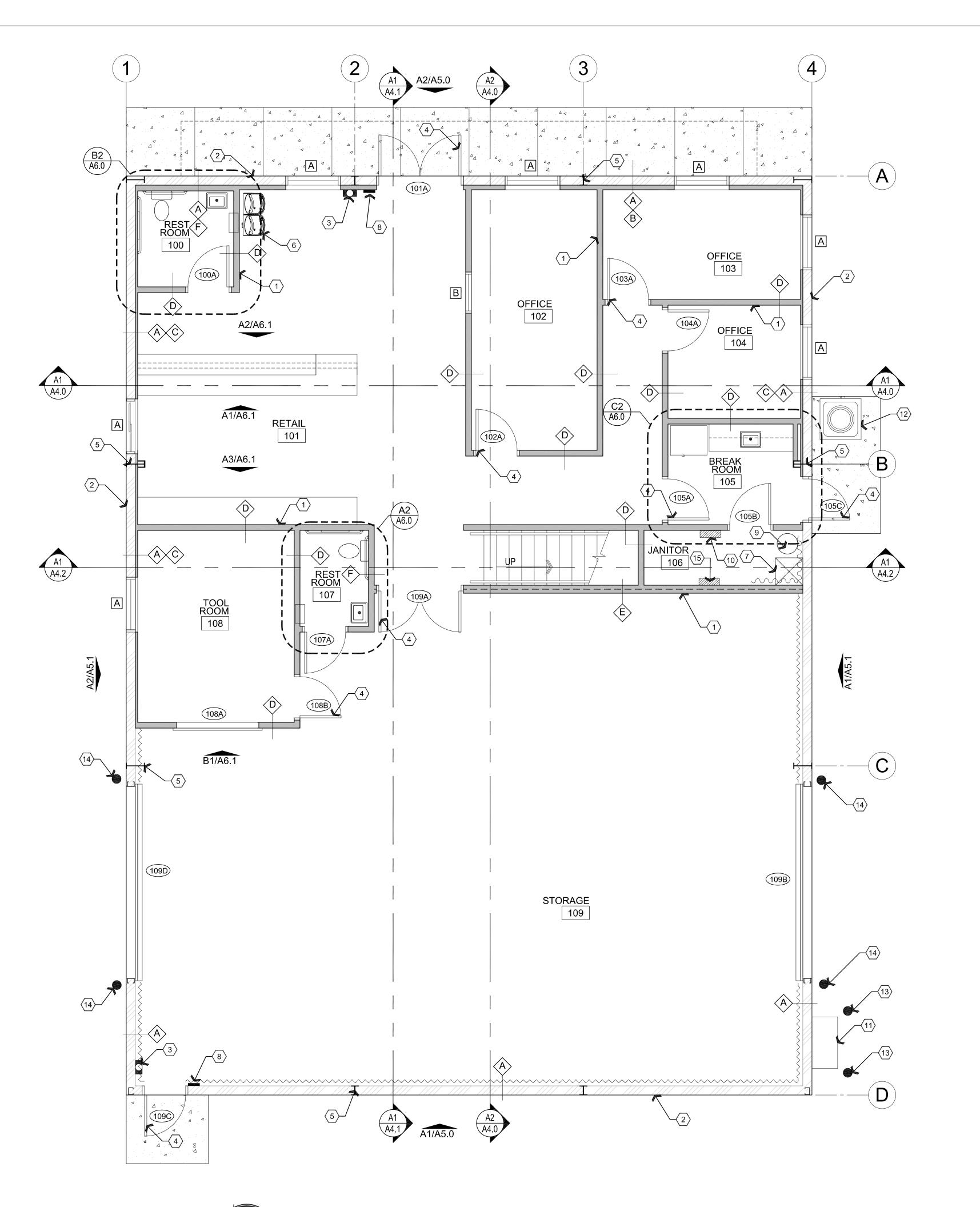
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May 7th, 2021

JOB NO. **764** 

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May 07, 2021 - 10:26am





PROVIDE INTERIOR WALL, REFER TO WALL TYPES
 LEGEND FOR TYPE OF CONSTRUCTION.

2. PROVIDE EXTERIOR WALL, REFER TO WALL TYPES

LEGEND FOR TYPE OF CONSTRUCTION

LEGEND FOR TYPE OF CONSTRUCTION.

3. PROVIDE TYPE 2A10BC FIRE EXTINGUISHER,

SURFACE MOUNTED.

4. PROVIDE DOOR, REFER TO DOOR SCHEDULE,

TYPICAL.

5. PROVIDE STEEL COLUMN, REFER TO STRUCTURAL PLANS, TYPICAL.

6. PROVIDE ELECTRIC DRINKING FOUNTAIN, REFER TO PLUMBING PLANS.

TO PLUMBING PLANS.
7. PROVIDE MOP SINK, REFER TO PLUMBING PLANS.

8. PROVIDE A 6"x9" BLUE TACTILE 'EXIT' SIGN AS MANUFACTURED BY 'SIMPLY EXIT SIGNS (#SE-1980)' OR EQUAL COMPLYING WITH ICCA117.1 AND IBC 1011.3 ADJACENT TO EACH DOOR TO AN EXIT PASSAGEWAY AND THE EXIT DISCHARGE. SIGN SHALL BE MOUNTED 60" A.F.F. TO THE CENTER OF THE SIGN.

9. WATER HEATER, REFER TO PLUMBING PLANS.10. ELECTRICAL PANEL, REFER TO ELECTRICAL PLANS.

11. ELECTRICAL SERVICE ENTRANCE SECTION, REFER TO ELECTRICAL PLANS.

12. HVAC CONDENSING UNIT, REFER TO MECHANICAL PLANS.

13. REMOVABLE STEEL BOLLARD IN ACCORDANCE WITH APS REQUIREMENTS.

14. 6'-0" LONG, 4" DIAMETER, CONCRETE FILLED, PROTECTIVE STEEL BOLLARDS, EMBEDDED 2'-0" BELOW GRADE INTO CONCRETE FOOTING.

15. THE EXISTING FIRE ALARM PANEL FOR THE EXISTING SHADE STRUCTURES (UNDER SEPARATE PERMIT) SHALL BE RELOCATED INTO THE JANITOR'S CLOSET.

Wall Types Legend

EXTERIOR METAL BUILDING WALL:
PROVIDE EXTERIOR METAL BUILDING
SIDING 'A' PANELS OVER 8" HORIZONTAL
GIRTS. PROVIDE R-11 VINYL BACKED,
METAL BUILDING INSULATION AT EXTERIOR.

FURRING: PROVIDE 2x4 WOOD STUD WALL FURRING @ 1'-4" O.C. ON INTERIOR SIDE OF METAL FRAMING, WITH 5/8" GPDW ON INTERIOR SIDE. PROVIDE R-11 UNFACED BATT INSULATION

FURRING: PROVIDE 2x4 WOOD STUD WALL FURRING, FLAT, @ 1'-4" O.C. ON INTERIOR SIDE OF METAL FRAMING WITH 5/8" GPDW ON INTERIOR SIDE. PROVIDE R-11 UNFACED BATT INSULATION.

INTERIOR 2x4 STUD WALL, TYP. PROVIDE 1-LAYER 5/8" GPDW ON EACH SIDE OF 2x4 WOOD STUDS AT 1'-4" ON CENTER. PROVIDE R-11 BATT INSULATION.

GA. STEEL STUD WALL: PROVIDE 6" 20
GA. STEEL STUDS AT 2'-0" O.C. WITH 5/8"
GPDW ON EXPOSED SIDES. PROVIDE R-19
UNFACED BATT INSULATION.

6" WOOD STUD WALL: PROVIDE 1 LAYER
5/8" GPDW ON EXPOSED SIDE OF 2x6 WOOD
STUDS AT 1'-4" O.C. PROVIDE E-19 BATT
INSULATION.

8'-0" HIGH METAL WALL LINER 'R' PANELS

4'-0" HIGH FRP

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\*G: Reference Floor Plan
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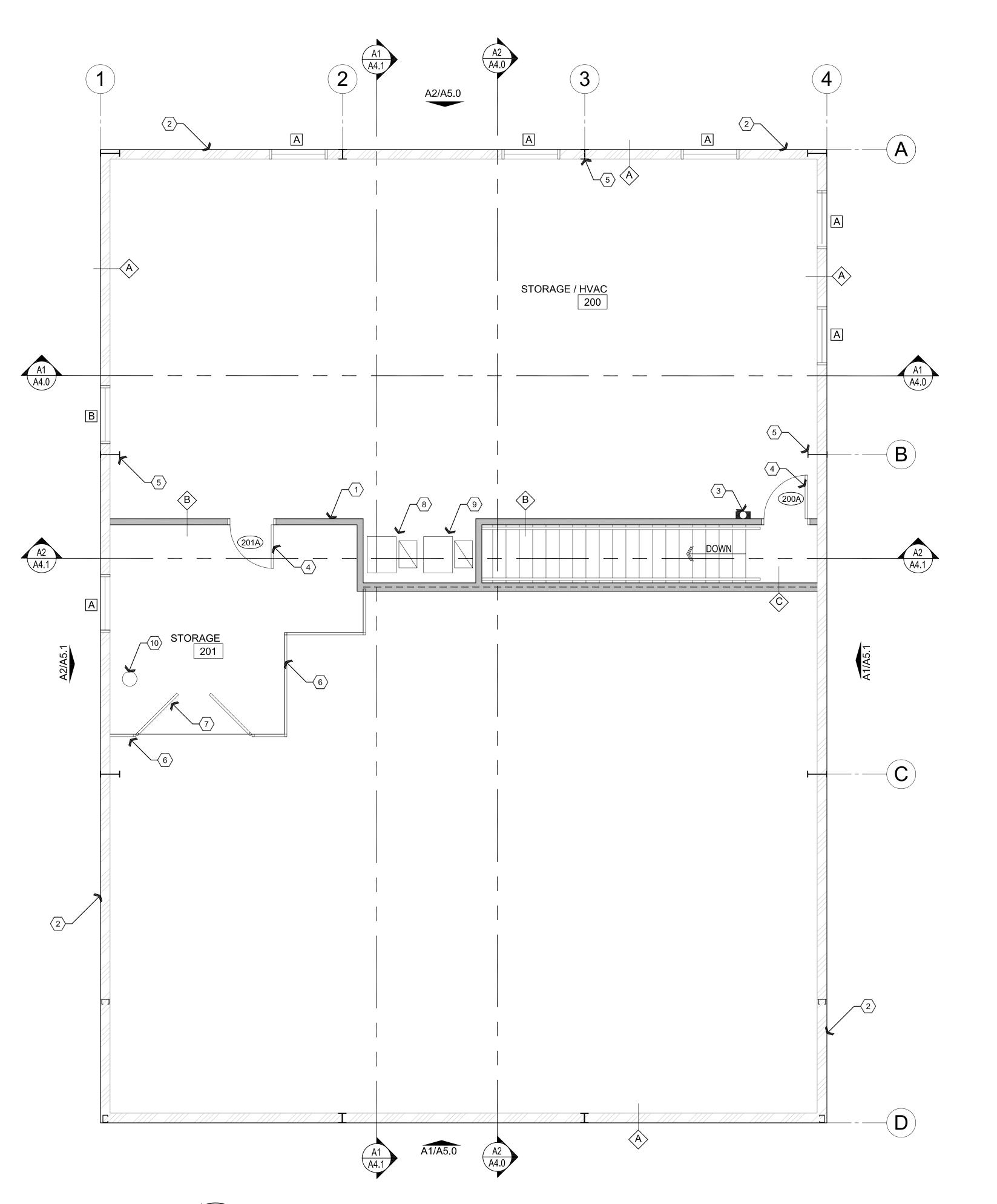
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764

A1.0

SHEET



Discriptive Keynotes  $\bigcirc$ 

PROVIDE INTERIOR WALL, REFER TO WALL TYPES LEGEND FOR TYPE OF CONSTRUCTION.

2. PROVIDE EXTERIOR WALL, REFER TO WALL TYPES LEGEND FOR TYPE OF CONSTRUCTION.

3. PROVIDE TYPE 2A10BC FIRE EXTINGUISHER, SURFACE MOUNTED.

4. PROVIDE DOOR, REFER TO DOOR SCHEDULE, TYPICAL.

PROVIDE STEEL COLUMN, REFER TO STRUCTURAL

PLANS, TYPICAL. 6. PROVIDE 2"x1" STEEL TUBE GUARDRAIL PLACED AT 3'-6" ABOVE UPPER LEVEL FLOOR WITH INTERMEDIATE 1"x1" STEEL TUBE RAILS NOT TO EXCEED 12" O.C. PROVIDE 2"x2" STEEL POSTS SPACED AT 8'-0" O.C MAXIMUM.

PROVIDE PAIR OF 4'-0" WIDE SWINGING STEEL

GATES CONSTRUCTED SIMILAR TO GUARDRAIL CONSTRUCTION, REFER TO DESCRIPTIVE KEYNOTE #6.

8. LOWER LEVEL HVAC, REFER TO MECHANICAL PLANS.

9. UPPER LEVEL FUTURE HVAC, REFER TO MECHANICAL PLANS.

10. AIR COMPRESSOR BY OWNER.



EXTERIOR METAL BUILDING WALL: PROVIDE EXTERIOR METAL BUILDING SIDING 'A' PANELS OVER 8" HORIZONTAL GIRTS. PROVIDE R-11 VINYL BACKED, METAL BUILDING INSULATION AT INTERIOR.

\_\_\_\_\_ (B) INTERIOR 2x4 STUD WALL, TYP. PROVIDE 1-LAYER 5/8" GPDW ON EACH SIDE OF 2x4 WOOD STUDS AT 1'-4" ON CENTER. PROVIDE R-11 BATT INSULATION.

6" METAL STUD WALL: PROVIDE 6" 25 GA. METAL STUDS AT 2'-0" O.C. WITH 5/8" GPDW ON EXPOSED SIDES. PROVIDE R-19 UNFACED BATT INSULATION.

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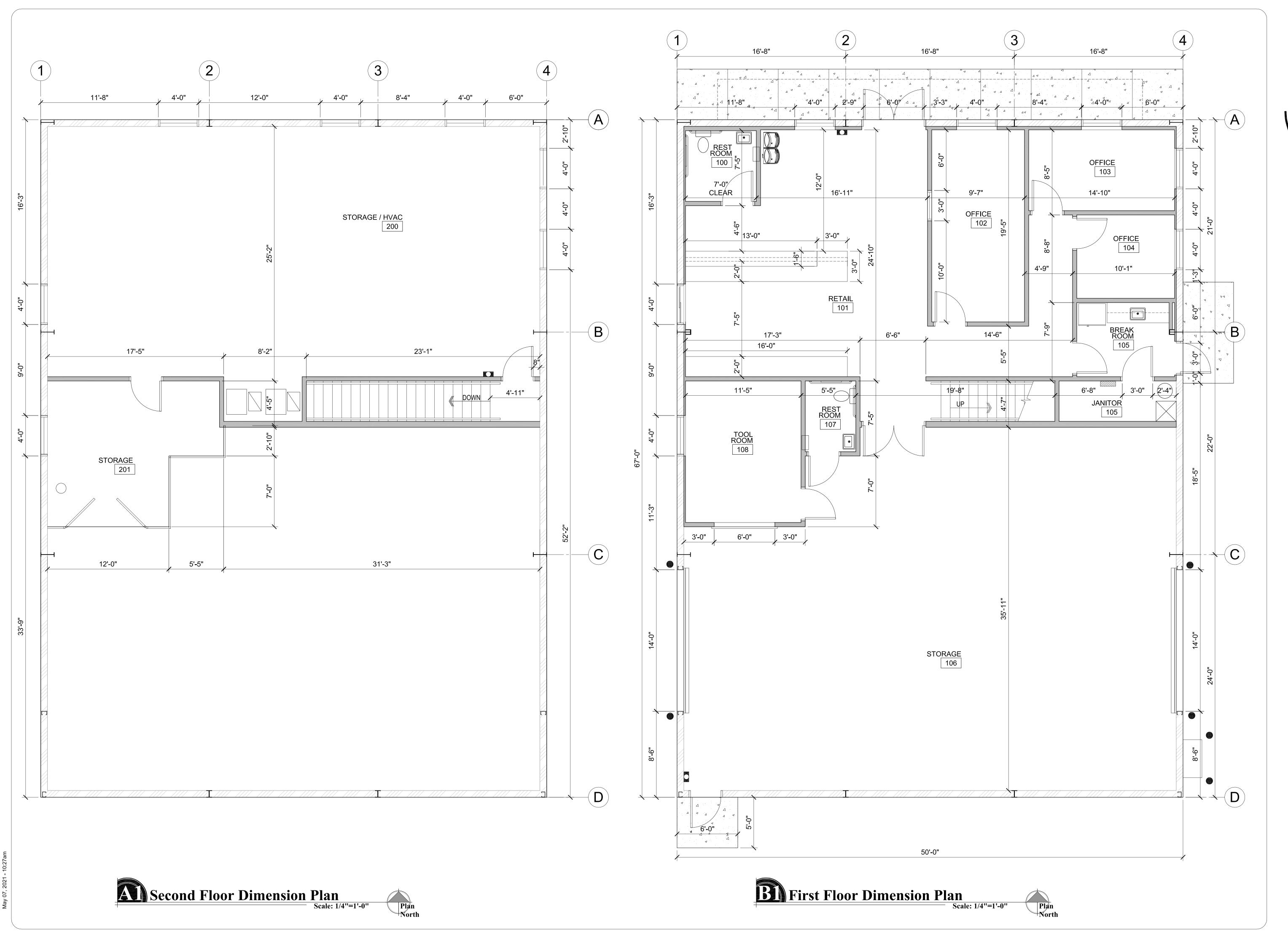
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Second Floor Reference / Wall Types Plan
Scale: 1/4"=1'-0"
Plan
North





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P 928-443-5812
P 928-443-5815
P 928-443-5815
P 928-443-5815
P 928-443-5815
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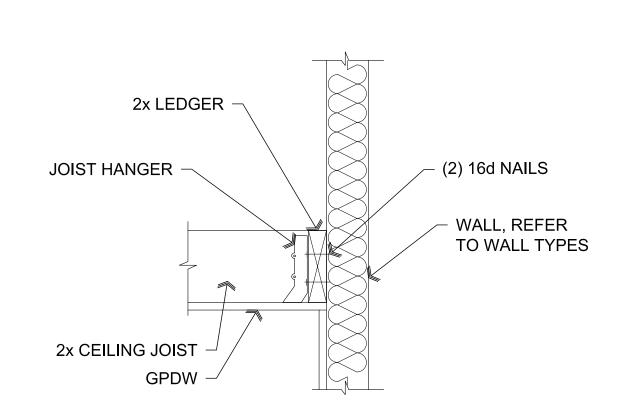
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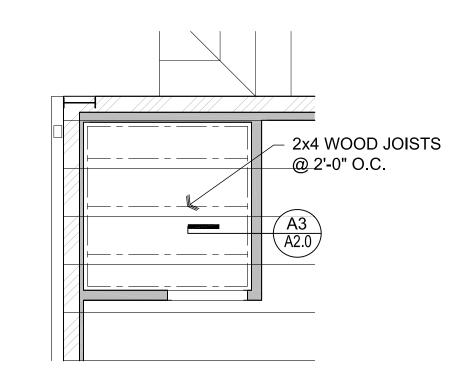
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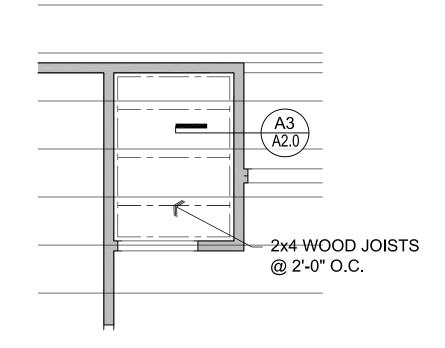
A1.2



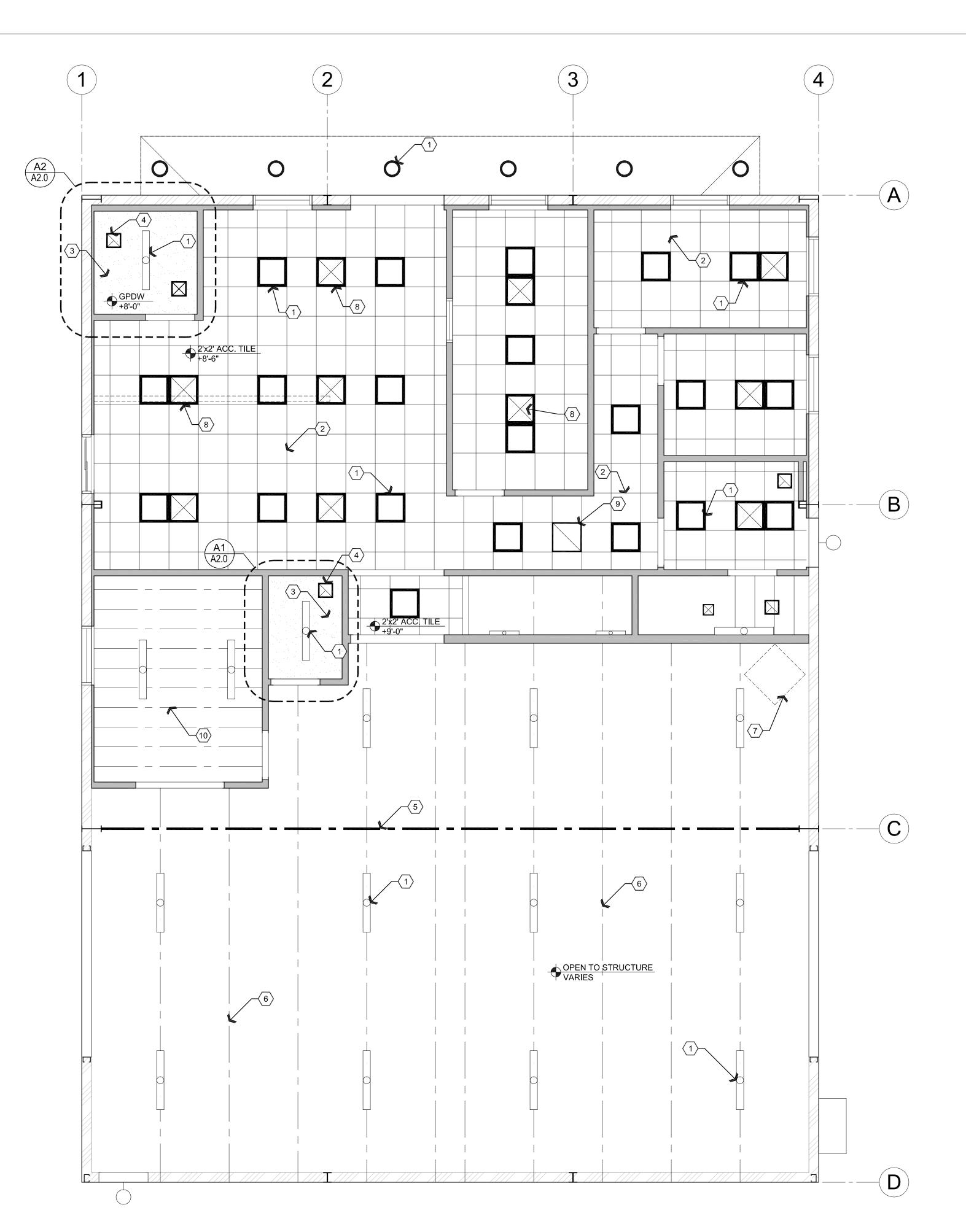
# **Ceiling Framing Detail** --- SCALE: 1 1/2" = 1'-0"





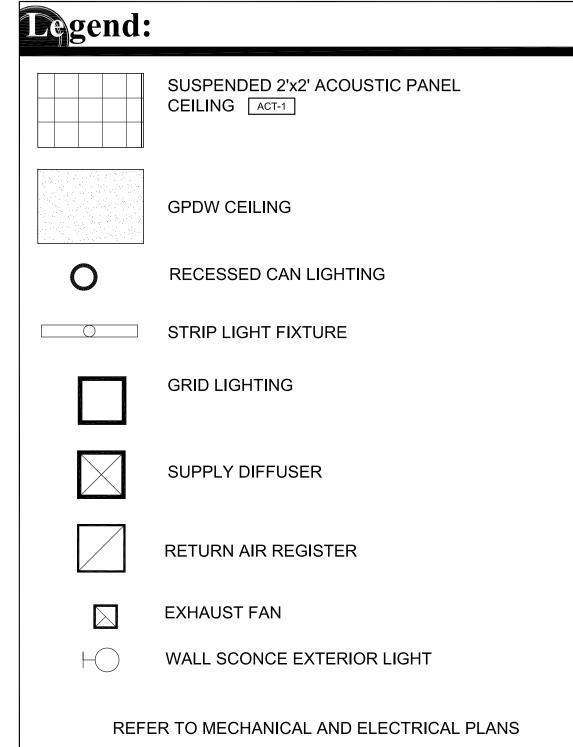


Partial Ceiling Framing Plan
Scale: 1/4"=1'-0"
Plan
North





- LIGHT FIXTURE(S) SHOWN FOR QUANTITY AND LOCATION ONLY. REFER TO ELECTRICAL PLANS.
- PROVIDE SUSPENDED ACOUSTIC PANEL CEILING. ACT-1 PROVIDE 5/8" GPDW CEILING ATTACHED TO CEILING JOISTS,
- REFER TO CEILING FRAMING PLAN. EXHAUST FAN, REFER TO MECHANICAL PLANS, TYPICAL.
- PROVIDE BEAM, REFER TO STRUCTURAL PLANS.
- 6. PROVIDE ROOF PURLIN, TYPICAL, REFER TO STRUCTURAL
- PROVIDE UNIT HEATER, REFER TO MECHANICAL PLANS.
- 8. PROVIDE HVAC SUPPLY DIFFUSER, REFER TO MECHANICAL
- 9. PROVIDE RETURN VENT, REFER TO MECHANICAL PLANS.
  10. EXPOSED FLOOR JOIST, REFER TO STRUCTURAL PLANS.



First Floor Reflected Ceiling Plan
Scale: 1/4"=1'-0"



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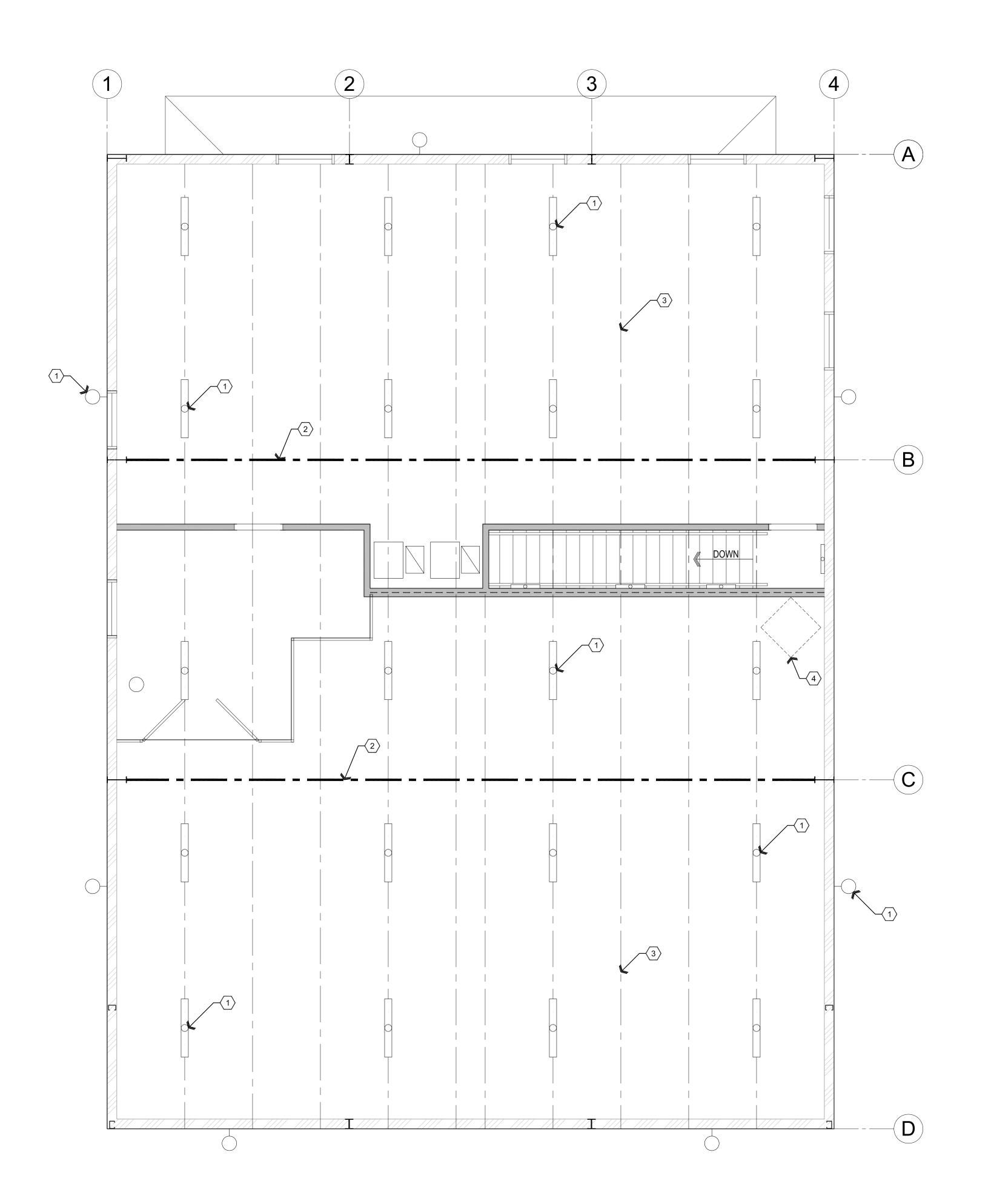
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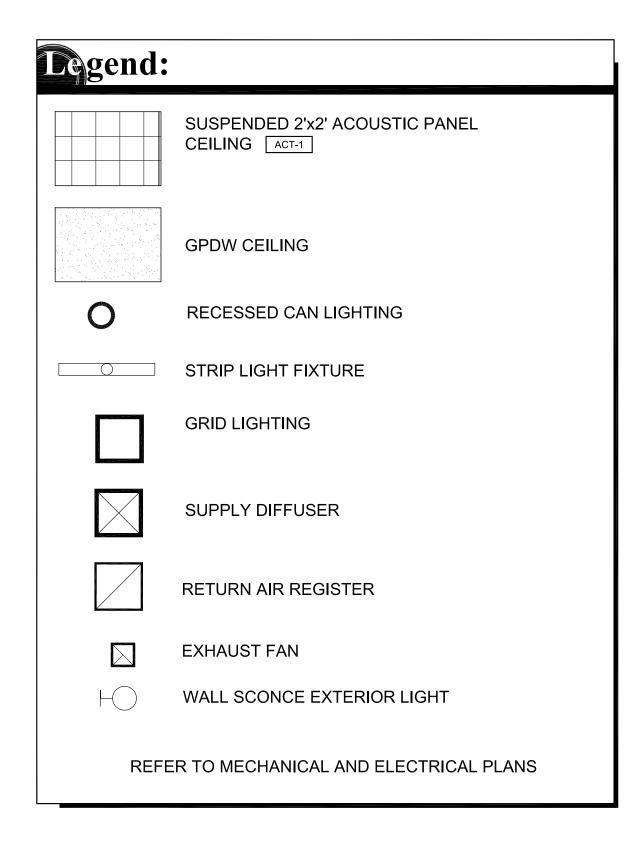
1. LIGHT FIXTURE(S) SHOWN FOR QUANTITY AND LOCATION

ONLY. REFER TO ELECTRICAL PLANS.

