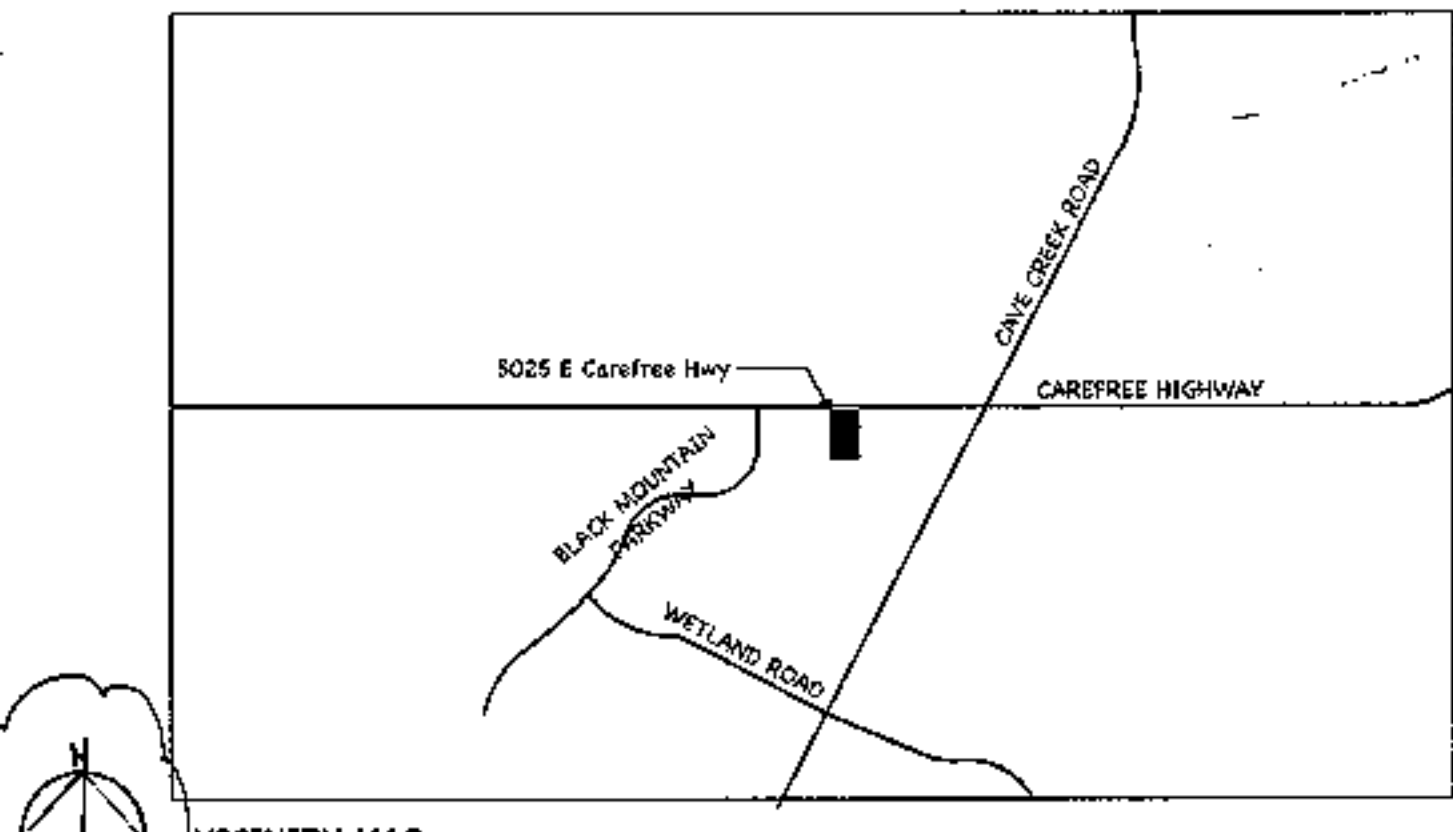


ABBREVIATIONS

SYMBOLS used as abbreviations	A AND ASSEMBLY	AT AT	CL CENTRALLINE	CH CHANNEL	DIS. DISCREET, DIMENSION, SECOND	FOOT DIM	NONBIB. NON-BIBLIC	PERPENDICULAR	PL. PLATE	ROUND OR DIAMETER	ABBREVIATIONS
ASB ABOVE FINISHED FLOOR	ADJ ADJACENT	ADIT ADJUTANT	ADT ADJUSTABLE	AGG AGGREGATE	ACC ACCESS	ALM ALUMINUM	ALN ALIGNED	APPX APPROXIMATE	APPL APPLICATION	AB AREA	ASB ABOVE FINISHED FLOOR
ASH ASBESTOS	BND BOUND	BOL BOLT	BOU BOTTOM	BUT BOTTOM	BOU BOTTOM	BOU BOTTOM	BOT BOTTOM	BOT BOTTOM	BOT BOTTOM	BOT BOTTOM	BOU BOTTOM
BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG
BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG	BUL BULL DOG

SYMBOLS & MATERIAL LEGEND

SECTION NO.	SECTION	PLAN	SECTION
BUILDING SECTION SYMBOL CUT	CONCRETE	[Symbol]	SOIL/COMPACTED FILL
WALL SECTION SYMBOL CUT	CONCRETE MASONRY	[Symbol]	NON-COMPACTED FILL
DETAIL CUT	STONE	[Symbol]	SAND
DETAIL CUT	FRAME WALL	[Symbol]	FINISHED WOOD
EXTERIOR ELEVATION	TILE	[Symbol]	ROUGH FRAMING OR ROUGH SAWN TRIM
ROOM NUMBER	ENTRY	[Symbol]	WOOD BLOCKING
DOOR MARK	STEEL	[Symbol]	GLU-LAM WOOD
REFERENCE GRID LINE	ALUMINUM OR SHEET METAL	[Symbol]	PARTICLE BD. OR WOOD FIBER BD.
SPOT ELEVATION	BATT INSULATION	[Symbol]	RIGID INSULATION
DRAWING REVISION	GYP. WALL BOARD/STUCCO PLASTER	[Symbol]	ACOUSTIC CEILING
INTERIOR ELEVATION	PLYWOOD	[Symbol]	CARPET



EXISTING SITE AND BUILDING

Site:

Gross Area	829,543 sf (19 acres)
Net Area	785,265 sf (19 acres)
Lot Coverage	58,094 sf / 785,265 sf = 5%

Total Parking 220 spaces
Accessible Parking 8 spaces

Existing Building Area
First Floor Area 22,685 sf
Second Floor Area Proposed 8,960 sf
Covered Entries 2,090 sf

Total Area under Roof 24,775 sf

NOTE:
SITE WORK INCLUDING PARKING LOT, LANDSCAPING AND GRADING HAVE BEEN COMPLETED UNDER PREVIOUS PERMITS.

DEFERRED SUBMITTAL FOR ELEVATOR AND ITS ASSOCIATED EQUIPMENT IS REQUIRED TO BE SUBMITTED TO ELEVATOR INSPECTIONS BY PHOENIX, AZ. NO WORK SHALL COMMENCE UNTIL DEFERRED SUBMITTAL HAS BEEN APPROVED BY THE CITY OF PHOENIX ELEVATOR SECTION. THE DESIGN SHALL COMPLY WITH THE APPLICABLE, ADOPTED VERSIONS OF THE FOLLOWING CODES: ASME A17.1, ASME A17.3, NBC, IBC, IBCB, IMC, AND/OR IPC.

PROJECT INFORMATION

PROJECT ADDRESS: 5025 EAST CAREFREE HIGHWAY, PHOENIX, ARIZONA

OWNER: CAREFREE CHURCH, DWIGHT SURRETT, TEL: 480-488-5545 (O), FAX: 480-488-5529

ARCHITECT: AUGUST RENO ARCHITECTS, L.L.C., 37417 TOM DARLINGTON DRIVE, CAREFREE, ARIZONA 85509, TEL: 480-610-1341 (O), E-MAIL: augie@augustreno.com

STRUCTURAL ENGINEERING: BABBITT NELSON ENGINEERING, 1140 EAST GREENWAY STREET, SUITE 2, MESA, ARIZONA 85205, TEL: 480-610-1341 (O), E-MAIL: felipe@babbittnelson.com

MECHANICAL ENGINEERING: SAGUARO ENGINEERING, INC., 12020 NORTH 35TH AVENUE, 111A, PHOENIX, ARIZONA 85029, TEL: 480-970-2018, FAX: 480-731-5553, E-MAIL: lfoxstone@sage.com

ELECTRICAL ENGINEERING: MW ENGINEERING, L.L.C., 2001 WEST ALAMEDA DRIVE, SUITE 102, TEMPE, ARIZONA 85282, TEL: 480-731-5050 (O), FAX: 480-731-5553, E-MAIL: dlavon@mwgroup.com

PROJECT DESCRIPTION: Finish-Out of existing first floor shell with the addition of a second floor. First floor finish-out will accommodate a day care classroom area, which will also serve as Sunday school classes. The second floor will accommodate classrooms and church offices.

EXISTING SHELL: First Floor 8,960 sq ft, Proposed Second Floor 8,960 sq ft

EXISTING PARKING: 220 spaces, 8 accessible spaces

ADOPTED CODES: 2012 International Building Code, 2011 National Electrical Code NFPA-70, 2012 International Mechanical Code, 2012 International Existing Building Code, 2010 ASTM, 2012 International Fire Code, 2012 International Mechanical Code, 2012 Phoenix Amendments to the Building Code

ADA NOTE: Entire finish-out to be ADA Accessible

OCCUPANCY TYPE: A3, 1-4, 2, NON SEPARATED OCCUPANCIES
CONSTRUCTION TYPE: I-1B Fire Alarm

BUILDING TO BE FIRE SPRINKLERED

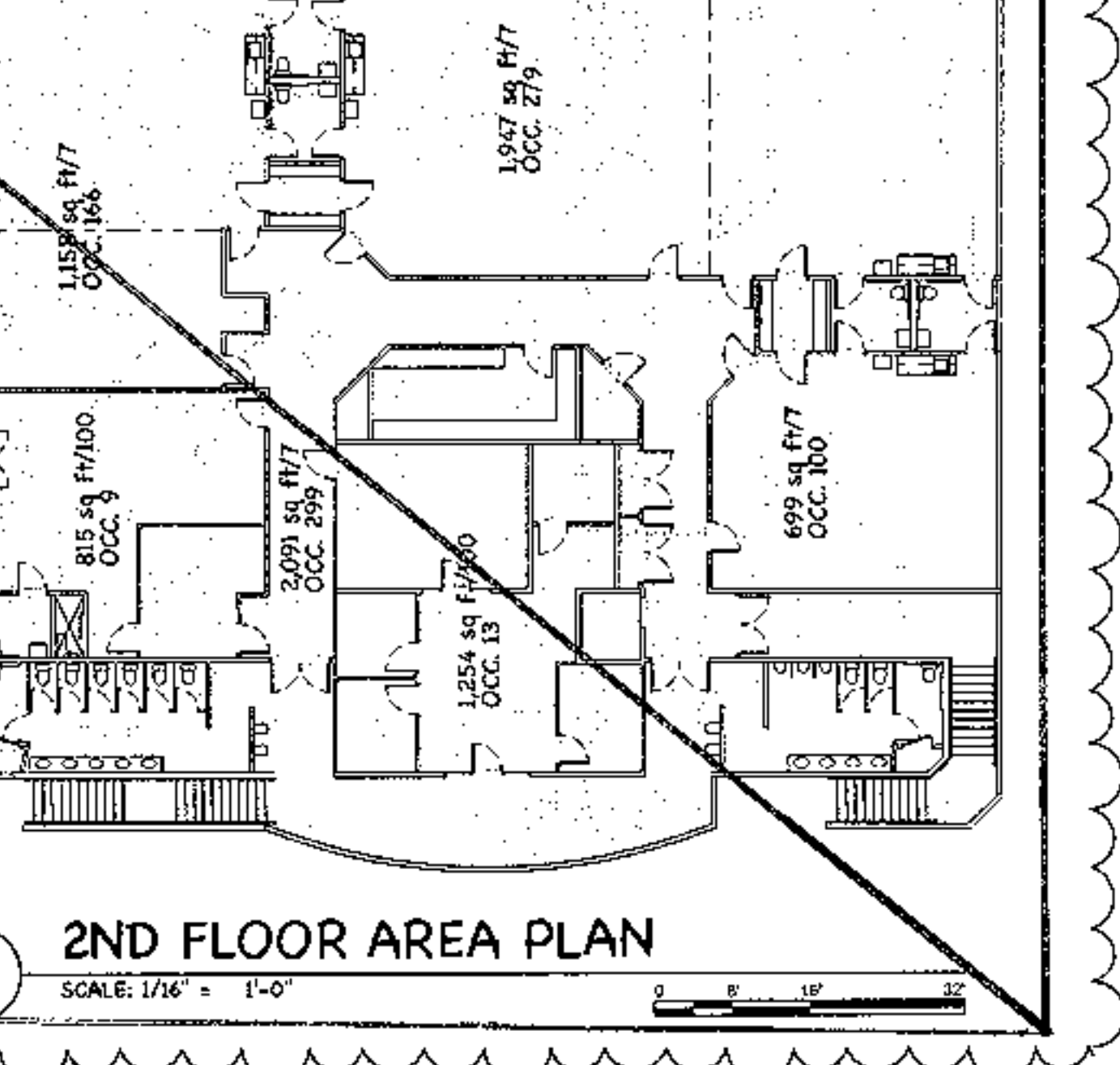
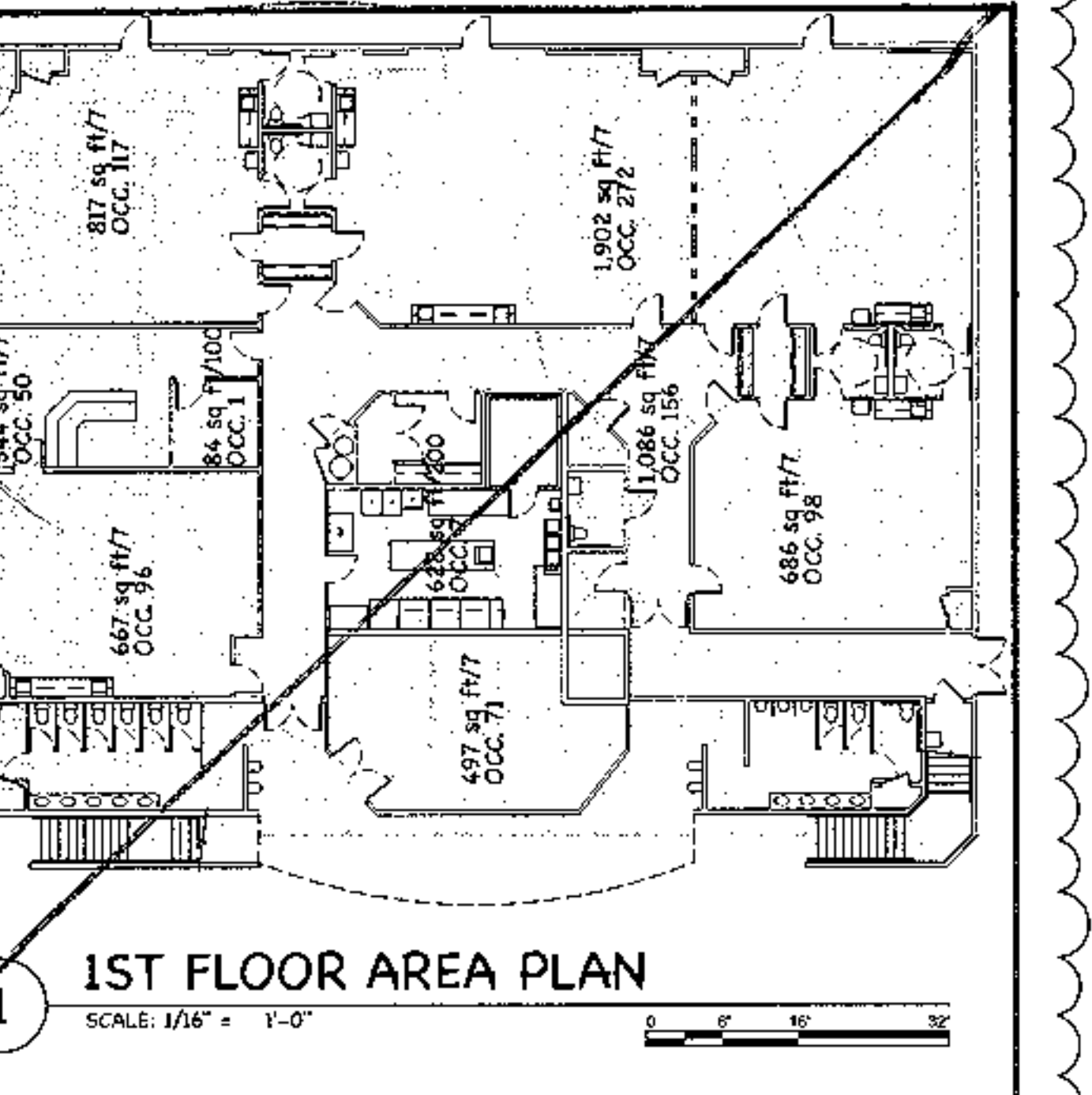
LEVEL	EXISTING AREA TO REMAIN:	RENOVATION AREA:
1st LEVEL	8,960 sq. ft.	641 sq. ft.
2nd LEVEL	8,960 sq. ft.	7,235 sq. ft.

1st LEVEL:	2nd LEVEL:
CLASSROOMS: 96	CLASSROOMS: 166
BOOKSTORE: 71	OFFICE: 9
CIRCULATION: 156	CIRCULATION: 299
OFFICE: 1	OFFICE: 13
OCCUPANT LOAD: 861	OCCUPANT LOAD: 534

AGGREGATE OCCUPANT LOAD: 1,395
1,395 * 2 INCH = 279 INCH MEANS OF EGRESS WIDTH: 23'-3"
534 * 3 INCH = 160.2 INCH STAIR EGRESS WIDTH: 13'-4"

LIST OF DRAWINGS

- ARCHITECTURAL:** A0 Cover Sheet, A01 Specifications, A02 Existing Site Plan, A03 Occupancy Calculations, A10.1 Existing First Floor Plan, A10.2 Proposed First Floor Plan, A10.3 Proposed Second Floor Plan, A11.1 Proposed First Floor Reflected Ceiling Plan, A11.2 Proposed Second Floor Reflected Ceiling Plan, A20 Building Sections and Details, A30.1 Stair Framing Plans and Details, A30.2 Stair Details and Building Sections, A40 Elevator Section and Details, A50 Restroom Plans, A60 Schedules, A70 Details
- STRUCTURAL:** S1.1 General Notes and Specifications, S1.2 Details, S2.1 Foundation Plan, S2.2 Second Floor Framing Plan, S2.3 Second Floor Load Plan, S2.4 Roof Mechanical Equipment Framing, S3.1 Foundation Details
- MECHANICAL:** MD1.1 First Floor HVAC Demolition Plan, North, MD1.2 First Floor HVAC Demolition Plan, South, MD1.3 Second Floor HVAC Demolition Plan, North, MD1.4 Second Floor HVAC Demolition Plan, South, MD1.5 Roof Plan HVAC Demolition Plan, North
- ELECTRICAL:** E1 First Floor Power Plan, E2 First Floor Lighting Plan, E3 Roof Mechanical Equipment Power Plan, E4 Calculations/One Line Diagram, E5 Panel Diagrams, E6 Specifications



ISSUED FOR: COORDINATION

REVISION: 3-17-17

PROJECT NO: 1465
DRAWN BY: SD
CHECKED BY: AR
ISSUE DATE: 3/17/19
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CAREFREE CHURCH
5025 E. CAREFREE HIGHWAY,
PHOENIX, AZ

AUGUST RENO
ARCHITECTS, L.L.C.

PO BOX 2302
Carefree, AZ 85377

37417 Tom Darlington Drive
Carefree, AZ 85377
(480) 488-9858
FAX (480) 636-1325
WEB SITE: www.augustreno.com
EMAIL ADDRESS: augie@augustreno.com

CVR

SHEET NO: A0

GENERAL NOTES:

1. Refer to all drawings and callouts for details and conditions.
2. All work shall be in accordance with the International Building Code (IBC) and all applicable codes and regulations.
3. All materials shall be new and of the highest quality available.
4. All work shall be completed in accordance with the schedule of values.
5. All work shall be completed in accordance with the specifications.
6. All work shall be completed in accordance with the drawings.
7. All work shall be completed in accordance with the specifications.
8. All work shall be completed in accordance with the drawings.
9. All work shall be completed in accordance with the specifications.
10. All work shall be completed in accordance with the drawings.

CONCRETE:

1. Concrete shall be in accordance with ACI 308.
2. Concrete shall be in accordance with ACI 308.
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10. Concrete shall be in accordance with ACI 308.

ROOF FINISHING:

1. Roof finish shall be in accordance with the specifications.
2. Roof finish shall be in accordance with the specifications.
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WALLS:

1. Walls shall be in accordance with the specifications.
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10. Walls shall be in accordance with the specifications.

FLOORING:

1. Flooring shall be in accordance with the specifications.
2. Flooring shall be in accordance with the specifications.
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PAINTING:

1. Painting shall be in accordance with the specifications.
2. Painting shall be in accordance with the specifications.
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GLASS:

1. Glass shall be in accordance with the specifications.
2. Glass shall be in accordance with the specifications.
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9. Glass shall be in accordance with the specifications.
10. Glass shall be in accordance with the specifications.

ADA REQUIREMENTS:

4.1.2 TOILET STALLS:

4.1.2.1 ACCESSIBLE TOILET STALLS SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL MEET THE REQUIREMENTS OF 4.1.2 THROUGH 4.1.2.8.

4.1.2.2 EXCEPTION: TOILET STALLS USED PRIMARILY BY CHILDREN AGES 12 AND YOUNGER SHALL BE PERMITTED TO COMPLY WITH 4.1.2.1, 4.1.2.2, 4.1.2.3, 4.1.2.4, 4.1.2.5, 4.1.2.6, 4.1.2.7, 4.1.2.8, 4.1.2.9, 4.1.2.10, 4.1.2.11, 4.1.2.12, 4.1.2.13, 4.1.2.14, 4.1.2.15, 4.1.2.16, 4.1.2.17, 4.1.2.18, 4.1.2.19, 4.1.2.20, 4.1.2.21, 4.1.2.22, 4.1.2.23, 4.1.2.24, 4.1.2.25, 4.1.2.26, 4.1.2.27, 4.1.2.28, 4.1.2.29, 4.1.2.30, 4.1.2.31, 4.1.2.32, 4.1.2.33, 4.1.2.34, 4.1.2.35, 4.1.2.36, 4.1.2.37, 4.1.2.38, 4.1.2.39, 4.1.2.40, 4.1.2.41, 4.1.2.42, 4.1.2.43, 4.1.2.44, 4.1.2.45, 4.1.2.46, 4.1.2.47, 4.1.2.48, 4.1.2.49, 4.1.2.50, 4.1.2.51, 4.1.2.52, 4.1.2.53, 4.1.2.54, 4.1.2.55, 4.1.2.56, 4.1.2.57, 4.1.2.58, 4.1.2.59, 4.1.2.60, 4.1.2.61, 4.1.2.62, 4.1.2.63, 4.1.2.64, 4.1.2.65, 4.1.2.66, 4.1.2.67, 4.1.2.68, 4.1.2.69, 4.1.2.70, 4.1.2.71, 4.1.2.72, 4.1.2.73, 4.1.2.74, 4.1.2.75, 4.1.2.76, 4.1.2.77, 4.1.2.78, 4.1.2.79, 4.1.2.80, 4.1.2.81, 4.1.2.82, 4.1.2.83, 4.1.2.84, 4.1.2.85, 4.1.2.86, 4.1.2.87, 4.1.2.88, 4.1.2.89, 4.1.2.90, 4.1.2.91, 4.1.2.92, 4.1.2.93, 4.1.2.94, 4.1.2.95, 4.1.2.96, 4.1.2.97, 4.1.2.98, 4.1.2.99, 4.1.2.100.

4.1.3 DRINKING FOUNTAINS AND WATER COOLERS:

4.1.3.1 GENERAL: DRINKING FOUNTAINS OR WATER COOLERS REQUIRED TO BE ACCESSIBLE BY 4.1 SHALL COMPLY WITH 4.1.3.1 THROUGH 4.1.3.1.10.

4.1.3.1.1 HEIGHT: DRINKING FOUNTAINS SHALL BE NO HIGHER THAN 48 IN (1219 MM) MEASURED FROM THE FLOOR OR GROUND SURFACE TO THE SPOUT OUTLET (SEE FIG. 27(A)).

4.1.3.1.2 SPOUT LOCATION: THE SPOUTS OF DRINKING FOUNTAINS AND WATER COOLERS SHALL BE AT THE FRONT OF THE UNIT AND SHALL DIRECTLY FLOW FROM A TRIANGLE THAT IS PARALLEL TO AND NEARLY PARALLEL TO THE FRONT OF THE UNIT. THE SPOUT SHALL PROVIDE A FLOW OF WATER AT LEAST 1.5 GPM (57 LPM) HIGH 50 AS MEASURED FROM THE FLOOR OR GROUND SURFACE TO THE WATER. ON AN ACCESSIBLE DRINKING FOUNTAIN WITH A ROUND OR OVAL BOWL, THE SPOUT MUST BE POSITIONED SO THE FLOW OF WATER IS WITHIN 15 IN (381 MM) OF THE FRONT EDGE OF THE FOUNTAIN.

4.1.3.1.3 CONTROLS: CONTROLS SHALL COMPLY WITH 4.2.1.4. UNIT CONTROLS SHALL BE FRONT MOUNTED OR SIDE MOUNTED NEAR THE FRONT EDGE.

4.1.3.1.4 CLEARANCES: (A) HALLS AND POST-MOUNTED CANTILEVERED UNITS SHALL HAVE A CLEAR KNEE SPACE BETWEEN THE BOTTOM OF THE APRON AND THE FLOOR OR GROUND AT LEAST 27 IN (689 MM) HIGH, 30 IN (762 MM) WIDE, AND 17 IN TO 19 IN (430 MM TO 485 MM) DEEP (SEE FIG. 27(A) AND (D)). SUCH UNITS SHALL ALSO HAVE A MINIMUM CLEAR FLOOR SPACE 30 IN BY 48 IN (762 MM BY 1220 MM) TO ALLOW A PERSON IN A WHEELCHAIR TO APPROACH THE UNIT FACING FORWARD.

4.1.3.1.5 REFINISHING: REFINISHING SHALL BE IN ACCORDANCE WITH 1.2.2.4. EXCEPTION: IN INSTANCES OF ALTERATION WORK WHERE PROVISION OF A STANDARD STALL (FIG. 30(A)) IS TECHNICALLY INFEASIBLE OR WHERE PLUMBING CODE REQUIREMENTS PREVENT CONFORMING EXISTING STALLS TO PROVIDE SPACE, EITHER ALTERNATIVE 1 (FIG. 30(B)) OR ALTERNATIVE 2 (FIG. 30(C)) SHALL BE PROVIDED IN LIEU OF THE STANDARD STALL.

4.1.3.1.6 TOE CLEARANCES: IN STANDARD STALLS, THE FRONT PARTITION AND AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF AT LEAST 9 IN (230 MM) ABOVE THE FLOOR. IF THE TOE CLEARANCE IS NOT REQUIRED, THE TOE CLEARANCE SHALL BE AT LEAST 3 IN (76 MM) ABOVE THE FLOOR. IF THE TOE CLEARANCE IS NOT REQUIRED, THE TOE CLEARANCE SHALL BE AT LEAST 3 IN (76 MM) ABOVE THE FLOOR. IF THE TOE CLEARANCE IS NOT REQUIRED, THE TOE CLEARANCE SHALL BE AT LEAST 3 IN (76 MM) ABOVE THE FLOOR.

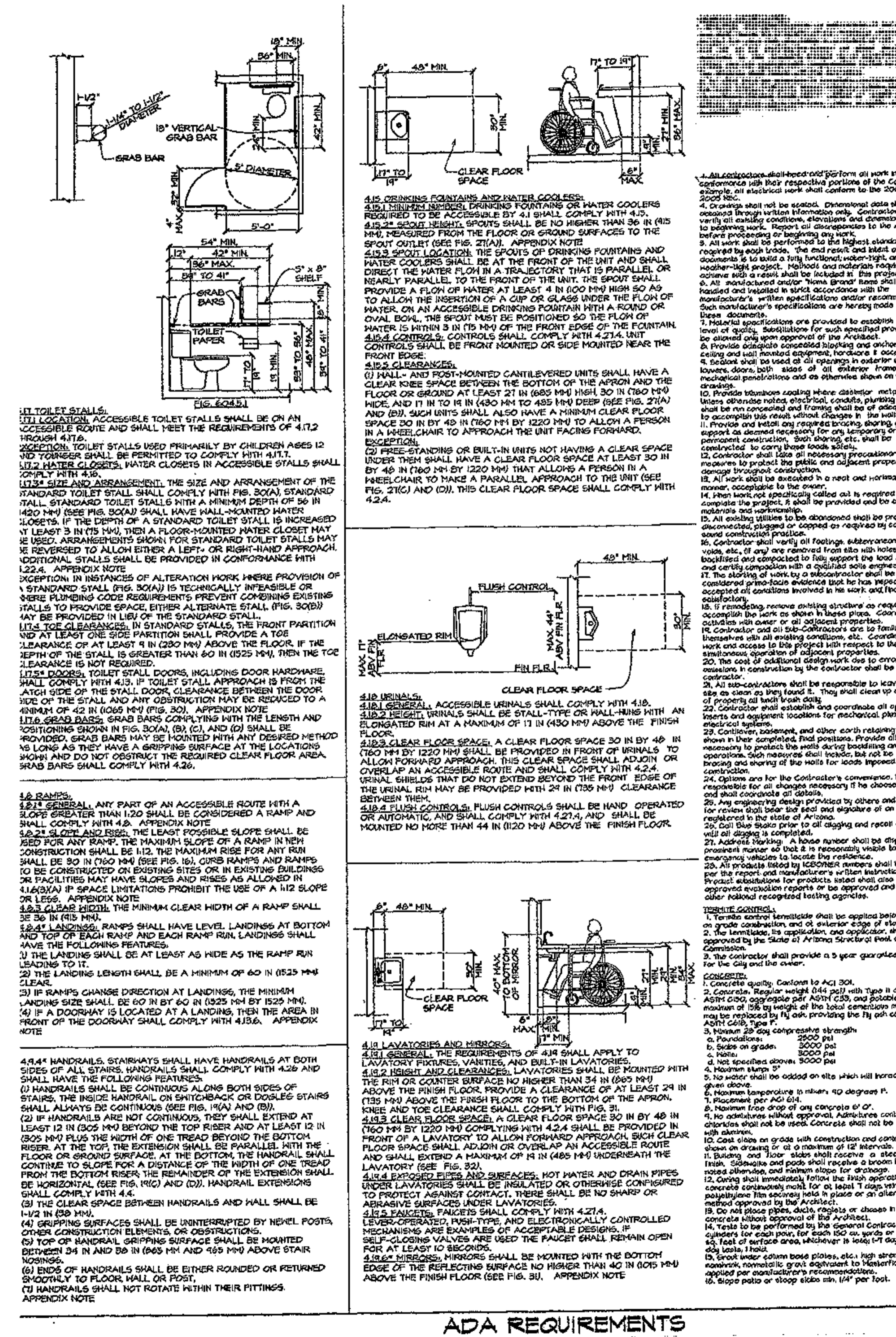
4.1.3.1.7 DOOR HARDWARE: FOR STALLS, INCLUDING DOOR HARDWARE, SHALL BE CONSTRUCTED ON EXISTING SITES OR IN EXISTING BUILDINGS TO FACILITIES THAT HAVE SLOPES AND RISERS AS ALLOWED IN 4.1.3.1.6. IF SPACE LIMITATIONS PROHIBIT THE USE OF A 1/2 SLOPE OR LESS, APPENDIX NOTE 4.1.3.1.7.1 SHALL APPLY.

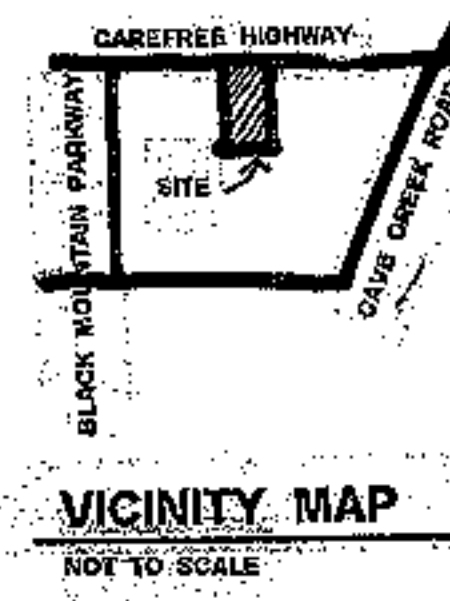
4.1.3.1.8 CLEAR WIDTH: THE MINIMUM CLEAR WIDTH OF A RAMP SHALL BE 36 IN (915 MM).

4.1.3.1.9 RAMP LANDINGS: RAMP LANDINGS SHALL HAVE LEVEL LANDINGS AT BOTTOM AND TOP OF EACH RAMP AND EACH RAMP RUN LANDINGS SHALL HAVE THE FOLLOWING FEATURES:
 (1) THE LANDINGS SHALL BE AT LEAST AS WIDE AS THE RAMP RUN LEADING TO IT.
 (2) THE LANDING LENGTH SHALL BE A MINIMUM OF 60 IN (1525 MM) CLEAR.
 (3) IF RAMP CHANGES DIRECTION AT LANDINGS, THE MINIMUM LANDING SIZE SHALL BE 60 IN BY 60 IN (1525 MM BY 1525 MM).
 (4) IF A DOORWAY IS LOCATED AT A LANDING, THEN THE AREA IN FRONT OF THE DOORWAY SHALL COMPLY WITH 4.1.3.6. APPENDIX NOTE 4.1.3.1.9.1 SHALL APPLY.

4.1.3.1.10 HANDRAILS: HANDRAILS SHALL HAVE HANDRAILS AT BOTH SIDES OF ALL STAIRS. HANDRAILS SHALL COMPLY WITH 4.2.8 AND 4.2.9. HANDRAILS SHALL BE CONTINUOUS ALONG BOTH SIDES OF STAIRS, THE INSIDE HANDRAIL ON SWITCHBACK OR DOUBLE STAIRS SHALL ALWAYS BE CONTINUOUS (SEE FIG. 19(A) AND (B)). (2) IF HANDRAILS ARE NOT CONTINUOUS, THEY SHALL EXTEND AT LEAST 12 IN (305 MM) BEYOND THE TOP RISER AND AT LEAST 12 IN (305 MM) PLUS THE WIDTH OF ONE TREAD BEYOND THE BOTTOM RISER. AT THE TOP, THE EXTENSION SHALL BE PARALLEL WITH THE FLOOR OR GROUND. AT THE BOTTOM, THE HANDRAIL SHALL CONTINUE TO SUPPORT FOR A DISTANCE OF THE WIDTH OF ONE TREAD FROM THE BOTTOM RISER. THE REMAINDER OF THE EXTENSION SHALL BE HORIZONTAL (SEE FIG. 19(C) AND (D)). HANDRAIL EXTENSIONS SHALL COMPLY WITH 4.4.
 (3) THE CLEAR SPACE BETWEEN HANDRAILS AND WALL SHALL BE 1-1/2 IN (38 MM).
 (4) GRIPPING SURFACES SHALL BE UNINTERRUPTED BY NEHEL POSTS, OTHER CONSTRUCTION ELEMENTS, OR OBSTRUCTIONS.
 (5) TOP OF HANDRAIL GRIPPING SURFACE SHALL BE MOUNTED BETWEEN 34 IN AND 38 IN (863 MM AND 965 MM) ABOVE STAIR NOSING.
 (6) ENDS OF HANDRAILS SHALL BE EITHER ROUNDED OR RETURNED SMOOTHLY TO FLOOR, WALL, OR POST.
 (7) HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.

APPENDIX NOTE 4.1.3.1.10.1: HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.





ISSUED FOR:
COORDINATION

REVISION:
 ▲ 3/17/19
 ▲ 10/21/19
 ▲
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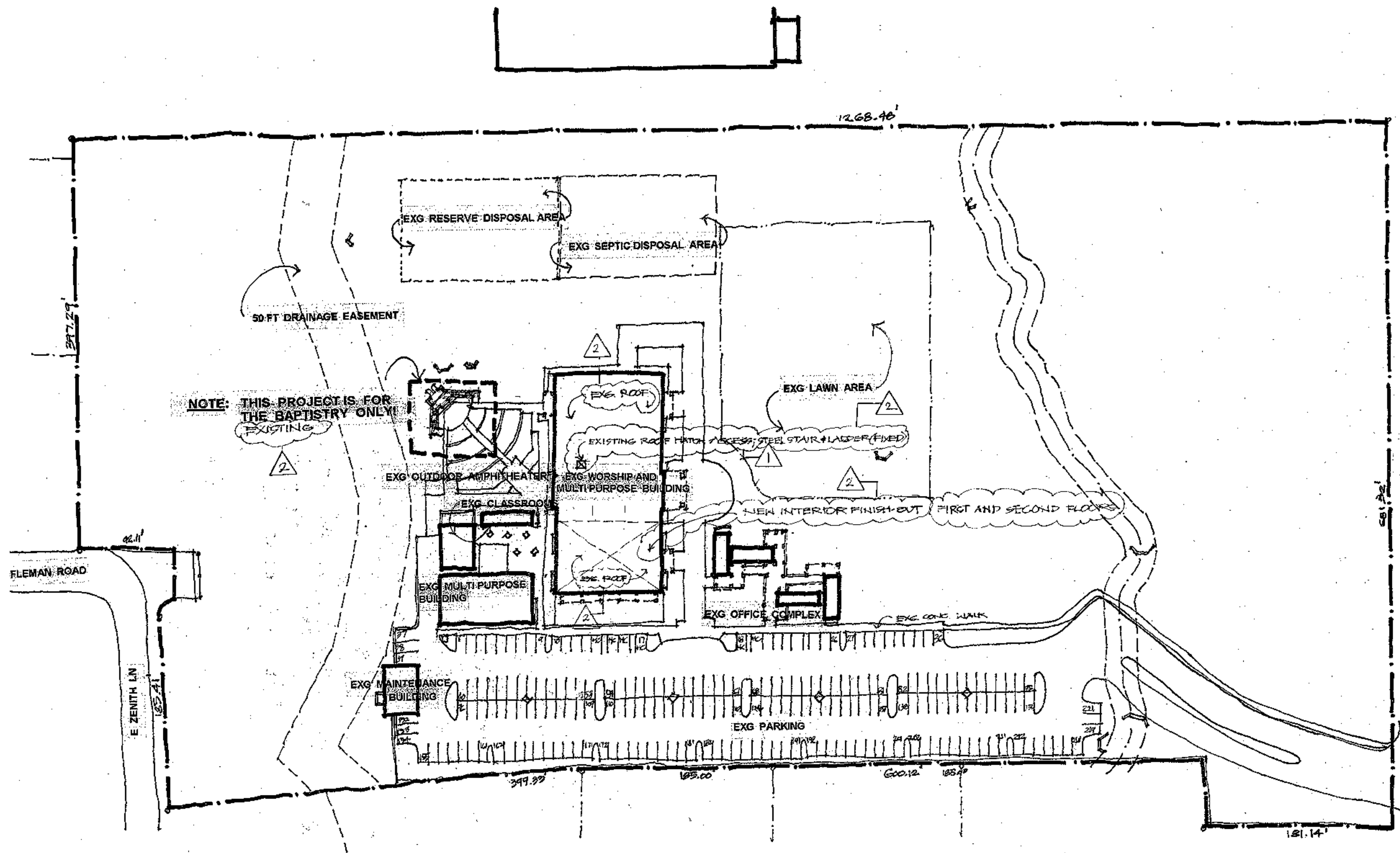
PROJECT NO: 1465
 DRAWN BY: SD
 CHECKED BY: AR
 ISSUE DATE:
 3/17/19
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PROJECT INFORMATION

OWNER: CAREFREE CHURCH
 5025 E. CAREFREE HIGHWAY,
 PHOENIX, ARIZONA
 PHONE: 480 488 6555

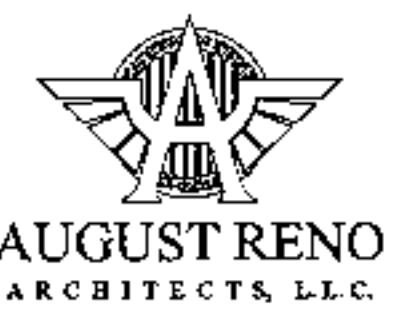
PROJECT DESCRIPTION:
 THE ADDITION OF A BAPTISTRY POOL
 AND EQUIPMENT AREA

ZONING: RES-2
 GROSS SITE AREA: 525,443 SF
 NET SITE AREA: 476,259 SF



NOTE: THIS PROJECT IS FOR THE BAPTISTRY ONLY! EXISTING

CAREFREE CHURCH
 5025 E. CAREFREE HIGHWAY,
 PHOENIX, AZ



PO BOX 2302
 Carefree, AZ 85377
 37417 Tom Darlington Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 616-1325
 WEB SITE
 www.augustreno.com
 EMAIL ADDRESS
 augie@augustreno.com



SITE PLAN
 SCALE: 1"=50'

THIS SITE IS EXISTING AND FOR REFERENCE ONLY

EXISTING SITE PLAN

SHEET NO:
A02

Proposed New First Floor Occupancy Schedule

Note: Raw space currently exists, plus men's restroom, women's restroom, bookstore, family restroom, elevator space, elevator equipment room.

Room	sf	# of occupants
Nursery	638	18
Day Care Office	406	4
Classroom 1	555	28
Classroom 2	1102	55
Classroom 3	841	42
Classroom 4	708	35
Kitchen	447	2
Workroom	90	1
Elect. Closet	40	0
Exg. Family R.R.	48	0
Exg. Elevator	42	0
Exg. Elev. Equip.	58	0
Exg. Men's R.R.	285	0
Exg. Women's R.R.	345	0
Exg. Book Store	590	20
Total	6,475	205

Proposed New Second Floor Occupancy Schedule

Room	sf	# of occupants
Conference, #207	212	20
Bath Room, #215	69	0
Classroom 5, #216	426	2
Classroom 6, #217	696	0
Closet, #223	53	0
W/C, #222	64	0
W/C, #221	64	0
Classroom 7, #218	1088	54
Classroom 8, #219	870	44
Closet, #226	53	0
W/C, #225	64	0
W/C, #224	64	0
Classroom 9, #220 708		36
Reception/Offices 792		7
Elevator	42	0
Closet, #227	15	0
Closet, #228	15	0
Elect. Closet, #231	40	0
Workroom, #232	189	2
Women's R.R.	345	0
Men's R.R.	265	0
PASTOR'S OFFICE	729	7
LIBRARY 2142		
Total	6,885	172

Total First and Second Floors

First Floor	6,475sf	205 occupants
Second Floor	6,885sf	172 occupants
Total	13,360sf	377 occupants

Stairway Widths required $35' \text{ (minimum)} \div 2 = 17.5'$

EXISTING OCCUPANCY

WORSHIP CENTER 995
 LOBBY 230
 BOOKSTORE 20
 STAGE 108

PROPOSED NEW OCCUPANCY

NEW FIRST FLOOR 185
 NEW SECOND FLOOR 172

TOTAL OCCUPANCY 1710

MEANS OF EGRESS WIDTH REQUIRED

EXISTING EGRESS WIDTH (32" CLEAR) $416" \div 12 = 35'$

$1710 \times .2 = 342" \div 12" = 29'$

ISSUED FOR:
COORDINATION

REVISION:
 3-17-19
 10-21-19
 1
 1

PROJECT NO: 1485
 DRAWN BY: SD
 CHECKED BY: AR
 ISSUE DATE: 3/17/19
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CAREFREE CHURCH
 5025 E. CAREFREE HIGHWAY,
 PHOENIX AZ

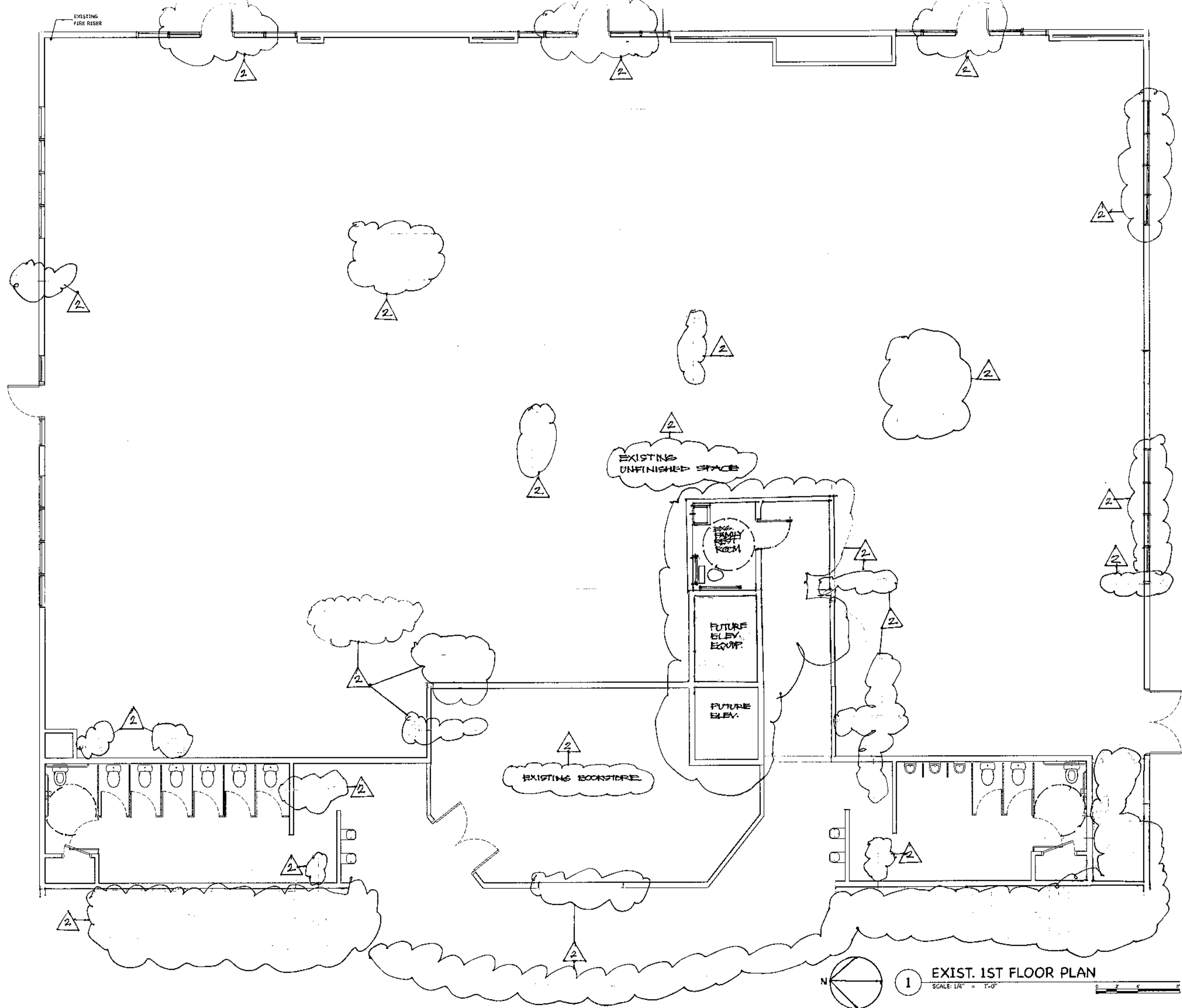


PO BOX 1362
 Carefree, AZ 85377
 37417 Tom Darlington Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325
 WEB SITE
 www.augustreno.com
 EMAIL ADDRESS
 ar@augustreno.com

OCCUPANCY CALCULATIONS

SHEET NO:

A03



ISSUED FOR:
COORDINATION

REVISION:
 ▲ 10-21-18
 ▲
 ▲
 ▲

PROJECT NO: 1495
 DRAWN BY: SD
 CHECKED BY: AR
 ISSUE DATE:
 3/17/19
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 PHOENIX AZ



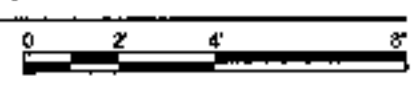
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 (480) 488-9858
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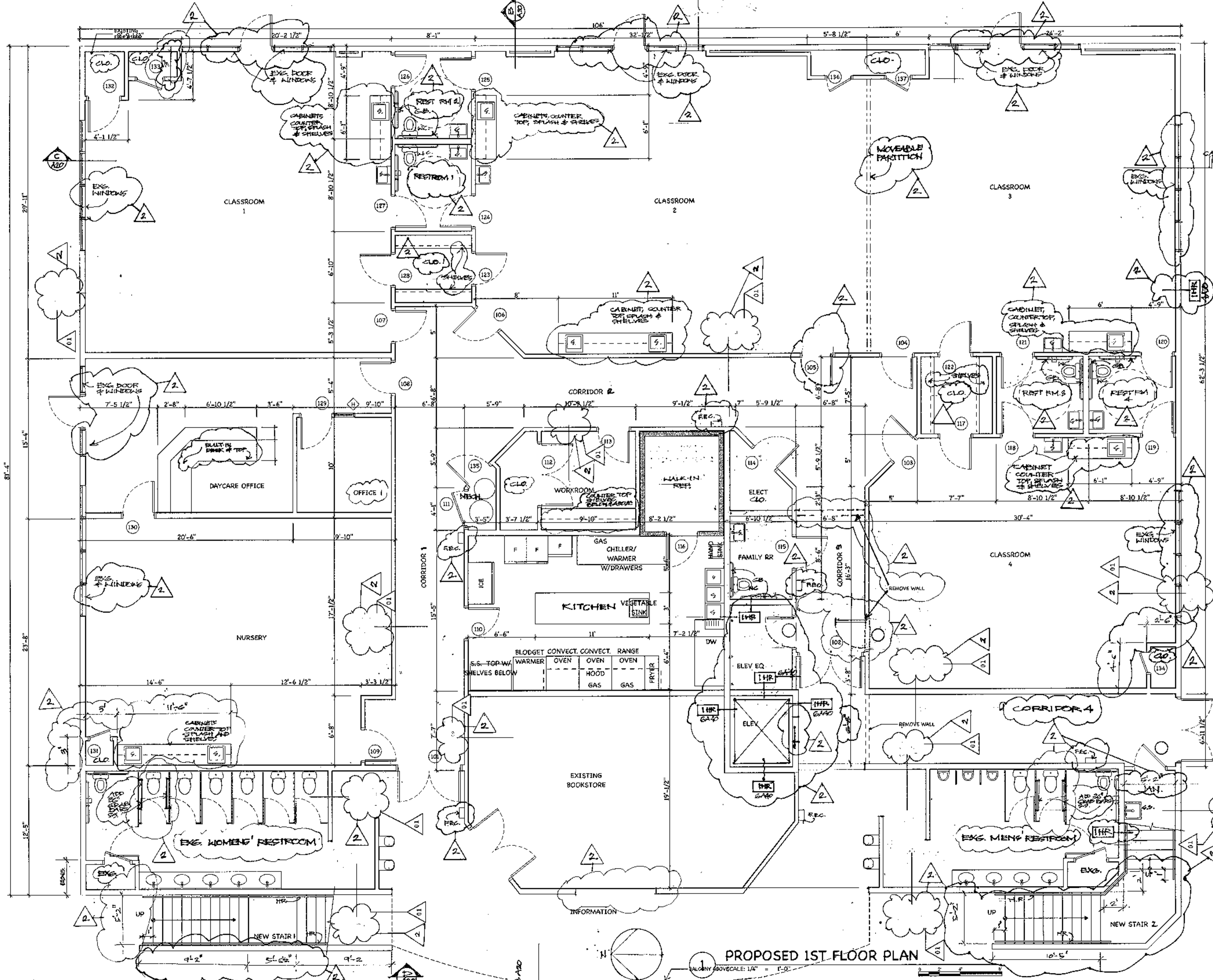
EXIST 1ST FLOOR PLAN

SHEET NO:

A10.1

1 EXIST. 1ST FLOOR PLAN
 SCALE: 1/4" = 1'-0"





ISSUED FOR:
COORDINATION

REVISION:
 ▲ 9-17-11
 ▲ D-2-14
 ▲
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 Carefree, AZ 85377
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 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325
 WEB SITE
 www.augustreno.com
 EMAIL ADDRESS
 augre@augustreno.com

PROPOSED 1ST FLOOR PLAN

SHEET NO:
A10.2

PROPOSED 1ST FLOOR PLAN

BALCONY ABOVE SCALE: 1/4" = 1'-0"

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REVISION:
 ▲ 3-17-19
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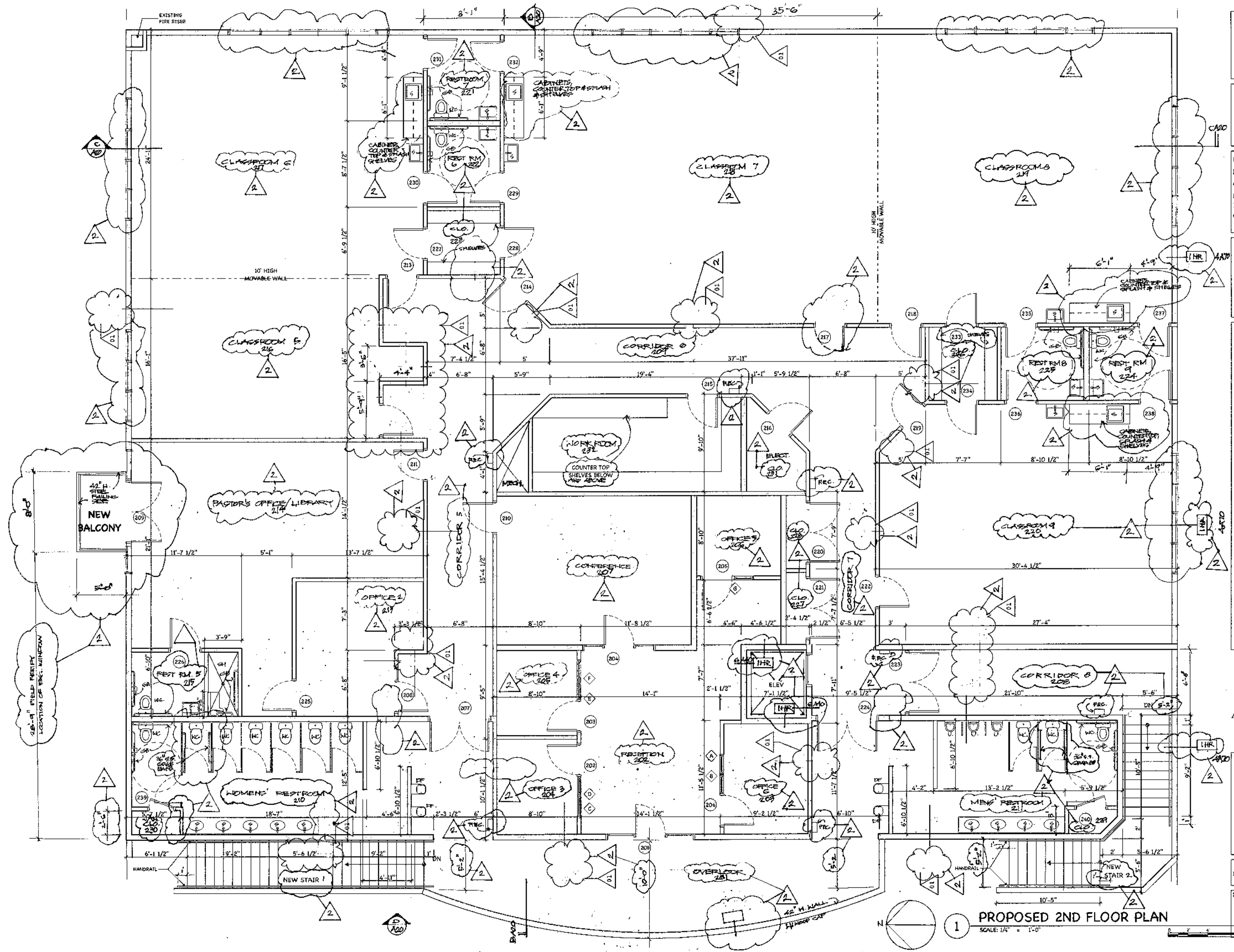


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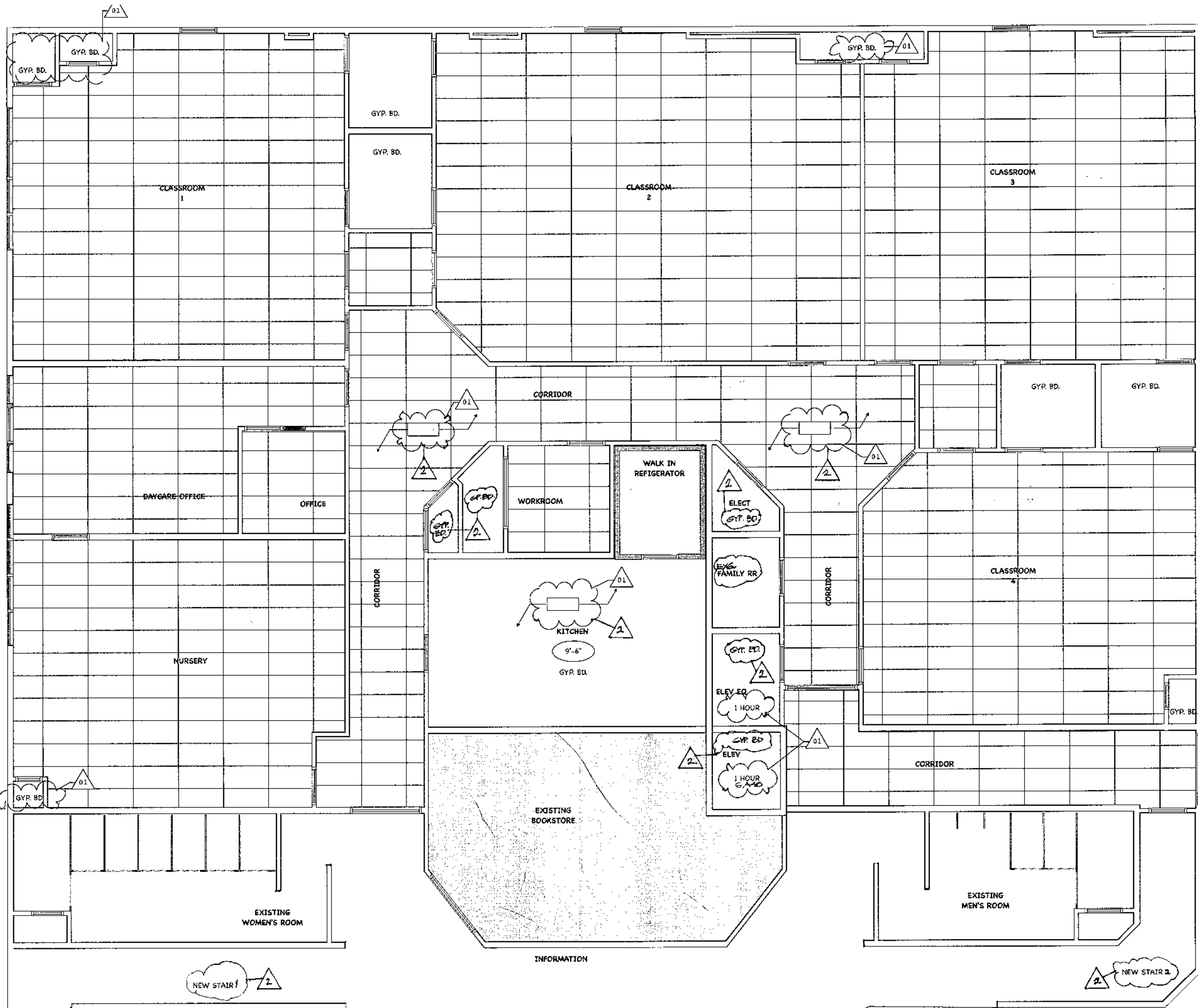
37417 Tom Darlington Drive
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FAX (480) 434-1375
WEB SITE
www.augustreno.com
EMAIL ADDRESS
aug@augustreno.com

PROPOSED 2ND FLOOR PLAN

SHEET NO:
A10.3



PROPOSED 2ND FLOOR PLAN
 SCALE: 1/4" = 1'-0"



ISSUED FOR:
COORDINATION

REVISION:
 ▲ 3-17-19
 ▲ 10-21-19
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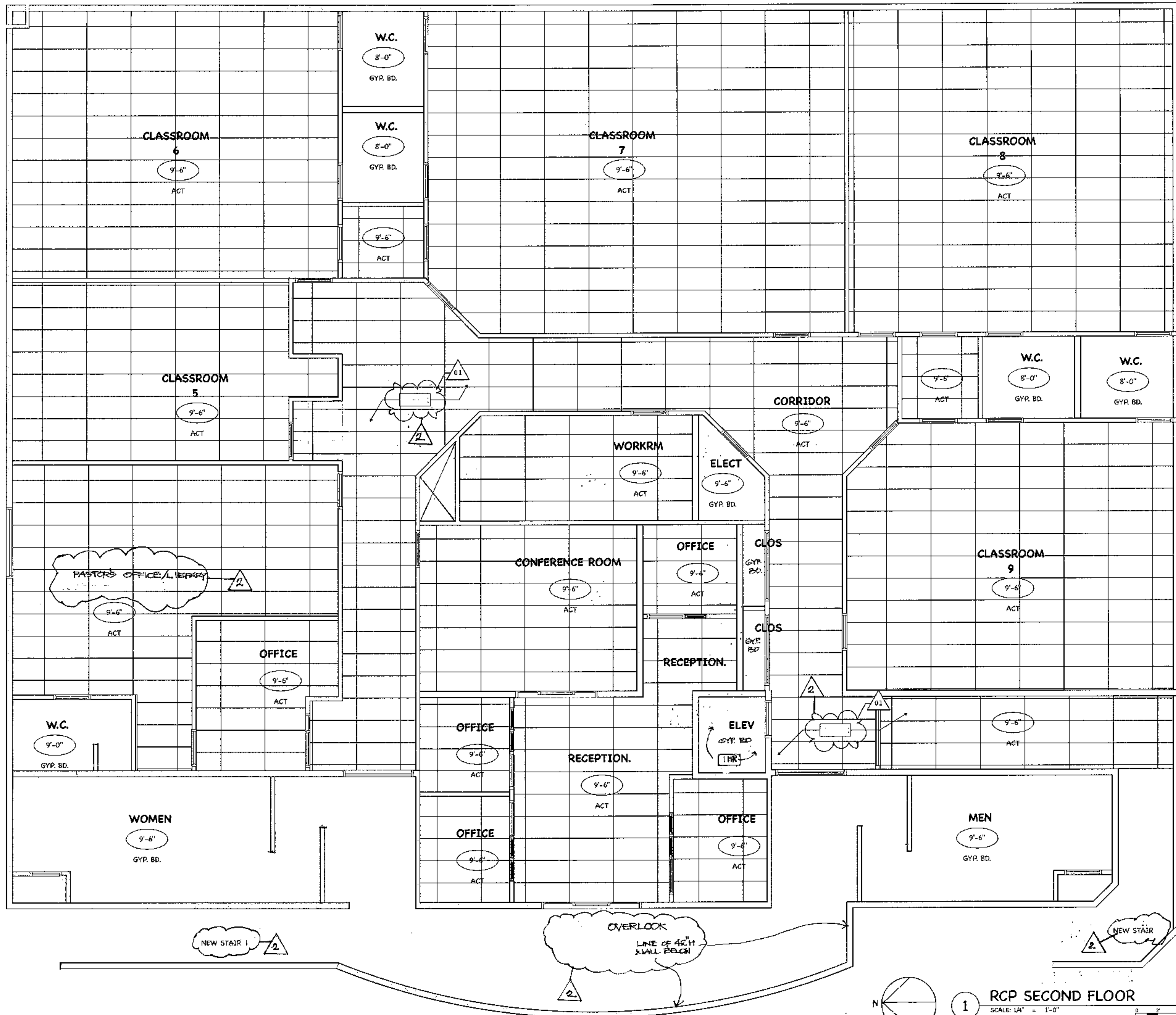
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 Carefree, AZ 85377
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 FAX (480) 636-1325

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 www.augustreno.com
 EMAIL ADDRESS
 aug14@augustreno.com

RCPEXIST 1ST FLOOR

SHEET NO:
A11.1

1 RCP EXIST. 1ST FLOOR-PROPOSED
 SCALE: 1/4" = 1'-0"
 0 2 4 8



ISSUED FOR:
COORDINATION

REVISION:
 1. 7-17-19
 2. 10-21-19
 3.
 4.