2. PROVIDE BEAM, REFER TO STRUCTURAL PLANS.

3. PROVIDE ROOF PURLIN, TYPICAL, REFER TO STRUCTURAL PLANS

4. PROVIDE UNIT HEATER, REFER TO MECHANICAL PLANS.



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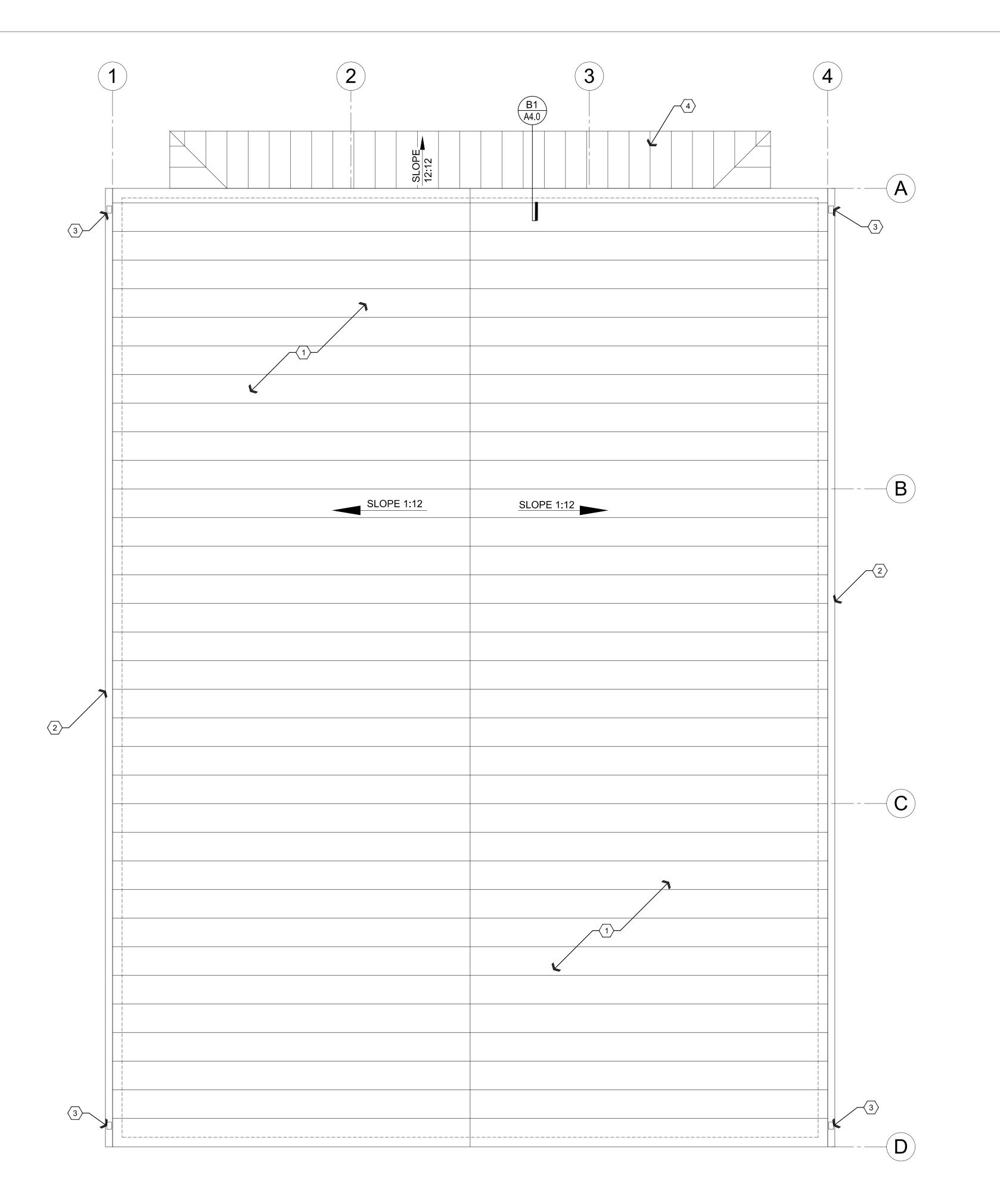
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**A2.1** 





PROVIDE METAL ROOF PANELS, REFER TO MATERIALS

SCHEDULE. M-2 2. PROVIDE SHEET METAL GUTTER, REFER TO MATERIALS

SCHEDULE. M-5

3. PROVIDE DOWNSPOUT, TYPICAL OF 5, REFER TO MATERIALS SCHEDULE. M-4

4. PROVIDE LOKSEAM' METAL AWNING SYSTEM, REFER TO STRUCTURAL PLANS AND MATERIALS SCHEDULE. M-3

# Roof Drain Leader Sizes:

ROOF AREA: 3,350

4" RAINFALL = .0416 GPM

.0416 x 3,350 = 140 GPM

140 / 192 (3-1/2"x4")= .729

3-1/2" x 4" DOWNSPOUTS = 2 LEADERS REQUIRED 4 LEADERS PROVIDED

3" x 5" GUTTER REQUIRED WITH 1/2" SLOPE (225 GPM) \*PER 2018 IPC SECTION 1106 (TABLE 1106.3 & 1106.6)

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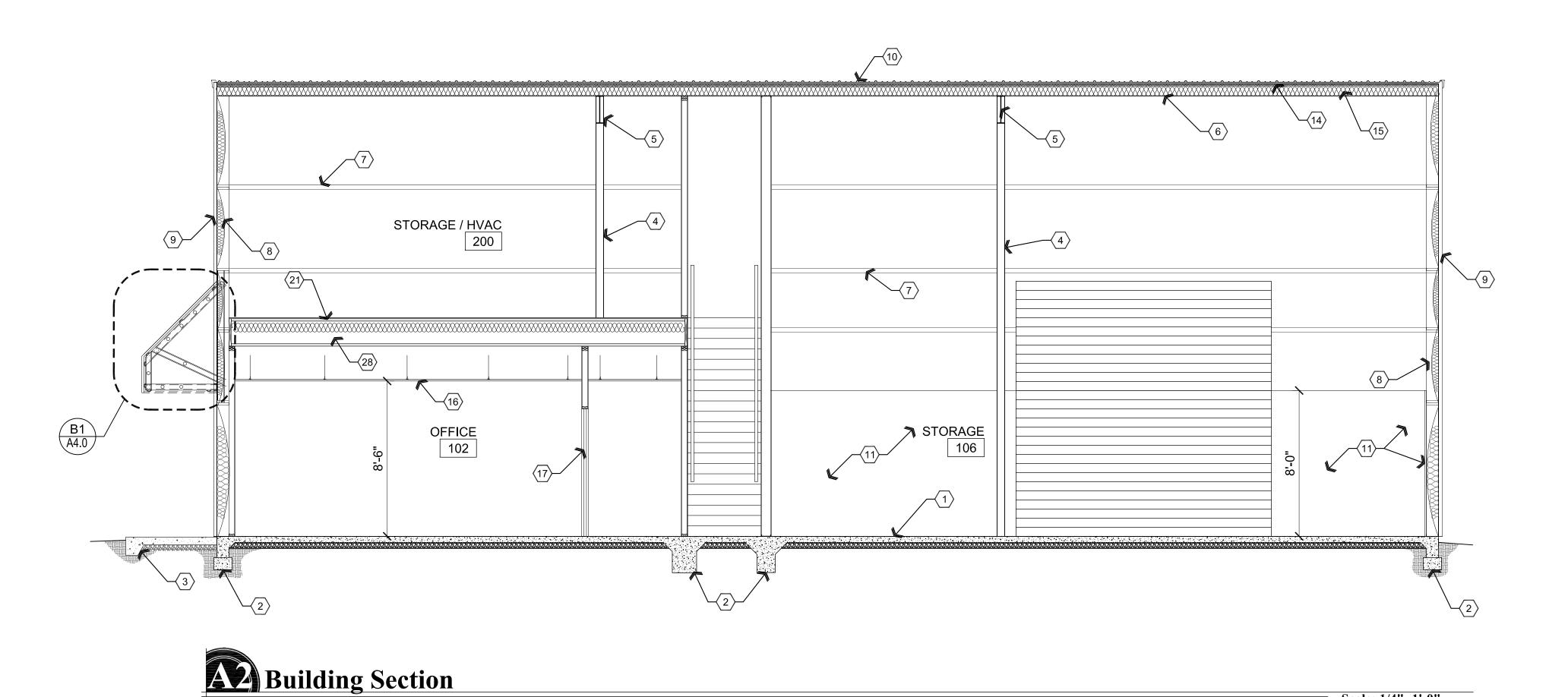
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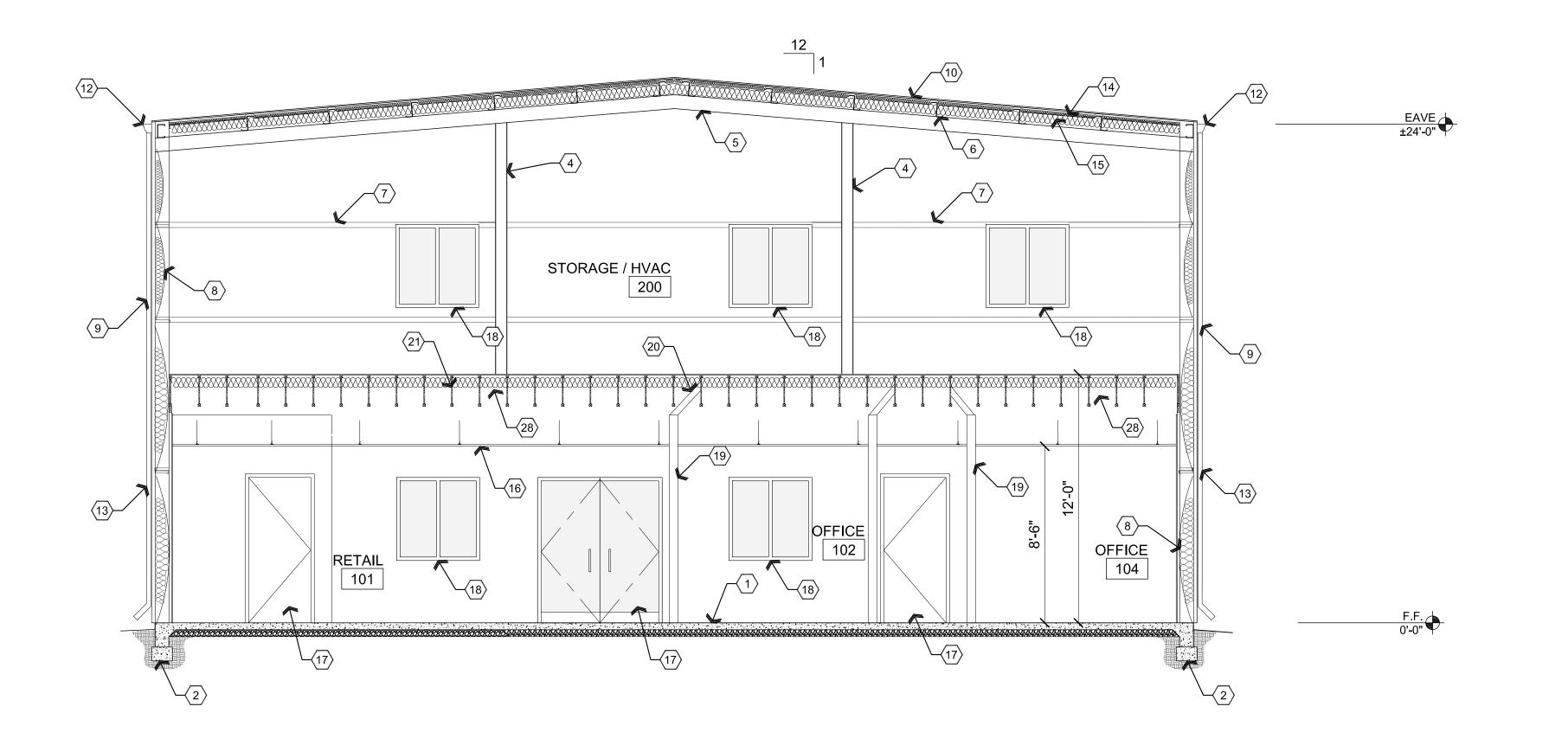
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Roof Plan







**Building Section** 

Scale: 1/4"=1'-0"

Scale: 1/4"=1'-0"

# Discriptive Keynotes $\bigcirc$

- 1. PROVIDE CONCRETE SLAB OVER COMPACTED
- A.B.C., REFER TO STRUCTURAL PLANS.
  2. PROVIDE CONCRETE FOOTING. REFER TO
- PROVIDE CONCRETE FOOTING. REFER STRUCTURAL PLANS.
- PROVIDE 8" TURNDOWN AT CONCRETE SIDEWALK. REFER TO ARCHITECTURAL SITE PLAN.
- 4. PROVIDE STEEL COLUMN, REFER TO STRUCTURAL PLANS.
- 5. PROVIDE STEEL BEAM, REFER TO STRUCTURAL PLANS
- 6. PROVIDE ROOF PURLIN, TYPICAL. REFER TO STRUCTURAL PLANS.
- 7. PROVIDE STEEL GIRT, TYPICAL. REFER TO
- STRUCTURAL PLANS.

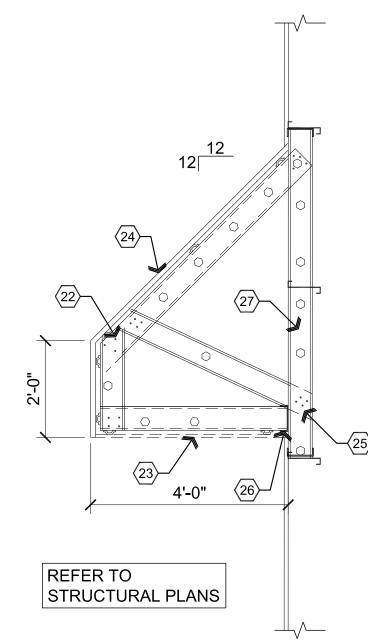
  8. PROVIDE R-11 VINYL FACED BLANKET INSULATION.
- 9. PROVIDE METAL SIDING, REFER TO MATERIALS SCHEDULE. M-1
- 10. PROVIDE METAL ROOF PANELS. REFER TO
- MATERIALS SCHEDULE. M-2
- 11. PROVIDE 8'-0" TALL SHEET METAL LINER PANEL.12. PROVIDE SHEET METAL GUTTER, REFER TO
- MATERIALS SCHEDULE. M-5
- 13. PROVIDE SHEET METAL DOWNSPOUT, REFER TO MATERIALS SCHEDULE. M-4
- 14. PROVIDE R-13 BLANKET INSULATION OVER
- PURLINS.

  15. PROVIDE R-25 VINYL FACED INSULATION WIRED
- BETWEEN PURLINS.PROVIDE 5/8" GPDW.
- 16. SUSPENDED CEILING. REFER TO REFLECTED CEILING PLAN.
- 17. PROVIDE DOOR. REFER TO REFERENCE FLOOR PLAN AND DOOR SCHEDULE.
- 18. PROVIDE WINDOW. REFER TO REFERENCE FLOOR PLAN AND WINDOW TYPES.
- 19. PARTITION WALL. REFER TO REFERENCE FLOOR PLAN AND WALL TYPES PLAN.
- 20. PROVIDE 2x4 LATERAL STABILIZATION @ 6'-0" O.C. MAXIMUM.
- 21. PROVIDE FLOOR JOIST, REFER TO STRUCTURAL
- 22. PROVIDE STRUCTURAL FRAMING FOR AWNING SYSTEM. REFER TO STRUCTURAL PLANS.
- 23. PROVIDE ARTISAN SERIES, 12" WIDE, 26 GAUGE SIGNATURE 200 PANELS AT METAL SOFFIT
- SYSTEM, REFER TO MATERIALS SCHEDULE. M-9

  24. PROVIDE 24 GAUGE SIGNATURE 200 LOKSEAM 1'-6"

  METAL ROOF PANEL AT METAL AWNING SYSTEM,
- REFER TO MATERIALS SCHEDULE. M-3

  25. CUT FLANGES AND PLACE BEHIND VERTICAL.
- 26. CONTINUOUS LIGHT GAUGE STEEL TRACK, REFER TO STRUCTURAL PLANS.
- 27. STEEL STUD, REFER TO STRUCTURAL PLANS 28. PROVIDE R-19 UNFACED BATT INSULATION.



B Awning at Stud Wall

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

Alan Kenson & Associates, I

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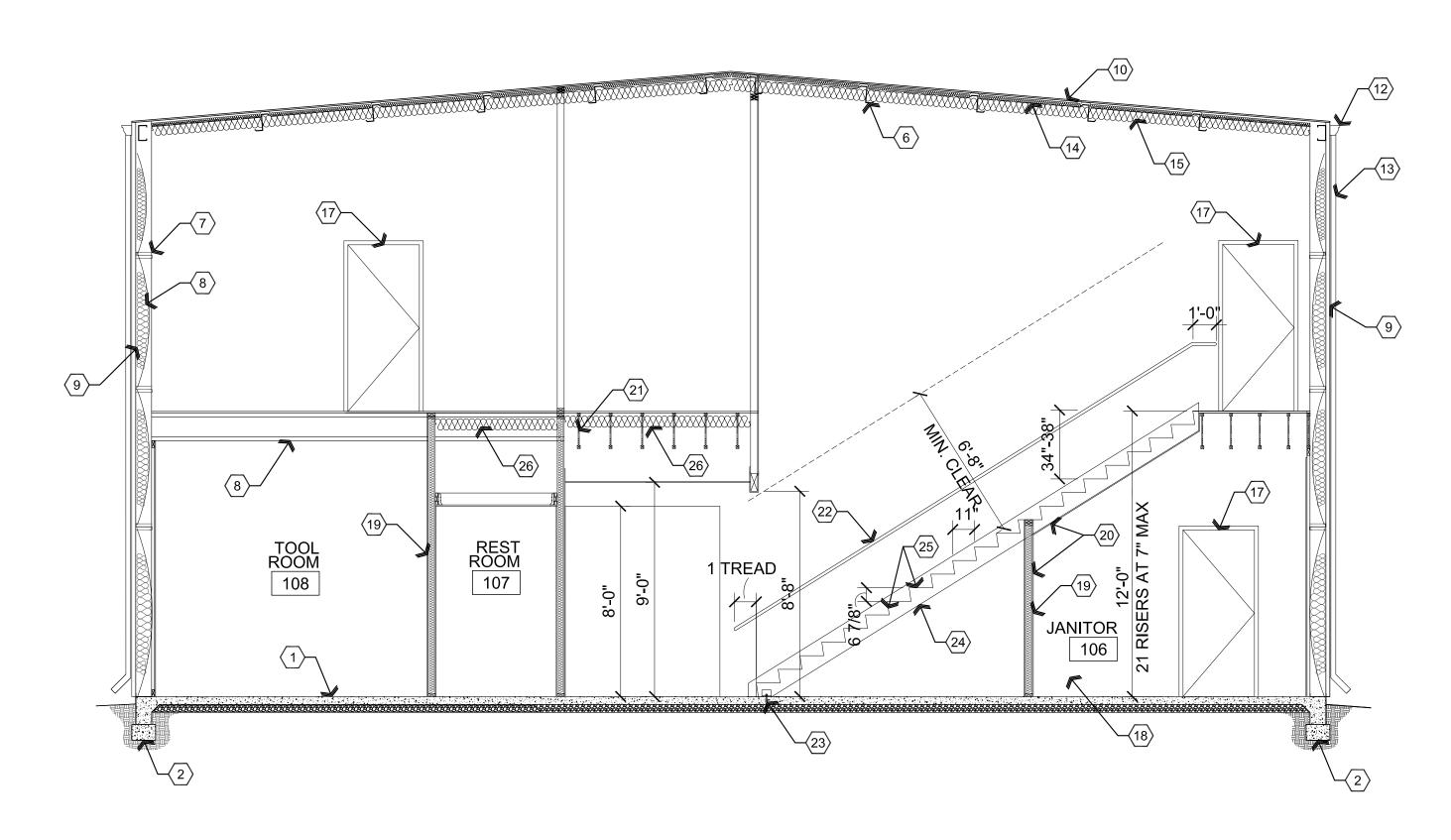
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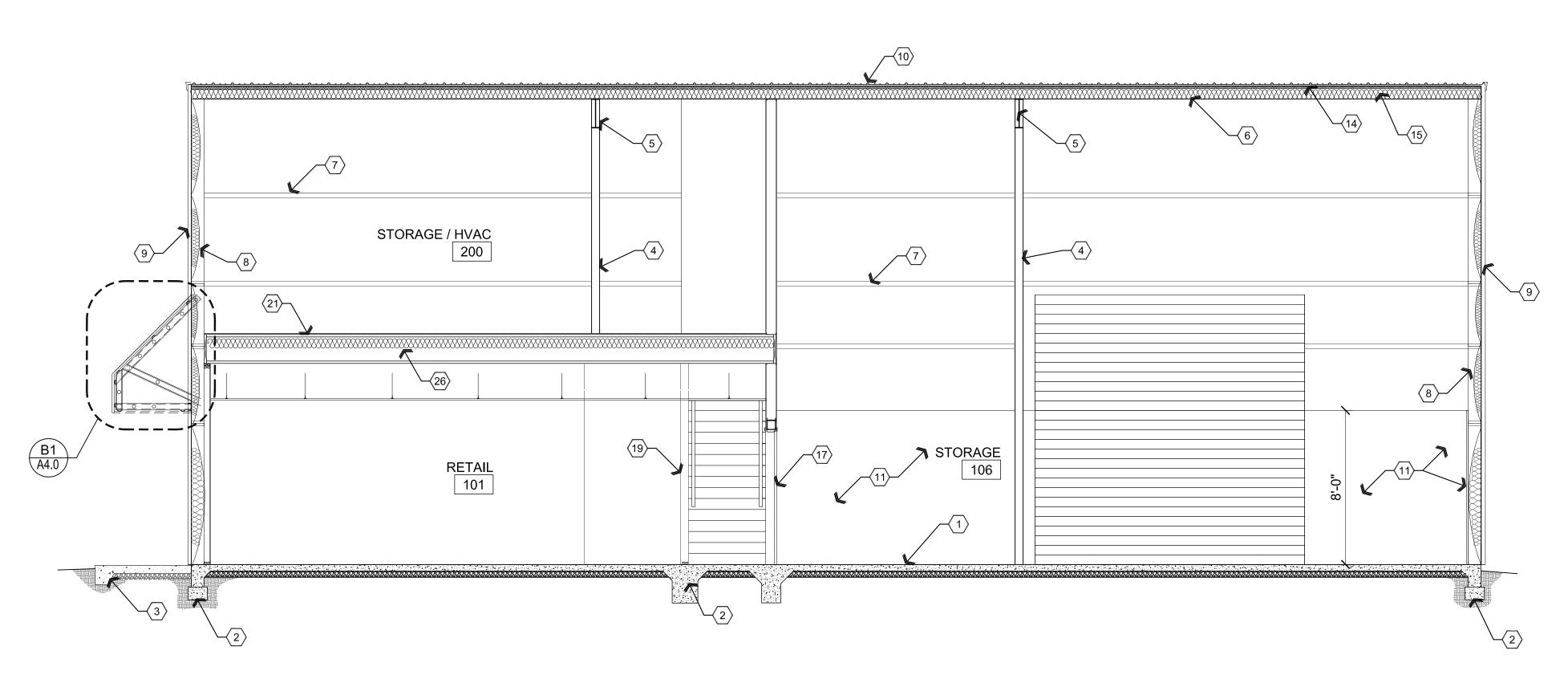
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**Building Section Through Stairs** 

Scale: 1/4"=1'-0"



**Building Section** 

Discriptive Keynotes  $\bigcirc$ 

1. PROVIDE CONCRETE SLAB OVER COMPACTED

STRUCTURAL PLANS.

REFER TO ARCHITECTURAL SITE PLAN.

4. PROVIDE STEEL COLUMN, REFER TO STRUCTURAL

5. PROVIDE STEEL BEAM, REFER TO STRUCTURAL

6. PROVIDE ROOF PURLIN, TYPICAL. REFER TO

7. PROVIDE STEEL GIRT, TYPICAL. REFER TO

9. PROVIDE METAL SIDING, REFER TO MATERIALS

SCHEDULE. M-1

MATERIALS SCHEDULE. M-2

11. PROVIDE 8'-0" TALL SHEET METAL LINER PANEL.

13. PROVIDE SHEET METAL DOWNSPOUT, REFER TO

15. PROVIDE R-25 VINYL FACED INSULATION WIRED

16. PROVIDE SUSPENDED CEILING. REFER TO

17. PROVIDE DOOR. REFER TO REFERENCE FLOOR

PLAN AND DOOR SCHEDULE.

19. PARTITION WALL. REFER TO REFERENCE FLOOR

20. PROVIDE 5/8" TYPE 'X' GPDW BELOW STAIR

21. PROVIDE FLOOR JOIST, REFER TO STRUCTURAL

22. PROVIDE 1-1/2" SCHEDULE 40 PAINTED PIPE STEEL

23. REFER TO STRUCTURAL PLANS FOR ATTACHMENT.

STRUCTURAL PLANS.

STRUCTURAL PLANS.

26. PROVIDE R-19 UNFACED BATT INSULATION.

A.B.C., REFER TO STRUCTURAL PLANS. 2. PROVIDE CONCRETE FOOTING. REFER TO

3. PROVIDE 8" TURNDOWN AT CONCRETE SIDEWALK.

STRUCTURAL PLANS.

STRUCTURAL PLANS. 8. PROVIDE R-11 VINYL FACED BLANKET INSULATION.

10. PROVIDE METAL ROOF PANELS. REFER TO

12. PROVIDE SHEET METAL GUTTER, REFER TO MATERIALS SCHEDULE. M-5

MATERIALS SCHEDULE. M-4

14. PROVIDE R-13 BLANKET INSULATION OVER

BETWEEN PURLINS.PROVIDE \( \frac{5}{8} \)" GPDW.

REFLECTED CEILING PLAN.

18. JANITOR AREA UNDER STAIRS.

PLAN AND WALL TYPES PLAN. STRINGER AND ON STAIR WALLS.

HANDRAIL @ 36" ABOVE STAIR NOSING.

24. PROVIDE WOOD STRINGER - REFER TO

25. PROVIDE WOOD TREAD / RISERS - REFER TO

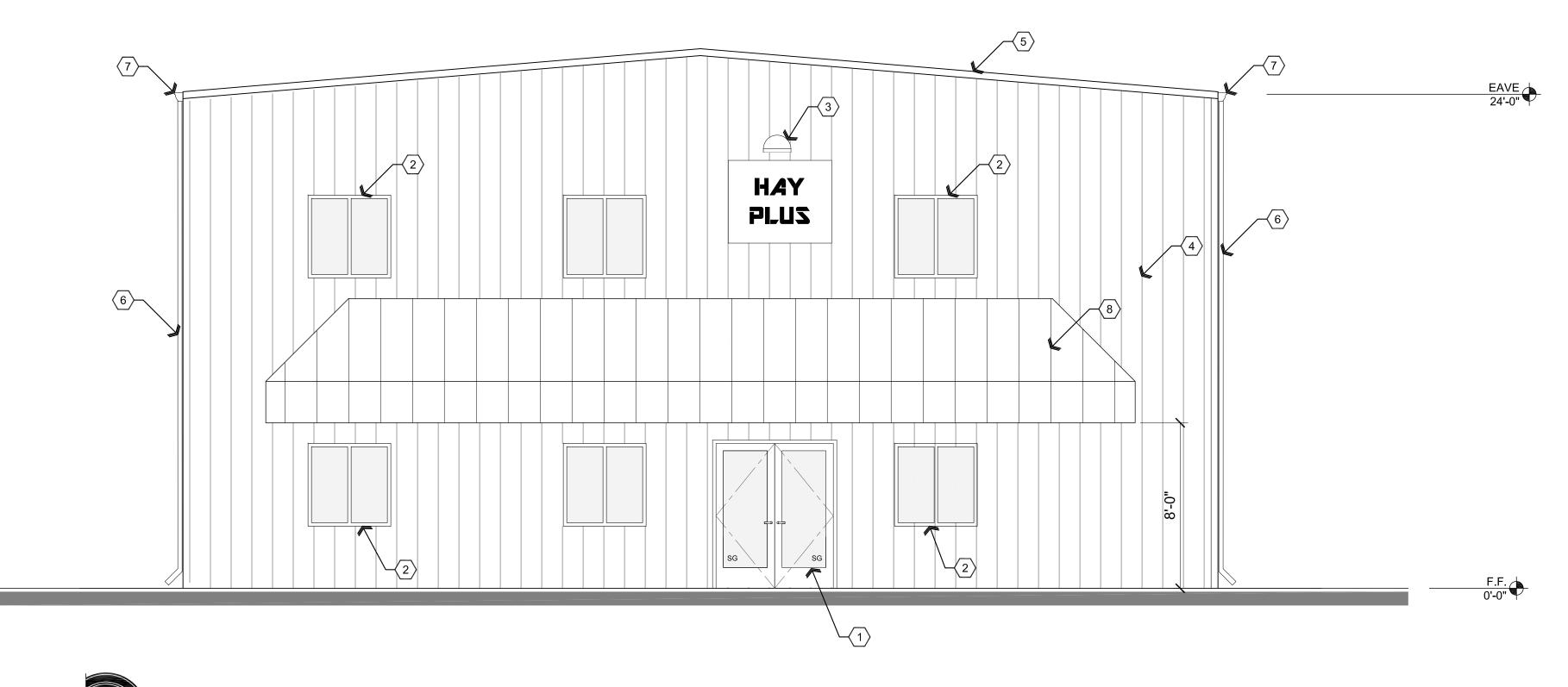
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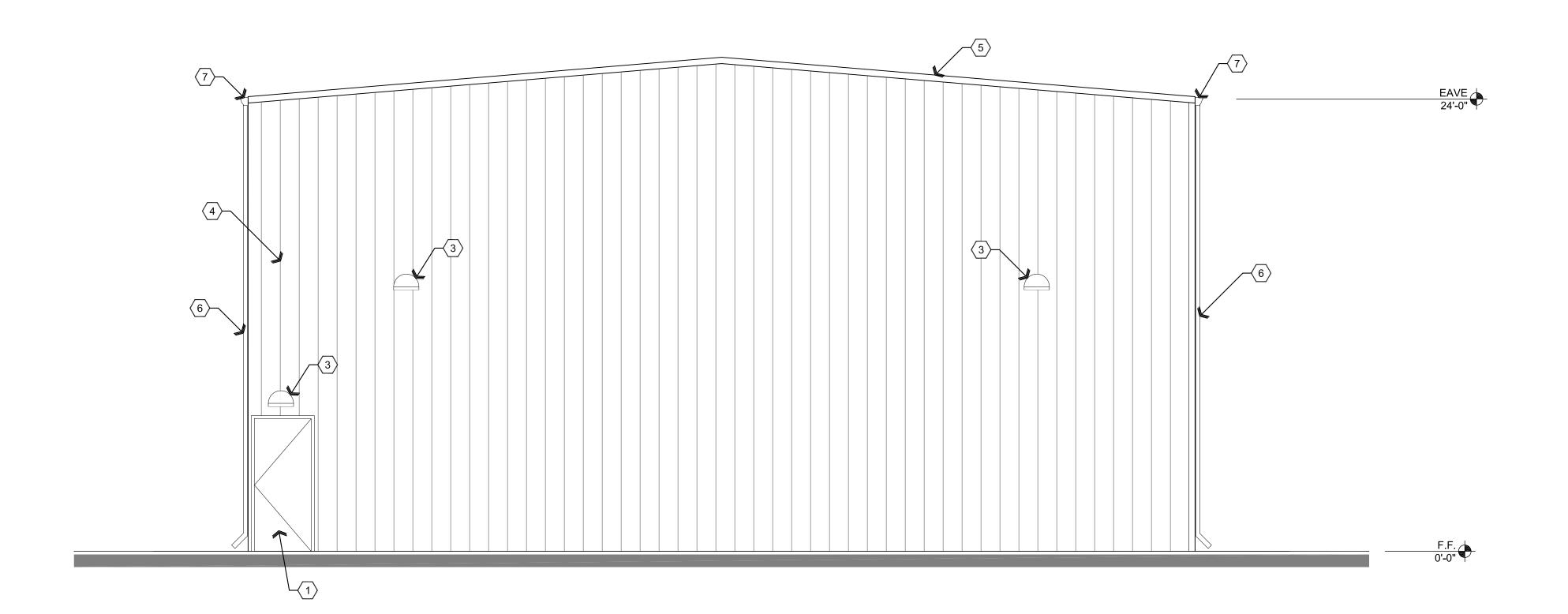
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A2 Elevation

cale: 1/4"=1'-0"



**Elevation** 

rale: 1/4"=1'-0"

# Descriptive Keynotes (

- PROVIDE DOOR, REFER TO REFERENCE FLOOR PLAN AND DOOR SCHEDULE.
- 2. PROVIDE WINDOW, REFER TO REFERENCE FLOOR PLAN AND WINDOW TYPES.
- 3. PROVIDE LIGHT FIXTURE, REFER TO ELECTRICAL
- PLANS.
  4. PROVIDE METAL WALL PANEL. REFER TO WALL
- TYPES PLAN AND MATERIALS SCHEDULE. M-1
- 5. PROVIDE METAL ROOF PANELS, REFER TO MATERIALS SCHEDULE. M-2
- 6. PROVIDE SHEET METAL DOWNSPOUT, REFER TO MATERIALS SCHEDULE. M-4
- 7. PROVIDE SHEET METAL GUTTER, REFER TO MATERIALS SCHEDULE. M-5
- 8. PROVIDE 24 GAUGE SIGNATURE 200 LOKSEAM 1'-6"
  METAL ROOF PANEL AT METAL AWNING SYSTEM,
  REFER TO MATERIALS SCHEDULE. M-3

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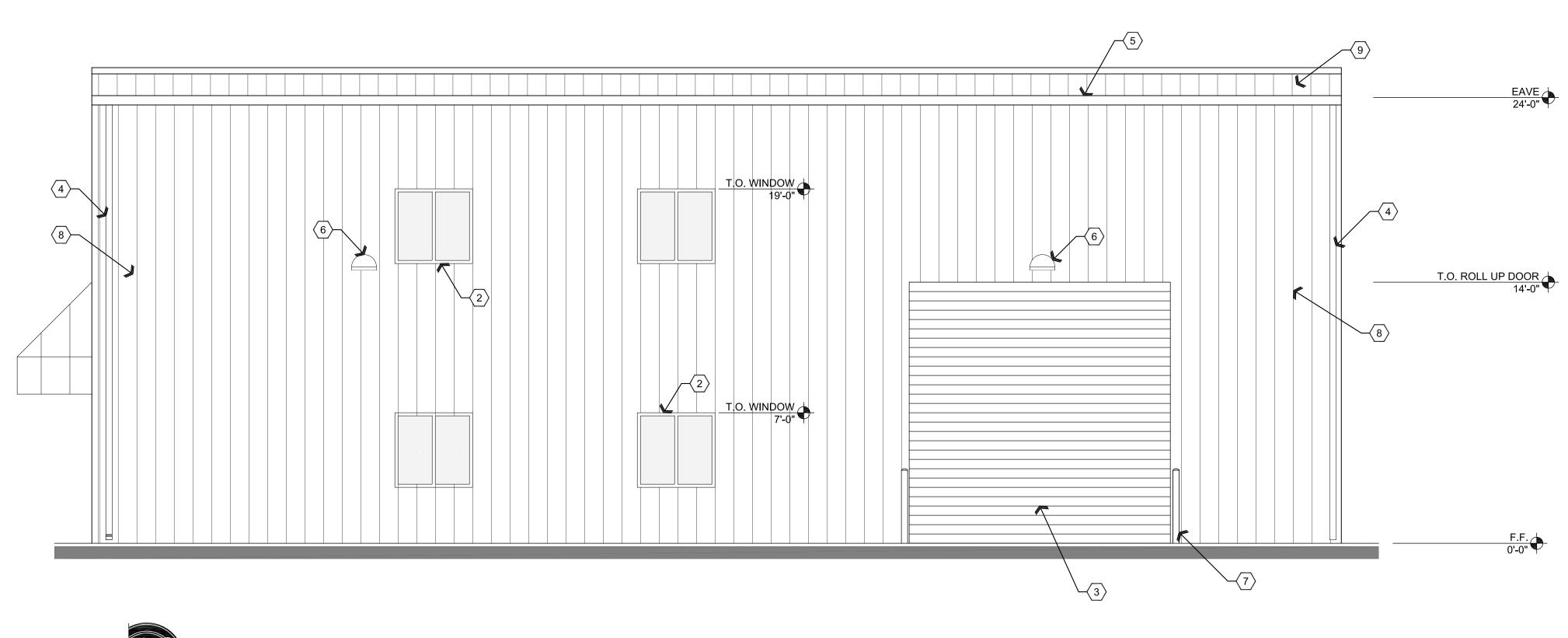
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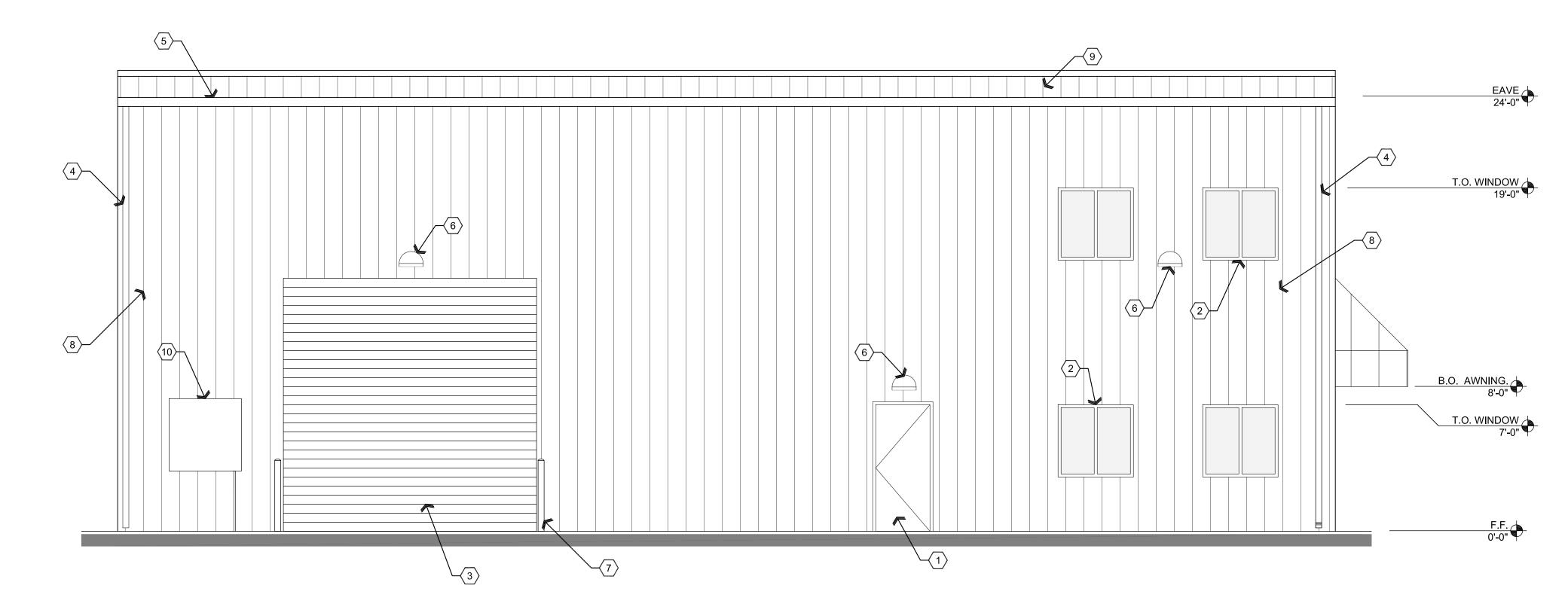
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Scale: 1/4"=1'-0"



**Elevation** 

cale: 1/4"=1'-0"

Descriptive Keynotes 🔾

 PROVIDE DOOR, REFER TO REFERENCE FLOOR PLAN AND DOOR SCHEDULE.