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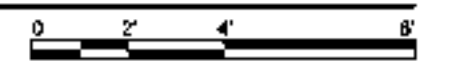
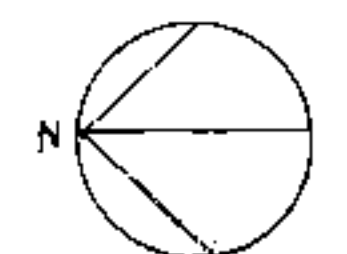


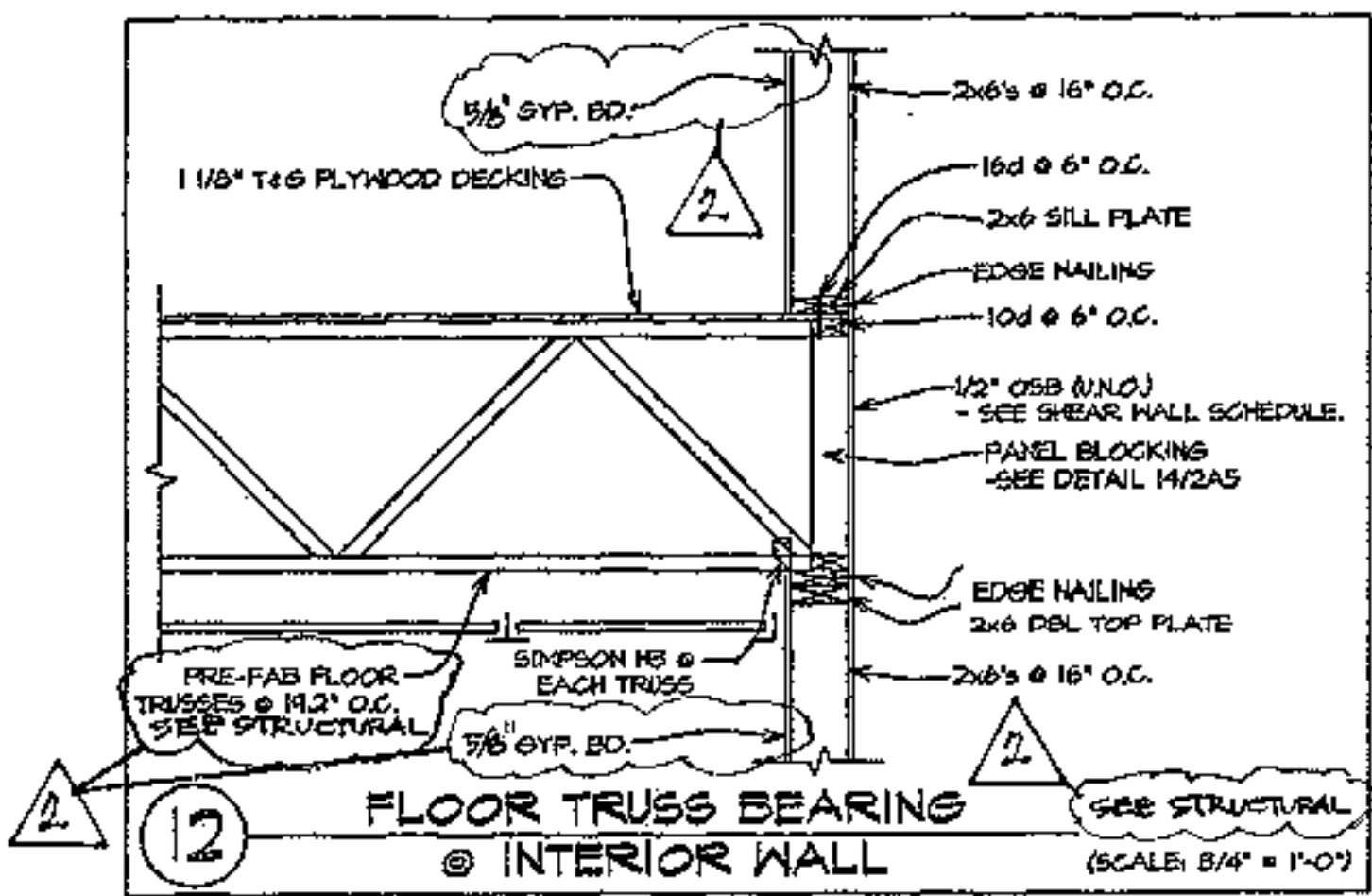
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 Carefree, AZ 85377
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RCP PROPOSED 2ND FLOOR

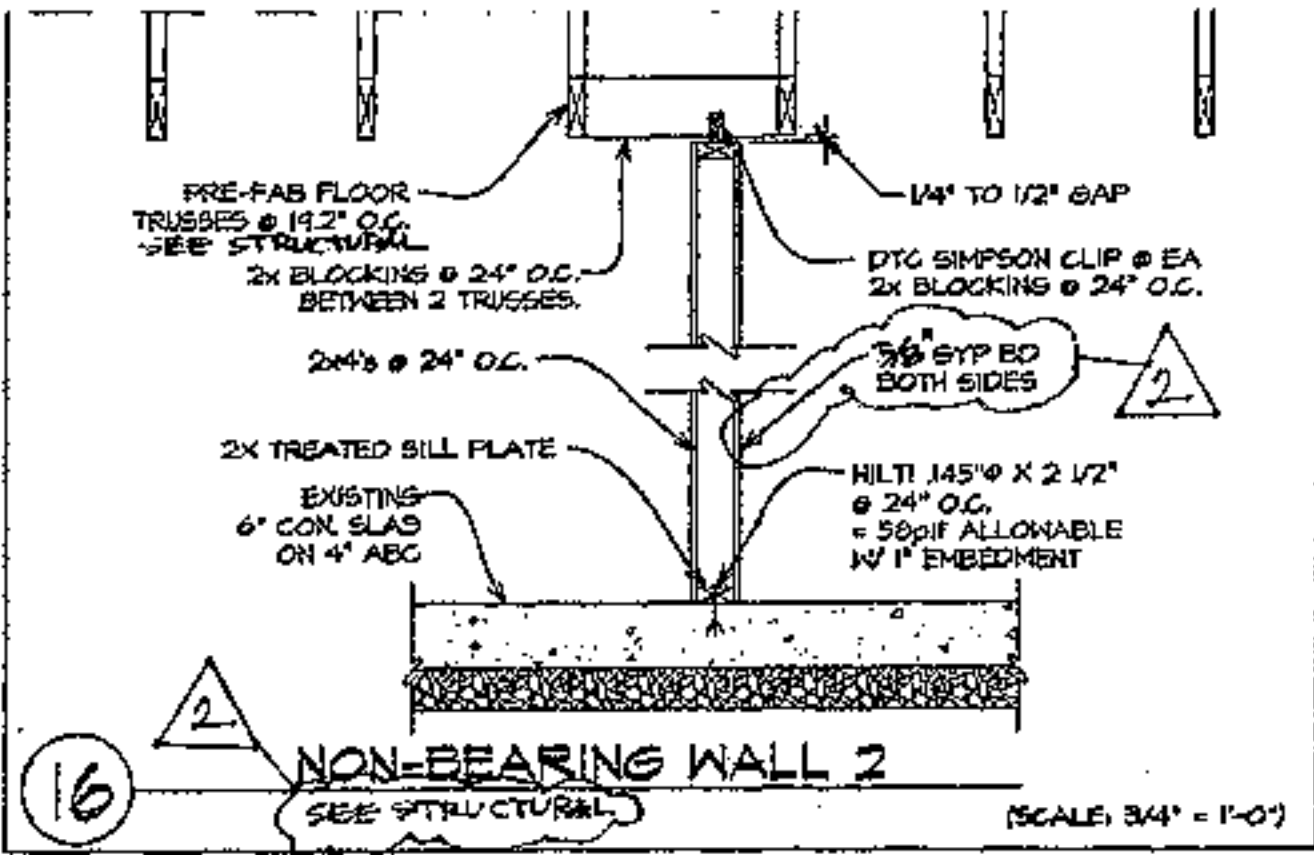
SHEET NO:
A11.2

1 RCP SECOND FLOOR
 SCALE: 1/4" = 1'-0"

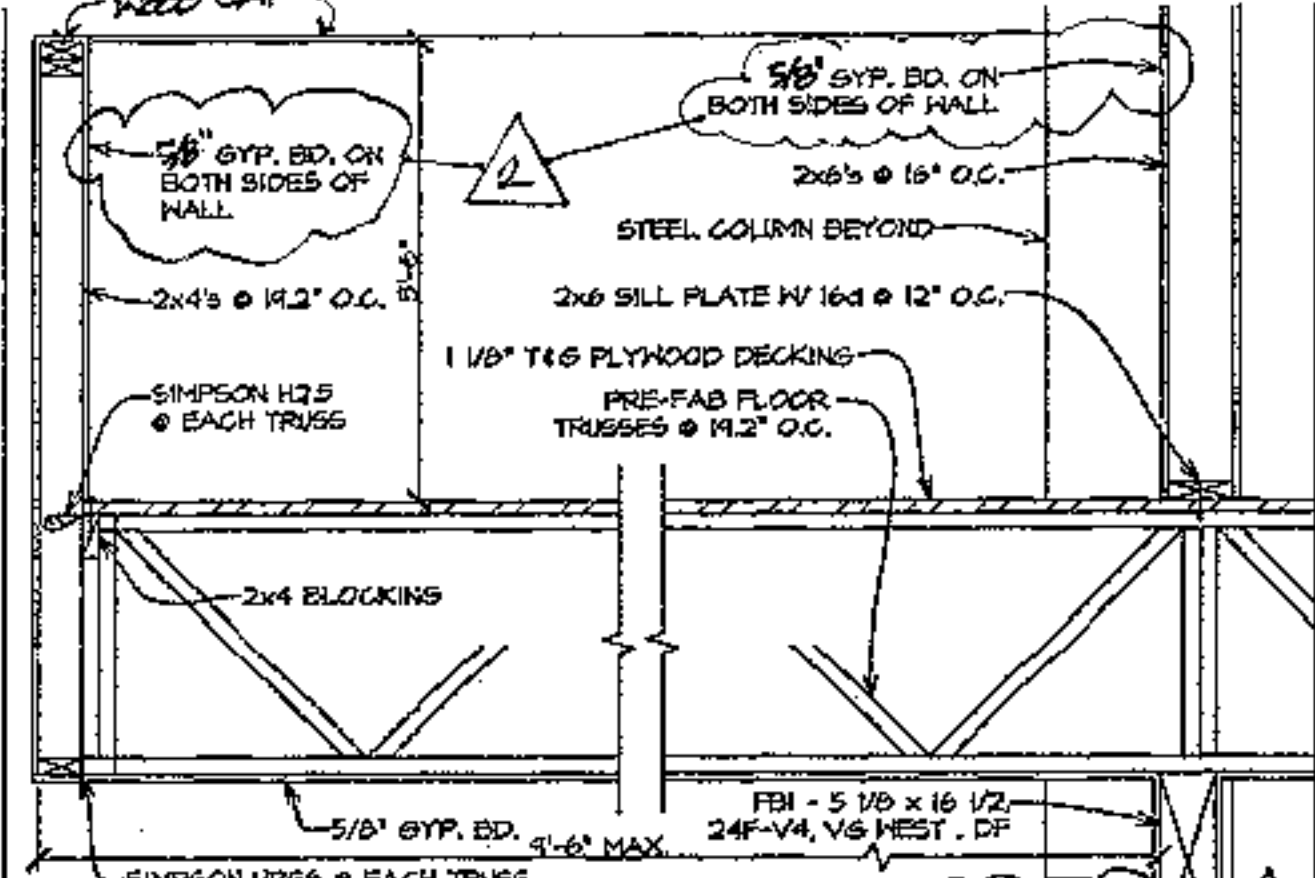




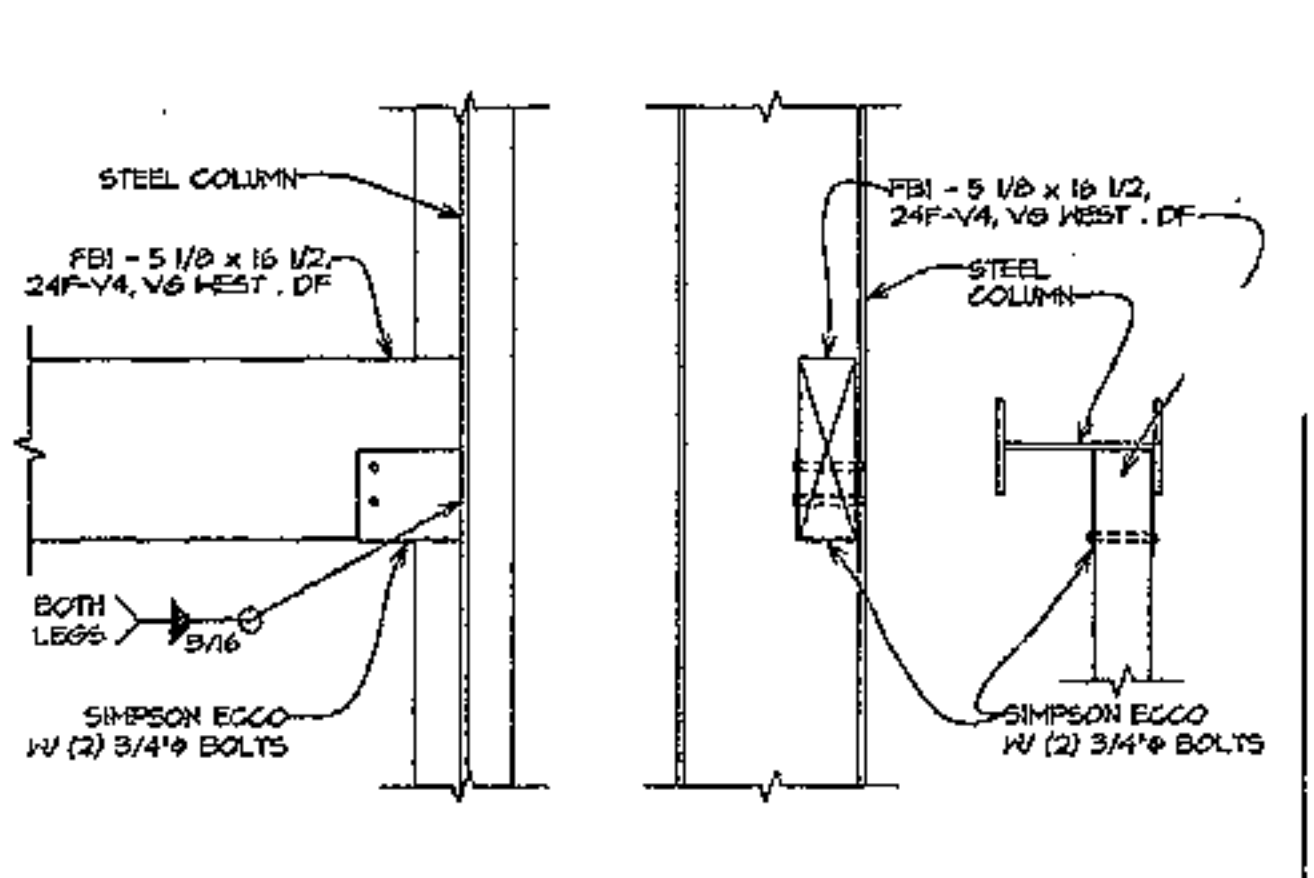
12 FLOOR TRUSS BEARING @ INTERIOR WALL (SCALE: 3/4" = 1'-0")



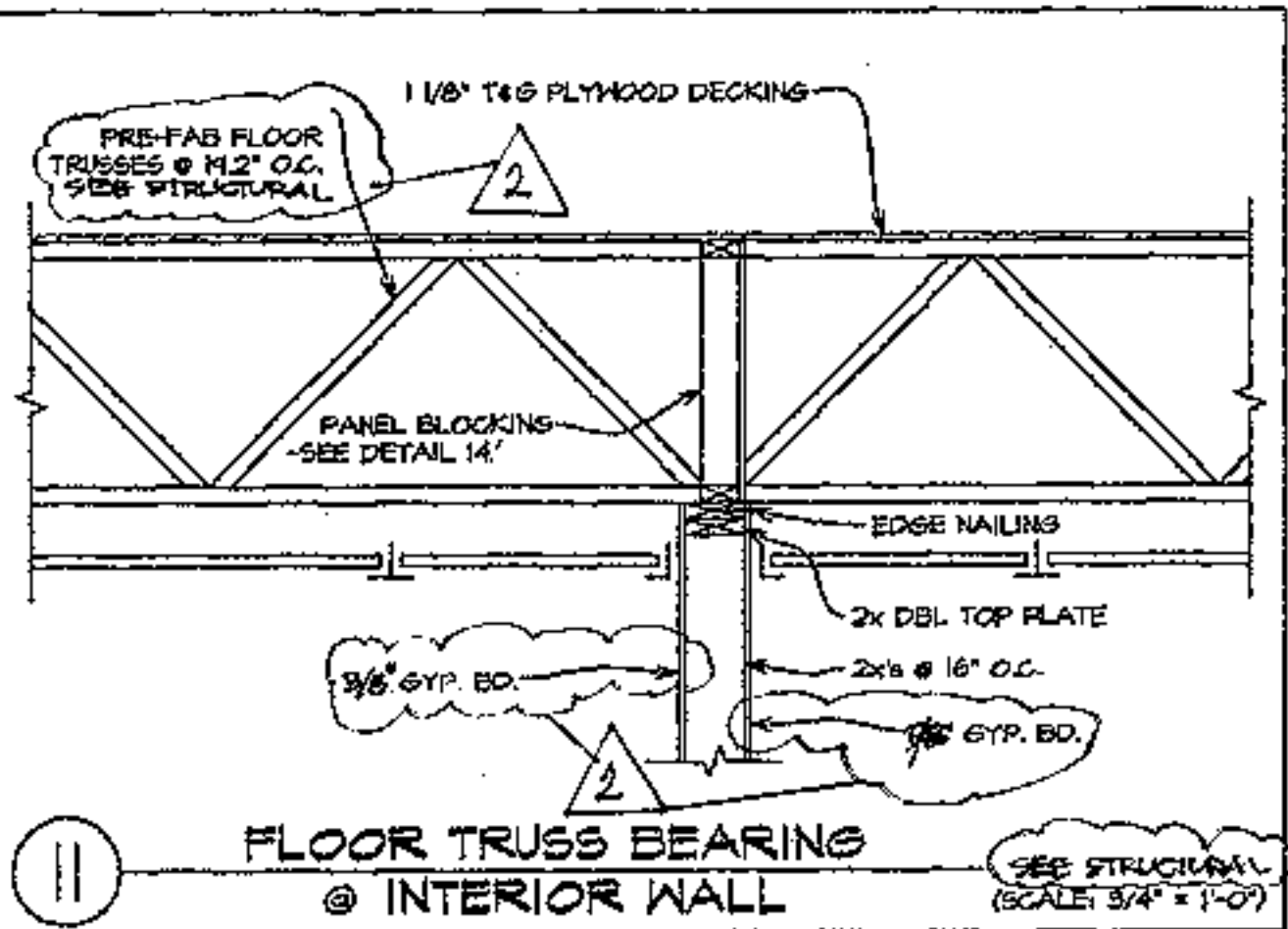
16 NON-BEARING WALL 2 (SCALE: 3/4" = 1'-0")



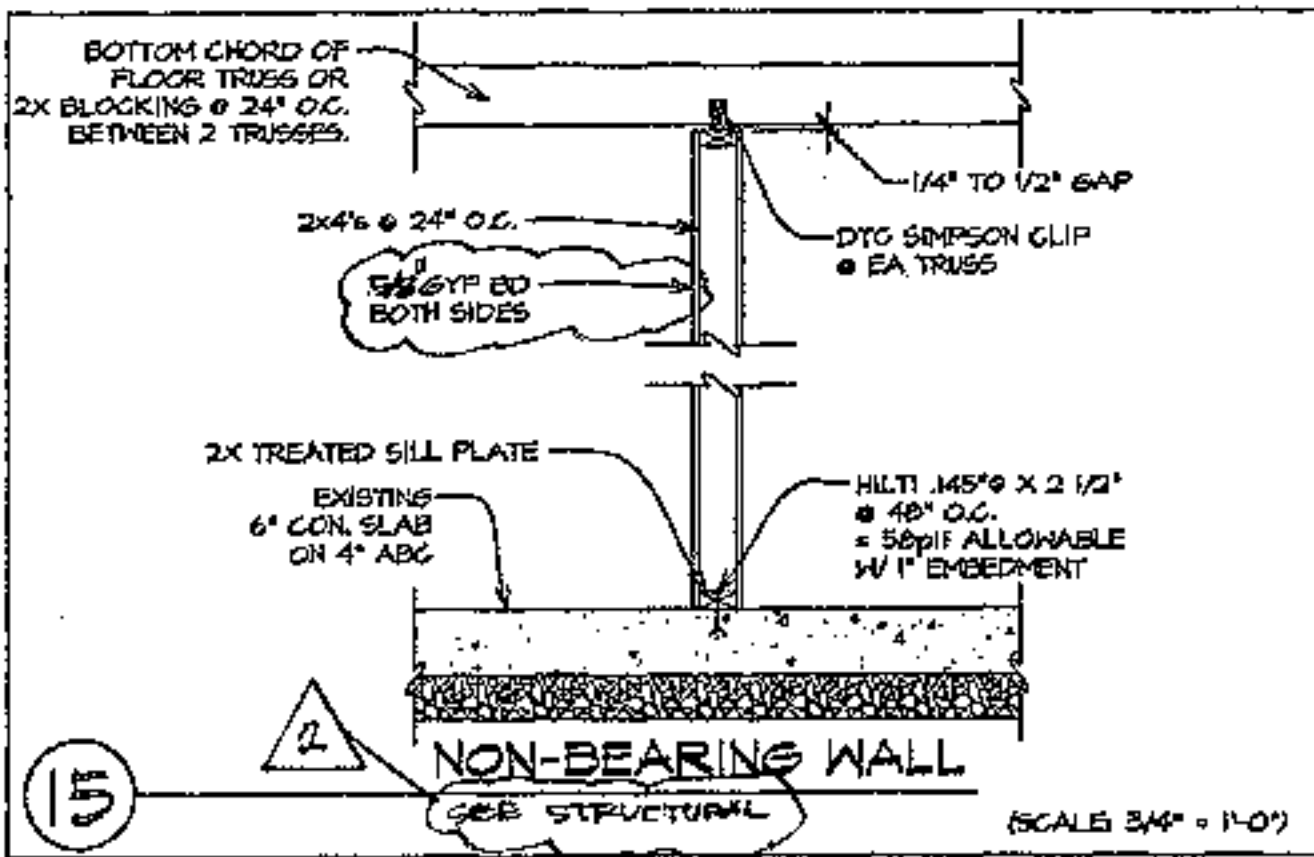
17 CANTILEVERED FLOOR TRUSS BEARING @ BEAM (SCALE: 3/4" = 1'-0")



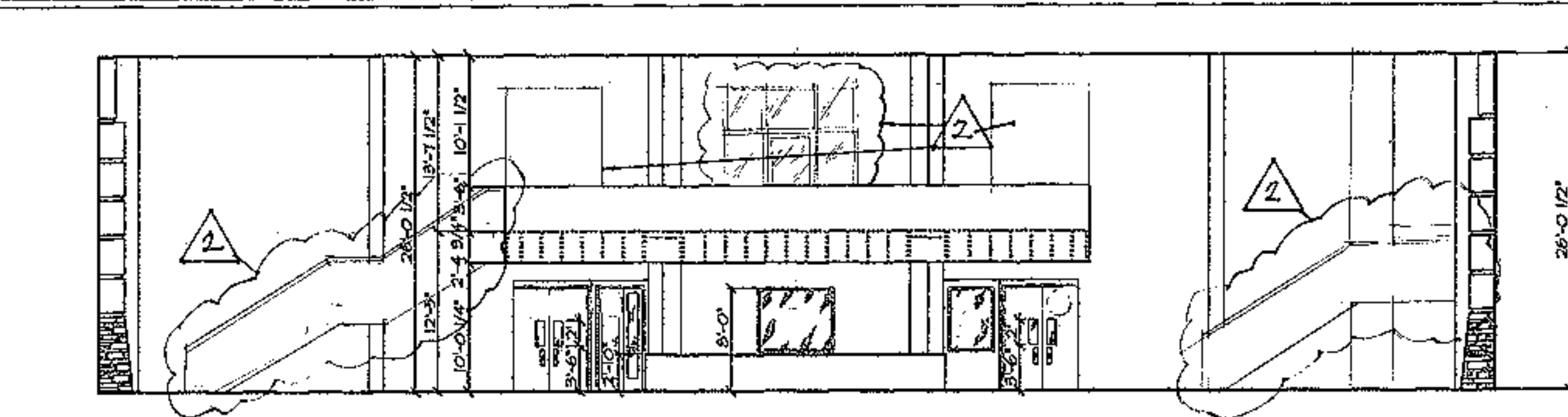
18 WOOD-BEAM @ STEEL COLUMN (SCALE: 3/4" = 1'-0")



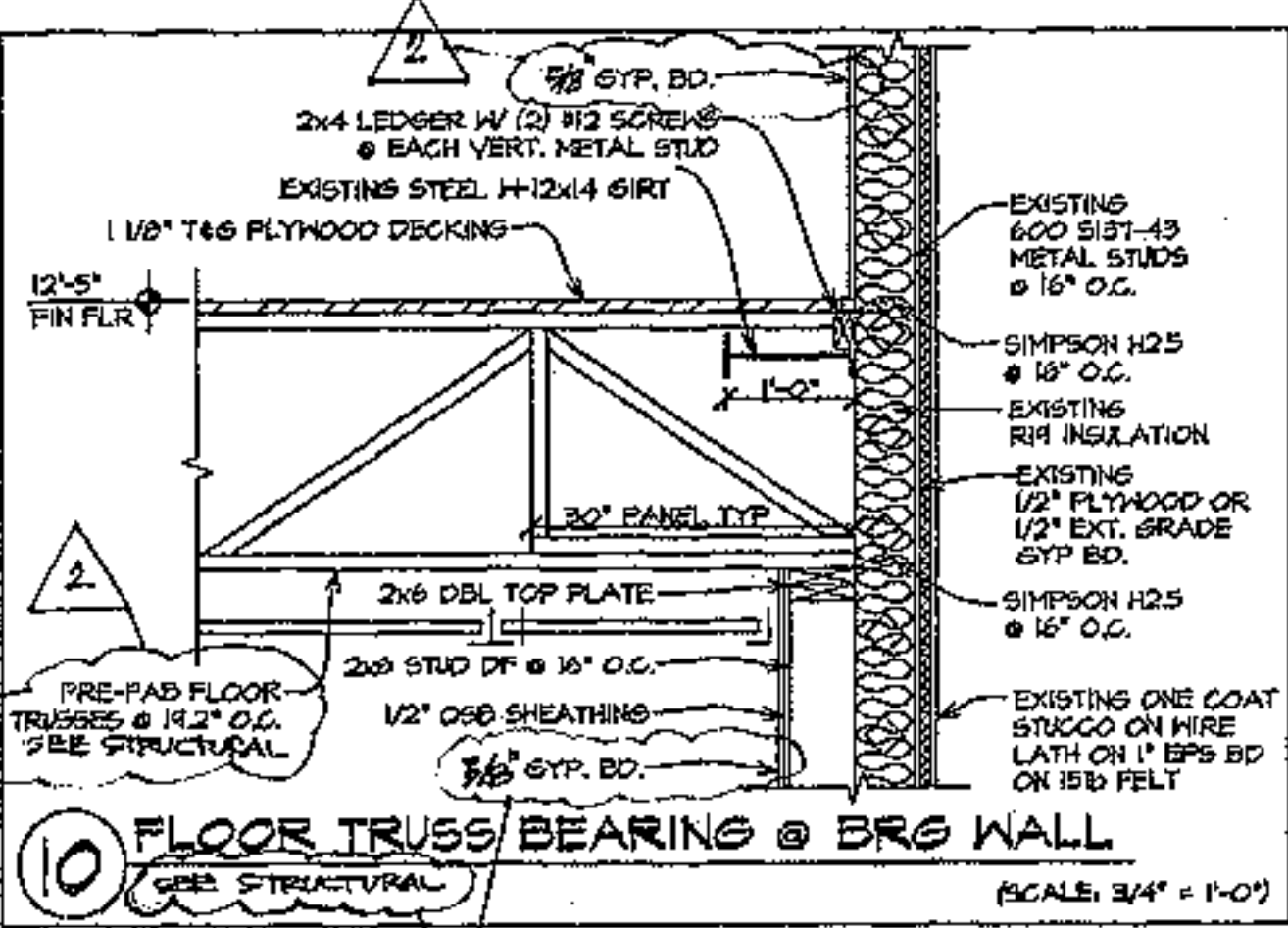
11 FLOOR TRUSS BEARING @ INTERIOR WALL (SCALE: 3/4" = 1'-0")



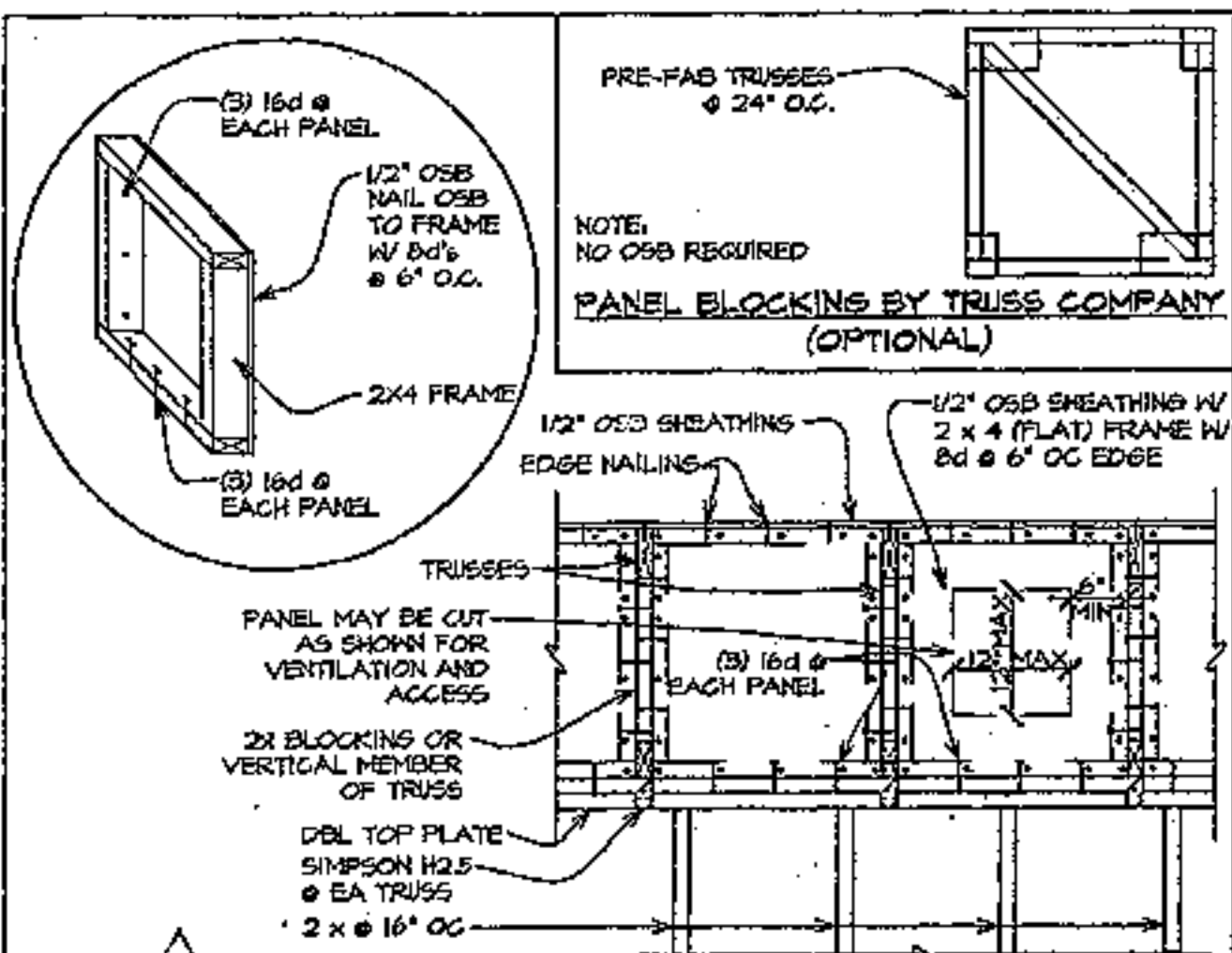
15 NON-BEARING WALL (SCALE: 3/4" = 1'-0")



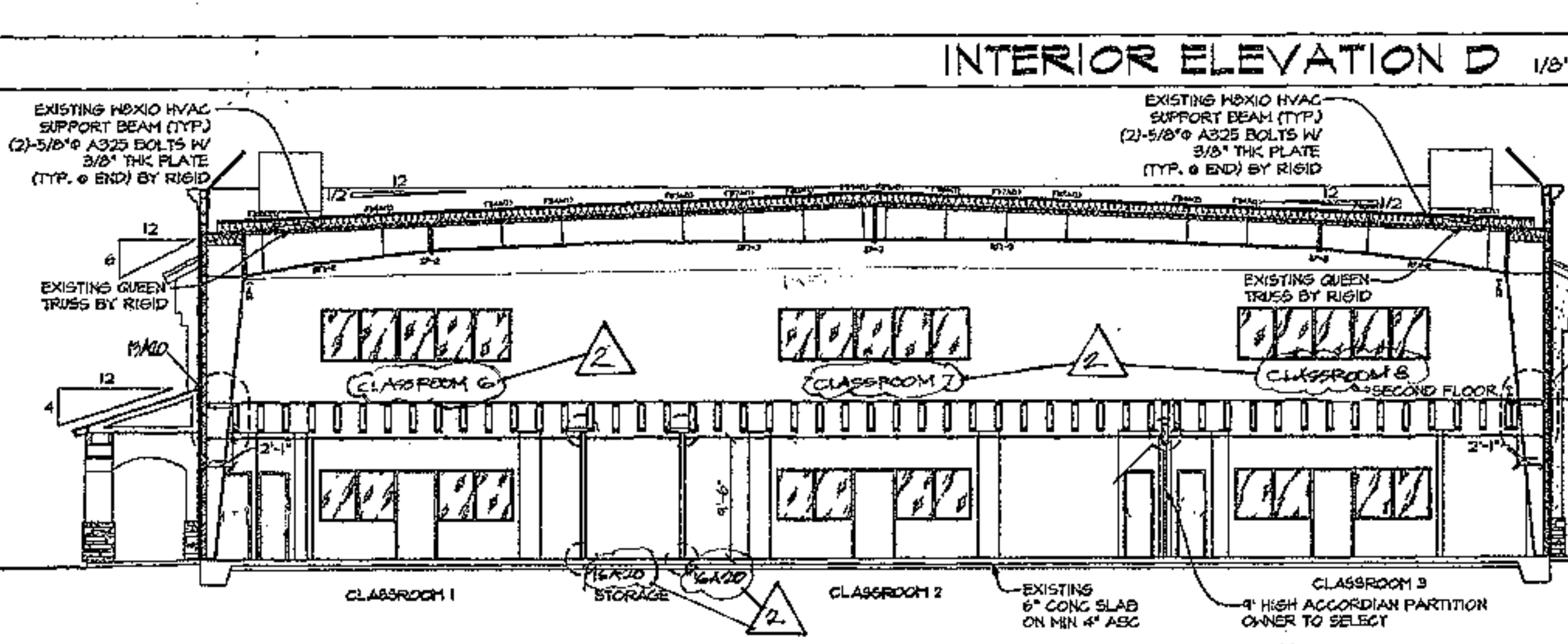
INTERIOR ELEVATION D 1/8" = 1'-0"



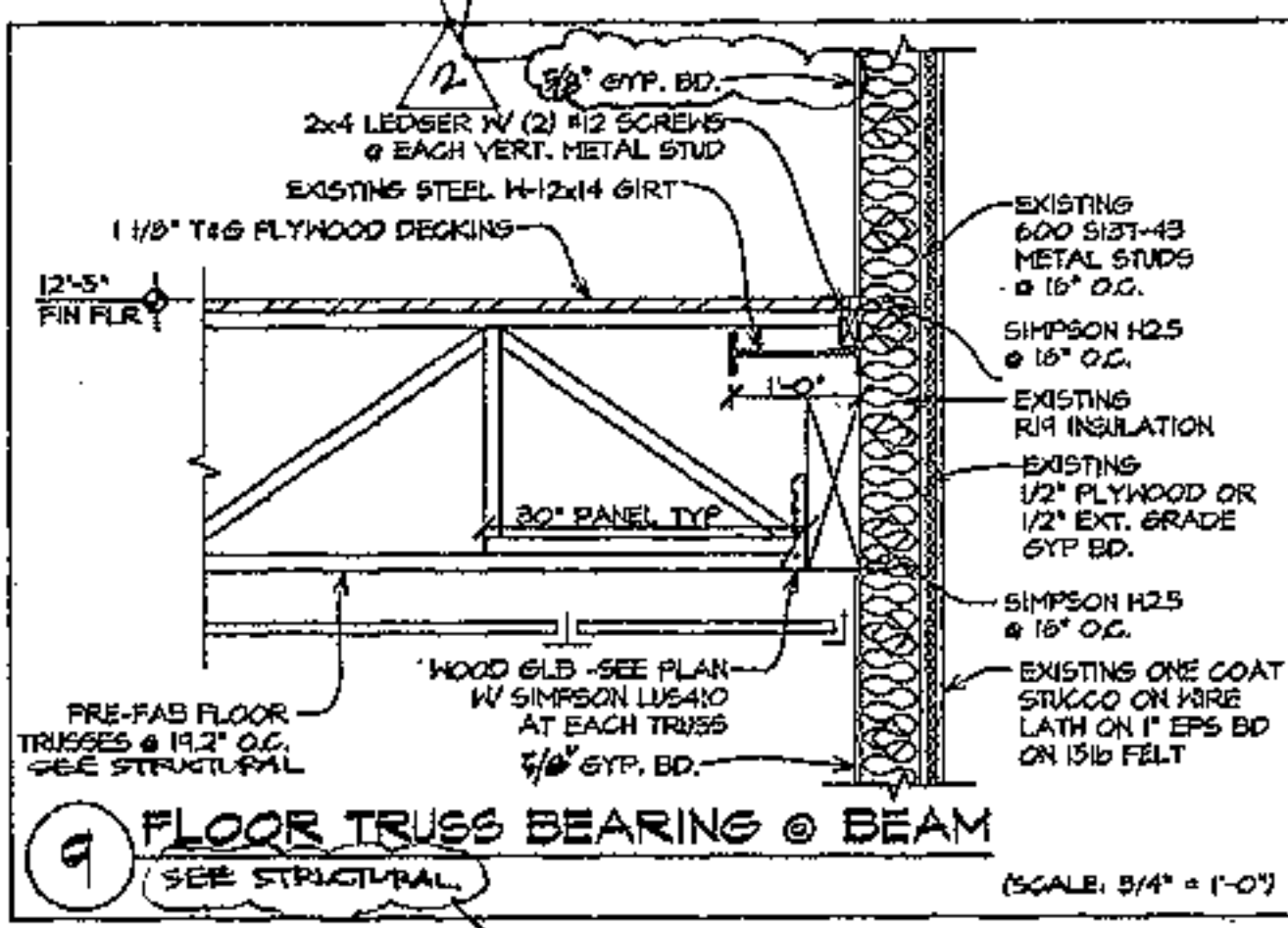
10 FLOOR TRUSS BEARING @ BRG WALL (SCALE: 3/4" = 1'-0")



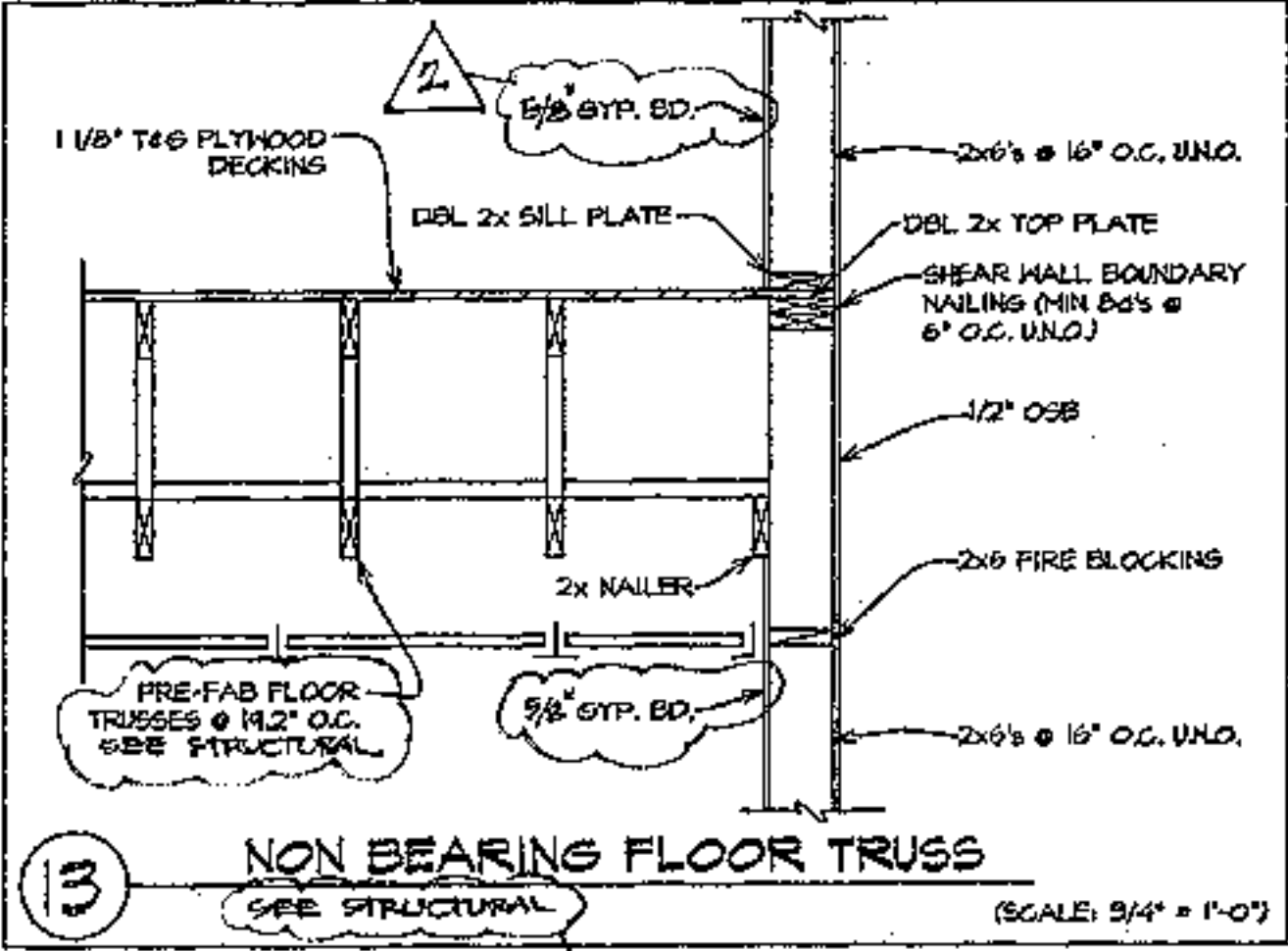
14 PANEL BLOCKING (TYPICAL) (SCALE: 3/4" = 1'-0")



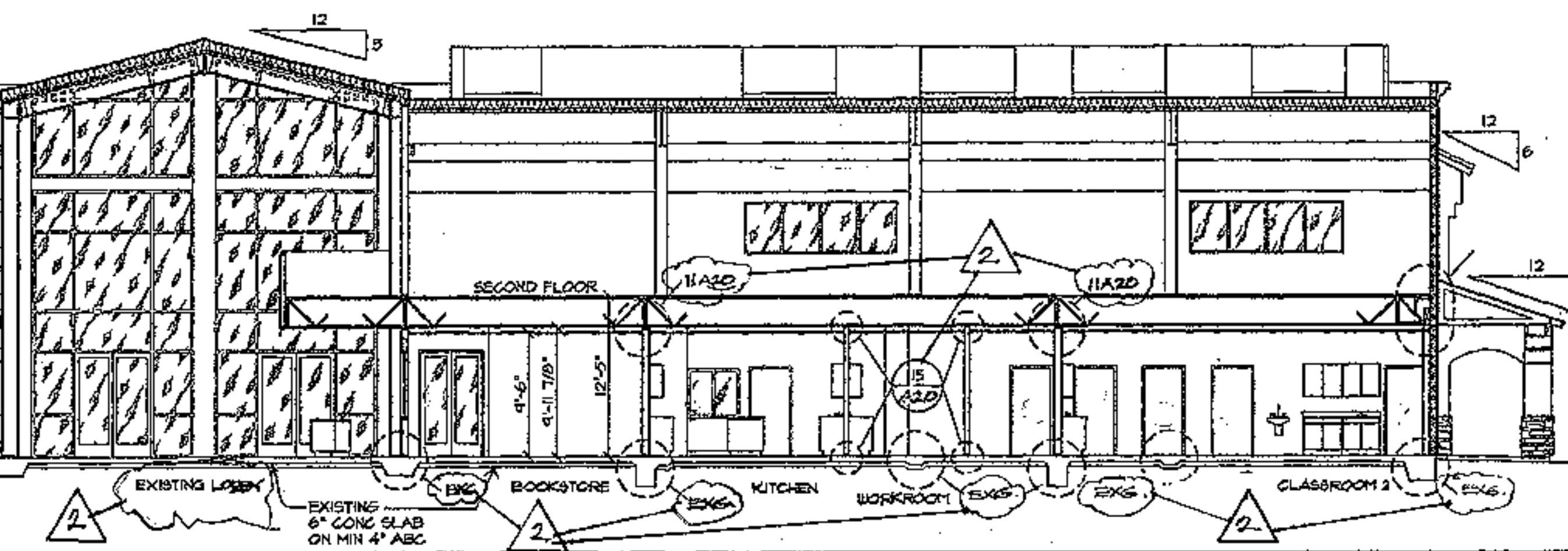
BLDG SECTION C-C 1/8" = 1'-0"



9 FLOOR TRUSS BEARING @ BEAM (SCALE: 3/4" = 1'-0")

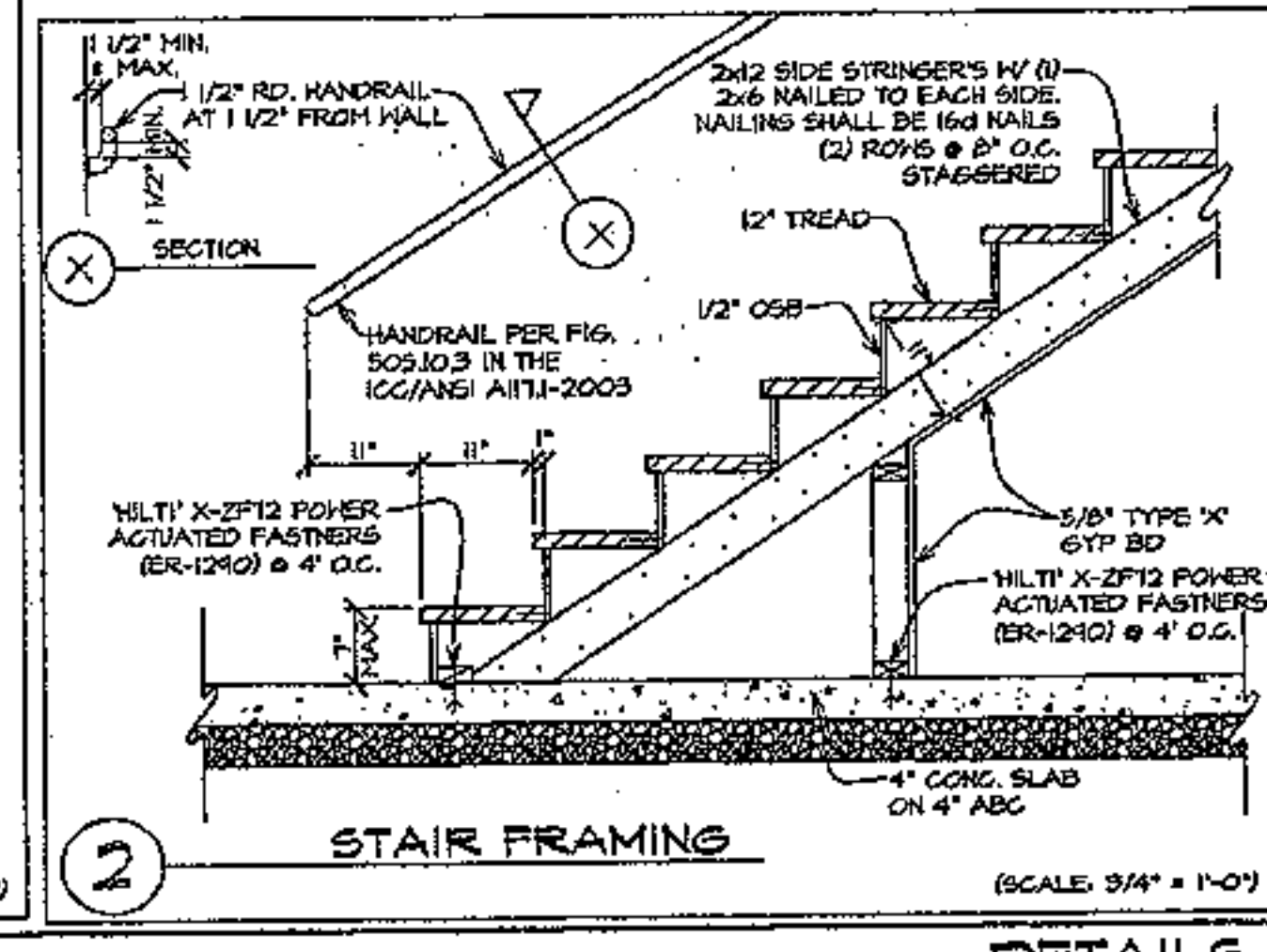
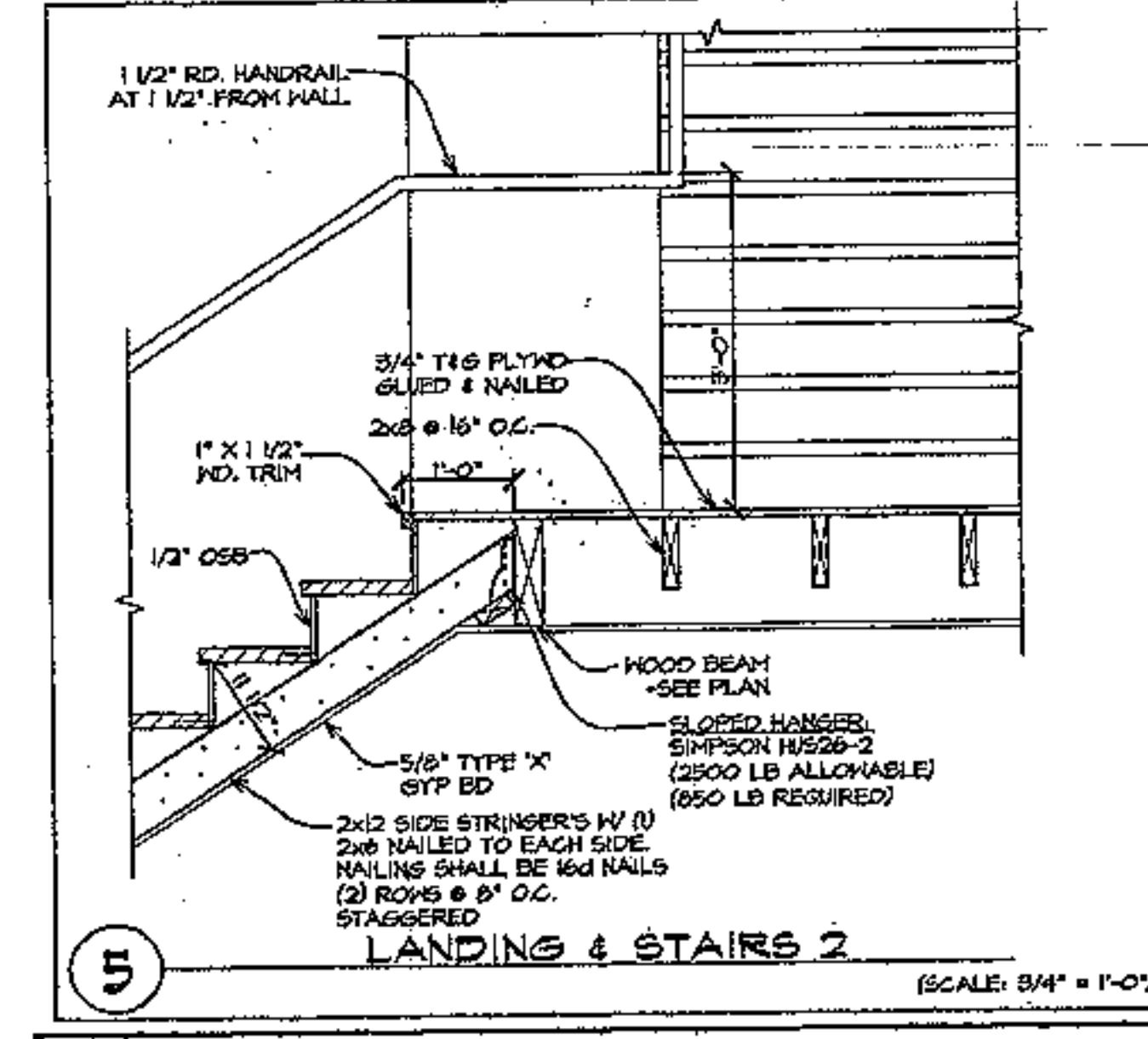
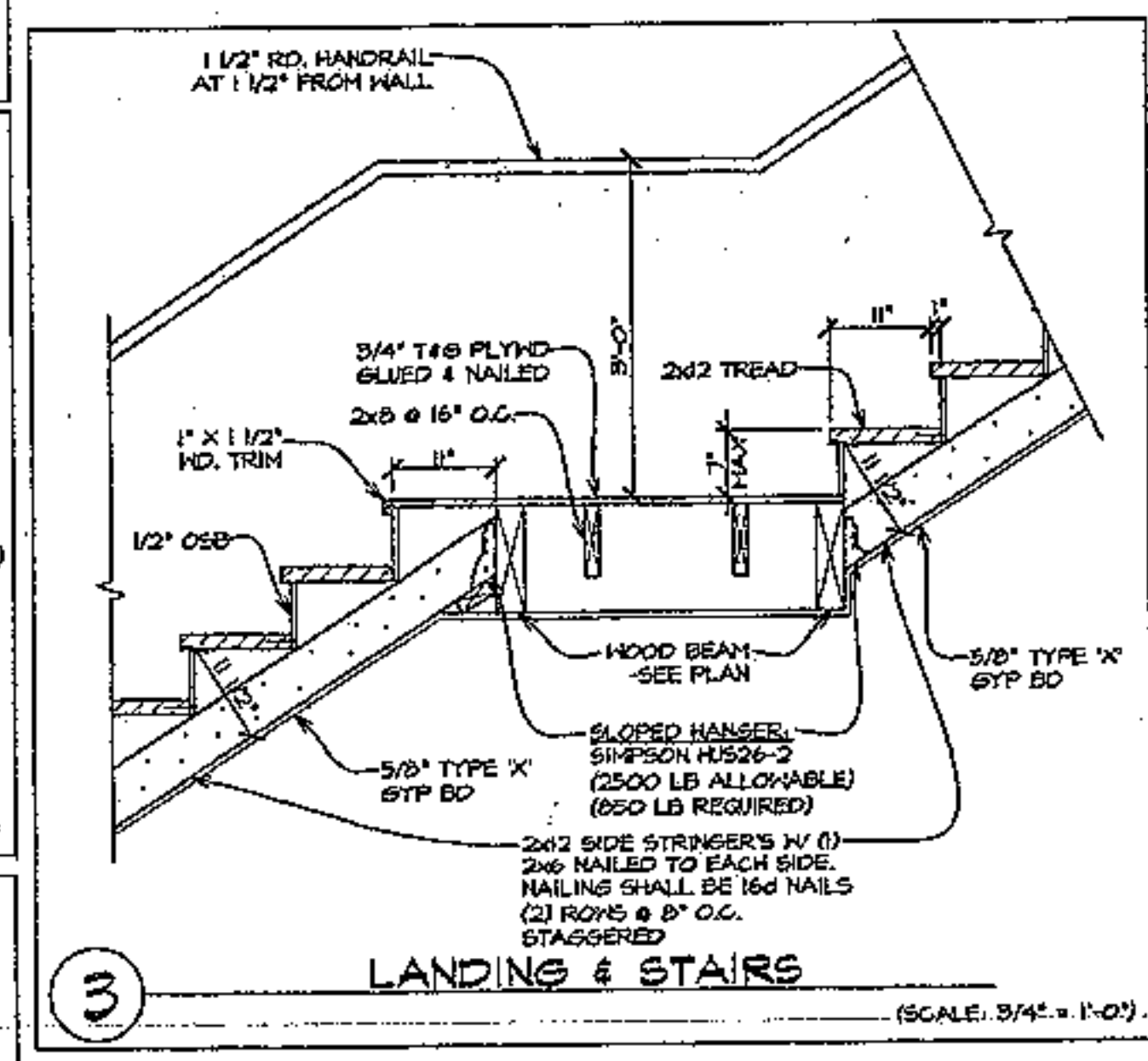
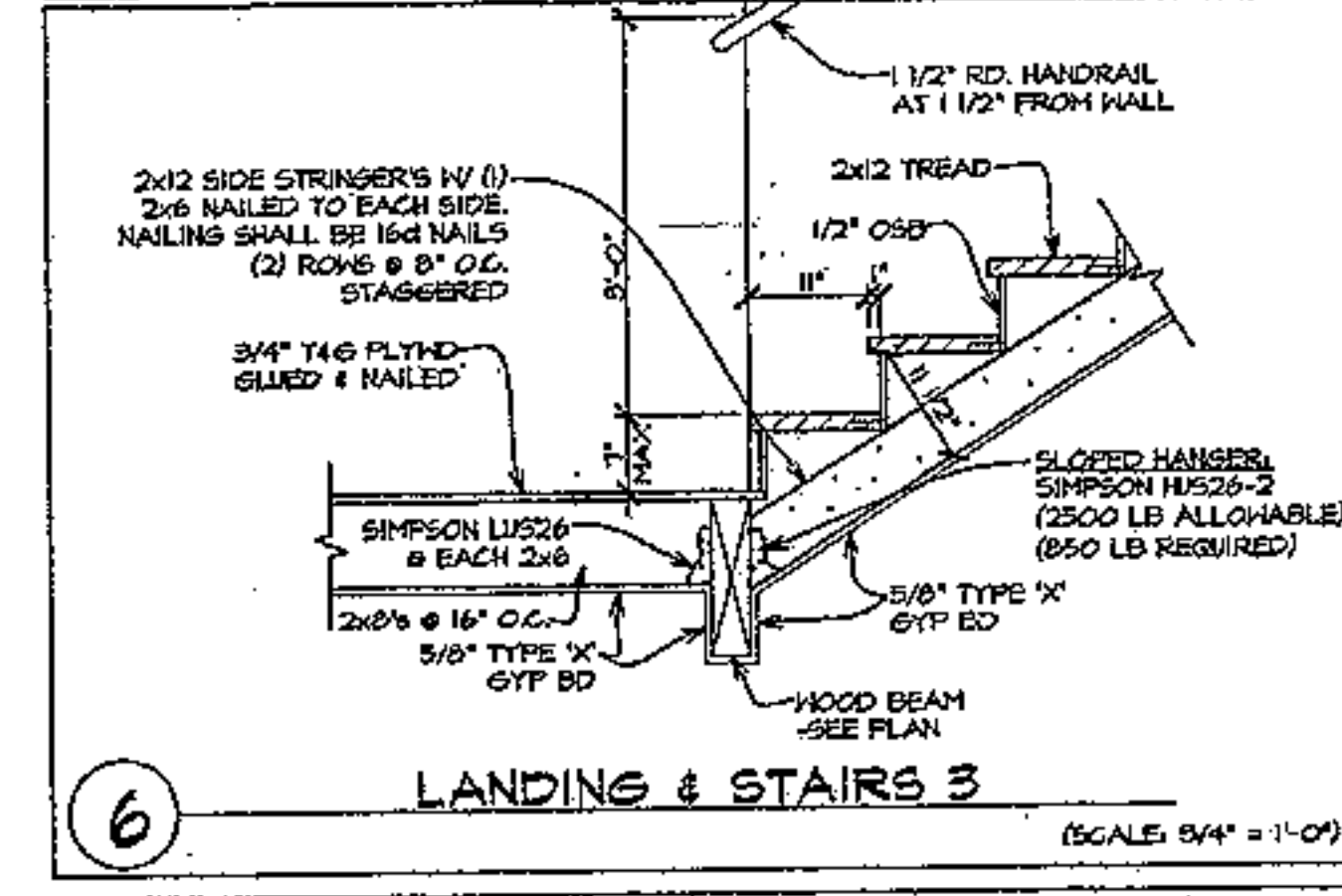
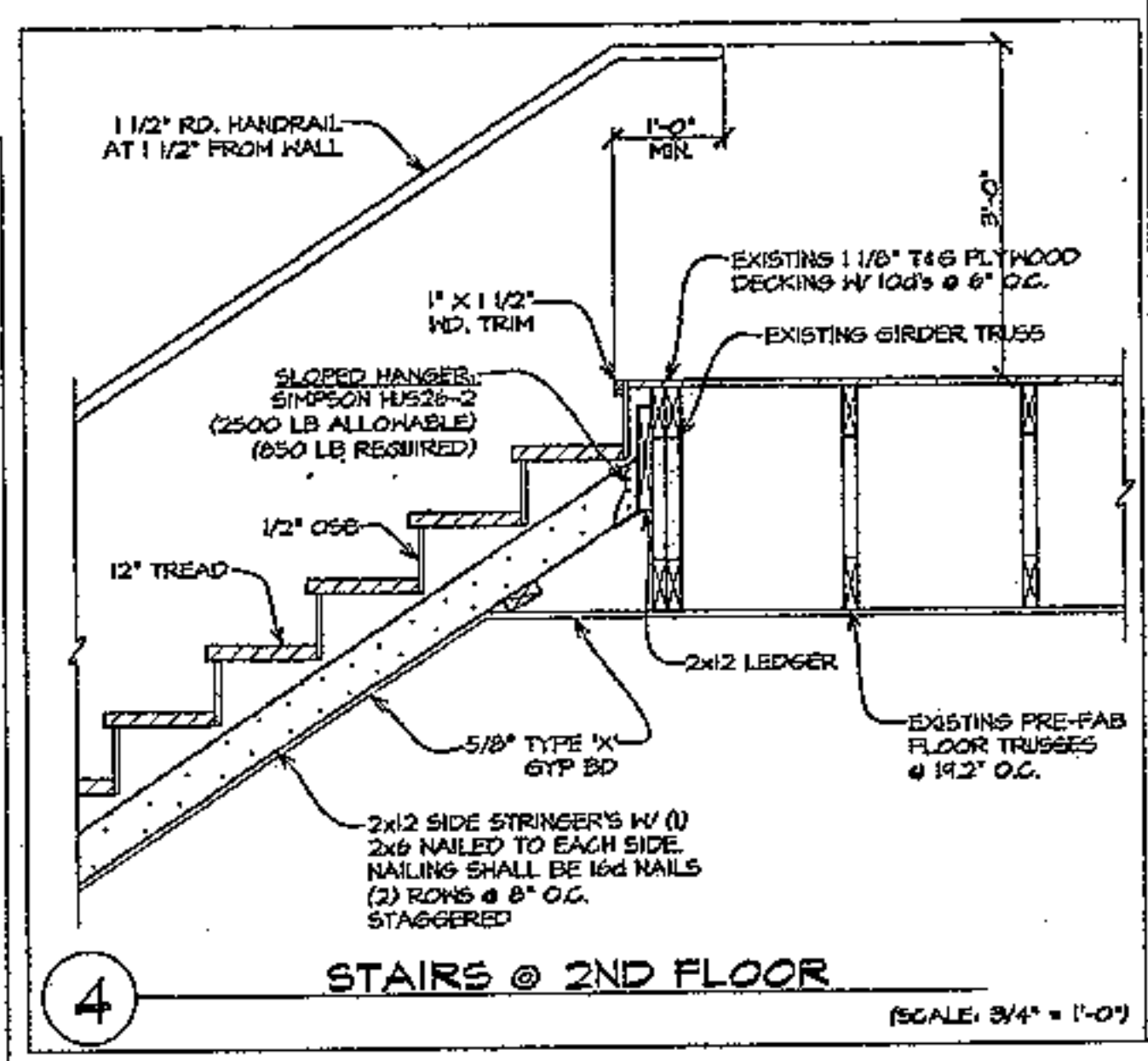
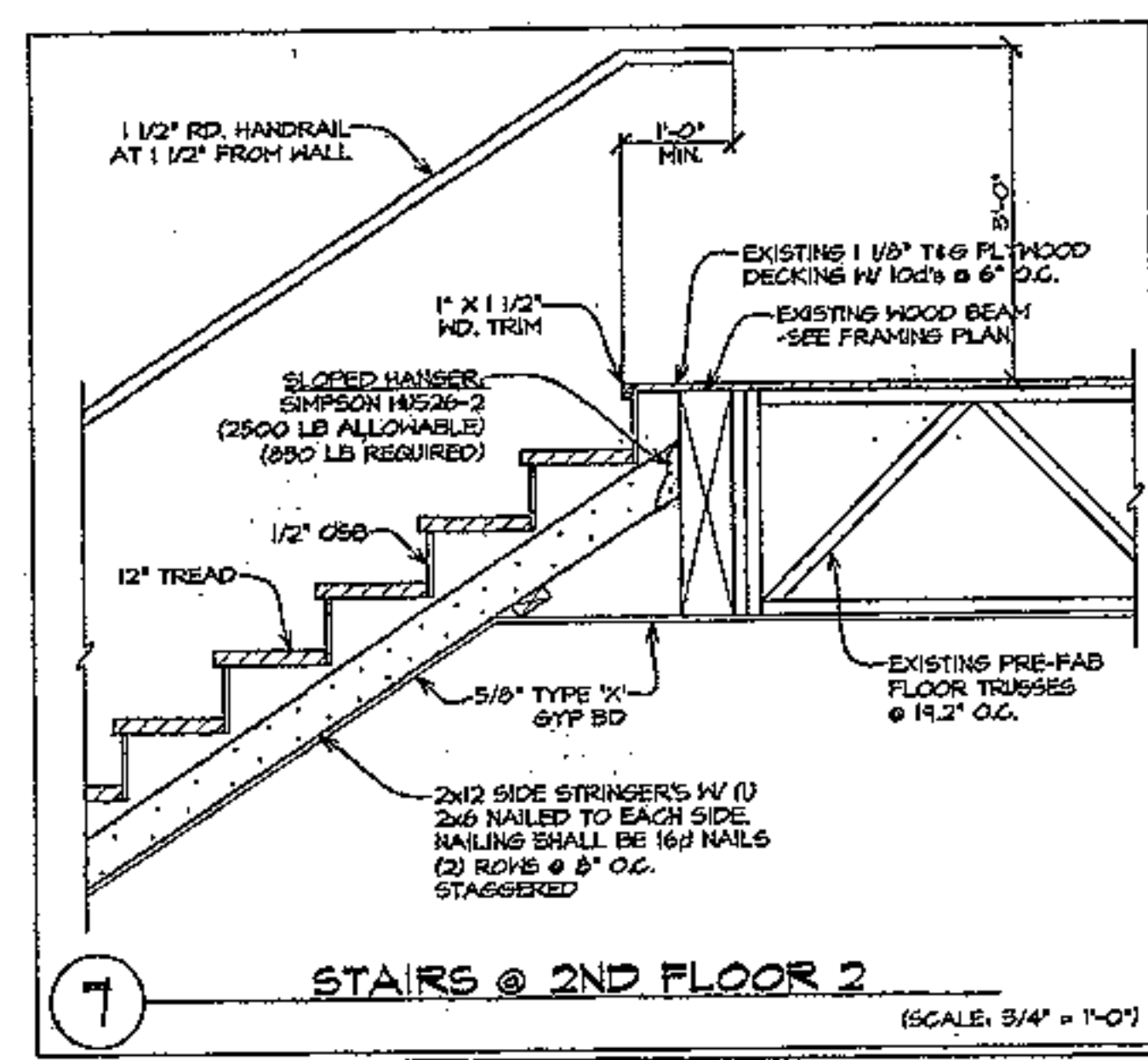


13 NON-BEARING FLOOR TRUSS (SCALE: 3/4" = 1'-0")

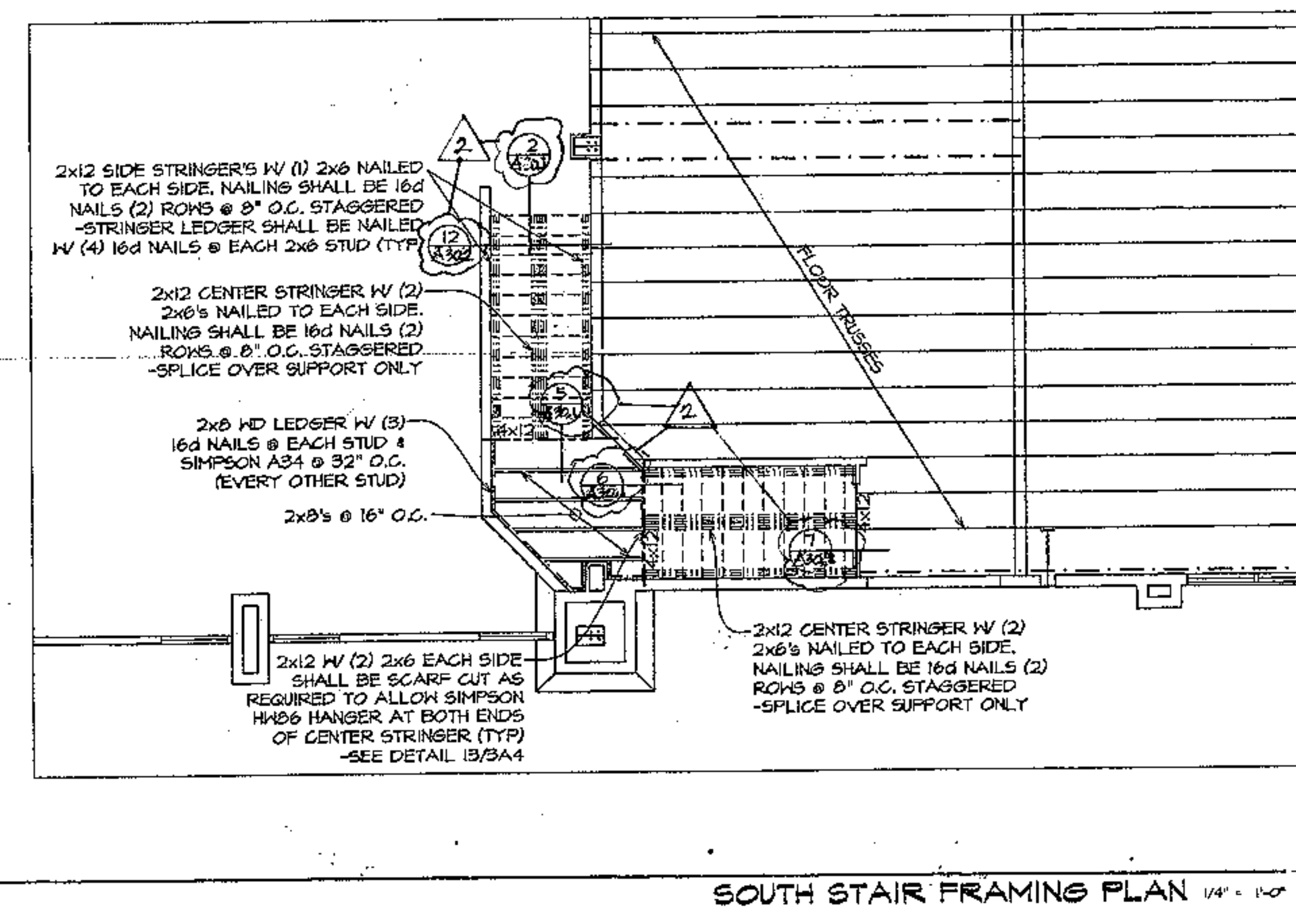
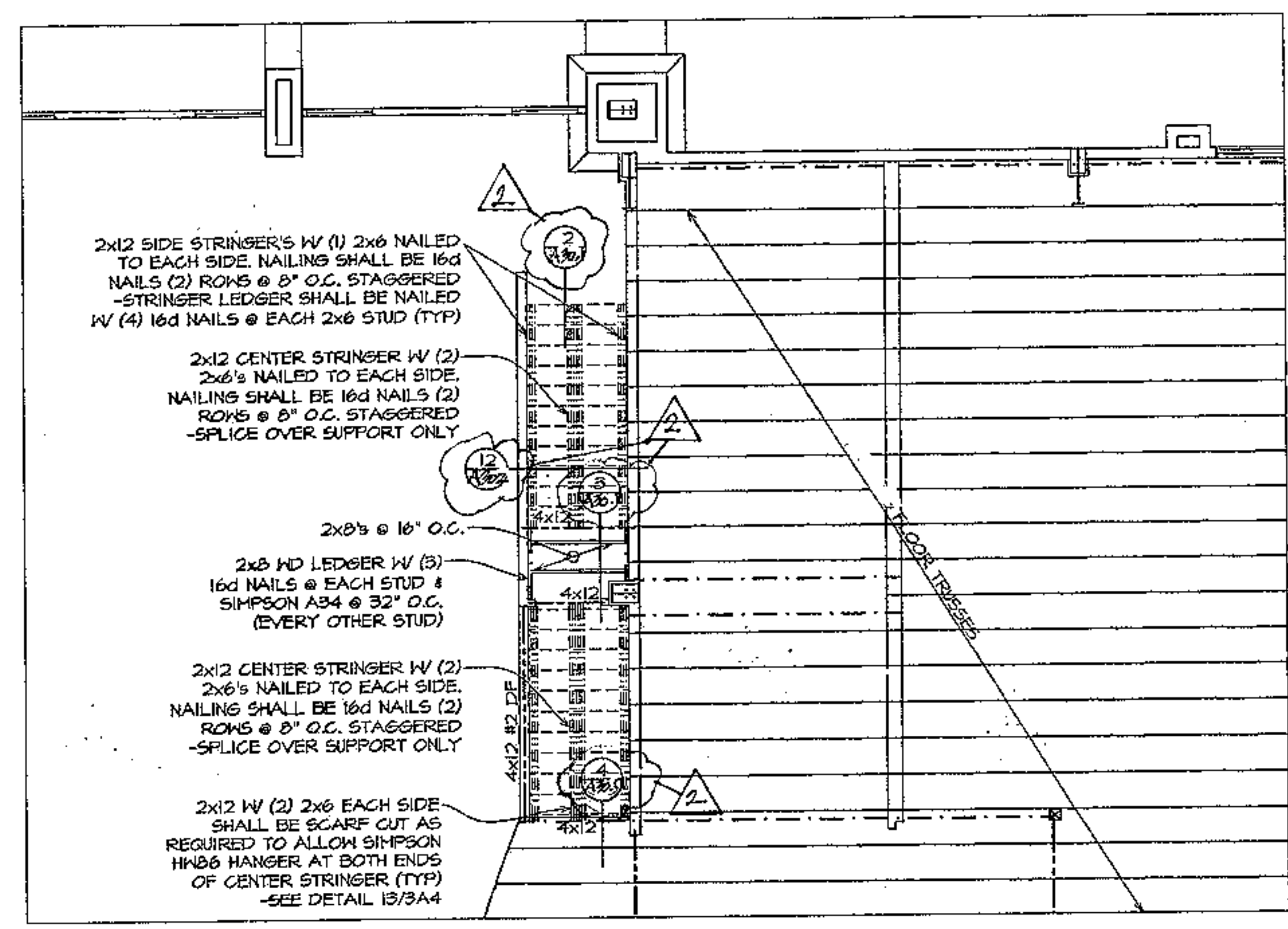


BLDG SECTION B-B 1/8" = 1'-0"

DETAILS



DETAILS



SOUTH STAIR FRAMING PLAN 1/4" = 1'-0"

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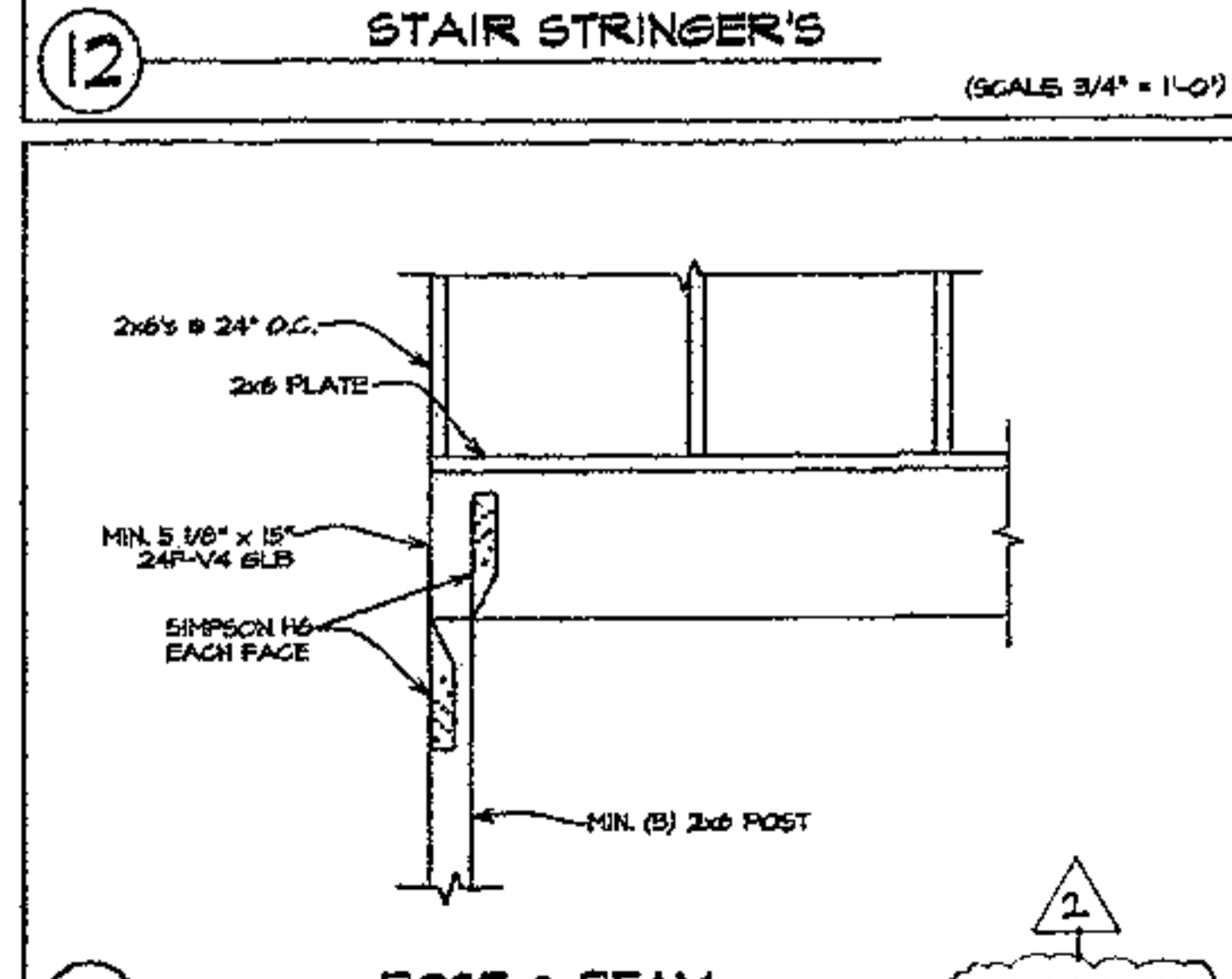
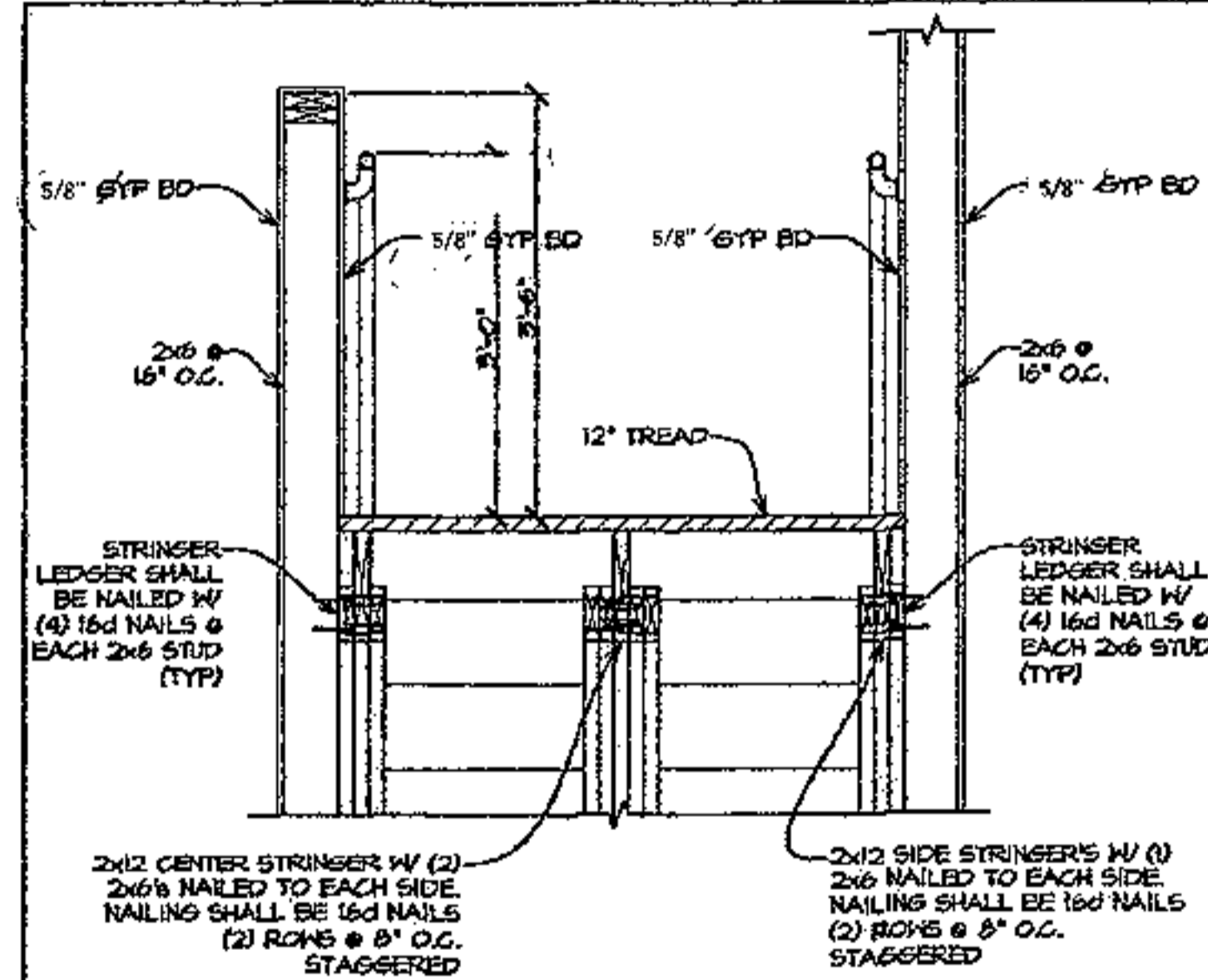
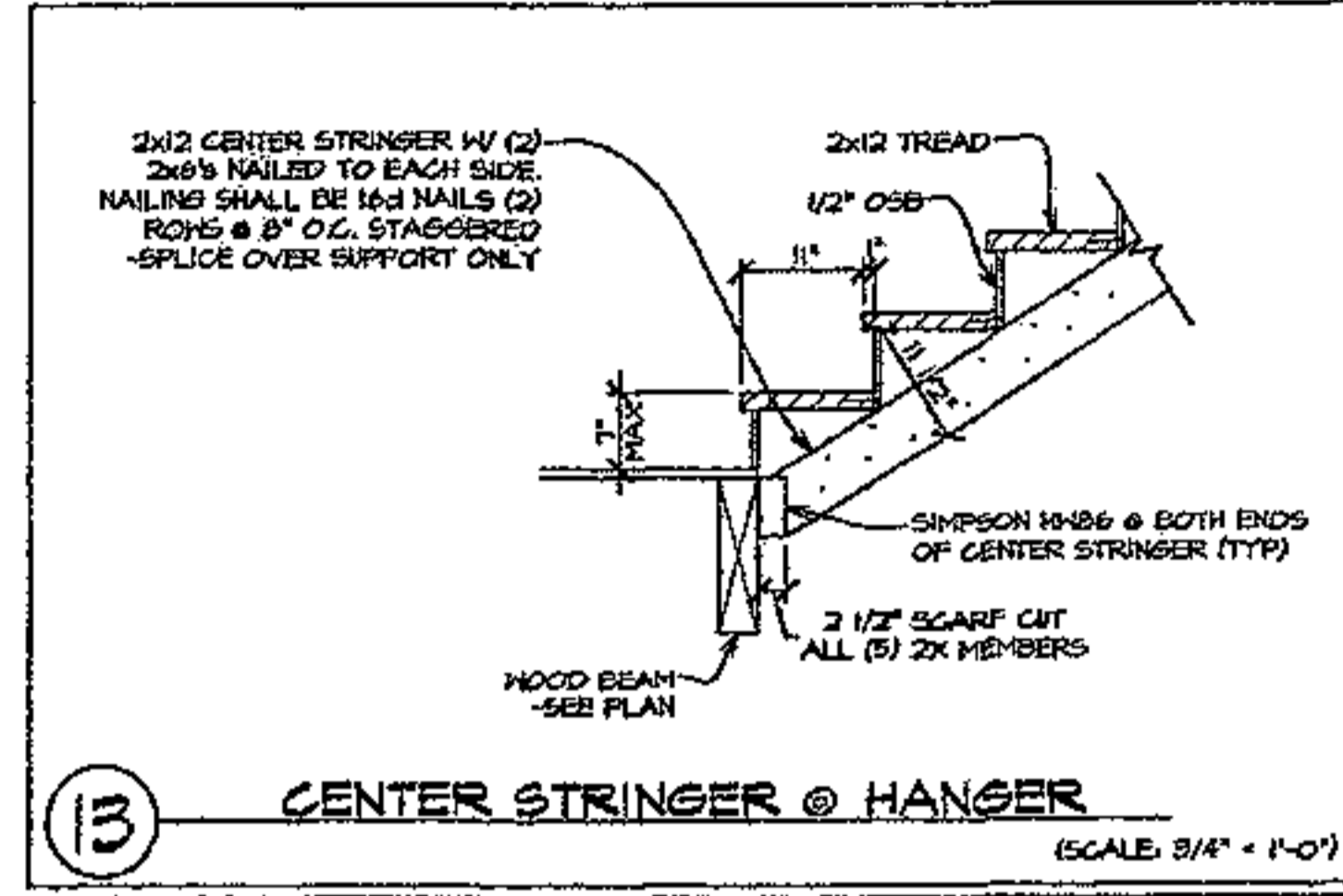
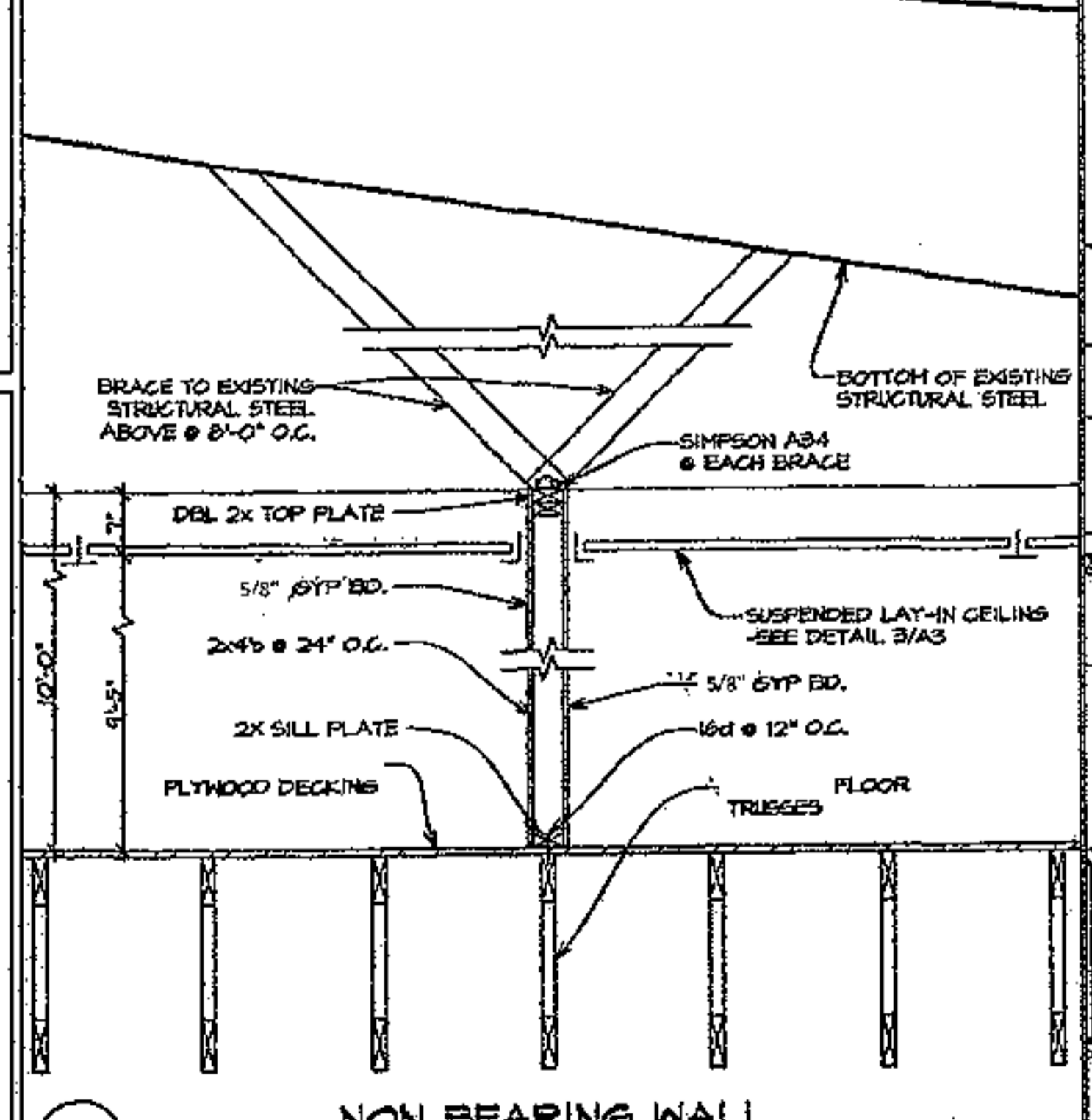
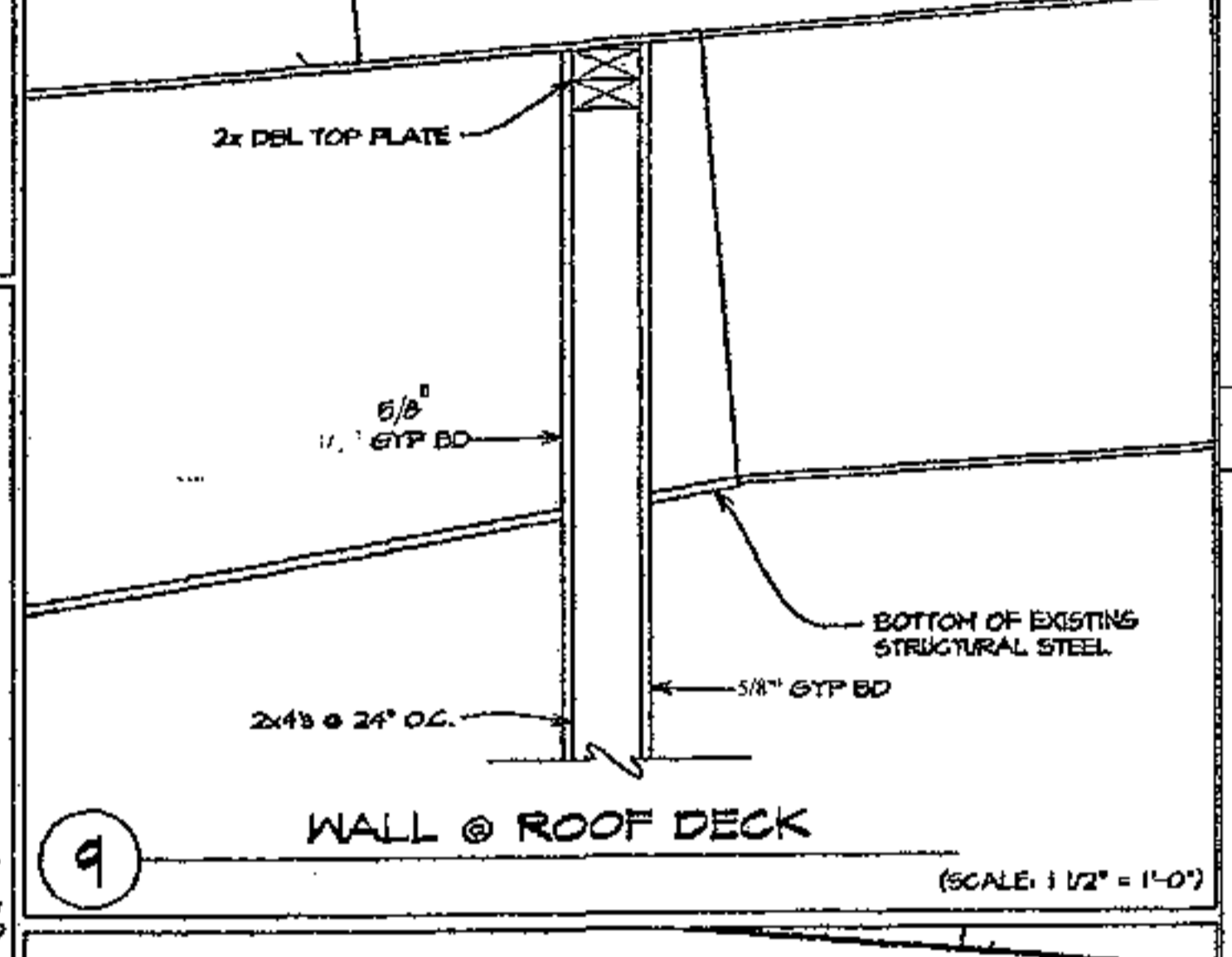
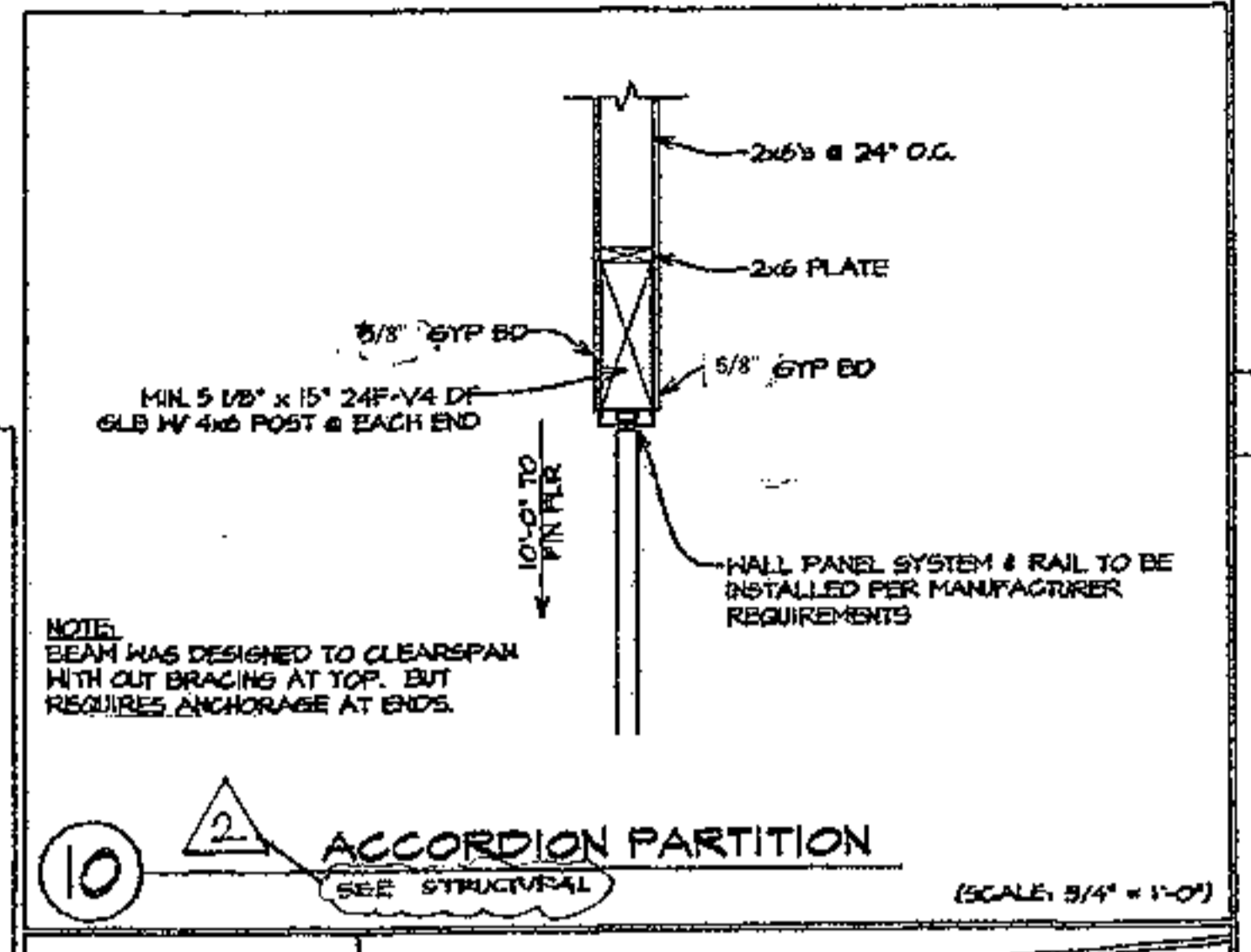
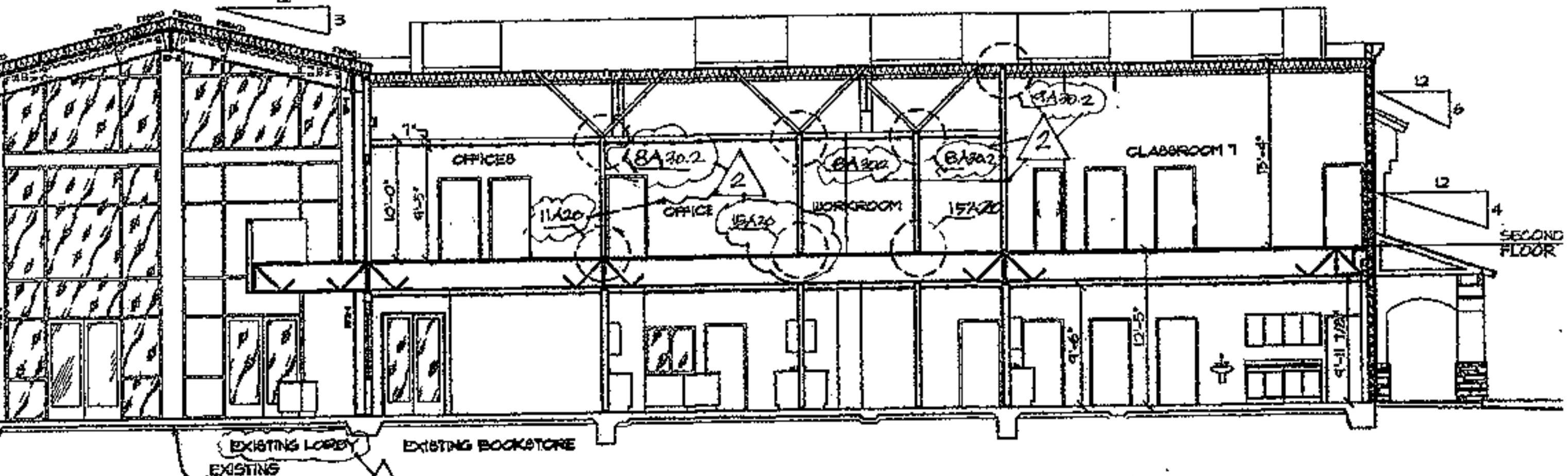
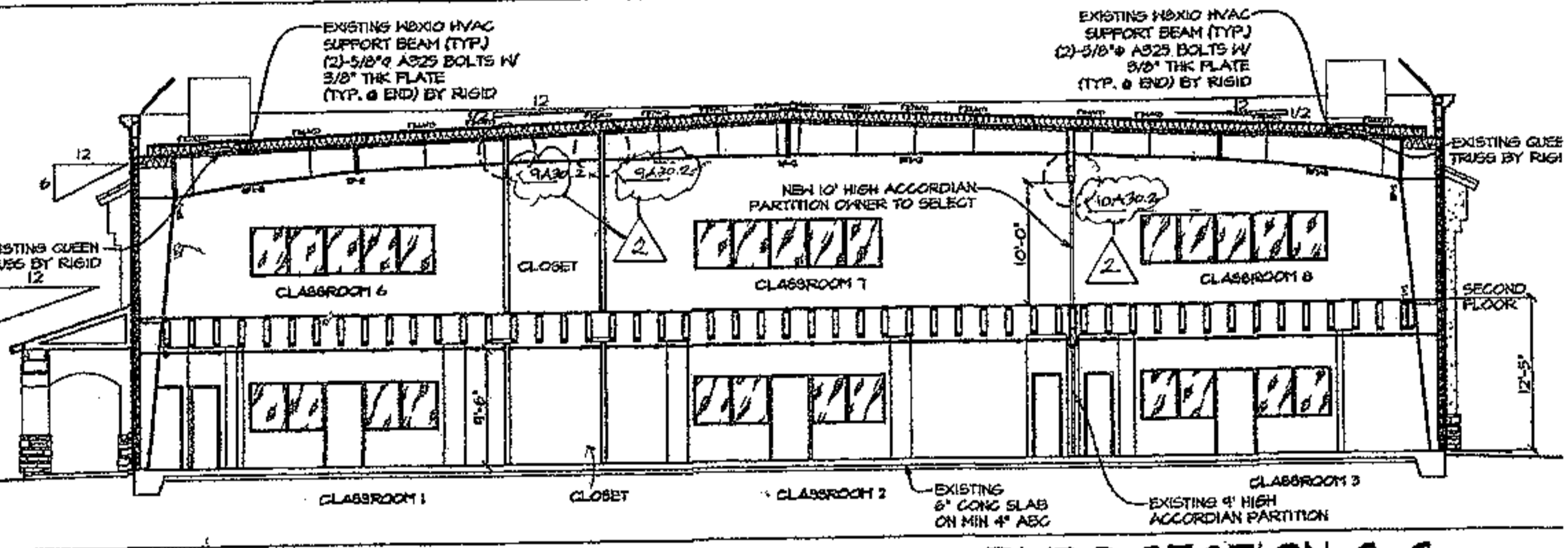
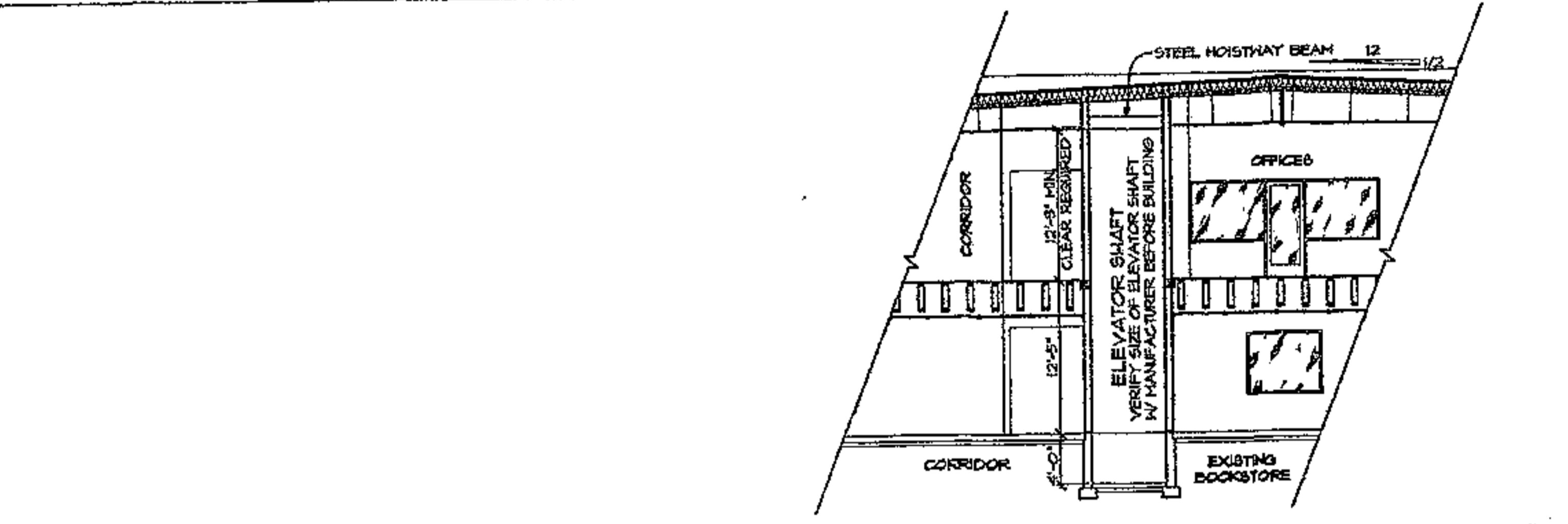
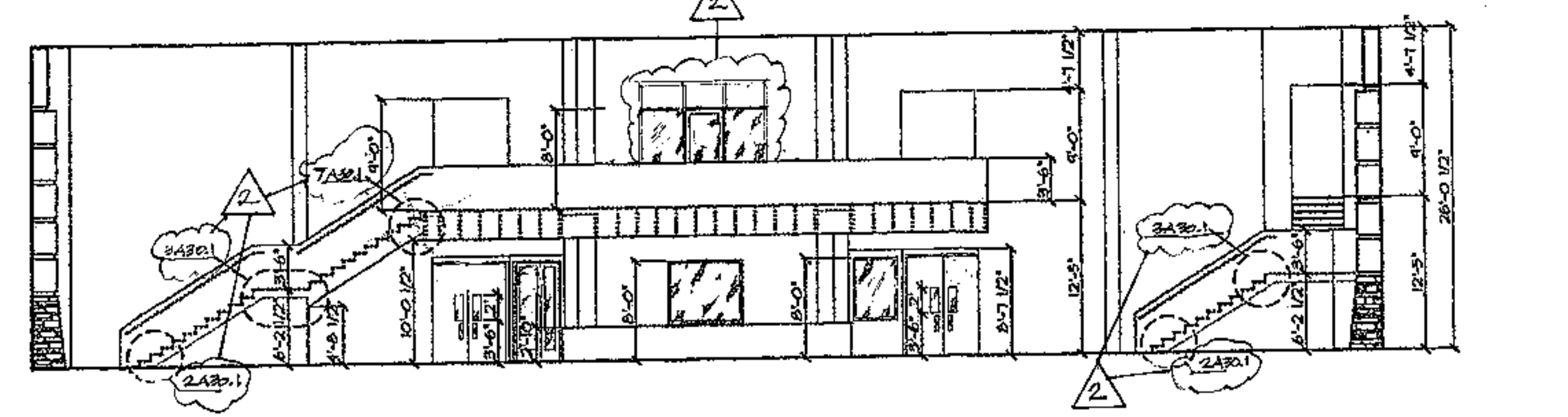
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 ARCHITECTS, L.L.C.

PO BOX 2302
 Carefree, AZ 85377
 37417 Tom Darlington Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325
 WEB SITE
 www.augustreno.com
 EMAIL ADDRESS
 augr@augustreno.com

STAIR DETAILS

SHEET NO:

A30.2



DETAILS

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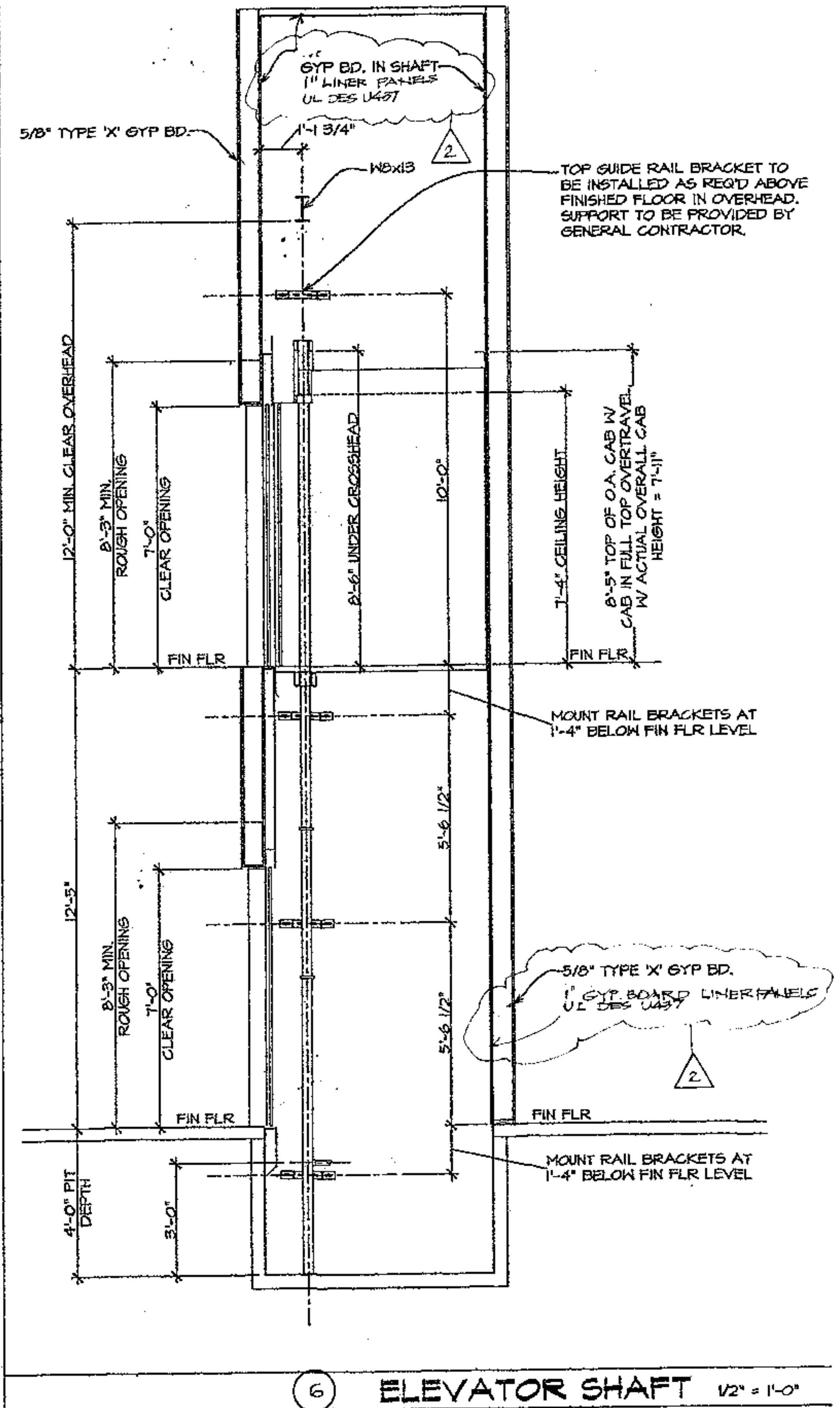
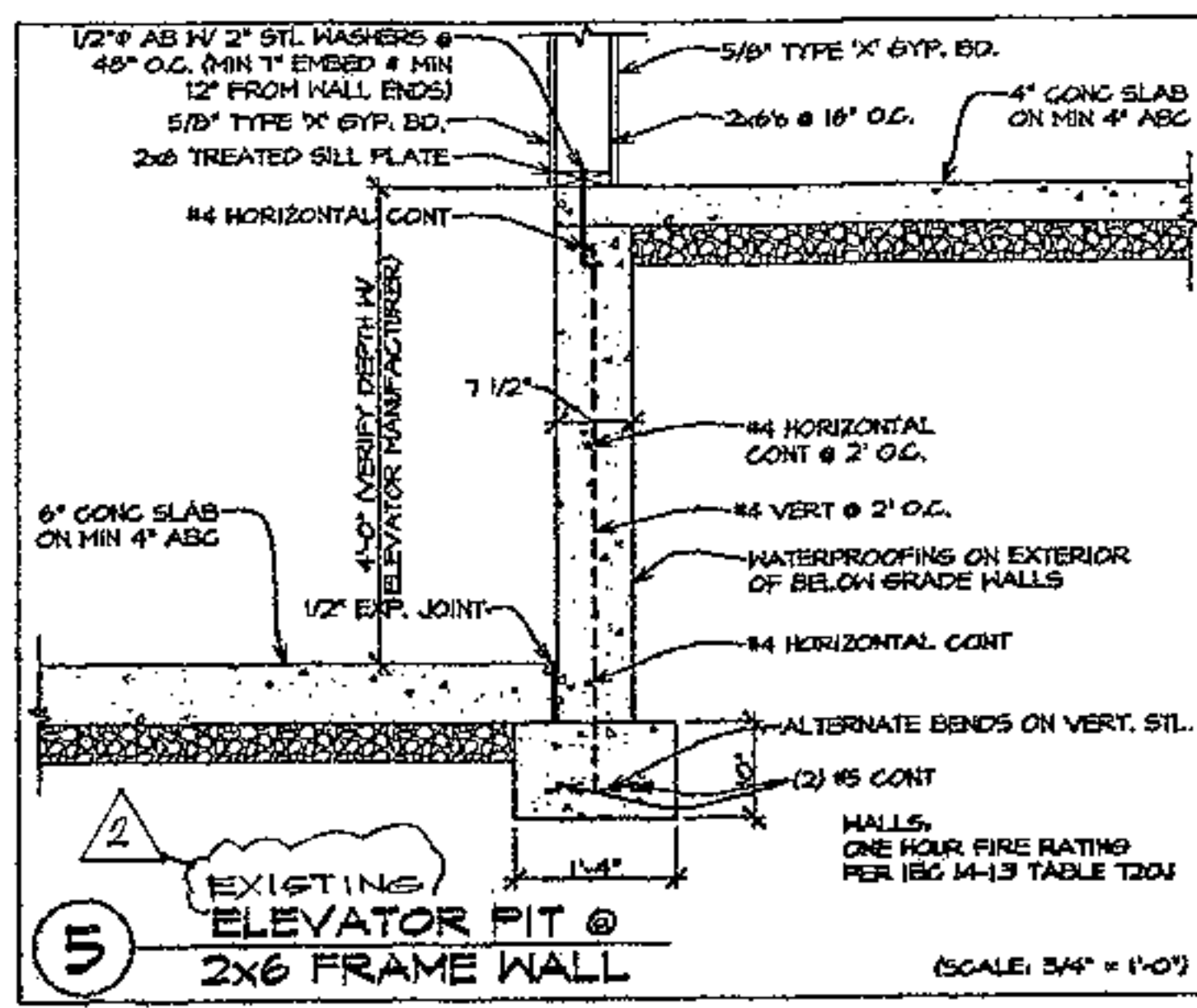
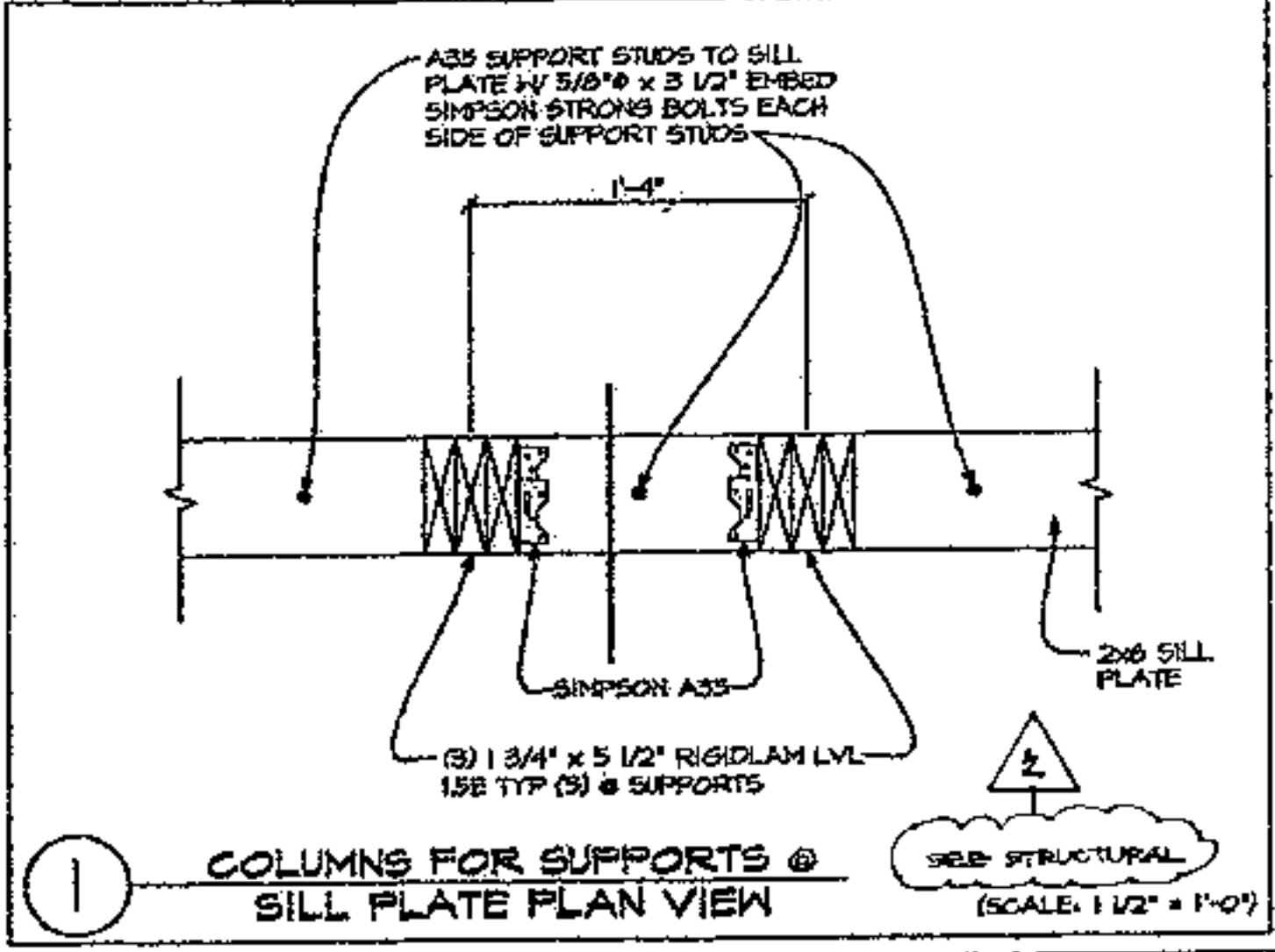
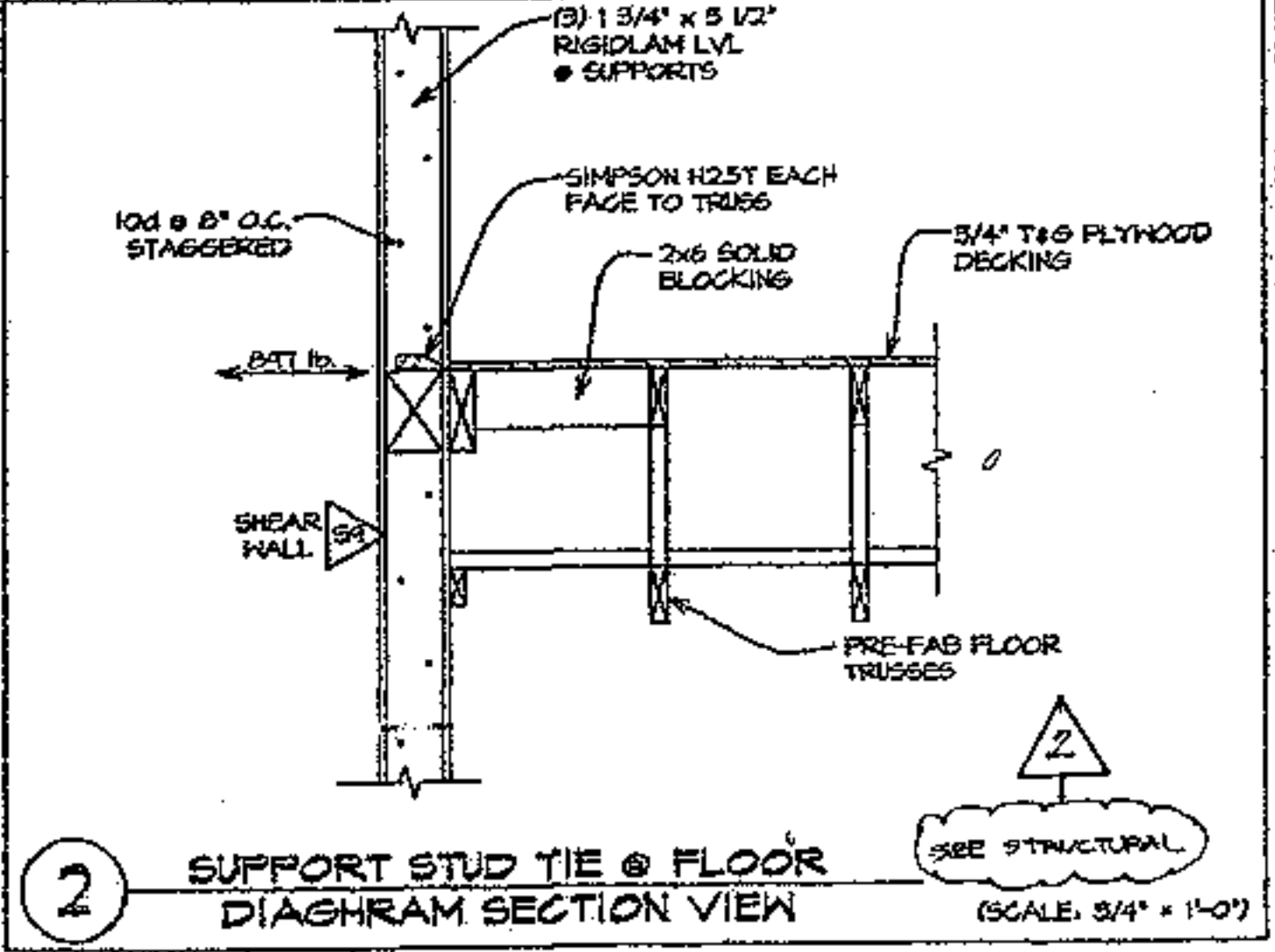
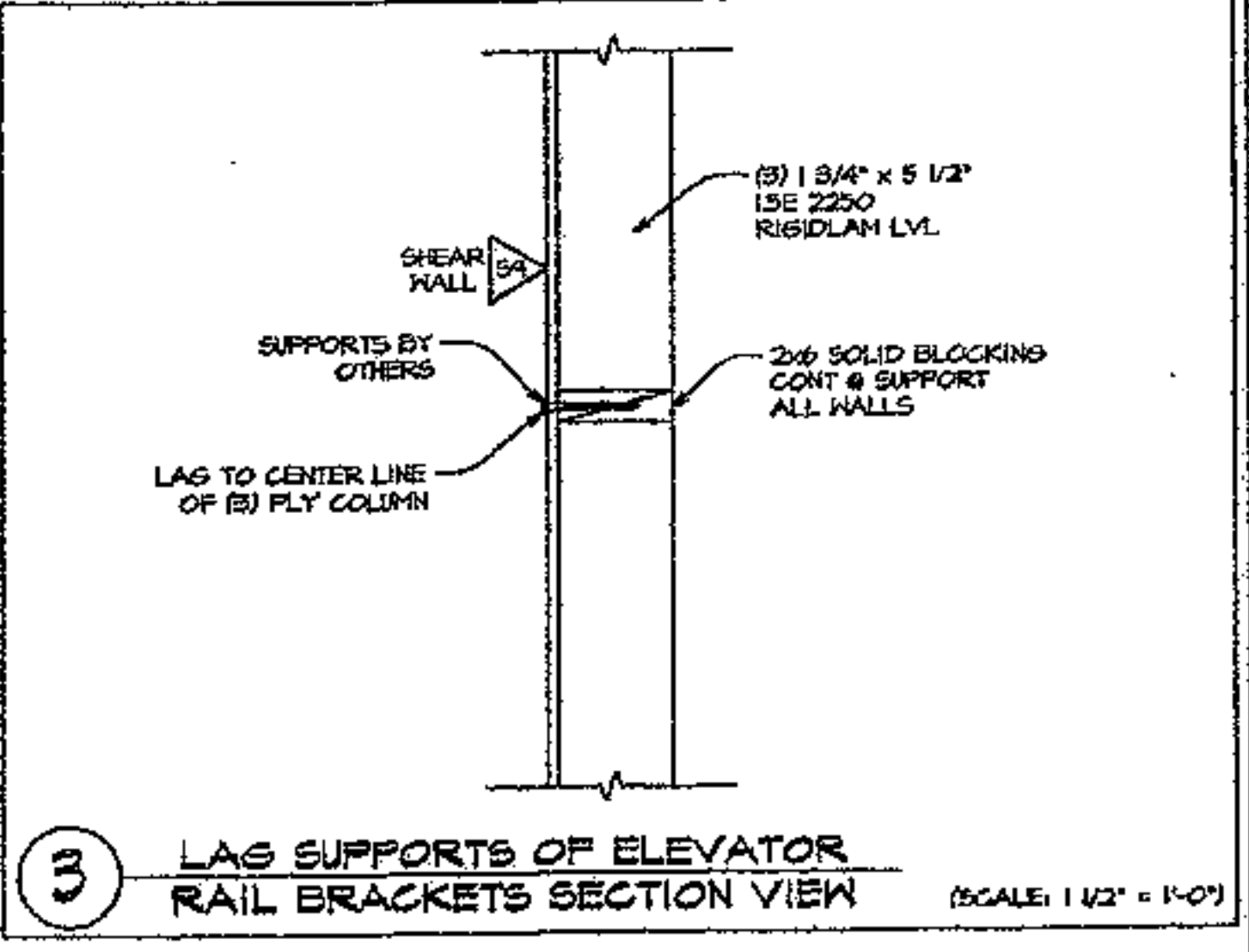
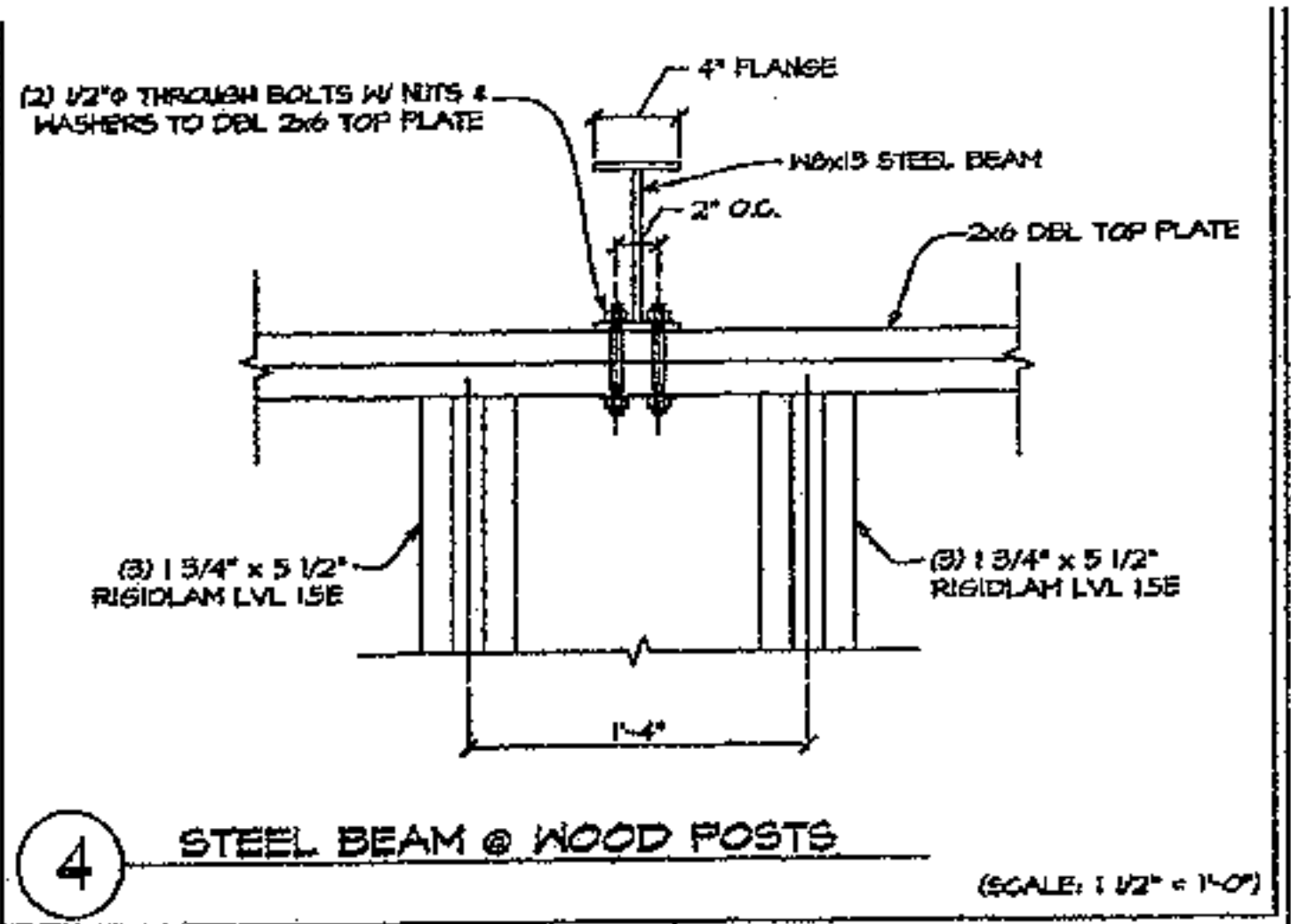
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PO BOX 2362
 Carefree, AZ 85377
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 Carefree, AZ 85377
 (480) 488-0853
 FAX (480) 636-1325
 WEB SITE
 www.augustreno.com
 EMAIL ADDRESS
 augre@augustreno.com

ELEVATOR SECTION

SHEET NO:

A40



NOTE: INFORMATION ON THIS SHEET IS BASED ON THYSSENKRUPP ELEVATOR DESIGN AT TIME OF BUILDING PLAN CREATION. CONTRACTOR SHALL VERIFY WITH ELEVATOR COMPANY ALL DETAILS BEFORE CONSTRUCTION.