2. PROVIDE WINDOW, REFER TO REFERENCE FLOOR PLAN AND WINDOW TYPES.

3. PROVIDE ROLL-UP DOOR, REFER TO REFERENCE

FLOOR PLAN AND DOOR SCHEDULE.
4. PROVIDE SHEET METAL DOWNSPOUT, REFER TO

MATERIALS SCHEDULE. M-4

5. PROVIDE SHEET METAL GUTTER, REFER TO

MATERIALS SCHEDULE. M-5

6. PROVIDE LIGHT FIXTURE, REFER TO ELECTRICAL

7. PROVIDE 4" STEEL CONCRETE FILLED BOLLARDS, 4'-0" ABOVE CONCRETE WITH 2'-0" EMBEDDED INTO

8. PROVIDE METAL WALL PANEL. REFER TO WALL

TYPES PLAN AND MATERIALS SCHEDULE. M-1

9. PROVIDE METAL ROOF PANELS, REFER TO

MATERIALS SCHEDULE. M-2

10. PROVIDE ELECTRICAL SERVICE ENTRANCE SECTION, REFER TO ELECTRICAL PLANS.

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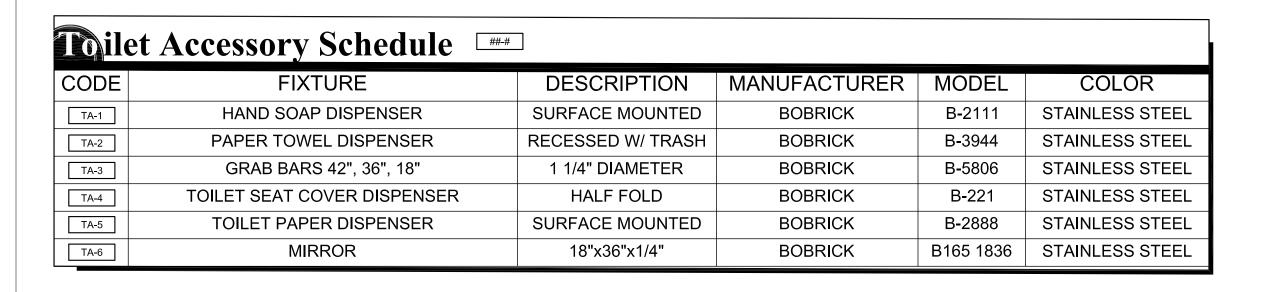
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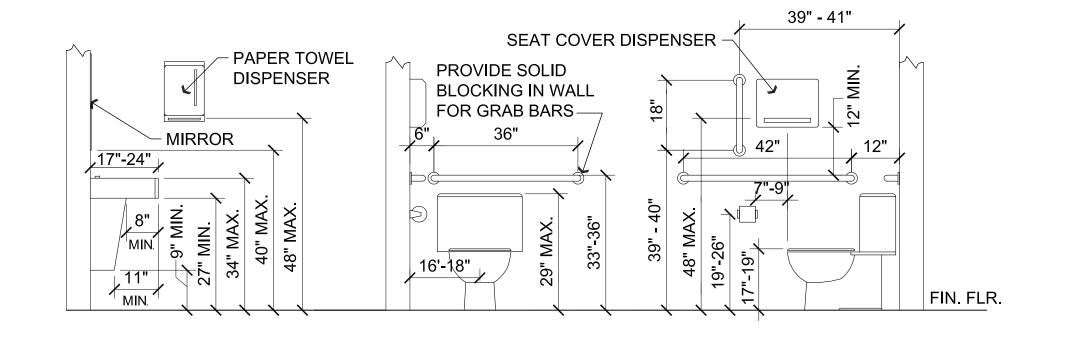
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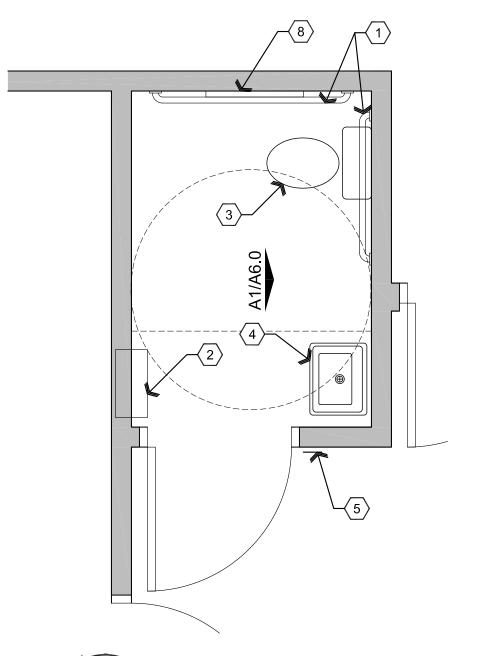
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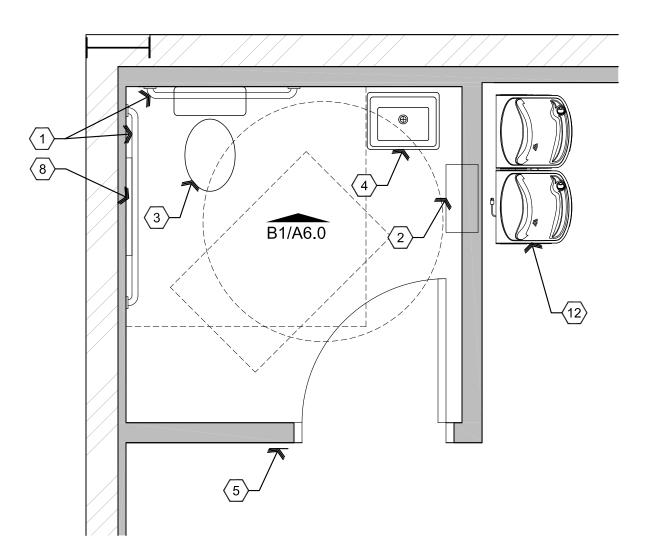


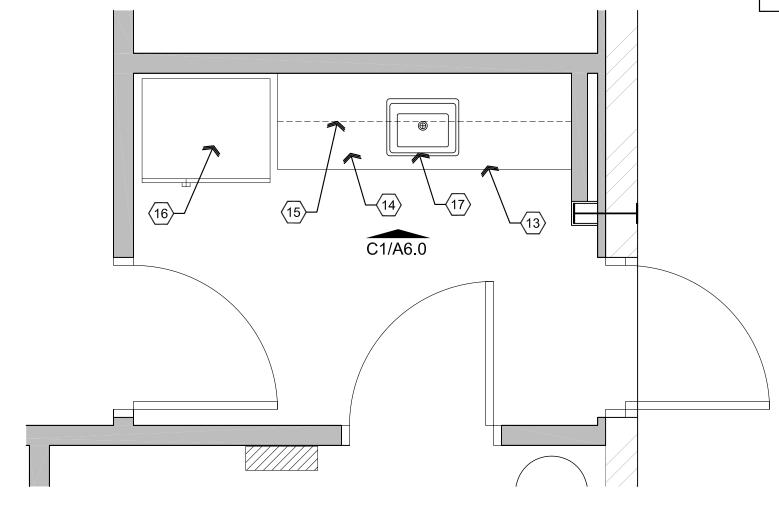


Typical Fixture Mounting Heights

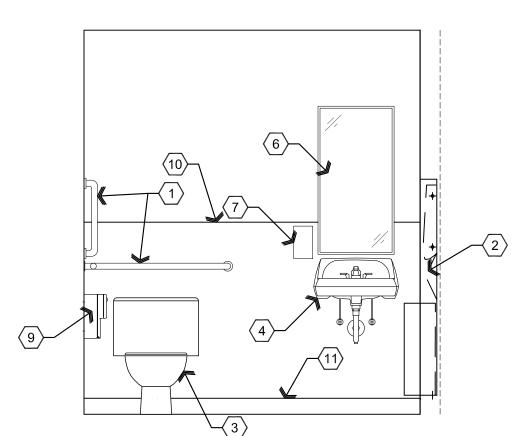
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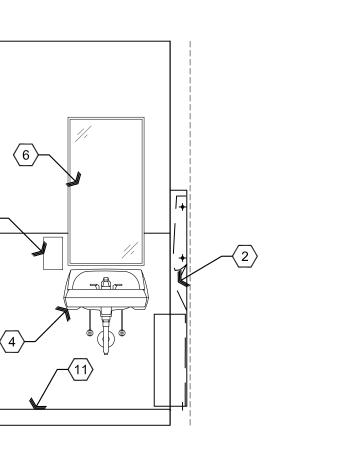




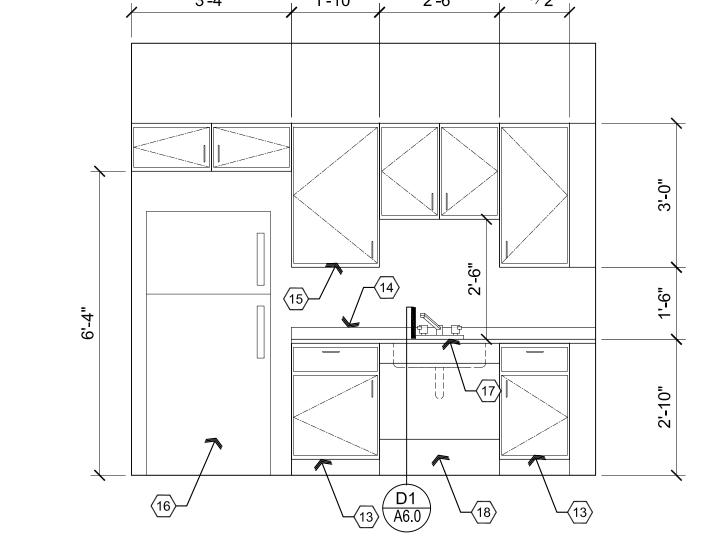




Enlarged Plan
Scale: 1/4"=1'-0"

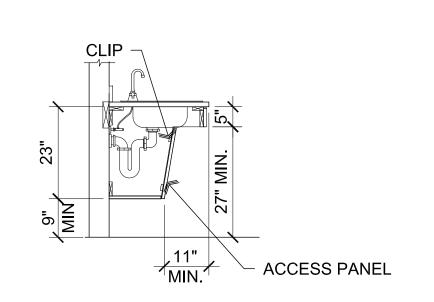






Enlarged Plan
Scale: 1/4"=1'-0"





**D**ADA Cabinet Section



PROVIDE 1-1/2" DIAMETER GRAB BARS PER A.D.A. REQUIREMENTS, 42" LONG AT SIDE OF WATER CLOSET / 36" LONG AT REAR OF WATER CLOSET / 18" VERTICAL GRAB BAR, PROVIDE SOLID BLOCKING. REFER TO TOILET ACCESSORY SCHEDULE. TA-3

2. PROVIDE PAPER TOWEL DISPENSER, REFER TO TOILET ACCESSORY SCHEDULE. TA-2

3. PROVIDE FLOOR MOUNTED WATER CLOSET, REFER TO PLUMBING DRAWINGS. 4. PROVIDE WALL HUNG LAVATORY, REFER TO

PLUMBING DRAWINGS. 5. PROVIDE ACCESSIBILITY SIGNAGE MOUNTED PER

A.D.A. REQUIREMENTS. 6. PROVIDE 1/4" PLATE MIRROR, REFER TO TOILET

ACCESSORY SCHEDULE. TA-6 PROVIDE SURFACE MOUNTED HAND SOAP

DISPENSER, REFER TO TOILET ACCESSORY SCHEDULE. TA-1 PROVIDE SURFACE MOUNTED TOILET SEAT COVER

DISPENSER, REFER TO TOILET ACCESSORY SCHEDULE. TA-4 9. PROVIDE TOILET PAPER DISPENSER, REFER TO

TOILET ACCESSORY SCHEDULE. TA-5

10. PROVIDE FRP TO 4'-0" HIGH. 11. PROVIDE RUBBER BASE, REFER TO MATERIALS

SCHEDULE. RB-1 12. PROVIDE A.D.A ACCESSIBLE ELECTRIC DRINKING

FOUNTAIN, REFER TO PLUMBING PLANS. 13. PROVIDE PLASTIC LAMINATE LOWER CABINET,

REFER TO MATERIALS SCHEDULE. PL-1 14. PROVIDE PLASTIC COUNTERTOP WITH 4"

BACKSPLASH, REFER TO MATERIALS SCHEDULE. PL-2 15. PROVIDE PLASTIC LAMINATE UPPER CABINET, REFER

TO MATERIALS SCHEDULE. PL-1 16. REFRIGERATOR BY OWNER.

17. PROVIDE SINK AND FAUCET, REFER TO PLUMBING

PLANS.

18. PROVIDE ADA SINK CABINET.

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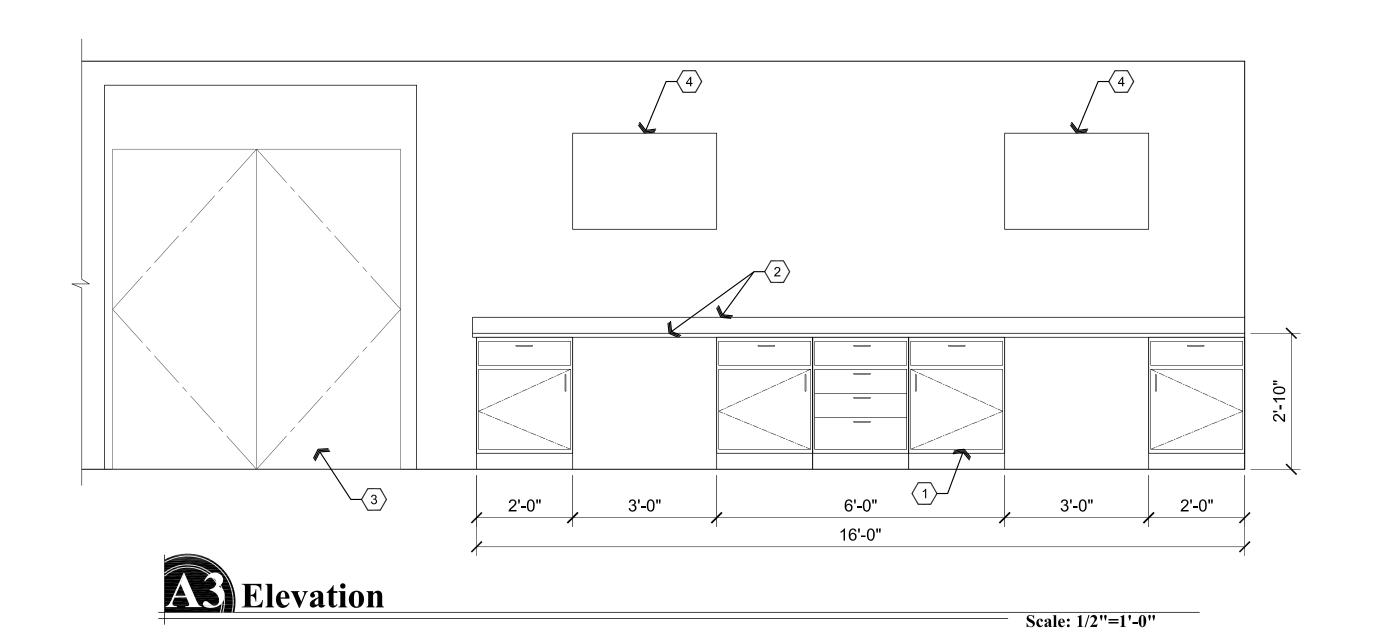
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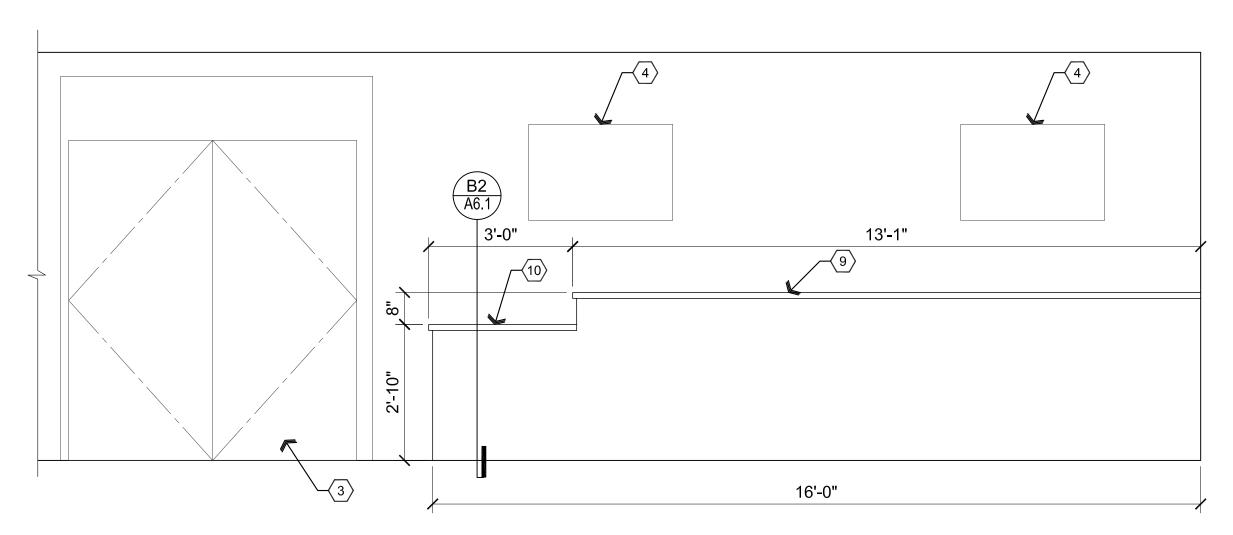
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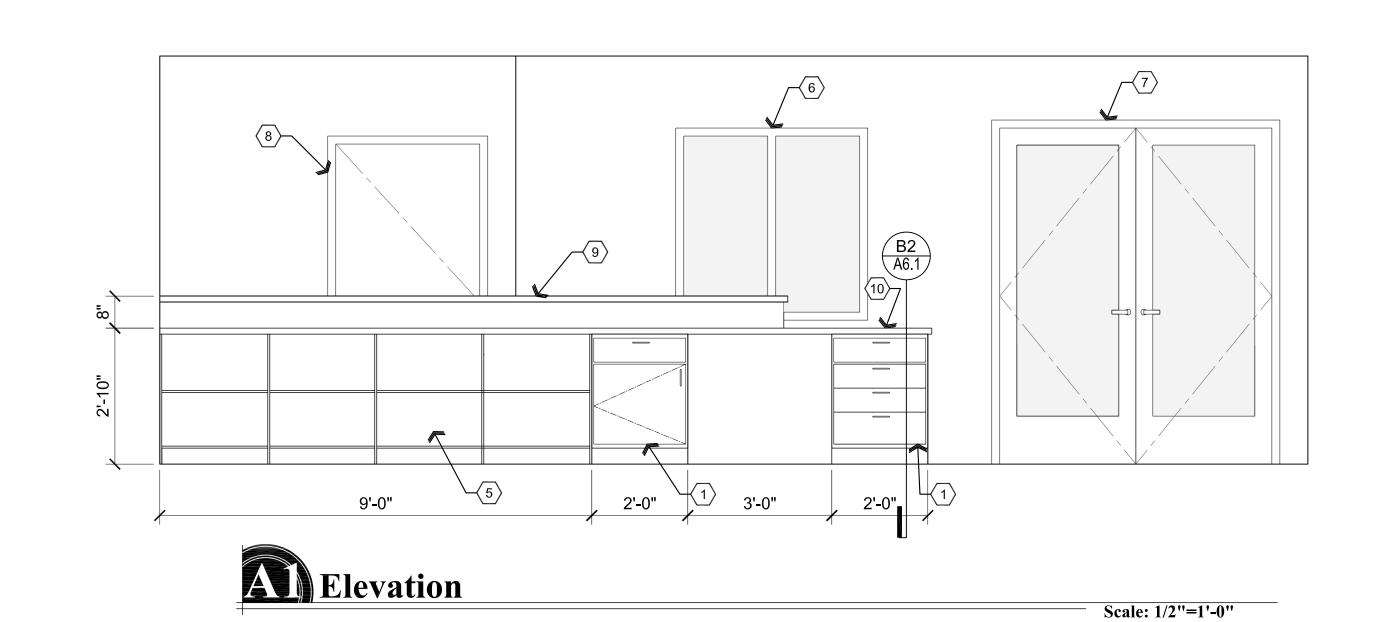
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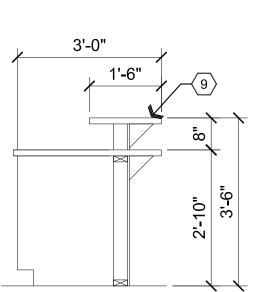
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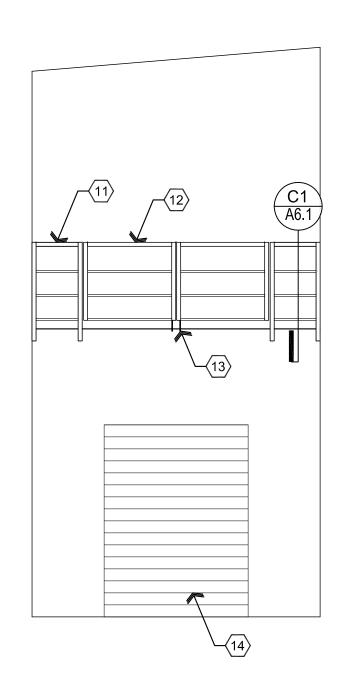




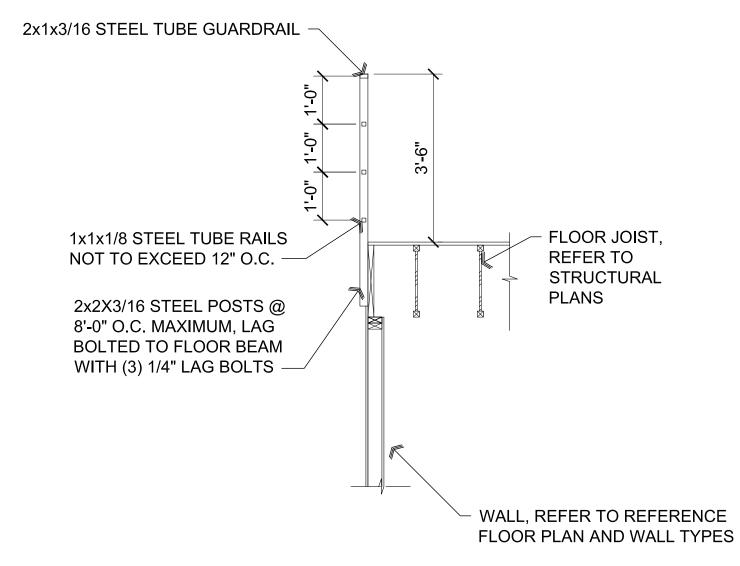
















1. PROVIDE PLASTIC LAMINATE LOWER CABINETS, REFER TO MATERIALS SCHEDULE. PL-1

2. PROVIDE PLASTIC LAMINATE COUNTERTOP WITH 4" BACKSPLASH, REFER TO MATERIALS SCHEDULE. PL-2

3. OPENING TO DOUBLE DOORS BEYOND, INTO STORAGE / WAREHOUSE AREA.

4. WALL HUNG MONITOR, BY OWNER.

5. PROVIDE OPEN SHELVING MILLWORK.

6. WINDOW, REFER TO REFERENCE FLOOR PLAN AND WINDOW TYPES.

7. DOOR, REFER TO REFERENCE FLOOR PLAN AND DOOR SCHEDULE.

8. DOOR INTO RESTROOM.

9. PROVIDE PLASTIC LAMINATE COUNTERTOP, REFER TO MATERIALS SCHEDULE. PL-2

10. ADA HEIGHT TRANSACTION COUNTERTOP, REFER TO MATERIALS SCHEDULE. PL-2

11. PROVIDE 2"x1"x3/16" STEEL TUBE GUARDRAIL PLACED AT 3'-6" ABOVE UPPER LEVEL FLOOR WITH INTERMEDIATE 1"x1"x1/8" STEEL TUBE RAILS NOT TO EXCEED 12" O.C. PROVIDE 2"x2"x3/16" STEEL POSTS SPACED AT 8'-0" O.C. MAXIMUM.

12. PROVIDE PAIR OF 4'-0" WIDE SWINGING STEEL GATES CONSTRUCTED SIMILAR TO GUARDRAIL CONSTRUCTION, REFER TO DESCRIPTIVE KEYNOTE

13. PROVIDE A DROP BOLT ON EACH SIDE TO SECURE GATE.

14. MANUAL ROLL UP DOOR, REFER TO REFERENCE FLOOR PLAN AND DOOR TYPES.

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SHEET

Mate	erials schedule XX-#			
CODE	MATERIAL	LOCATION	MANUFACTURER	SPECIFICATION
ACT-1	ACOUSTICAL CEILING TILE	REFER TO REFLECTED CEILING PLAN	ARMSTRONG	ASTM C 36; 2'x2' #770 NON DIRECTIONAL SQUARE LAY-IN TILE, WHITE SUSPENDED GRIDS; 15/16" METAL WHITE
CPT-1	24"x24" CARPET TILE	OFFICES	SHAW	COLLECTION: NO RULES STYLE: BYLINE TILE 59113 COLOR: VERSATILE 05500
CT-1	PORCELAIN TILE	OFFICE RESTROOMS, BREAK ROOM FLOOR, & RETAIL	DALTILE	EMERSON WOOD 8x48 COLOR: BRAZILIAN WALNUT EP03
CT-2	PORCELAIN TILE	RESTROOM WALLS	DALTILE	ARCHAIA COLOR: PROVINCE GREY AR42
FRP-1	FIBERGLASS REINFORCED PLASTIC			GRAY, 4' TALL WAINSCOT
M-1	METAL SIDING PANEL	EXTERIOR	MBCI	PBA PANEL 26 GAUGE, PRE PAINTED, LIGHT STONE (SIGNATURE 200)
M-2	METAL ROOF PANEL	MAIN ROOF	MBCI	PBR, 24 GAUGE, RUSTIC RED (SIGNATURE 200)
M-3	METAL ROOF PANEL	AWNING ROOF	MBCI	24 GAUGE LOKSEAM 18" STANDING SEAM, RUSTIC RED (SIGNATURE 200)
M-4	SHEET METAL DOWNSPOUT		MBCI	3-1/2" x4" BOX DOWNSPOUT, 26 GAUGE, PRE-PAINTED, LIGHT STONE (SIGNATURE 200)
M-5	SHEET METAL GUTTER		MBCI	3"x5" BOX GUTTER, 26 GAUGE, PRE-PAINTED LIGTH STONE (SIGNATURE 200)
M-8	INTERIOR METAL LINER PANEL	INTERIOR AS SHOWN ON PLAN UP TO 8'-0" A.F.F.	MBCI	PBR PANEL 26 GAUGE, PRE-PAINTED, POLAR WHITE (SIGNATURE 200)
M-9	METAL SOFFIT SYSTEM	AWNING SOFFIT	MBCI	ARTISAN SERIES 12" WIDE 26 GAUGE RUSTIC RED (SIGNATURE 200)
M-10	METAL TRIM	EXTERIOR	MBCI	26 GAUGE PRE-PAINTED LIGHT STONE (SIGNATURE 200)
PL-1	PLASTIC LAMINATE	BREAK ROOM CABINETS	WILSONART	CARBON MESH 4880
PL-2	PLASTIC LAMINATE	BREAK ROOM COUNTERTOPS	WILSONART	DUSK CASCADE 5004
PT-1	PAINT	GPDW WALLS AND GPDW CEILINGS	SHERWIN WILLIAMS	PASSIVE SW7064
RB-1	RUBBER BASE	CARPETED AREAS	ROPPE	BLACK / BROWN

# Dor Hardware Schedule

HARDWARE SET A: STOREROOM

HARDWARE SET B: ENTRANCE / OFFICE

HARDWARE SET C: ENTRANCE W/ REMOVABLE MULLION.

HARDWARE SET D: **ENTRANCE** 

HARDWARE SET E: ENTRANCE / FLUSH BOLT

HARDWARE SET F:

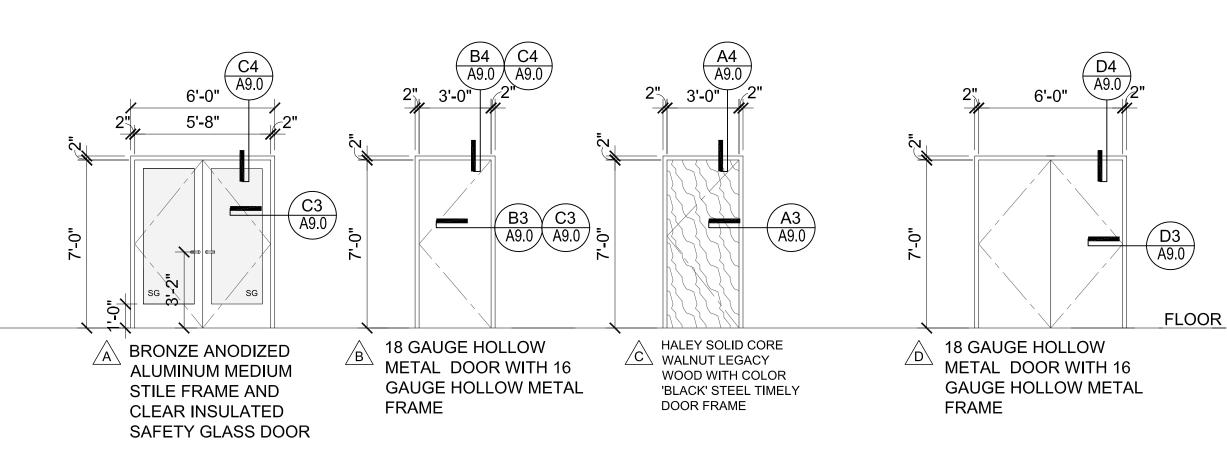
HARDWARE SET G

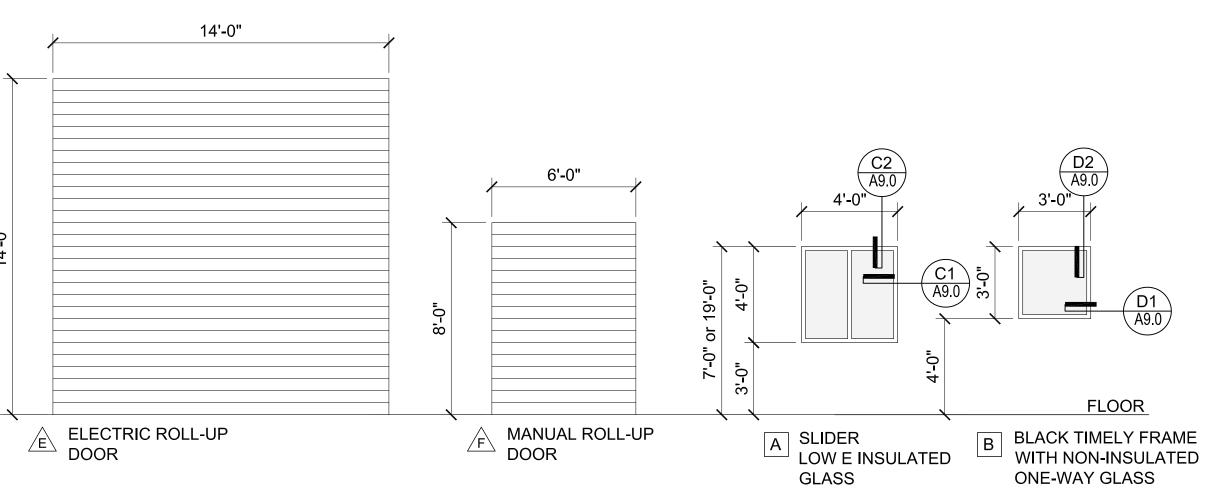
# Dor Schedule

NO.	ROOM NAME	SIZE	TYPE	DOOR MATERIAL	DOOR FINISH	FRAME MATERIAL	FRAME FINISH	HARDWARE TYPE
100A	RESTROOM	3'-0"x7'-0"	С	SCWD	STAIN	STEEL	PAINT	F
101A	RETAIL	(2)3'-0"x7'-0"	А	ALUM / GLASS	PAINT	ALUMINUM	PAINT	E
102A	OFFICE	3'-0"x7'-0"	С	SCWD	STAIN	STEEL	PAINT	В
103A	OFFICE	3'-0"x7'-0"	С	SCWD	STAIN	STEEL	PAINT	В
104A	OFFICE	3'-0"x7'-0"	С	SCWD	STAIN	STEEL	PAINT	В
105A	BREAK RM	3'-0"x7'-0"	С	SCWD	STAIN	STEEL	PAINT	G
105B	BREAK RM	3'-0"x7'-0"	С	SCWD	STAIN	STEEL	PAINT	Α
105C	BREAK RM	3'-0"x7'-0"	В	НМ	PAINT	НМ	PAINT	D
107A	RESTROOM	3'-0"x7'-0"	В	НМ	PAINT	НМ	PAINT	F
108A	TOOL ROOM	3'-0"x7'-0"	В	НМ	PAINT	НМ	PAINT	Α
108B	TOOL ROOM	6'-0"x8'-0"	F	STEEL	PAINT	STEEL	PAINT	-
109A	STORAGE	(2)3'-0"x7'-0"	D	НМ	PAINT	НМ	PAINT	С
109B	STORAGE	14'-0"x14'-0"	E	STEEL	PAINT	STEEL	PAINT	-
109C	STORAGE	3'-0"x7'-0"	В	НМ	PAINT	НМ	PAINT	D
109D	STORAGE	14'-0"x14'-0"	Е	STEEL	PAINT	STEEL	PAINT	-
200A	STORAGE	3'-0"x7'-0"	С	SCWD	STAIN	STEEL	PAINT	G
201A	STORAGE	3'-0"x7'-0"	В	НМ	PAINT	НМ	PAINT	Α

# NOTES:

- ALL EXIT DOORS & HARDWARE SHALL COMPLY WITH THE 2018 I.B.C.
- 2. DOOR THRESHOLDS SHALL HAVE A MAX HEIGHT OF 1/2" FOR H.C. ACCESSIBILITY. THRESHOLD SHALL HAVE A MAXIMUM RISE OF 1/4" AND 1/2" RISE WHEN BEVELED WITH MAXIMUM 1:2 SLOPE.
- 3. ALL GLAZING IN DOORS SHALL BE SAFETY GLAZING.
- 4. ALL INTERIOR DOORS SHALL BE OPERABLE FOR EMERGENCY EXITING PURPOSES WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE NOR EFFORT.
- 5. ALL GLAZING WITHIN 24" OF OPENINGS SHALL BE SAFETY GLASS.
- 6. IF A DOOR HAS A CLOSER, THEN THE SWEEP PERIOD OF THE CLOSER SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 70 DEGREES, THE DOOR WILL TAKE AT LEAST 3 SECONDS TO MOVE TO A POINT 3" FROM THE LATCH, MEASURED TO THE LEADING EDGE OF THE DOOR.
- 7. DOOR HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATING DEVICES ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE. HARDWARE REQUIRED FOR DOOR PASSAGE SHALL BE MOUNTED NO HIGHER THAN 48" ABOVE FINISH FLOOR.
- 8. DOOR OPENING FORCE SHALL BE: 5lbf MAX INTERIOR HINGED, SLIDING OR FOLDING DOORS; FIRE DOORS SHALL HAVE THE MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY.