ELEVATOR DETAILS

NOTES:

1) METAL SUSPENSION SYSTEMS FOR ACOUSTICAL TILE & FOR LAY-IN PANEL CEILING SHALL BE INSTALLED WITH 2012 INTERNATIONAL BUILDING CODE (I.B.C.).
 2) LATERAL FORCEBRACINGS NOT TO EXCEED 12" O.C. IN BOTH DIRECTIONS W/ THE FIRST POINT 1/2" WITHIN 4" FROM EACH MALL.

HANGERS:

HANGERS FOR SUSPENDED CEILING SHALL BE NOT LESS THAN THAT SET FORTH IN FASTENED TO OR EMBEDDED IN THE STRUCTURAL FRAMES, MASONRY OR CONCRETE. HANGERS SHALL BE SADDLE-TIED AROUND MAIN RUNNERS TO DEVELOP THE FULL STRENGTH OF THE HANGERS. LOWER ENDS OF FLAT CHANNELS OR BENT TIGHTLY AROUND RUNNERS AND BOLTED TO THE MAIN PART OF THE HANGERS.

LOCKING CLIP TO FASTEN CROSS RUNNER TO MAIN RUNNER	SUSPENDED CEILING DETAIL AT MALL HANGER WIRE	ALLOW TENSION
	42	170°
	11	225°
	10	300°

SPLICES & INTERACTIONS OF RUNNERS SHALL BE ATTACHED BY MECHANICAL INTERLOCKING CONNECTIONS SUCH AS RIVETS, SCREWS, PINS, PLATES W/ BENT TAILS OR OTHER APPROVED CONNECTORS. DESIGN CONNECTORS FOR 2X DESIGN LOAD OR ULTIMATE AXIAL TENSION FOR COMPRESSION (MIN. 60 LBS.) OR CROSS-FURRING SHALL BE SECURELY ATTACHED TO THE MAIN RUNNER BY MEDIA TYING W/ NOT LESS THAN ONE STRAND OF #6 OR TWO STRANDS OF #8 U.S. GAUGE TIE WIRE OR APPROVED EQUIVALENT ATTACHMENTS.

RUNNERS AND FURRING

THE MAIN RUNNER & FURRING SHALL BE NOT LESS THAN THE SIZES SET FORTH IN I.B.C. EXCEPT THAT OTHER STEEL SECTIONS OF EQUIVALENT STRENGTH MAY BE SUBSTITUTED FOR THAT SET FORTH IN THIS TABLE.

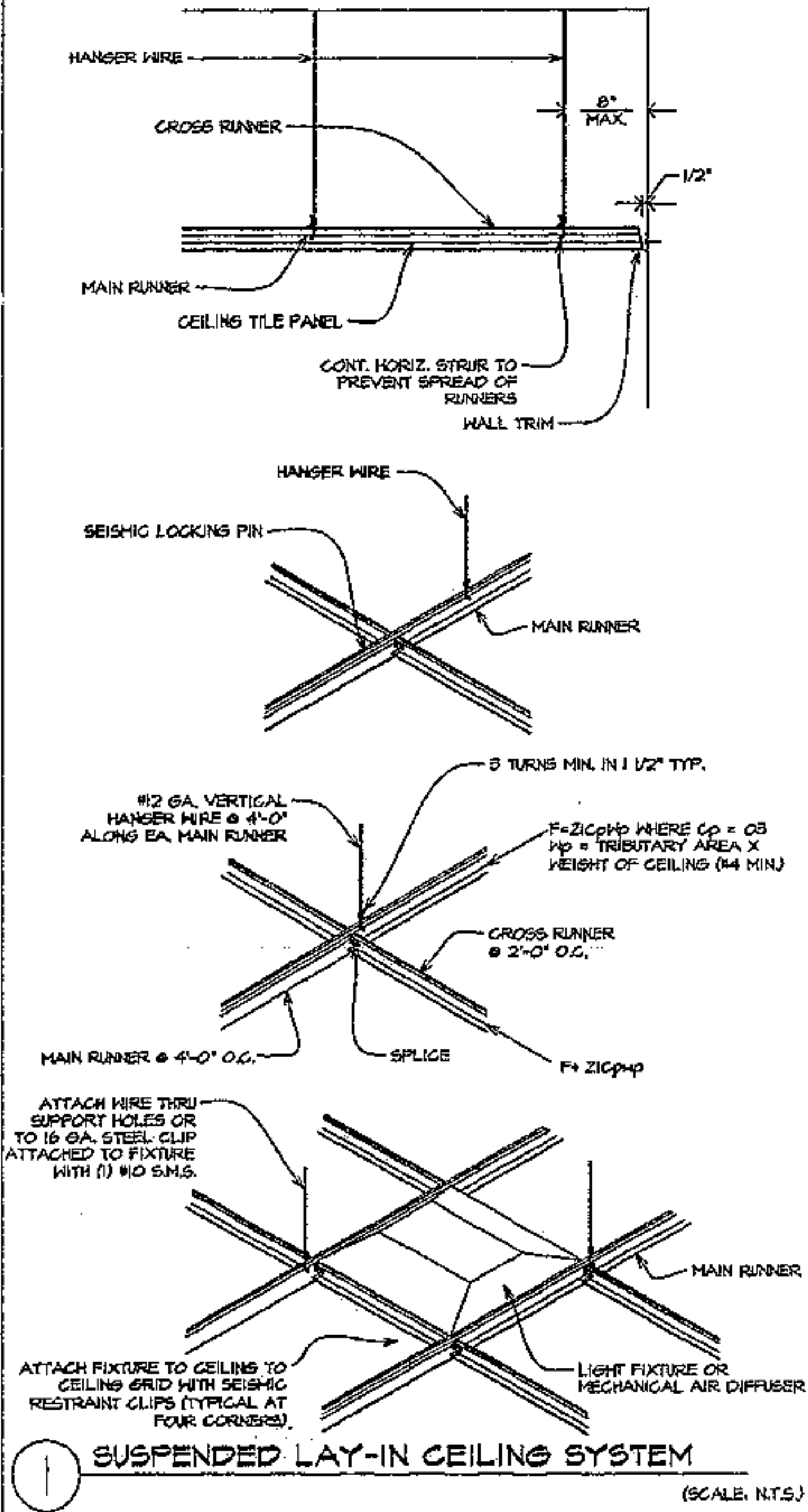
FIXTURES:

FIXTURES WEIGHING LESS THAN 50 LBS MAY BE SUPPORTED ON CEILING GRIDS RATED AS "HEAVY DUTY". PROVIDE TWO SLACK 12 GA. SAFETY WIRES ATTACHED TO FIXTURE AT DIAGONAL CORNERS AND TO STRUCTURE ABOVE.

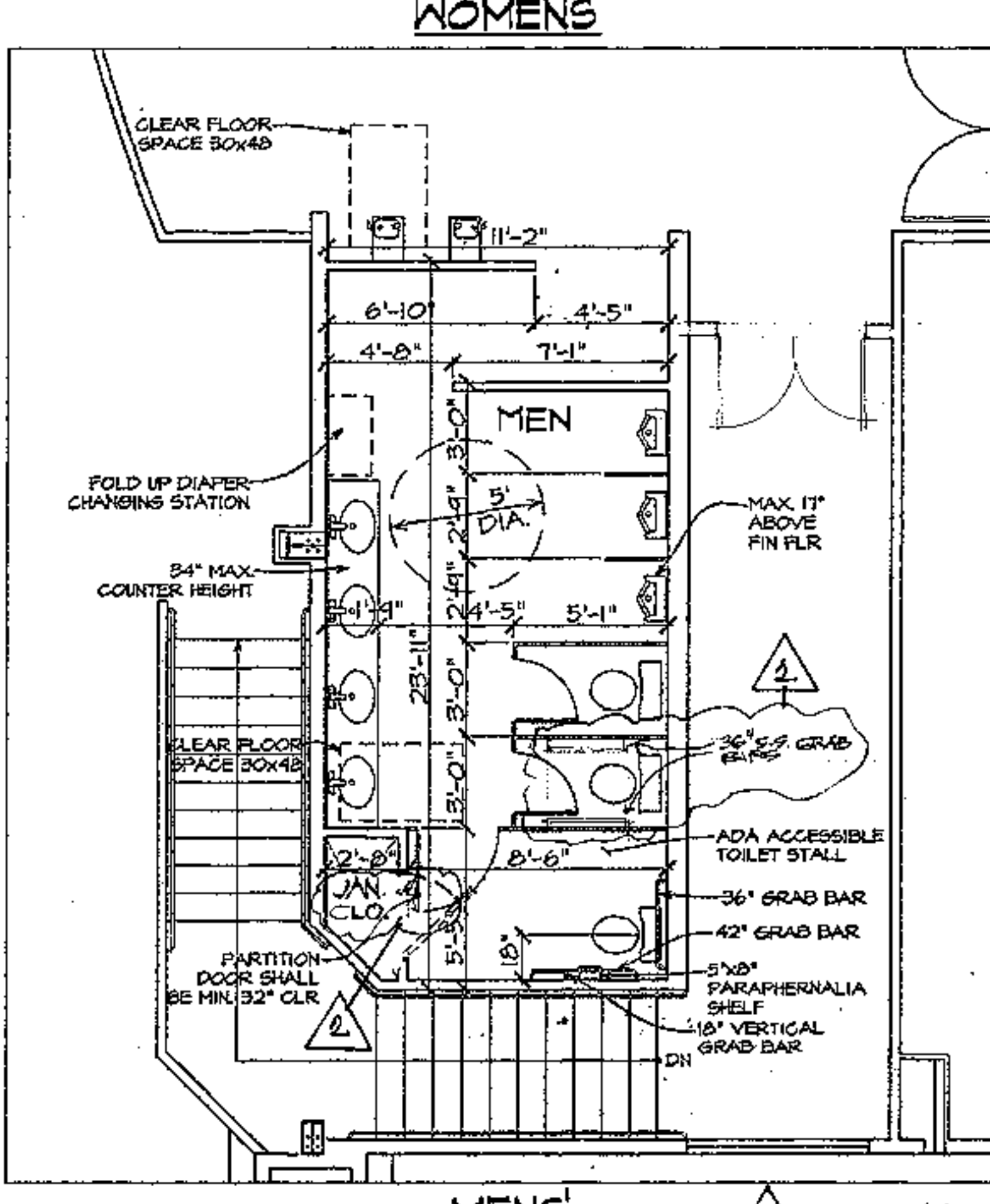
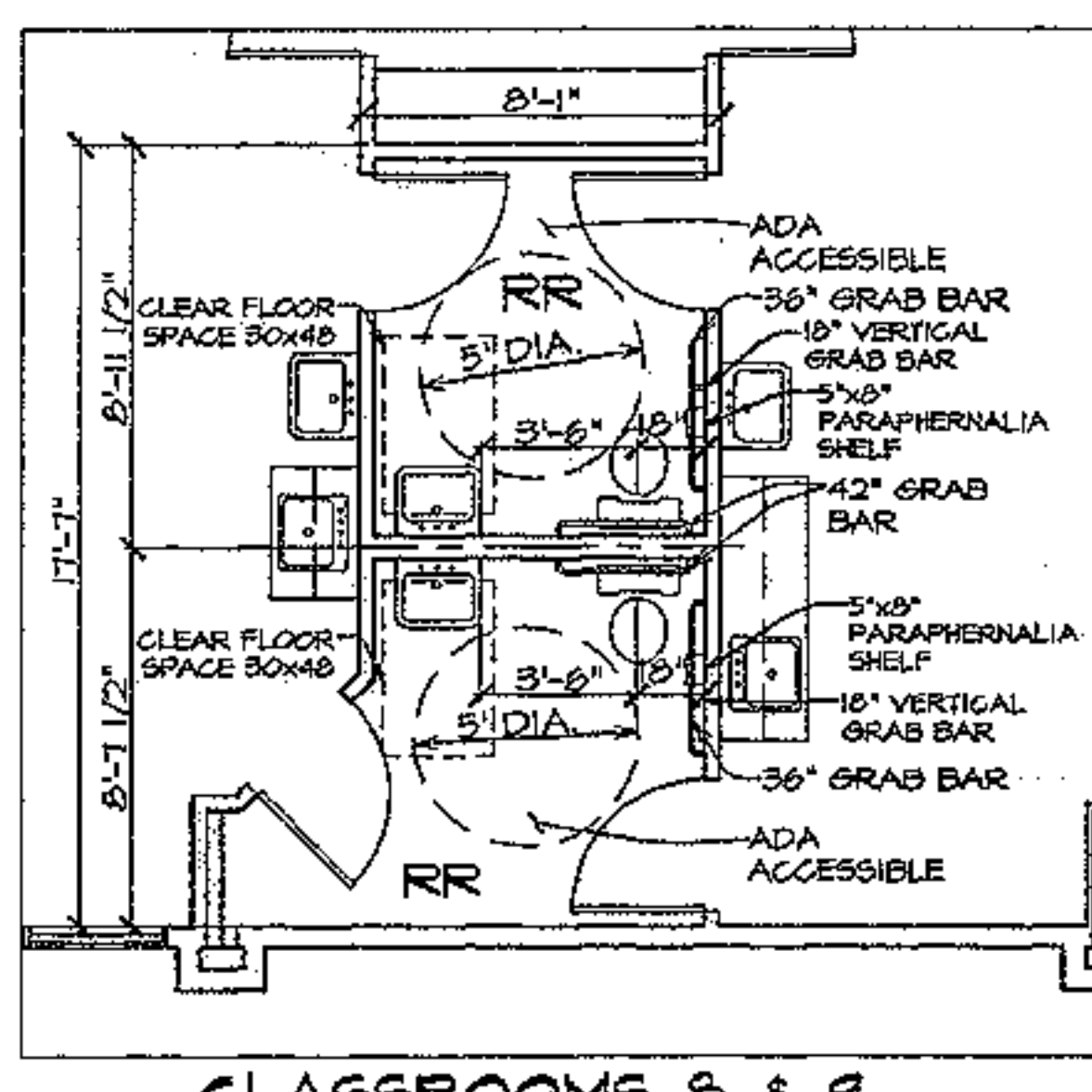
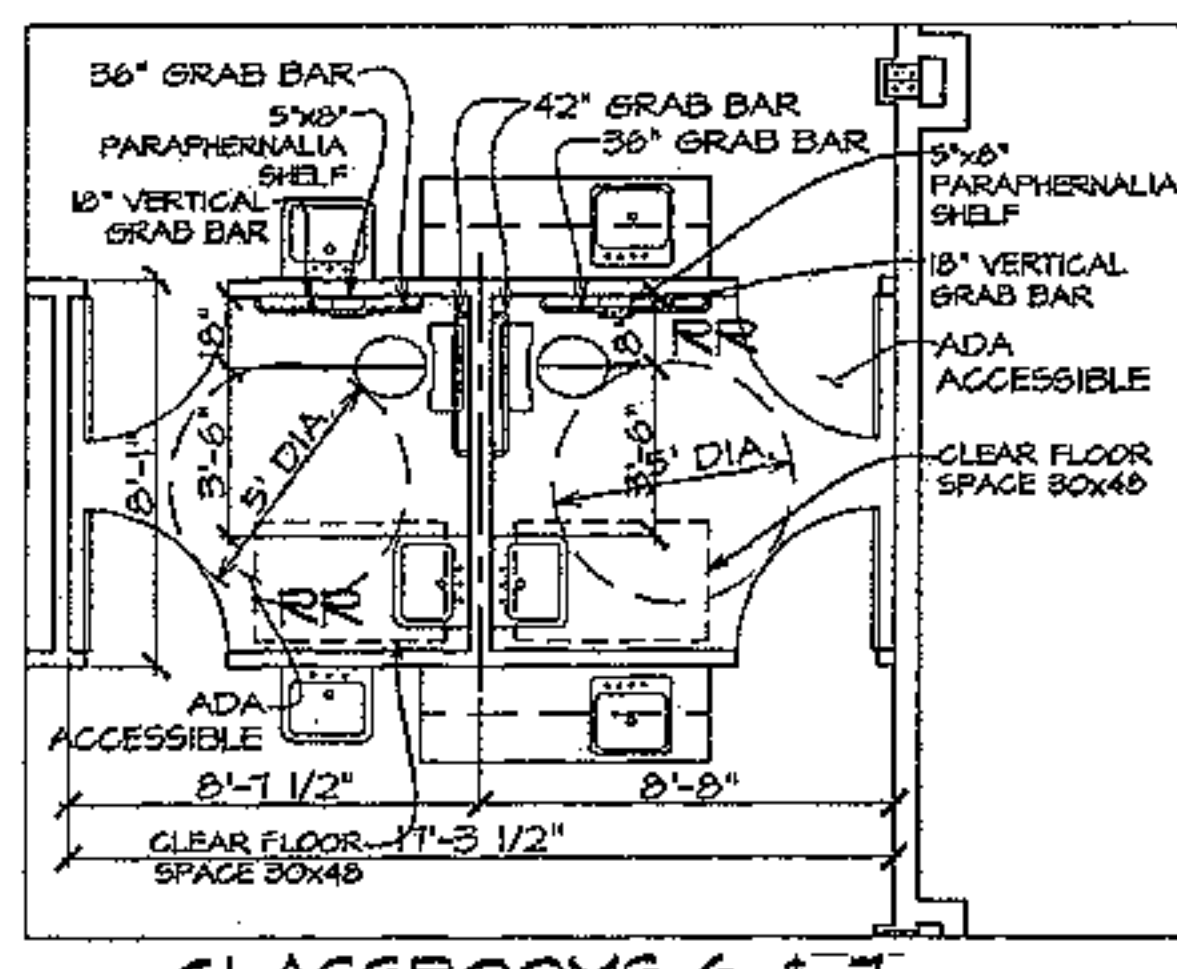
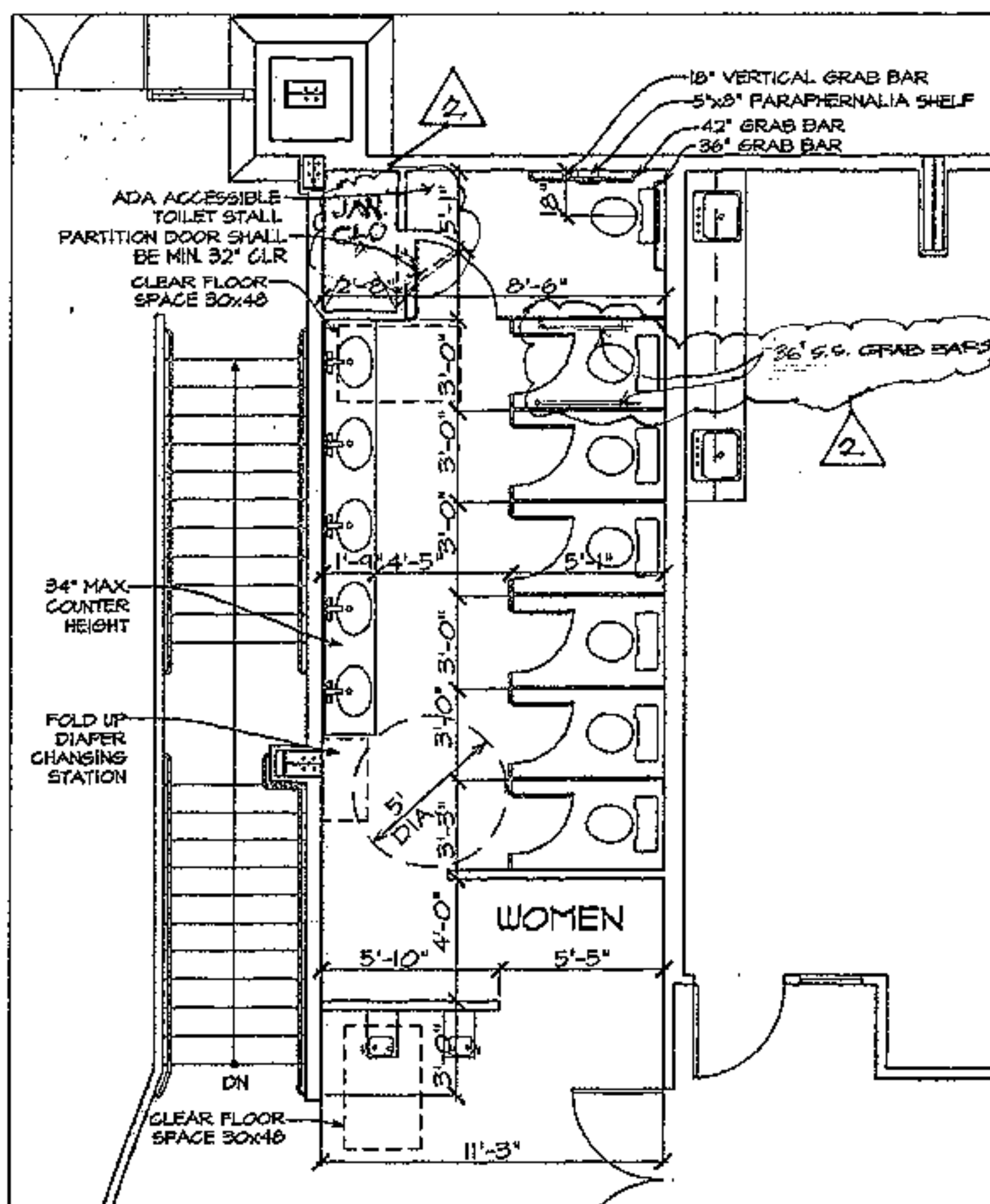
SUPPORT FIXTURES OVER 50 LBS EACH WITH FOUR INDEPENDANT TAIL 12 GA HANGER WIRES ATTACHED TO STRUCTURE. WIRE SHALL BE CAPABLE OF SUPPORTING FIVE TIMES THE HEIGHT OF THE FIXTURE.

NOTES:

INSTALL SUSPENDED ACOUSTICAL LAY-IN CEILING SYSTEM PER I.B.C. 2006 SECTION 903.9.1.1 - SUSPENDED ACOUSTICAL CEILING SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF ASTM C 835 AND ASTM C 636.



INTERIOR FINISH SCHEDULE	
CLASS AREAS:	ALL CLASS AREAS & CEILING FINISHES SHALL HAVE A MINIMUM OF A CLASS B RATING PER IBC 2006 SECTION 903.3. CLASS B IS A FLAME SPREAD OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 450 OR LESS.
FLOORING:	UTILITY ROOMS - EXPOSED CONCRETE. RESTROOMS - CERAMIC TILE FLOORING WITH 2" HIGH CERAMIC TILE ON ALL WALLS. RECREATION CENTER - CERAMIC TILE FLOORING WITH 2" HIGH CERAMIC TILE BASE. ALL OTHER ROOMS - 600X36 COMMERCIAL CARPETING WITH 1/4" CARPET UNDERLAYER. OTHER SHALL SELECT ALL FINISH MATERIALS.
WALLS:	RESTROOMS - 5/8" WATER RESISTANT GYPSUM BOARD ON ALL WALLS 8'-0" AND BELOW ALL TOILETS AND URINALS. PAINTED WITH SEMI-GLOSS ENAMEL. THESE SAME WALLS SHALL HAVE CERAMIC TILE APPLIED OVER THE GYP. BO. TO A HEIGHT OF 4' ABOVE FLOOR LEVEL. ALL OTHER ROOMS - ALL WALLS SHALL BE 5/8" GYP. BO. PAINTED WITH SEMI-GLOSS ENAMEL.
CEILING:	CEILING SHALL BE 5/8" GYP. BO. PAINTED WITH SEMI-GLOSS ENAMEL. EXCEPT CEILING ABOVE WITH 2' GRID OF CEILING PLAN SHALL BE 2'X2' OR 2'X4' 5/8" ANTI-FORMER 1/2" PANELS IN 1'-0" GRID.
TOILET PARTITIONS & ACCESSORIES	
1.	TOILET PARTITIONS: STEEL W/ BAKED ENAMEL FINISH AND HEADRAL, BRACED AND FLOOR MNTD. BY SETBACK OR EQUAL.
2.	TOILET ACCESSORIES BY BRADLEY OR EQUAL.
3.	1 EA. 812-001 36" GRAB BARS
4.	1 EA. 812-001 42" GRAB BARS
5.	15 EA. 9241-50 TOILET PAPER HOLDER (10LB. ROLL)
6.	1 EA. 4781-15 NAPKIN DISPOSAL
7.	1 EA. 250-15 TOILET DISPENSERS
8.	1 EA. 307 WASTE RECEPTACLE
9.	PROVIDE 36" HIGH MIRRORS BEHIND ALL LAVATORY AREAS.



MENS
 SEE SHEET A1 FOR ADA SPECIFICATIONS
 RESTROOM PLANS 1/4" = 1'-0"

ISSUED FOR:
 COORDINATION

REVISION:
 2-21-19

PROJECT NO: 1405
 DRAWN BY: SD
 CHECKED BY: AR
 ISSUE DATE: 3/17/19
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 ARCHITECTS, LLC

PO BOX 2362
 Carefree, AZ 85377
 37417 Tom Darlington Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325
 WEB SITE
 www.augustreno.com
 EMAIL ADDRESS
 augie@augustreno.com

TOILET ROOM PLANS

SHEET NO:

A50

ISSUED FOR:
COORDINATION

REVISION:
A-17-17
A-17-17
A
A

PROJECT NO: 1465
DRAWN BY: SP
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PHOENIX AZ



PO BOX 2282
Carefree, AZ 85377
37417 Von Darlington Drive
Carefree, AZ 85377
(480) 488-0858
FAX (480) 636-1325
WEB SITE
www.augustreno.com
EMAIL ADDRESS
aug@augustreno.com

SCHEDULES

SHEET NO:
A60

DOOR SCHEDULE											
ID	Room Name	W	HT	THK	MATL	GLZ	FRAME		RATING	HW SET	NOTES
							W	THK			
00		3'	6'-8"	1 3/4"			2"	5"			
101		6'	6'-8"	1 3/4"			2"	5"	30	PH	
102		6'	6'-8"	1 3/4"			2"	5"	30	PH	
103		3'	6'-8"	1 3/4"			2"	5"	30	KL	
104		3'	6'-8"	1 3/4"			2"	5"	30	PH	
105		3'	6'-8"	1 3/4"			2"	5"	30	PH	
106		3'	6'-8"	1 3/4"			2"	5"	30	PH	
107		3'	6'-8"	1 3/4"			2"	5"	30	KL	
108		3'	6'-8"	1 3/4"			2"	5"	30	KL	
109		3'	6'-8"	1 3/4"			2"	5"	30	KL	
110		3'	6'-8"	1 3/4"			2"	5"	30	KL	
111		3'-6"	6'-8"	1 3/4"			2"	5"	30	KL	
112		6'	6'-8"	1 3/4"			2"	5"	30	KL	
113		3'	6'-8"	1 3/4"			2"	5"	30	KL	
114		3'	6'-8"	1 3/4"			2"	5"	30	KL	
115		3'	6'-8"	1 3/4"			2"	5"	30	PR	
116		3'	6'-8"	1 3/4"			2"	5"		L	WALK-IN REFRIGERATOR
117		3'	6'-8"	1 3/4"			2"	5"		KL	
118		3'	6'-8"	1 3/4"			2"	5"		PR	
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135		2'-10"	6'-8"	1 3/4"			2"	5"	30	KL	
136		2'-4"	6'-8"	1 3/4"			2"	5"	30	KL	
137		2'-4"	6'-8"	1 3/4"			2"	5"	30	KL	
201		3'	6'-8"	1 3/4"			2"	5"	30	KL	(2) 3'-0" SAFETY GLASS
202		3'	6'-8"	1 3/4"			2"	5"		KL	(2) 2'-2" SAFETY GLASS SIDELITE
203		3'	6'-8"	1 3/4"			2"	5"		KL	SAFETY GLASS SIDELIGHT
204		3'	6'-8"	1 3/4"			2"	5"		KL	SAFETY GLASS SIDELIGHT
205		3'	6'-8"	1 3/4"			2"	5"		KL	SAFETY GLASS SIDELIGHT
206		3'	6'-8"	1 3/4"			2"	5"		KL	SAFETY GLASS SIDELIGHT
207		6'	6'-8"	1 3/4"			2"	5"	30	PH	
208		3'	6'-8"	1 3/4"			2"	5"	30	KL	1'-8" SAFETY GLASS SIDELIGHT
209		6'	6'-8"	1 3/4"			2"	5"		KL	
210		3'	6'-8"	1 3/4"			2"	5"	30	KL	
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222		3'	6'-8"	1 3/4"			2"	5"	30	KL	
223		6'	6'-8"	1 3/4"			2"	5"	30	PH	
224		6'	6'-8"	1 3/4"			2"	5"	30	PH	
225		3'	6'-8"	1 3/4"			2"	5"		KL	
226		3'	6'-8"	1 3/4"			2"	5"		PR	
227		3'	6'-8"	1 3/4"			2"	5"		KL	
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229		3'	6'-8"	1 3/4"			2"	5"		PR	
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235		3'	6'-8"	1 3/4"			2"	5"		PR	
236		3'	6'-8"	1 3/4"			2"	5"		PR	
237		3'	6'-8"	1 3/4"			2"	5"		PR	

WINDOW SCHEDULE					
ID	SIZE		HEAD	MATERIAL	NOTES
	WIDTH	HEIGHT			
A	2'	6'-8"	80.00"	Aluminum	
B	2'	6'-8"	80.00"	Aluminum	
C	2'	6'-8"	80.00"	Aluminum	
D	2'	6'-8"	80.00"	Aluminum	
E	2'	6'-8"	80.00"	Aluminum	

DOOR AND WINDOW NOTES

- ALL INTERIOR DOORS TO BE "LEGACY" SOLID CORE WITH "TIMELY" FRAMES.
- ALL DOORS TO HAVE LEVER TYPE HARDWARE BY SCHLAGE.
- ALL WINDOWS SHALL BE DUAL PANE, INSULATED LOW E GLASS IN ANODIZED METAL FRAMES - TYPICAL AT ALL EXTERIOR WINDOWS.
- ALL GLAZING IN DOORS AND WITHIN 24" OF A DOOR JAMB, SHALL BE TEMPERED GLASS.
- ALL PANIC HARDWARE BY VON DUPRIN.
- ALL DOORS SHALL HAVE A SMOOTH, UNINTERRUPTED SURFACE ON THE LOWER 12".
- ALL EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. ALL LOCKS AND LATCHES SHALL RELEASE IN ONE OPERATION FROM THE EGRESS SIDE.
- 1/2" MAX THRESHOLD HT.
- NO DOOR CLOSERS, EXCEPT DOORS W/ PANIC HARDWARE AND P&P AS NOTED.
- TOILET CLOSET DOOR BENEATH STAIR 1 HOUR DOOR AND FRAME HARDWARE KL
- ELEVATOR EQUIPMENT DOOR TO BE 1 HOUR DOOR AND FRAME HARDWARE KL
- SAFETY GLASS SIDELIGHTS FULL TEMPERED GLASS WITH WEATHER STRIPPING

HARDWARE TYPES			
PH	PANIC HARDWARE	L	LATCH (NO LOCK)
KL	KEYED LOCK	P&P	PUSH PLATE & PULL HANDLE W/ SELF CLOSER (QUIET) (NO PANIC HARDWARE)
PR	PRIVACY LATCH		

01

2

01

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COORDINATION

REVISION:
 ▲ 3-17-19
 ▲ 12-21-19
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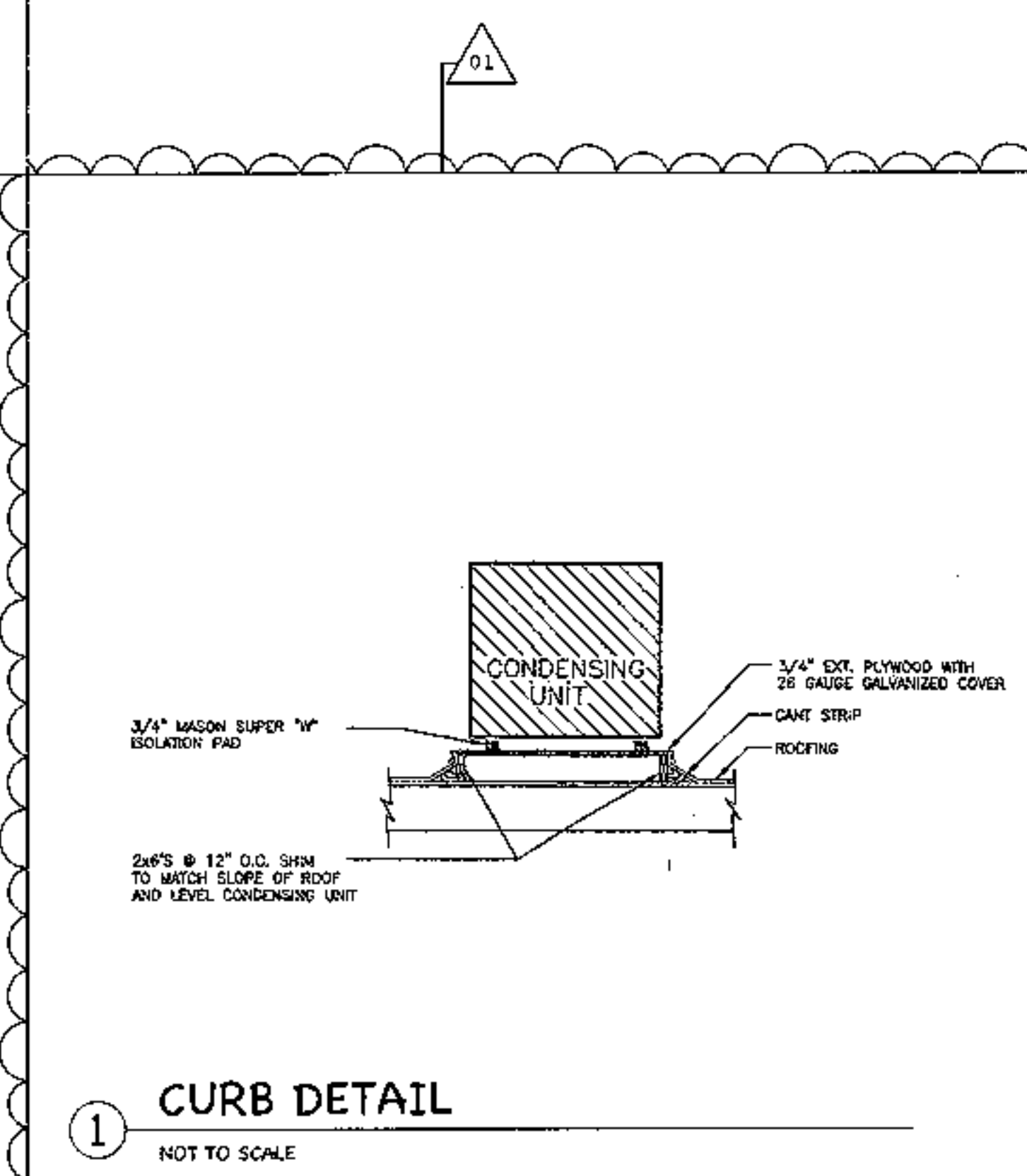
AUGUST RENO
 ARCHITECTS, L.L.C.

PO BOX 2302
 Carefree, AZ 85377
 37417 Tom Darling Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325
 WEB SITE
 www.augustreno.com
 EMAIL ADDRESS
 augr@augustreno.com

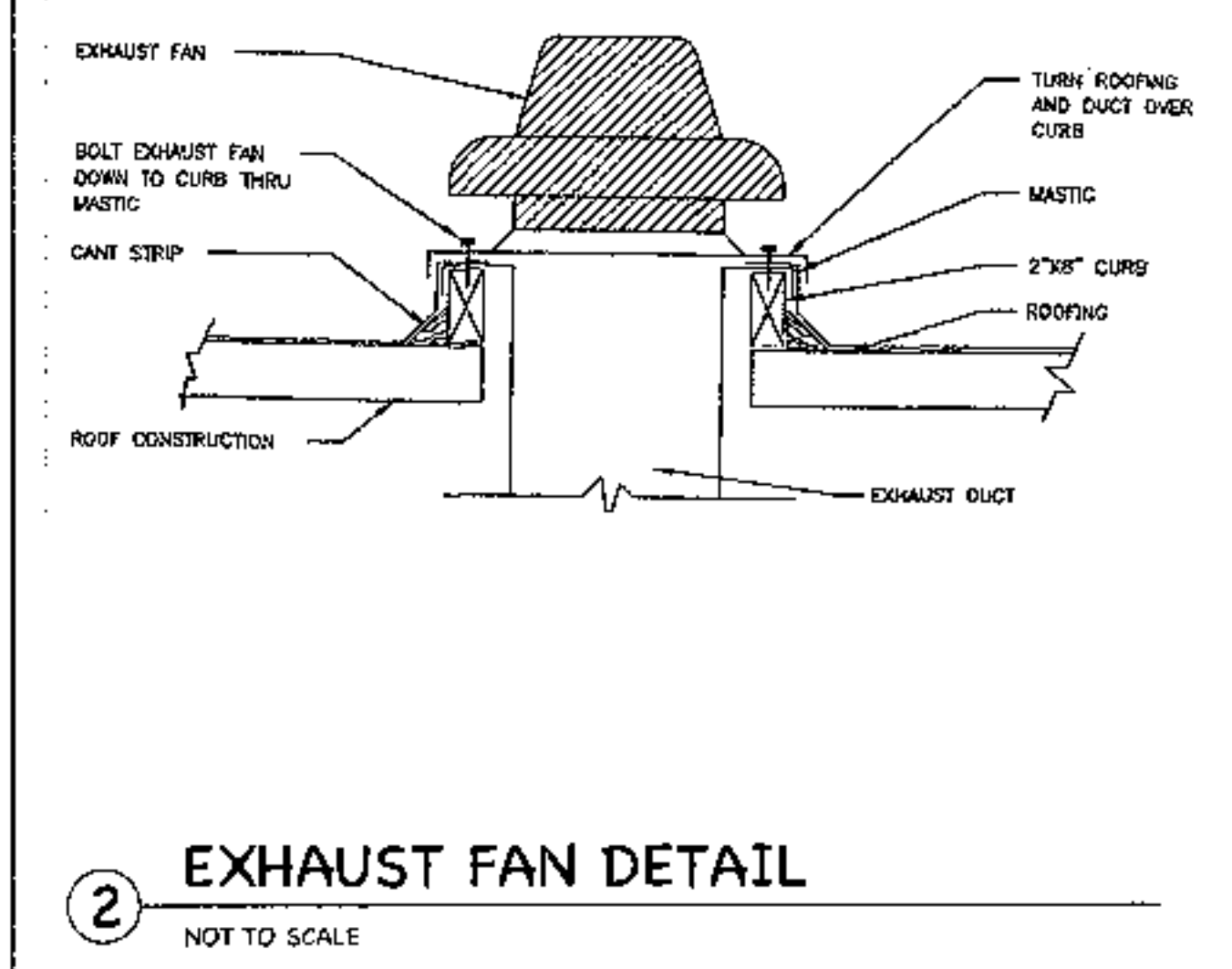
DETAILS

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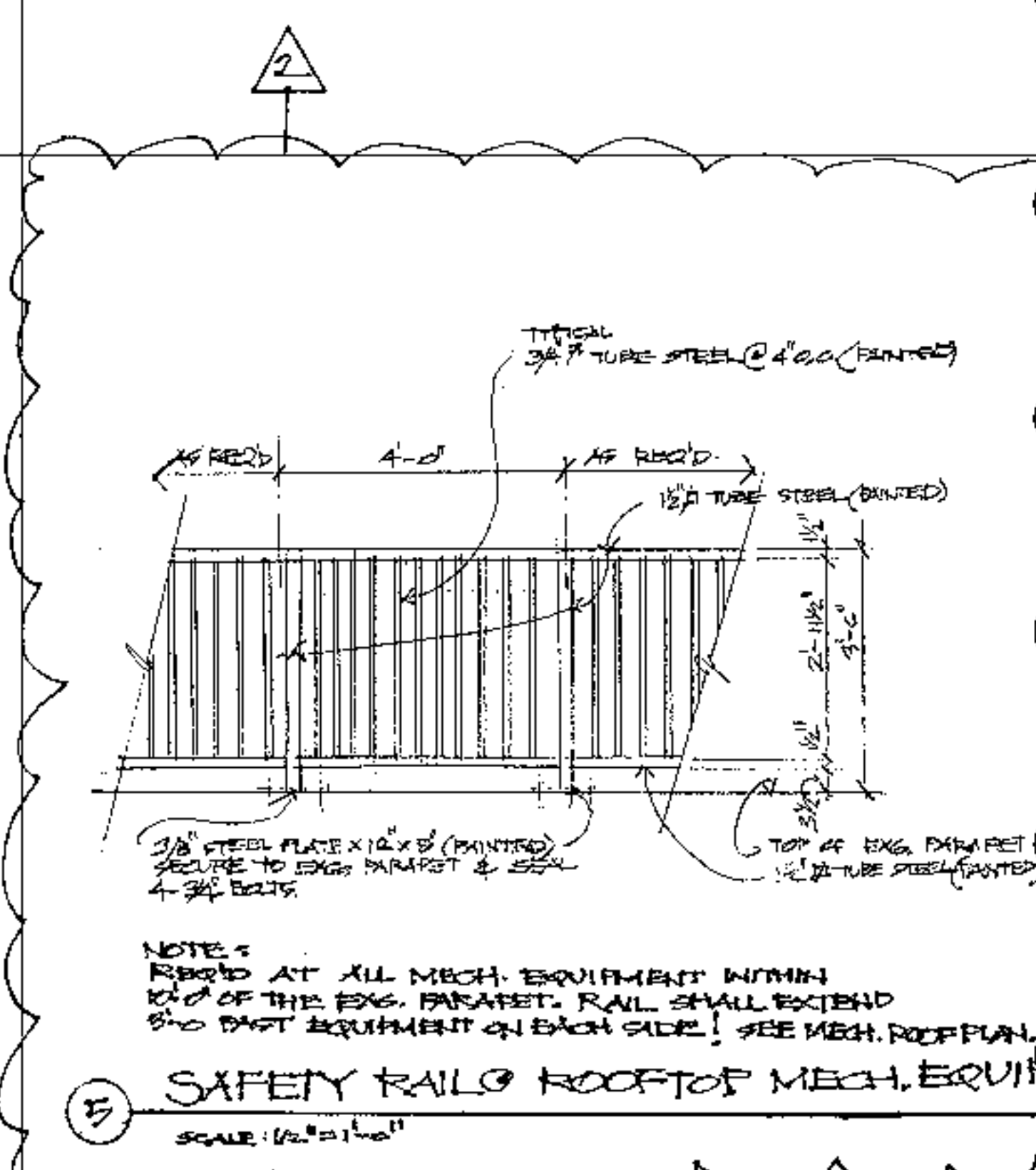
A70



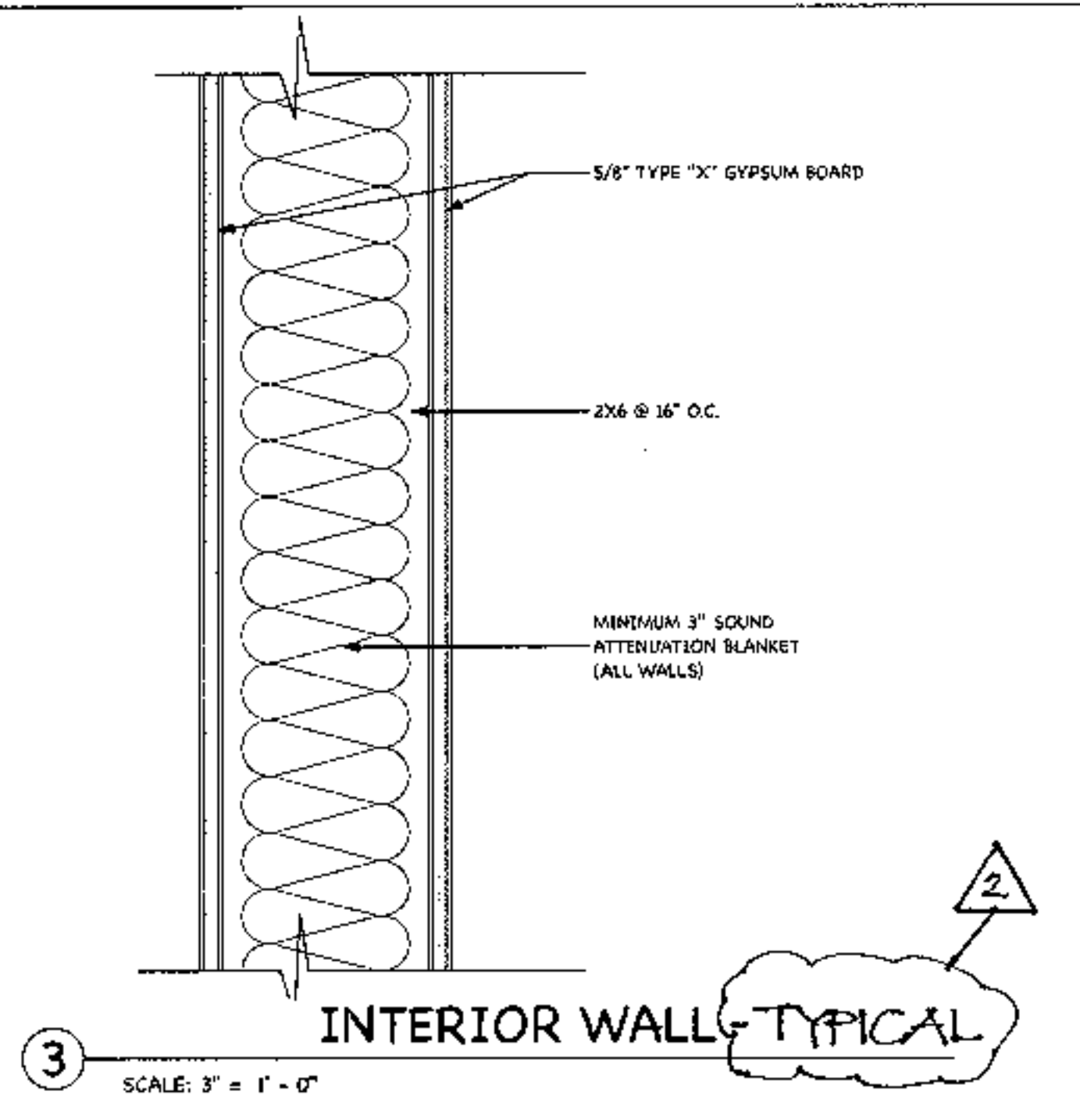
① CURB DETAIL
NOT TO SCALE



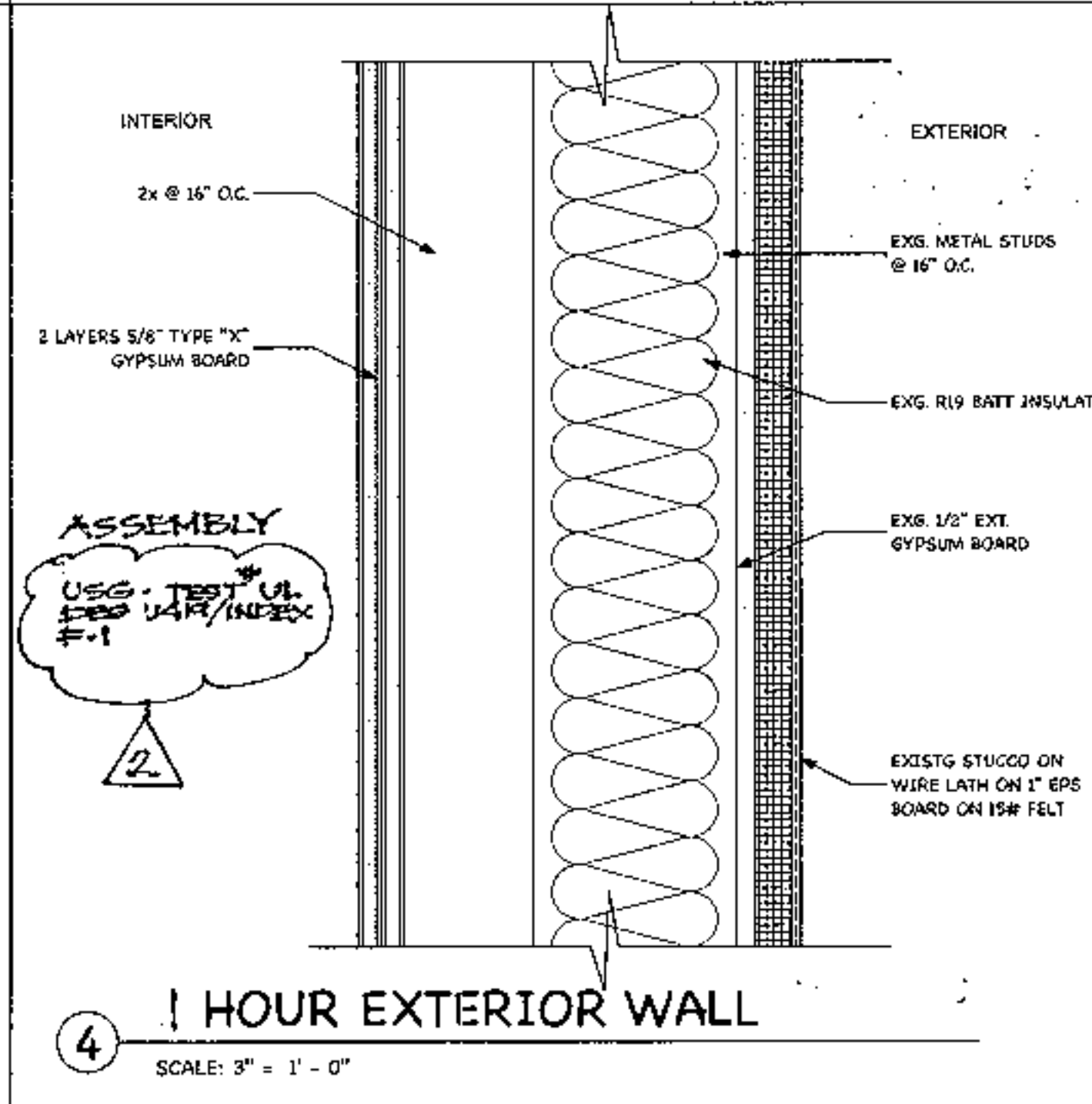
② EXHAUST FAN DETAIL
NOT TO SCALE



③ SAFETY RAIL ROOFTOP MECH. EQUIP
SCALE: 1/2" = 1'-0"



③ INTERIOR WALL-TYPICAL
SCALE: 3" = 1'-0"



④ 1 HOUR EXTERIOR WALL
SCALE: 3" = 1'-0"

BOLT DIAMETER	VERT BOLT EMBEDMENT LENGTH	HORIZ BOLT EMBEDMENT LENGTH
1/2"	7"	5"
5/8"	7"	5"
3/4"	8"	6"
7/8"	8"	6"
1"	9"	7"

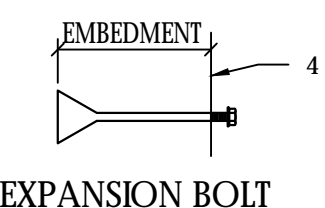
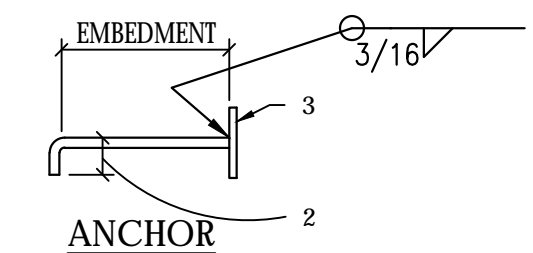
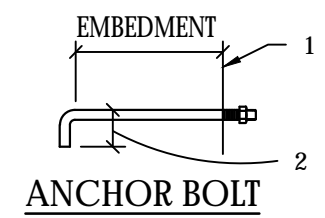
PROVIDE ANCHORS, ANCHOR BOLTS AND EXPANSION BOLTS PER THIS SCHEDULE IN CONCRETE OR MASONRY UNLESS NOTED OTHERWISE ON PLANS OR DETAILS. EXPANSION BOLTS SHALL NOT BE USED IN BRICK MASONRY.

EXPANSION BOLTS USED IN CMU SHALL BE A "DYNABOLT" BY ITW RAMSET/REDHEAD OR OTHERS WITH A CURRENT ICC ES APPROVAL IN MASONRY. EXPANSION BOLTS SHALL BE CENTERED IN GROUTED CELLS. EXPANSION BOLTS AND EPOXY BOLTS SHALL BE USED ONLY WHERE SPECIFICALLY SHOWN ON THE DRAWINGS OR WHEN APPLICATION IS APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.

T1 TYPICAL ANCHOR, ANCHOR BOLT, EXPANSION BOLT AND EPOXY BOLT SCHEDULE

DETAIL KEY NOTES

- 1 Face of wall or slab, etc.
- 2 2" min standard hook - 4 bolt diameters in masonry
- 3 Plate, angle, channel, etc.
- 4 Face or top of wall, column, etc.
- 5 Threaded rod
- 6 Drilled hole



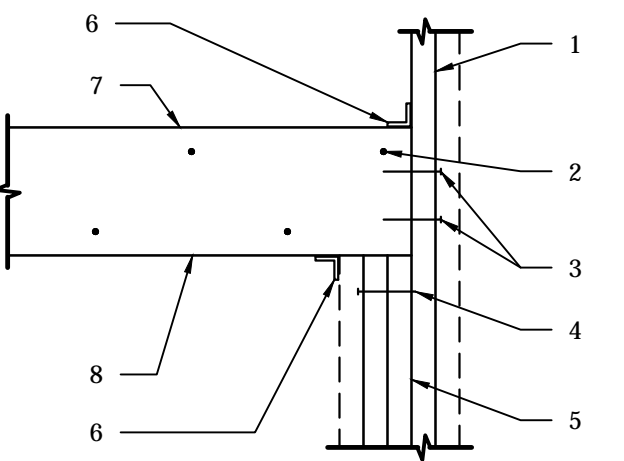
BOLT DIAMETER	BRICK EMBEDMENT LENGTH
1/2"	6"
5/8"	6"
3/4"	8"

PROVIDE EPOXY BOLTS PER THIS SCHEDULE UNLESS NOTED OTHERWISE ON PLANS OR DETAILS.

EPOXY BOLTS IN MASONRY OR CONCRETE SHALL BE A THREADED ROD WITH THE SIMPSON SET-UP EPOXY (ICC ER - 2508) INSTALL EPOXY PER MANUFACTURER'S RECOMMENDATIONS. SPECIAL INSPECTION REQUIRED FOR ALL EPOXY BOLT INSTALLATION.

DETAIL KEY NOTES

- 1 2 x stud continuous to top plate (2 - 2 x studs at openings 6'-0" or wider)
- 2 16d nails at 12" o.c. - stagger at built up headers
- 3 2 - 16d nails - typical
- 4 16d nails at 12" o.c. staggered stud to stud
- 5 2 - 2 x studs at openings greater than 4'-0". 3 - 2 x studs under header at openings larger than 6'-0"
- 6 Simpson A35
- 7 Header
- 8 Provide 1/2" plywood spacers between members

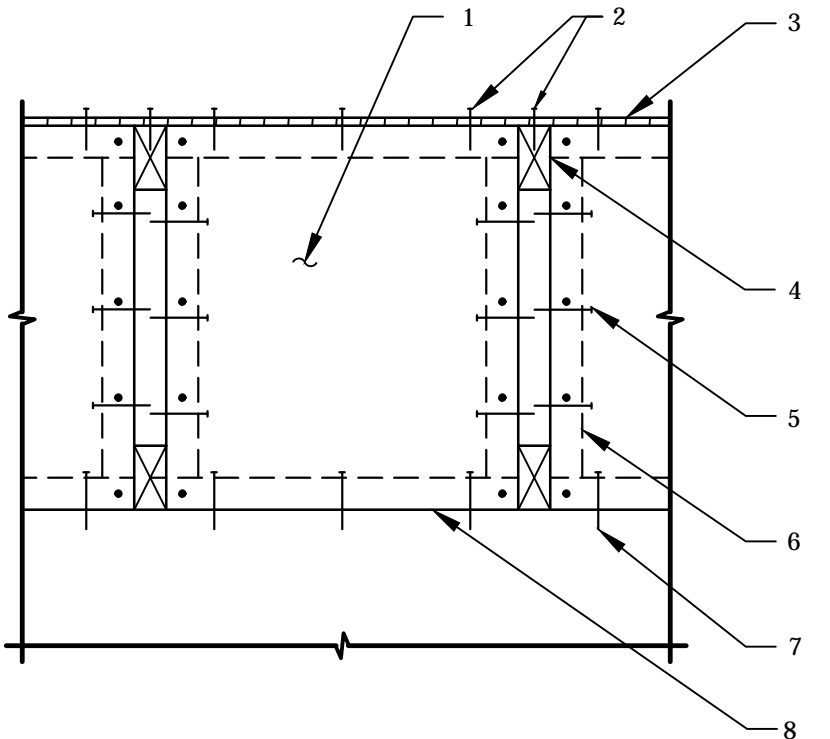


OPENING WIDTH	INTEL AT BEARING WALL OR SHEAR WALL	INTEL AT OTHER WALLS
0'-0" TO 4'-0"	See Plans	3 - 2 X 4
4'-1" TO 6'-0"	See Plans	3 - 2 X 6
6'-1" TO 8'-0"	See Plans	3 - 2 X 8

Note: Intel schedule applies unless otherwise noted on framing plans - see typical wood stud wall framing detail.

T3 WOOD STUD WALL LINTEL SCHEDULE

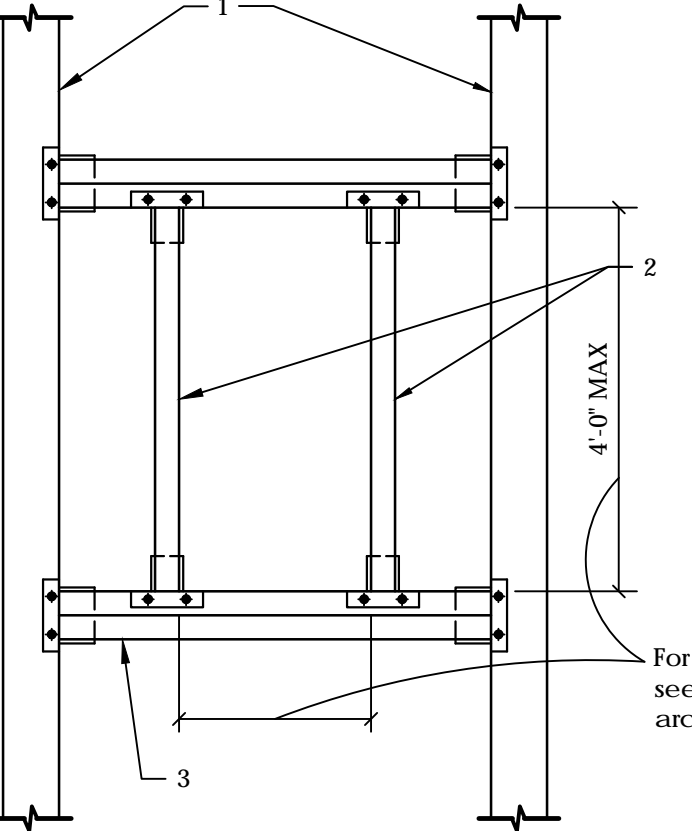
- 1 1/2" plywood shear wall panel with 8d nails at 6" o.c.
- 2 Edge nailing
- 3 Plywood sheathing
- 4 Prefabricated wood truss - truss manufacturer shall provide vertical web to match location of shear panel
- 5 16d nails at 8" o.c. to truss vertical web - typical (do not install nails until roof has been loaded)
- 6 2 x 4 at four sides
- 7 16d nails to match edge nailing spacing
- 8 Top of wood plate or beam as occurs



T4 TYPICAL PLYWOOD SHEAR WALL PANEL

DETAIL KEY NOTES

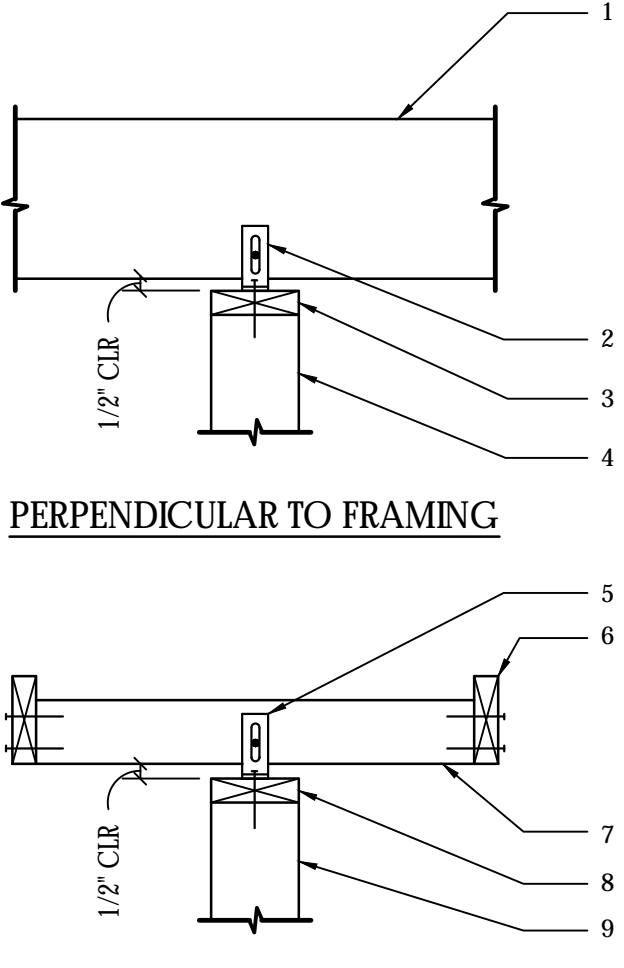
- 1 Trusses or joists - for spacing. See plan
- 2 2 x 4 with Simpson F24 hanger each end
- 3 2 - 2 x 4 with Simpson F24-2 hanger each end



T5 TYPICAL FRAMING AROUND OPENING

DETAIL KEY NOTES

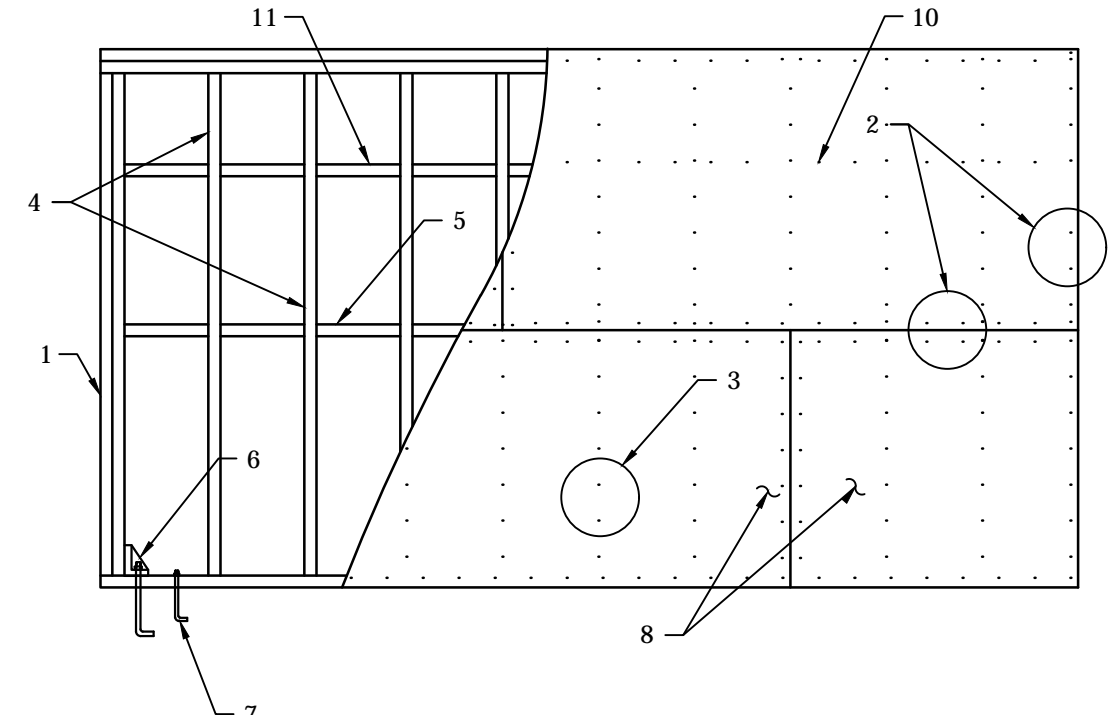
- 1 Joist or bottom chord of truss
- 2 Simpson STC truss clip
- 3 2x wood plate
- 4 Wood stud wall
- 5 Simpson STC truss clip
- 6 Joist or bottom chord of truss
- 7 2 x 4 Blocking at 48" o.c. with 2 - 16d nails each end
- 8 2x wood plate
- 9 Wood stud wall



T6 TYPICAL CONNECTION OF NON-BEARING PARTITIONS TO FLOOR OR ROOF FRAMING

DETAIL KEY NOTES

- 1 Double studs at each end of panel - Typical u.o.
- 2 Edge nailing - 8d nail at 6" o.c. U.N.O.
- 3 Field nailing - 8d nails at 12" o.c. U.N.O.
- 4 Wood studs at 16" o.c. maximum
- 5 2 x blocking at unsupported sheathing panel joints u.o.
- 6 Holdown - for type and location, see foundation plan
- 7 Anchor bolts - for size and spacing, see shear wall schedule
- 8 Sheathing material. Sheathing may be installed horizontally or vertically
- 9 Floor line
- 10 Edge nailing to blocking at roof line
- 11 2 x blocking at roof line



T7 EXTERIOR WOOD STUD SHEAR WALL ELEVATION - ONE STORY

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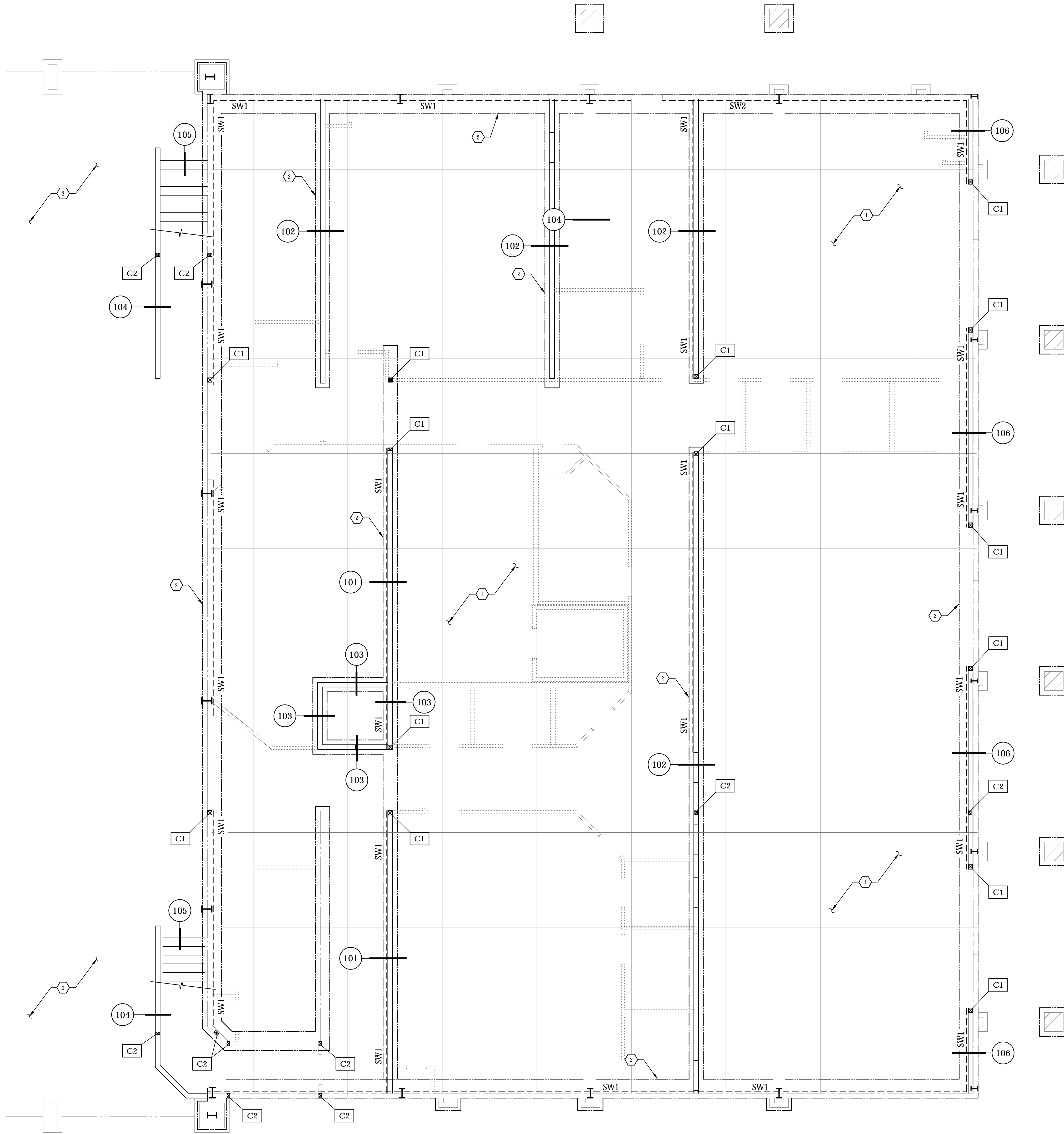
PO BOX 2302
Carefree, AZ 85377
37417 Tom Darlington Drive
Carefree, AZ 85377
(480) 488-9858
FAX (480) 636-1325
WEB SITE
www.augustreno.com
EMAIL ADDRESS
augie@augustreno.com

STRUCTURAL BABBITT NELSON ENGINEERING	PROJECT No: 17-132
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	SHEET INDEX
S1.1 - General Structural Notes S1.2 - Typical (100's) Details S2.1 - Foundation Plan S2.2 - Floor Framing Plan S2.3 - Floor Loading Plan S3.1 - Foundation (100's) Details S4.1 - Framing (200's) Details	
1180 E. CAREENWAY II, SUITE 2 MESA, AZ 85203 P: 480-610-1341, F: 480-962-9634, C: 480-497-0003	
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TYPICAL DETAILS

SHEET NO:

S1.2



FOUNDATION PLAN NOTES

- ① Existing 6" concrete slab over 4" A.B.C.
- ② Existing concrete footing - See details for footing sizes.
- ③ Existing multi-purpose building.

COLUMN (C) SCHEDULE			
MARK	SIZE	BASE CONNECTION	REMARKS
C1	6 x 6 DF #1	Post to be placed on wood plate with Simpson A35 at each side (2 total)	---
C2	(3) 2 x 6 built-up post	Post to be placed on wood plate with Simpson A35 at each side (2 total)	---

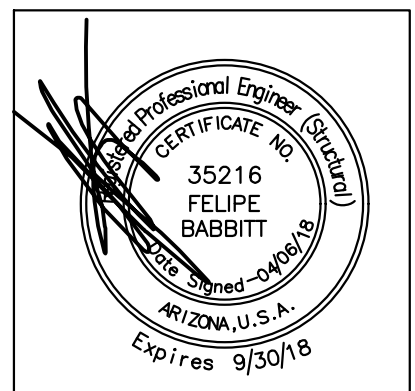
SHEAR WALL (SW) SCHEDULE					
MARK	SHEATHING MATERIAL	EDGE NAILING	FIELD NAILING	BOTTOM PLATE ANCHOR BOLTS	REMARKS
SW1	1/2" Gypboard	5d cooler nails at 6" o.c.	5d cooler nails at 6" o.c.	Hblt Q 145 Ø x 2 1/2" shot pins at 32" o.c.	Typical at all interior bearing walls

Notes:
 1. For location of shear walls, see plans.
 2. See typical wood stud shear wall detail.
 3. Nail gypsum board at all studs, top and bottom plates and blocking.
 4. Drywall nails of same size and spacing may be used in lieu of cooler nails.
 All plywood panel edges shall be blocked with 2 x framing.
 5. Gypsum board sheathing is unblocked u.n.o.
 6. Provide 2 - 2 x studs or post at end of all shear walls.

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 CAVE CREEK, ARIZONA



PO BOX 2302
 Carefree, AZ 85377
 37417 Tom Darlington Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325
 WEB SITE
 www.augustreno.com
 EMAIL ADDRESS
 augie@augustreno.com

FOUNDATION PLAN

SHEET NO:
S2.1

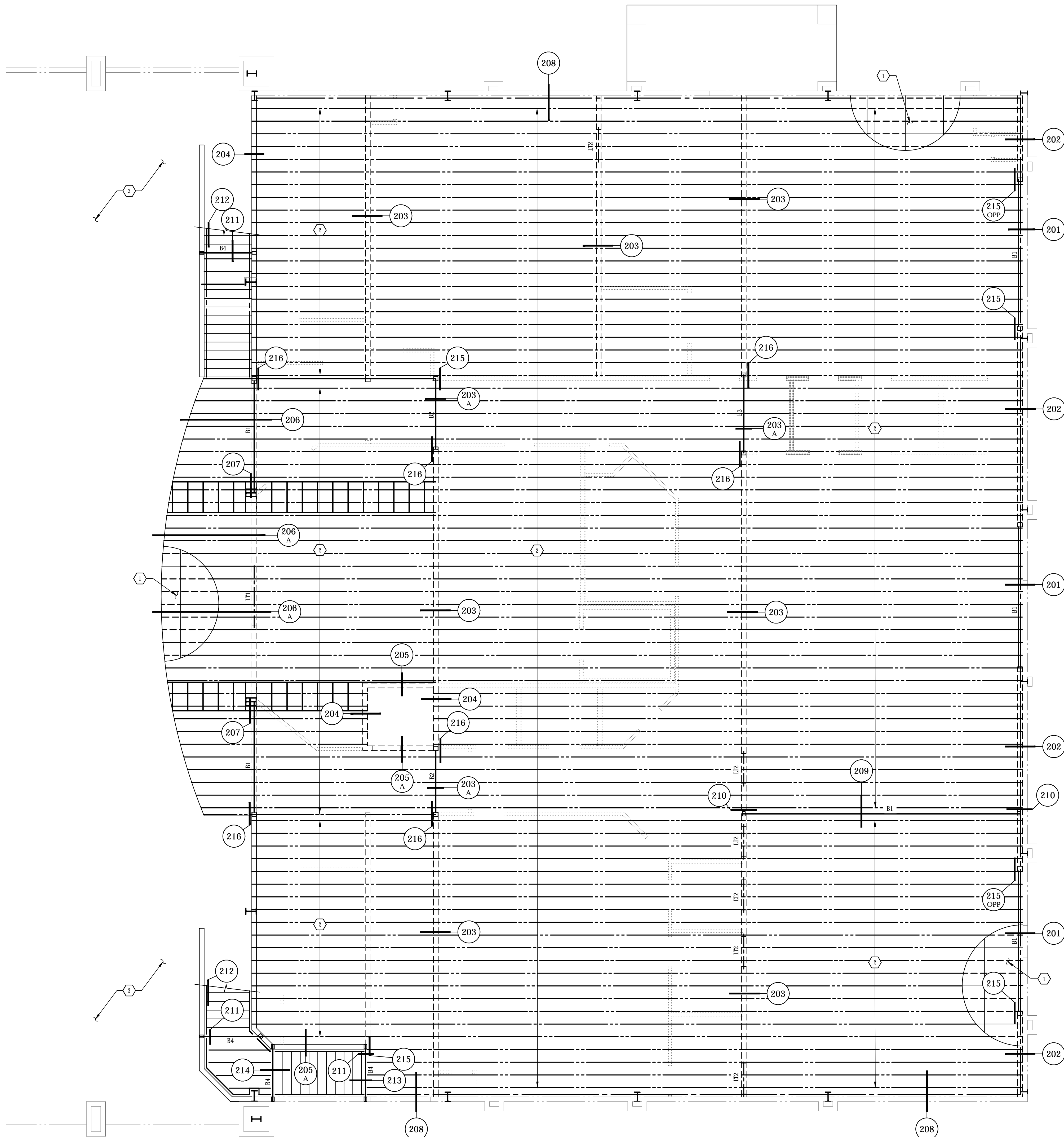
FOUNDATION PLAN
 SCALE: 3/16" = 1'-0"

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 MESA, AZ 85203
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SHEET INDEX
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 S1.2 - Typical (100's) Details
 S2.1 - Foundation Plan
 S2.2 - Floor Framing Plan
 S2.3 - Floor Loading Plan
 S3.1 - Foundation (100's) Details
 S4.1 - Framing (200's) Details



FRAMING PLAN NOTES

- ① 1 1/8" T&G plywood floor sheathing - Typical at floors. For layup and attachment - See General Structural Notes.
- ② Prefabricated wood floor trusses at 16" o.c.
- ③ Existing multi-purpose building.

BEAM (B) SCHEDULE

MARK	BEAM SIZE	CAMBER AT MIDSPAN	END CONNECTION	REMARKS
B1	5 1/8" x 15"	STD	See Details	---
B2	5 1/8" x 10 1/2"	STD	See Details	---
B3	5 1/8" x 13 1/2"	STD	See Details	---
B4	4 x 10	---	See Details	---

LINTEL (LT) SCHEDULE

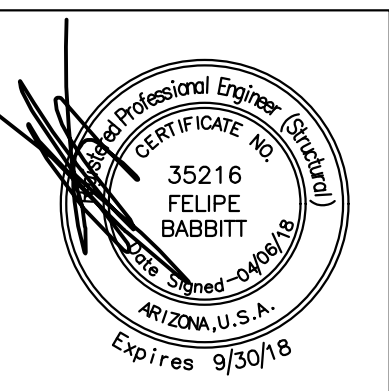
MARK	TYPE	LINTEL SIZE	REMARKS
LT1	Wood	6 x 12 D#1	See typical detail T3
LT2	Wood	6 x 8 DF #1	See typical detail T3

FRAMING PLAN
SCALE: 3/16" = 1'-0"

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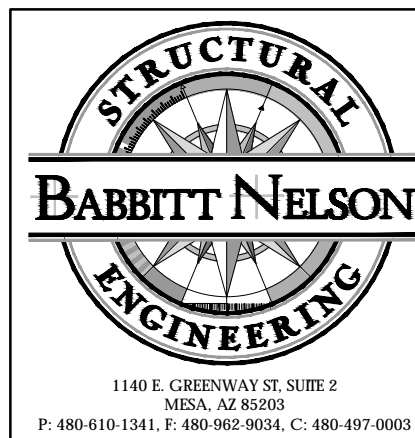
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CAVE CREEK, ARIZONA



PO BOX 2302
Carefree, AZ 85377
37417 Tom Dartington Drive
Carefree, AZ 85377
(480) 488-9858
FAX (480) 636-1325
WEB SITE
www.augustreno.com
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augie@augustreno.com






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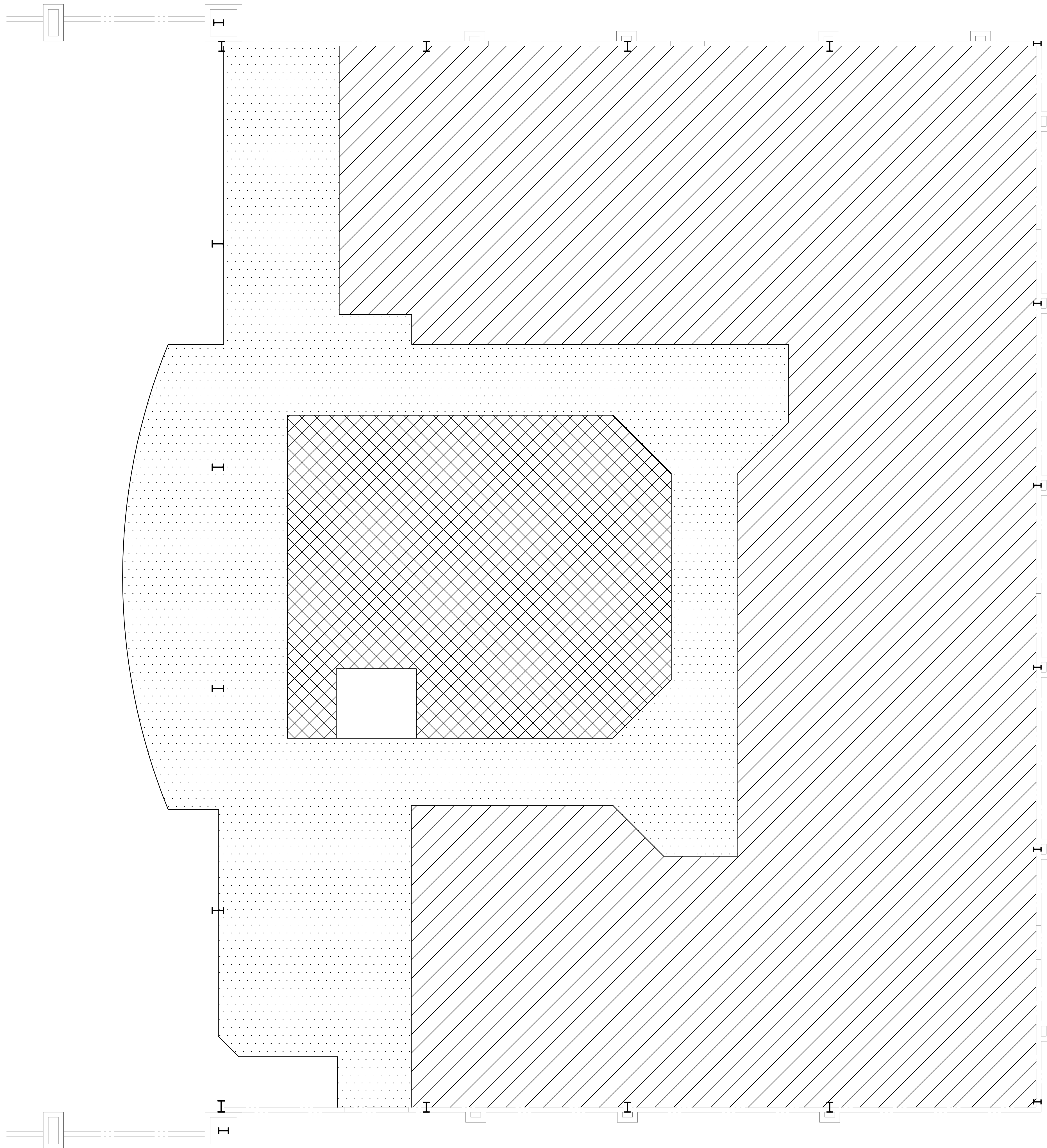
FLOOR FRAMING PLAN

SHEET NO:
S2.2

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FLOOR LOAD SCHEDULE

-  40lb Live load / 20lb Dead Load / 20lb Partition Load / 1,000lb concentration load.
-  50lb Live load / 20lb Dead Load / 10lb Partition Load / 2,000lb concentration load.
-  80lb Live load / 20lb Dead Load / 1,000lb concentration load.

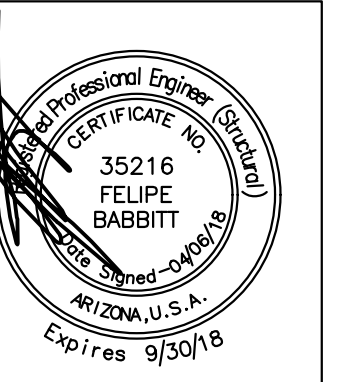


FLOOR LOAD PLAN
SCALE: 3/16" = 1'-0"

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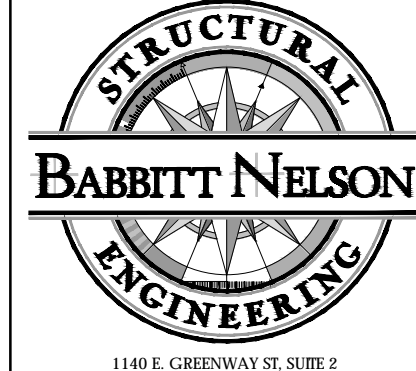


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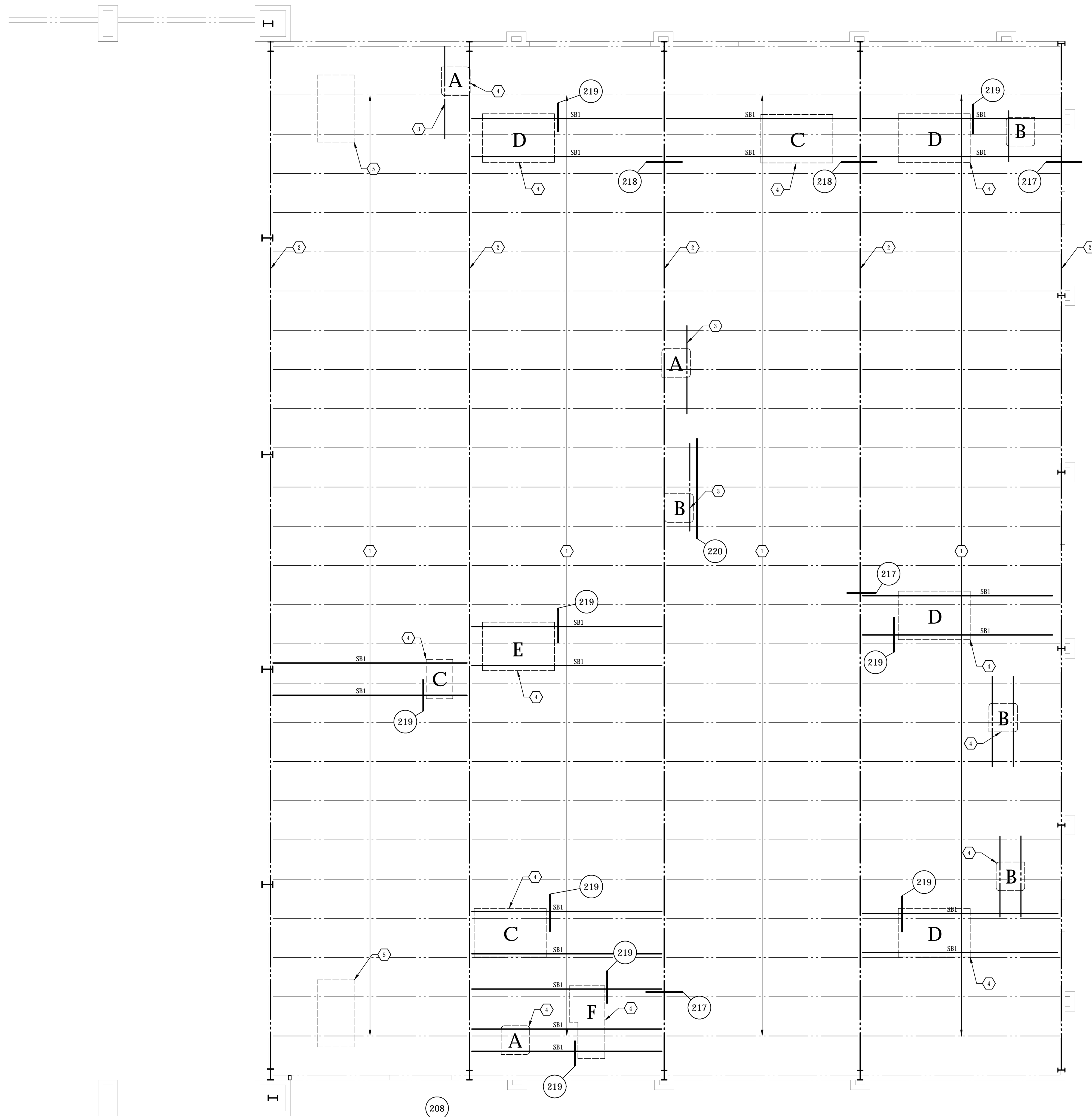
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EMAIL ADDRESS
augie@augustreno.com

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SHEET INDEX	
S1.1 - General Structural Notes	
S1.2 - Typical (100's) Details	
S2.1 - Foundation Plan	
S2.2 - Floor Framing Plan	
S2.3 - Floor Loading Plan	
S3.1 - Foundation (100's) Details	
S4.1 - Framing (200's) Details	
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FLOOR LOAD PLAN

SHEET NO:
S2.3



NEW ROOF TOP UNIT FRAMING PLAN NOTES

- ① Existing 8" Z-Purlins
- ② Existing steel frame beam
- ③ C4 x 7.25 to span over (3) Z-Purlins - Typical at all units under 300lbs - See Details 220.
- ④ Mechanical unit - Typical. Weights and location of mechanical units shown are approximate. For exact weights, locations, duct openings, additional units, etc. - See mechanical and architectural drawings. All units greater than 300lb to be supported by new SB1 steel beam per plans. Units under 300lb are to be supported by (3) existing Z-Purlins per detail 220 - See detail 221 for new opening at existing deck.
- ⑤ Existing mechanical unit.

STEEL BEAM (SB) SCHEDULE				
MARK	BEAM SIZE	CAMBER AT MIDSPAN	END CONNECTION	REMARKS
SB1	W8 x 10	---	See Details	New Mechanical unit beam

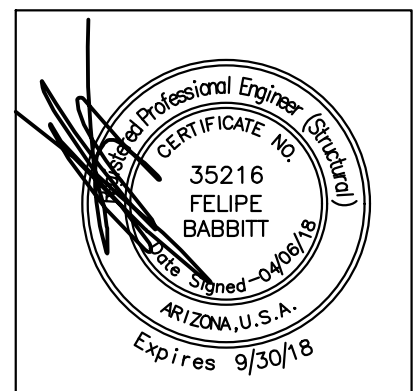
MECHANICAL EQUIPMENT WEIGHTS SCHEDULE		
VERIFY ALL SIZES, WEIGHTS AND LOCATIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL ENGINEER AND ARCHITECT		
MARK	EQUIPMENT WEIGHT	REMARKS
A	250lb Max	See detail 220 and 221
B	300lb Max	See detail 220 and 221
C	600lb Max	See detail 217, 218, 219 and 221
D	850lb Max	See detail 217, 218, 219 and 221
E	1000lb Max	See detail 217, 218, 219 and 221
F	1300lb Max	See detail 217, 218, 219 and 221

Note:
Notify Babbitt Nelson if
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Carefree, AZ 85377

37417 Tom Darlington Drive
Carefree, AZ 85377
(480) 488-9858
FAX (480) 636-1325
WEB SITE
www.augustreno.com
EMAIL ADDRESS
augie@augustreno.com

NEW ROOF TOP UNIT
FRAMING PLAN

SHEET NO:

S2.4

NEW ROOF TOP UNIT FRAMING PLAN
SCALE: 3/16" = 1'-0"

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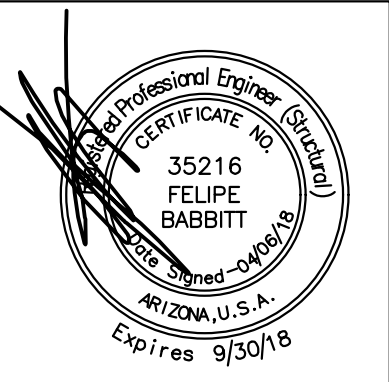
SHEET INDEX
S1.1 - General Structural Notes
S1.2 - Typical (100's) Details
S2.1 - Foundation Plan
S2.2 - Floor Framing Plan
S2.3 - Floor Loading Plan
S3.1 - Foundation (100's) Details
S4.1 - Framing (200's) Details

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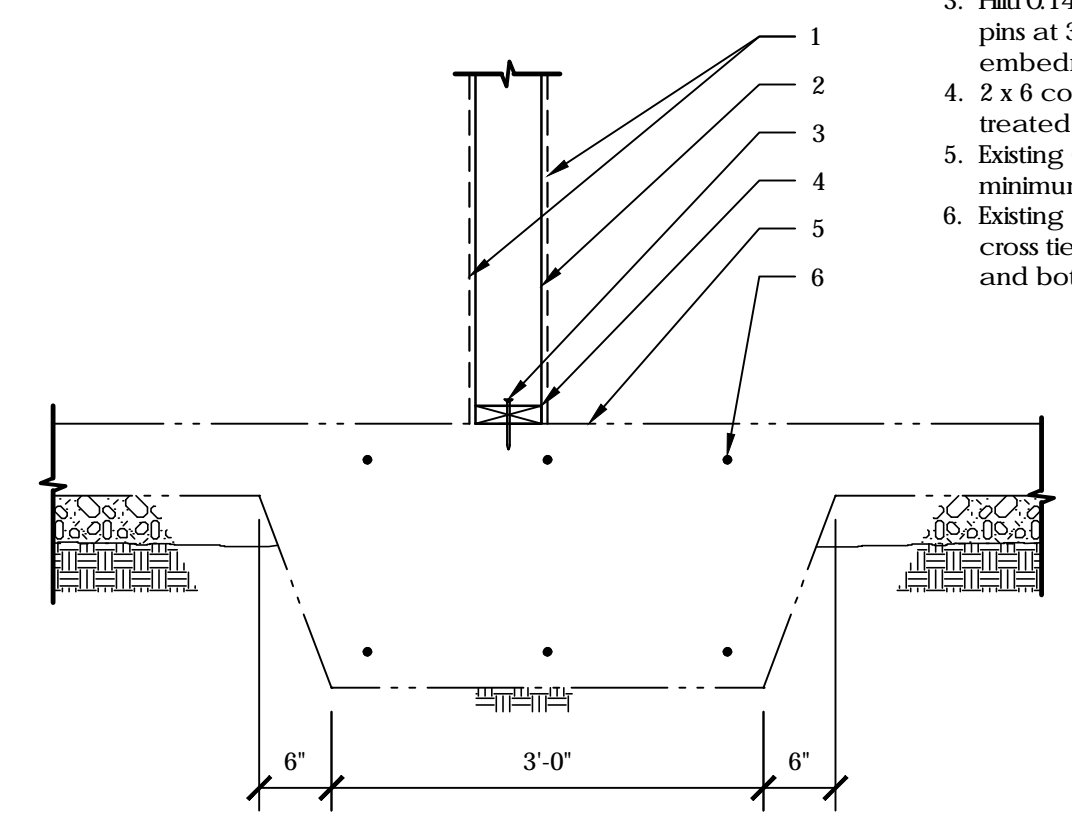
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Carefree, AZ 85377
(480) 488-9858
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FOUNDATION DETAILS

SHEET NO:
S3.1

DETAIL KEY NOTES

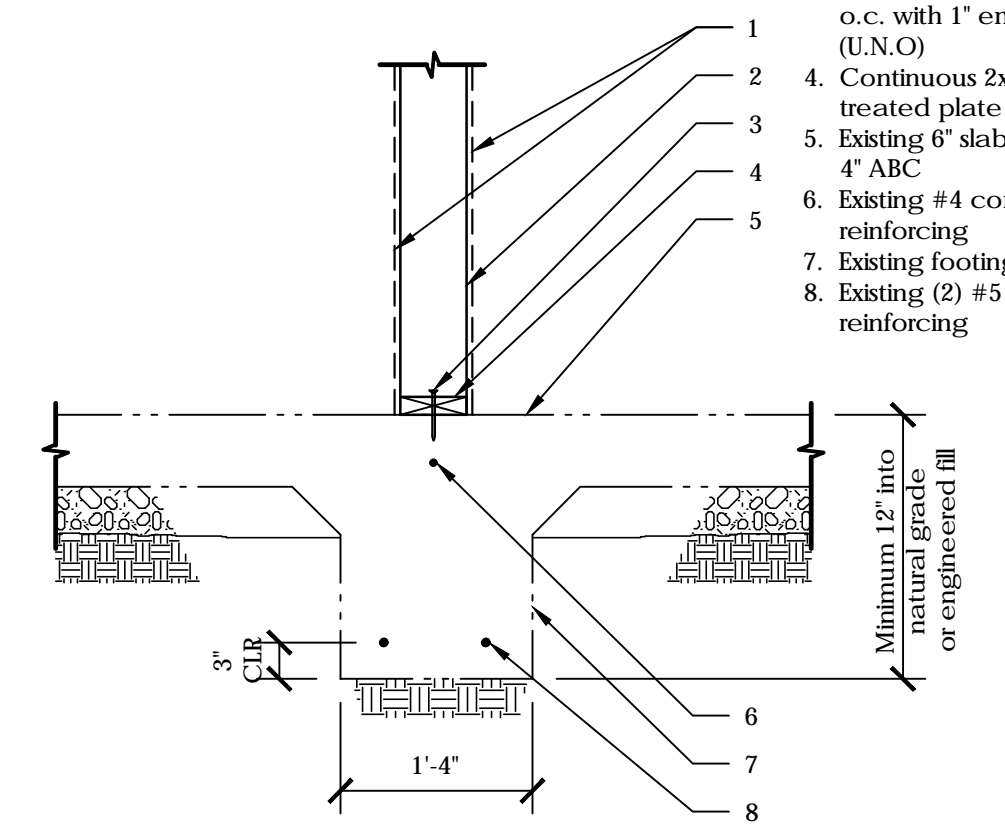
- 1/2" gypsum board wall sheathing
- 2 x 6 wood studs at 16" o.c.
- Hilti 0.145" Ø x 2 1/2" shot pins at 32" o.c. with 1" embedment (U.N.O)
- 2 x 6 continuous pressure treated plate
- Existing 6" concrete slab on minimum 4" ABC
- Existing (3) #5 continuous cross ties end to end at top and bottom



101 EXISTING INTERIOR BEARING FOOTING WITH CROSS TIES 34505

DETAIL KEY NOTES

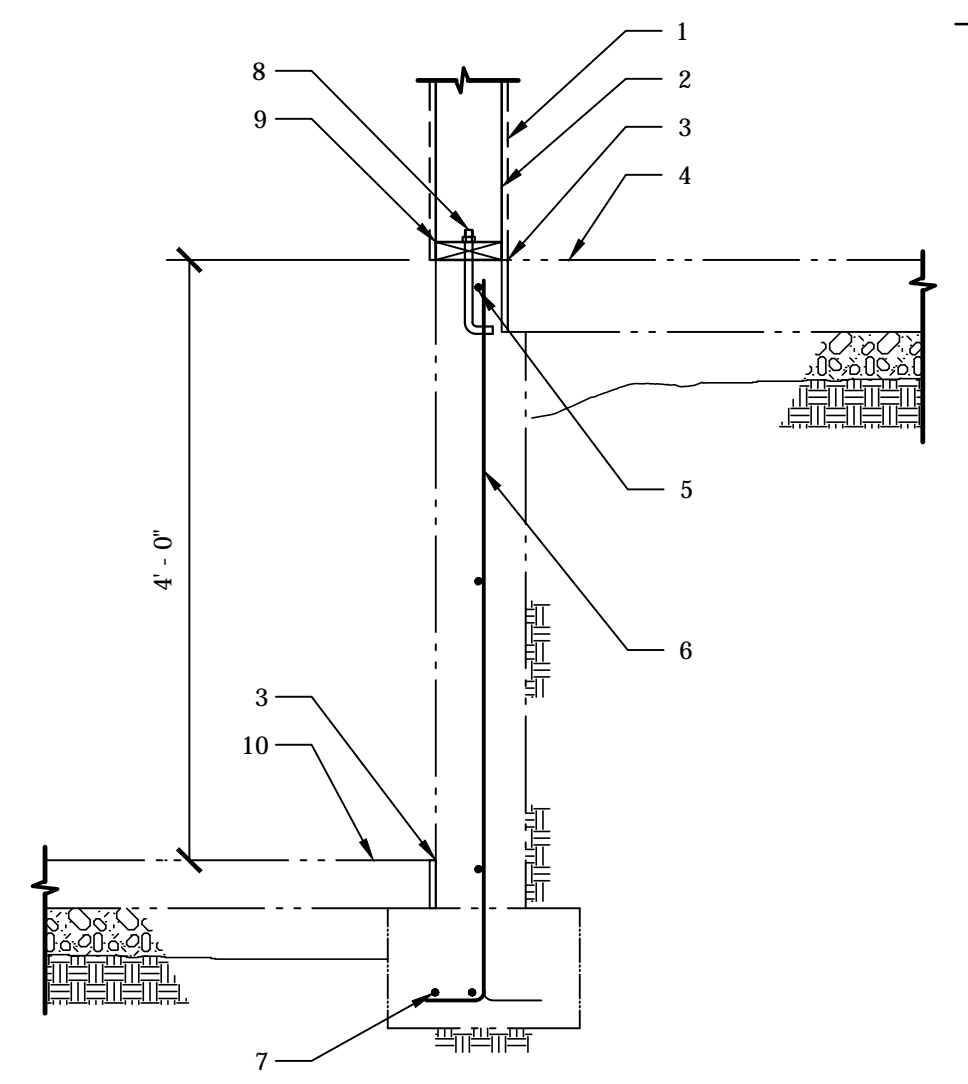
- 1/2" gypsum board wall sheathing
- 2 x 6 wood studs at 16" o.c.
- Hilti 0.145" Ø x 2 1/2" shot pins at 32" o.c. with 1" embedment (U.N.O)
- Continuous 2x pressure treated plate
- Existing 6" slab on minimum 4" ABC
- Existing #4 continuous reinforcing
- Existing footing
- Existing (2) #5 continuous reinforcing



102 EXISTING INTERIOR BEARING WALL FOOTING 34508

DETAIL KEY NOTES

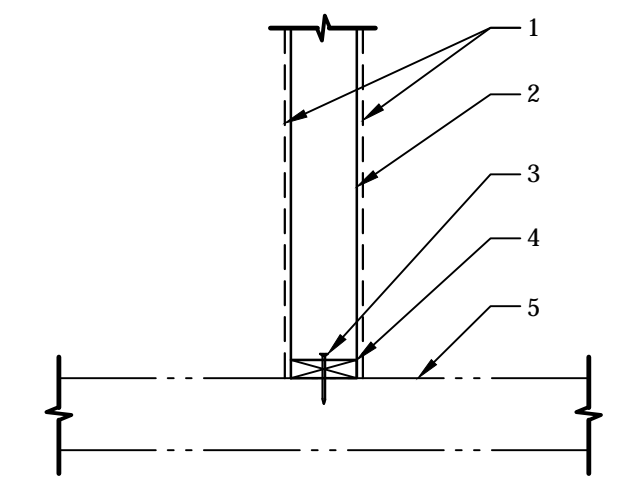
- 1/2" gypsum board wall sheathing
- 2 x 6 wood studs at 16" o.c.
- Existing 1/2" expansion joint
- Existing 6" concrete slab on minimum 4" ABC
- Existing #4 continuous horizontal reinforcing at 2' o.c.
- Existing #4 vertical reinforcing at 2' o.c.
- Existing (2) #5 continuous horizontal reinforcing
- Existing 1/2" Ø anchor bolt with 2" steel washer at 48" o.c. (minimum 7" embedment and 12" from wall ends)
- 2x continuous pressure treated sill plate
- Existing 4" concrete slab on minimum 4" ABC



103 EXISTING ELEVATOR PIT 34513

DETAIL KEY NOTES

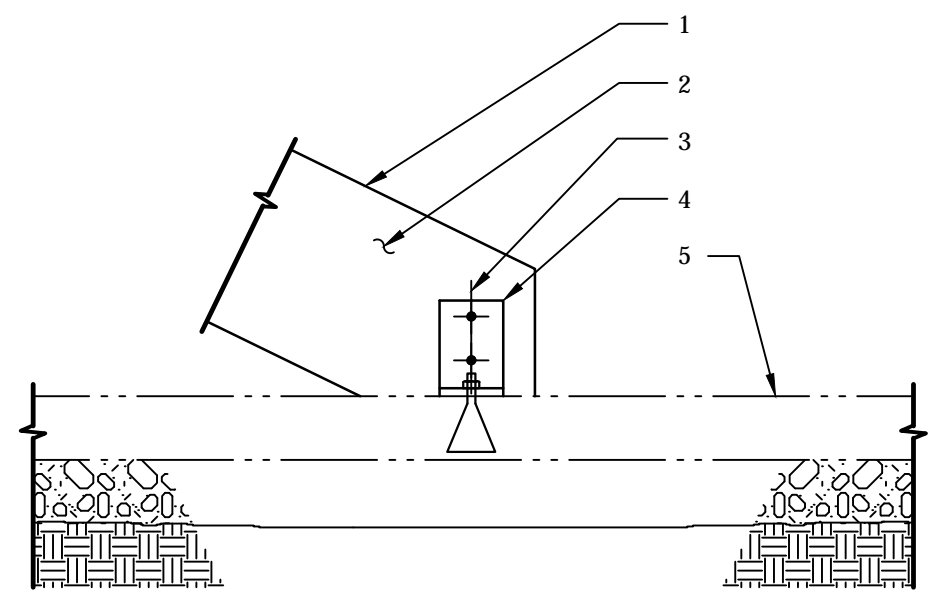
- 1/2" Gypsum board wall sheathing
- 2 x 4 wood stud wall at 16" o.c.
- Hilti 0.145 x 2 1/2" shot pins with 1" Min. embedment into concrete slab at 32" o.c.
- 2 x 4 pressure treated wood plate
- Existing concrete slab



104 WOOD STUD STAIR WALL AT EXISTING SLAB

DETAIL KEY NOTES

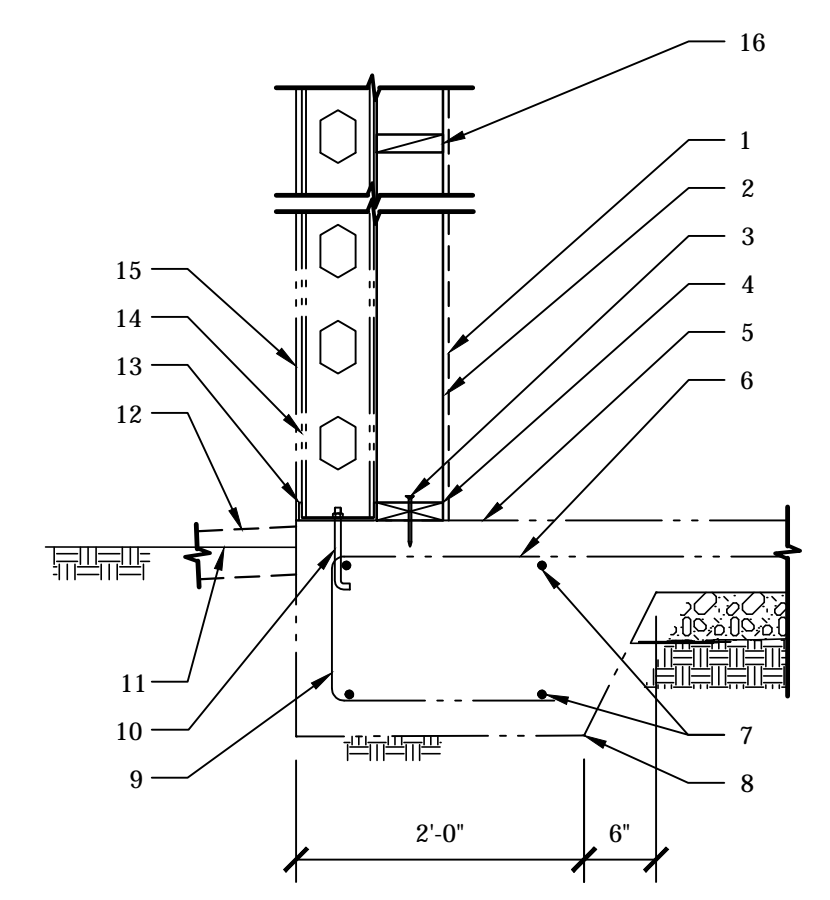
- Wood stair stringer
- For treads and riser, see architectural drawings
- (2) 3/4" Ø bolt
- Angle 6 x 4 x 1/4 x 3 (LLH) with (1) 3/4" Ø expansion bolt
- Existing 6" concrete slab



105 WOOD STAIR BEAM CONNECTION AT CONCRETE SLAB ON GRADE 71101

DETAIL KEY NOTES

- 1/2" gypsum board wall sheathing
- 2 x 6 wall stud at 16" o.c.
- Hilti 0.145 x 2 1/2" shot pins at 24" o.c. with 1" embedment
- 2 x 6 continuous pressure treated wood plate
- Existing 6" concrete slab
- Existing #4 bent reinforcing
- Existing (2) #4 continuous horizontal reinforcing at top and bottom
- Existing footing
- Existing #4 dowels at 24" o.c. x 36"
- Existing 1/2" Ø anchor bolt at 48" o.c. maximum (U.N.O)
- Finished grade
- Exterior slab where shown on plans
- Existing continuous steel track
- Existing steel stud
- Existing plywood wall sheathing
- 2x blocking at 48" o.c.



106 EXTERIOR STEEL STUD WALL FOOTING 35101

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	SHEET INDEX	
S1.1 - General Structural Notes		
S1.2 - Typical (100's) Details		
S2.1 - Foundation Plan		
S2.2 - Floor Framing Plan		
S2.3 - Floor Loading Plan		
S3.1 - Foundation (100's) Details		
S4.1 - Framing (200's) Details		
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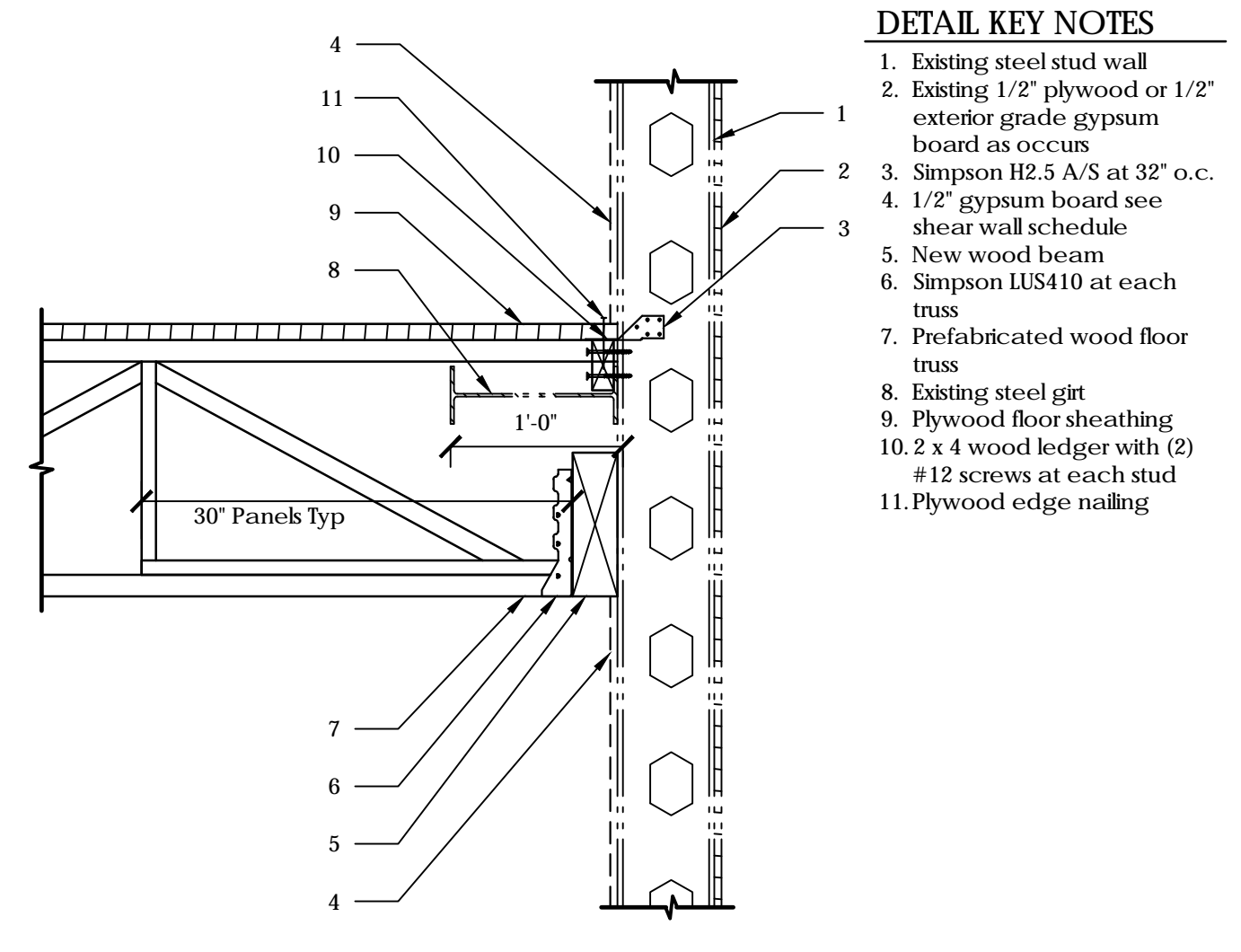


PO BOX 2302
Carefree, AZ 85377
37417 Tom Darlington Drive
Carefree, AZ 85377
(480) 488-9858
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EMAIL ADDRESS
augie@augustreno.com

FRAMING DETAILS

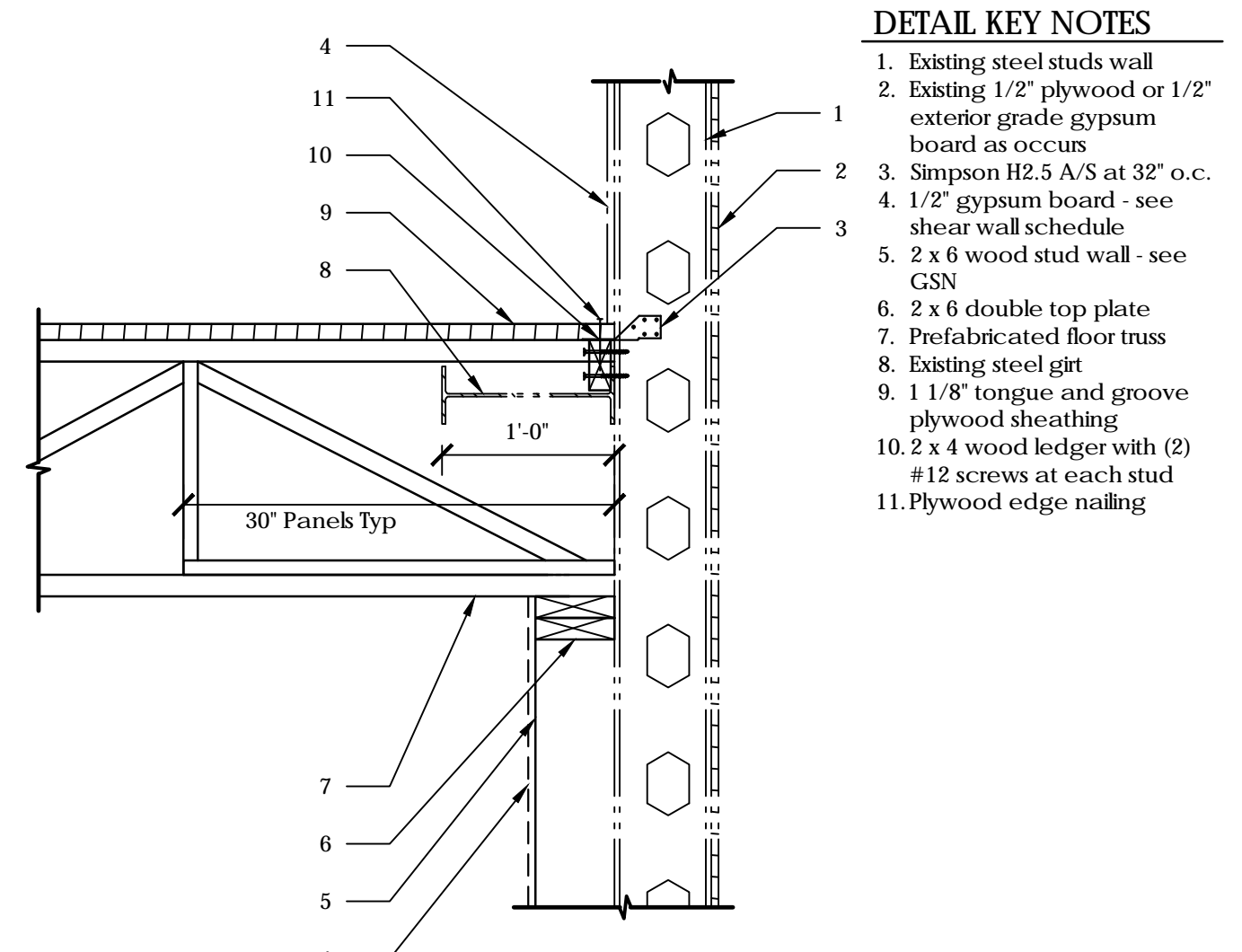
SHEET NO:

S4.1



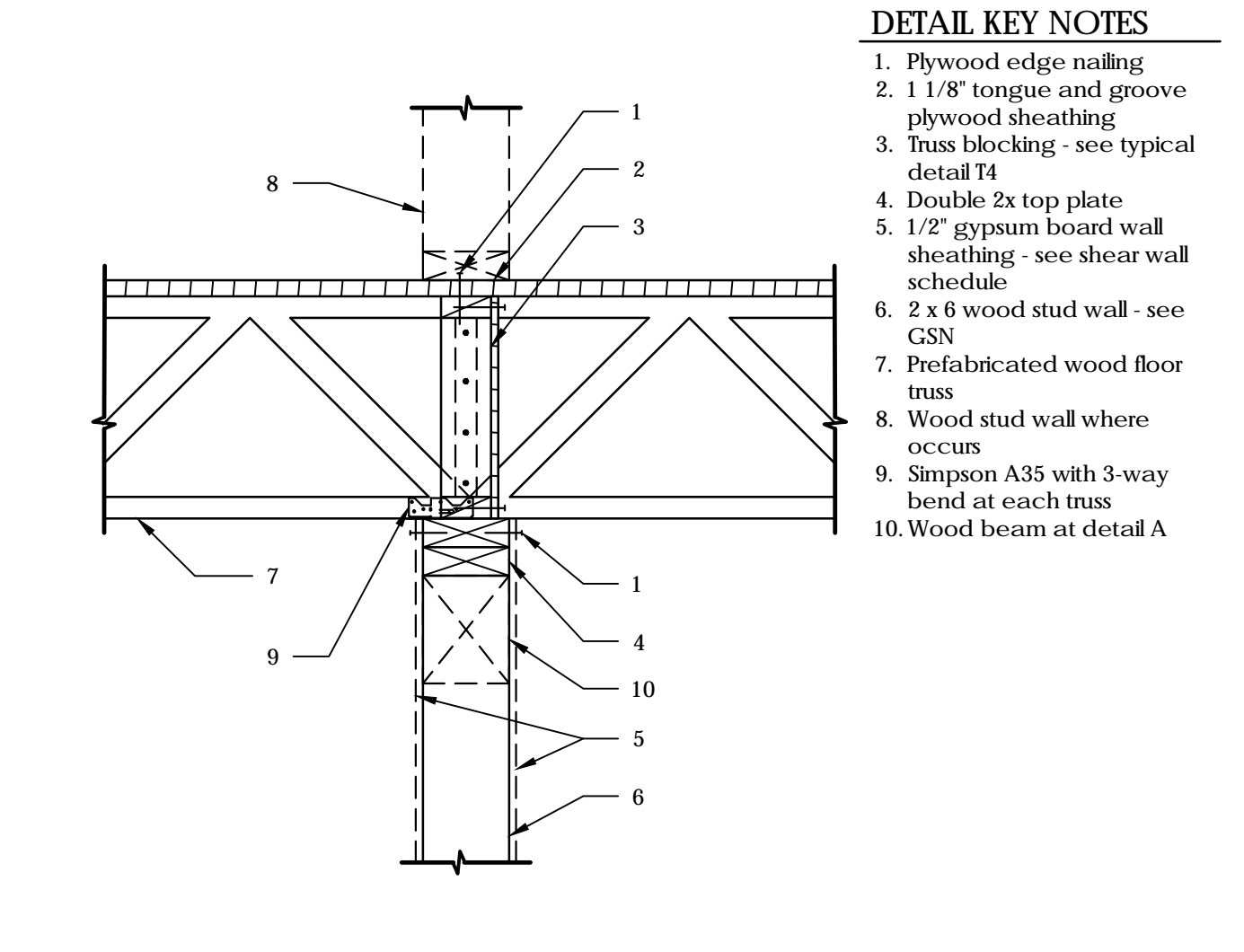
- DETAIL KEY NOTES**
- Existing steel stud wall
 - Existing 1/2" plywood or 1/2" exterior grade gypsum board as occurs
 - Simpson H2.5 A/S at 32" o.c.
 - 1/2" gypsum board see shear wall schedule
 - New wood beam
 - Simpson LUS410 at each truss
 - Prefabricated wood floor truss
 - Existing steel girt
 - Plywood floor sheathing
 - 2 x 4 wood ledger with (2) #12 screws at each stud
 - Plywood edge nailing