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Scale: 1/4"=1'-0"

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PRIVACY PASSAGE



	Regend	
Γ		PORCELAIN TILE CT-1
		CARPET CPT-1
		CONCRETE
) 		UNFINISHED SHEATHING

FLOOR: F1 CONCRETE CS-1 F2 CARPET CPT-1 F3 PORCELAIN TILE CT-1 F4 UNFINISHED SHEATHING

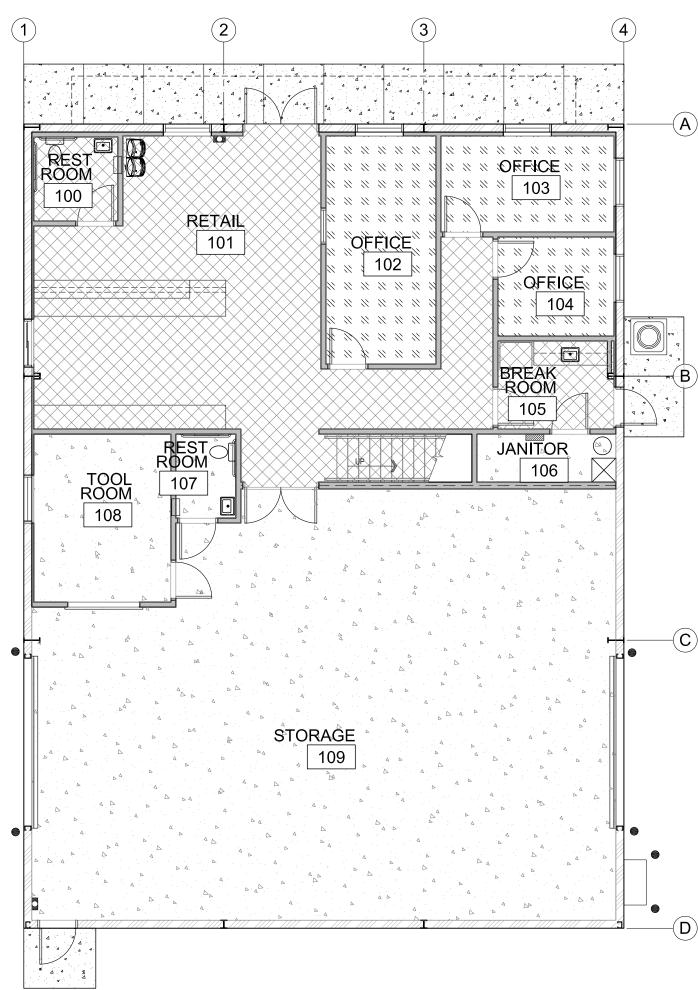
B3 WOOD

METAL LINER
W2 PAINTED GPDW PT-1
W3 FRP WAINSCOT FRP-1
W4 CERAMIC TILE CT-2 BASE:
B1 RUBBER BASE RB-1 B2 NONE

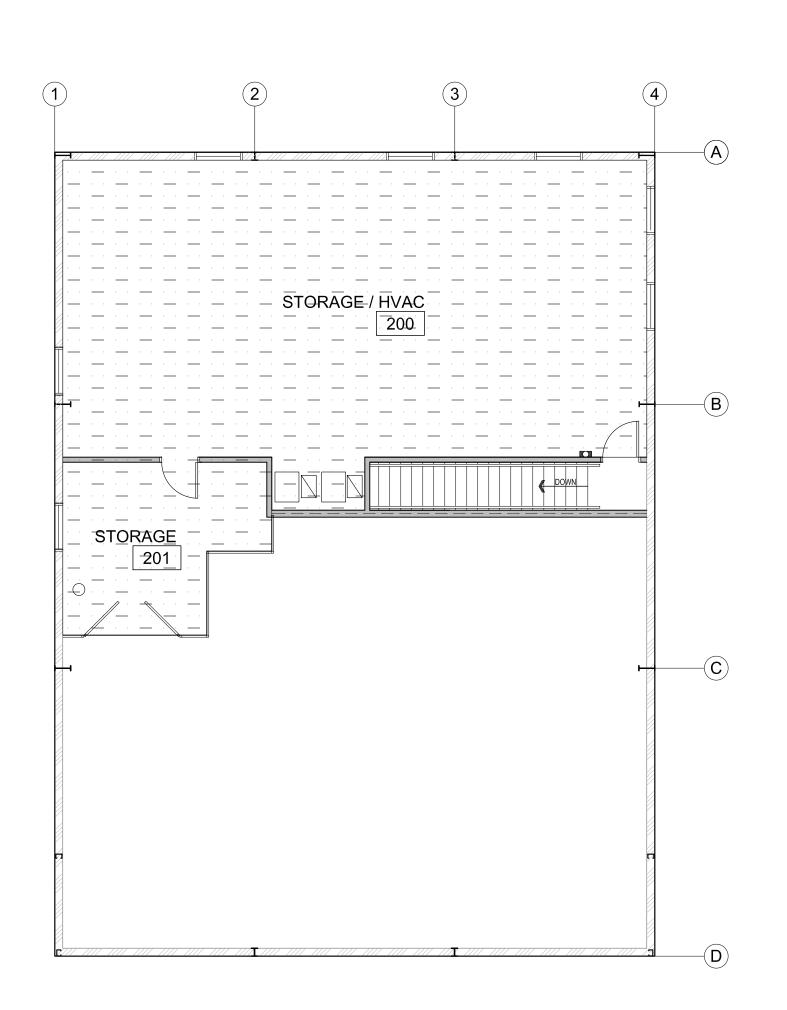
CEILING: C1 OPEN TO STRUCTURE C2 2x2 SUSPENDED

W1 OPEN TO STRUCTURE /

ACOUSTICAL PANELS ACT-1
C3 PAINTED GPDW PT-1









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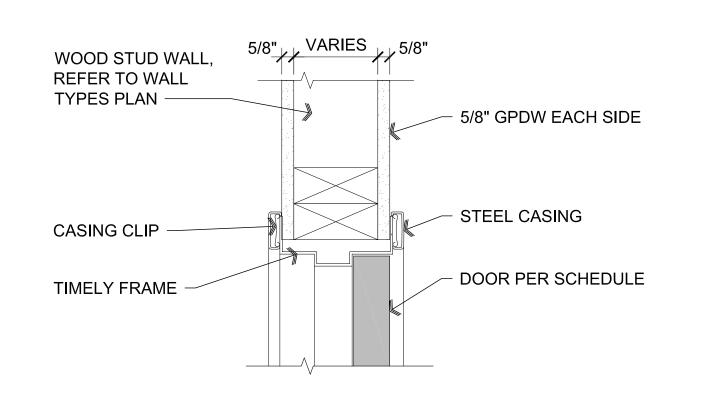
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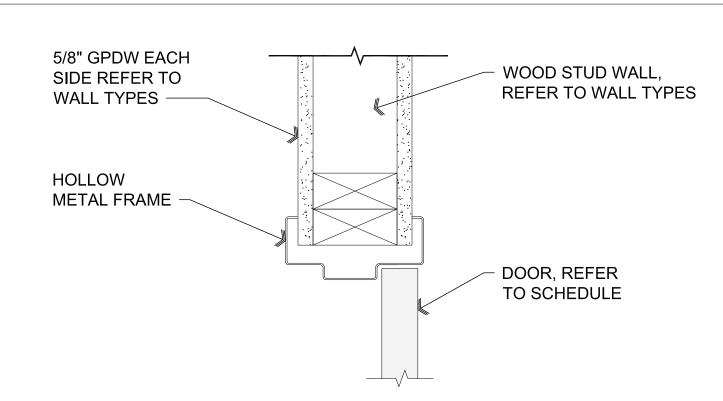
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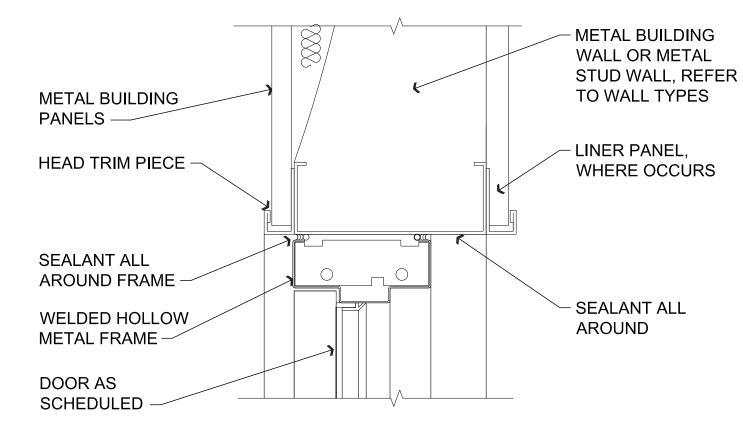
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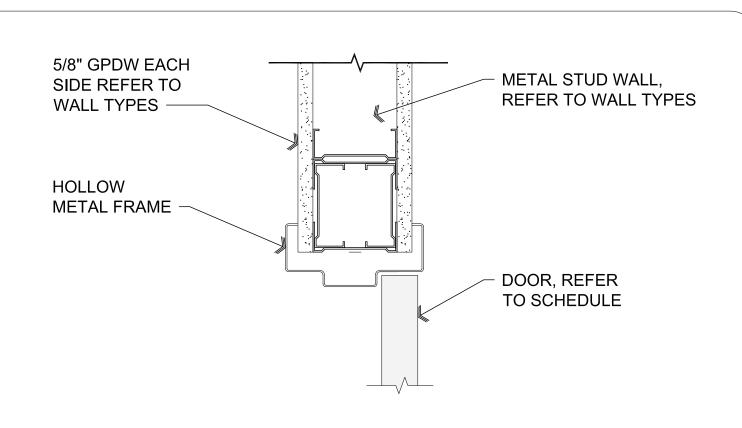


**SCALE: 3" = 1'-0"** 

**SCALE: 3" = 1'-0"** 

**SCALE:** 3" = 1'-0"

LINER PANEL





**B** Door Head



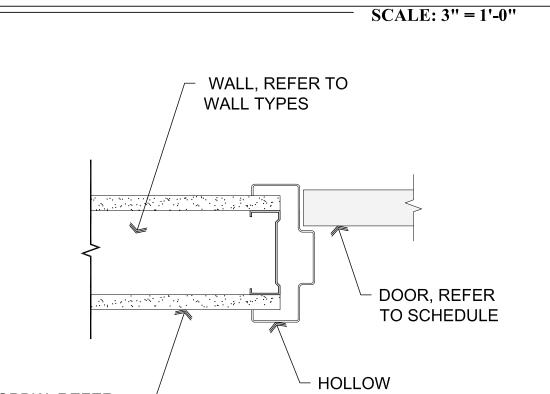
METAL BUILDING WALL OR

**D**Oor Head

GPDW, REFER

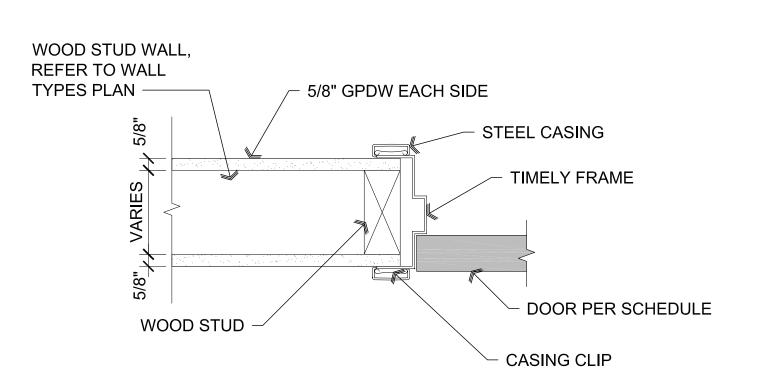
**D**oor Jamb

TO WALL TYPES

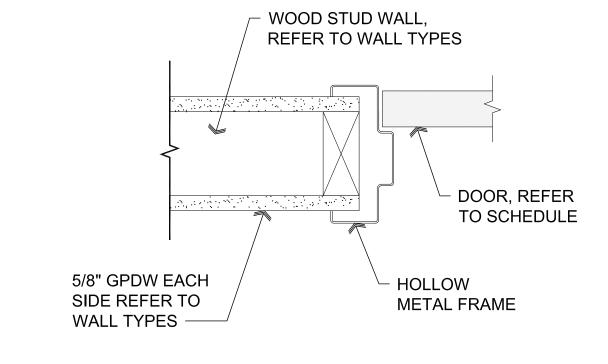


METAL FRAME

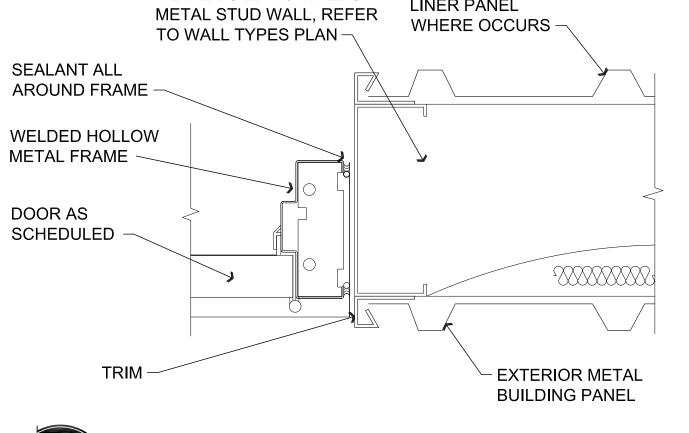
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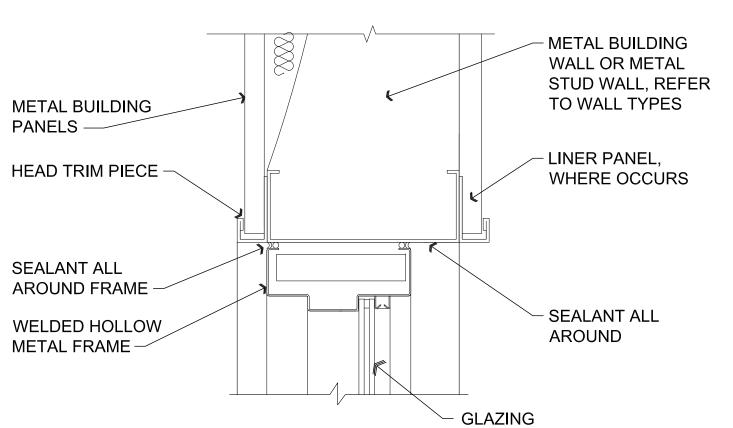


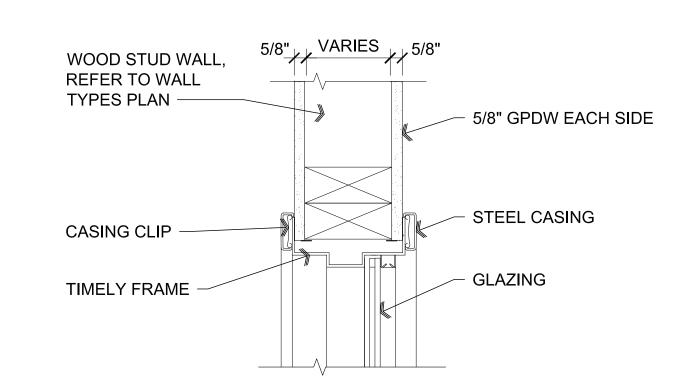
Timely Frame Door Jamb

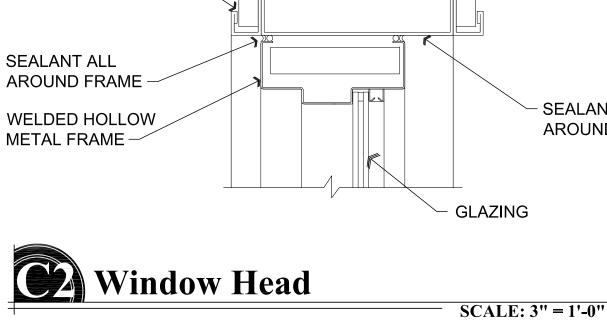


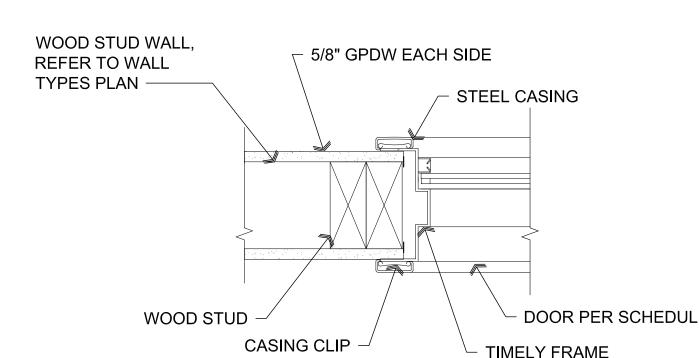




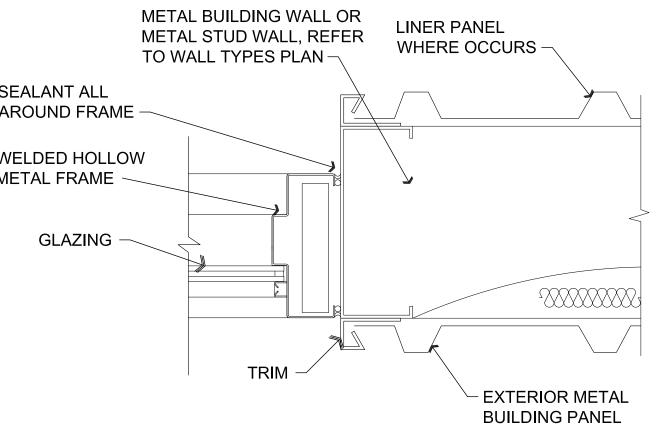




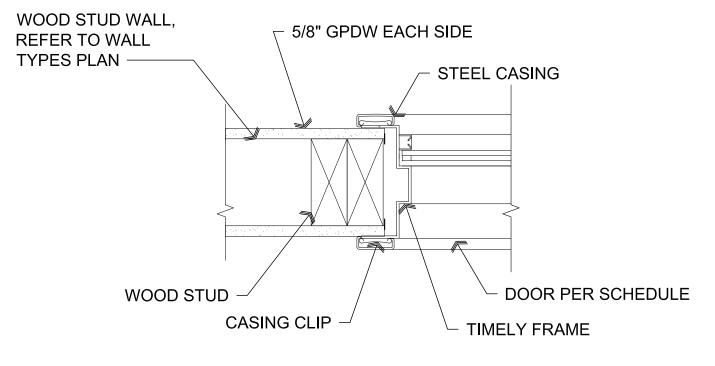




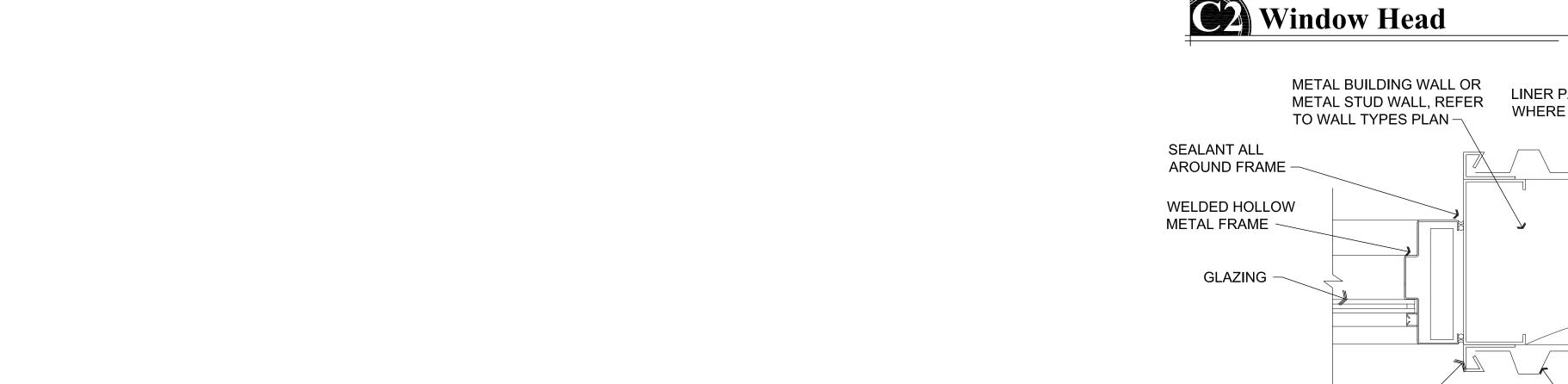
Timely Frame Window Head SCALE: 3" = 1'-0"



**Window Jamb** 









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# GENERAL STRUCTURAL NOTES

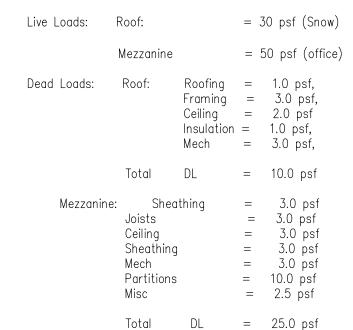
. APPLY UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS

CODE: Comply with 2018 IBC

SEISMIC: Soils Site Class D Seismic Design Category C Seismic Use Group 1

WIND: Basic wind speed 115 m.p.h., exposure C.

### LOADS:



### STRUCTURAL INSPECTION:

It is the Contractor's responsibility to inspect all structural work for conformance with the contract documents. Any structural inspection provided by others does not relieve him of this responsibility. Any structural deviations from the contract documents that are found at a later date and are declared to be significant by the Structural Engineer shall be corrected by the Contractor with all dispatch. The Structural Inspector is not authorized to direct or approve any changes from the contract documents. If the Contractor wishes to question the Structural Inspector's interpretation of the contract documents, he may do so directly with the Architect or the Structural Engineer.

The Structural Inspector is not authorized to stop or delay the work. If the contractor elects to continue with a certain work after being notified by the Structural Inspector that such work is unacceptable, he does so at his own responsibility and risks correcting the work at a less opportune time.

The Structural Inspector is not inspecting for OSHA compliance and temporary construction, such as bracing.me

The Contractor is responsible for providing adequate facilities for the Structural Inspector, to allow him to perform his work safely and efficiently.

SPECIAL INSPECTION: NONE REQUIRED

# FOUNDATIONS:

Bear at 1'-6" below finished grade on undisturbed or prepared soil. Allowable bearing pressure = 1500 psf

## CONCRETE

Shall meet all the requirements of ACI 301-95 with Type II cement. Minimum 28 day strength 3,000 p.s.i., (2500 used in design, no Specail inspection rquired).

No admixtures without approval. Admixtures containing chlorides shall not be used. Concrete shall not be in contact with aluminum.

Mechanically vibrate all concrete when placed, except that slabs on grade need be vibrated only around embedded items. Slump 4 inches for slabs not on grade and 5 inches for other concrete. Do not add water to concrete at site.

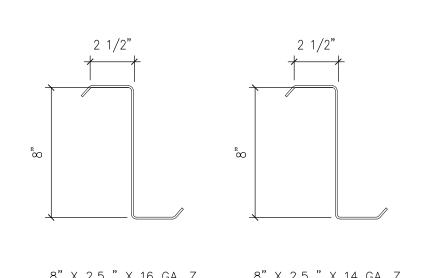
All reinforcing, including dowels and anchor bolts, shall be securely tied in location before placing concrete or grout. Dowels will not be allowed to be "stabbed" in.

# REINFORCING:

ASTM A-615 Grade 60

## SOILS REPORT:

See attached soils report under separate cover



# PURLIN & GIRTS

 $Ix=9.4 in.^4 Sx=2.4 in.^3$ 

Fy=55 ksi.

### COLD-FORMED STEEL:

All 16 gage and heavier cee, zee, eaves strut, tracks and straps shall be AISI Specifications with 57,000 p.s.i. yield stress. All other st?ud material shall be 33,000 p.s.i. steel of standard commercial quality.

Web stiffeners s?hall be provided at reaction points and/or at points of concentrated

# SECTION PROPERTIES FOR LIGHT GAGE MATERIALS:

 $1x = 7.19 \text{ in.}^4 \text{ Sx} = 1.8 \text{ in.}^3$ 

Fy=55 ksi.

All section properties must comply with the "Metal Stud Manufacturer's Association" (ICBO ER#4943).

# The structural properties included here have been computed based on the American Iron

and Steel Institute "Specification for the Design of Cold—Formed Structural Members".

### <u> Thickness — Steel Components</u> Gauge Design Thickness (in) Minimum Thickness (in)

16	.0566	.0538
14	.0713	.0677
12	.1017	.0966

## STRUCTURAL STEEL:

ASTM A-992 (Fy = 50 ksi) except as follows: Pipe steel: ASTM A-53 Grade B or A-501. Tube steel: ASTM A-500 Grade B (Fy = 46 ksi).

Bolts ASTM A-325, Bolts embedded in concrete ASTM A-307.

Minimum embedment per details. For bolts at wood framing in concrete shall have 8 vertical embedment and 3 inches hook.

See "Welding" section for special requirements.

## WELDING:

All construction and testing per American Welding Society codes and recommendations. All welding shall be by welders holding current valid certificates and having current experience type of weld called for.

Welding rods to be low hydrogen type, E70 Series, per AWS D1.1 typically except E-6010 Series for steel sheet metal per AWS D1.3 and reinforcing weldments per AWS D1.4. Use Series welding rods for A706 rebar.

### WOOD:

General: All stress grade lumber construction shall comply with IBC Standards. All each piece, shall bear the grade stamp of a grading rules agency approved by the Lumber Standards Committee. Regardless of required grade stamp and certifications, all each piece, in place in the structure shall be of the original grade specified or better when inspected by a grading agency approved by the ALSC. Grade loss resulting from effects of weathering, handling, storage, resawing, or dividing lengths, will be cause for rejection.

Do not notch or drill joists, beams or load bearing studs without prior approval of the Engineer through the Architect.

### Sawn Lumber: West Coast Douglas Fir.

DF, No. 1 Posts free of heart centers, Built up beams and joists: DF, No. 1 DF, Construction Grade All other Bearing Wall Studs Plates to match Wall studs

See Mechanical and Architectural Drawings for spreaders, metal curbs, or stand to support equipment from purlins or beams or sufficient number of joists.

Plywood: C-D exterior, PS 1-83. 1/2", 32/16. 5/8", 40/20. 3/4" tongue and groove, 48/24. 3/8",

Lay up horizontal plywood with face grain perpendicular to supports and stagger joints. For panelized roof system lay plywood with face grain parallel to the supports. See typical

Connections: All framed connections shall be made with framing anchors each side, joist hangers, seats and caps, by Simpson or approved equal, appropriate for the member, for and downwards loads, in accordance with current ICBO reports. For Nailing Schedule, see detail or see Table 2304.9.1 of the IBC. Field drill all holes for proper matching and Provide cut washers at bolts in wood. Unless noted otherwise, fasten plywood at roof with common nails at 6" at edge supports and 12" at intermediate supports including each of multiple members. Fasten plywood at floor with 10d ringed nails at 6" at edge supports and 12" at intermediate supports including each of any multiple members. Minimum edge distance

For plywood on shear walls see shearwall schedule.

PREMANFACTURED WOOD JOISTS: The manufacturer of the trusses or joists shall be preapproved for the proposed application, by the building department. DEFERRED SUBMITTAL:

The following items shall have deferred submittals per 2018 IBC:

1. Pre—Fab, Pre manufactured pre—Engineered wood trusses

Submit two copies of the shop drawings and calcs for the above mentioned items to the final review prior to the field installation. The drawings and calcs shall be prepared by a registered design professional at the manufacturer, reviewed / approved by the engineer

record in responsible charge, and submitted with a notation indicating that the deferred submittal documents have been reviewed, approved or approved as noted and found to be general conformance to the design of the building. The shop drawings and calcs submitted

without review by the engineer of record in responsible charge along with the shop drawing stamp (in a rectangular or square shape) will be returned without review by City (not required for the next submittal).

Deferred Truss/Joist submittal documents shall be submitted for review and approved prior request(s) for nail, strap, and shear or framing inspections. These inspections will not be conducted without complete approved plans. The applicant and contractor are aware that review for these items may take as long as ten (10) working days for the initial and if

It is the Applicant and contractors responsibility to coordinate timely submitals to avoid delays. Plan submittals shall contain the following minimum information:

- 1. Two (2) complete plan sets of truss/joist designs with keyed layout sheets.
- 2. Layout sheets shall include:
  - a) Framing layout reflective of approved building submittal
- b) Indicate all truss/joist locations

subsequent submittal(s).

c) Mechanical equipment locations and unit weights d) special hanger or support requirements

### SUPPLEMENTARY NOTES:

Provide all temporary bracing, shoring, guying or other means to avoid excessive stresses and to hold structural elements in place during construction. Any members required to support equipment from the framing shown shall be designed and provided by the equipment Contractor. For connections, see details. If not shown or noted, minimum connections to be included in cost shall be two 3/4" diameter bolts or 3/16" fillet weld 4" long using 1/4" connection material and detailed to minimize

# Options and approved substitutions are for Contractor's convenience. He shall be responsible for all changes and additional costs necessary and he shall coordinate all

Any engineering design provided by others and submitted for review shall be by an insured Structural Engineer with continuous five years of experience in the type of

Unless noted otherwise, details on Structural Drawings are typical as indicated by cuts, references, or titles.

In case of conflicts, more costly requirements govern for bidding. Submit clarification request prior to proceeding with work.

Contractor shall establish and verify in field all existing conditions affectin?g new construction. Contact Architect immediately if existing conditions are not as depicted in

All construction meeting or crossing expansion or shrinkage control joints in framed floors or roofs must have provisions to accommodate the movement or must be delayed until the joint is closed.

## 26 GAGE "R" PANEL, METAL ROOF DECK:

deck warps to meet roof slopes. Use next heavier gage for simple or two span continuous conditions.

## WELDING:

Welding rods to be low hydrogen type, E70 Series, per AWS D1.1 typically except E-6010 Series for steel sheet metal per AWS D1.3 and reinforcing weldments per AWS D1.4. Use E90 Series welding rods for A706 rebar.

All full—penetration groove or butt welded splices in material thicker than 5/16" shall be inspected by an independent testing laboratory, which shall test ultrasonically a sufficient number of welds but not less than 25 percent of total per welder, to certify all splices as meeting or exceeding strength of material spliced. Two copies of all test reports and a letter of such certification shall be submitted to the Architect.

Shop indicated welds may be done in field.

bending in connection. Proceed after clarification through shop drawing submittal.

design submitted.

Verify all dimensions with Architectural Drawings.

Steel Deck Institute specifications and recommendations apply, except as noted otherwise. Deck shall be painted, minimum 26 gage, MCBI 36" width, with minimum Sx(t) = 0.0473 & Sx(b) = 0.0395 inch cubed per foot of width ICBO #ER-S409P). Deck units shall be continuous over three spans, except that simple spans are required where

All construction and testing per American Welding Society codes and recommendations. All welding shall be by welders holding current valid certificates and having current experience in type of weld called for.

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ENERAL NOTES & DETAILS

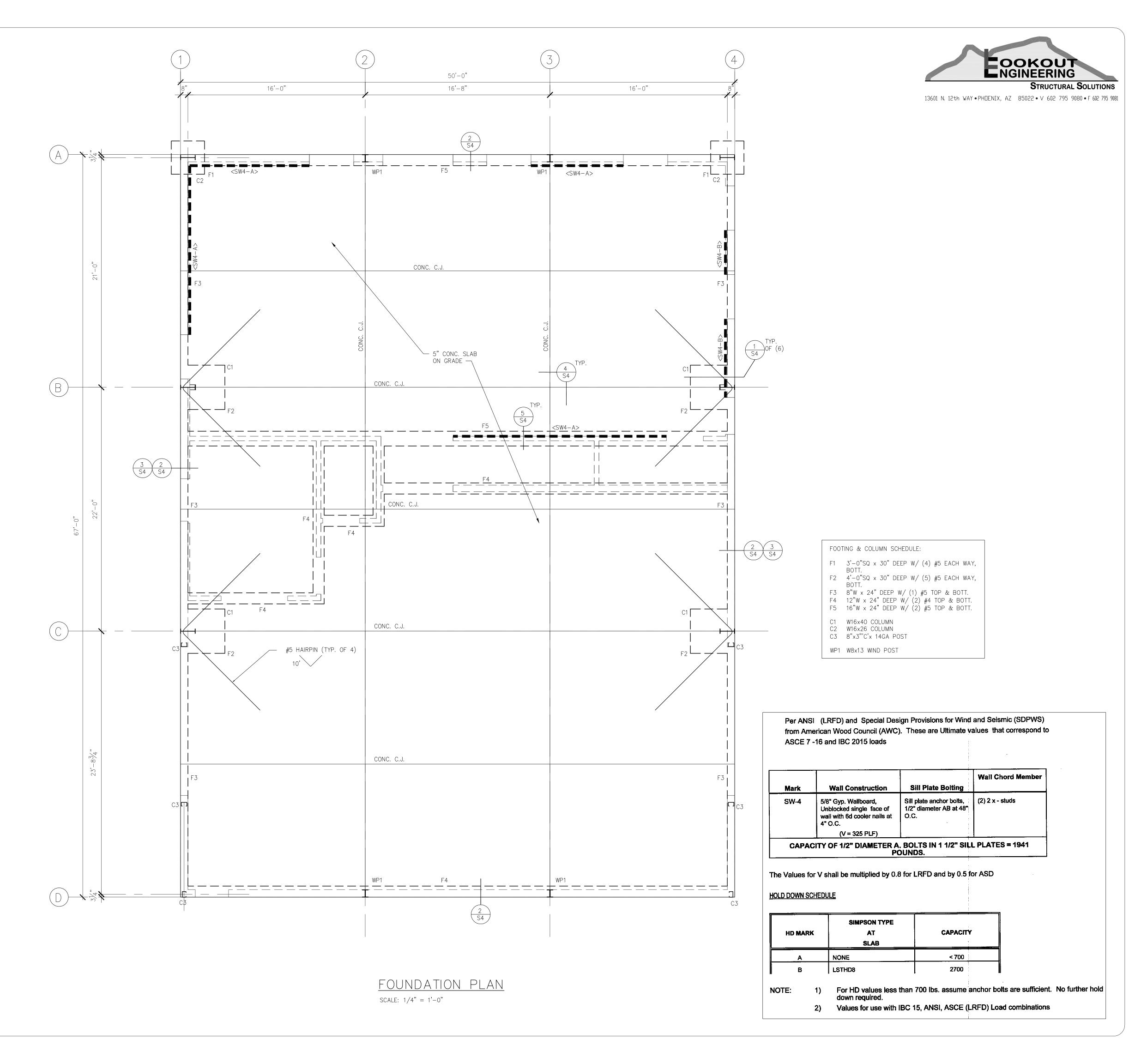
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SHEET



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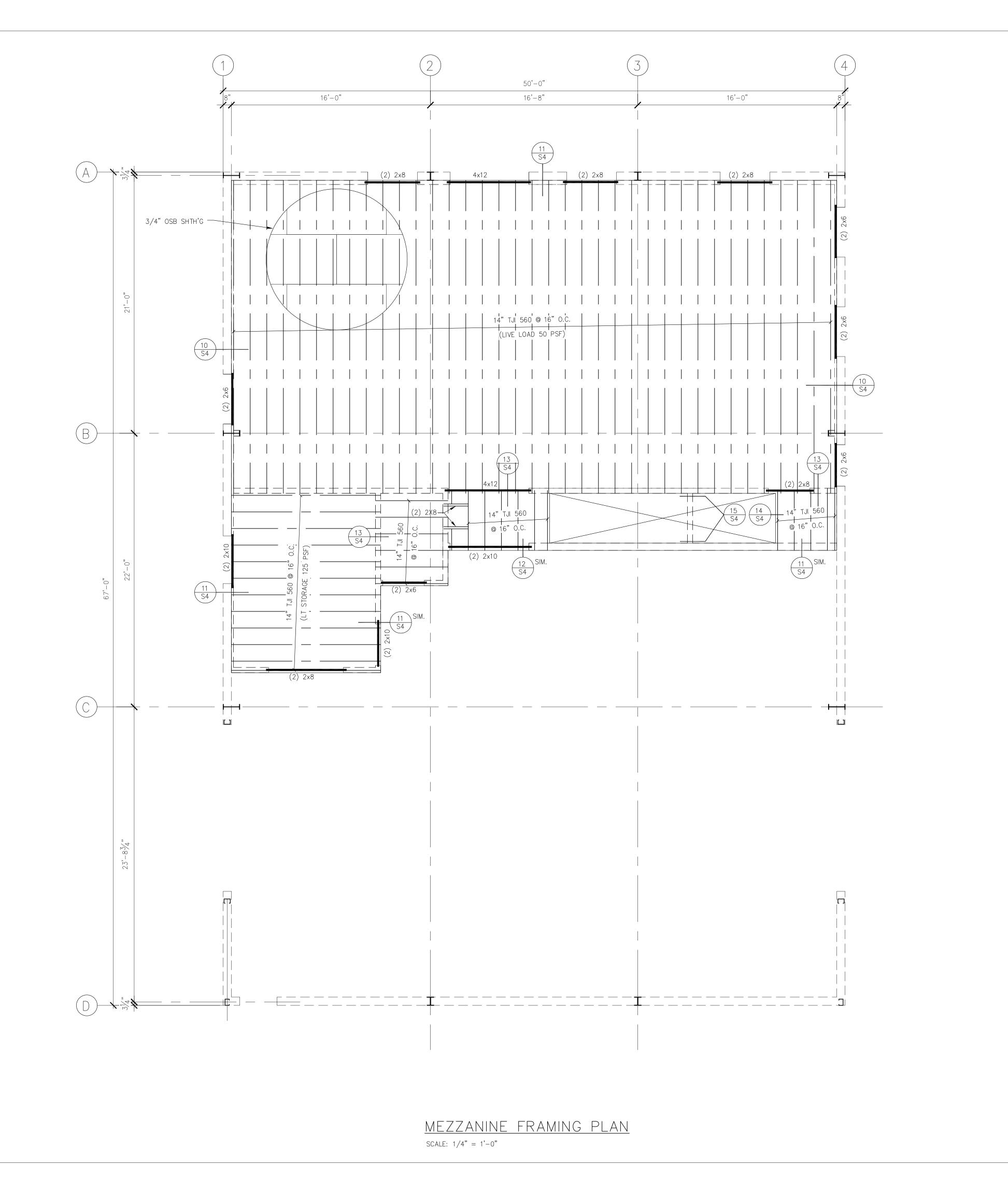


**FOUNDATION** 

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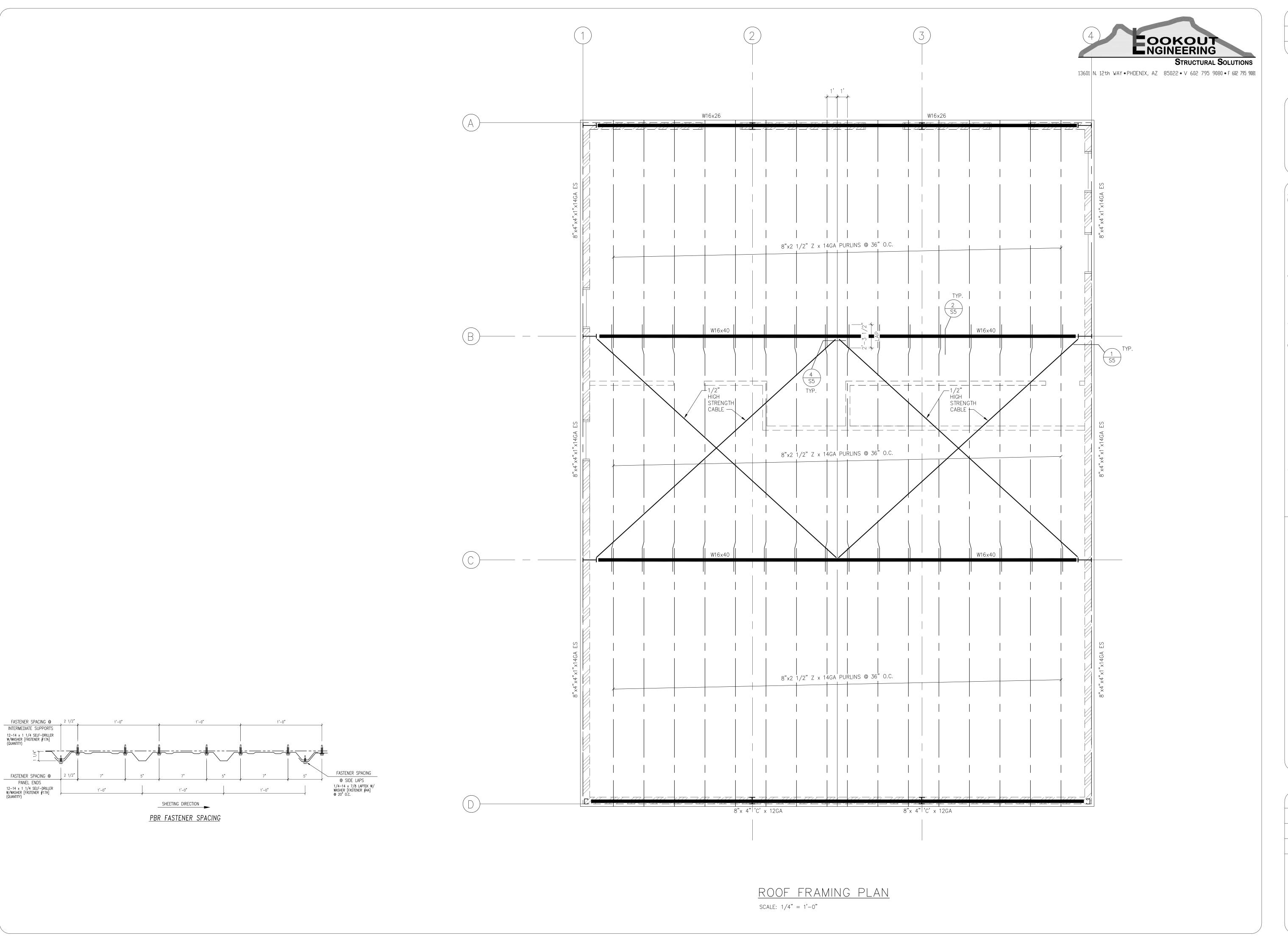


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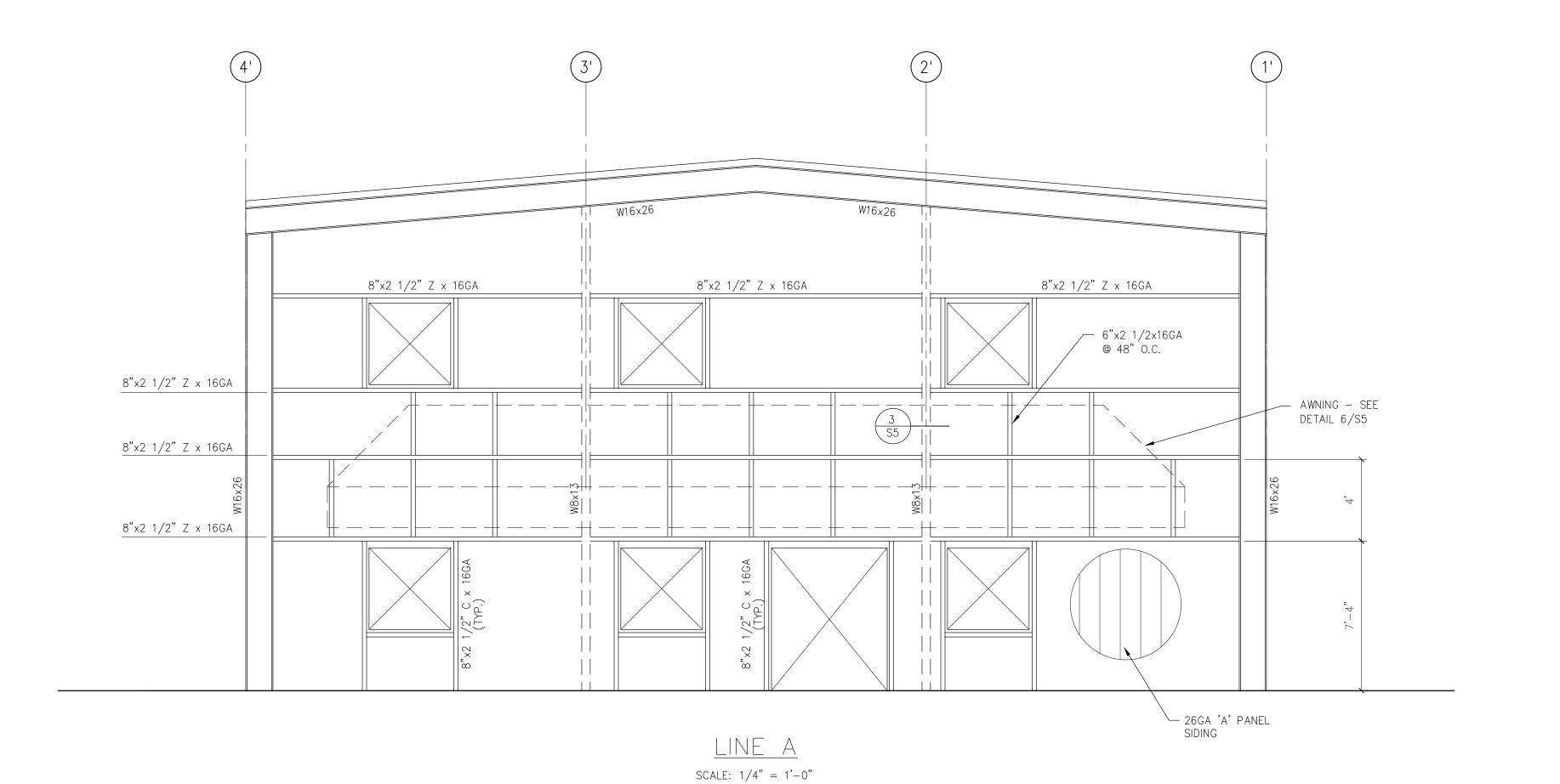
ROOF FRAMING

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8"x4"x12GA RAKE 8"x4"x12GA RAKE – 1/2" DIA. CABLE BRACE— - 1/2" DIA. CABLE BRACE— 8"x2 1/2" Z x 16GA 8"x2 1/2" Z x 16GA

> LINE D SCALE: 1/4" = 1'-0"

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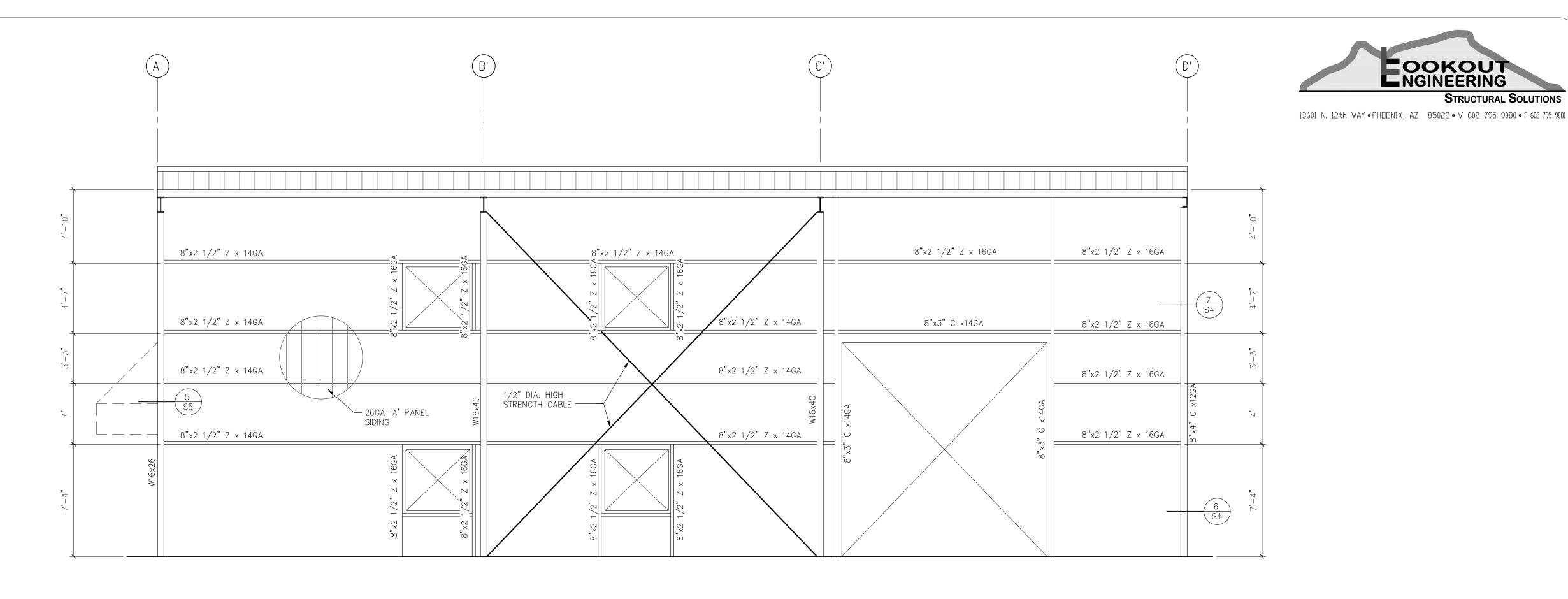
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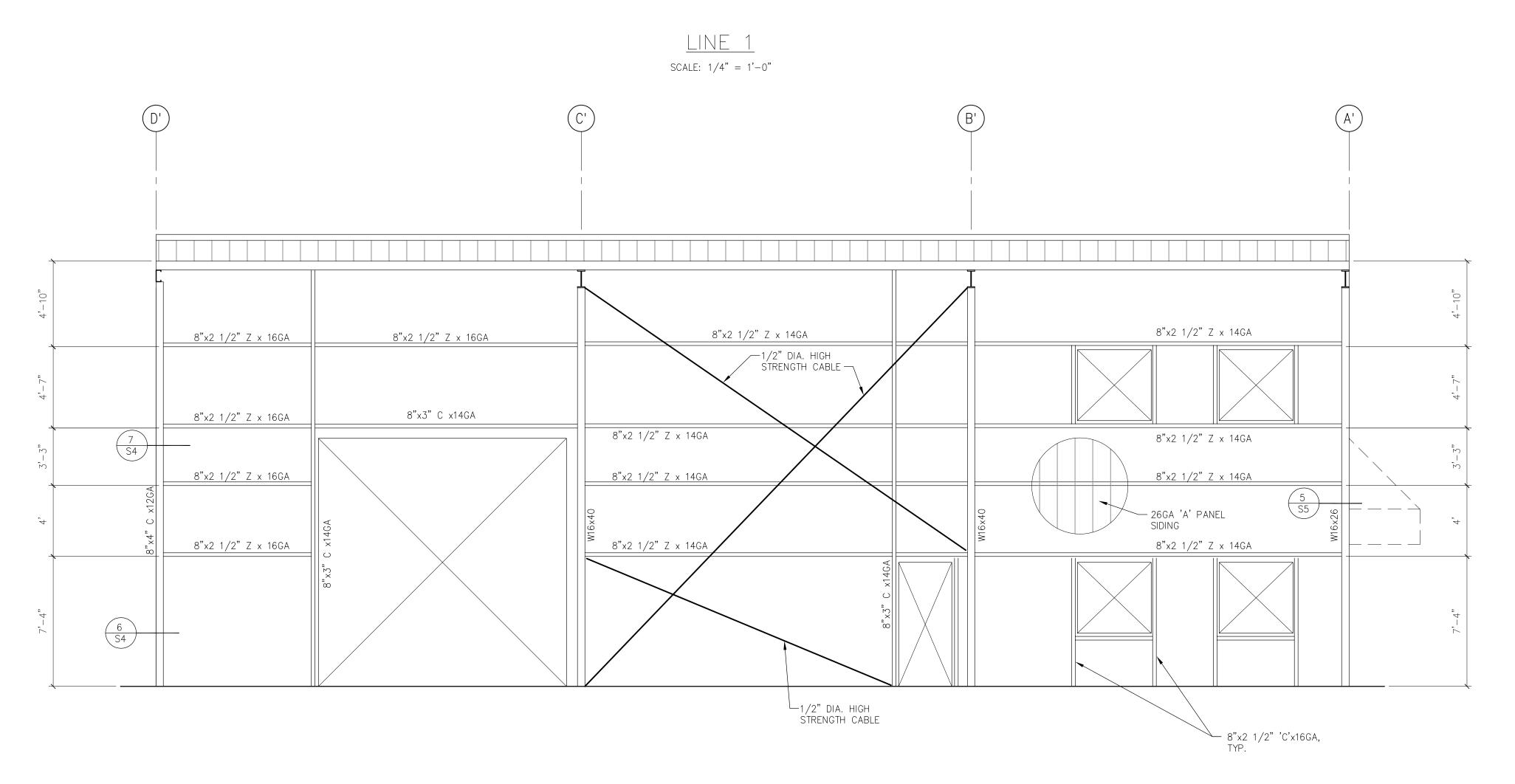
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LINE 4 SCALE: 1/4" = 1'-0"

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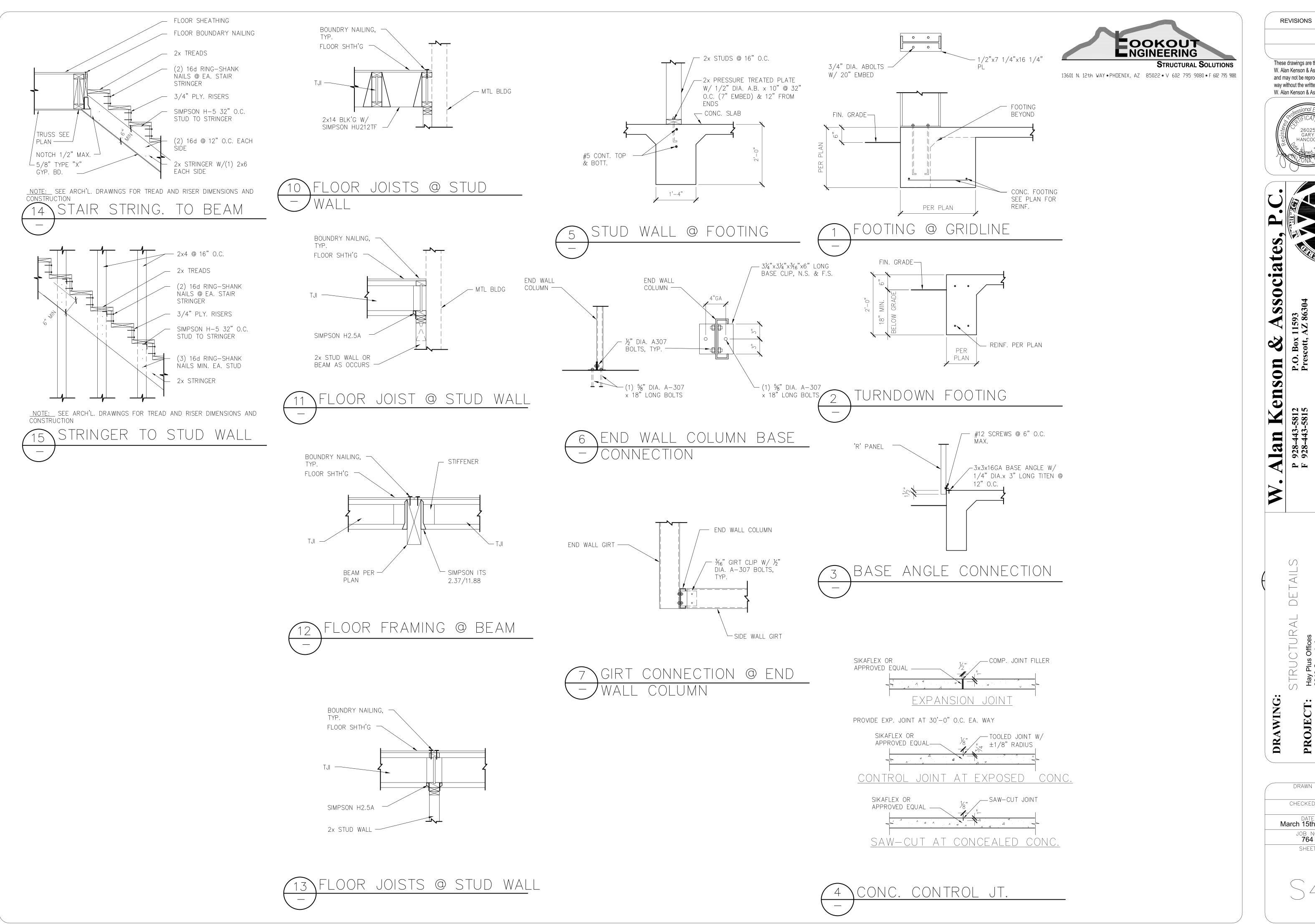
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ELEVATION

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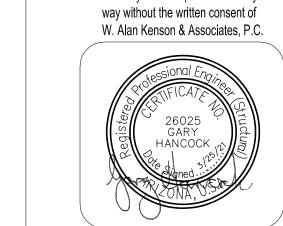


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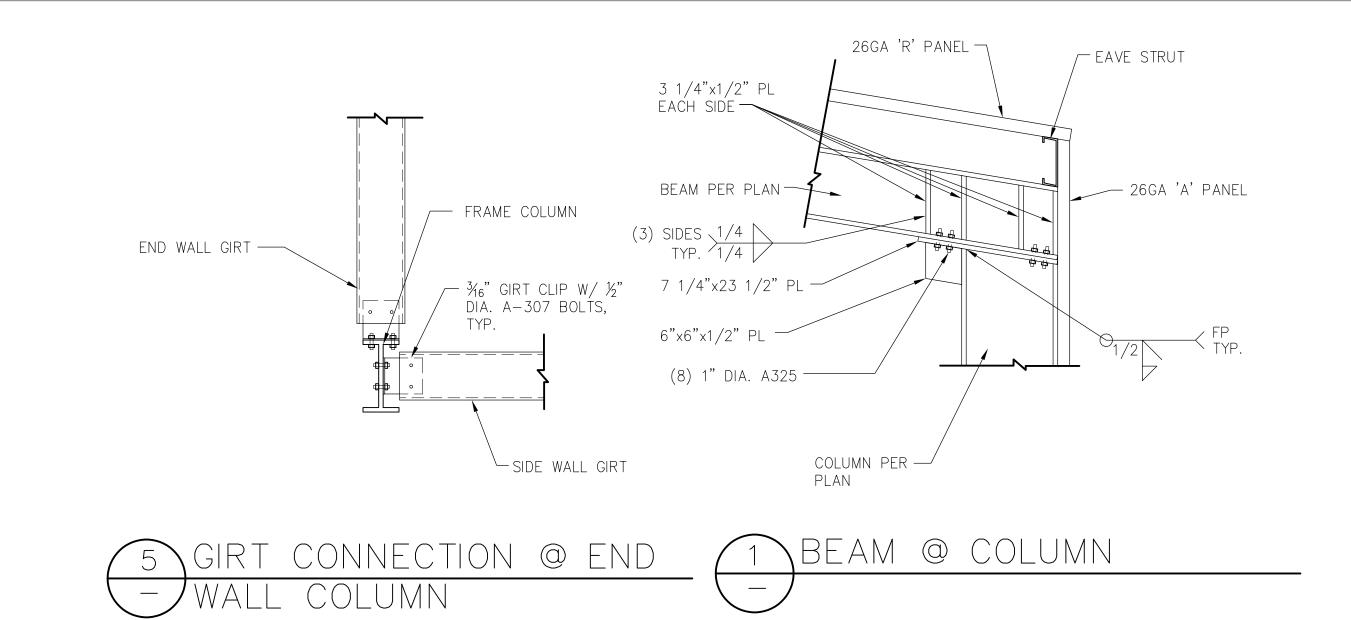
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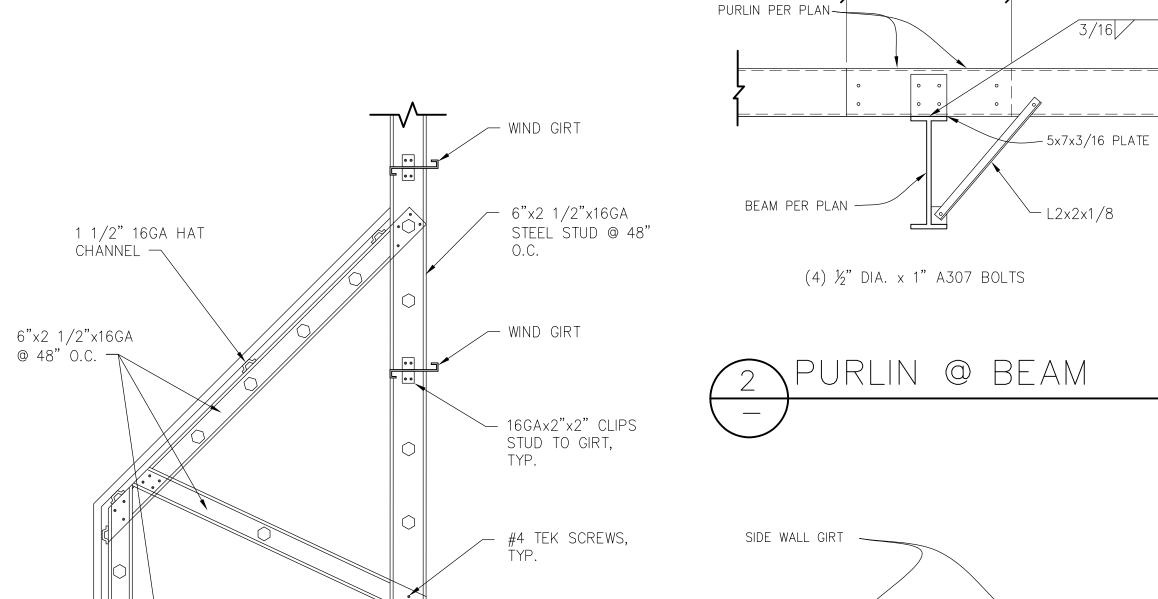
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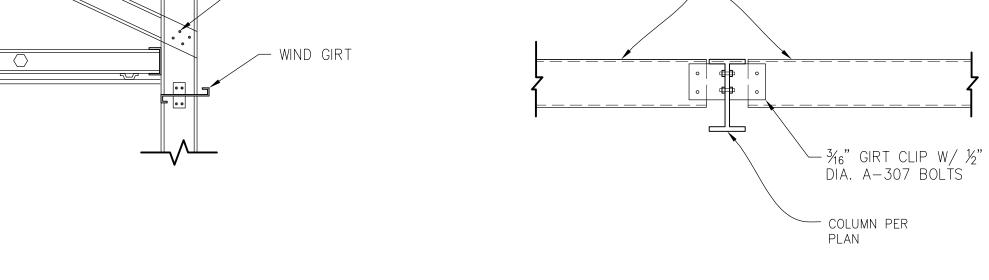
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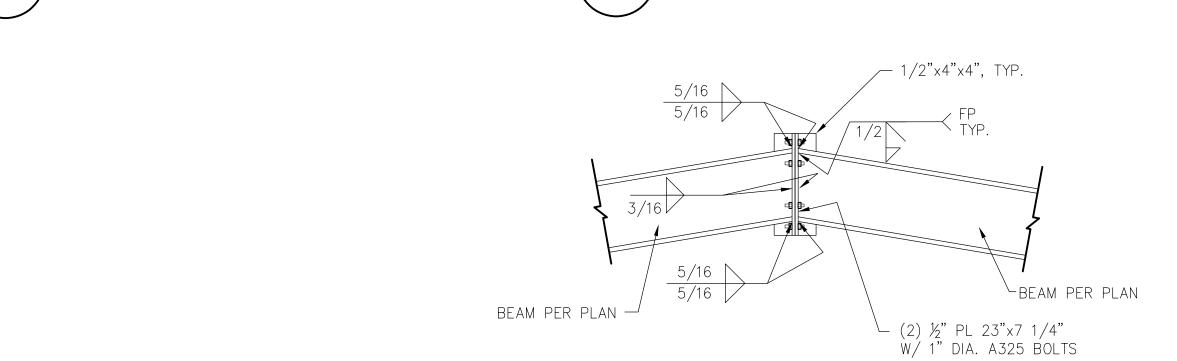
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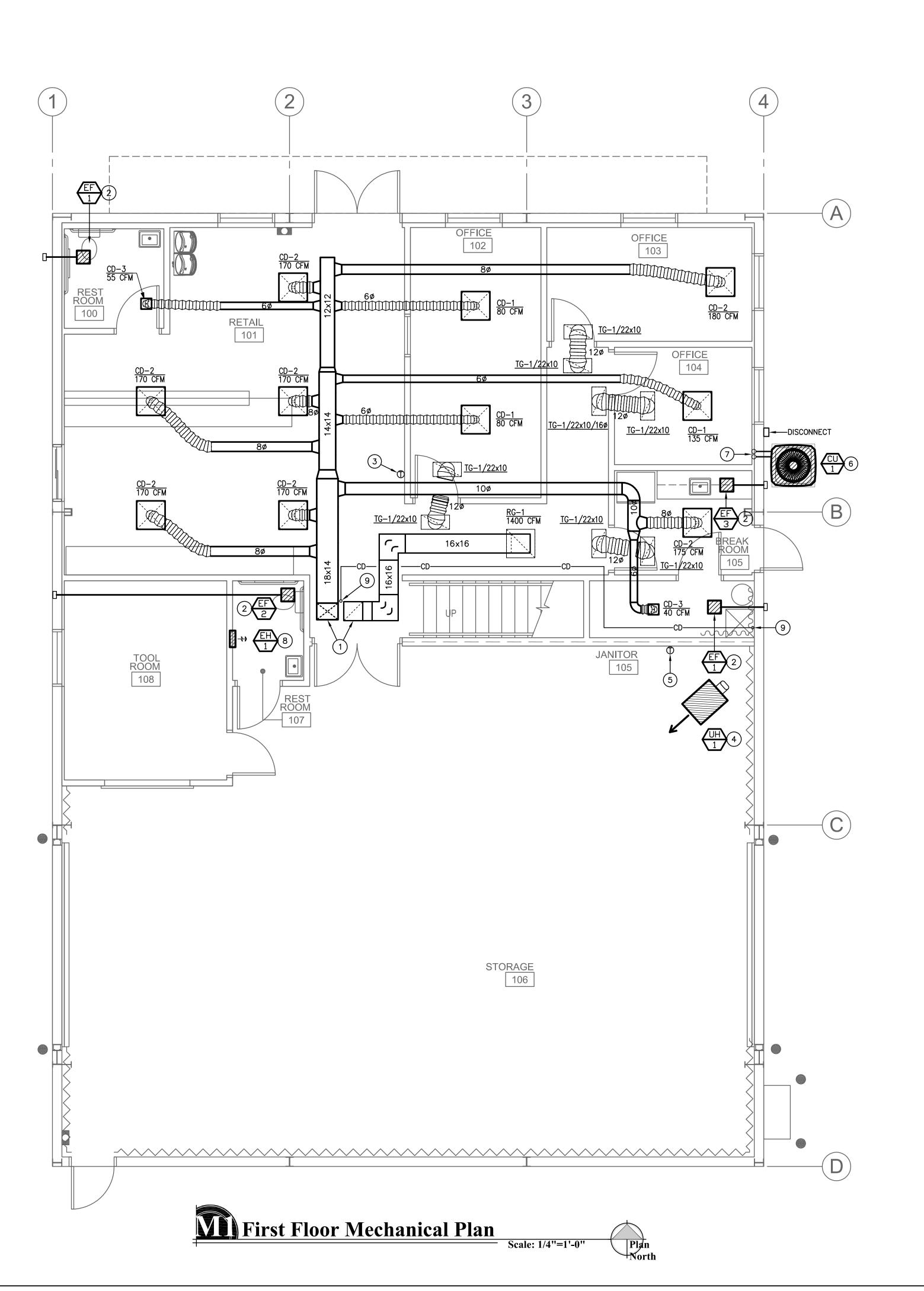






WALL GIRT TO COLUMN

 $2'-3\frac{1}{2}$ " LAP

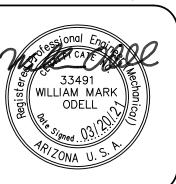


## **KEYNOTES**

- 1 SUPPLY AND RETURN DUCTS DOWN FROM FURNACE ON 2ND
- 2 CEILING MOUNTED EXHAUST FAN WITH BACKDRAFT DAMPER. TRANSITION EXHAUST DUCT FROM UNIT DISCHARGE AND ROUTE TO MANUFACTURER'S WALL DISCHARGE. MAINTAIN A MINIMUM 10' CLEARANCE FROM ALL OUTSIDE AIR INTAKES.
- 3 PROVIDE HEATING/COOLING PROGRAMMABLE THERMOSTAT ON WALL AT 48" ABOVE FINISHED FLOOR. VERIFY EXACT LOCATION AND MOUNTING HEIGHT WITH ARCHITECT/OWNER.
- (4) GAS-FIRED UNIT HEATER SUPPORTED FROM STRUCTURE, WITH TYPE "B" FLUE UP THROUGH ROOF. COORDINATE UNIT HEATER MOUNTING HEIGHT.
- 5 PROVIDE UNIT HEATER WITH LOW VOLTAGE THERMOSTAT WITH INSULATED SUB-BASE.
- 6 OUTDOOR CONDENSING UNIT ON CONCRETE EQUIPMENT PAD, REFER TO ARCHITECTURAL PLANS. MOUNT DISCONNECT ON WALL TO MAINTAIN REQUIRED CLEARENCES.
- 7) SLEEVE REFRIGERANT PIPING THROUGH WALLS AND ROUTE TO CORRESPONDING COIL. SIZE, INSULATE AND INSTALL PIPING PER MANUFACTURER'S RECOMMENDATIONS. FOLLOW MANUFACTURER'S PIPING GUIDE FOR ANY PIPING LENGTHS OVER 50 FEET. INSULATE REFRIGERANT PIPING PER SPECIFICATIONS.
- 8 ELECTRIC WALL HEATER WITH INTEGRAL THERMOSTAT.
- 9 3/4" CONDENSATE DRAIN DOWN THROUGH 2ND FLOOR AND ROUTED ABOVE 1ST FLOOR CEILING AND TO DISCHARGE INTO MOP SINK, WITH APPROVED AIR GAP. DRAIN PIPING SHALL SLOPE AT A MINIMUM 1/8" PER FOOT TOWARD DISCHARGE.

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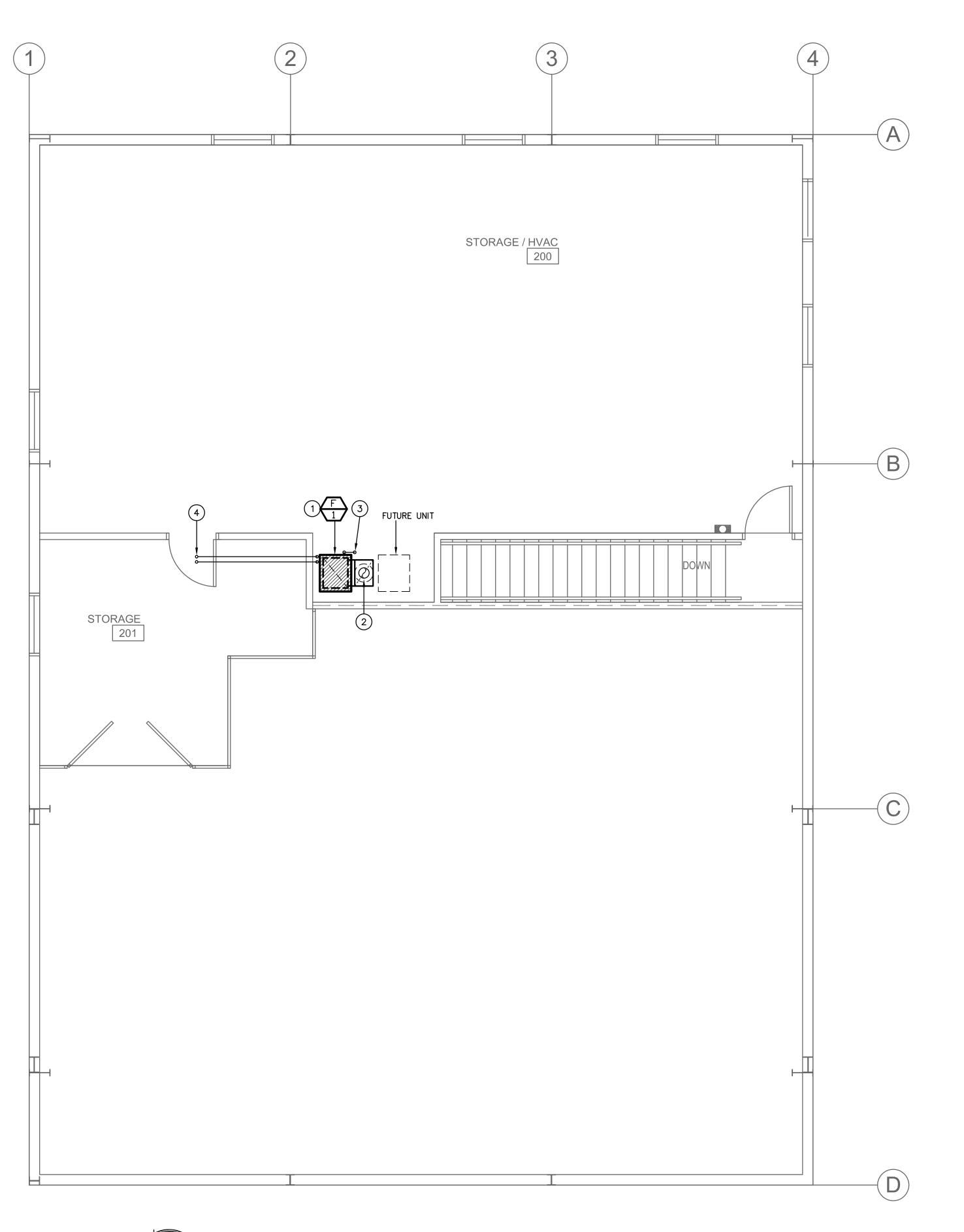


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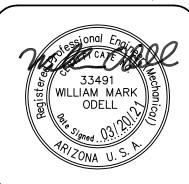


# **KEYNOTES**

- 1 NEW DOWNFLOW, VERTICAL SEALED COMBUSTION UPFLOW FURNACE ON DOWN-FLOW SUB-BASE. MAINTAIN ALL NECESSARY CLEARANCES AND MAINTENANCE ACCESS REQUIREMENTS. ROUTE AND CONNECT REFRIGERANT LINES FROM CONDENSING UNIT.
- 2 EXTEND 8¢ OUTSIDE AIR DUCT (WITH BALANCE DAMPER) FROM RETURN TO OSA ROOF INTAKE CAP. (GREENHECK #GRSI-08) AND BALANCE OUTSIDE AIR AS SHOWN ON SCHEDULE.
- 3 EXTEND NEW 3/4" TYPE 'M' COPPER CONDENSATE DRAIN PIPING FROM UNIT CONNECTION AND ROUTE THROUGH FLOOR TO 1ST FLOOR CEILING. SEE SHEET M11 FOR ROUTING TO MOP SINK.
- 4 ROUTE PVC COMBUSTION AIR INTAKE AND VENT PIPING TO CONCENTRIC ROOF TERMINATION. MAINTAIN 10' FROM OUTSIDE AIR INTAKES. INSTALLATION SHALL BE IN ACCORDANCE TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR THE INSTALLED LENGTH AND FITTINGS.