201 FLOOR TRUSS BEARING AT NEW BEAM 63363



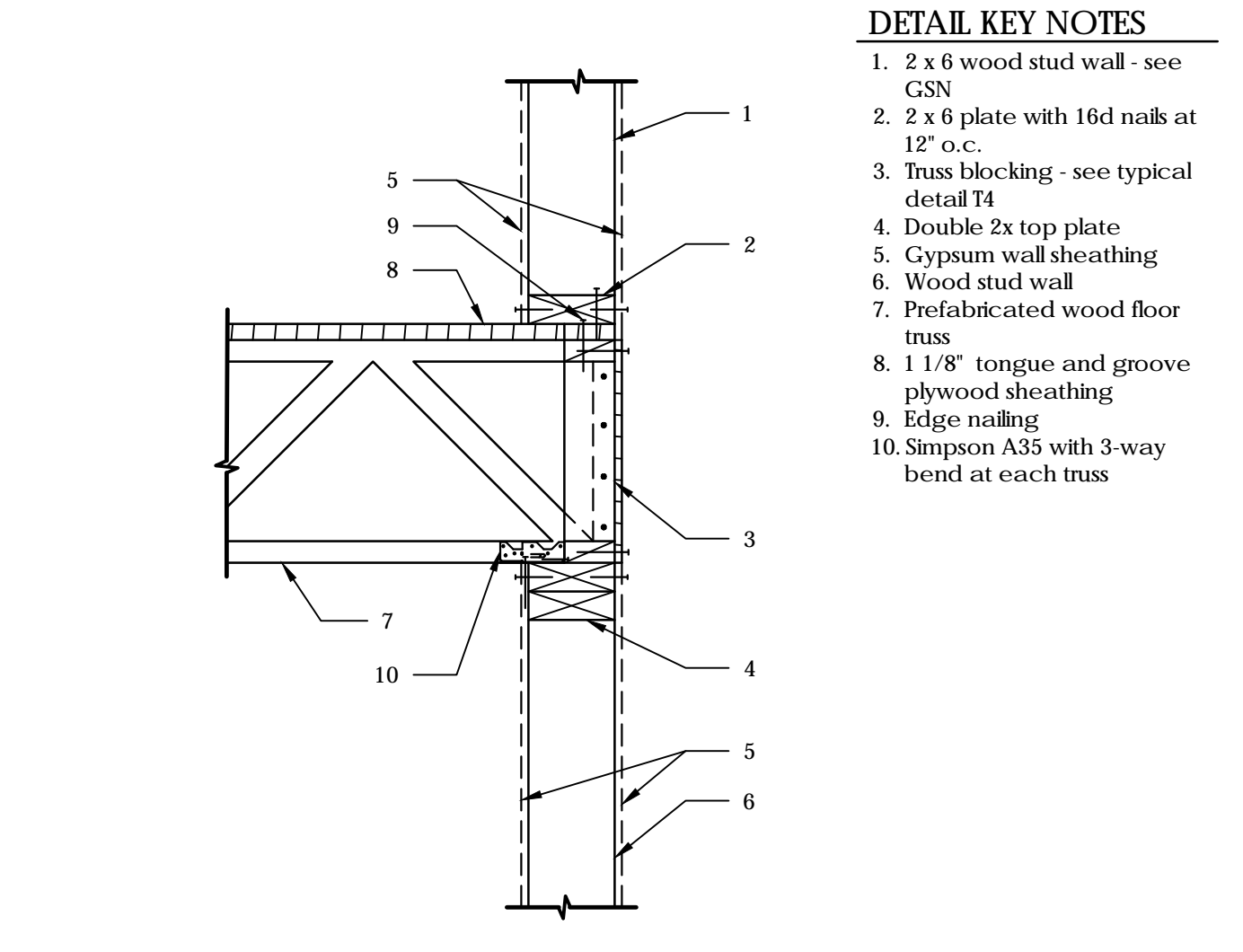
- DETAIL KEY NOTES**
- Existing steel studs wall
 - Existing 1/2" plywood or 1/2" exterior grade gypsum board as occurs
 - Simpson H2.5 A/S at 32" o.c.
 - 1/2" gypsum board - see shear wall schedule
 - 2 x 6 wood stud wall - see GSN
 - 2 x 6 double top plate
 - Prefabricated floor truss
 - Existing steel girt
 - 1 1/8" tongue and groove plywood sheathing
 - 2 x 4 wood ledger with (2) #12 screws at each stud
 - Plywood edge nailing

202 FLOOR TRUSS BEARING AT NEW WOOD STUD BEARING WALL 63363



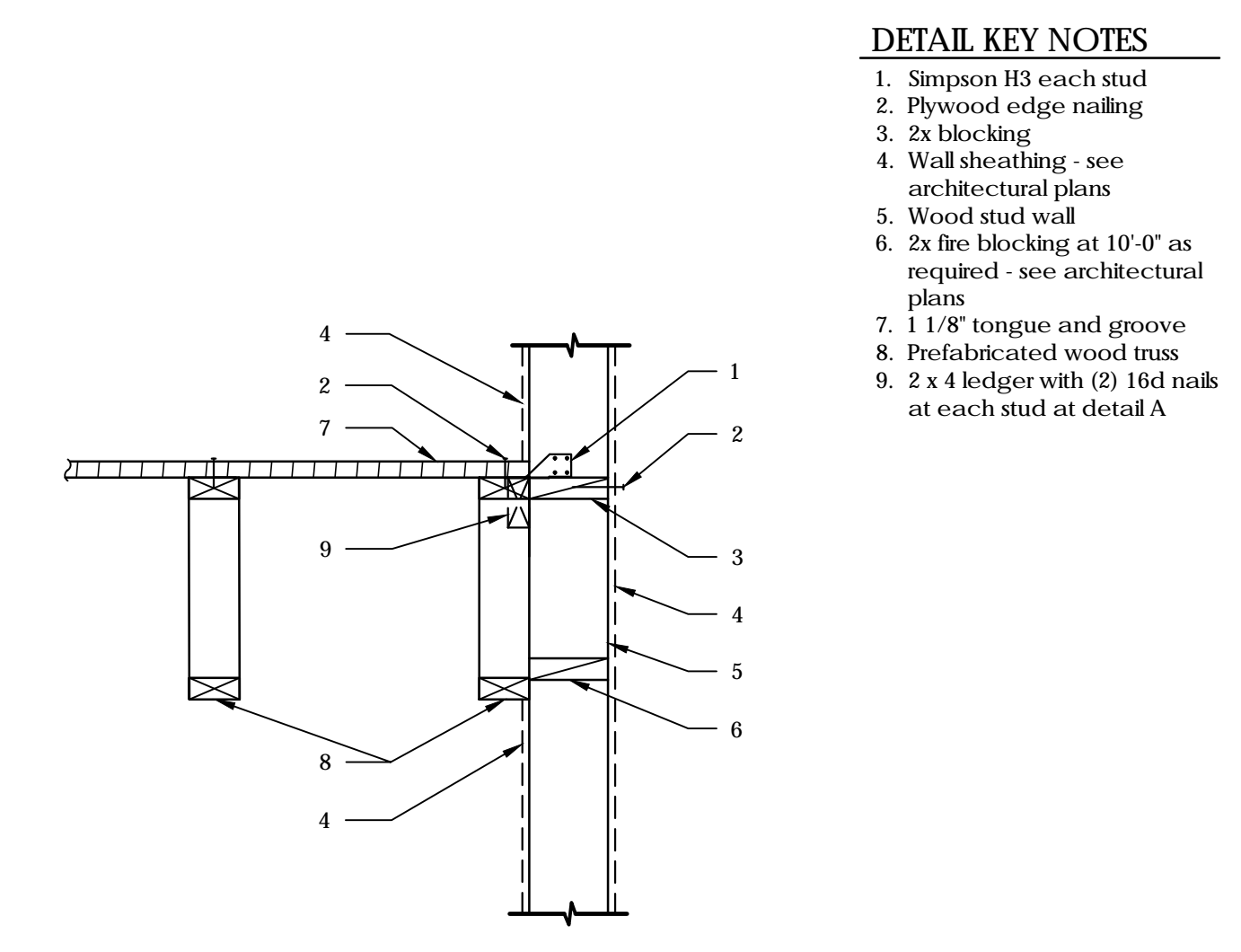
- DETAIL KEY NOTES**
- Plywood edge nailing
 - 1 1/8" tongue and groove plywood sheathing
 - Truss blocking - see typical detail T4
 - Double 2x top plate
 - 1/2" gypsum board wall sheathing - see shear wall schedule
 - 2 x 6 wood stud wall - see GSN
 - Prefabricated wood floor truss
 - Wood stud wall where occurs
 - Simpson A35 with 3-way bend at each truss
 - Wood beam at detail A

203 PREFABRICATED FLOOR TRUSS BEARING AT INTERIOR WOOD STUD WALL 63368
A AS NOTED



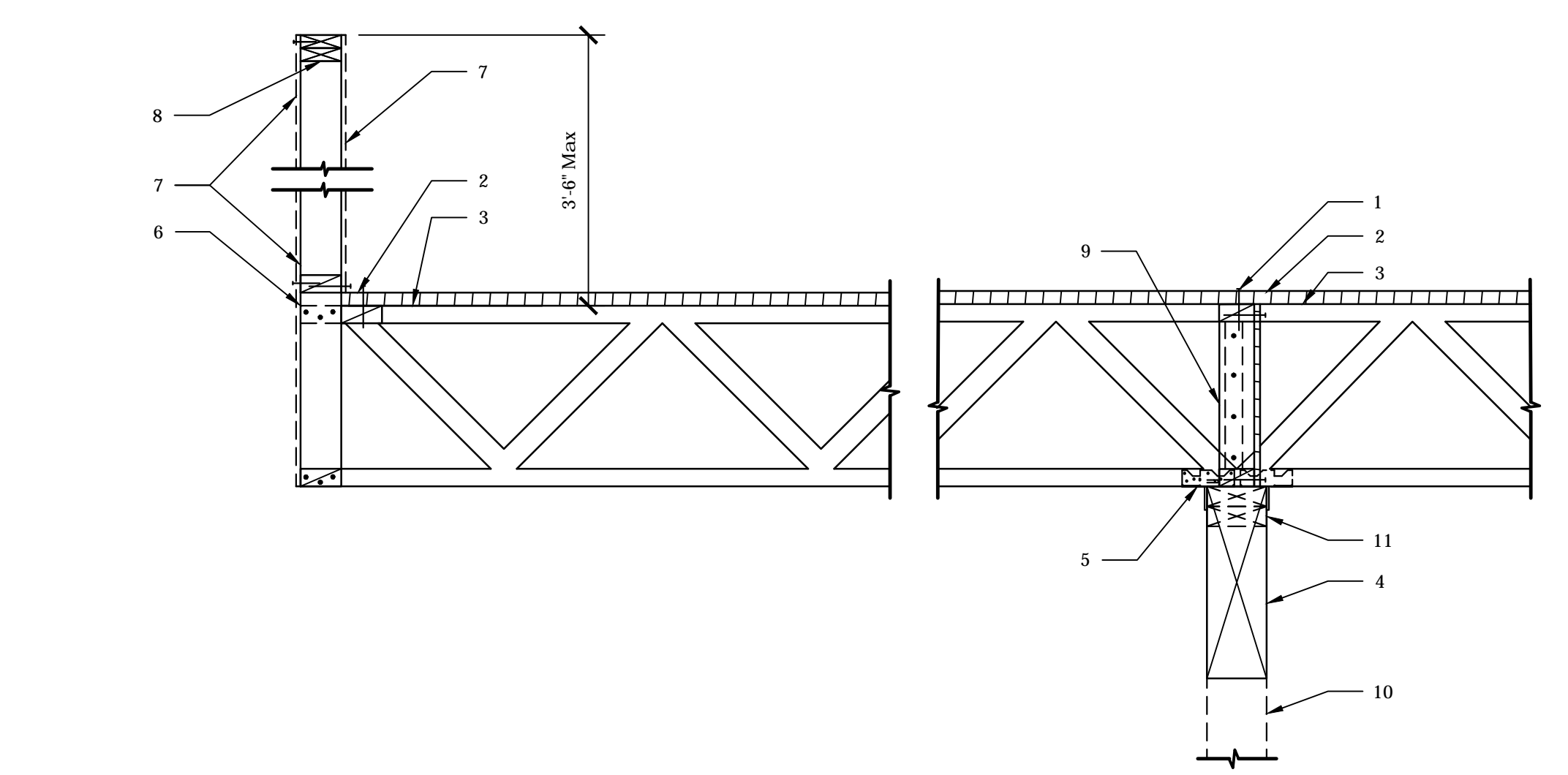
- DETAIL KEY NOTES**
- 2 x 6 wood stud wall - see GSN
 - 2 x 6 plate with 16d nails at 12" o.c.
 - Truss blocking - see typical detail T4
 - Double 2x top plate
 - Gypsum wall sheathing
 - Wood stud wall
 - Prefabricated wood floor truss
 - 1 1/8" tongue and groove plywood sheathing
 - Edge nailing
 - Simpson A35 with 3-way bend at each truss

204 PREFABRICATED WOOD TRUSS AT WOOD STUD WALL 63363



- DETAIL KEY NOTES**
- Simpson H3 each stud
 - Plywood edge nailing
 - 2x blocking
 - Wall sheathing - see architectural plans
 - Wood stud wall
 - 2x fire blocking at 10'-0" as required - see architectural plans
 - 1 1/8" tongue and groove plywood floor sheathing
 - Prefabricated wood truss
 - 2 x 4 ledger with (2) 16d nails at each stud at detail A

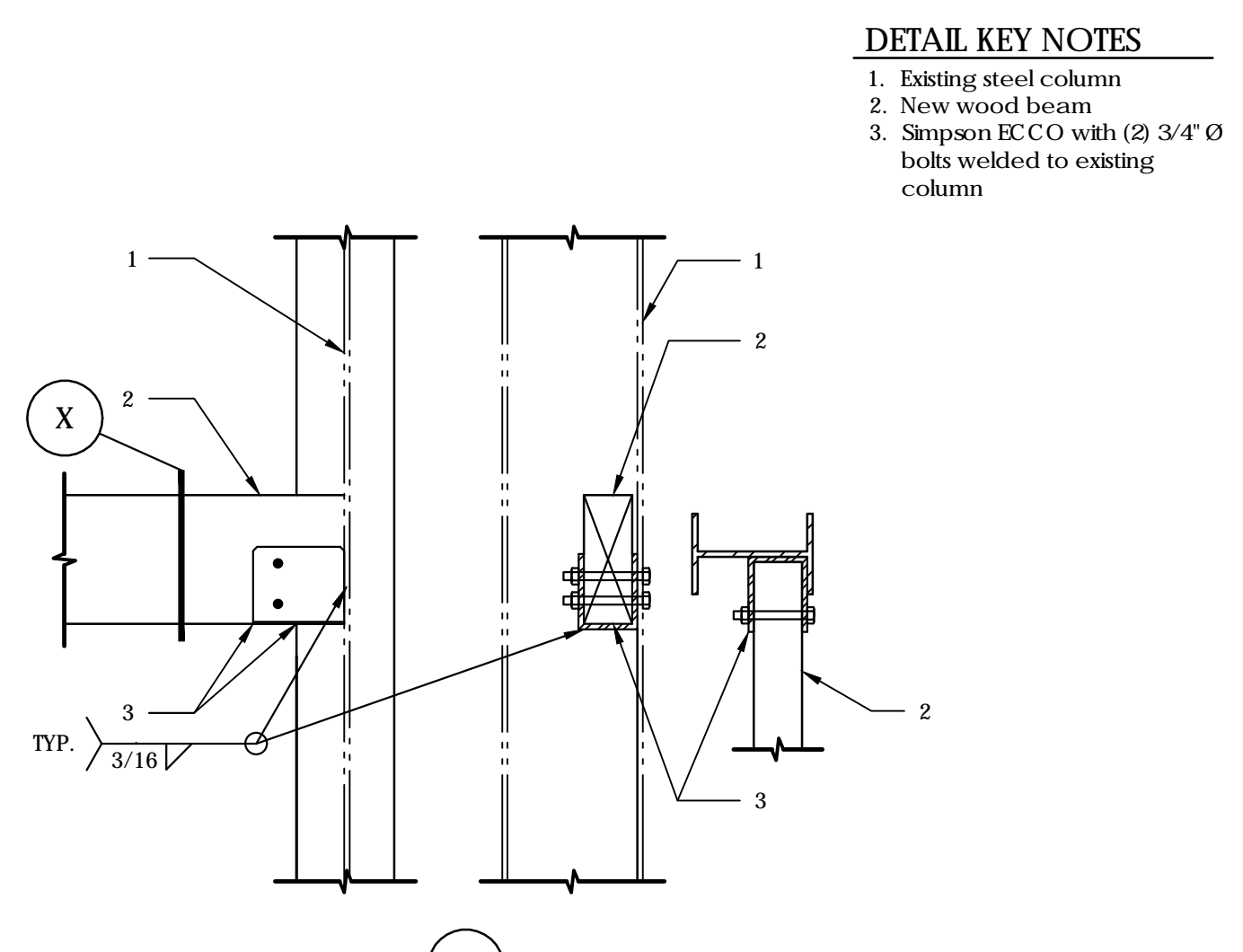
205 PREFABRICATED WOOD TRUSS CONNECTION TO WOOD STUD WALL 63370
A AS NOTED



- DETAIL KEY NOTES**
- Edge nailing
 - 1 1/8" tongue and groove plywood sheathing
 - Cantilevered prefabricated wood truss
 - Wood beam
 - Simpson A35 with 3-way bend (Alternate sides)
 - 2 x 4 studs nailed to wood truss with (3) 16d nails top and bottom
 - Wall sheathing - see architectural plans
 - (2) 2x wood top plate
 - Truss blocking - see typical detail T4
 - 2 x 6 wood stud wall at detail A
 - 2 - 2x top plate at detail A

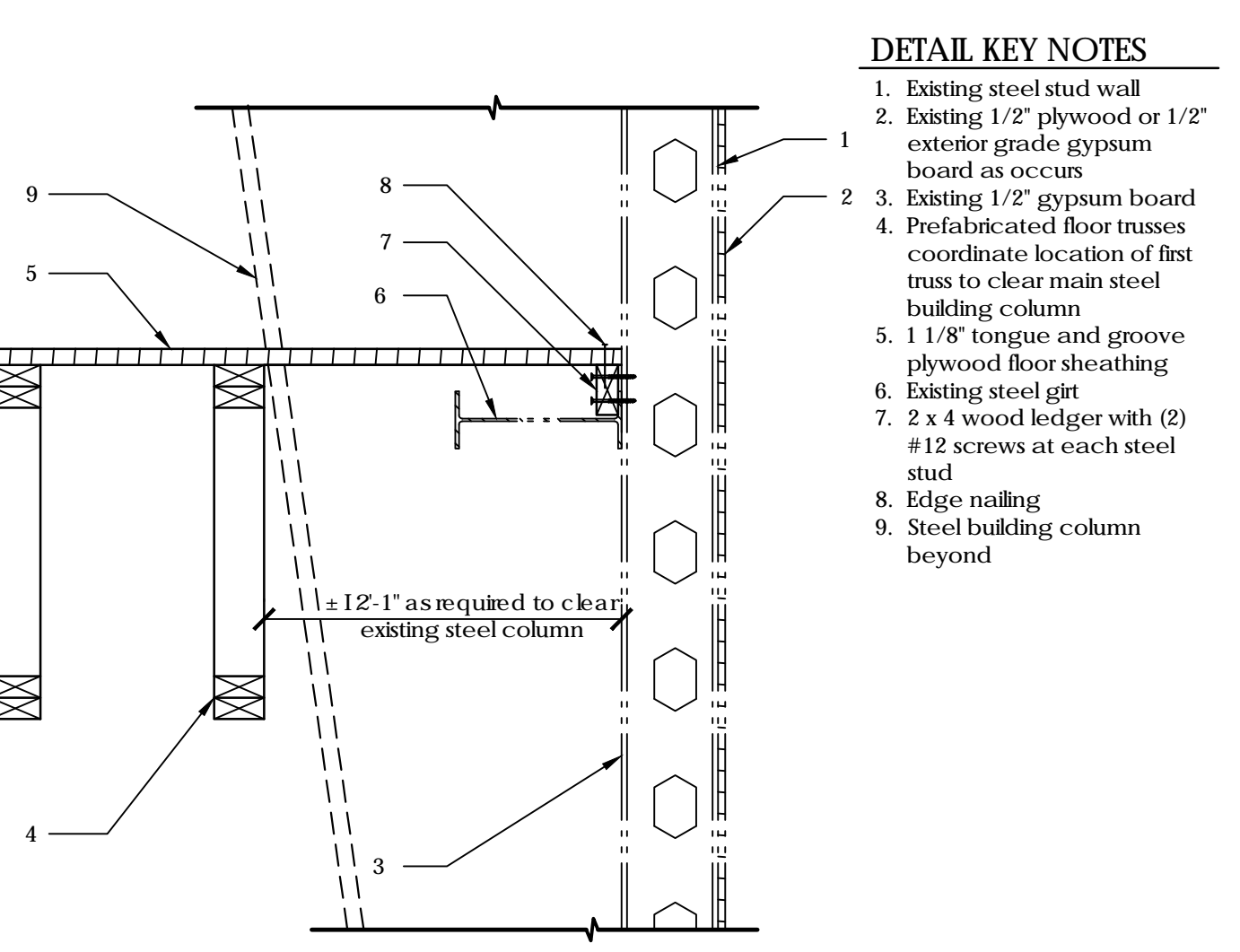
Note:
Provide blocking or bracing between trusses per manufacturers specifications

206 CANTILEVERED FLOOR TRUSS BEARING AT BEAM 63370
A AS NOTED



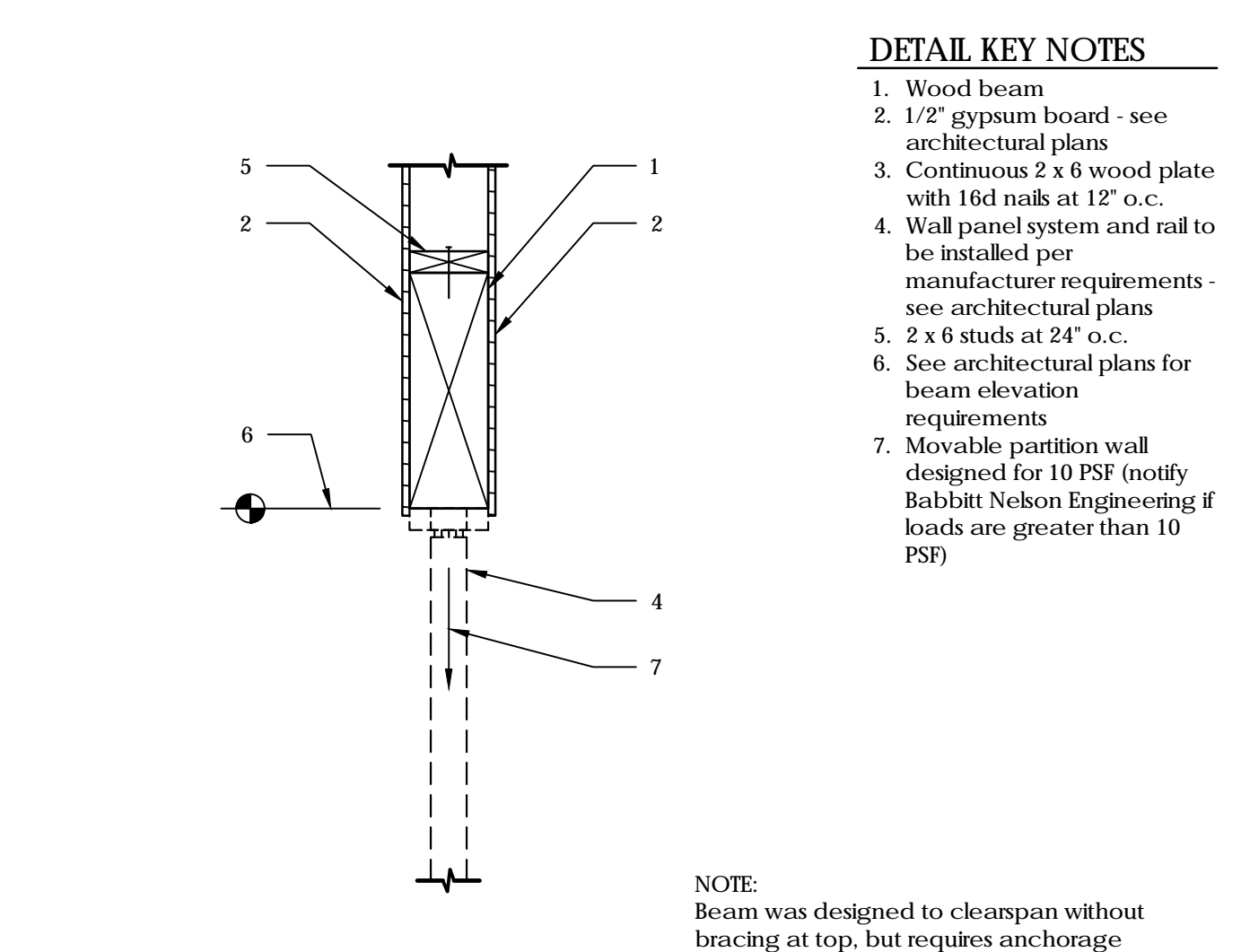
- DETAIL KEY NOTES**
- Existing steel column
 - New wood beam
 - Simpson EC CO with (2) 3/4" Ø bolts welded to existing column

207 NEW WOOD BEAM AT STEEL COLUMN 63370



- DETAIL KEY NOTES**
- Existing steel stud wall
 - Existing 1/2" plywood or 1/2" exterior grade gypsum board as occurs
 - Existing 1/2" gypsum board
 - Prefabricated floor trusses coordinate location of first truss to clear main steel building column
 - 1 1/8" tongue and groove plywood floor sheathing
 - Existing steel girt
 - 2 x 4 wood ledger with (2) #12 screws at each steel stud
 - Edge nailing
 - Steel building column beyond

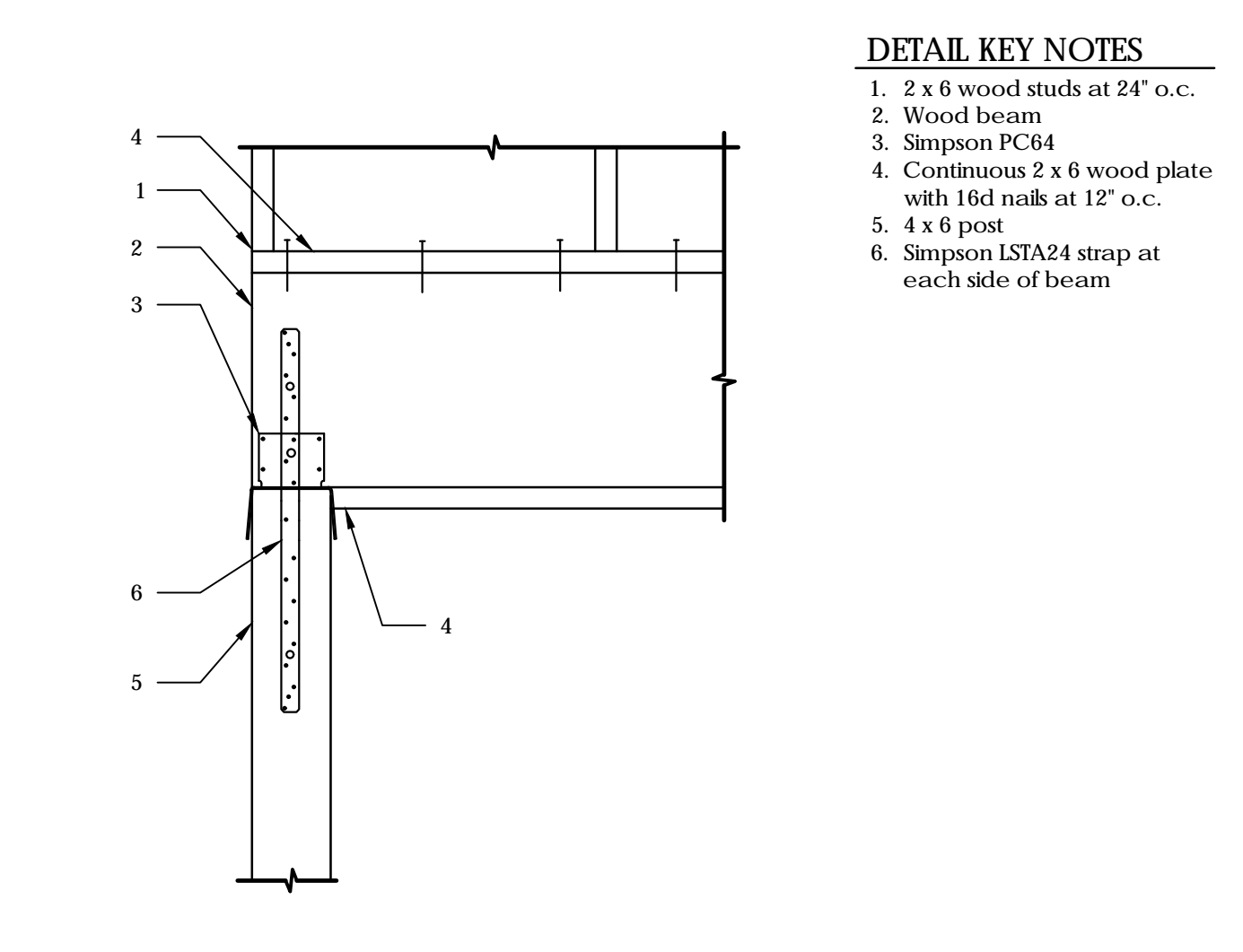
208 PREFABRICATED FLOOR TRUSS AT EXISTING STEEL STUD WALL 63363



- DETAIL KEY NOTES**
- Wood beam
 - 1/2" gypsum board - see architectural plans
 - Continuous 2 x 6 wood plate with 16d nails at 12" o.c.
 - Wall panel system and rail to be installed per manufacturer requirements - see architectural plans
 - 2 x 6 studs at 24" o.c.
 - See architectural plans for beam elevation requirements
 - Movable partition wall designed for 10 PSF (notify Babbitt Nelson Engineering if loads are greater than 10 PSF)

NOTE:
Beam was designed to clearspan without bracing at top, but requires anchorage at ends - see detail 210

209 BEAM AT ACCORDION PARTION 63363



- DETAIL KEY NOTES**
- 2 x 6 wood studs at 24" o.c.
 - Wood beam
 - Simpson PC64
 - Continuous 2 x 6 wood plate with 16d nails at 12" o.c.
 - 4 x 6 post
 - Simpson ISTA24 strap at each side of beam

210 BEAM AT POST AT ACCORDION PARTITION 63363

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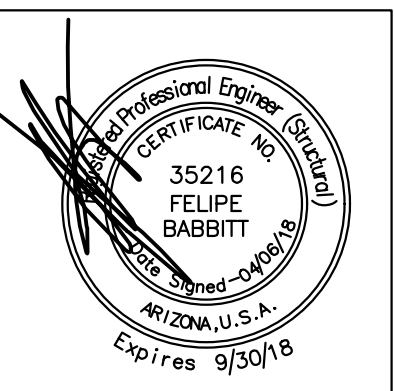
SHEET INDEX
S1.1 - General Structural Notes
S1.2 - Typical (100's) Details
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S3.1 - Foundation (100's) Details
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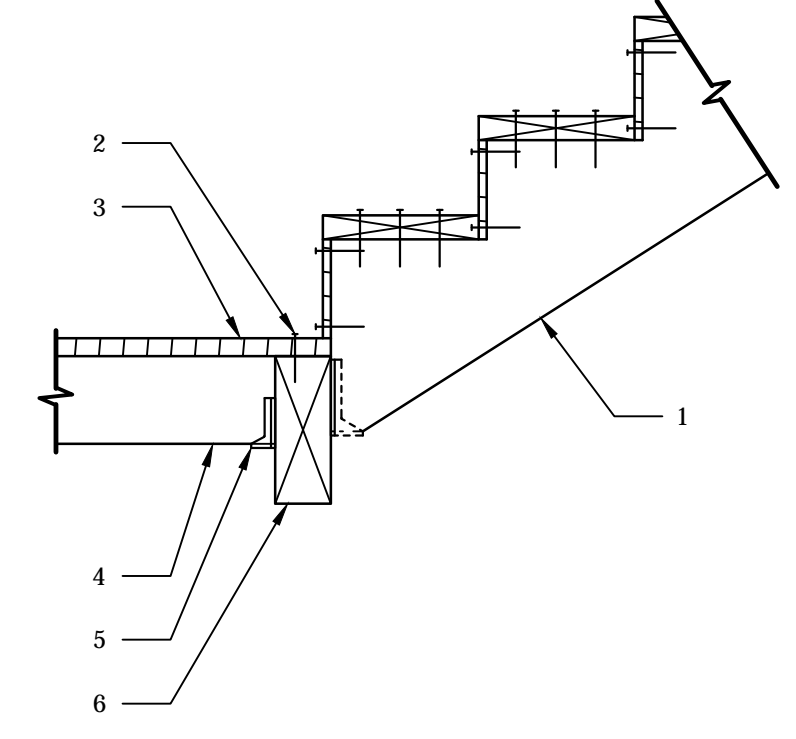


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 37417 Tom Darlington Drive
 Carefree, AZ 85377
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 EMAIL ADDRESS
 augie@augustreno.com

FRAMING DETAILS

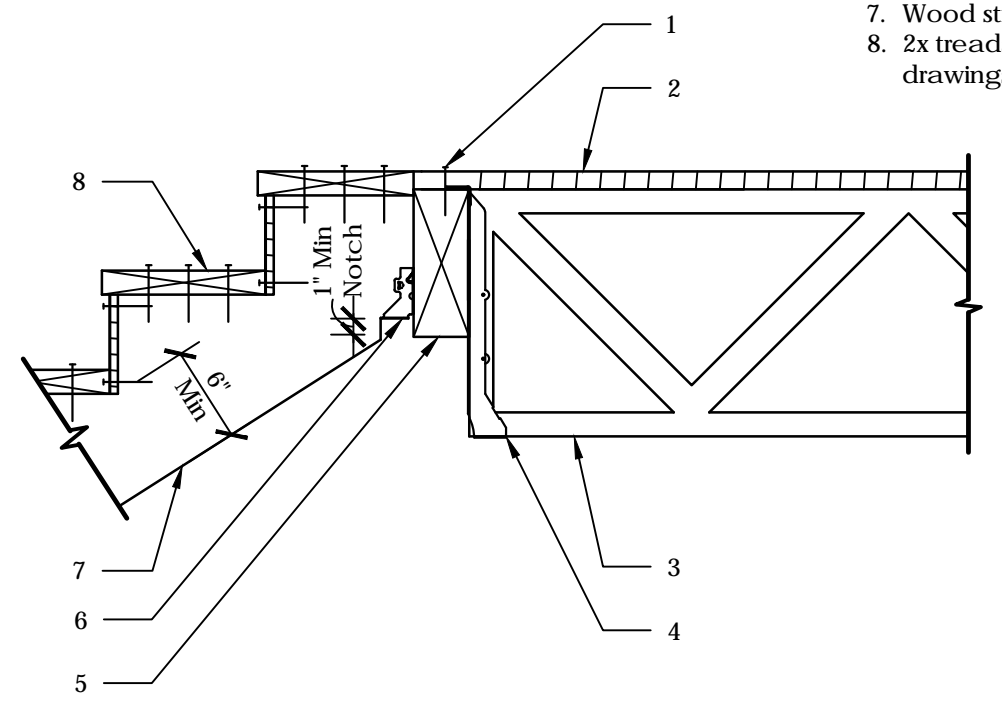
SHEET NO:
S4.2

- DETAIL KEY NOTES**
- 2x wood stringer
 - Edge nailing
 - 1 1/8" tongue and groove plywood sheathing
 - 2 x 6 joists at 16" o.c.
 - Simpson LUS24 hanger
 - Wood beam



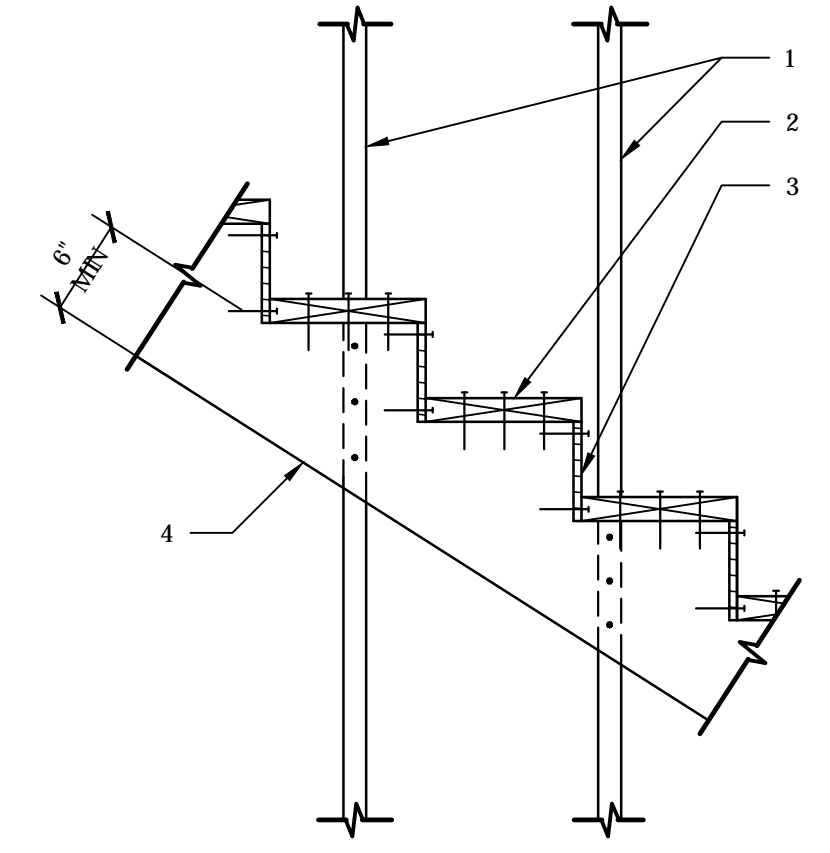
214 WOOD STAIR AT MID-HEIGHT LANDING 71702

- DETAIL KEY NOTES**
- Edge nailing
 - Plywood sheathing
 - Prefabricated wood truss
 - Simpson 'LB' type hanger
 - Wood beam
 - Simpson LUS26 hanger at each stringer
 - Wood stringer
 - 2x treads - see architectural drawings



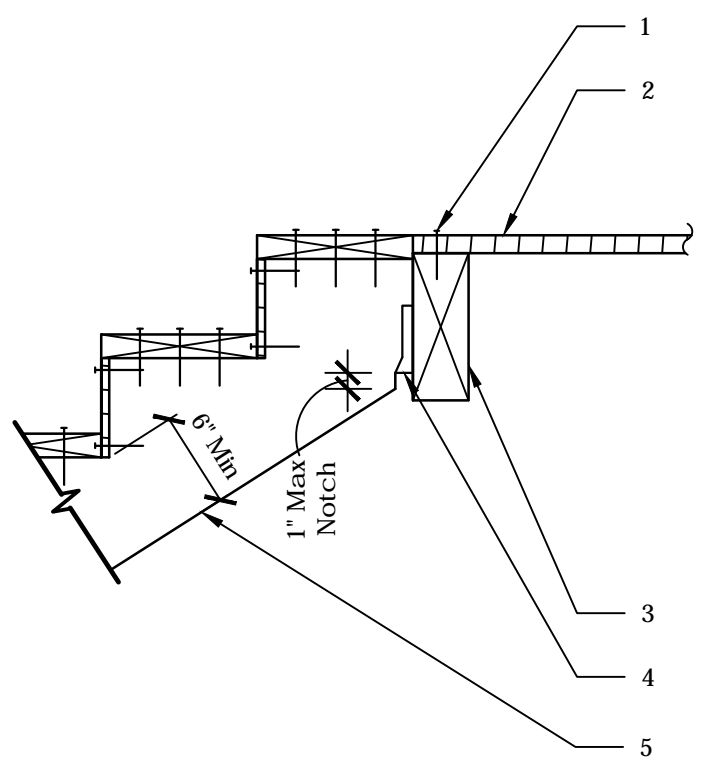
213 WOOD STAIR STRINGER 71703

- DETAIL KEY NOTES**
- Wood stud wall
 - 2 x treads with 3-16d ring shank nails at each stringer
 - 3/4" Plywood riser with 2-10d nails at each stringer
 - 2 x stair stringer with 3-16d ring shank nails to each stud



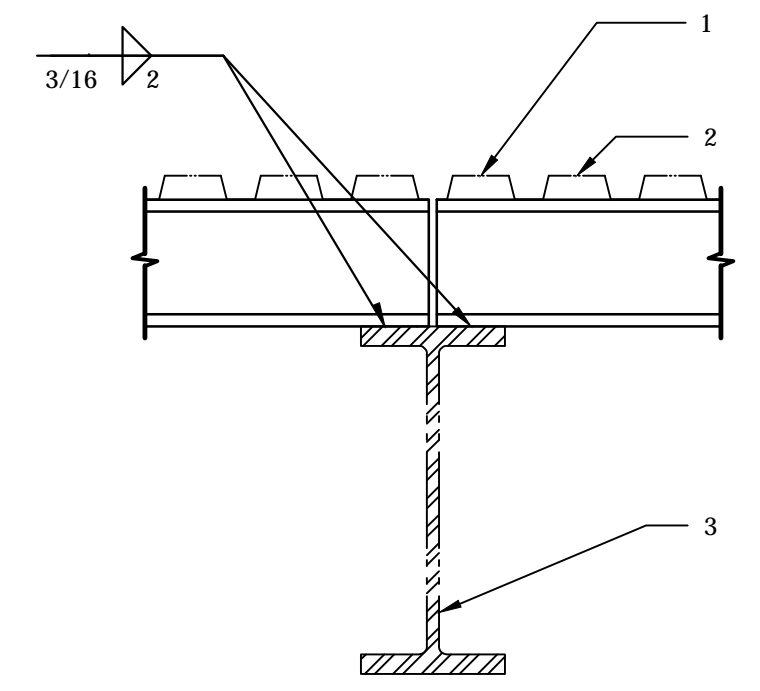
212 WOOD STAIR STRINGER AT WOOD STUDS 71503

- DETAIL KEY NOTES**
- Edge nailing
 - 1 1/8" tongue and groove plywood sheathing
 - Wood beam
 - Simpson LUS26 hanger at each stringer
 - 2 x wood stringer



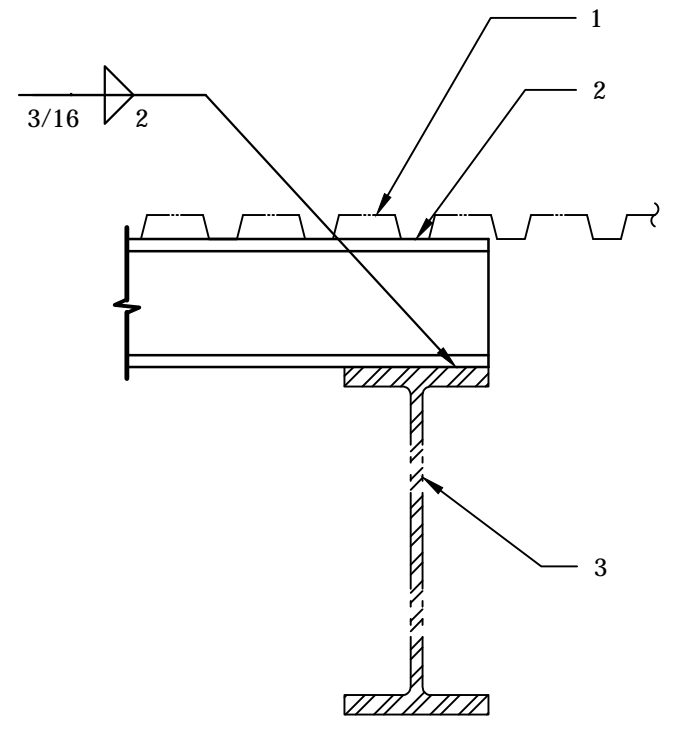
211 WOOD STAIR STRINGER 71701

- DETAIL KEY NOTES**
- Existing steel deck
 - Steel beam
 - Existing frame beam



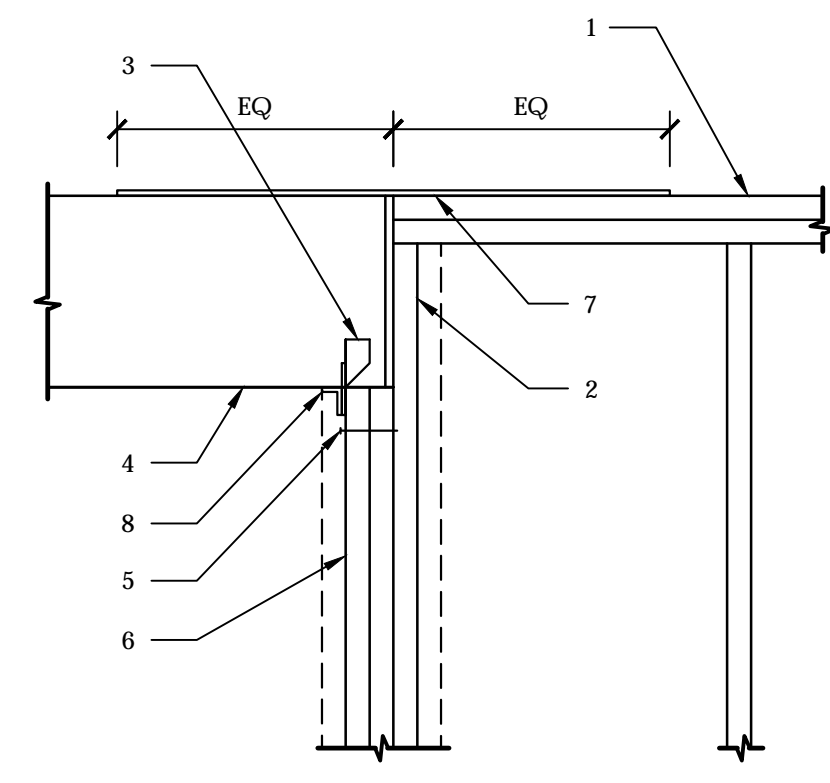
218 NEW STEEL BEAM BEARING ON EXISTING STEEL BEAM 55637

- DETAIL KEY NOTES**
- Existing Steel deck
 - New mechanical unit support beam steel beam
 - Existing frame beam



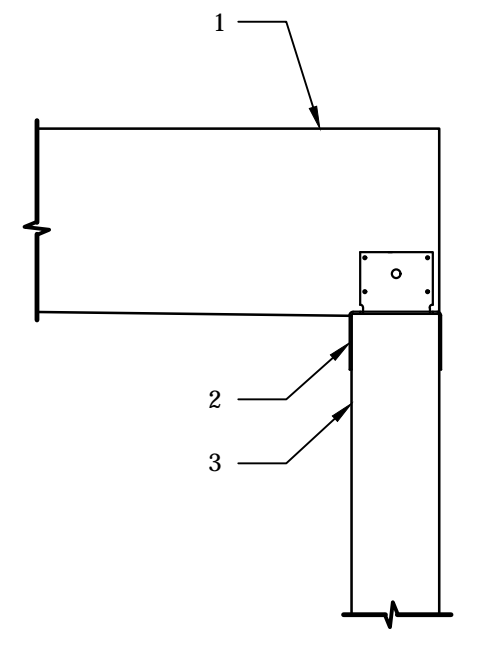
217 NEW STEEL BEAM BEARING ON EXISTING STEEL BEAM 55637

- DETAIL KEY NOTES**
- (2) 2 x wood top plates
 - 2 x stud, (2) 2 x studs at opening 6'-0" or larger
 - Simpson H3 each side (2 total)
 - Wood beam
 - 16d nails at 12" o.c. staggered
 - Wood post or multiple studs per plans
 - Simpson MST24 strap
 - Simpson A35



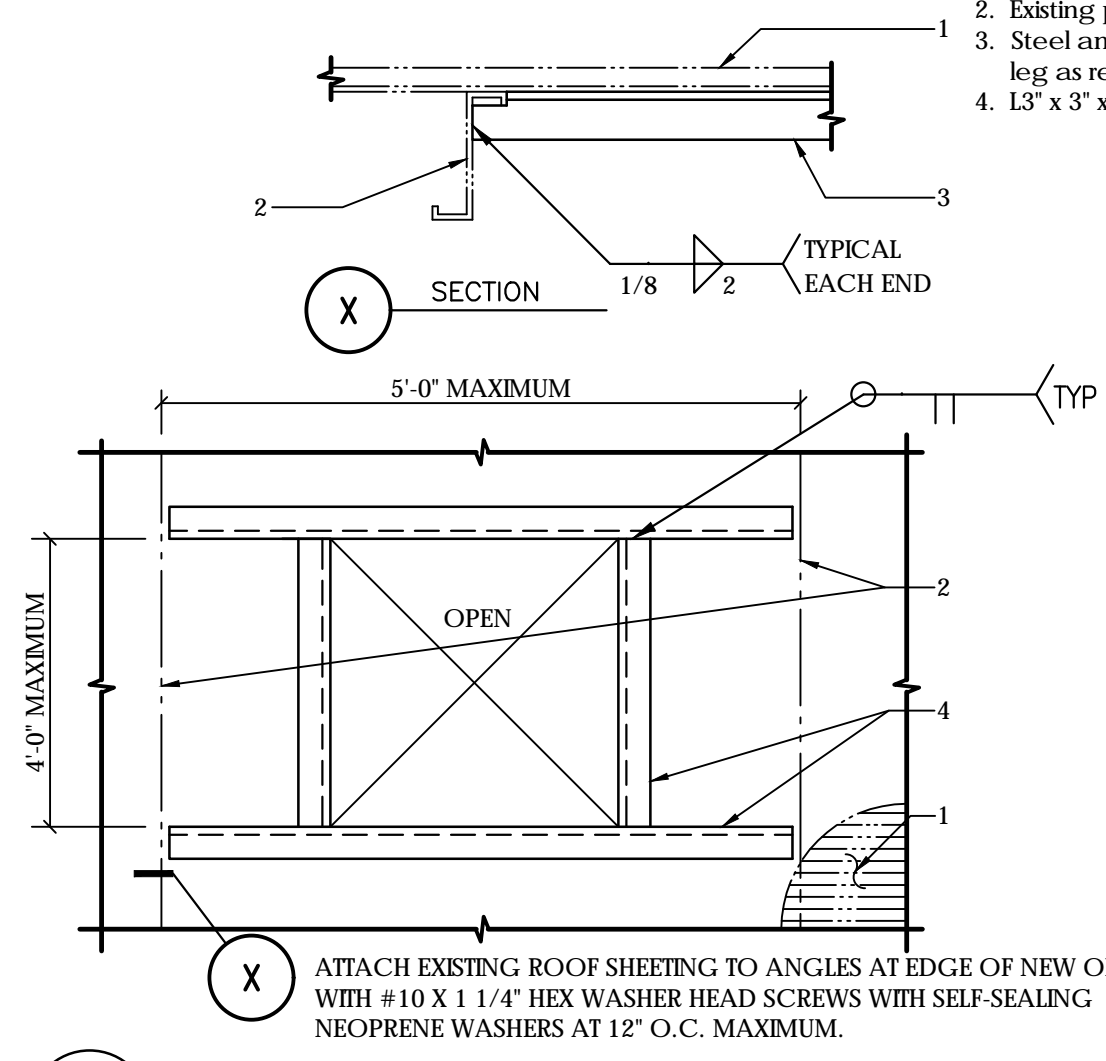
216 WOOD BEAM BEARING AT WOOD STUD WALL 65206

- DETAIL KEY NOTES**
- Wood beam
 - Simpson PC post type cap
 - Built up wood post



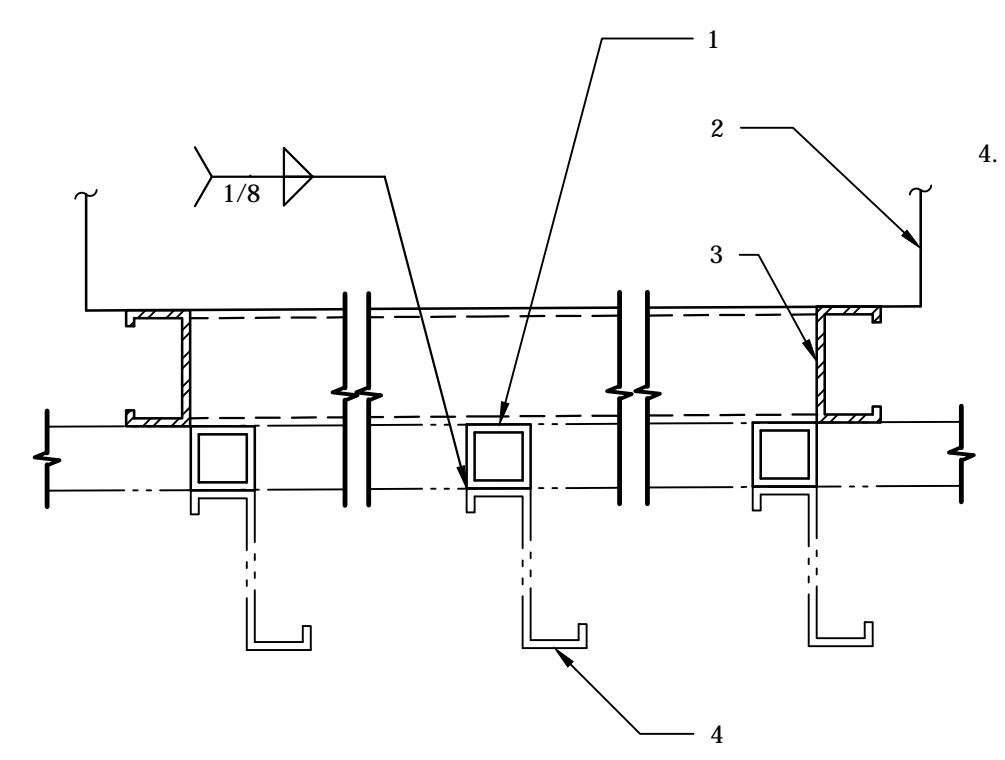
215 WOOD BEAM AT WOOD POST 65203

- DETAIL KEY NOTES**
- Existing metal sheeting
 - Existing purlin
 - Steel angle - cope horizontal leg as required at purlin
 - 1 3/8" x 3" x 1/8"



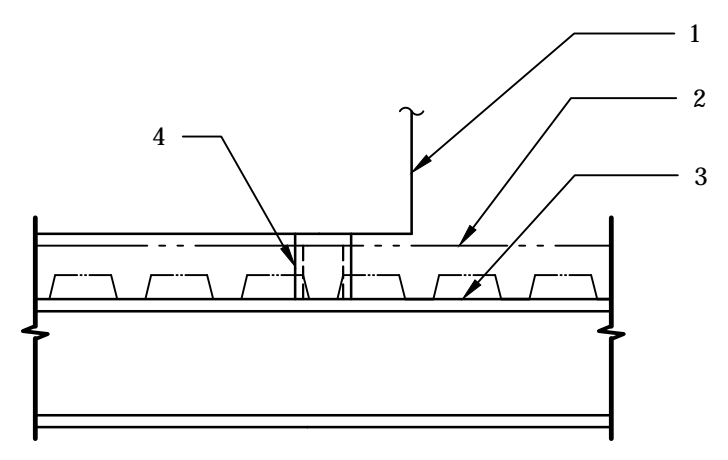
221 NEW OPENING IN EXISTING METAL BUILDING ROOF SHEETING 58036

- DETAIL KEY NOTES**
- 3/16" x 4" long steel tube riser to support channel frame (frame to clear steel deck)
 - New mechanical unit
 - New C4 x 7.25 steel channel frame (all four sides) to support new mechanical units less than 300lb - Frame to span over (3) purlins minimum
 - Existing Z purlins



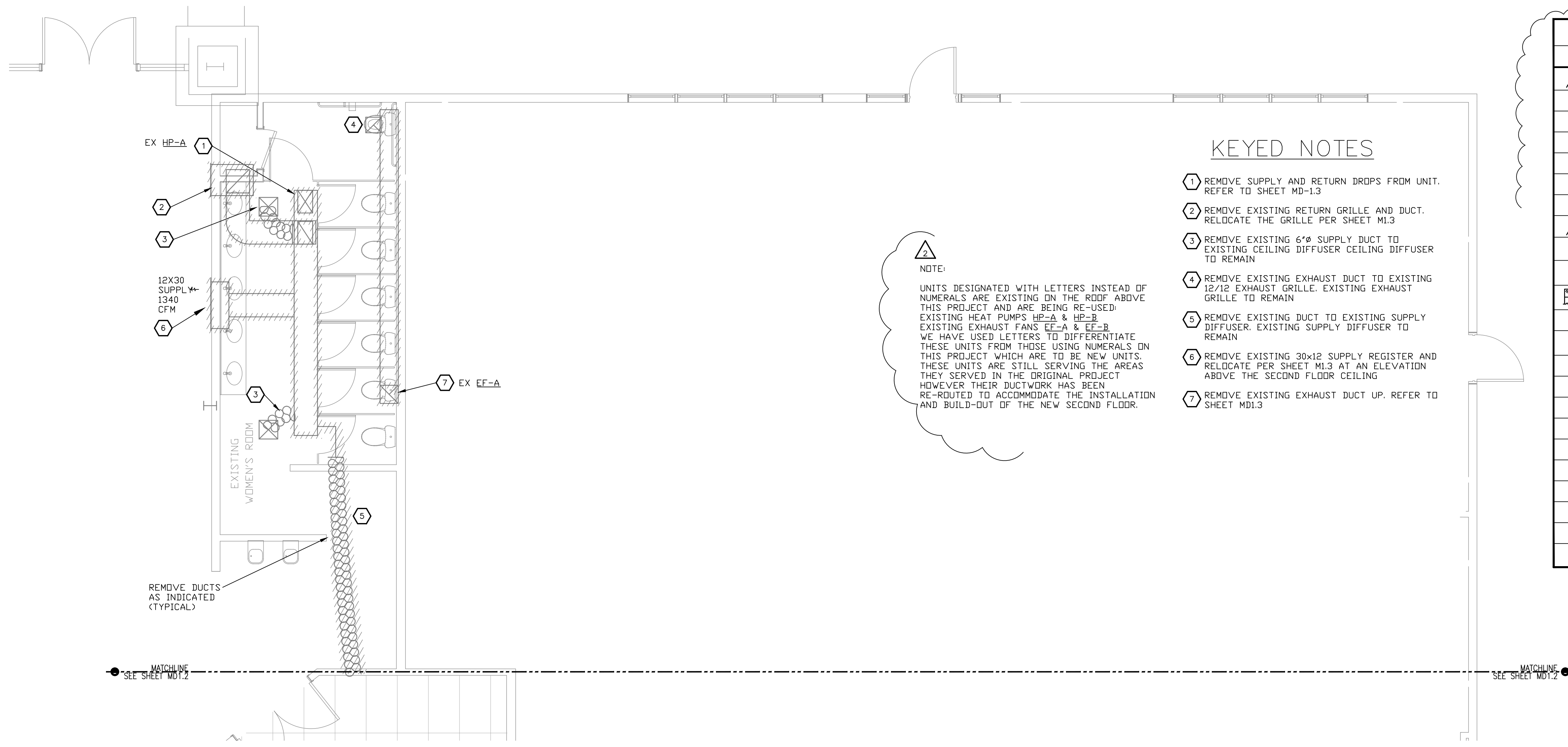
220 NEW MECHANICAL UNITS (LESS THAN 300LB) OVER EXISTING PURLINS

- DETAIL KEY NOTES**
- New mechanical unit
 - Existing Roofing
 - New steel beam
 - HSS 3 1/2 x 3 1/2 x 1/4 steel tube beam



219 NEW MECHANICAL UNIT AT NEW SUPPORT BEAM 55637

	PROJECT NO:	17-132
	DRAWN BY:	AP
	CHECKED BY:	FB
	SHEET INDEX	
S1.1 - General Structural Notes		
S1.2 - Typical (100's) Details		
S2.1 - Foundation Plan		
S2.2 - Floor Framing Plan		
S2.3 - Floor Loading Plan		
S3.1 - Foundation (100's) Details		
S4.1 - Framing (200's) Details		
<small>1140 E. GREENWAY ST. SUITE 2 MESA, AZ 85203 P: 480-610-1341, F: 480-962-9634, C: 480-497-0003</small>		
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KEYED NOTES

- ① REMOVE SUPPLY AND RETURN DROPS FROM UNIT. REFER TO SHEET MD-1.3
- ② REMOVE EXISTING RETURN GRILLE AND DUCT. RELOCATE THE GRILLE PER SHEET M1.3
- ③ REMOVE EXISTING 6"Ø SUPPLY DUCT TO EXISTING CEILING DIFFUSER CEILING DIFFUSER TO REMAIN
- ④ REMOVE EXISTING EXHAUST DUCT TO EXISTING 12/12 EXHAUST GRILLE. EXISTING EXHAUST GRILLE TO REMAIN
- ⑤ REMOVE EXISTING DUCT TO EXISTING SUPPLY DIFFUSER. EXISTING SUPPLY DIFFUSER TO REMAIN
- ⑥ REMOVE EXISTING 30x12 SUPPLY REGISTER AND RELOCATE PER SHEET M1.3 AT AN ELEVATION ABOVE THE SECOND FLOOR CEILING
- ⑦ REMOVE EXISTING EXHAUST DUCT UP. REFER TO SHEET MD1.3

NOTE:
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MECHANICAL SYMBOLS		
SYMBOL	ABBR.	DESCRIPTION
12/8		RECTANGULAR DUCTWORK (FIRST FIGURE - SIDE SHOWN. 2ND FIGURE - SIDE NOT SHOWN.)
10"Ø		ROUND DUCTWORK
	DN	DROP W/RESPECT TO AIR FLOW
	UP	RISE W/RESPECT TO AIR FLOW
	SA	SUPPLY AIR
	RA	RETURN AIR
	EA	EXHAUST AIR
	VD	VOLUME DAMPER (MANUAL LOCKING OR MOTOR OPERATED AS INDICATED).
		EXPANDED NECK DUCT TAKE OFF 'A' DIMENSION = 'B' DIMENSION x 1.5
		SPIN-IN OR PRESSURE FIT DUCT TAKE OFF W/ VOLUME DAMPER
		CURVED RADIUS ELBOW (MIN. CENTERLINE RADIUS TURNING VANES).
		THERMOSTAT / TEMPERATURE SENSOR
		DETAIL NO. 3 ON SHT. M-1
		FLEXIBLE DUCTWORK
		FLEXIBLE CONNECTION
	SR	SUPPLY AIR REGISTER
	CD	CEILING DIFFUSER
	RG	RETURN GRILLE
	RR	RETURN REGISTER, WITH DBD
	EG	EXHAUST GRILLE
		1-HR WALL
		-
		-

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 5025 E. CAREFREE HIGHWAY,
 PHOENIX, AZ



PO BOX 2302
 Carefree, AZ 85377

37417 Tom Darlington Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325

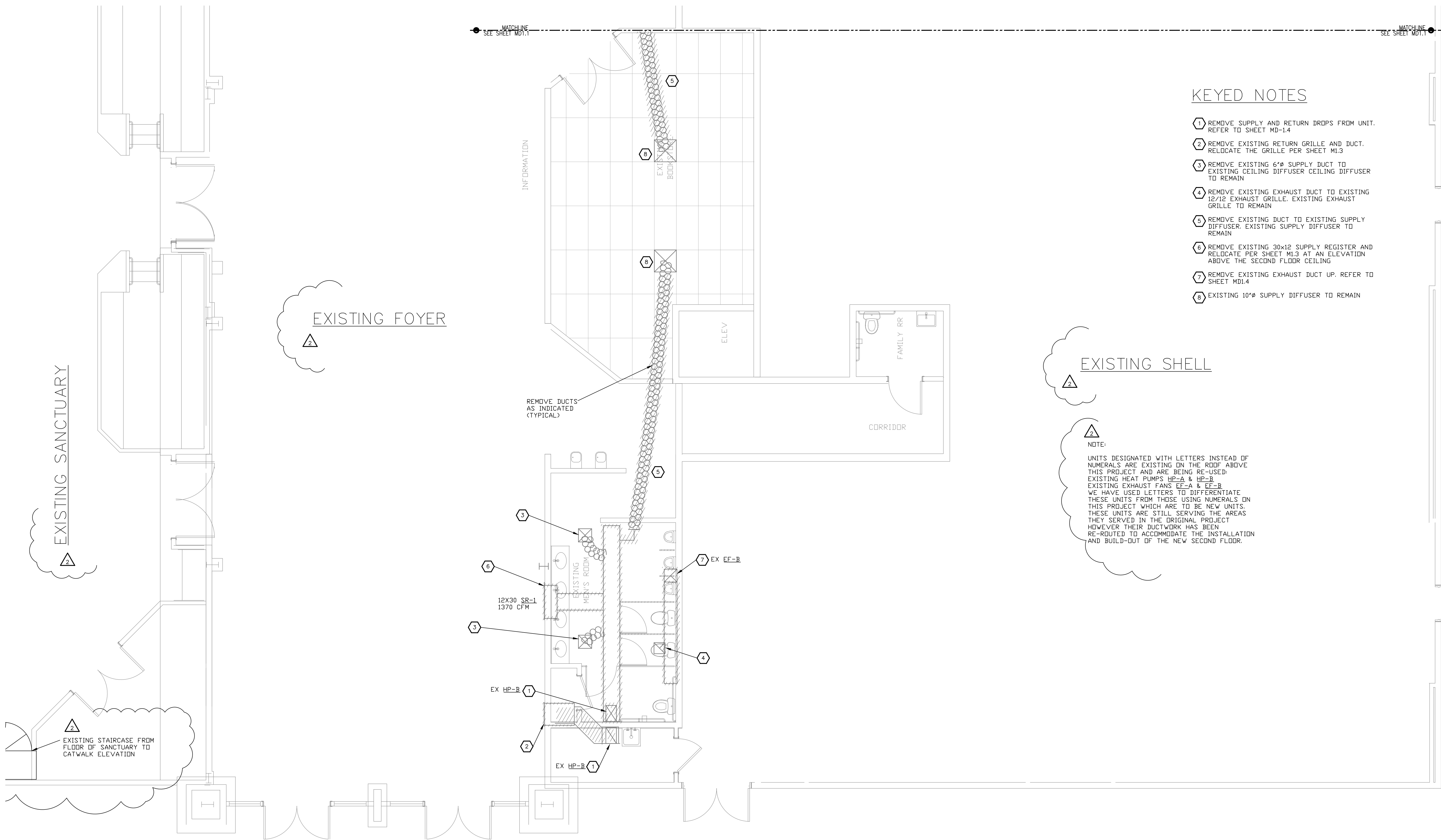
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 www.augustreno.com
 EMAIL ADDRESS
 augie@augustreno.com