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# **MECHANICAL SPECIFICATIONS**

GENERAL REQUIREMENTS GENERAL PROVISIONS WHICH MAKE SPECIFIC REFERENCE TO ELECTRICAL DIVISION ONLY ARE INCLUDED HEREIN FOR CLARITY AND PERIOD OF ONE YEAR, FROM DATE OF ACCEPTANCE OF WORK BY SIMPLIFICATION OF SPECIFICATIONS WRITING AND ARE NOT PART OF THE MECHANICAL WORK. THE WORK OF DIVISION 15. MECHANICAL. IS SUBJECT TO THE CONDITIONS OF THE CONDITIONS OF THE CONTRACT, DIVISION 1, GENERAL REQUIREMENTS, AND APPLICABLE REQUIREMENTS OF OTHER PORTIONS OF THE CONTRACT DOCUMENTS. EXAMINE AND BECOME FAMILIAR WITH ALL CONTRACT DOCUMENTS AND COORDINATE THE MECHANICAL WORK ACCORDINGLY.

IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION. ANY APPARATUS, APPLIANCE, MATERIAL OR WORK NOT SHOWN ON THE DRAWINGS, BUT MENTIONED IN THE SPECIFICATIONS OR VICE VERSA, OR ANY INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE WORK COMPLETE AND READY FOR OPERATION, EVEN IF NOT PARTICULARLY SPECIFIED, SHALL BE PROVIDED WITHOUT ADDITIONAL EXPENSE TO THE OWNER. SHALL THERE APPEAR TO BE DISCREPANCIES OR QUESTIONS OF INTENT IN THE CONTRACT DOCUMENTS, REFER THE MATTER TO THE ARCHITECT FOR HIS DECISION BEFORE ORDERING ANY MATERIALS OR EQUIPMENT OR BEFORE THE START OF ANY RELATED WORK. THE DECISION OF THE INSTALLATION AND PLACING INTO OPERATION THE HEATING, ARCHITECT SHALL BE FINAL, CONCLUSIVE AND BINDING.

DRAWINGS ARE GENERALLY DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE OF WORK AND TO INDICATE GENERAL ARRANGEMENT OF EQUIPMENT, DUCTS, CONDUITS, PIPING AND FIXTURES. THEY ARE NOT INTENDED TO SHOW EVERY OFFSET OR FITTINGS OR EVERY STRUCTURAL DIFFICULTY THAT MAY BE ENCOUNTERED DURING INSTALLATION OF THE WORK. LOCATION OF ALL ITEMS NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. EXACT LOCATIONS NECESSARY TO SECURE BEST CONDITIONS AND RESULTS MUST BE DETERMINED AT PROJECT AND SHALL HAVE APPROVAL OF ARCHITECT BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS. IF SO DIRECTED BY ARCHITECT, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN LAYOUT AS NEEDED TO PREVENT CONFLICT WITH WORK OF OTHER TRADES OR FOR PROPER EXECUTION OF WORK. INCLUDE MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT NECESSARY FOR PROPER INSTALLATION AND OPERATION OF A SYSTEM OR PIECE OF EQUIPMENT IN BID

INCLUDE IN WORK, WITHOUT EXTRA COST TO OWNER, LABOR, MATERIALS, SERVICES, APPARATUS, DRAWINGS (IN ADDITION TO CONTRACT DRAWINGS AND DOCUMENTS) REQUIRED TO COMPLY WITH APPLICABLE LAWS, ORDINANCES, RULES AND REGULATIONS. DRAWINGS AND SPECIFICATIONS TAKE PRECEDENCE WHEN THEY ARE MORE STRINGENT THAN CODES, ORDINANCES, STANDARDS AND STATUTES. CODES, ORDINANCES, STANDARDS AND STATUES TAKE PRECEDENCE WHEN THEY ARE MORE STRINGENT OR CONFLICT WITH DRAWINGS OR SPECIFICATIONS. FOLLOWING INDUSTRY STANDARDS, SPECIFICATIONS AND CODES ARE MINIMUM REQUIREMENTS:

A. APPLICABLE CITY, COUNTY, AND STATE MECHANICAL, ELECTRICAL, GAS, PLUMBING, HEALTH AND SANITARY CODES, LAWS

B. CITY OR OTHER APPLICABLE BUILDING CODES. 2018 INTERNATIONAL MECHANICAL CODE WITH LOCAL

AMENDMENTS D. REGULATIONS, PERMITS, INSPECTIONS: COMPLY WITH ALL APPLICABLE CODED, RULES AND REGULATIONS. ALL MATERIALS, EQUIPMENT AND WORK MUST CONFORM TO THE INTERNATIONAL MECHANICAL CODE. OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND LICENSES. WHEN REQUIRED BY CODE, ALL WORK MUST BE INSPECTED AND APPROVED BY LOCAL AUTHORITIES.

MATERIALS AND EQUIPMENT STANDARD PRODUCTS OF A REPUTABLE INSULATION VALUE. MANUFACTURER REGULARLY ENGAGED IN MANUFACTURE OF THE SPECIFIED ITEMS. WHERE MORE THAN ONE UNIT IS REQUIRED OF ANY ITEM. FURNISHED BY THE SAME MANUFACTURER, EXCEPT WHERE SPECIFIED OTHERWISE. INSTALL MATERIAL AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. SHOULD VARIANCE BETWEEN PLANS AND SPECIFICATIONS OCCUR WITH THESE, CONTACT ARCHITECT IMMEDIATELY SO THAT VARIATIONS IN INSTALLATION CAN BE KNOWN BY ALL PARTIES CONCERNED. PROVIDE EQUIPMENT FROM MANUFACTURER WHOSE PRODUCTS HAVE LOCAL REPRESENTATION.

## **EXECUTION**

PROTECT EXISTING ACTIVE SERVICES (WATER, GAS, SEWER, ELECTRIC) WHEN ENCOUNTERED, AGAINST DAMAGE FROM CONSTRUCTION WORK. DO NOT PREVENT OR DISTURB OPERATION OF ACTIVE SERVICES WHICH ARE TO REMAIN. IF WORK MAKES TEMPORARY SHUTDOWNS OF SERVICES UNAVOIDABLE, CONSULT WITH BTU/IN./SQ. FT./DEG./HR. MINIMUM "R-VALUE" SHALL BE 6.0. OWNER AS TO DATES, PROCEDURES, AND ESTIMATED DURATION OF AT LEAST 10 WORKING DAYS IN ADVANCE OF DATE WHEN WORK IS TO BE PERFORMED. ARRANGE WORK FOR CONTINUOUS PERFORMANCE TO ASSURE THAT EXISTING OPERATING SERVICES WILL BE SHUT DOWN ONLY DURING THE TIME REQUIRED TO MAKE NECESSARY CONNECTIONS. IF A SYSTEM CANNOT SHUT DOWN, INSTALL TEMPORARY BYPASSES OR JUMPERS UNTIL CONNECTIONS ARE COMPLETE. CONTRACTOR RESPONSIBLE FOR ALL COSTS INCURRED BY ABOVE SHUTDOWNS, INCLUDING BYPASS OR JUMPER INSTALLATIONS, FOR WORK PERFORMED UNDER THIS SECTION. IF EXISTING ACTIVE UTILITY SERVICES ARE ENCOUNTERED WHICH REQUIRE RELOCATION, MAKE REQUEST TO PROPER AUTHORITIES FOR DETERMINATION OF PROCEDURES. PROPERLY TERMINATE EXISTING SERVICES TO BE ABANDONED IN CONFORMANCE WITH REQUIREMENTS FITTINGS. EXTEND DRAINS TO NEAREST ROOF DRAIN OR LAVATORY OF AUTHORITIES. WHERE CONNECTIONS OR DISRUPTIONS ARE MADE TAIL-PIECE (FURNISHED BY PLUMBER). SLOPE DRAIN AT A TO EXISTING SYSTEMS, REACTIVATE, REFILL, AND RECHARGE ALL COMPONENTS AND RESTORE SYSTEMS TO OPERATING CONDITIONS AT TIME OF DISRUPTION.

EACH COMPLETE SYSTEM GUARANTEED BY CONTRACTOR FOR A OWNER IN WRITING. TO BE FREE OF DEFECTS OF MATERIALS AND WORKMANSHIP, AND TO PERFORM SATISFACTORILY UNDER ALL CONDITIONS OF LOAD OR SERVICE. THE GUARANTEES PROVIDE THAT ANY ADDITIONAL CONTROLS, PROTECTIVE DEVICES, OR EQUIPMENT BE PROVIDED AS NECESSARY TO MAKE THE SYSTEM OF EQUIPMENT OPERATE SATISFACTORILY, AND THAT ANY FAULTY MATERIALS OR WORKMANSHIP BE REPLACED OR REPAIRED. ON FAILURE OF GUARANTOR TO DO THE ABOVE AFTER WRITTEN NOTICE FROM OWNER, THE OWNER MAY HAVE THE WORK DOWN AT THE COST OF GUARANTOR. LOSS OF REFRIGERANT IS CONSIDERED A DEFECT IN WORKMANSHIP AND/OR EQUIPMENT. TO BE CORRECTED AS REQUIRED AT NO EXTRA COST TO THE OWNER. PROVIDE EXTENDED FIVE (5) YEAR FACTORY PARTS & LABOR WARRANTY ON ALL AIR CONDITIONING COMPRESSORS.

### AIR CONDITIONING, HEATING AND VENTILATING

WORK UNDER THIS SECTION INCLUDES FURNISHING ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR THE REMODELING, VENTILATING AND AIR CONDITIONING WORK AS SPECIFIED HEREIN AND INDICATED ON THE DRAWINGS.

SCALED AND FIGURED DIMENSIONS ARE APPROXIMATE ONLY. BEFORE PROCEEDING WITH WORK, CAREFULLY CHECK AND VERIFY AT THE SITE, AND RESPONSIBLE FOR PROPERLY FITTING EQUIPMENT AND MATERIALS TOGETHER AND TO THE STRUCTURE IN SPACES PROVIDED. DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND MANY OFFSETS, BENDS, SPECIAL FITTINGS AND EXACT LOCATIONS ARE NOT INDICATED. CAREFULLY STUDY DRAWINGS AND PREMISES I ORDER TO DETERMINE BEST METHODS, EXACT LOCATIONS, ROUTES AND BUILDING OBSTRUCTIONS, PRESERVE HEADROOM, AND KEEP OPENINGS AND PASSAGEWAYS CLEAR.

CUTTING AND PATCHING:
CUT EXISTING WORK AND PATCH AS NECESSARY TO PROPERLY INSTALL THE NEW WORK. AS THE WORK PROGRESSES, LEAVE NECESSARY OPENINGS, HOLES AND CHASES, ETC., IN THEIR CORRECT LOCATIONS. IF THE REQUIRED OPENINGS, HOLES AND CHASES ETC., ARE NOT IN THEIR CORRECT LOCATIONS, MAKE THE NECESSARY CORRECTIONS AT NO COST TO THE OWNER. AVOID EXCESSIVE CUTTING AND DO NOT CUT STRUCTURAL MEMBERS WITHOUT CONSENT OF ARCHITECT.

COMPLY WITH ALL APPLICABLE CODES, RULES AND REGULATIONS. ALL MATERIALS, EQUIPMENT AND WORK MUST CONFORM TO THE INTERNATIONAL MECHANICAL CODE. OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND LICENSES. WHEN REQUIRED BY CODE, ALL WORK MUST BE INSPECTED AND APPROVED BY LOCAL AUTHORITIES.

ALL DUCTWORK FABRICATED AS PER LATEST INTERNATIONAL MECHANICAL CODE REQUIREMENTS AND SMACNA MANUAL. EXTENSION OF EXISTING DUCTWORK SHALL BE MADE WITH SOME MATERIAL. DUCTWORK SHALL BE CONSTRUCTED OF NEW HOT-DIPPED GALVANIZED SHEET METAL ASTM A-120 FOR EACH SIDE. TAPE ALL CROSS-JOINTS IN SHEET METAL DUCT WITH HARDCAST. TAKE-OFF FITTINGS SHALL BE CONICAL SPIN-IN WITH QUADRANT DAMPER. TURNING VANES SHALL BE INSTALLED IN ALL

FLEXIBLE DUCT MAY BE USED WHEN CONCEALED FOR FINAL CONNECTION TO AIR DISTRIBUTION DEVICES, BUT SHALL NOT EXCEED 8 FEET IN LENGTH. FLEXIBLE DUCT SHALL HAVE A MINIMUM R-6

DUCT SIZES ON DRAWINGS ARE "CLEAR INSIDE." INCREASE SHEET METAL SIZES ACCORDINGLY FOR LINED DUCTWORK. ADHESIVE AND INSULATING MATERIALS SHALL HAVE COMPOSITE FIRE AND SMOKE HAZARD RATINGS MAXIMUM 25 FOR FLAME SPREAD AND 50 FOR SMOKE DEVELOPED. ADHESIVES SHALL BE WATERPROOF.

### **DUCT INSULATION SCHEDULE:** CONCEALED RECTANGULAR

LINED OR WRAPPED LINED OR WRAPPED CONCEALED ROUND

**DUCTS IN CONDITIONED SPACE:** RECTANGULAR LINED DUCTWORK - SEMI-RIGID GLASS FIBER INSULATION, 1 1/2 PCF, 1 1/2" THICK, THERMAL CONDUCTIVITY AT 75°. MAXIMUM 0.17

DUCTS IN CEILINGS OR OTHER UNCONDITIONED SPACE: LINED DUCTWORK - SEMI-RIGID GLASS FIBER INSULATION, 1 1/2 PCF, 2" THICK, THERMAL CONDUCTIVITY AT 75". MAXIMUM 0.13

BTU/IN./SQ. FT./DEG./HR. MINIMUM "R-VALUE" SHALL BE 8.0. WRAPPED DUCTWORK - FIBER GLASS BLANKET WITH FRK VAPOR RETARDING FACING. 0.75 PCF, 3" THICK, WITH A MINIMUM

INSTALLED "R-VALUE" OF 8.0. (ASSUMES 25% COMPRESSION)

HVAC EQUIPMENT CONDENSATE DRAINS

USE TYPE M COPPER TUBING AND WROUGHT COPPER MECHANICAL MINIMUM OF 1/8" PER FOOT.

## AIR SYSTEM BALANCING

AIR SYSTEMS AND AIR DISTRIBUTION TEST AND BALANCE: THE CONTRACTOR SHALL ADJUST AND BALANCE AIR MOVING EQUIPMENT AND AIR DISTRIBUTING OR EXHAUSTING SYSTEMS AS HEREIN SPECIFIED AND UPON REQUEST PROVIDE REPORT OF TEST AND BALANCING TO ARCHITECT/ENGINEER FOR REVIEW.

# CONDENSING UNIT SCHEDULE

MARK	NOMINAL	MFG'R	MODEL#	COOLING	COOLING CAPACITY DESIGN COND. INDOOR COIL ENT. AIR ELECTRICAL DATA		DESIGN COND. INDOOR		DESIGN COND. INDOOR		DESIGN COND. INDOOR		DESIGN COND. INDOOR		CAL DATA	MINIMUM	REFRIGERANT	WEIGHT	NOTES	
WAKK	TONS	WIFG K	MODEL #	TOTAL	SENS.	DB/WB	COIL MODEL #	DB/WB	MCA	FUSE	V / Ø	SEER	REFRIGERANI	(LBS)	NOTES					
CU-1	4	TRANE	4TTR6049	41.3	37.9	95/63	SELECTED BY MFG.	80°/63°	26	40	208-230/1/60	16	R-410A	272	1234567					

- (4) PROVIDE UNIT COMPLETE WITH ALL NECESSARY DISCONNECTS, OVERLOADS AND CONTROL COMPONENTS. INSTALL UNIT PER MANUFACTURER'S WRITTEN DIRECTIONS. SLEEVE PIPING PENETRATIONS THROUGH EXTERIOR WALL, SEAL WATERTIGHT AND PROVIDE ESCUTCHEONS.
- 2) UNIT SHALL BE PROVIDED WITH PROGRAMMABLE THERMOSTATS.
- PROVIDE 10-YEAR COMPRESSOR WARRANTY AND 5-YEAR FOR OTHER COMPONENTS.

- (5) SIZE AND INSTALL ALL REFRIGERANT PIPING PER MFG'RS. INSTRUCTIONS.
- (6) PROVIDE LOW AMBIENT CONTROL KIT FOR OPERATION DOWN TO 30°F.
- (7) CAPACITIES SHOWN ARE AT JOBSITE ELEVATION OF 5000 FT.

### FURNACE SCHEDULE VENT E.S.P. VENTING FILTER CAPACITY MARK MFG'R MODEL# ORIENTATION A.F.U.E. WEIGHT TONS SIZE **TYPE** TYPE W/O COIL INPUT OUTPUT 172 0.50 88,000 83,600 2.5" 2-PIPE SEALED 1234 TRANE DOWNFLOW 1600 | NAT. GAS | 95% 115/1/60 | DISPOSABLE | TDH1D110

- (1) INSTALL WITH CLEARANCES PER MANUFACTURER'S RECOMMENDATIONS.
- (3) PROVIDE LEFT OR RIGHT CONNECTIONS AS REQUIRED FOR ACCESS IN MECHANICAL ROOMS.
- 2) SIZE AND INSTALL 2 PIPE VENT PIPING PER MANUFACTURER'S INSTRUCTIONS FOR ACTUAL INSTALLED LENGTHS. PROVIDE CONCENTRIC ROOF TERMINATION AND MAINTAIN MINIMUM 12" CLEARENCE ABOVE ANTICIPATED SNOW LEVEL
- (4) INPUT RATINGS SHOWN HAVE BEEN DERATED FOR 5,000 FT ELEVATION. INPUT RATE CHANGES FROM STANDARD CAN BE MADE BY ADJUSTING MANIFOLD PRESSURE (MIN 3.0 - MAX 3.7) OR BY CHANGING ORIFICE.

# UNIT HEATER SCHEDULE

E01110				E	BLOWER		МО	MOTOR		HEATER				
EQUIP. NO.	MANUFACTURER	MODEL NO.	SERVICE/ LOCATION	CFM	ESP	MIN. THROW	HP	VOLTS/ PHASE	FUEL	MAX. INPUT MBH	MIN. OUTPUT MBH	FLUE (DIA.)	WT. (LBS)	REMARKS
1	REZNOR	F-125	STORAGE	1600	0	48'	1/30	120/1	NAT. GAS	100,000	80,000	7" OVAL	127	1 2 3 4

- PROVIDE UNIT HEATER WITH LOW VOLTAGE THERMOSTAT WITH INSULATED SUB-BASE, W/ LOCKING COVER.
- (3) PROVIDE UNIT WITH 2-POINT SUSPENSION KIT.
- (4) INPUT RATINGS SHOWN HAVE BEEN DERATED FOR 5,000 FT ELEVATION. INPUT RATE CHANGES FROM STANDARD CAN BE MADE BY ADJUSTING MANIFOLD PRESSURE PER MANUFACTURER OR BY CHANGING ORIFICE.
- PROVIDE UNIT WITH ELECTRONIC SPARK IGNITION

# EXHAUST FAN SCHEDULE

MARK	SERVES	MANUF.	MODEL	CFM E.S.P.		MOTOR		DRIVE	SONES	WEIGHT	REMARKS
MARK	SERVES	MANUF.	MODEL	CFM	(in. wg)	HP OR WATTS	V/PH	DRIVE	SUNES	LBS	HEMARKS
1	RESTROOM	GREENHECK	SP-B70	50	.25	45 WATTS	120/1	DIRECT	2.0	9	23
2	RESTROOM	GREENHECK	SP-B70	50	.25	45 WATTS	120/1	DIRECT	2.0	9	23
3	BREAK ROOM	GREENHECK	SP-B150	150	.125	128 WATTS	120/1	DIRECT	3.0	10	1 3
4	JANITOR	GREENHECK	SP-B90	75	.25	50 WATTS	120/1	DIRECT	2.5	10	1 3

GRILLES/REGISTERS/DIFFUSERS SCHEDULE MARK DESCRIPTION OBD FRAME MATERIAL FINISH MANUF. MODEL REMARKS

1 UNIT TO OPERATE VIA WALL SWITCH. (2) UNIT TO OPERATE WITH LIGHTS. (3) PROVIDE WITH #WC-6 WALL DISCHARGE.

CD-1	SUPPLY DIFFUSER	24×24	SQUARE CEILING	NO	T-BAR	STEEL	WHITE	TITUS	TMS	6ø NECK
CD-2	SUPPLY DIFFUSER	24×24	SQUARE CEILING	NO	T-BAR	STEEL	WHITE	TITUS	TMS	8ø NECK
CD-3	SUPPLY DIFFUSER	9x9	SQUARE LOUVERED	NO	SURFACE	STEEL	WHITE	TITUS	TDC	6ø NECK
RG-1	RETURN GRILLE	22×22	SINGLE DFL	NO	T-BAR	STEEL	WHITE	TITUS	350RL	NECK SIZE PER PLAN
TG-1	RETURN GRILLE	22x10	SINGLE DFL	NO	T-BAR	STEEL	WHITE	TITUS	350RL	NECK SIZE PER PLAN

NECK SIZE SHOWN ON PLANS AND CORRESPONDS TO DUCT 3. CONNECTION SIZE.

- MOUNTING HEIGHT OF GRILLES AND EXACT LOCATION OF ALL DIFFUSERS TO FIELD COORDINATED AND APPROVED BY OWNER.
- AS REQUIRED FOR INSTALLATION.
- CONTRACTOR SHALL PROVIDE SQUARE TO ROUND ADAPTERS 4. VERIFY MAKE, MODEL AND COLOR OF ALL DEVICES WITH OWNER.

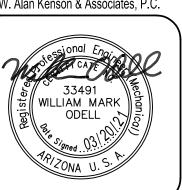
# ELECTRIC HEATER SCHEDULE

						-			
EQUIP. NO.	MANUFACTURER	MODEL NO.	TYPE	SERVICE/ LOCATION	BLOWER CFM	HEATER KW	VOLTS/ PHASE	AMPS	REMARKS
1	QMARK	QFG15122M	RECESSED WALL HEATER	RISER ROOM	150	1.5	120/1	12.5	1

INTEGRAL THERMOSTAT.

REVISIONS

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DRAWN BY

CHECKED BY **DATE**March 23th, 2021 JOB NO. SHEET

# **ASHRAE 62.1** OUTSIDE AIR VENTILATION CALC

Outside Air for unit F-1

Space	Area	Occ Density	Rp	Pz	Ra	Az	Vbz
Office	369	5	5	1.845	0.06	369	31.4
Break Room	71	25	5	1.775	0.06	71	13.1
Retail	608	15	7.5	9.12	0.06	608	104.9
Corridors	119	0	0	0	0.06	119	7.1
Storage	130	0	0	0	0.12	130	15.6
				Total N	et OSA Re	equired	172

Balance F-1 for 172 CFM

6.2.2.1 Breathing Zone Outdoor Airflow. The design outdoor airflow required in the breathing zone of the occupiable space or spaces in a zone, i.e., the breathing zone outdoor airflow  $(V_{bz})$ , shall be determined in accordance with Equation 6-1.

> $V_{bz} = R_p \cdot P_z + R_a \cdot A_z$ (6-1)

 $A_z = zone floor area$ : the net occupiable floor area of the zone  $m^2$  (ft<sup>2</sup>)

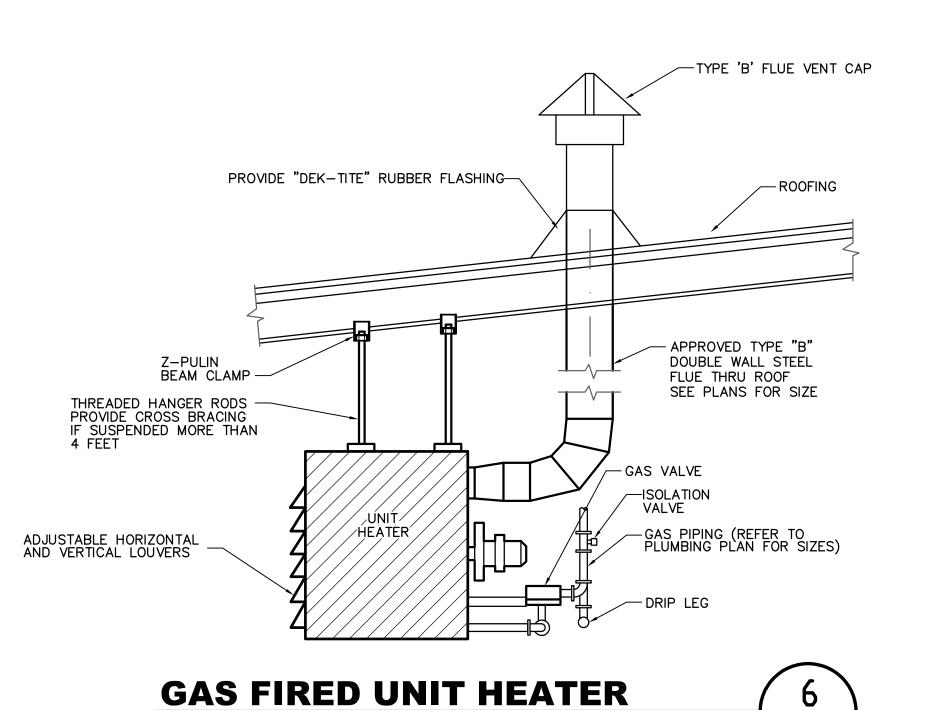
 $P_z$  = zone population: the largest number of people expected to occupy the zone during typical usage. If the number of people expected to occupy the zone fluctuates,  $P_z$  may be estimated based on averaging approaches described in Section 6.2.6.2

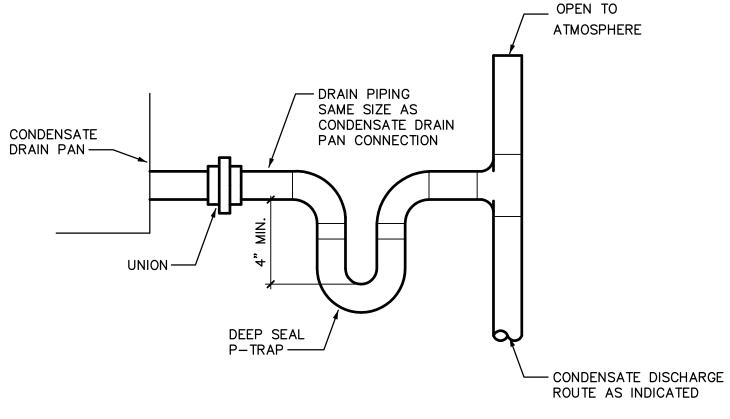
> *Note:* If  $P_{\tau}$  cannot be accurately predicted during design, it shall be an estimated value based on the zone floor area and the default occupant density listed in Table 6-1.

 $R_p$  = outdoor airflow rate required per person as determined from Table 6-1

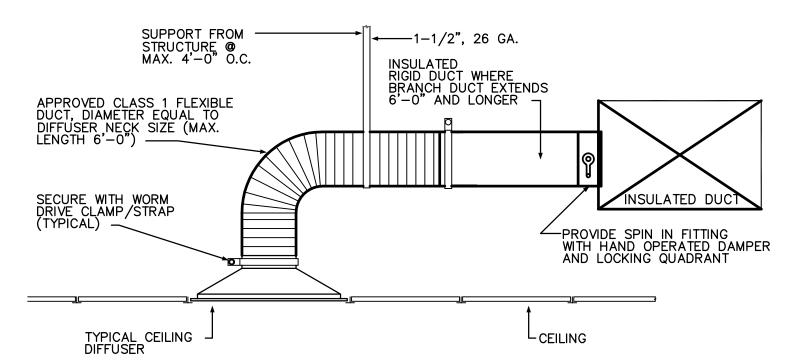
Note: These values are based on adapted occupants

 $R_a$  = outdoor airflow rate required per unit area as determined from Table 6-1



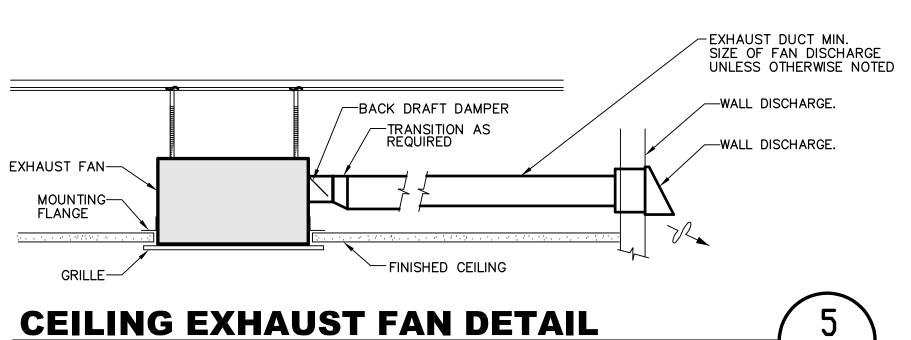


**CONDENSATE PIPING AT UNIT DETAIL** NOT TO SCALE M4.0

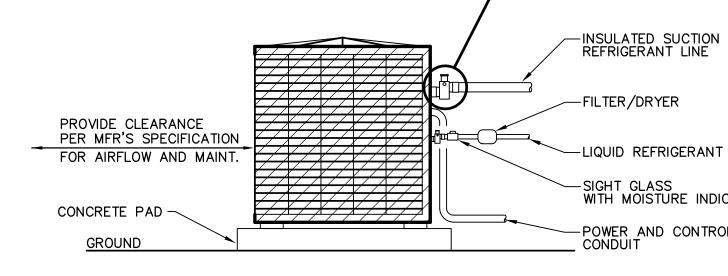




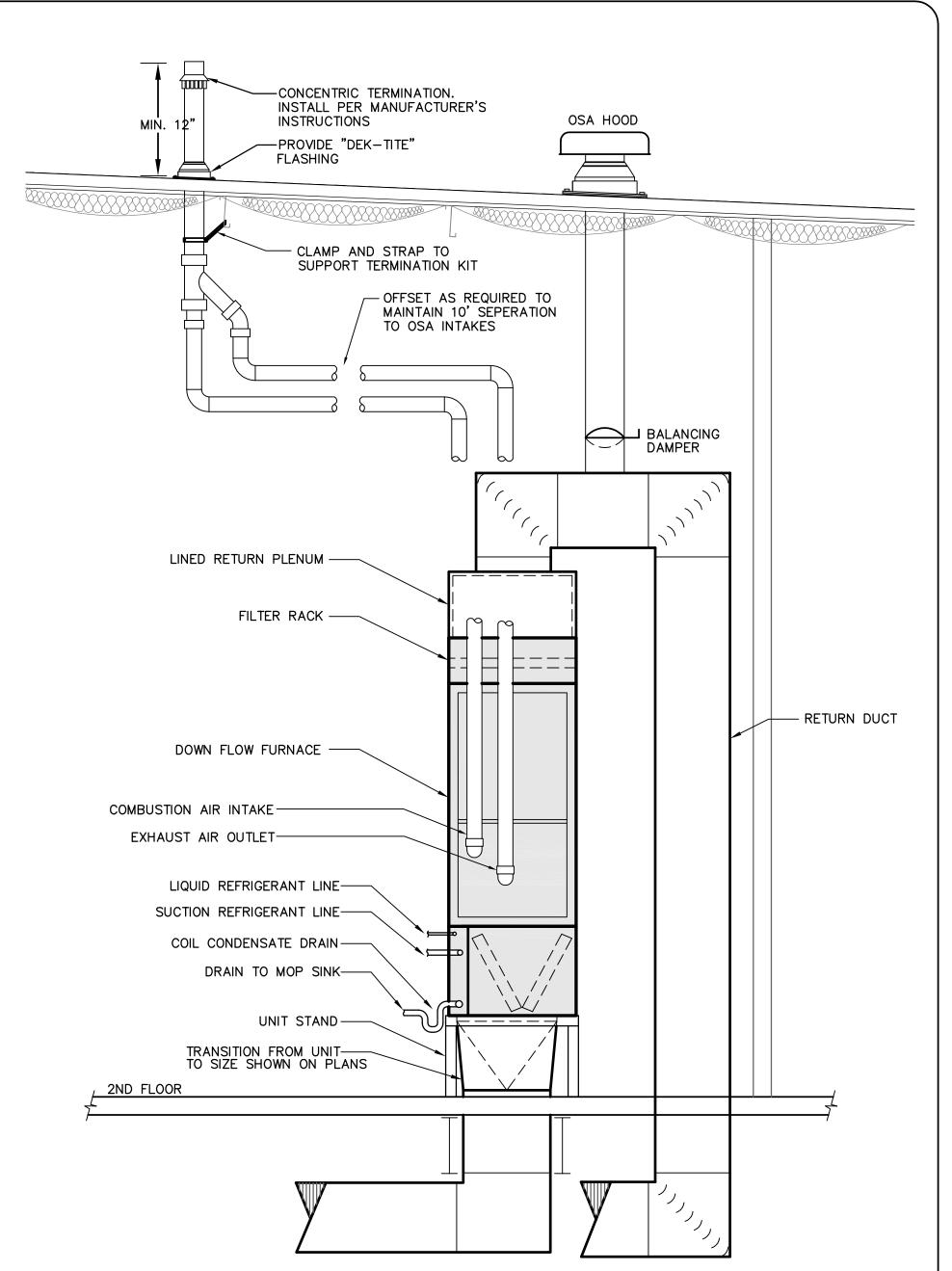




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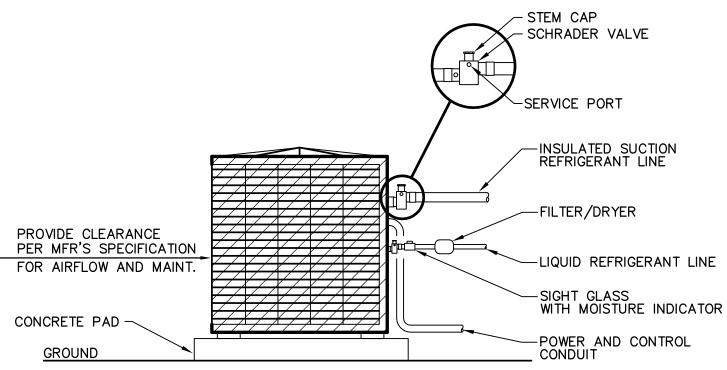






**DOWN FLOW FURNACE DETAIL** NOT TO SCALE

M4.0



CHECKED BY **DATE** March 23th, 2021 JOB NO. 764

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### PLUMBING GENERAL NOTES:

1. ALL PLUMBING WORK SHALL COMPLY WITH THE MOST STRINGENT OF APPLICABLE CODES, ORDINANCES, OR THE SPECIFICATIONS.

2. DETERMINE EXACT LOCATION & MOUNTING HEIGHT OF PLUMBING FIXTURES FROM ARCHITECTURAL DRAWINGS.

3. COORDINATE LOCATION OF ALL PLUMBING LINES WITH DUCTWORK AND ELECTRICAL SERVICES.

4. WATER PIPING INSTALLED UNDER CONCRETE SLAB SHALL BE LOOPED IN PARTITION WALLS WITH NO JOINTS UNDER SLAB & WITH PLASTIC SLEEVE FOR EACH PENETRATION THROUGH SLAB.

5. PROVIDE VACUUM BREAKERS ON HOSE BIBBS & ALL HOSE END FITTINGS.

6. LOCATE ALL VENTS THROUGH ROOF 10'-0" FROM ALL AIR INTAKES, EVAPORATIVE COOLERS, ETC.

7. VERIFY INVERT ELEVATIONS (WASTE LINES), SIZES, & LOCATIONS OF ALL EXISTING GAS, WATER & WASTE LINES TO WHICH NEW PIPING CONNECTS PRIOR TO MAKING-UP OR INSTALLATION OF PIPING.

8. CONTRACTOR SHALL NOT CUT HOLES IN STRUCTURAL MEMBERS WITHOUT FIRST SECURING WRITTEN APPROVAL FROM THE ARCHITECT.

9. LOCATE ALL VALVES, UNIONS, THERMOMETERS, GAUGES, OR OTHER EQUIPMENT REQUIRING FREQUENT READING, REPAIRS, ADJUSTMENTS, INSPECTION, REMOVAL OR REPLACEMENT SO AS TO BE ACCESSIBLE WITH REFERENCE TO THE FINISHED BUILDING.

10. ROUGH-IN ALL WATER & WASTE PIPING TO SPECIAL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS' SHOP DRAWINGS. VALVE ALL SUPPLIES AND MAKE FINAL CONNECTIONS.

11. INSTALL APPROVED DIELECTRIC ISOLATORS AT ALL CONNECTIONS OF DISSIMILAR METALS.

12. INSTALL ALL HOSE BIBBS 12 INCHES ABOVE GRADE UNLESS OTHERWISE

13. WHERE POSSIBLE, TIE VENTS TOGETHER SO THAT A MINIMUM NUMBER TERMINATE THROUGH ROOF.

14. PRIOR TO SUBMITTING BID, CONTRACTOR SHALL REVIEW THE ARCHITECTURAL DRAWINGS & INCLUDE IN HIS BID AN AMOUNT TO FURNISH & INSTALL ANY FIXTURES SHOWN IN ADDITION TO PLUMBING DRAWINGS.

## **GAS PIPING NOTES:**

EQUIPMENT.

MINIMUM DEPTH OF GAS PIPING TO BE 18" BELOW

GAS PIPING SHALL NOT BE INSTALLED IN OR ON THE GROUND UNDER ANY BUILDING.

3. GAS PIPING SHALL NOT RUN IN HOLLOW CORE OF BLOCK.

PROVIDE SHUT-OFF COCK, UNION AND 6" LONG DIRT LEG WITH CAP AT EACH GAS LINE DROP TO APPLIANCE. DIRT LEG SHALL BE LOCATED DOWNSTREAM OF THE

5. ALL GAS USING EQUIPMENT TO BE NATURAL FUEL. 6. DO NOT USE FLEXIBLE PIPE CONNECTIONS TO

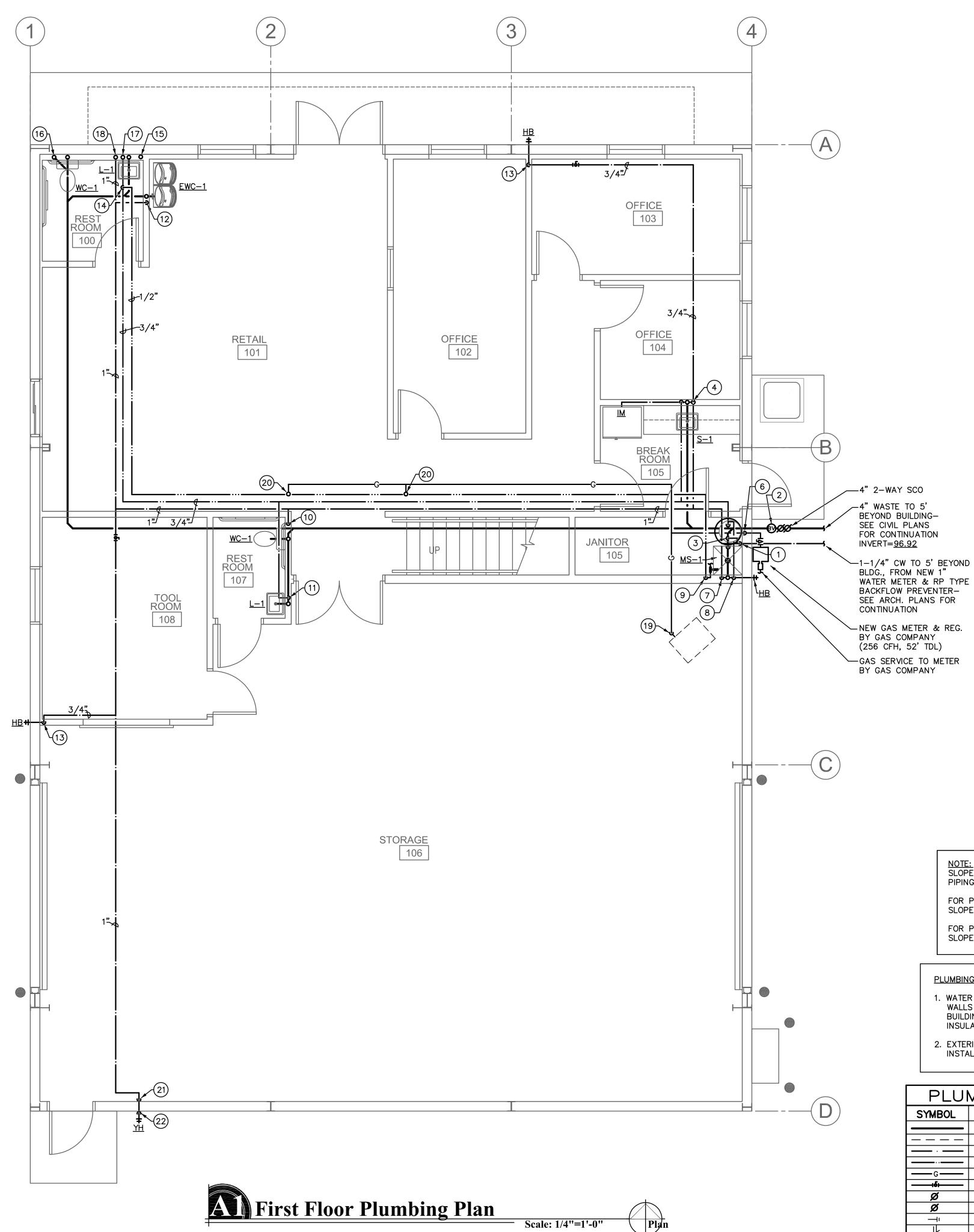
7. ALL GAS PIPING UNDER ASPHALT OR CONCRETE PAVING ADJOINING BUILDING MUST BE SLEEVED IN GAS TIGHT PIPE (SCHEDULE 40 PVC PIPE), SLEEVE SIZE SHALL (MINIMUM) 2 PIPE SIZES LARGER THAN THE GAS PIPE.

8. ALL GAS PIPING, MATERIALS, VALVES, FITTINGS, INSTALLATION AND TESTING SHALL COMPLY WITH CHAP. 4. 2012 INTERNATIONAL FUEL GAS CODE.

9. VERIFY ALL GAS BTU/H INPUTS WITH ACTUAL BTU/H INPUT OF APPLIANCE SUPPLIED.

10. ALL GAS LINES INSTALLED THROUGH CMU WALLS, ETC., SHALL BE SLEEVED WITH STEEL PIPE A MINIMUM OF (2) (TWO) PIPE SIZES LARGER THAN THE GAS PIPE.

11. EXTERIOR GAS PIPING SHALL RECEIVE ONE COAT EACH OF A RUST AND WEATHER RESISTANT PRIMER AND TOP COAT. COORDINATE WITH ARCHITECT FOR COLOR.



# **KEYNOTES:**

- 1" CW RISE FROM BELOW GRADE TO ROUTE AT CEILING. PROVIDE BALL VALVE (BUILDING SHUTOFF) ON RISER AT +6" A.F.F.; PROVIDE PRESSURE REDUCING VALVE (PRV) SET AT 80 PSI ON RISER AT +12" A.F.F.
- PROVIDE BACKWATER VALVE TO COMPLY WITH CITY OF PRESCOTT REQUIREMENTS. PROVIDE TRAFFIC RATED COVER.
- 3) 3/4" H & CW DOWN TO WATER HEATER.
- 1/2" H & CW DOWN TO SINK. TEE OFF CW RISER WITH 1/2" TO ICE MAKER BOX.
- ELECTRIC WATER HEATER- SEE DETAIL & SCHEDULE, SHEET P2.1. PROVIDE FULL SIZE P & T RELIEF DRAIN LINE, TERMINATE AT +2" ABOVE MOP SINK RIM WITH 90" ELBOW
- GAS OUT OF METER, ENTER BUILDING & RISE TO ROUTE ABOVE CEILING.
- 7 3/4" CW DOWN, WITH 1/2" TO MOP SINK & 3/4" TO HOSE BIBB.
- 8 1/2" HW DOWN TO MOP SINK.
- 1/2" HWR DOWN TO RECIRC. PUMP, SEE WATER HEATER DETAIL FOR PUMP SPEC. & FOR CONTINUATION OF HWR LINE.
- 3/4" CW DOWN TO 3/4" HEADER, WITH 1/2" TO WC & 1/2" TO LAV.
- (11) 1/2" HW DOWN TO LAV.
- 1/2" CW DOWN TO ELECT. WATER COOLER.
- (13) 3/4" CW DOWN TO NON FREEZE HOSE BIBB.
- 1/2" HWR OFF TOP OF HW LINE, ROUTE ABOVE CEILING BACK TO RECIRC. PUMP AT WATER
- (15) VENT RISER.
- 3" WASTE FROM ABOVE, DOWN TO BELOW
- 17) 1/2" HW DOWN TO LAV/ 1/2" HW UP TO 2ND FLOOR.
- 3/4" CW DOWN TO 3/4" HEADER, WITH 1/2" TO WC & 1/2" TO LAV/ 3/4" UP TO 2ND FLOOR.
- (19) GAS VALVED CONNECTION TO UNIT HEATER.
- GAS RISER TO 2ND FLOOR. 1" CW DOWN TO EXIT BUILDING.
- 1" CW RISE FROM BELOW GRADE TO NON FREEZE YARD HYDRANT.

NOTE: SLOPE ALL HORIZONTAL WASTE PIPING AS FOLLOWS:

FOR PIPE SIZES UP THROUGH 3", SLOPE AT 1/4" PER FT.

FOR PIPE SIZES 4" & ABOVE, SLOPE AT 1/8" PER FT.

# PLUMBING NOTES:

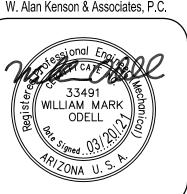
- 1. WATER PIPING LOCATED IN EXTERIOR WALLS SHALL BE INSTALLED ON THE BUILDING INTERIOR SIDE OF THE BLDG. INSULATION.
- 2. EXTERIOR WATER PIPING SHALL BE INSTALLED BELOW FROST LINE.

PLUMBING LEGEND						
SYMBOL	ABBR.	DESCRIPTION				
	W	DRAIN OR WASTE PIPING				
	٧	VENT PIPING				
	CW	COLD WATER PIPING				
	HW	HOT WATER PIPING				
	G	NATURAL GAS PIPING				
ιδι	BV	BALL VALVE				
Ø	FC0	FLOOR CLEANOUT				
Ø	SC0	SURFACE CLEANOUT				
Ī	WCO	WALL CLEANOUT				
JL	VTR	VENT THRU ROOF				
_						



REVISIONS

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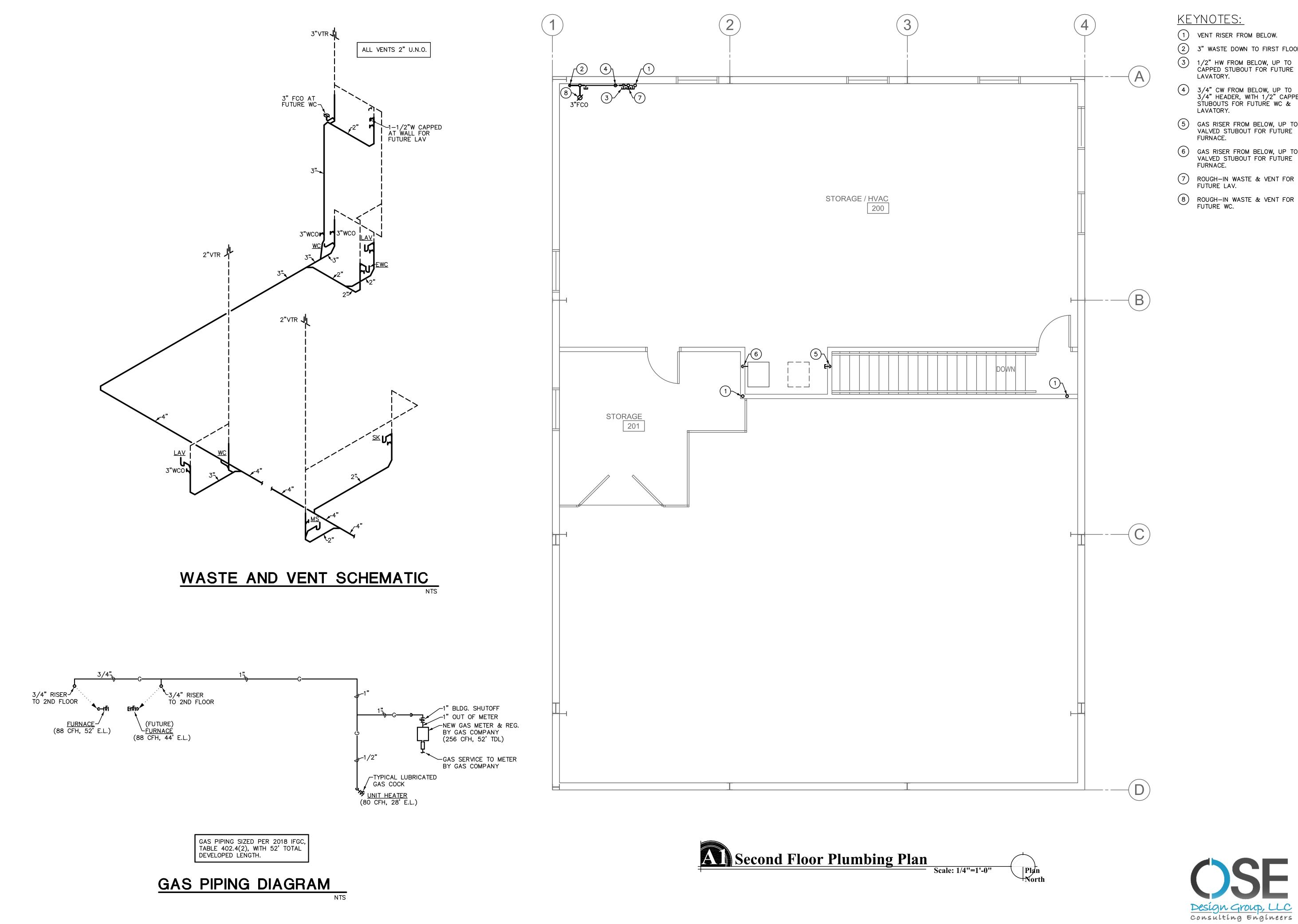
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SHEET



1) VENT RISER FROM BELOW.

LAVATORY.

2) 3" WASTE DOWN TO FIRST FLOOR.

3 1/2" HW FROM BELOW, UP TO CAPPED STUBOUT FOR FUTURE

LAVATORY. 4 3/4" CW FROM BELOW, UP TO 3/4" HEADER, WITH 1/2" CAPPED STUBOUTS FOR FUTURE WC &

GAS RISER FROM BELOW, UP TO VALVED STUBOUT FOR FUTURE FURNACE.

GAS RISER FROM BELOW, UP TO VALVED STUBOUT FOR FUTURE FURNACE.

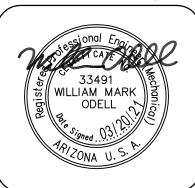
7 ROUGH-IN WASTE & VENT FOR FUTURE LAV.

8 ROUGH-IN WASTE & VENT FOR FUTURE WC.

KEYNOTES:

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REVISIONS



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DRAWING:

DATE March 23rd, 2021 JOB NO. 764 SHEET

611 West Delano Ave Prescott, AZ 86301 Project Surprise, AZ 85379 (602) 499.0001 #20080 (623) 444-6143

### 1. GENERAL

1..1 Scope: Work under this section includes coordinating and furnishing all labor and material necessary to install a complete plumbing system as shown and specified and in accordance with the codes. Contractor shall pay for all permits, meters, fees, city inspections, legal notices, etc.,

- 1..2 Submittals: Within 15 days after award of contract, submit 8 copies of all items.
- 1..3 Record Drawings: Provide a set to the Architect at completion of project.
- 1..4 Instructions: Provide maintenance manual and instruct Owner in the proper operation and maintenance of the equipment.
- 1..5 Guarantee: One year on labor, material and equipment.
- 2. PRODUCTS
- 2..1 Piping:
- 2..1.1 Water Lines:
- 2..1.1.1 Copper: Type "L" hard drawn, conforming to ASTM B88, for all water pipe not set under concrete or in the ground.
- 2..1.1.2 Copper: Type "K" soft drawn, conforming to ASTM B88, for water pipe set in or under concrete or in the ground. Wrap lines below concrete floors with 20 mils of polykon tape.
- 2..1.1.3 Fittings: Wrought copper conforming to ANSI B16.22.

C564 (NOTE: Screened stainless shield is not approved).

- 2..1.1.4 Plastic: If permitted by Administrative Authority, IAPMO approved, NSF-61 listed, crosslinked polyethylene (PEX) tubing, equal to Wirsbo "AQUAPEX" system is acceptable for potable water piping.
- 2..1.2 Sanitary Waste and Vent Lines:
- 2..1.2.1 Cast Iron conforming to CISPI Standard 301-95 and ASTM A-888 for all no-hub pipe and fittings installed above and below grade.
- 2..1.2.2 Galvanized Iron: Standard weight, Schedule 40 galvanized iron conforming to ASTM A-120 for all vent lines 2-1/2" or smaller.
- 2..1.2.3 Fittings (Waste and Vent System, no—hub cast iron): No—hub cast iron drainage pattern fittings conforming to CISPI #301-95.
- 2..1.2.4 Fittings (Waste and Vent, galvanized steel): Threaded cast iron fittings conforming to
- 2..1.2.5 Couplings (Waste and Vent, above and below grade): Double band, stainless steel couplings conforming to CISPI 310-95, with neoprene gasket conforming to ASTM Standard
- 2..1.2.6 Plastic: Subject to Owner approval, PVC piping conforming to ASTM D-2665-88 is acceptable for sanitary waste piping installed below grade or slab. Fittings: Drainage fittings to match pipe.
- 2..1.3 Gas Piping:

ANSI B16.4.

- 2..1.3.1 Gas Piping, interior above slab: Schedule 40 black steel conforming to ASTM A53. Fittings shall conform to the following:
- 2..1.3.1.1 Pipe 1-1/2" and Smaller: 150 psi, black malleable iron, conforming to ANSI B16.3, 150 psi SWP.
- 2..1.3.1.2 Pipe 2" and Larger: Black steel seamless welding fittings conforming to ANSI B16.9 and
- 2..1.3.1.3 Unions: Black malleable iron screwed connections, ground iron-to-bronze seat, conforming to ASTM A47. 250 psi SWP.
- 2..1.3.1.4 Flanges: Black forged steel with weld neck flanges conforming to ANSI B16.5, 150 psi SWP.
- 2..1.3.2 Gas Piping, above grade or slab, exterior: Schedule 40 galvanized steel, conforming to ASTM A53. Fittings: 150# galvanized steel screwed fittings.
- 2..2 Pipe Hangers and Supports: Fee & Mason Figure 103 clevis hanger for insulated pipe and Figure 104 clevis hanger for cast iron pipe. Install #500 Trisolators on uninsulated copper lines at all hangers and wall penetrations.
- 2...3 Pipe Insulation: Use fiberglass premolded insulation with all-service jacket, minimum density of 3.5 pcf. Provide an additional 8-ounce canvas jacket with Arabol finish around all exposed pipe insulation. Cover fittings and valves (except unions) with insulation cement worked on in two Applications to a smooth, hard surface, flush with pipe covering. Provide 8" long, 20 gauge, galvanized iron metal insulation guards at locations of hanger rods and supports. Provide 12" long rigid insulation blocks on bottom half of pipe 1" and larger at hangers. Insulation wall thickness shall conform to the following schedule:
- Domestic Hot Water and Hot Water Recirculating Lines:
- Mains and horizontal branches -1" thickness. Drops in walls and partitions -1/2" thickness.

stem for all lines up through 3" size.

- 2..4 Valves:
- 2..4.1 Gate Valves: Milwaukee 115, 125#, bronze body, solder type gate valve with nonrising
- 2..4.2 Check Valves: Milwaukee #1509, 125#, bronze body, solder joint check valve with horizontal bronze disc for all valves up to 2" size. Milwaukee #F2974, 125#, iron body, bronze trimmed, flanged horizontal check valve for all valves larger than 2" size.
- 2..4.3 Shutoff Valve: Milwaukee BB1-350 bronze body, solder joint valve for all lines up through
- 2..4.4 Gas Valves, 3/4" and Smaller: Milwaukee BB-1-102.
- 2..4.5 Gas Valves, 1" to 1-1/2": Rockwell-Nordstrom #142 with #555 lubricant for natural gas
- 2..4.6 Gas Valves, 2" and Larger: Rockwell-Nordstrom #143 with #555 lubricant for natural gas service.
- 2..5 Cleanouts:
- 2..5.1 Concrete and Tile Floors: J.R. Smith 4023, with scoriated nickel-bronze top.
- 2..5.2 Cleanouts (exposed vertical piping): J.R. Smith 4512 cast iron branch cleanout tee with bronze plug.
- 2..5.3 Interior Finished Walls: J.R. Smith 4532.
- 2..5.4 Exterior Surface Cleanouts: J.R. Smith 4253. Provide 18" x 18" x 6" concrete pad at landscape areas; provide concrete ring below grade at asphalt areas.
- 2..5.5 Provide all cleanouts with heavy threaded bronze plugs.
- 2..6 Acceptable Manufacturers: The following is a list of manufacturers whose equipment is acceptable as to manufacturer, subject to conformance with all drawings, specifications and addenda items:
- Plumbing Fixtures: American Standard, Kohler, Eljer.
- Stainless Steel Sinks: Just, Elkay, Moen.
- Mop Sinks: Fiat, Swan, Mustee.
- Electric Water Heaters: Rheem, A.O. Smith, American Mor-Flo.
- Valves: Crane, Kennedy, Stockham, Grinnell, Milwaukee, Wolverine.
- Hose Bibbs: Acorn, Chicago, Woodford.
- P-Traps: Crane. Kohler, Eljer, Frost, McGuire.
- Supply Fittings: Chicago, American Standard, Eljer, Speakman, Kohler.
- Supply Stops: Eastman, Kohler, Eljer, Brasscraft, McGuire.
- Closet Seats: Sperzel, Olsonite, Beneke, Bemis.
- Drains and Cleanouts: J. R. Smith, Zurn, Josam, Wade, Western.
- Hangers: Grinnell, Fee & Mason, Elcen, Kin-Line, F & S, B-Line, Michigan.

2.7 Plumbing Fixtures: Use polished chrome-plated, adjustable brass P-traps with wall escutcheons at all exposed locations. Use polished chrome—plated faucets with removable trim, brass body and brass handles. Fixtures and supply fitting shall be of one manufacturer. Provide diaphragm type, polished chrome plated flush valves with integral vacuum breakers and screwdriver stops. Provide fixture stops or valves ahead of all equipment or fixtures. After fixtures are set in place and secured to walls, caulk all around between fixtures and wall with either Dow Corning #780 or G.E. Construction Sealant white silicone caulking compound. See Plumbing Fixture Specification Schedule for complete fixture specifications.

- 3. EXECUTION
- 3..1 Tests and Inspections:
- 3..1.1 All work to be tested and approved before covering as directed by Architect. Remake all leaking joints.
- 3..1.2 Water System: 125 psi hydrostatic pressure held for four hours.
- 3..1.3 Sanitary Waste and Vent System: Fill with water to highest point in the system and let stand without loss for two hours.
- 3..1.4 Gas System: Hold at 50 psi pneumatic for four hours with no pressure loss.
- 3..1.5 Sterilization (Domestic Water System): After tests have been completed, the entire domestic water distribution system shall be thoroughly flushed with water until all entrained dirt and mud have been removed, and shall be sterilized with solutions of either liquid chlorine conforming to Federal Specification BB-B-120 or hypochlorite conforming to Fed. Spec. O-C-114, Type II, Grade G, or Fed. Spec. O-S-602, Grade A or B. The chlorinating material shall provide a dosage of not less than 50 parts per million and shall be introduced into the system in an approved manner, and retained in the system for 8 hours before flushing.
- 3..2 Flashing, Sleeves and Escutcheon Plates:
- 3..2.1 Flashing: Supply flashing for all vent pipe and other types of piping through roof to be installed with roofing. Flash vents with Stoneman S1300-4 or with sheet lead weighing not less than 4 pounds per square foot or equal. Extend flashing into roofing at least 10" from vent and turn flashing over and down into vent opening.
- 3..2.2 Sleeves: Use 20 gauge galvanized steel sleeves around pipes passing through masonry walls and concrete slabs.
- 3..2.3 Escutcheon Plates: Install cast brass split ring with setscrew at all locations where exposed pipes pass through walls, floors and/or ceilings. Provide polished chrome-plated escutcheons in finished rooms, all others polished brass.
- 3..3 Electrical: Wiring by Electrical Contractor.

	PLUMBING FIXTURE SPECIFICATIONS
	DESCRIPTION
WC1	WATER CLOSET (ADA COMPLIANT): FIXTURE: AMERICAN STANDARD 2386.012, 1.6 GALLONS PER FLUSH, 16-1/2" HIGH RIM, FLOOR MOUNT, VITREOUS CHINA, ELONGATED BOWL. SEAT: CHURCH 9500 WHITE OPEN FRONT SEAT WITH CONCEALED CHECK HINGE & WITHOUT COVER. SUPPLIES: EASTMAN C5CR-20-LK, 1/2" x 3/8" ANGLE STOP WITH FLEXIBLE TUBE RISER.
П	LAVATORY (WALL HUNG- ADA COMPLIANT): FIXTURE: AMERICAN STANDARD, MODEL No. 0355.012, WALL HUNG, 20" x 18" VITREOUS CHINA, FRONT OVERFLOW. PROVIDE CAST-IRON WALL HANGER BOLTED TO WALL. FAUCET: MOEN 8400 SINGLE LEVER DECK MOUNTED FAUCET WITH BLADE TYPE ADA HANDLE. SUPPLIES: EASTMAN C5RC-15-LK, ANGLE STOPS WITH FLEXIBLE TUBE RISERS. WASTE: McGUIRE 155WC OFFSET WHEELCHAIR LAVATORY STRAINER WITH GRID DRAIN, CAST BRASS ELBOW AND OFFSET TAILPIECE. TRAP: McGUIRE 8902, 1-1/4" x 1-1/2" CAST BRASS P TRAP. INSULATE EXPOSED WATER AND WASTE PIPING WITH TRUEBRO LAV-GUARD INSULATION KIT, MODEL 102, WITH ACCESSORY #105.
<u>MS1</u>	MOP SINK: FIXTURE: FIAT MODEL MSB-2424, 24" x 24" x 10", FLOOR MOUNTED, MOLDED STONE WITH INTEGRAL STAINLESS STEEL STRAINER EXTENSION. FAUCET: CHICAGO FAUCET 897 CHROME-PLATED SUPPLY FITTING WITH INTEGRAL STOPS, VACUUM BREAKER, 3/4" HOSE THREAD, FLEXIBLE 3/4" RUBBER HOSE AND HOSE BRACKET; MOP HANGER; SILICONE SEALANT INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. TRAP: PROVIDE 2" TRAP.
<u>S-1</u>	SINK ADA COMPLIANT): FIXTURE: JUST MODEL No. SL-ADA-2125-A-GR, 21" x 25" x 5" DEEP, 18 GAUGE TYPE 304 STAINLESS STEEL, ADA COMPLIANT SELF RIMMING SINGLE COMPARTMENT SINK WITH 3-HOLE PUNCH. FAUCET: AMERICAN STANDARD "RELIANT+" MODEL 4205.000.F15, POLISHED CHROME PLATED DECK MOUNT SINGLE LEVER FAUCET WITH SWING SPOUT, INTEGRAL HOT LIMIT SAFETY STOP. SUPPLIES: EASTMAN C5RC-20-LK, 1/2" x 3/8" ANGLE STOPS WITH FLEXIBLE TUBE RISERS. STRAINER: JUST J-35 BASKET STRAINER WITH 1-1/2" C.P. TAILPIECE. TRAP: McGUIRE 8912, 1-1/2" x 1-1/2" CAST BRASS P-TRAP WITH CLEANOUT PLUG AND ESCUTCHEON. INSULATE ALL EXPOSED UNDERCOUNTER WATER AND WASTE PIPING WITH PLUMBEREX 2003W "HANDY-SHIELD MAXX" INSULATION COMPLYING WITH ASTM E 84-07/UL 723 CLASS A AND BE LISTED WITH AND MEET UPC/IAPMO. INSULATION MATERIAL SHALL BE U/V INHIBITED WITH ANTIMICROBIAL AND ANTIFUGAL PROPERTIES.
<u>EWC-1</u>	ELECTRIC WATER COOLER (HIGH-LOW TYPE): FIXTURE: ELKAY MODEL No. EZSTL8LC, WALL MOUNTED BARRIER FREE SPLIT-LEVEL ELECTRIC WATER COOLER WITH CAPACITY OF 7.8 GPH AT 90° F AMBIENT AT 80° F INLET AND 50° F OUTLET. COMPRESSOR: 1/5 HP, 120 VOLT, HERMETICALLY SEALED WITH CAPACITOR AND OVERLOAD PROTECTION. COOLER MANUFACTURER SHALL PROVIDE A 5-YEAR, 100% REPLACEMENT WARRANTY ON THE COMPRESSOR, CONTROLS, TANK AND INTEGRAL PIPING. SUPPLY: EASTMAN C5RC-15-LK, 1/2" x 3/8" ANGLE STOP WITH FLEXIBLE TUBE RISER. TRAP: McGUIRE 8902 1-1/4" x 1-1/2" CAST BRASS P TRAP. REFER TO ARCHITECTURAL DRAWINGS FOR UNIT MOUNTING HEIGHT.
<u>WH-1</u>	ELECTRIC WATER HEATER: PPROVIDE UL LISTED ELECTRIC WATER HEATER OF SIZE, CAPACITY AND MAKE AS SCHEDULED. HEATER SHALL BE WARRANTED FOR A MINIMUM OF 5 FULL YEARS AFTER FINAL ACCEPTANCE OF THE BUILDING. FURNISH HEATER WITH THE FOLLOWING ACCESSORIES: 1. ASME COMBINATION TEMPERATURE AND PRESSURE RELIEF VALVE RATED IN EXCESS OF HEATER INPUT. RUN FULL SIZE DRAIN TO TERMINATE AS SHOWN ON DRAWINGS. 2. AUTOMATIC THERMOSTAT ACTUATED CONTROLS WITH 100% SHUTOFF. 3. HIGH—LIMIT CONTROLS. 4. TANK DRAIN. 5. BRASS NIPPLES FOR PIPE CONNECTIONS. 6. HEATER SHALL BE FACTORY INSULATED AND SHEET METAL JACKETED.
ХH	YARD HYDRANT: WOODFORD MODEL No. Y2, FREEZELESS YARD HYDRANT, 1" HOSE CONNECTION WITH INTEGRAL VACUUM BREAKER, AUTOMATIC DRAINING, WITH ADJUSTABLE LINK, ROD GUIDE, LOCKABLE FLOW FINDER, ONE PIECE VARIABLE FLOW PLUNGER, FLOW DIVERTER, 1" N.P.T. INLET, 1-1/4" GALVANIZED STEEL PIPE CASING, 3/8" GALV. STEEL OPERATING ROD WITH TAPPED DRAIN HOLE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. OPERATING ROD AND PIPE CASING LENGTHS TO MATCH DEPTH OF FROST LINE.
<u>IM</u>	ICE MAKER BOX: SPECIALTY PRODUCTS MODEL P4129, WITH ADJUSTABLE FRAME AND VALVE.

ELECTRIC WATER HEATER SCHEDULE								
MARK	MANUFAC.	MODEL	STORAGE CAPACITY IN GALS.	KW INPUT	VOLTAGE/ PHASE	GALLON PER HR. REC. AT 100° F T.R.	WATER OUTLET TEMP F	REMARKS
WH-1	RHEEM	EGSP15	15	1.5	120/1	6.2	140	

WITH INTEGRAL VACUUM BREAKER, LOOSE TEE KEY HANDLE.

HOSE BIBB: WOODFORD MODEL No. 65, NON-FREEZE TYPE, CHROME PLATED FINISH, 3/4" HOSE CONNECTION

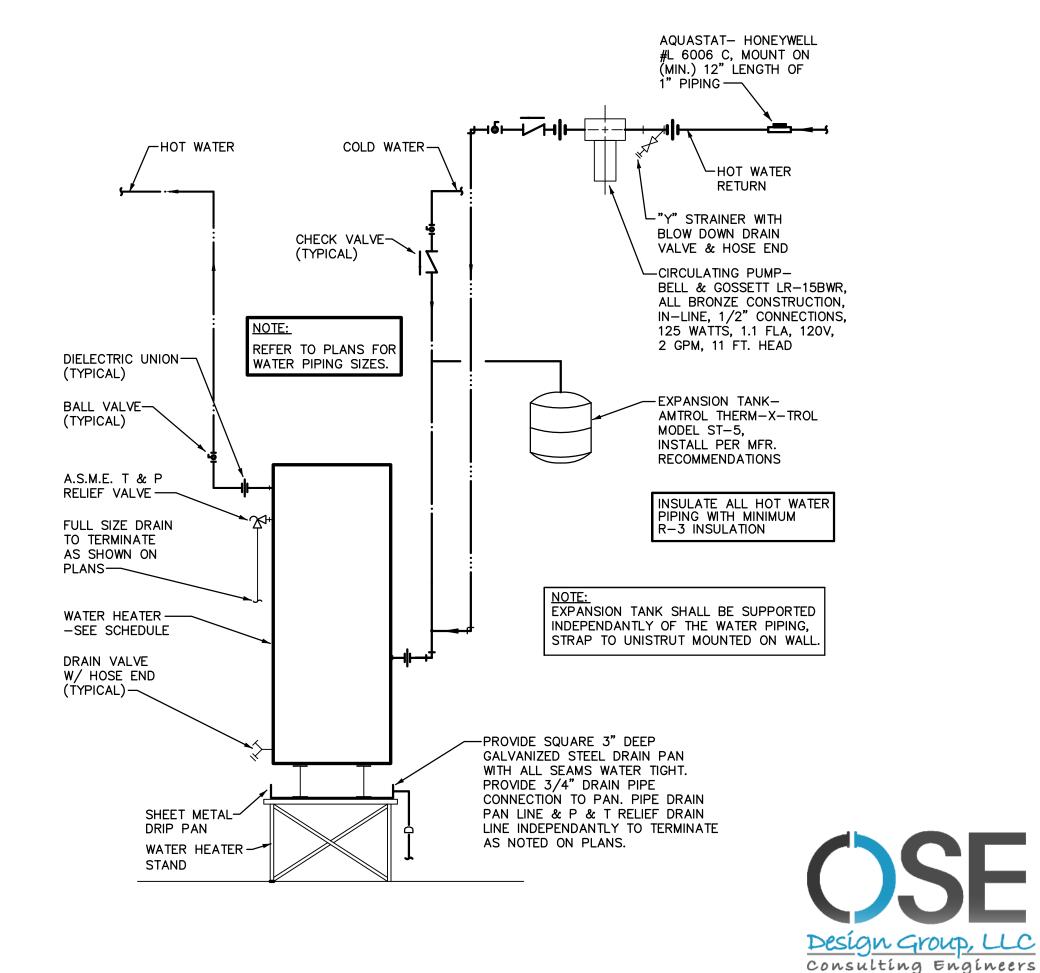
FIXTURE CONNECTION SCHEDULE							
MARK	DESCRIPTION	TRAP SIZE	WASTE	VENT	COLD WATER	HOT WATER	REMARKS
WC-1	WATER CLOSET (ADA)	INT.	3"	2"	1/2"	_	FLUSH TANK, 1.6 GPF, FLOOR MTD.
L-1	LAVATORY (ADA)	1-1/4" x 1-1/2"	2"	1-1/2"	1/2"	1/2"	WALL MOUNTED
S-1	SINK (ADA)	2"	2"	1-1/2"	1/2"	1/2"	SINGLE COMPARTMENT
MS-1	MOP SINK	2"	2"	1-1/2"	1/2"	1/2"	FLOOR TYPE
EWC-1	ELECTRIC WATER COOLER	2"	2"	1-1/2"	1/2"	_	ADA COMPLIANT SPLIT LEVEL
НВ	HOSE BIBB	-	_	_	3/4"	_	NON-FREEZE TYPE W/ VACUUM BREAKER
YH	YARD HYDRANT	_	_	_	1"	_	NON-FREEZE TYPE W/ VACUUM BREAKER

WATER CALCULATION:  FIXTURE UNITS = 29 FU / 19 GPM	
PIPE LENGTH TAP TO METER PIPE LENGTH METER TO LAST FIXTURE VERTICAL PIPE LENGTH TO HIGHEST FIXTURE TOTAL PIPE LENGTH FITTING LOSS (10%)	10 FT. 296 FT. 5 FT. 311 FT. 31 FT.
TOTAL DEVELOPED LENGTH	342 FT.
WATER PIPE SIZING CRITERIA	
STREET PRESSURE WATER METER LOSS (1") BACKFLOW PREVENTER LOSS (1") STATIC LOSS (5' x 0.43) FIXTURE LOSS	65.00 PSI* 8.50 PSI 12.00 PSI 2.20 PSI 20.00 PSI
PRESSURE AVAILABLE FOR PIPING	22.30 PSI
22.30 PSI / 342 FEET x 100 = 6.5 PSI MAXIMUM ALLOW PER 100 FEET PIPE LENG	
*ACCUMED WATER RECOURS CONTRACTOR CHAIL VERIEV	ACTUAL WATER

\*ASSUMED WATER PRESSURE- CONTRACTOR SHALL VERIFY ACTUAL WATER PRESSURE PRIOR TO CONSTRUCTION. IF PRESSURE IS LESS THAN 65 PSI, CONTRACTOR SHALL CONTACT ENGINEER FOR PIPE SIZING EVALUATION. IF PRESSURE EXCEEDS 80 PSI, A PRESSURE REDUCING VALVE SHALL BE PROVIDED. PIPING VELOCITY NOT TO EXCEED 8 FEET PER SECOND.