Construction Drawings:

FIRST FLOOR PLAN DEMO - NORTH
 SCALE: 1/4"=1'-0"

Saguaro Engineers, Inc
 Consulting Engineers
 12025 N. 25TH AVENUE, SUITE 111A
 Phoenix, AZ 85029
 PH: (602) 870-2018PR-CJ, No. 1712600

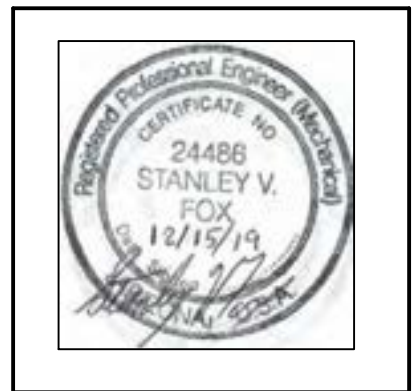
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 HVAC DEMO - NORTH
MD1.1



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PO BOX 2302
 Carefree, AZ 85377
 37417 Tom Darlington Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325
 WEB SITE
 www.augustreno.com
 EMAIL ADDRESS
 augie@augustreno.com

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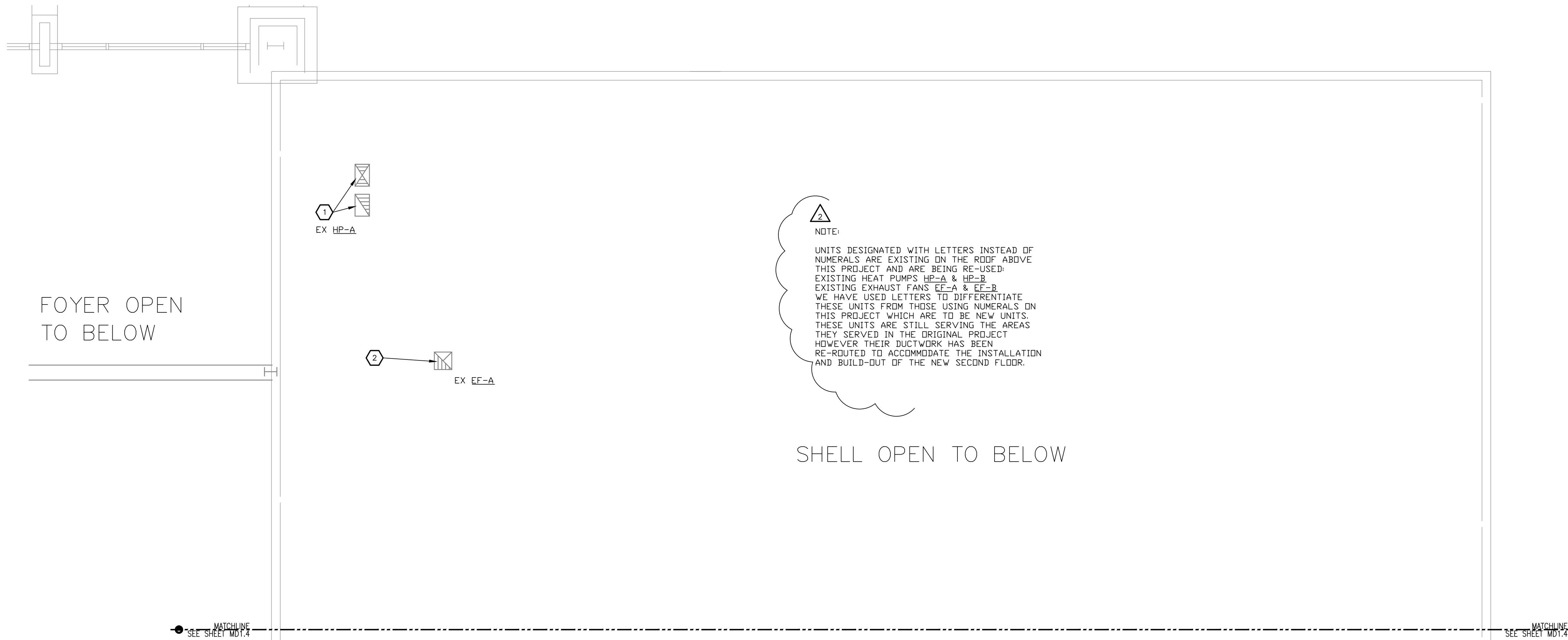
SHEET NO:
 FIRST FLOOR PLAN
 HVAC DEMO - SOUTH
MD1.2

KEYED NOTES

- ① REMOVE SUPPLY AND RETURN DROPS FROM UNIT. REFER TO SHEET MD-1.4
- ② REMOVE EXISTING RETURN GRILLE AND DUCT. RELOCATE THE GRILLE PER SHEET M1.3
- ③ REMOVE EXISTING 6"Ø SUPPLY DUCT TO EXISTING CEILING DIFFUSER. CEILING DIFFUSER TO REMAIN
- ④ REMOVE EXISTING EXHAUST DUCT TO EXISTING 12/12 EXHAUST GRILLE. EXISTING EXHAUST GRILLE TO REMAIN
- ⑤ REMOVE EXISTING DUCT TO EXISTING SUPPLY DIFFUSER. EXISTING SUPPLY DIFFUSER TO REMAIN
- ⑥ REMOVE EXISTING 30x12 SUPPLY REGISTER AND RELOCATE PER SHEET M1.3 AT AN ELEVATION ABOVE THE SECOND FLOOR CEILING
- ⑦ REMOVE EXISTING EXHAUST DUCT UP. REFER TO SHEET MD1.4
- ⑧ EXISTING 10"Ø SUPPLY DIFFUSER TO REMAIN

NOTE:
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FIRST FLOOR PLAN DEMO - SOUTH
 SCALE: 1/4"=1'-0"



KEYED NOTES

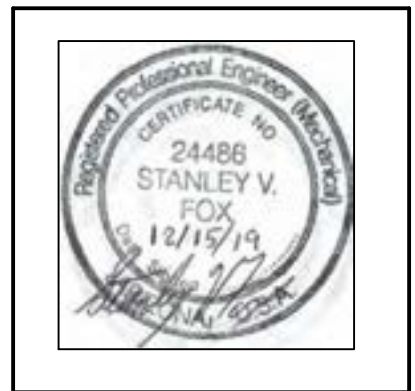
- 1 REMOVE SUPPLY AND RETURN DUCTS BELOW THE ROOF DOWN TO THE 1ST FLOOR. LEAVE DUCTS BELOW THE ROOF SUITABLE FOR CONNECTION TO NEW DUCTS, SERVES EXISTING HP-A
- 2 REMOVE THE EXHAUST DUCT BELOW THE ROOF TO THE EXHAUST GRILLE SERVING THE TOILET ROOM ON THE FIRST FLOOR. LEAVE THE EXHAUST DUCT BELOW THE ROOF SUITABLE FOR CONNECTION TO THE NEW EXHAUST DUCT. SERVES EXISTING EXHAUST FAN EF-A

NOTE:
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PO BOX 2302
 Carefree, AZ 85377

37417 Tom Darlington Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325

WEB SITE
 www.augustreno.com
 EMAIL ADDRESS
 augie@augustreno.com

Construction Drawings:

SECOND FLOOR PLAN DEMO – NORTH
 SCALE: 1/4"=1'-0"

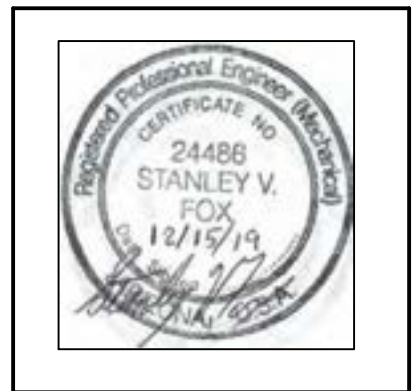
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 HVAC DEMO – NORTH
MD1.3

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 PHOENIX, AZ



PO BOX 2302
 Carefree, AZ 85377
 37417 Tom Darlington Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325
 WEB SITE
 www.augustreno.com
 EMAIL ADDRESS
 augie@augustreno.com

Construction Drawings:

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 SECOND FLOOR PLAN
 HVAC DEMO - SOUTH
MD1.4

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 Consulting Engineers
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 Phoenix, AZ 85029
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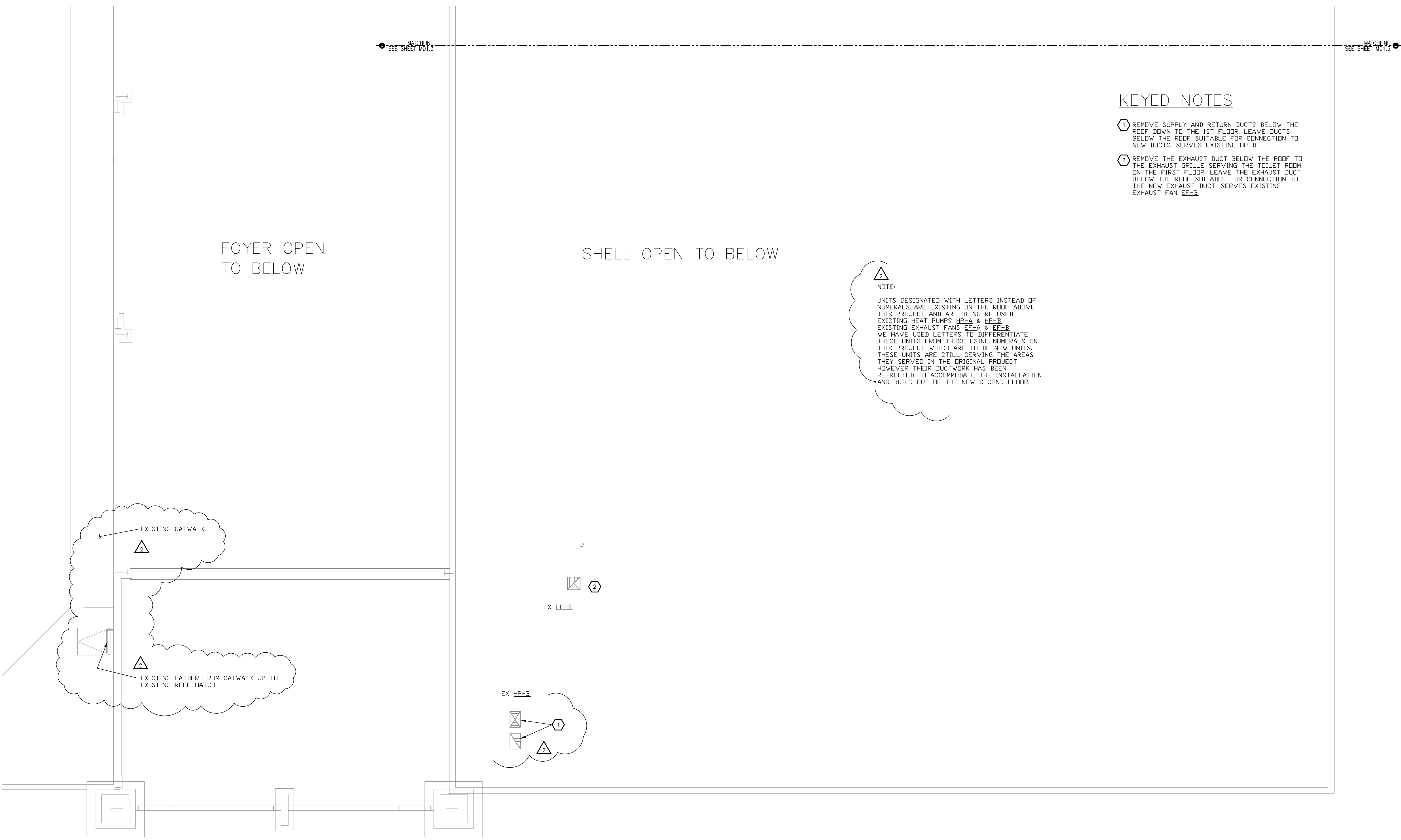
KEYED NOTES

- ① REMOVE SUPPLY AND RETURN DUCTS BELOW THE ROOF DOWN TO THE 1ST FLOOR. LEAVE DUCTS BELOW THE ROOF SUITABLE FOR CONNECTION TO NEW DUCTS. SERVES EXISTING HP-B.
- ② REMOVE THE EXHAUST DUCT BELOW THE ROOF TO THE EXHAUST GRILLE SERVING THE TOILET ROOM ON THE FIRST FLOOR. LEAVE THE EXHAUST DUCT BELOW THE ROOF SUITABLE FOR CONNECTION TO THE NEW EXHAUST DUCT. SERVES EXISTING EXHAUST FAN EE-B.

NOTE:
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 EXISTING HEAT PUMPS HP-A & HP-B
 EXISTING EXHAUST FANS EE-A & EE-B
 WE HAVE USED LETTERS TO DIFFERENTIATE THESE UNITS FROM THOSE USING NUMERALS ON THIS PROJECT WHICH ARE TO BE NEW UNITS. THESE UNITS ARE STILL SERVING THE AREAS THEY SERVED IN THE ORIGINAL PROJECT HOWEVER THEIR DUCTWORK HAS BEEN RE-ROUTED TO ACCOMMODATE THE INSTALLATION AND BUILD-OUT OF THE NEW SECOND FLOOR.

FOYER OPEN TO BELOW

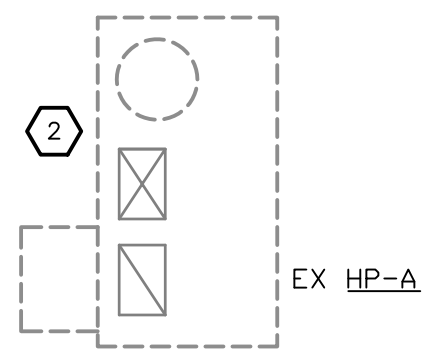
SHELL OPEN TO BELOW



SECOND FLOOR PLAN DEMO - SOUTH
 SCALE: 1/4"=1'-0"

KEYED NOTES

- ① EXISTING EXHAUST FAN ON ROOF
- ② EXISTING ROOFTOP PACKAGE HEAT PUMP TO REMAIN



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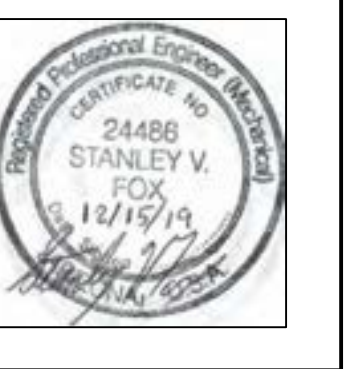
MATCHLINE
SEE SHEET MD1.6

MATCHLINE
SEE SHEET MD1.6

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 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325

WEB SITE
www.augustreno.com
 EMAIL ADDRESS
augie@augustreno.com

Construction Drawings:

ROOF PLAN DEMO – NORTH
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


Saguaro Engineers, Inc.
 Consulting Engineers
 12020 N. 25TH AVENUE, SUITE 111A
 Phoenix, AZ 85029
 PH: (602) 870-2018 PRJ. NO. 1712810

SHEET NO:
 ROOF PLAN HVAC
 DEMO – NORTH
MD1.5

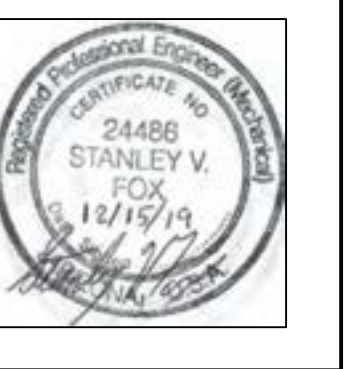
KEYED NOTES

- ① EXISTING EXHAUST FAN ON ROOF TO REMAIN
- ② EXISTING ROOFTOP PACKAGE HEAT PUMP TO REMAIN

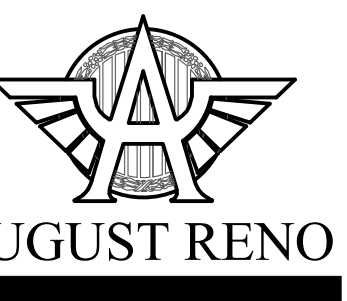
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 FAX (480) 636-1325

WEB SITE
www.augustreno.com
 EMAIL ADDRESS
augie@augustreno.com

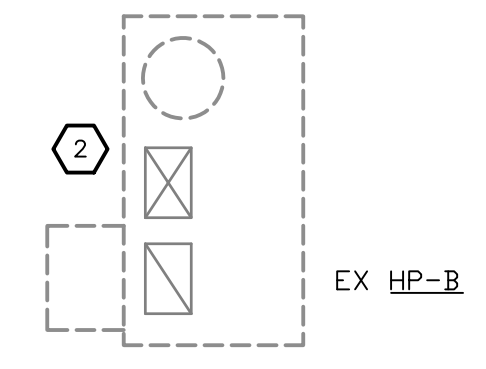
Construction Drawings:

SHEET NO:
 ROOF PLAN HVAC
 DEMO - SOUTH
MD1.6

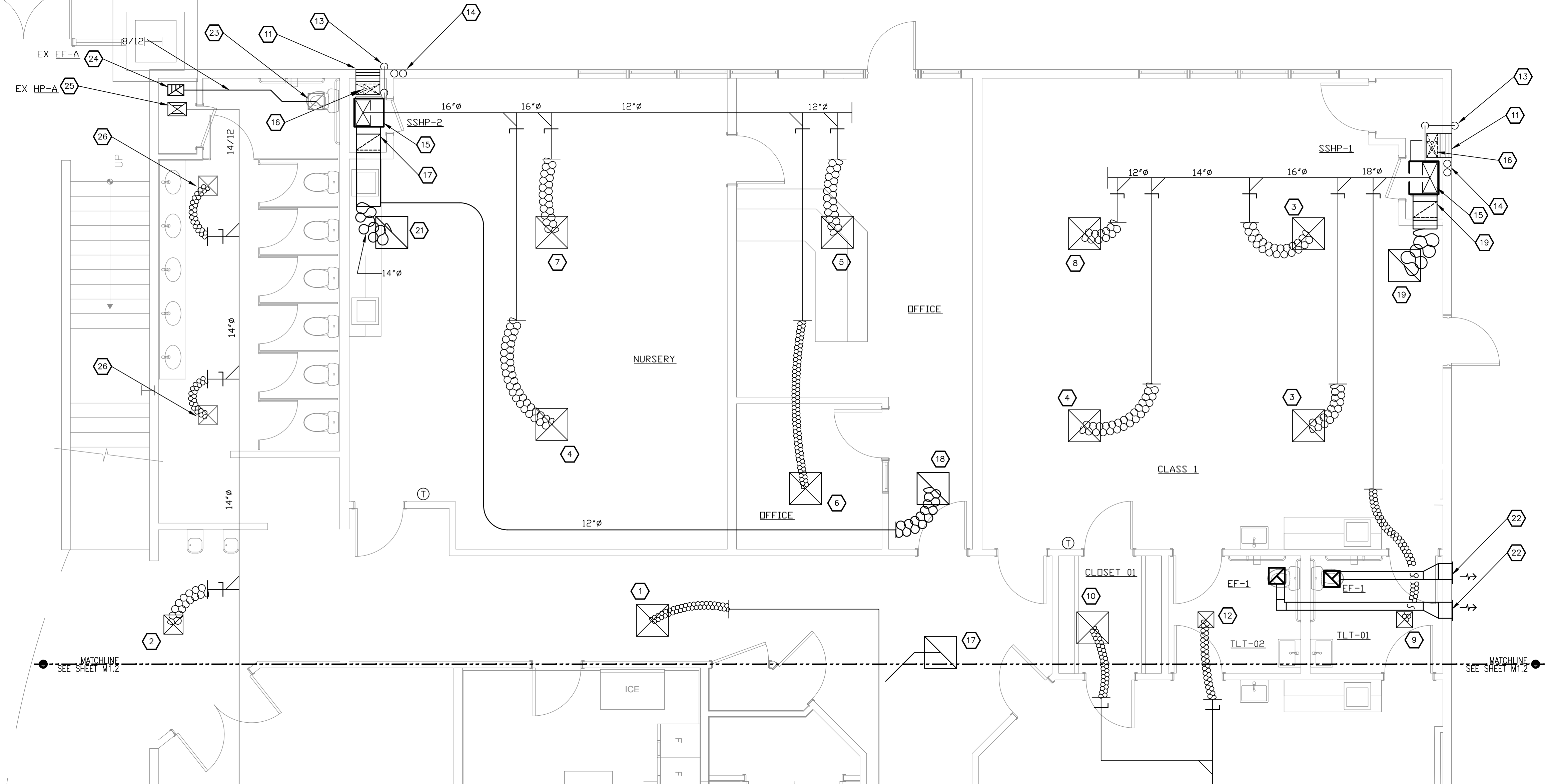
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MATCHLINE SEE SHEET MD1.5

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 ROOF PLAN DEMO - SOUTH
 SCALE: 1/4"=1'-0"



FIRST FLOOR PLAN - NORTH
SCALE: 1/4"=1'-0"

KEYED NOTES FLOOR

- 1 6x6 CD-1, 6"φ, 100 CFM
- 2 9x9 CD-1, 8"φ, 200 CFM
- 3 12x12 CD-1, 10"φ, 430 CFM
- 4 12x12 CD-1, 10"φ, 300 CFM
- 5 12x12 CD-1, 10"φ, 410 CFM
- 6 6x6 CD-1, 6"φ, 105 CFM
- 7 12x12 CD-1, 10"φ, 385 CFM
- 8 12x12 CD-1, 10"φ, 400 CFM
- 9 6x6 CD-1, 6"φ, 35 CFM
- 10 6x6 CD-1, 6"φ, 15 CFM
- 11 18/18 OUTSIDE AIR INTAKE LOUVER RUSKIN EME520DD WITH INSECT SCREEN PAINT TO MATCH WALL.
- 12 6x6 CD-1, 6"φ, 20 CFM
- 13 3/4" CONDENSATE DRAIN DOWN IN WALL. TURN OUT AND DOWN ABOVE LANDSCAPE AT 6" ABOVE FINISHED GRADE
- 14 REFRIGERANT LINES AND CONTROL CONDUIT UP THROUGH FLOOR INTO EXTERIOR WALL ABOVE
- 15 ADAPT SUPPLY DUCT TO THE INDOOR UNIT. INDOOR UNIT TO BE SET ON AN ELEVATED PLENUM
- 16 12/10 OSA INTAKE DOWN TO PLENUM WITHIN SUPPORT PLATFORM BELOW UNIT. FURNISH MANUAL DAMPER FOR BALANCING AIR FLOW AND MOTORIZED DAMPER TO OPEN WHEN UNIT IS ENABLED AND CLOSE WHEN UNIT IS DISABLED
- 17 12/18 RETURN DOWN TO PLENUM BELOW UNIT PLATFORM WITH DAMPER ON VERTICAL DROP
- 18 22x22 RG-1 WITH 12"φ BRANCH
- 19 22x22 RG-1 WITH 18"φ BRANCH
- 20 18/14 RETURN DUCT DOWN TO PLENUM BELOW UNIT PLATFORM WITH MANUAL BALANCE DAMPER ON THE VERTICAL
- 21 22x22 RG-1 WITH 14"φ BRANCH
- 22 12x12 EXHAUST LOUVER RUSKIN EME520DD WITH INSECT SCREEN.
- 23 ADAPT NEW 8/12 EXHAUST DUCT TO THE EXISTING CEILING EXHAUST GRILLE AND BALANCE TO 350 CFM
- 24 NEW 12/8 EXHAUST UP THROUGH SECOND FLOOR
- 25 14/12 SUPPLY DOWN FROM SECOND FLOOR
- 26 ADAPT NEW 6"φ SUPPLY DUCT TO EXISTING CEILING DIFFUSER AND BALANCE TO 60 CFM

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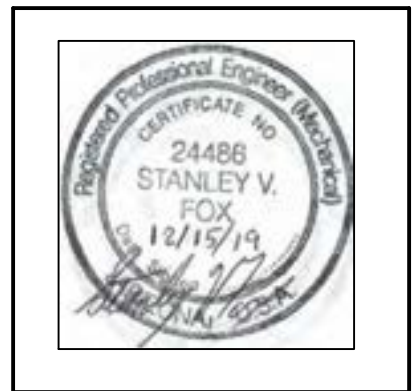
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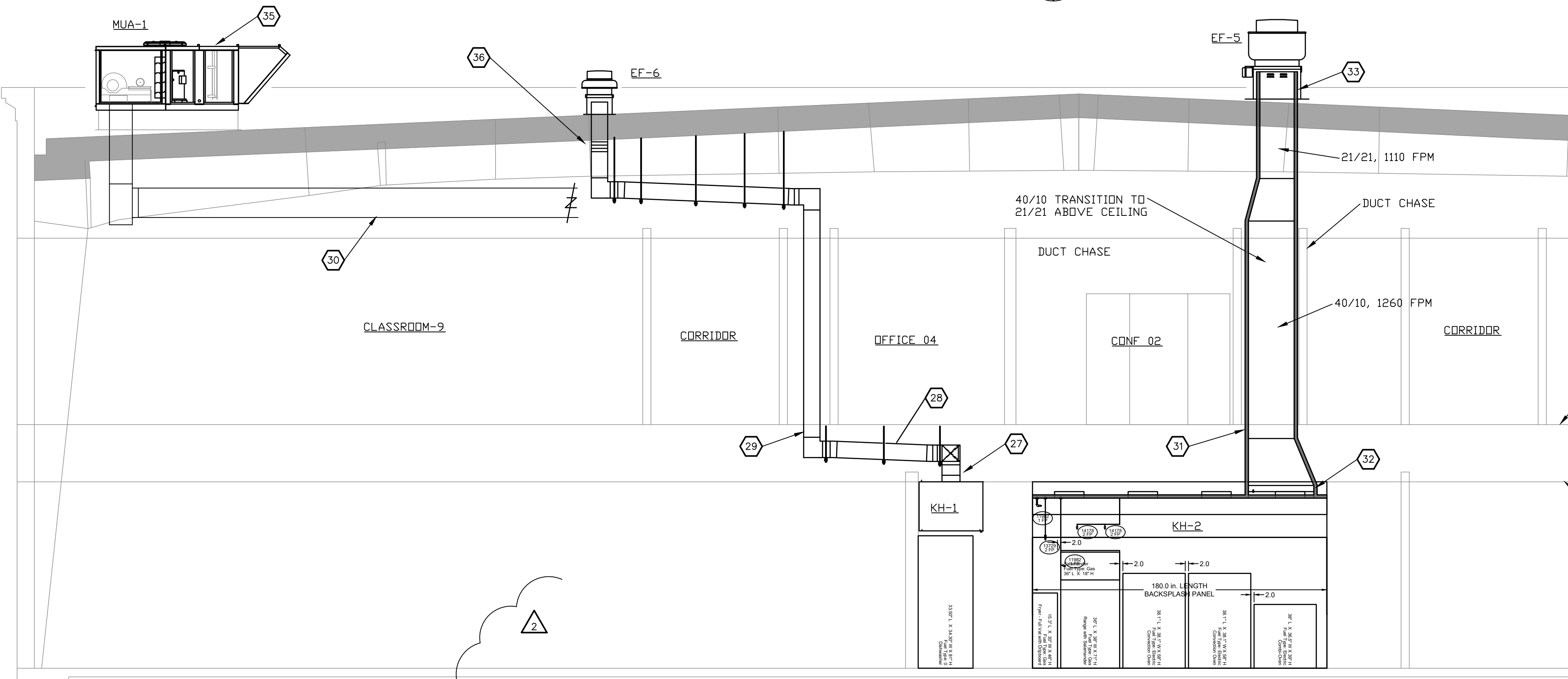


PO BOX 2302
 Carefree, AZ 85377
 37417 Tom Darlington Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325
 WEBSITE
 www.augustreno.com
 EMAIL ADDRESS
 augie@augustreno.com

Construction Drawings:

SHEET NO:
 FIRST FLOOR HVAC
 FLOOR PLAN - NORTH
M1.1

Saguaro Engineers, Inc
 Consulting Engineers
 12928 N. 25TH AVENUE, SUITE 111A
 Phoenix, AZ 85029
 PH: (602) 870-2018 P: (602) 870-1712 F: (602) 870-1713



KITCHEN EQUIPMENT SECTION A-A
SCALE: 1/4"=1'-0"

KEYED NOTES - SECTION

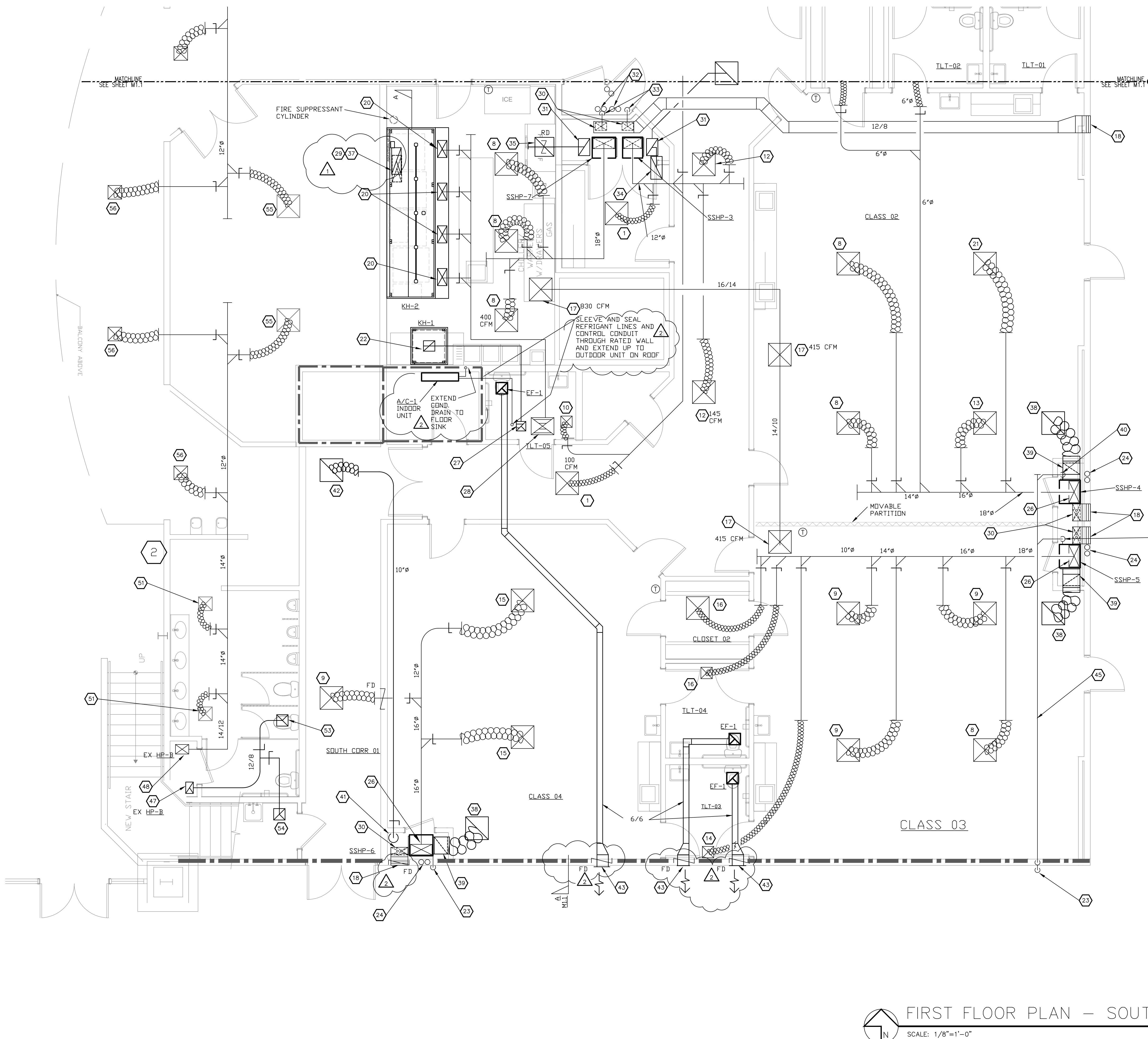
- 27 ADAPT FULLY WELDED ALUMINUM EXHAUST TO DISHWASHER HOOD
- 28 HORIZONTAL RUNS OF 10/10 DISHWASHER EXHAUST DUCT TO BE SLOPED AT 1/8" FDOT BACK TO HOOD. SUPPORT DUCT WITH TRAPEZEE HANGERS AT ALL CHANGES IN DIRECTION AND ON HORIZONTAL RUNS AS PER THE SMACNA MANUAL, LATEST EDITION AND THE 2012 IMC
- 29 10/10 DISHWASHER EXHAUST UP THROUGH FLOOR ABOVE INTO CHASE
- 30 24/18 MAKE-UP AIR UNIT SUPPLY DOWN TO FIRST FLOOR CEILING. COORDINATE WITH ARCHITECT AND FLOOR TRUSS MANUFACTURE
- 31 WRAPPED 10/40 GREASE EXHAUST DUCT UP THROUGH FLOOR INTO CHASE ON 2ND FLOOR. REFRIGERANT LINES AND CONTROL CONDUIT UP THROUGH FLOOR INTO CHASE ABOVE
- 32 ADAPT EXHAUST FLANGE FROM GREASE HOOD TO GREASE EXHAUST DUCT ABOVE
- 33 EXTEND 21/21 GREASE EXHAUST DUCT WITH INSULATION WRAP ASSEMBLY UP INTO ROOF CURB AND TERMINATE WITH FLANGE ABOVE ROOF CURB. PROVIDE LISTED HIGH TEMPERATURE GASKET (MINIMUM 1500°F RATING) BETWEEN FLANGE AND EXHAUST FAN.
- 34 SUPPORT OUTDOOR UNIT ABOVE ROOF IN A MANNER ACCEPTABLE TO THE ARCHITECT. EACH UNIT SHALL BE FURNISHED WITH VIBRATION ISOLATORS AND A BASE AS REQUIRED TO REDUCE VIBRATION AND SOUND TRANSMISSION INTO THE BUILDING AND SPACES BELOW. BASE SHALL BE COMPLETELY FILLED WITH MINERAL WOOL AFTER THE INSTALLATION OF DUCTS.
- 35 NEW ROOFTOP PACKAGE MAKE-UP AIR UNIT ON CURB SUITABLE FOR USE ON THE METAL ROOF. COORDINATE WITH ROOF MANUFACTURE, STRUCTURAL ENGINEER AND ARCHITECT. SUBMIT FOR REVIEW PRIOR TO PROCUREMENT AND INSTALLATION
- 36 FLEXIBLE CONNECTOR AS MANUFACTURED BY DURDDYNE, DURLDOLN RATED TO 250°F CONTINUOUS TEMPERATURE, UL CERTIFIED NFPA 701, 28 OZ COMPOSITE WEIGHT, WOVEN FIBERGLASS WITH HYPALDIN COATING.

AIR BALANCE NOTES

MAIN TOILET MAKE-UP AIR SUMMARY
 THE FOYER AND 1ST FLOOR MEN'S AND WOMEN'S TOILET ROOMS ARE SERVED BY 4 ROOFTOP PACKAGE HEAT PUMP AIR CONDITIONER UNITS WITH A TOTAL OUTSIDE AIR FLOW OF 3710 CFM
 THE TOILET ROOM ENTRIES HAVE NO DOORS WHICH PERMITS THE UNRESTRICTED FLOW OF MAKE UP AIR FROM THE FOYER TO THE TOILET ROOMS.
 FIRST FLOOR WOMAN'S TOILET EXHAUST: 350 CFM
 FIRST FLOOR MEN'S TOILET EXHAUST: 300 CFM
 SECOND FLOOR WOMAN'S TOILET EXHAUST 350 CFM
 70 CFM WILL BE MADE UP FROM HP-1 AND 280 CFM WILL BE MADE UP FROM THE FOYER FOR A TOTAL OF 350 CFM MAKE-UP AIR
 SECOND FLOOR MEN'S TOILET EXHAUST 300 CFM
 115 CFM WILL BE MADE UP FROM HP-7 AND 185 CFM WILL BE MADE UP FROM THE FOYER FOR A TOTAL OF 300 CFM MAKE-UP AIR
 KITCHEN MAKE-UP AIR SUMMARY
 EXHAUST CFM
 GREASE HOOD 3010
 DISHWASHER HOOD 488
 TOTAL EXH 3498
 MAKE-UP AIR CFM
 MAU-1 2408
 SSHP-4 415
 SSHP-5 415
 SSHP-7 260
 TOTAL MAKE-UP 3498
 THE GREASE DUCT GOES UP VERTICALLY FROM THE HOOD TO THE EXHAUST FAN. THERE ARE 2 SIZES 10/40 AT 1300 FPM AND 20/20 AT 1150 FPM

GREASE DUCT TESTING

- GREASE EXHAUST DUCT ADDITIONAL REQUIREMENTS:
 - A PERFORMANCE REPORT SHALL BE PROVIDED TO THE FIELD INSPECTOR DOCUMENTING COMPLIANT AIRFLOW RATES, MAKE-UP AIR PROVISIONS, CAPTURE AND CONTAINMENT PERFORMANCE AND PROPER HOOD AND VENTILATION OPERATION.
 - THE GREASE DUCT SHALL BE PRESSURE TESTED PRIOR TO CONCEALING WITHIN THE STRUCTURE AND PRIOR TO THE APPLICATION OF THE FIRE RATED INSULATION.



KEYED NOTES

- 1 6x6 CD-1, 6"φ, 100 CFM
- 2 NDT USED
- 3 NDT USED
- 4 NDT USED
- 5 NDT USED
- 6 NDT USED
- 7 NDT USED
- 8 12x12 CD-1, 10"φ, 400 CFM
- 9 12x12 CD-1, 10"φ, 380 CFM
- 10 6x6 CD-1, 6"φ, 10 CFM
- 11 6x6 CD-1, 6"φ, 35 CFM
- 12 9x9 CD-1, 8"φ, 145 CFM
- 13 15x15 CD-1, 12"φ, 580 CFM
- 14 6x6 CD-1, 6"φ, 30 CFM
- 15 12x12 CD-1, 12"φ, 530 CFM
- 16 6x6 CD-1, 6"φ, 15 CFM
- 17 22x22 RG-1, TRANSFER GRILLE TO KITCHEN
- 18 18/18 OUTSIDE AIR INTAKE LOUVER RUSKIN EM520DD WITH INSECT SCREEN PAINT TO MATCH WALL
- 19 6x6 CD-1, 6"φ, 20 CFM
- 20 CONNECT 16"φ TO MAKE-UP AIR DIFFUSER (TYP)
- 21 15x15 CD-1, 12"φ, 585 CFM
- 22 ADAPT ALUMINUM EXHAUST TO DISHWASHER HOOD
- 23 3/4" CONDENSATE DRAIN DOWN IN WALL. TURN OUT AND DOWN ABOVE LANDSCAPE AT 6' ABOVE FINISHED GRADE
- 24 REFRIGERANT LINES AND CONTROL CONDUIT UP THROUGH FLOOR INTO EXTERIOR WALL ABOVE
- 25 NDT USED
- 26 ADAPT SUPPLY DUCT TO THE INDOOR UNIT. INDOOR UNIT TO BE SET ON AN ELEVATED PLENUM
- 27 10/10 DISHWASHER EXHAUST UP THROUGH FLOOR ABOVE INTO CHASE
- 28 24/18 MAKE-UP AIR UNIT SUPPLY DOWN TO FIRST FLOOR CEILING. COORDINATE WITH ARCHITECT AND FLOOR TRUSS MANUFACTURE
- 29 WRAPPED 10/40 GREASE EXHAUST DUCT UP THROUGH FLOOR INTO CHASE ON 2ND FLOOR
- 30 12/10 OSA INTAKE DOWN TO PLENUM WITHIN SUPPORT PLATFORM BELOW UNIT. FURNISH MANUAL DAMPER FOR BALANCING AIR FLOW AND MOTORIZED DAMPER TO OPEN WHEN UNIT IS ENABLED AND CLOSE WHEN UNIT IS DISABLED
- 31 12/18 RETURN DOWN TO PLENUM BELOW UNIT PLATFORM WITH DAMPER ON VERTICAL DROP
- 32 REFRIGERANT LINES AND CONTROL CONDUIT UP THROUGH FLOOR INTO CHASE ABOVE
- 33 3/4" CONDENSATE DRAIN TO FLOOR SINK. TURN DOWN OVER FLOOR SINK WITH AIR GAP
- 34 12x22 RG-1 WITH 8"φ BRANCH
- 35 22x22 RG-1 WITH 18/12 BRANCH
- 36 22x22 RG-1 WITH 12"φ BRANCH
- 37 ADAPT EXHAUST FLANGE FROM GREASE HOOD TO GREASE EXHAUST DUCT ABOVE
- 38 22x22 RG-1 WITH 18"φ BRANCH
- 39 18/14 RETURN DUCT DOWN TO PLENUM BELOW UNIT PLATFORM WITH MANUAL BALANCE DAMPER ON THE VERTICAL
- 40 CONDENSATE PUMP DISCHARGE UP TO 3/4" LINE ABOVE CEILING
- 41 10"φ DOWN TO MIXED AIR PLENUM BELOW UNIT
- 42 22x22 RG-1 WITH 10"φ BRANCH
- 43 12x12 EXHAUST LOUVER RUSKIN EM520DD WITH INSECT SCREEN
- 44 NDT USED
- 45 3/4"φ CONDENSATE ABOVE CEILING
- 46 NDT USED
- 47 NEW 12/8 EXHAUST UP THROUGH SECOND FLOOR
- 48 14/12 SUPPLY DOWN FROM SECOND FLOOR
- 49 NDT USED
- 50 NDT USED
- 51 ADAPT NEW 6"φ SUPPLY DUCT TO EXISTING CEILING DIFFUSER AND BALANCE TO 45 CFM
- 52 NDT USED
- 53 ADAPT NEW 8/12 EXHAUST DUCT TO EXISTING 15/15 EXHAUST GRILLE 300 CFM
- 54 NEW 6x6 EG-1, 50 CFM, 6"φ BRANCH
- 55 ADAPT 8"φ TO EXISTING SUPPLY DIFFUSER. BALANCE TO 140 CFM
- 56 NEW 9x9 CD-1, 200 CFM, 8"φ BRANCH

ISSUED FOR:
BUILDING PERMIT
BIDDING

REVISION:

 12-15-2019 ENGINEER CORR
 12-15-2019 CITY REVIEW COMMENTS
 06-10-2019 CITY REVIEW COMMENTS

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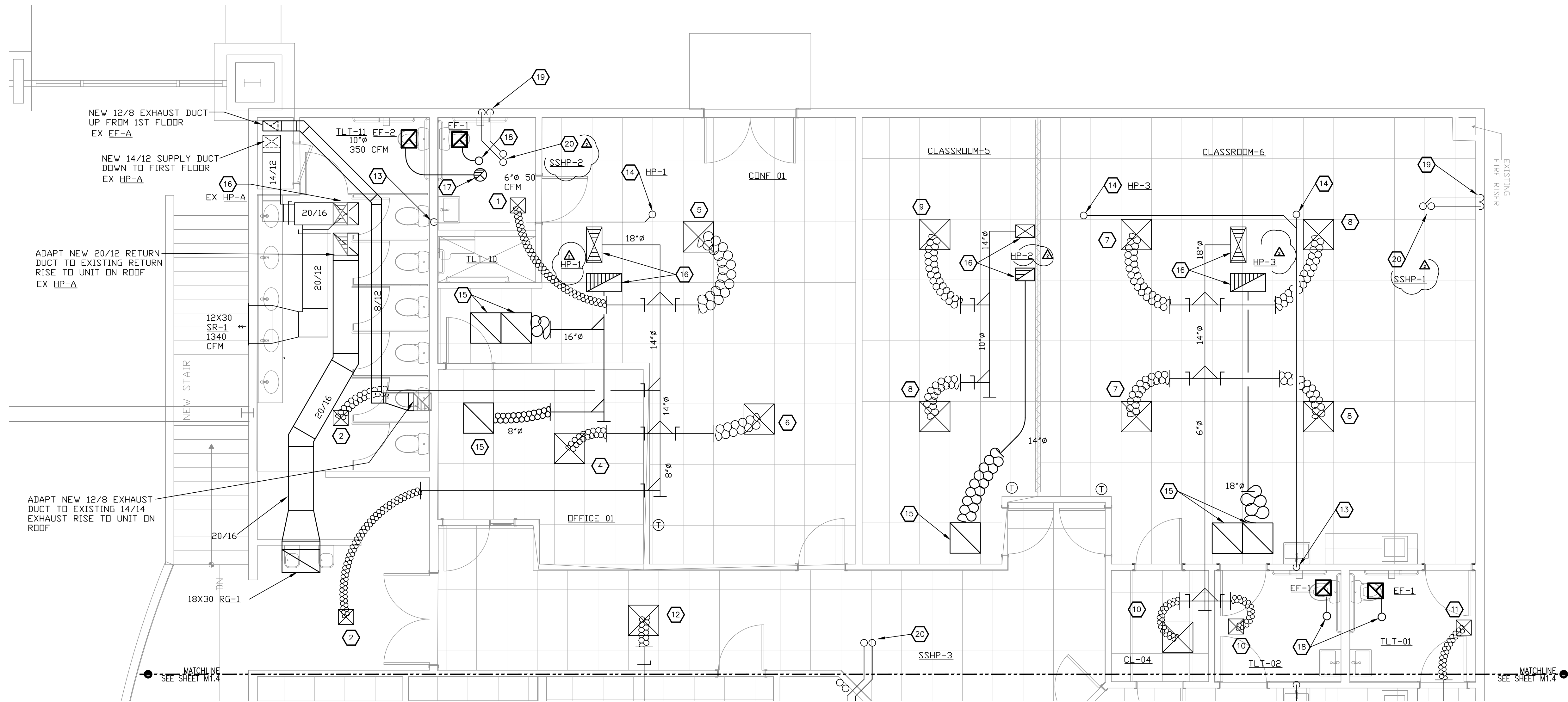
PO BOX 2302
 Carefree, AZ 85377
 37417 Tom Darlington Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325
 WEB SITE
 www.augustreno.com
 EMAIL ADDRESS
 augie@augustreno.com

Construction Drawings:

SHEET NO:
 FIRST FLOOR HVAC
 FLOOR PLAN - SOUTH
M1.2

FIRST FLOOR PLAN - SOUTH
 SCALE: 1/8"=1'-0"

August Reno Consulting Engineers
 12020 N. 35TH AVENUE, SUITE 111A
 PHOENIX, AZ 85029
 PH: (602) 870-2018 Proj. No: 17128.00



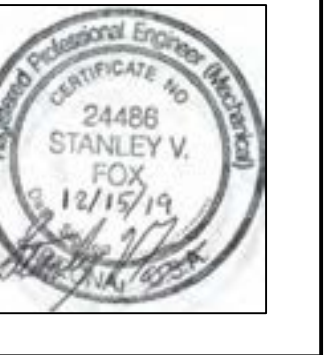
KEYED NOTES

- 1 6x6 CD-1, 6"ø, 50 CFM
- 2 9x9 CD-1, 8"ø, 70 CFM
- 3 NOT USED
- 4 9x9 CD-1, 8"ø, 140 CFM
- 5 12x12 CD-1, 12"ø, 500 CFM
- 6 15x15 CD-1, 10"ø, 335 CFM
- 7 12x12 CD-1, 10"ø, 375 CFM
- 8 12x12 CD-1, 10"ø, 400 CFM
- 9 12x12 CD-1, 10"ø, 410 CFM
- 10 6x6 CD-1, 6"ø, 25 CFM
- 11 6x6 CD-1, 6"ø, 45 CFM
- 12 9x9 CD-1, 8"ø, 155 CFM
- 13 3/4" CONDENSATE DRAIN DOWN IN WALL TO PLUMBING FIXTURE TAILPIECE. COORDINATE WITH PLUMBING CONTRACTOR
- 14 3/4" CONDENSATE DRAIN DOWN FROM HVAC UNIT ON ROOF
- 15 22X22 RG-1 WITH SHEET METAL PLENUM ABOVE. HEIGHT AS REQUIRED TO CONNECT BRANCH DUCT, MINIMUM 8". WHERE TWO GRILLES ARE ILLUSTRATED TOGETHER COMBINE INTO A SINGLE, COMMON PLENUM ABOVE BOTH GRILLES
- 16 ADAPT SUPPLY AND RETURN DUCTS TO THE HVAC EQUIPMENT DROPS THROUGH THE ROOF.
- 17 10"ø EXHAUST DUCT UP TO WEATHER HOOD ON ROOF CURB
- 18 6"ø EXHAUST DUCT UP TO WEATHER HOOD ON ROOF CURB
- 19 REFRIGERANT LINES AND CONTROL CONDUIT UP IN WALL TO ABOVE CEILING
- 20 REFRIGERANT LINES AND CONTROL CONDUIT UP THROUGH ROOF TO OUTDOOR HEAT PUMP

ISSUED FOR:
BUILDING PERMIT
BIDDING

REVISION:
12-15-2019 ENGINE CORR
12-15-2019 CITY REVIEW COMMENTS
06-10-2019 CITY REVIEW COMMENTS

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PHOENIX, AZ

SECOND FLOOR PLAN – NORTH
SCALE: 1/4"=1'-0"

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

Special Inspection Certificate

Mechanical/Plumbing

200 West Washington Street, 2nd Floor, Phoenix, AZ 85003
Phone: (602) 262-7811 (Voice) or (602) 534-5500(TTY) Fax: (602) 534-3274
(General Requirements and Instructions on the backside of form)
Form effective January 1, 2014 POST AT JOB SITE WITH PERMIT

TO BE COMPLETED BY REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE		
Project Name: Carefree Church	Project Address: 5205 E. Carefree Highway	Permit No. Plan Log No.
Project Owner/Owner's Agent Name: Carefree Church	Mailing Address: 5205 E. Carefree Highway, Cave Creek 85331	Phone No: (480) 488-5565
Registered Design Professional of Record Name: Stanley Fox	Mailing Address: 12020 N. 35th Ave., 111A, Phx, AZ 85029	Phone No: (602) 870-2018
Firm Name: Saguaro Engineers, Inc	Email Address: stan.fox@saguaroengineers.com	Fax No: N/A

I hereby affirm that I am familiar with the design of this project and have been designated by the Owner/owner(s) Agent as the registered design professional in responsible charge for implementing the Mechanical and/or Plumbing Special Inspections Program required by the city of Phoenix Building Construction Code Sections 110.3.9, 1704, 1705.19, and 1705.20. I have determined that the types of work checked below require Mechanical and/or Plumbing Special Inspection and that the individual(s) or firm(s) named below are qualified to perform the special inspections. I understand and agree to inform the project owner, the contractor(s), and the special inspector(s) about all of the Mechanical and/or Plumbing Special Inspection Program requirements and limitations, including that the Special Inspector(s) must be independent third-party individual(s) or firm(s) and shall not be the installing contractor(s).

Y/N	TYPES OF WORK REQUIRING SPECIAL MECHANICAL/PLUMBING INSPECTION (Attach Supplement if Necessary)	QUALIFIED SPECIAL INSPECTOR INDIVIDUAL(S) OR FIRM(S) (Attach Supplement if Necessary)
X	Duct Smoke Detectors	
X	Fire and Smoke Damper Operation	
X	Installation of Grease Duct Enclosure	
X	Smoke Control	
X	Medical Gas and Vacuum Systems	

All special inspection reports were reviewed and found to be in conformance with the approved construction documents.
REGISTERED DESIGN PROFESSIONAL
IN RESPONSIBLE CHARGE (SIGNATURE) _____ (DATE) _____

BUILDING IS TO BE FURNISHED WITH AREA SMOKE DETECTOR SYSTEM
UNITS ARE TO BE CONNECTED TO THAT SYSTEM FOR SHUT-DOWN



AUGUST RENO

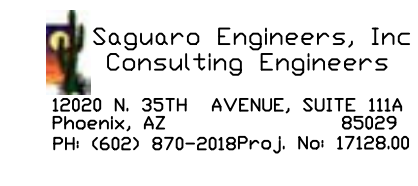
PO BOX 2302
Carefree, AZ 85377

37417 Tom Darlington Drive
Carefree, AZ 85377
(480) 488-9858
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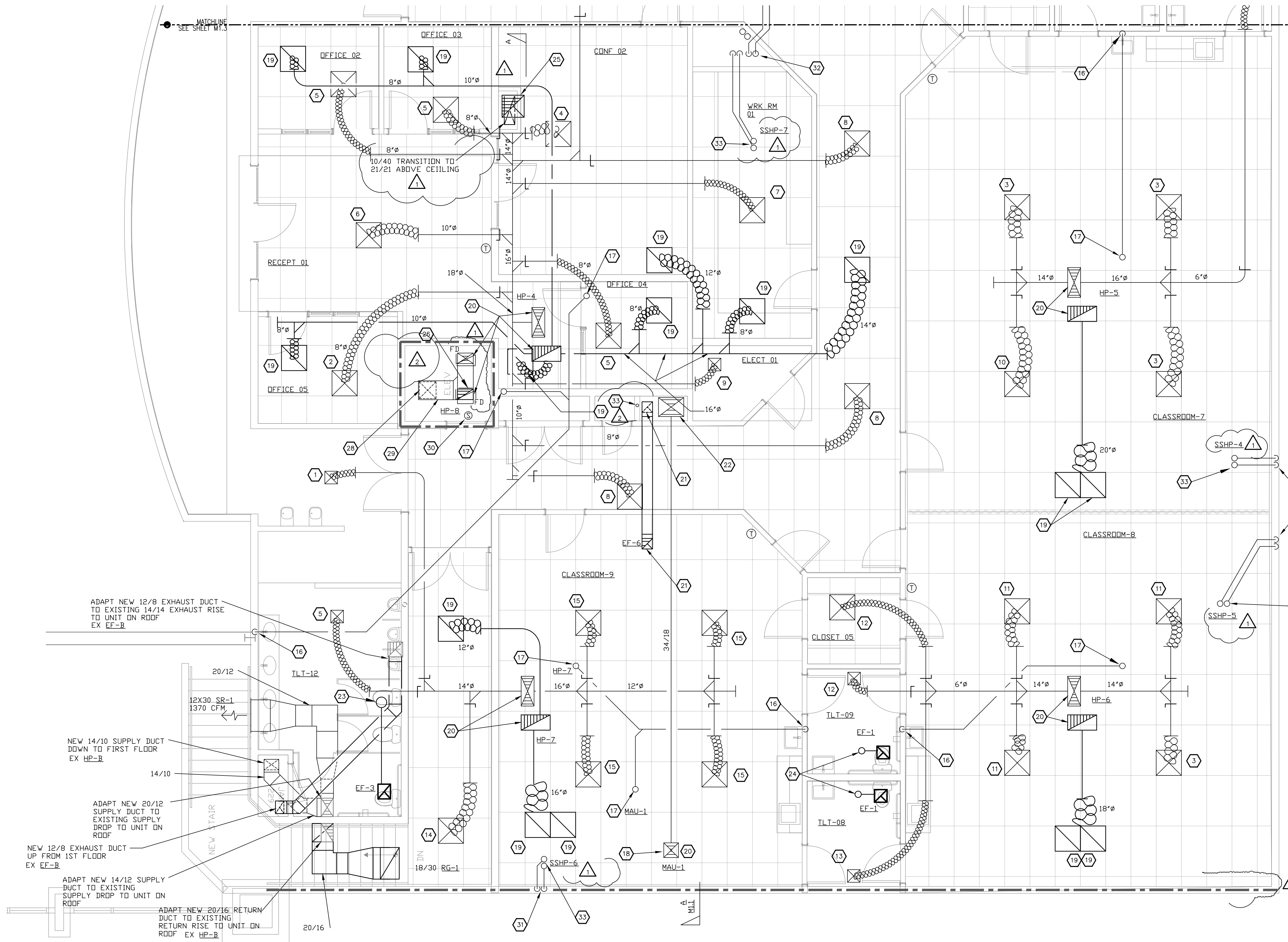
WEBSITE
www.augustreno.com
EMAIL ADDRESS
augie@augustreno.com

Construction Drawings:

SHEET NO:
SECOND FLOOR HVAC
FLOOR PLAN – SOUTH
M1.3



Saguaro Engineers, Inc.
Consulting Engineers
12020 N. 35TH AVENUE, SUITE 111A
PHOENIX, AZ 85029
PH: (602) 870-2018 P.C.J. NO. 17128.00



KEYED NOTES

- 1 6X6 CD-1, 6"Ø, 30 CFM
- 2 9X9 CD-1, 8"Ø, 190 CFM
- 3 12X12 CD-1, 12"Ø, 500 CFM
- 4 12X12 CD-1, 10"Ø, 400 CFM
- 5 6X6 CD-1, 6"Ø, 115 CFM
- 6 12X12 CD-1, 10"Ø, 360 CFM
- 7 9X9 CD-1, 8"Ø, 170 CFM
- 8 9X9 CD-1, 8"Ø, 155 CFM
- 9 6X6 CD-1, 6"Ø, 15 CFM
- 10 12X12 CD-1, 12"Ø, 455 CFM
- 11 12X12 CD-1, 10"Ø, 340 CFM
- 12 6X6 CD-1, 6"Ø, 20 CFM
- 13 6X6 CD-1, 6"Ø, 40 CFM
- 14 15X15 CD-1, 12"Ø, 545 CFM
- 15 9X9 CD-1, 8"Ø, 260 CFM
- 16 3/4" CONDENSATE DRAIN DOWN IN WALL TO PLUMBING FIXTURE TAILPIECE. COORDINATE WITH PLUMBING CONTRACTOR
- 17 3/4" CONDENSATE DRAIN DOWN FROM HVAC UNIT ON ROOF
- 18 SUPPLY DUCT DOWN TO WITHIN ROOF STRUCTURE. TRANSITION TO 24/18 AND EXTEND TO CHASE AS INDICATED
- 19 22X22 RG-1 WITH SHEET METAL PLENUM ABOVE. HEIGHT AS REQUIRED TO CONNECT BRANCH DUCT, MINIMUM 8'. WHERE TWO GRILLES ARE ILLUSTRATED TOGETHER COMBINE INTO A SINGLE, COMMON PLENUM ABOVE BOTH GRILLES
- 20 ADAPT SUPPLY AND RETURN DUCTS TO THE HVAC EQUIPMENT DROPS THROUGH THE ROOF
- 21 10/10 DISHWASHER EXHAUST UP THROUGH THE ROOF TO EF-6
- 22 24/18 MAKE-UP AIR UNIT SUPPLY DOWN TO FIRST FLOOR CEILING
- 23 10"Ø EXHAUST DUCT UP TO WEATHER HOOD ON ROOF CURB
- 24 6"Ø EXHAUST DUCT UP TO WEATHER HOOD ON ROOF CURB
- 25 WRAPPED 10/40 GREASE DUCT UP FROM 1ST FLOOR. EXTEND UP IN CHASE AND TRANSITION ABOVE CEILING ON RISE TO 21/21 BELOW ROOF AND EXTEND WRAPPED GREASE DUCT UP INTO EXHAUST FAN CURB, HOOD EXHAUST FAN EF-5
- 26 16X16 RG-1 658 CFM ON SIDE OF DUCT
- 27 NOT USED
- 28 16X16 SR-1 ON BOTTOM OF SUPPLY DUCT 708 CFM
- 29 16X16 SR-1 ON BOTTOM 18/12 WITH 1" THICK FIBERGLASS LINER
- 30 REMOTE TEMPERATURE SENSOR IN RETURN DUCT BELOW ROOF. PLACE THERMOSTAT IN MANAGERS OFFICE AND LABEL "ELEVATOR TEMPERATURE"
- 31 REFRIGERANT LINES AND CONTROL CONDUIT UP IN WALL TO ABOVE CEILING
- 32 REFRIGERANT LINES AND CONTROL CONDUIT UP IN CHASE TO ABOVE CEILING
- 33 REFRIGERANT LINES AND CONTROL CONDUIT UP THROUGH ROOF TO OUTDOOR HEAT PUMP

ADAPT NEW 12/8 EXHAUST DUCT TO EXISTING 14/14 EXHAUST RISE TO UNIT ON ROOF EX EF-B

NEW 14/10 SUPPLY DUCT DOWN TO FIRST FLOOR EX HP-B

ADAPT NEW 20/12 SUPPLY DUCT TO EXISTING SUPPLY DROP TO UNIT ON ROOF

NEW 12/8 EXHAUST DUCT UP FROM 1ST FLOOR EX EF-B

ADAPT NEW 14/12 SUPPLY DUCT TO EXISTING SUPPLY DROP TO UNIT ON ROOF

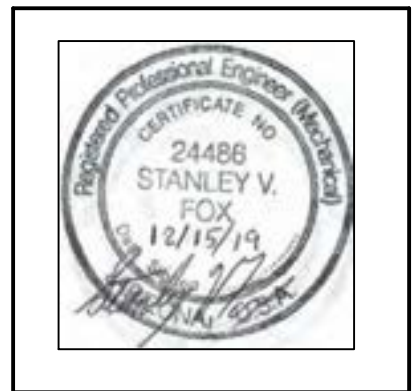
ADAPT NEW 20/16 RETURN DUCT TO EXISTING RETURN RISE TO UNIT ON ROOF EX HP-B

SECOND FLOOR PLAN - SOUTH
SCALE: 1/4"=1'-0"

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6-10-2019
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PHOENIX, AZ



PO BOX 2302
Carefree, AZ 85377

37417 Tom Darlington Drive
Carefree, AZ 85377
(480) 488-9858
FAX (480) 636-1325

WEBSITE
www.augustreno.com
EMAIL ADDRESS
augie@augustreno.com

Construction Drawings:

SHEET NO:
SECOND FLOOR HVAC
FLOOR PLAN - SOUTH
M1.4

Saguaro Engineers, Inc
Consulting Engineers
12020 N. 25TH AVENUE, SUITE 111A
Phoenix, AZ 85029
PH: (602) 870-2018 Proj. No. 17126.00