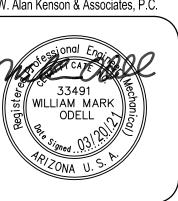
BRANCH PIPE SIZING	CHART FOR	6.4 PSI LOSS
PIPE SIZE 1/2" 3/4"	G.P.M. 3	F.U.(TANK)
1"	16	22

FIXTURE UNIT CALCULATIONS						
DESCRIPTION	QTY	F.U. E	ACH	TOT	AL F.U.	
DESCRIPTION	QII	WASTE	WATER	WASTE	TAL F.U.  10  4  3  4  1  2	
WATER CLOSET (F.T.)	2	4	5	8	10	
LAVATORY	2	1	2	2	4	
MOP SINK	1	2	3	2	3	
SINK	1	3	4	3	4	
ELECT. WATER COOLER	1	1	1	1	1	
TOTAL NEW FIXTURES					2	
ALLOWANCE FOR FUTURE FIXTURES					7	
TOTAL FU					29	



611 West Delano Ave Prescott, AZ 86301 Project 611 West Delano Ave Prescott, AZ 86301 Project 10922 N. 153rd Ln. Surprise, AZ 85379 #20083 (602) 499.0001 #21010 (623) 444-6143 REVISIONS

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SHEET

NIGHT LIGHT- NOT SWITCHED FLUORESCENT STRIP FIXTURE.

CEILING OR WALLMOUNTED FIXTURE.

PORCELAIN PULL CHAIN FIXTURE

JUNCTION BOX JUNCTION BOX WITH FLEX CONNECTION.

SINGLE FACE EXIT SIGN- NOT SWITCHED

DOUBLE FACED EXIT SIGN- NOT SWITCHED.

TWO HEAD EMERGENCY LIGHT WITH BATTERY.

POLE-MOUNTED FIXTURE - No. OF UMINAIRES AS SHOWN & SCHEDULED

SINGLE POLE SWITCH, + 48" A.F.F. (20A-120/277V)

THREE WAY SWITCH, + 48" A.F.F. (20A-120/277V)

4-WAY SWITCH +48" AFF (20A-120/277V)

SWITCH AND PILOT LIGHT (20A-120-/277V)

SINGLE POLE SWITCH, KEY OPERATED (20A)

DIMMER CONTROL, + 48" A.F.F. EQUAL TO LUTRON "NOVA" SERIES, SIZED TO MATCH LOAD SERVED

VARIABLE SPEED FAN CONTROL, +48" A.F.F.

DUPLEX RECEPTACLE, + 18" A.F.F. (20A)

DUPLEX RECEPTACLE ABOVE COUNTER,

VERIFY HEIGHT. (20A)

FOURPLEX RECEPTACLE, + 18" A.F.F. (20A)

SPECIAL RECEPTACLE - SIZE & TYPE AS NOTED

POWER FLUSH FLOOR OUTLET

TELEPHONE OUTLET PLASTER RING AT + 18" A.F.F. HUBBELL #P12 COVERPLATE. 3/4"C TO CEILING SPACE UNLESS SHOWN WITH HOMERUNS.

DATA SYSTEM OUTLET, 4" SQUARE BOX AND COVERPLATE, 3/4" C. TO CEILING SPACE UNLESS SHOWN WITH HOMERUN, + 18" A.F.F.

TELE/DATA COMBO OUTLET, 4" SQUARE BOX AND COVERPLATE, 3/4" C. TO CEILING SPACE UNLESS SHOWN WITH HOMERUN, + 18" A.F.F.

CABLE TELEVISION (CATV) OUTLET PLASTER RING AT + 18" A.F.F. U.N.O. HUBBELL COVERPLATE. 3/4"C TO CEILING SPACE UNLESS SHOWN WITH HOMERUNS.

TELPHONE SYSTEM CONDUIT HOMERUN WITH NYLON PULLWIRE (1"C MIN UNO)

CLOSED CIRCUIT TV (CCTV) OUTLET SAME AS CATV OUTLET

DOOR CHIME

■ REMOTE CONTROL STATION @ +48" AFF

DISCONNECT SWITCH, FUSE PER EQUIPMENT MANUFACTURERS RECOMMENDATION. OUTSIDE NEMA 3R - N.F. = NON-FUSED.

COMBINATION STARTER AND FUSIBLE DISCONNECT SWITCH SIZE AS NOTED

EQUIPMENT TERMINATION CONNECTION POINT VERIFY EXACT LOCATION LOAD AND VOLTAGE AS NOTED

THERMAL PROTECTED SWITCH

MOTOR STARTER - SHADING INDICATES F.B.O.

DISTRIBUTION PANELBOARD.

BRANCH CIRCUIT PANELBOARD.

CONDUIT BELOW FLOOR OR UNDERGROUND

CONDUIT IN WALL OR ABOVE CEILING HOMERUN TO PANEL, NEUTRAL AND PHASE WRING DESIGNATION (SEE GROUNDING NOTE)

CONDUIT TURNING UP

CONDUIT TURNING DOWN

CONDUIT STUB-OUT, MARK AND CAP AS DIRECTED

GROUND WIRE (SIZE AS NOTED) EXTENDED AND CONNECTED TO APP'D GROUND

# **ABBREVIATIONS**

ABOVE FINISHED FLOOR ( ¢ OF OUTLET ) ABOVE FINISHED GRADE ( ¢ OF OUTLET )

E.C. EMPTY CONDUIT

GROUND FAULT INTERRUPTER

WEATHERPROOF

UNLESS OTHERWISE NOTED UNO

NIGHT LIGHT

TYP TYPICAL

**EDF** TMB TELEPHONE MOUNTING BOARD

ELECTRIC DRINKING FOUNTAIN

# **SPECIFICATIONS**

1. PRIOR TO SUBMITTING BID. SUBCONTRACTORS SHALL EXAMINE ALL GENERAL CONSTRUCTION DRAWINGS AND VISIT THE CONSTRUCTION SITE TO BECOME FAMILIAR WITH EXISTING CONDITIONS UNDER WHICH HE WILL HAVE TO OPERATE AND WHICH IN ANY WAY AFFECTS THE WORK UNDER HIS CONTRACT NO SUBSEQUENT ALLOWANCE WILL BE MADE IN BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLIGENCE ON HIS PART.

2. THE SUBCONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR THE PROPER RESTORATION OF ALL EXISTING SURFACES REQUIRING PATCHING, PLASTERING, PAINTING AND /OR OTHER REPAIR DUE TO THE INSTALLATION OF ELECTRICAL WORK UNDER THE TERMS OF THE CONTRACT. CLOSE ALL OPENINGS, REPAIR ALL SURFACES, ETC., AS REQUIRED.

3. SEE ARCHITECTURAL DRAWNGS FOR ALL DIMENSIONS, ELEVATIONS AND BUILDING DETAILS. VERIFY LOCATION OF ALL OUTLETS, SWITCHES, AND WALL MOUNTED LIGHTING FIXTURES WITH ARCHITECTURAL DRAWINGS AND ACTUAL CONDITIONS. VERIFY ALL CEILING TYPES WITH ARCHITECTURAL DRAWINGS BEFORE ORDERING FIXTURES.

4. PRIOR TO ROUGH-IN AND FINAL CONNECTION, VERIFY ELECTRICAL CHARACTERISTICS AND EXACT LOCATION OF EQUIPMENT.

5. GROUT AND SEAL ALL CONDUIT PENETRATIONS OF WALLS AND FLOOR SLABS TO PRESERVE FIRE RATING AND WATERTIGHT INTEGRITY.

6. BRANCH CIRCUIT WIRING SHALL BE THHN/THWN INSULATION. PANEL FEEDERS SHALL BE TYPE XHHW. ALL WIRE SHALL BE COPPER. MINIMUM WIRE SIZE SHALL

7. ALL WIRING TO BE INSTALLED IN RACEWAYS. TYPE OF RACEWAY SHALL BE AS REQUIRED BY CODE. MINIMUM CONDUIT SIZE SHALL BE 1/2".

8. PROVIDE CODE SIZED BOND WIRE IN ALL EMT, FLEXIBLE CONDUIT, OR NM CABLES.

9. ALL ELECTRICAL EQUIPMENT SHALL BE NEW, U.L. APPROVED AND COMMERCIAL

10. WIRE RATED FOR 150° CENTIGRADE SHALL BE USED FOR ALL INCANDESCENT LIGHTING FIXTURES.

11. ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST NATIONAL CODE, (N.E.C.), AND ALL APPLICABLE FEDERAL, STATE AND LOCAL

12. PROVIDE TYPEWRITTEN DESCRIPTIVE PANEL DIRECTORIES

1.) ALL SUB-PANELS, SERVICE EQUIPMENT, AND EQUIPMENT DISCONNECTS SHALL BE PROVIDED WITH THE WORKING CLEARENCES REQUIRED BY THE LATEST ADOPTED NEC.

ONE LINE GENERAL NOTES

1. SYSTEM SHOWN IS A TWO TIER SERIES RATED

UL LISTED SYSTEM TO MATCH THIS RATING.

ENGINEER AND THE ELECTRICAL INSPECTOR

OF SYSTEM SHORT CIRCUIT AMPS.

SYSTEM 42/10K. MANUFACTURER SHALL PROVIDE A

2. MOTOR SHORT CIRCUIT CONTRIBUTION IS LESS THAN 1%

3. NO DESIGN CHANGES MAY BE MADE TO THE SYSTEM

ONE LINE KEYNOTES

(1) PROVIDE A PERMANENT LABEL READING "THIS CIRCUIT

DOWNSTREAM PANELS 42/10K. 42,000 AMPS

(2) PROVIDE A PERMANENT LABEL READING "CAUTION-

SERIES RATED SYSTEM 42/10, IDENTIFIED

REPLACEMENT COMPONENTS REQUIRED"

BREAKER IS PART OF A SERIES RATED SYSTEM WITH

AVAILABLE. IDENTIFIED REPLACEMENT COMPONENT REQUIRED"

WITHOUT THE PRIOR APPROVAL OF THE DESIGN ELECTRICAL

# SITE RELATED WORK

PRIOR TO COMMENSING WORK AND/OR SUBMITTING BASE BID. THE CONTRACTOR SHALL VISIT. THE SITE AND SATISFY HIMSELF TO EXISTING WORK RELATED CONDITIONS WITH REGARDS TO THE FOLLOWING:

TRENCH AND BACKFILL FOR CONDUITS PER UTILITY CO. REQUIREMENTS. (FIELD VERIFY)

2 TRANSFORMER MOUNTING PAD PER UTILITY CO. REQUIREMENTS.

3 PROVIDE SECONDARY AND/OR PRIMARY CONDUITS. (SEE ONE LINE DIAGRAM).

4 SERVICE ENTRANCE SECTION (S.E.S.). VERIFY PROPOSED EQUIPMENT WILL FIT THE SPACE ALLOTED PRIOR TO ORDERING AND/OR CONSTRUCTION.

P.V.C. TELEPHONE CONDUIT WITH PULL WIRE AND RIGID FACTORY STEEL BENDS PER TELEPHONE CO. REQUIREMENTS. (SIZE AS NOTED OR REQUIRED BY UTILITY VERIFY PRIOR TO INSTALLATION).

6 THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND COMPLIANCE WITH ALL UTILITY COMPANIES REQUIREMENTS, INCLUDING. BUT NOT LIMITED TO ANY AND ALL ADDITIONAL COSTS FOR MATERIAL AND LABOR FOR WORK WHETHER SHOWN ON THE PLANS OR NOT. ACTUAL ROUTING. CONDUIT, TRENCH AND PAD REQUIREMENTS SHALL BE AS SPECIFIED BY UTILITY COMPANIES. VERIFY REQUIRMENTS WITH UTILITIES PRIOR TO INSTALLATION.

WHERE APPLICABLE, PROVIDE EQUIPMENT GROUNDING (BOND) CONDUCTOR FOR METALLIC PROCESSING AND FIRE SPRINKLER PIPING PER NEC 250-80 and sized per nec 250-95 table.

DUTLETS, (SWITCHES, RECEPTACLES, ETC.), MOUNTED IN FIRE RATED VALLS SHALL NOT OCCUPY THE SAME VALL CAVITY VITH OTHER OUTLES VHETHER ON SAME SIDE OR BACK-TO-BACK. RECOMMENDED SPACING IS 24 INCHES HORIZONTAL (MIN).

MAXIMUM AVAILABLE FAULT

# DUTLET MOUNTING HEIGHTS PER AMERICAN DISABILITY ACT

ELECTRICAL CONTRACTOR SHALL COMPLY WITH THE 2010 ADA SAD REQUIREMENTS FOR ALL SWITCHES. RECEPTACLES, TELE. /DATA AND SIDE REACH CONTROL SWITCHES. ALL WALL CONTROLS, SWITCHES AND THERMOSTATS TO BE MOUNTED WITH TOP OF J-BOX AT 48" A.F.F. ALL ABOVE COUNTER CONTROLS, SWITCHES & OUTLETS TO BE MOUNTED WITH HORIZONTAL ORIENTATION WITH TOP OF J-BOX AT 44" A.F.F.. ALL WALL OUTLETS TO BE MOUNTED AT 15" A.F.F. TO BOTTOM OF J-BOX.

SPECIAL REQUIREMENTS PER: THE FAIR HOUSING ACT.

-- 400 AMP, 120/208V, 3ø, 4W, NEMA 3R

ALL RECEPTACLES AT RESTROOM LAVATORIES TO BE GFCI TYPE. ALL WALL CONTROLS, SWITCHES AND THERMOSTATS TO BE MOUNTED WITH TOP OF J-BOX AT 48" A.F.F. ALL ABOVE COUNTER CONTROLS, SWITCHES & OUTLETS TO BE MOUNTED WITH HORIZONTAL ORIENTATION WITH TOP OF J-BOX AT 44" A.F.F. ALL WALL OUTLETS TO BE MOUNTED AT 15" A.F.F. TO BOTTOM OF J-BOX.

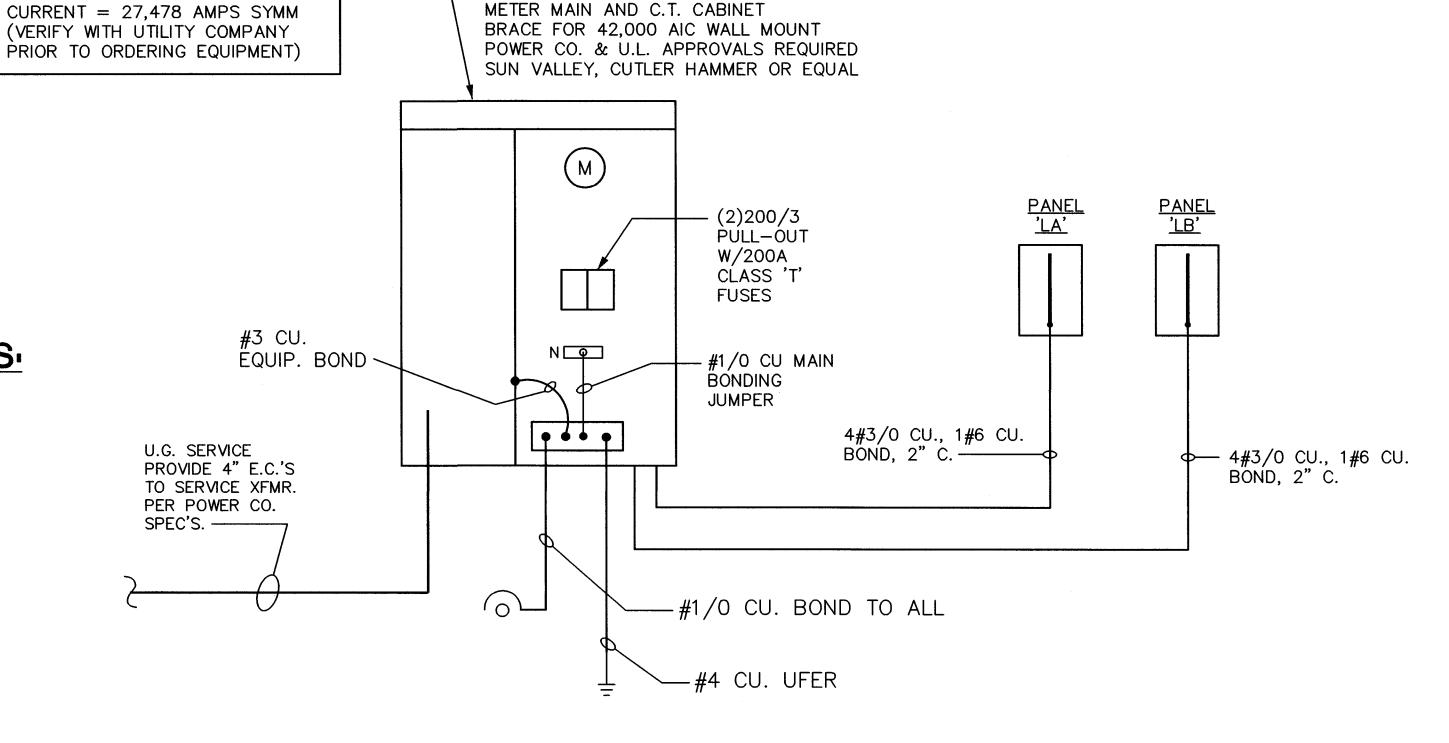
ELECTRICAL DESIGN & CADD SERVICES INC. 1600 LAMB LANE PRESCOTT, AZ. 86305 PH. (928) 776-4900 FAX (928) 776-7800 E-MAIL: EES@CABLEONE.NET

### FIRE WALL/FLOOR PENETRATION

ALL PENETRATIONS OF FIRE RESISTIVE FLOORS OR SHAFT WALLS SHALL BE PROTECTED BY MATERIALS AND INSTALL-ATION DETAIL THAT CONFORM TO UNDERWRITERS LABOR-ATORY'S LISTINGS FOR THROUGH PENETRATION FIRESTOP SYSTEMS. THE CONTRACTOR SHALL SUBMIT SHOP DRAWING DETAILS WHICH SHOW COMPLETE CONFORMANCE WITH THE LISTING TO THE ARCHITECT AND SUCH DRAWINGS SHALL BE AVAILABLE TO THE LOCAL GOVERNING INSPECTORS. THE DRAWINGS SHALL BE SPECIFIC FOR EACH PENETRATION WITH ALL VARIABLES DEFINED.

### FIRE ALARM SYSTEM SPECIFICATION

A COMPLETE OPERATIONAL MANUAL/AUTOMATIC FIRE ALARM SYSTEM TO BE MONITORED AS DIRECTED BY OWNER SHALL BE FURNISHED AND INSTALLED. AS REQUIRED FOR THIS TYPE OF BUILDING IN ACCORDANCE WITH STATE AND/OR LOCAL CODE AND AS APPROVED BY THE CODE ENFORCING AUTHORITY HAVING JURISDICTION. THE FIRE ALARM CONTROL PANEL SHALL BE LOCATED AS DIRECTED BY THE ENFORCING AUTHORITY. (CONNECT TO CIRCUIT LA-15). FIRE ALARM CONTRACTOR SHALL PROVIDE SPEC'S DRAWINGS OF DEVICE LOCATIONS AND CUT SHEETS OF DEVICES TO FIRE MARSHALL FOR APPROVAL PRIOR TO INSTALLATION.



ELEC. LOAD RE-CAP:

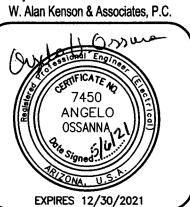
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PANEL 'LA'	169.4 A	114.0 A	141.5 A	
PANEL 'LB'	89.3 A	91.3 A	91.3 A	
SERVICE TOTAL (HIØ) =	258.7 A			

# ELEC. ONE-LINE DIAGRAM - 'SES'

NOTE: ALL CONDUCTOR SIZES ARE BASED ON 'XHHW', 'THHN'/'THWN' COPPER.

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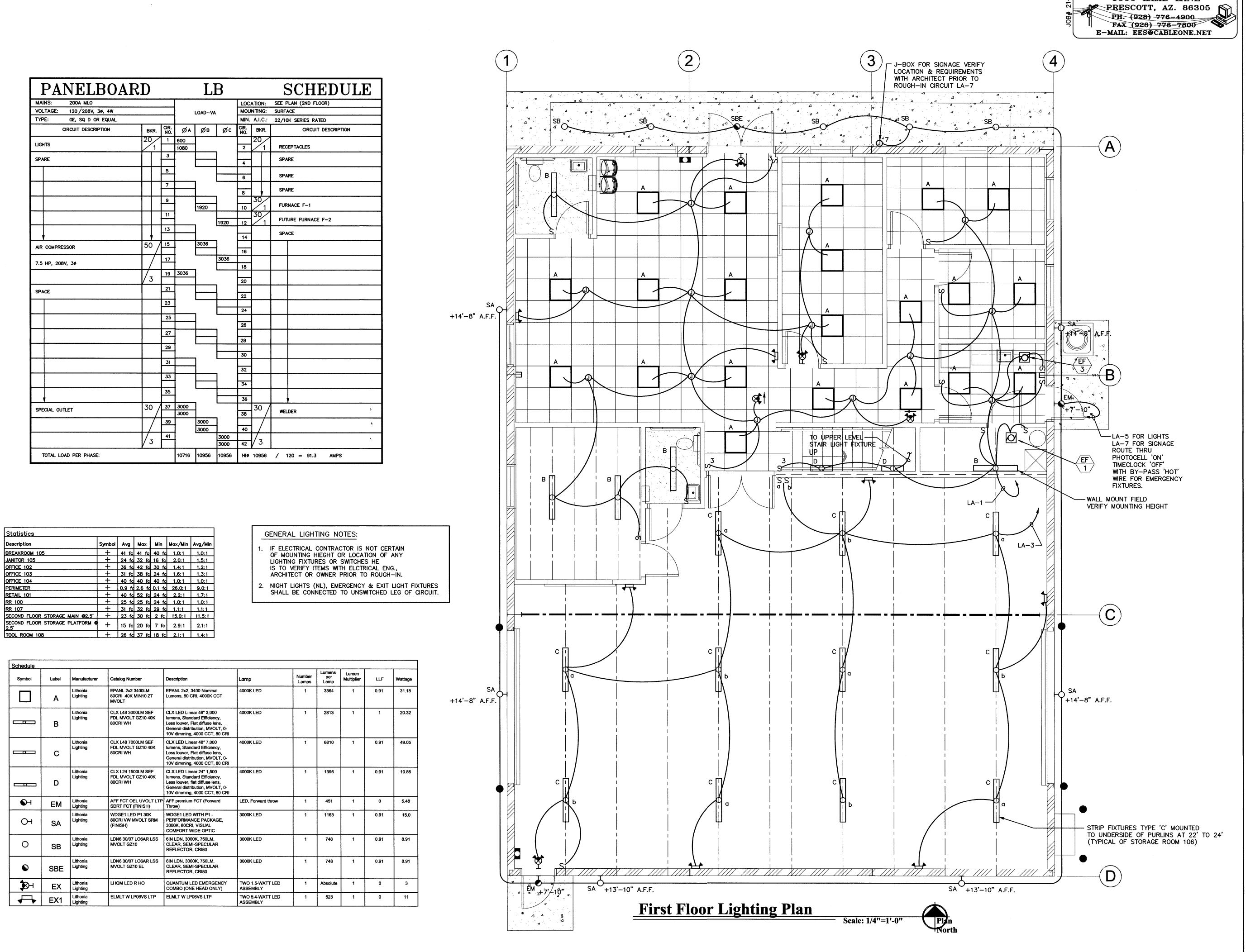
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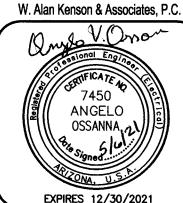
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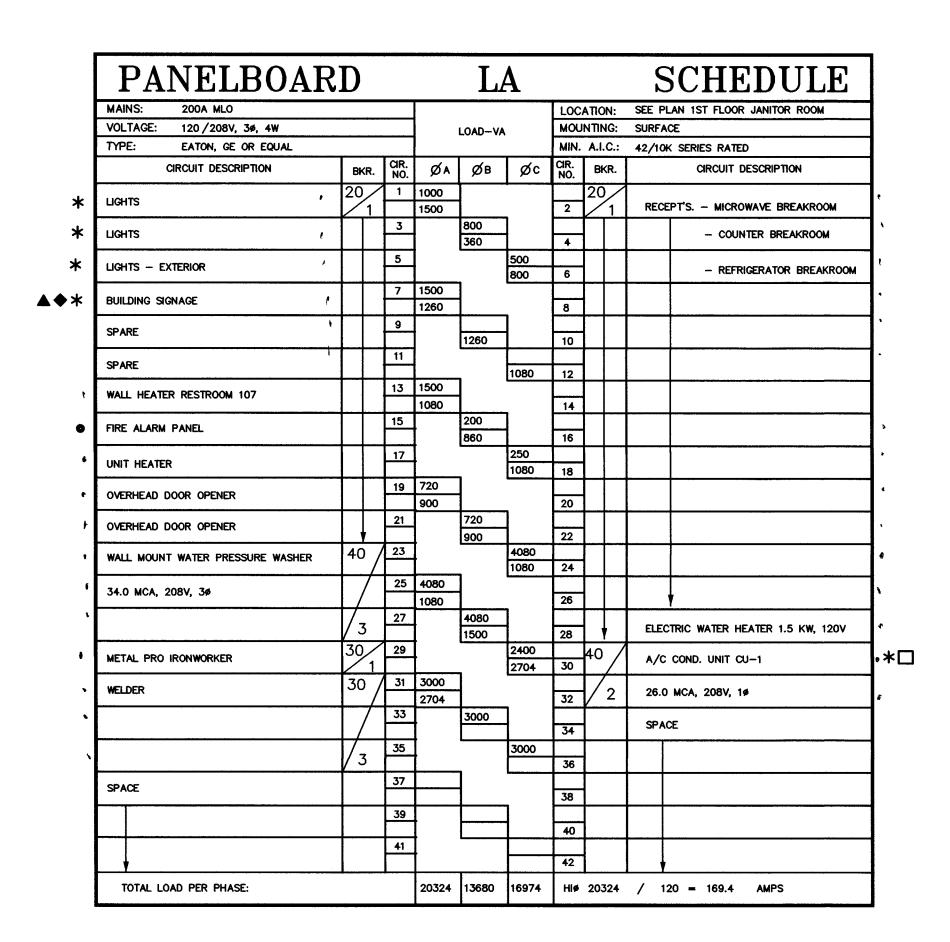
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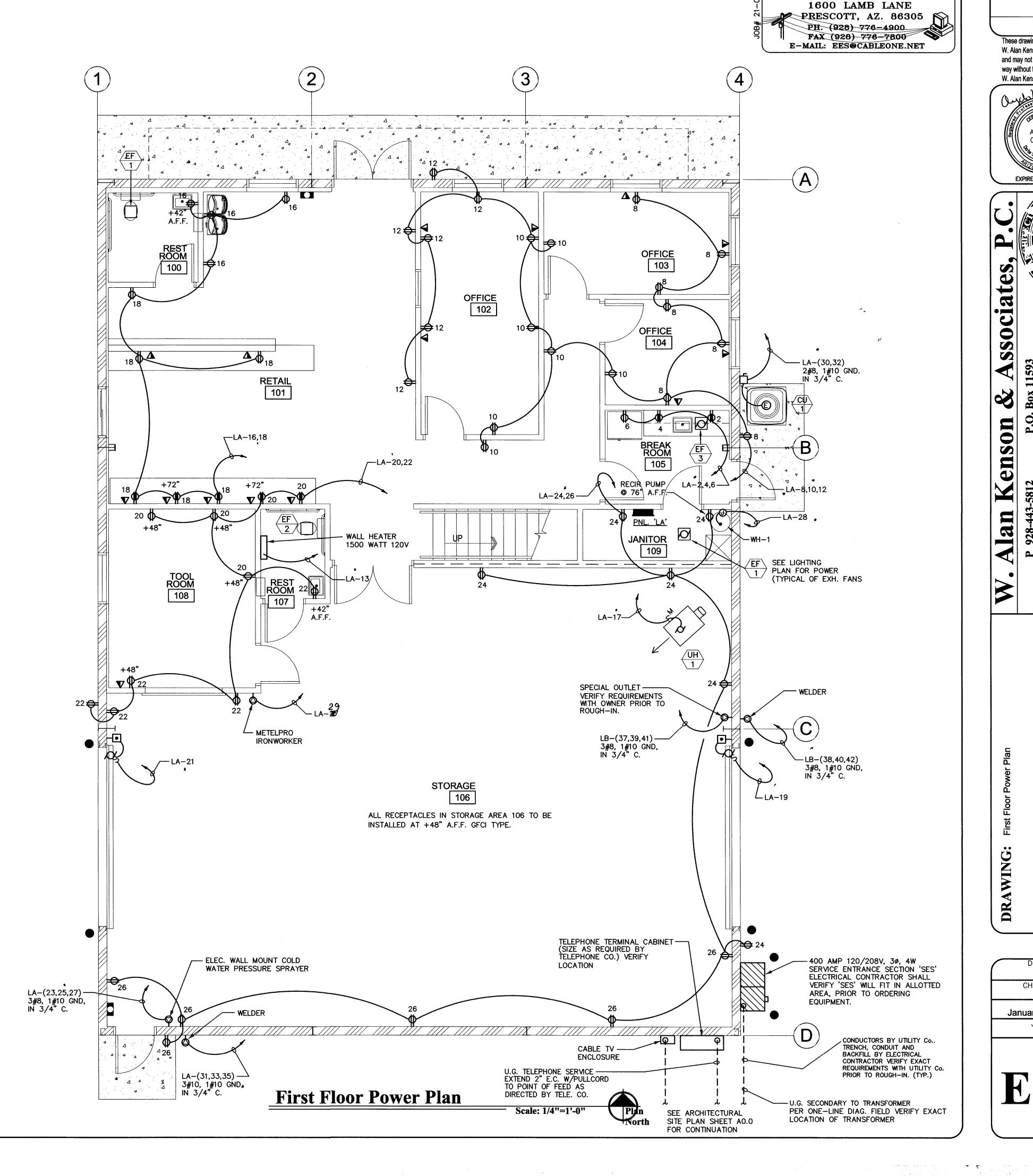


## PANELBOARD SYMBOLS

- **★** CONTINUOUS DUTY/LARGEST MOTOR 125%
- PROVIDE BREAKER W/ HANDLE "LOCK-ON" DEVICE
- ◆ CIRCUIT VIA TIMECLOCK
- A CIRCUIT VIA PHOTOCELL SHUNT TRIP CIRCUIT BREAKER
- KITCHEN EQUIPMENT 65% per nec 220-20
- O EXISTING BREAKER W/ NEW LOAD A NEW BREAKER W/ NEW LOAD

**GENERAL POWER NOTES:** 

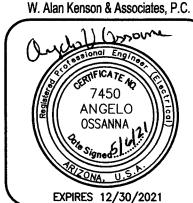
- 1. ELECTRICAL CONTRACTOR SHALL VERIFY MOUNTING HEIGHT OR LOCATION OF ANY ELECTRICAL EQUIPMENT AND OR DEVICES HE IS TO VERIFY ITEMS WITH ELECTRICAL ENGINEER, ARCHITECT OR OWNER PRIOR TO ROUGH-IN.
- 2. ALL RECEPTACLES AT RESTROOM LAVATORIES TO BE GFCI TYPE INSTALLED AT +42" A.F.F.
- 3. ALL RECEPTACLES IN AREAS WITHIN 6'-0" OF A SINK SHALL BE GFCI TYPE PER NEC
- 4. EXTERIOR & ROOF MOUNTED MAINT. RECEPT'S. SHALL BE WP, GFCI TYPE PER NEC
- 5. VERIFY THE EXACT LOCATIONS OF ALL TELEPHONE OUTLETS, DATA OUTLETS AND SPECIAL SYSTEMS OUTLETS WITH THE ARCHITECT/OWNER PRIOR TO ROUGH-IN.
- 6. ELECTRICAL CONTRACTOR SHALL VERIFY MECHANICAL EQUIPMENT REQUIREMENTS BREAKER, DISC. & WIRE SIZE WITH MANUFACTURER PRIOR TO ROUGH-IN.
- 8. ELECTRICAL CONTRACTOR IS APPROVED TO USE SURFACE MOUNTED RECEPTACLES & CONDUIT IN STORAGE AREA VERIFY PRIOR TO ROUGH-IN.
- 9. ALL RECEPTACLES IN STORAGE AREA 106 TO BE INSTALLED AT +48" A.F.F. GFCI TYPE.



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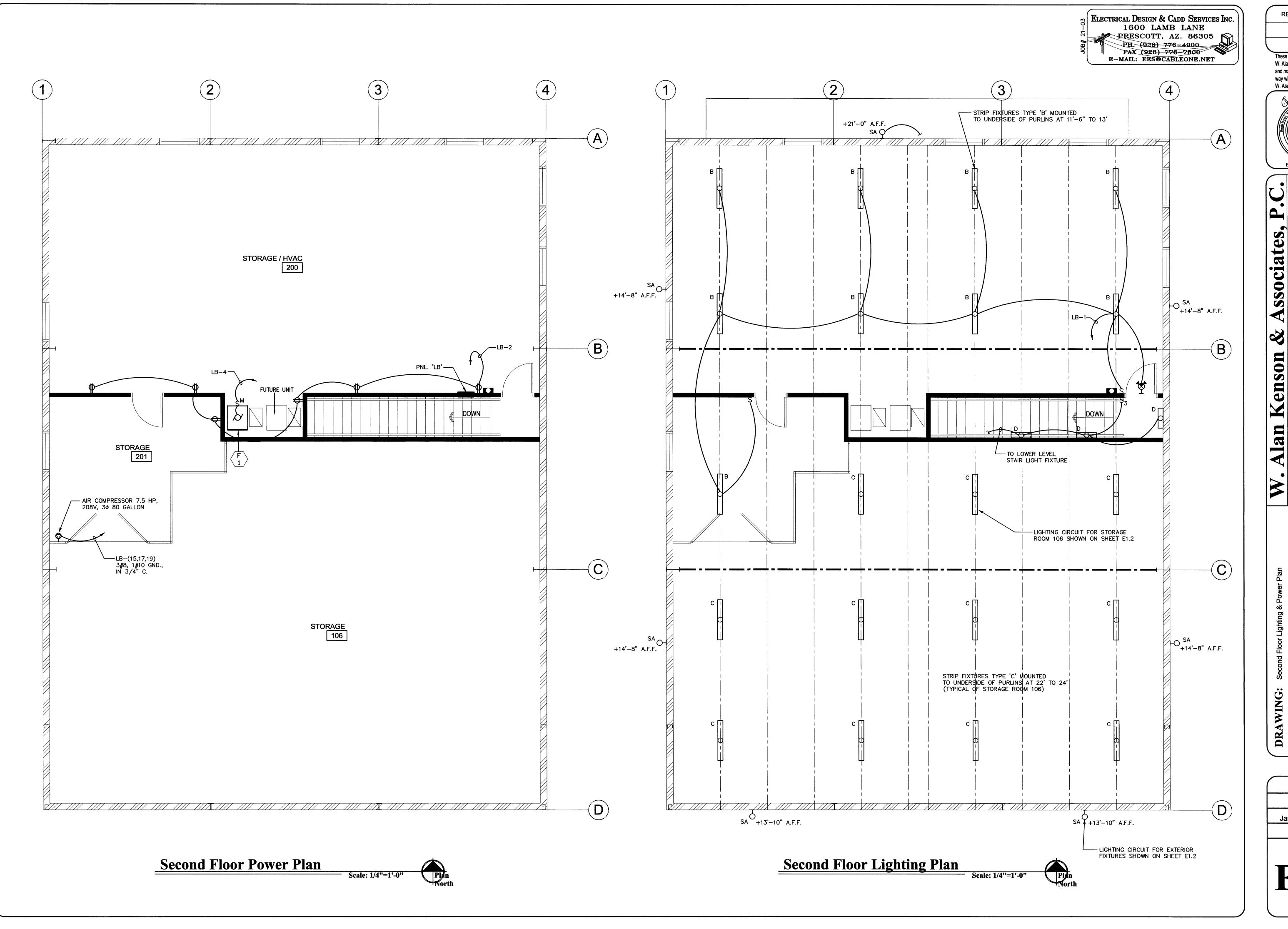
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January 13th, 2021