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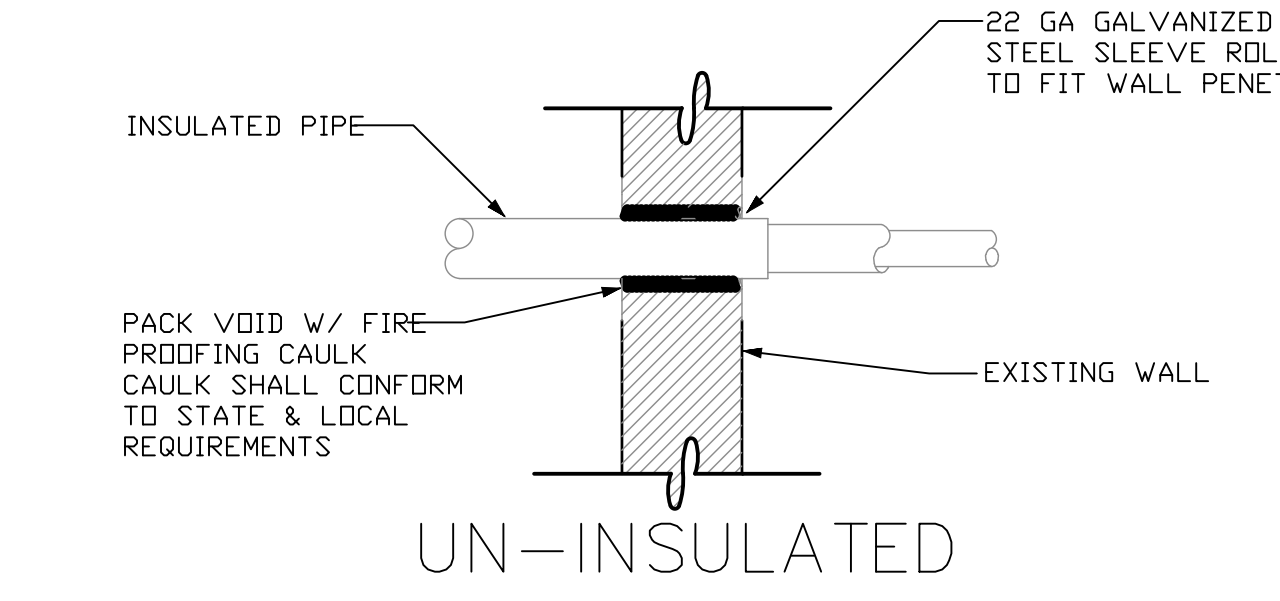
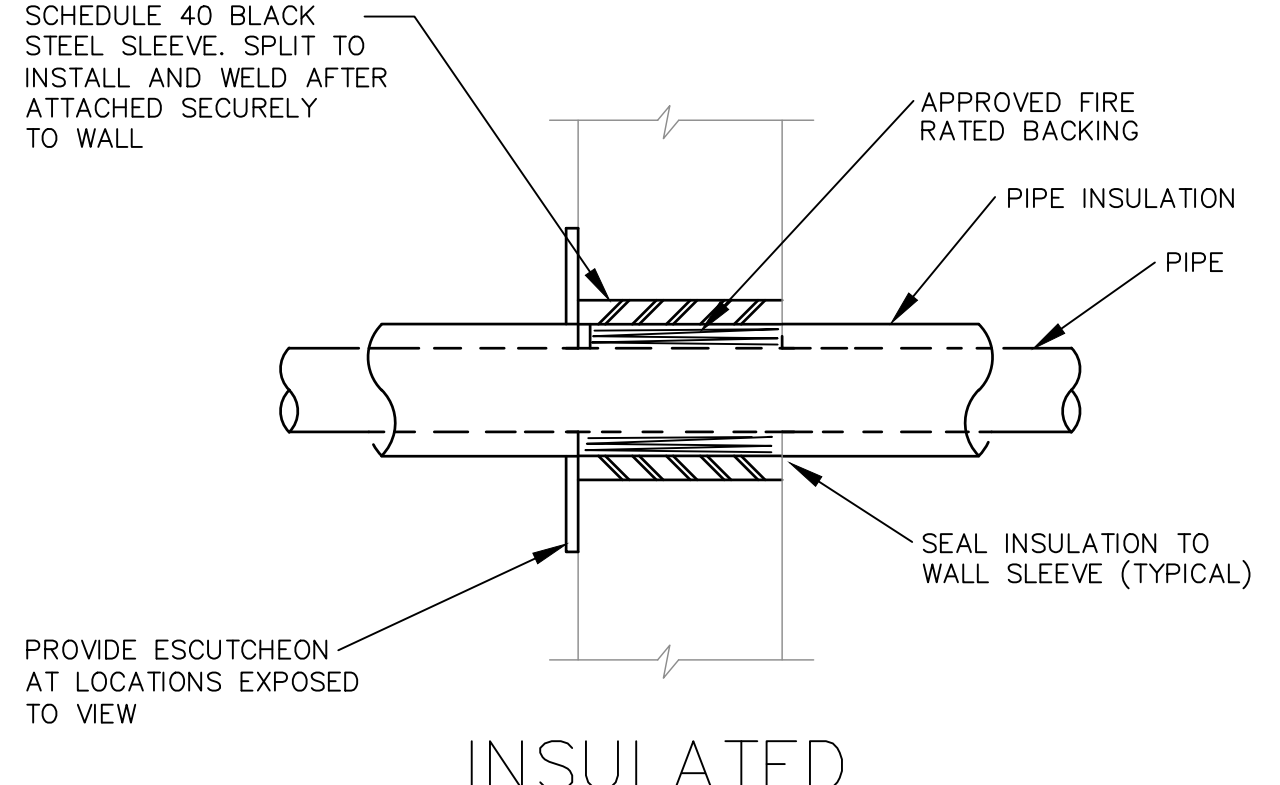
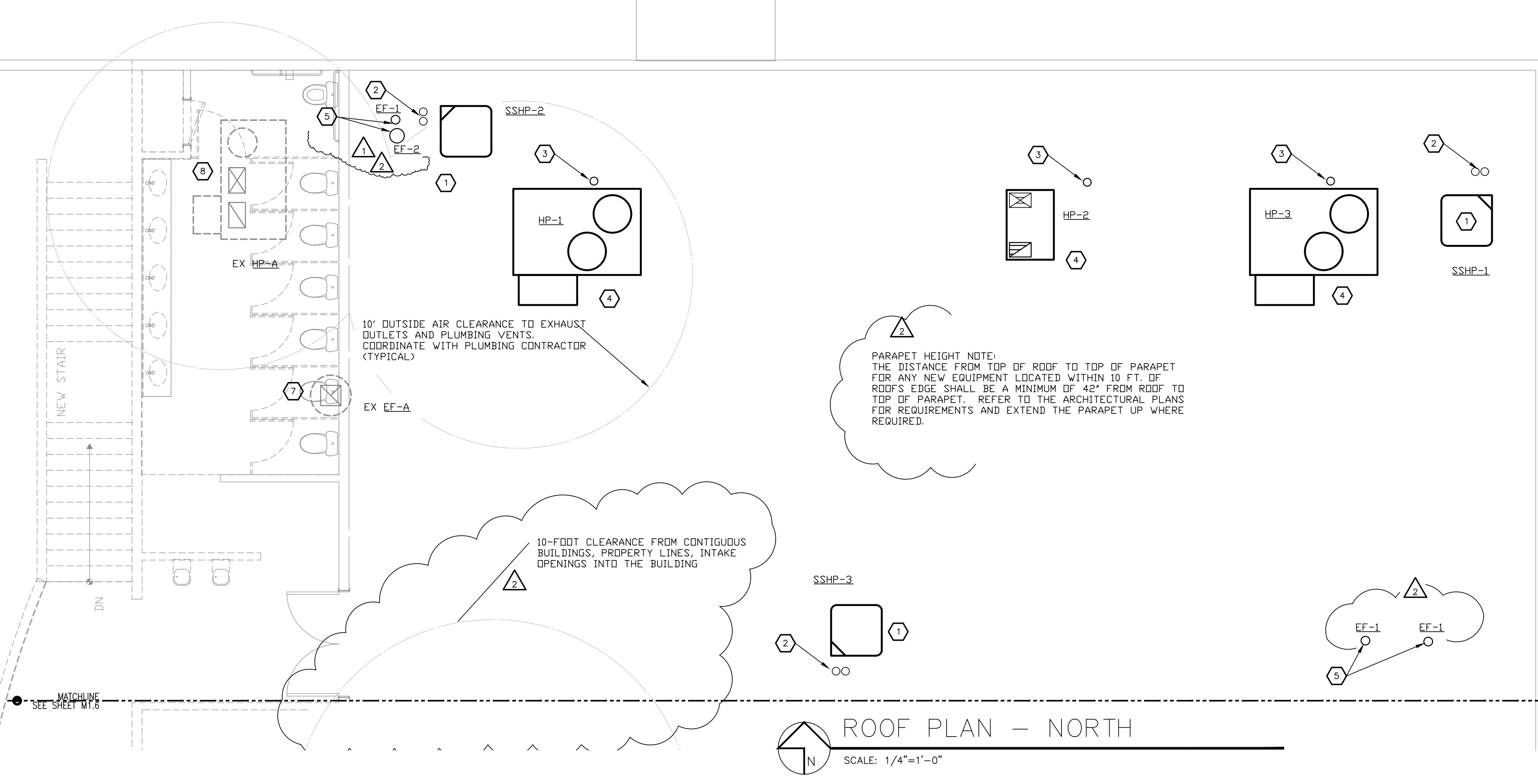
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 FAX (480) 636-1325
 WEB SITE
 www.augustreno.com
 EMAIL ADDRESS
 augie@augustreno.com

Construction Drawings:

SHEET NO:
 HVAC ROOF PLAN
 - NORTH
M1.5

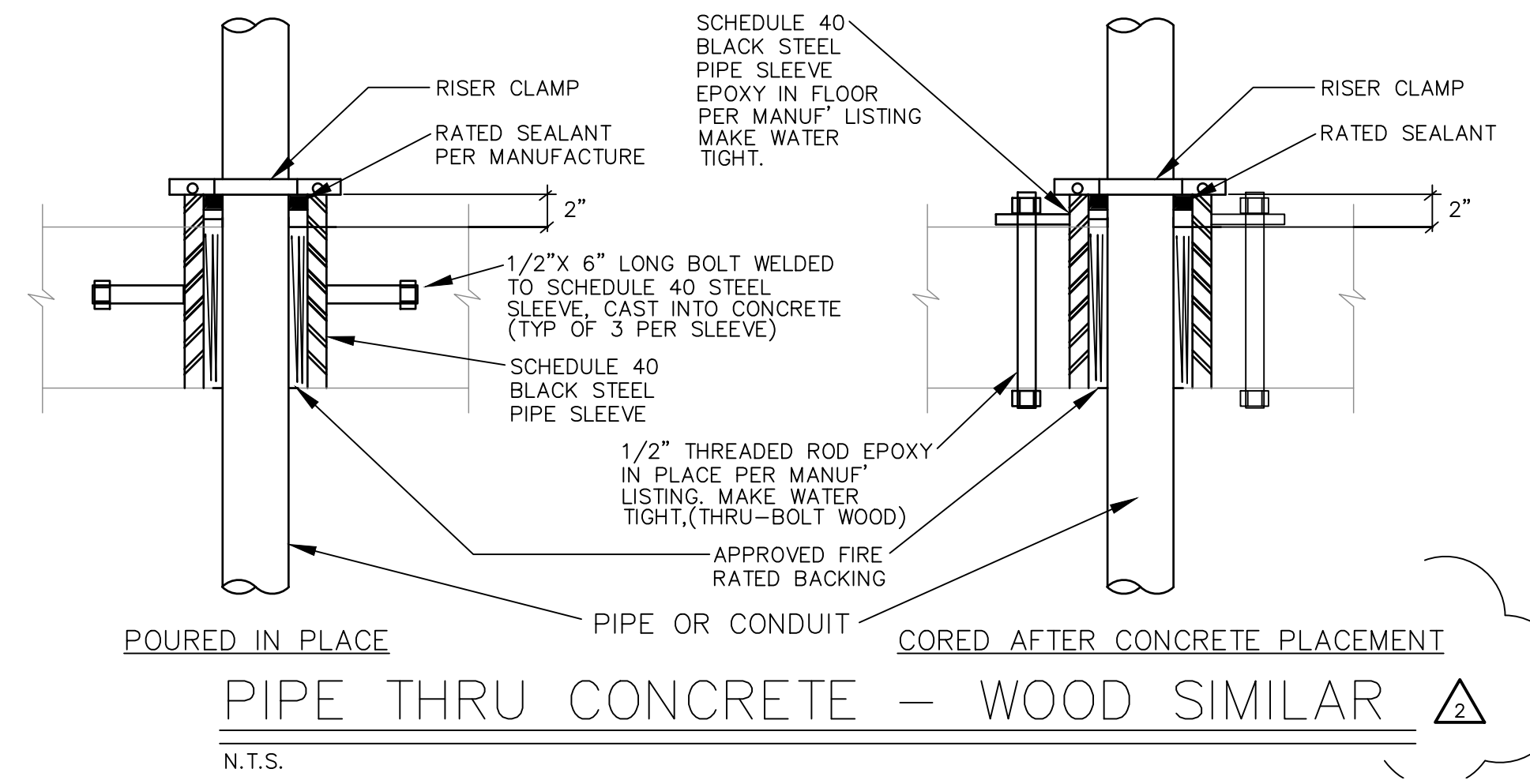
KEYED NOTES

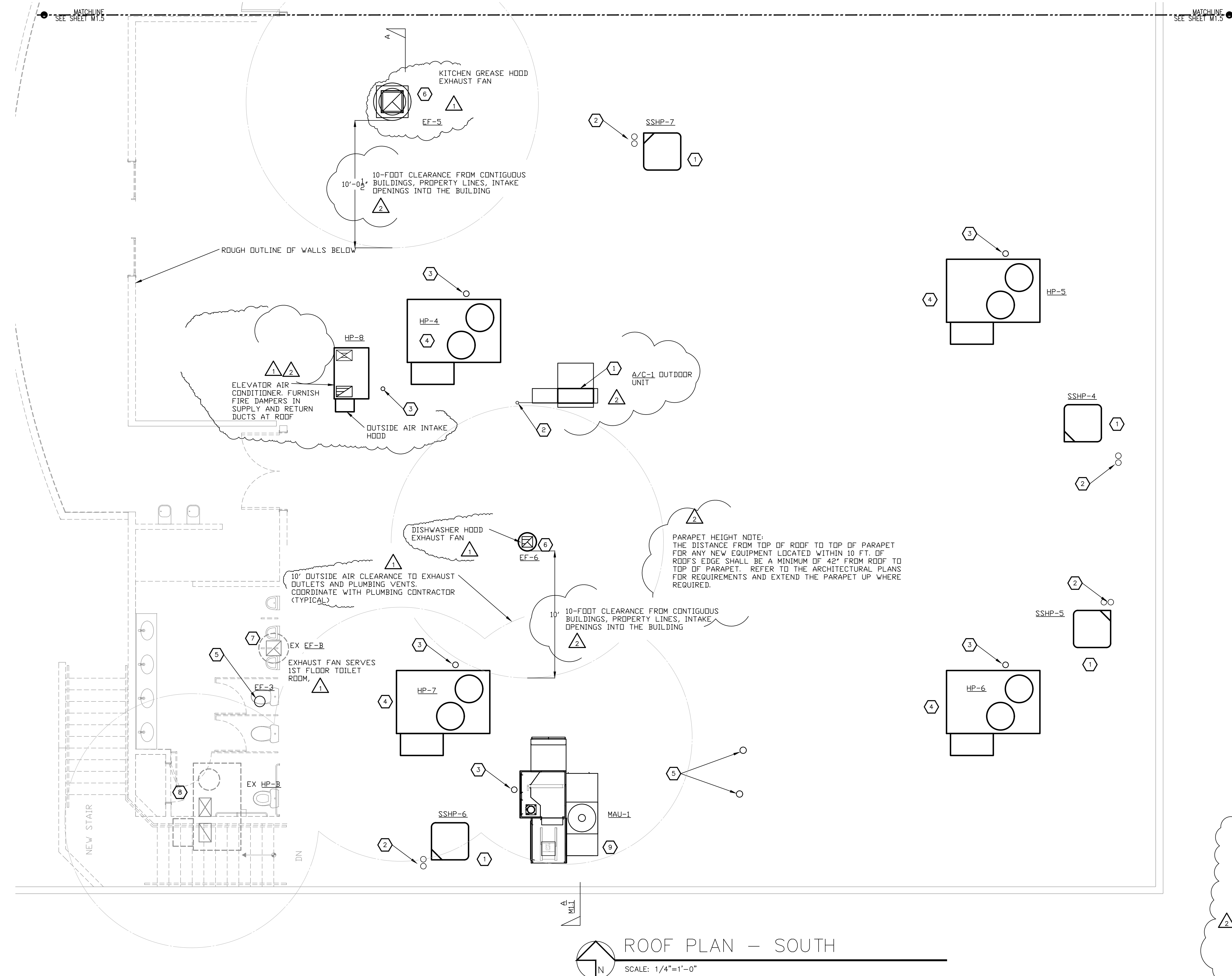
- ① SUPPORT OUTDOOR UNIT ABOVE ROOF IN A MANNER ACCEPTABLE TO THE ARCHITECT. EACH UNIT SHALL BE FURNISHED WITH VIBRATION ISOLATORS AND A BASE AS REQUIRED TO REDUCE VIBRATION AND SOUND TRANSMISSION INTO THE BUILDING AND SPACES BELOW
- ② REFRIGERANT LINES AND CONTROL CONDUIT UP THROUGH ROOF. FURNISH PATE PIPE PENETRATION SEALS AND FLASH TO METAL ROOF MAKING WATER TIGHT IN A MANNER ACCEPTABLE TO THE ARCHITECT
- ③ CONDENSATE LINE DOWN THROUGH ROOF. FURNISH PATE PIPE PENETRATION SEALS AND FLASH TO METAL ROOF MAKING WATER TIGHT IN A MANNER ACCEPTABLE TO THE ARCHITECT
- ④ NEW ROOFTOP PACKAGE UNIT ON CURB SUITABLE FOR USE ON THE METAL ROOF. COORDINATE WITH ROOF MANUFACTURE, STRUCTURAL ENGINEER AND ARCHITECT. SUBMIT FOR REVIEW PRIOR TO PROCUREMENT AND INSTALLATION
- ⑤ EXHAUST DUCT UP THROUGH METAL ROOF TO WEATHER HOOD ON ROOF. MAKE WEATHER TIGHT AS REQUIRED BY THE ARCHITECT
- ⑥ NOT USED
- ⑦ EXISTING EXHAUST FAN ON ROOF
- ⑧ EXISTING ROOFTOP PACKAGE HEAT PUMP



THROUGH PENETRATION FIRE STOP ASSEMBLIES SHALL BE UL XHEZ LISTED SYSTEMS AS FOLLOWS:
 FRAMED WALL: UL # 147 BY 3M COMPANY
 CONCRETE WALL: UL # 233 BY 3M COMPANY
 MASONRY WALL: UL # 233 BY 3M COMPANY
 ASSEMBLIES SHALL BE INSTALLED IN STRICT CONFORMANCE WITH MFGRS RECOMMENDATIONS.

PIPE THRU RATED WALL
 N.T.S.





KEYED NOTES

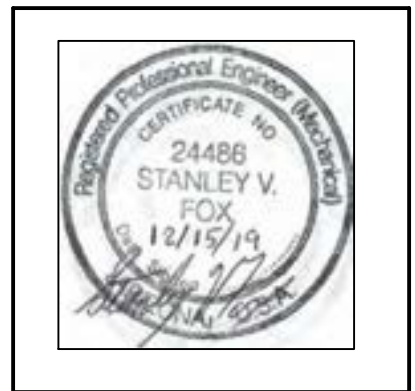
- 1 SUPPORT OUTDOOR UNIT ABOVE ROOF IN A MANNER ACCEPTABLE TO THE ARCHITECT. EACH UNIT SHALL BE FURNISHED WITH VIBRATION ISOLATORS AND A BASE AS REQUIRED TO REDUCE VIBRATION AND SOUND TRANSMISSION INTO THE BUILDING AND SPACES BELOW
- 2 REFRIGERANT LINES AND CONTROL CONDUIT UP THROUGH ROOF. FURNISH PATE PIPE PENETRATION SEALS AND FLASH TO METAL ROOF MAKING WATER TIGHT IN A MANNER ACCEPTABLE TO THE ARCHITECT
- 3 CONDENSATE LINE DOWN THROUGH ROOF. FURNISH PATE PIPE PENETRATION SEALS AND FLASH TO METAL ROOF MAKING WATER TIGHT IN A MANNER ACCEPTABLE TO THE ARCHITECT
- 4 NEW ROOFTOP PACKAGE UNIT ON CURB SUITABLE FOR USE ON THE METAL ROOF. COORDINATE WITH ROOF MANUFACTURE, STRUCTURAL ENGINEER AND ARCHITECT. SUBMIT FOR REVIEW PRIOR TO PROCUREMENT AND INSTALLATION
- 5 EXHAUST DUCT UP THROUGH METAL ROOF TO WEATHER HOOD ON ROOF. MAKE WEATHER TIGHT AS REQUIRED BY THE ARCHITECT
- 6 NEW EXHAUST FAN ON ROOF.
- 7 EXISTING EXHAUST FAN ON ROOF
- 8 EXISTING ROOFTOP PACKAGE HEAT PUMP
- 9 NEW ROOFTOP PACKAGE MAKE-UP AIR UNIT ON CURB SUITABLE FOR USE ON THE METAL ROOF. COORDINATE WITH ROOF MANUFACTURE, STRUCTURAL ENGINEER AND ARCHITECT. SUBMIT FOR REVIEW PRIOR TO PROCUREMENT AND INSTALLATION

- NOTES:
1. THE BUILDING IS TO BE SERVED BY AN AREA SMOKE DETECTOR SYSTEM. ALTHOUGH DUCT SMOKE DETECTORS ARE NOT REQUIRED CONNECTION TO THE FIRE ALARM SYSTEM FOR SHUT-DOWN IS REQUIRED. THE FIRE ALARM SPECIFICATION IS A PERFORMANCE SPECIFICATION. COORDINATE WITH THE FIRE ALARM COMPANY AS REQUIRED TO CONNECT NEW UNITS TO THE FIRE ALARM SYSTEM. THIS INCLUDES ALL OF THE NEW UNITS AND THE TWO UNITS THAT ARE EXISTING ON THE ROOF OF THIS WING, WHERE SINGLE UNITS LESS THAN 2000CFM SERVE A SPACE NOT SERVED BY ANY OTHER UNITS THEN THE INTERLOCK WITH THE FIRE ALARM SYSTEM WILL NOT BE REQUIRED. WHERE MULTIPLE UNITS SERVING COMMON AREAS ARE NOT SEPARATED BY AN APPROVED FIRE BARRIER AND TOTAL MORE THAN 2000 CFM THE UNITS SHALL BE CONNECTED TO THE FIRE ALARM SYSTEM SHUT DOWN.
 2. CONTRACTOR SHALL SUBMIT AN APPROVED COPY OF THE FINAL AIR BALANCE REPORT TO THE CITY OF PHOENIX MECHANICAL INSPECTOR PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
 3. SUPPORT NEW DUCTS ABOVE CEILING FROM ROOF STRUCTURE FURNISH INTERMEDIATE SUPPORTS AS REQUIRED.
 4. BALANCE OUTSIDE AIR TO EACH AIR HANDLER TO THE AIRFLOW INDICATED IN OUTSIDE AIR CALCULATION SCHEDULE.
 5. AIR CONDITIONER FANS AND EXHAUST FANS ARE TO BE SET TO OPERATE CONTINUOUSLY DURING OCCUPIED PERIODS.
 6. THE INSTALLING CONTRACTOR SHALL CALL FOR INSPECTION OF ALL MECHANICAL SYSTEMS PRIOR TO BACKFILL AND CONCEALMENT.
 7. THE INSTALLING CONTRACTOR SHALL SUBMIT TO THE ARCHITECT OR ENGINEER MATERIAL AND INSTALLATION DETAILS OF THE WALK-IN COOLER FOR REVIEW AND APPROVAL PRIOR TO PURCHASE OF THE UNIT SELECTED BY THE OWNER. APPROVED SUBMITTALS SHALL BE AVAILABLE TO THE CITY BUILDING INSPECTOR ON THE JOB SITE.
 8. NEW SUPPLY AND RETURN DUCTS ABOVE THE ROOF ARE TO BE SUPPORTED FROM THE ROOF WITH A SUPPORT SYSTEM AS DIRECTED BY THE ARCHITECT ANCHORED TO THE ROOF DECK AND MADE WATER PROOF TO THE SATISFACTION OF THE CITY INSPECTOR AND ARCHITECT. SUBMIT DETAIL FOR REVIEW.
 9. DUCTS OUTSIDE THE BUILDING INSULATION ENVELOPE ARE TO BE GALVANIZED SHEET METAL, CROWNED TO SHED WATER, LINED WITH 2" THICK MINIMUM R-8 INSULATION LINER AND SPRAY FOAMED AND THEN PAINTED WITH MINIMUM 2" THICK ROOFING INSULATION ON TOP, BOTTOM AND SIDES OF DUCT.
 10. DUCT PENETRATIONS THROUGH THE ROOF ARE TO BE MADE THROUGH 13" HIGH ROOF CURBS ATTACHED TO THE ROOF DECK. DUCTS SHALL BE FLASHED TO SHED WATER AWAY FROM THE CURB PENETRATION. ROOF CURBS SHALL BE PACKED WITH ROCK WOOL INSULATION OR ROOFING FOAM AFTER THE DUCT DROPS ARE INSTALLED.
 11. THE FINAL LOCATIONS OF ALL ROOF PENETRATIONS SHALL BE FIELD VERIFIED PRIOR TO THE FABRICATION OF DUCTS TO COORDINATE WITH ROOF STRUCTURE, PIPES, CONDUIT, WIRING AND OTHER NEW AND EXISTING STRUCTURE AND UTILITIES.
 12. DUCT SIZES ARE INSIDE CLEAR OF THE INSULATION LINER.
 13. COORDINATE SPACE NEEDS FOR DUCTS THROUGH FLOOR AND ROOF TRUSSES AND JOISTS IN SUBMITTAL STAGE OF THE STRUCTURE. COORDINATE THE NEED FOR SOFFITS AS REQUIRED

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CAREFREE CHURCH
5025 E. CAREFREE HIGHWAY,
PHOENIX, AZ



PO BOX 2302
Carefree, AZ 85377

37417 Tom Darlington Drive
Carefree, AZ 85377
(480) 488-9858
FAX (480) 636-1325

WEB SITE
www.augustreno.com
EMAIL ADDRESS
augie@augustreno.com

Construction Drawings:

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ROOFTOP PACKAGE HEAT PUMP SCHEDULE

MARK	NOM. TONS	EFF.	MANUF.	MODEL	SUPPLY CFM	INDOOR FAN		ELECTRIC HEATER			HEAT PUMP HEATING CAP. OUTPUT		COOLING CAPACITY			ELECTRICAL DATA					OPER. WEIGHT	DIMENSIONS			REMARKS				
						ESP"WG	SPEEDS	STAGE	KW	FLA	MBH	ENT AIR Fdb	ENT AIR Fwb	MBTUH TOTAL/SENS	COMPRESSOR #	OUTDOOR FAN FLA	INDOOR FAN FLA	MCA	MOCP	VOLTS/PH		LENGTH	WIDTH	HEIGHT					
																										ENT AIR Fdb	ENT AIR Fwb	ENT AIR Fdb	ENT AIR Fwb
HP-1	3	15.6 SEER	CARRIER	50HCQA04	1200	0.5	1	-	-	-	34.38	63.1	84.3	65.9	35.72/31.49	1	10.4	73	1	1.0ea	5.2	20	25	208/3/60	790	74.4"	46.8"	41.4"	1-STAGE COOLING, 1 SPEED INDOOR FAN ① ② ③
HP-2	2	14.5 SEER	CARRIER	50VT-C24	807	0.4	1	-	-	-	14.95	61.1	86.0	64.0	21.79/21.79	1	13.5	58.3	1	0.6ea	3.8	21.3	30	208/1/60	511	48.2"	32.6"	47.8"	1-STAGE COOLING, 1 SPEED INDOOR FAN ① ② ③
HP-3	4	15.6 SEER	CARRIER	50HCQA05	1600	0.5	1	-	-	-	31.98	63.1	84.3	65.9	46.39/46.39	1	13.1	83	1	1.4ea	5.2	23	30	208/3/60	790	74.4"	46.8"	41.4"	1-STAGE COOLING, 1 SPEED INDOOR FAN ① ② ③
HP-4	6	12.0 EER	CARRIER	50HCQA07	2100	0.5	1	-	-	-	46.25	63.9	81.7	65.6	58.74/51.89	1	19.6	136	2	1.5ea	7.5	35	50	208/3/60	995	88.1"	59.5"	41.33"	1-STAGE COOLING, 1 SPEED INDOOR FAN ① ② ③
HP-5	5	15 SEER	CARRIER	50HCQA06	2000	0.5	1	-	-	-	44.40	61.0	86.7	65.0	60.08/60.08	1	15.9	110	1	1.4ea	8.4	30	45	208/3/60	820	74.4"	46.8"	41.4"	1-STAGE COOLING, 1 SPEED INDOOR FAN ① ② ③
HP-6	4	15.6 SEER	CARRIER	50HCQA05	1600	0.5	1	-	-	-	31.98	63.1	84.3	65.9	46.14/46.14	1	13.1	83	1	1.4ea	5.2	23	30	208/3/60	790	74.4"	46.8"	41.4"	1-STAGE COOLING, 1 SPEED INDOOR FAN ① ② ③
HP-7	5	15 SEER	CARRIER	50HCQA06	2000	0.5	1	-	-	-	44.40	61.0	84.3	65.9	55.03/54.46	1	15.9	110	1	1.4ea	8.4	30	45	208/3/60	820	74-3/8"	44"	41-3/8"	1-STAGE COOLING, 1 SPEED INDOOR FAN ① ② ③
HP-8	2	14.5 SEER	CARRIER	50VT-C24	807	0.4	1	-	-	-	15.07	61.1	78.8	60.0	17.87/16.86	1	13.5	58.3	1	0.6ea	3.8	21.3	30	208/1/60	511	48.2"	32.6"	47.8"	LOCATE STAT IN OFFICE PROVIDE REMOTE SENSOR ① ② ③

- ① AIRFLOW AND STATIC IS SHOWN AT 1100 FT ABOVE SEA LEVEL. PROVIDE LOW AMBIENT OPERATION KIT. PROVIDE CRANKCASE HEATER WITH SOLID STATE CONTROLS.
- ② CAPACITIES ARE AT 115.0°F SUMMER AMBIENT AND 47.0°F WINTER AMBIENT.
- ③ FURNISH 7-DAY PROGRAMMABLE DIGITAL THERMOSTAT WITH SETBACK PROGRAMMING. 2" THICK MERV 8 FILTERS IN UNIT, AND ECONOMIZER WITH ALUMINUM CLEANABLE FILTER, MOTORIZED INTAKE AND BAROMETRIC RELIEF HOOD, FILTERS AND DAMPERS

SPLIT SYSTEM HEAT PUMP SCHEDULE

MARK	NOM. TONS	ARI SEER OR EER	INDOOR UNIT - R-410A										OUTDOOR UNIT					HEATING CAP. OUTPUT MBH	COOLING CAPACITY			REMARKS						
			MANUF.	MODEL	SUPPLY CFM	FAN			ELECTRIC HEATER			UNIT MCA	UNIT MOCP	VOLTS/PH	MANUF.	MODEL	ELECTRICAL DATA			OPER. WEIGHT	ENT AIR Fdb		ENT AIR Fwb	MBTUH TOTAL/SENS				
						ESP"WG	HP	FLA	STAGE	KW	FLA						RLA		COMPR. LRA						FAN FLA	MCA	VOLTS/PH	
SSHP-1	4	15.5	CARRIER	FV4CNB006	1600	0.5	3/4	6.8	KFCEH0501N05	1	5	18.1	31.2	35	208/230-1	CARRIER	25HBC548	21.8	117	1.2	28.5	208-230/1	260	33.49	87.2	65.2	44.94/44.94	① ② ③ ④
SSHP-2	3	16.0	CARRIER	FV4CNB005	1200	0.5	1/2	4.3	KFCEH0501N05	1	5	18.1	31.2	35	208/230-1	CARRIER	25HBC537	16.8	75	0.6	21.6	208-230/1	215	25.12	87.5	65.2	35.27/35.27	① ② ③ ④
SSHP-3	1.5	15.0	CARRIER	FV4CNF002	600	0.5	1/2	4.3	KFCEH0501N05	1	5	18.1	31.2	35	208/230-1	CARRIER	25HBC518	9.0	48.0	0.50	11.8	208-230/1	169	12.46	80.5	66.10	15.27/13.19	① ② ③ ④
SSHP-4	5	14.5	CARRIER	FV4CNB006	1600	0.5	3/4	6.8	KFCEH0501N05	1	5	18.1	31.2	35	208/230-1	CARRIER	25HBC560	26.4	134	1.2	34.2	208-230/1	294	41.62	87.8	65.3	56.91/56.91	① ② ③ ④ ⑤
SSHP-5	4	15.5	CARRIER	FV4CNB006	1600	0.5	3/4	6.8	KFCEH0501N05	1	5	18.1	31.2	35	208/230-1	CARRIER	25HBC548	21.8	117	1.2	28.5	208-230/1	260	33.49	87.2	65.2	44.94/44.94	① ② ③ ④ ⑤
SSHP-6	3	16.0	CARRIER	FV4CNB005	1200	0.5	1/2	4.3	KFCEH0501N05	1	5	18.1	31.2	35	208/230-1	CARRIER	25HBC537	16.8	75	0.6	21.6	208-230/1	215	25.12	87.5	65.2	35.27/35.27	① ② ③ ④
SSHP-7	3	16.0	CARRIER	FV4CNB005	1200	0.5	1/2	4.3	KFCEH0501N05	1	5	18.1	31.2	35	208/230-1	CARRIER	25HBC537	16.8	75	0.6	21.6	208-230/1	215	25.12	87.5	65.2	35.27/35.27	① ② ③ ④

- PROVIDE SOLENOIDS AND REFRIGERANT ACCUMULATOR KIT AS REQUIRED TO ACCOMMODATE LENGTH OF REFRIGERANT LINES. FURNISH AUXILIARY RELAY OUTSIDE AIR DAMPER CONTROLS WITH MAXIMUM SETTING IN ADDITION TO FULLY CLOSED
- ① PROVIDE CRANKCASE HEATER WITH SOLID STATE CONTROLS. PROVIDE HP-6&HP-7 WITH DEMAND CONTROL VENTILATION AND ENTHALPY ECONOMIZER CONTROLS AND MOTORIZED CONTROL DAMPERS IN FIELD PER PLAN
- ② AIRFLOW AND STATIC IS SHOWN AT 1,100 FT ABOVE SEA LEVEL.
- ③ CAPACITIES ARE AT 115.0°F SUMMER AMBIENT AND 32.0°F WINTER AMBIENT.
- ④ FURNISH 7-DAY PROGRAMMABLE, (HP6&HP-7, 2-STAGE) (HP-4, 1 STAGE) DIGITAL THERMOSTAT WITH REMOTE SENSOR, SETBACK PROGRAMMING, STAGE OPERATION OF THE UNITS FOR HEATING AND COOLING IN THE SPACE. FOR HP-4 AND HP-5 THERMOSTATS ARE TO BE SET TO THE SAME HEATING AND COOLING SETPOINTS SO THAT THE UNITS DO NOT FIGHT EACH OTHER.
- ⑤ FURNISH A CONDENSATE SUMP AND PUMP SYSTEM LITTLE GIANT MODEL: VCL24ULS UL LISTED WITH THERMAL OVERLOAD AND SAFETY SWITCH. INTERLOCK TO STOP INDOOR UNIT IF PUMP FAILS TO REMOVE CONDENSATE 120V, 2.5 AMPS

GRILLES / REGISTERS / DIFFUSERS SCHEDULE

MARK	MANUF.	DESCRIPTION	MODEL	FRAME	BLOW	O.B.D.	FINISH	MAX NC	MATERIAL
CD-1	TITUS	CEILING DIFFUSER	TDC	MATCH CEILING	PER PLAN	YES	WHITE	30	STEEL
SR-1	TITUS	REGISTER	300RL	MATCH WALL OR CEILING	ADJUSTABLE	YES	WHITE	30	STEEL
RG-1/EG-1	TITUS	RETURN GRILLE	350RL	SURFACE/LAY-IN MATCH CEILING/WALL	N/A	NO	WHITE	30	STEEL

SUPPORT ALL CEILING MOUNTED DEVICES FROM THE ROOF STRUCTURE ON TWO OPPOSITE SIDES OF DEVICE

EXHAUST FAN AND SUPPLEMENTAL HEAT SCHEDULE

MARK	MANUF.	MODEL	CFM	ESP (IN. WC)	WATTS	HP	VOLTS/PH	OPER WEIGHT	SDNES	REMARKS
EF-1	GREENHECK	SP-A80-VG	50	0.25	-	-	120/1	12	1.4	① ② ③ UL LISTED, SPEED CONTROLLER ATTACHED TO MOTOR. FURNISH WEATHER HOOD ON 14" ROOF CURB OR WALL LOUVER
EF-2	GREENHECK	SP-A390-VG	350	0.25	135	-	120/1	24	4.5	① ② ③ UL LISTED, SPEED CONTROLLER ATTACHED TO MOTOR. FURNISH WEATHER HOOD ON 14" ROOF CURB
EF-3	GREENHECK	AP-A390-VG	300	0.25	135	-	120/1	24	4.5	① ② ③ UL LISTED, SPEED CONTROLLER ATTACHED TO MOTOR. FURNISH WEATHER HOOD ON 14" ROOF CURB
EF-5	ACCUREX	XRUB-180HP-15	3010	1	-	1.5	208-3-60	165	17	① ② UL LISTED, ROOF MOUNTED. FURNISH ROOF CURB PER DETAILS AND ARCHITECT'S REQUIREMENTS - GREASE EXHAUST-
EF-6	ACCUREX	XRED-085-VG	488	0.284	-	1/10	120/1	40	8.1	① ② UL LISTED, ROOF MOUNTED. FURNISH ROOF CURB PER DETAILS AND ARCHITECT'S REQUIREMENTS -DISHWASHER HOOD-

- ① PROVIDE WITH BAROMETRIC DAMPER WITH MAXIMUM OPENING PRESSURE OF 0.05" WATER COLUMN AND DISCHARGE BIRD SCREEN
- ② SELECTIONS ARE AT 1,200 FT ELEVATION ABOVE SEA LEVEL
- ③ FAN TO OPERATE WITH WHEN AIR CONDITIONER SERVING THE ROOM IS OPERATING

DUCTLESS SPLIT SYSTEM AIR CONDITIONER SCHEDULE

MARK	NOM. TONS	EFF.	INDOOR UNIT					OUTDOOR UNIT					COOLING CAPACITY				REMARKS							
			MANUF.	EVAPORATOR MODEL	SUPPLY CFM	SPEED	VOLTS/PH	OPER. WEIGHT (INCL. COIL)	MANUF.	MODEL	ELECTRICAL DATA			DIMENSIONS				ENT AIR Fdb	ENT AIR Fwb	BTUH TOTAL	BTUH SENSIBLE			
											COMPR. RLA	MCA	VOLTS/PH	WEIGHT	LENGTH	WIDTH						HEIGHT	CURB HEIGHT	OVERALL HEIGHT
AC-1	1.5	20.0 SEER	CARRIER	40AQB18B--3	680	3	POWERED FROM OUTDOOR UNIT	25	CARRIER	88MAQB18R--3	12.3	18	208-230/1	118	33.69"	13.69"	27.68"	N/A	27.68"	70.9	62.6	15021	13,238	① ② ③ ④

- ① PROVIDE CRANKCASE HEATER WITH SOLID STATE CONTROLS, LOW AMBIENT KIT, WINTER START CONTROL, ISOLATION RELAY, LIQUID LINE SOLENOID VALVE, WIND BAFFLES, HARD WIRED WALL MOUNTED CONTROLLER UNIT SHALL BE CAPABLE OF OPERATION TO -4°F
- ② AIRFLOW AND STATIC IS SHOWN AT 1200 FT ABOVE SEA LEVEL.
- ③ CAPACITIES ARE AT 110°F SUMMER
- ④ FURNISH A/C-1 WITH ACCESSORY CONDENSATE PUMP SYSTEM CARRIER MODEL 53DS-900-118. UNIT IS POWERED FROM INDOOR UNIT. WIRE TO SHUT DOWN UNIT IF HIGH WATER ALARM IS ACTIVATED. MOUNT ON WALL ADJACENT TO UNIT.

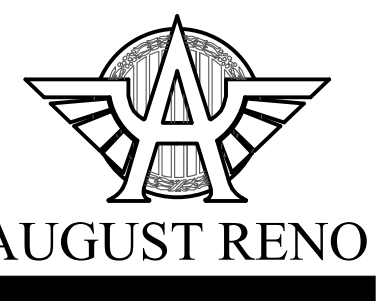
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5025 E. CAREFREE HIGHWAY,
PHOENIX, AZ



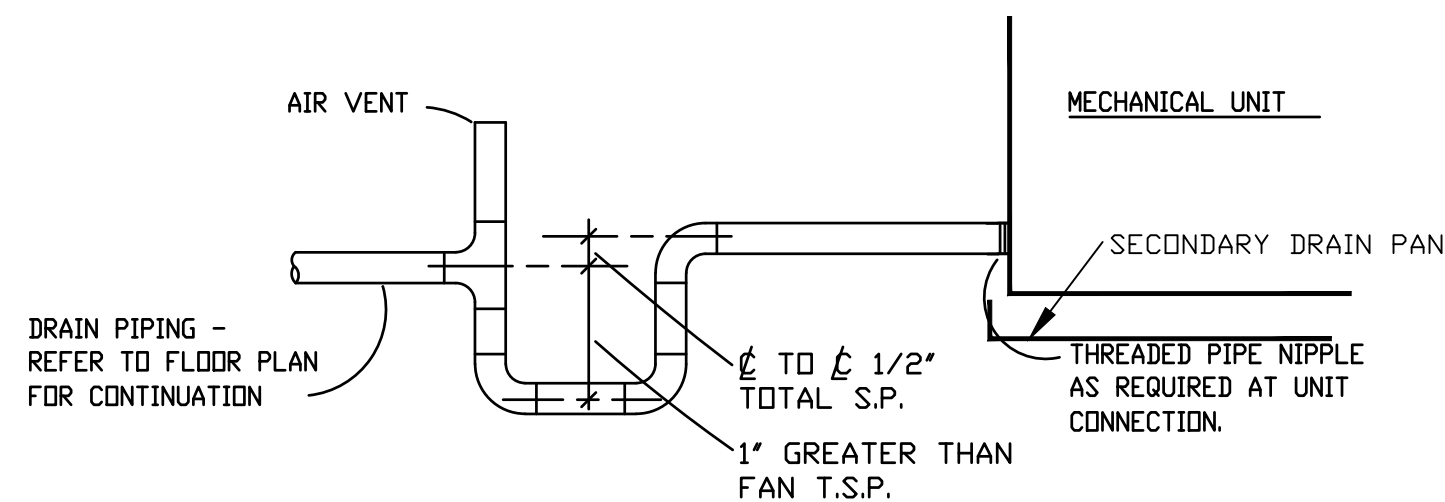
PO BOX 2302
Carefree, AZ 85377

37417 Tom Darlington Drive
Carefree, AZ 85377
(480) 488-9858
FAX (480) 636-1325

WEBSITE
www.augustreno.com
EMAIL ADDRESS
augie@augustreno.com

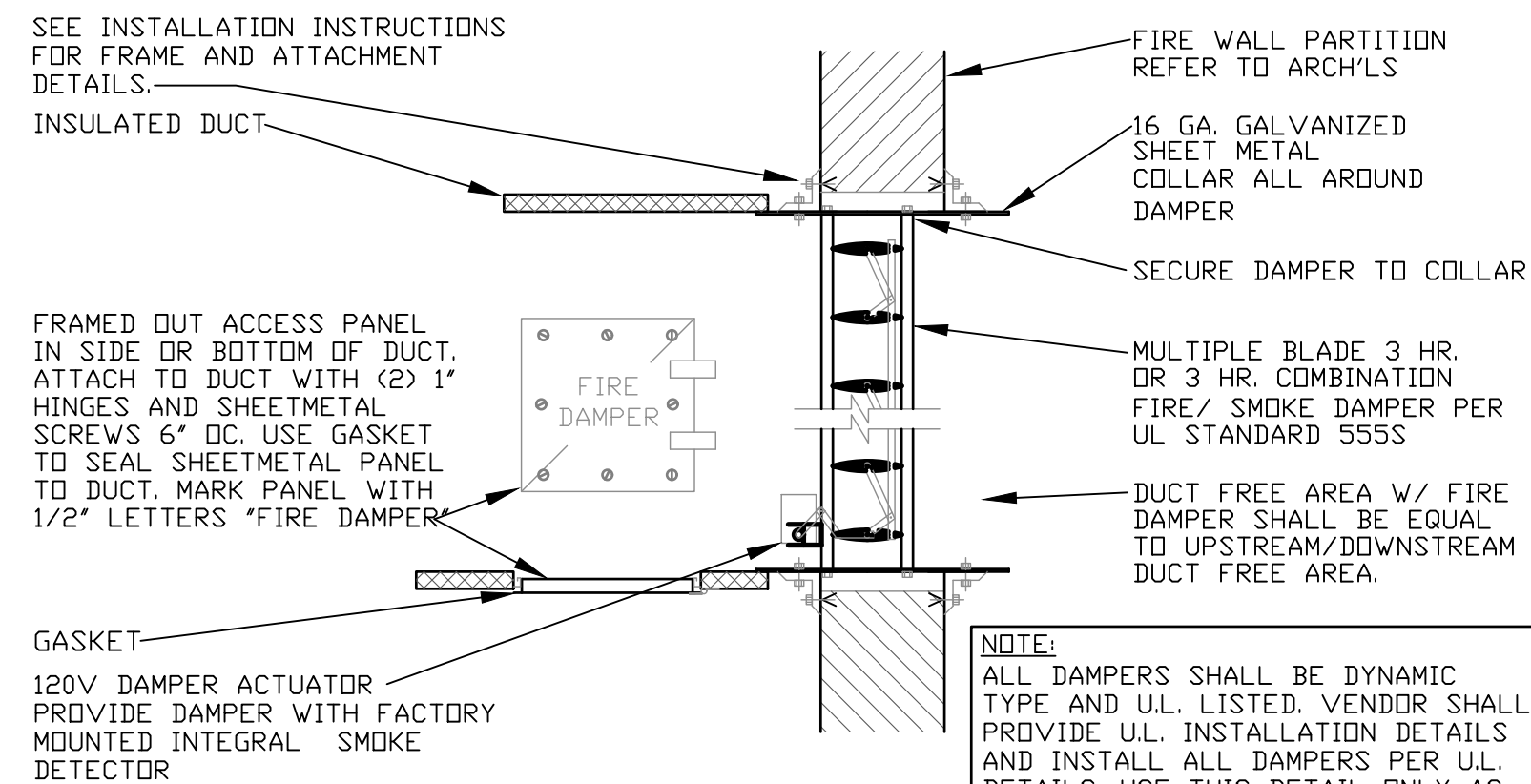
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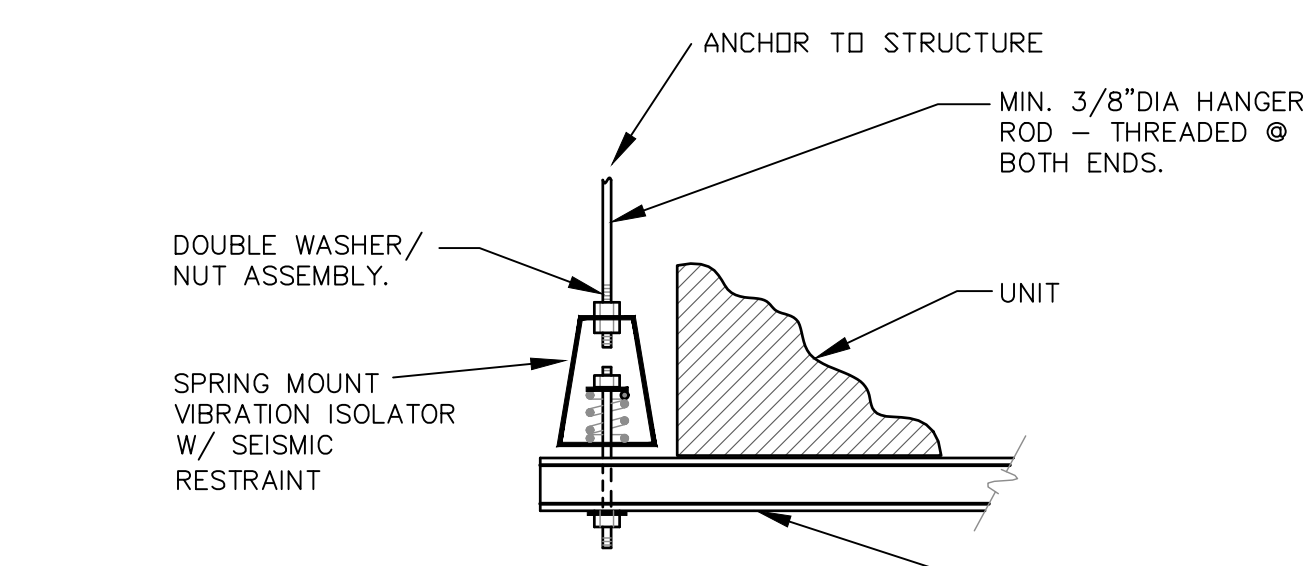
CONDENSATE DRAIN TRAP DETAIL

NO SCALE



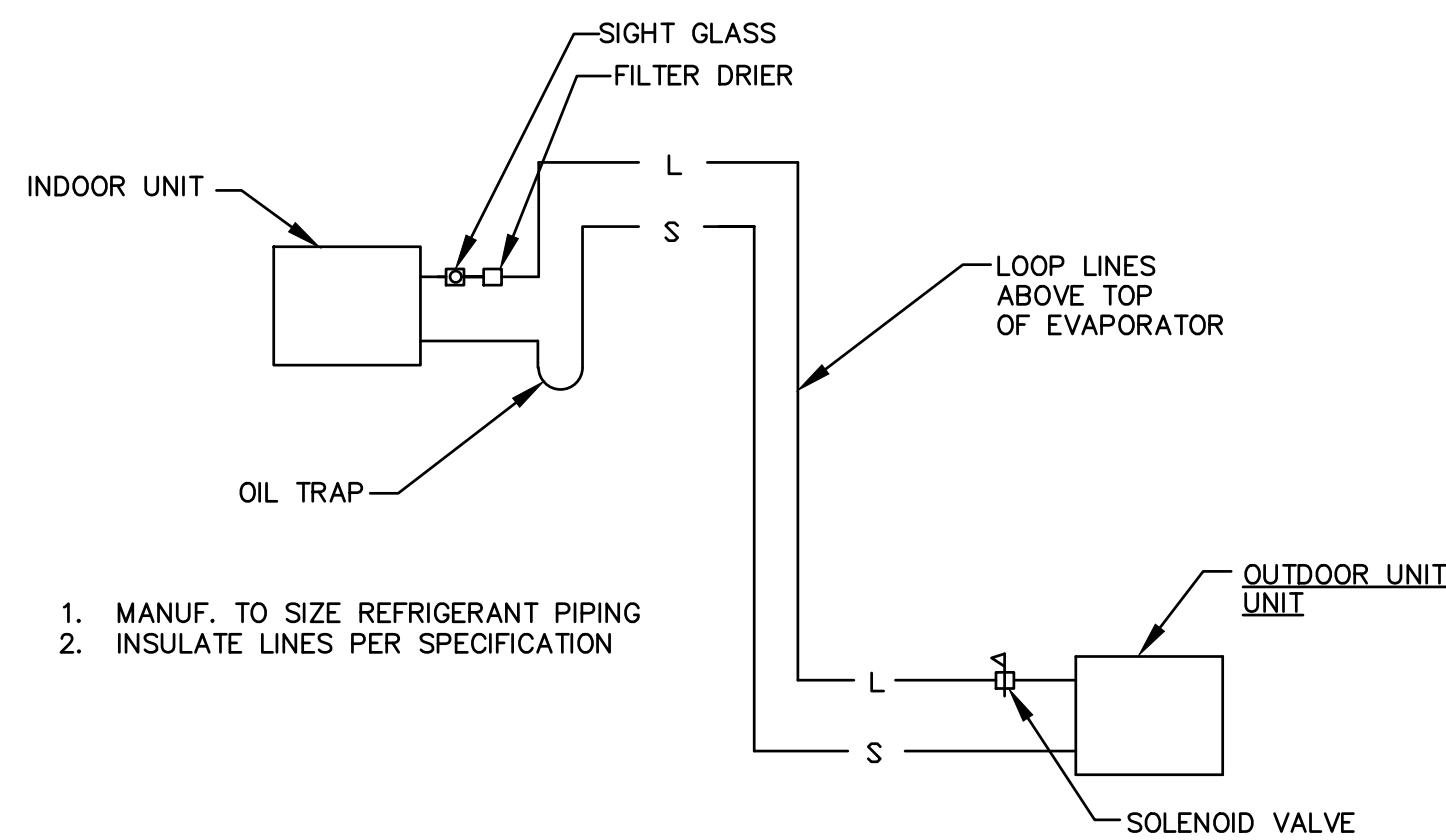
COMBINATION FIRE/SMOKE DAMPER DETAIL

N.T.S.



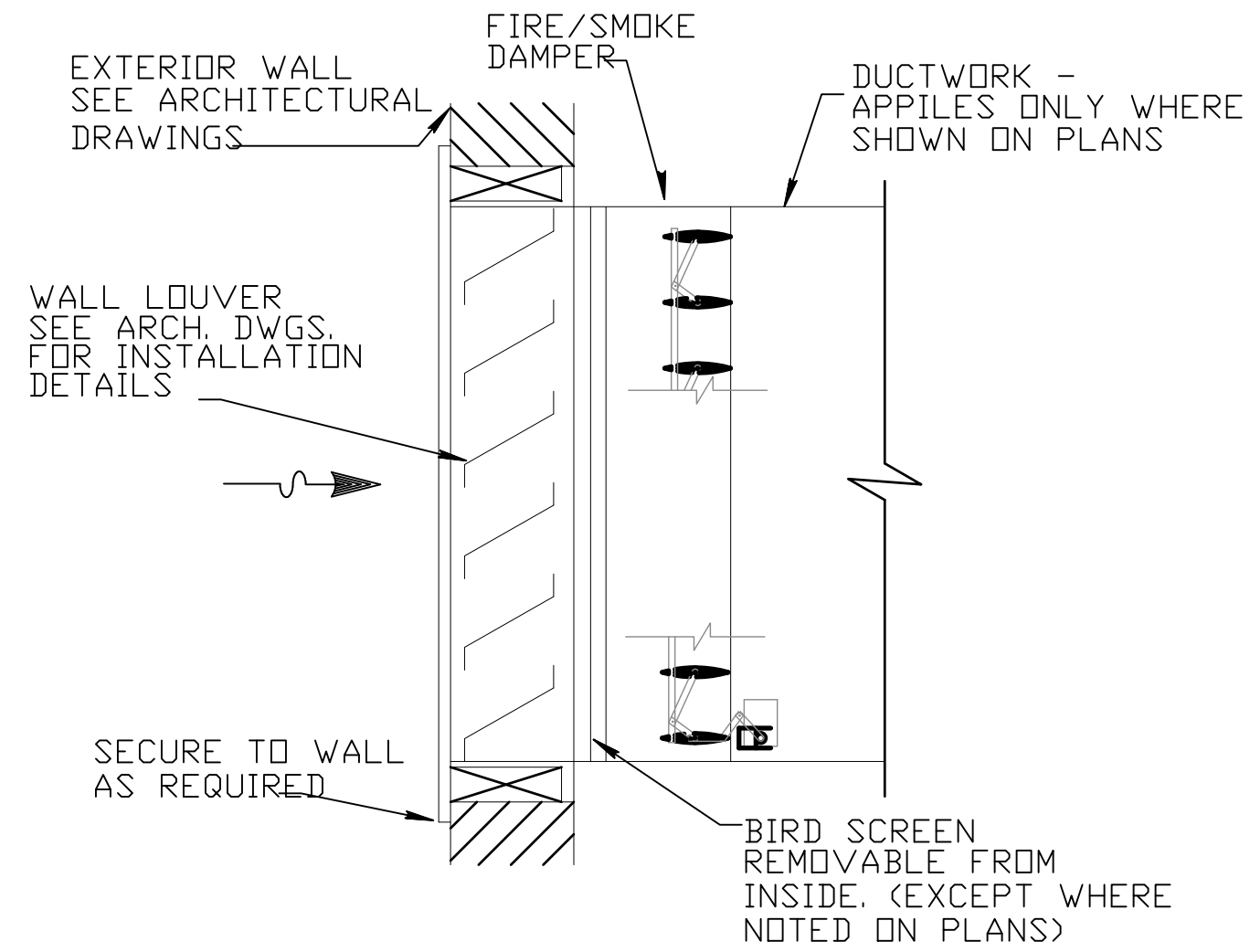
UNIT SUSPENSION DETAIL

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REFRIGERANT PIPING DIAGRAM

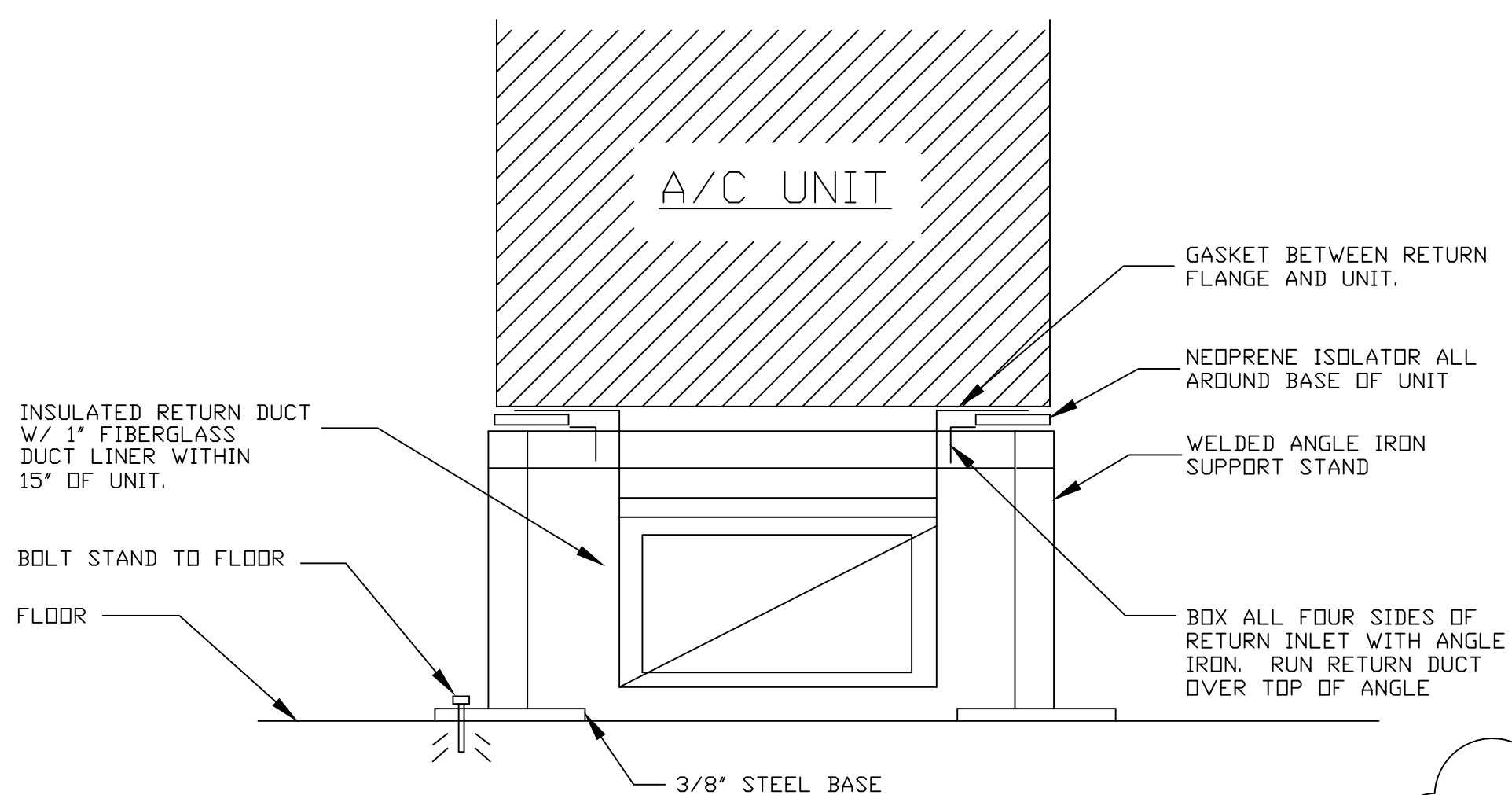
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LOUVER DETAIL RELIEF OR INTAKE LOUVER W/ MOTORIZED DAMPER

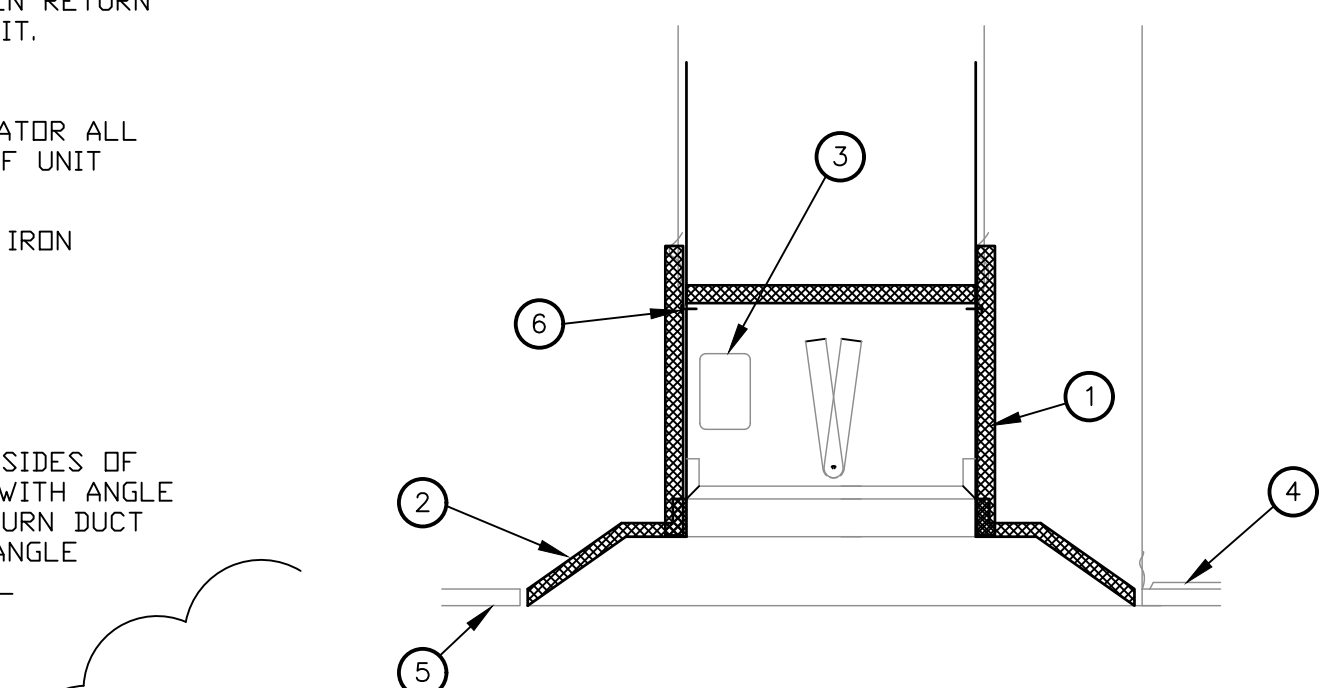
N.T.S.

- 1 RUSKIN CFD CEILING SERIES UL FIRE DAMPER ASSEMBLY
- 2 FIRE RATED BLANKET PER MANUFACTURE'S LISTING REQUIREMENTS
- 3 FIRE DOOR
- 4 RATED LAY-IN CEILING ASSEMBLY PER ARCHITECTURAL PLANS
- 5 RATED GYP BOARD ASSEMBLY PER ARCHITECTURAL PLANS
- 6 FASTENER PER MANUFACTURE'S REQUIREMENTS SHALL NOT INTERFERE WITH DAMPER OPERATION



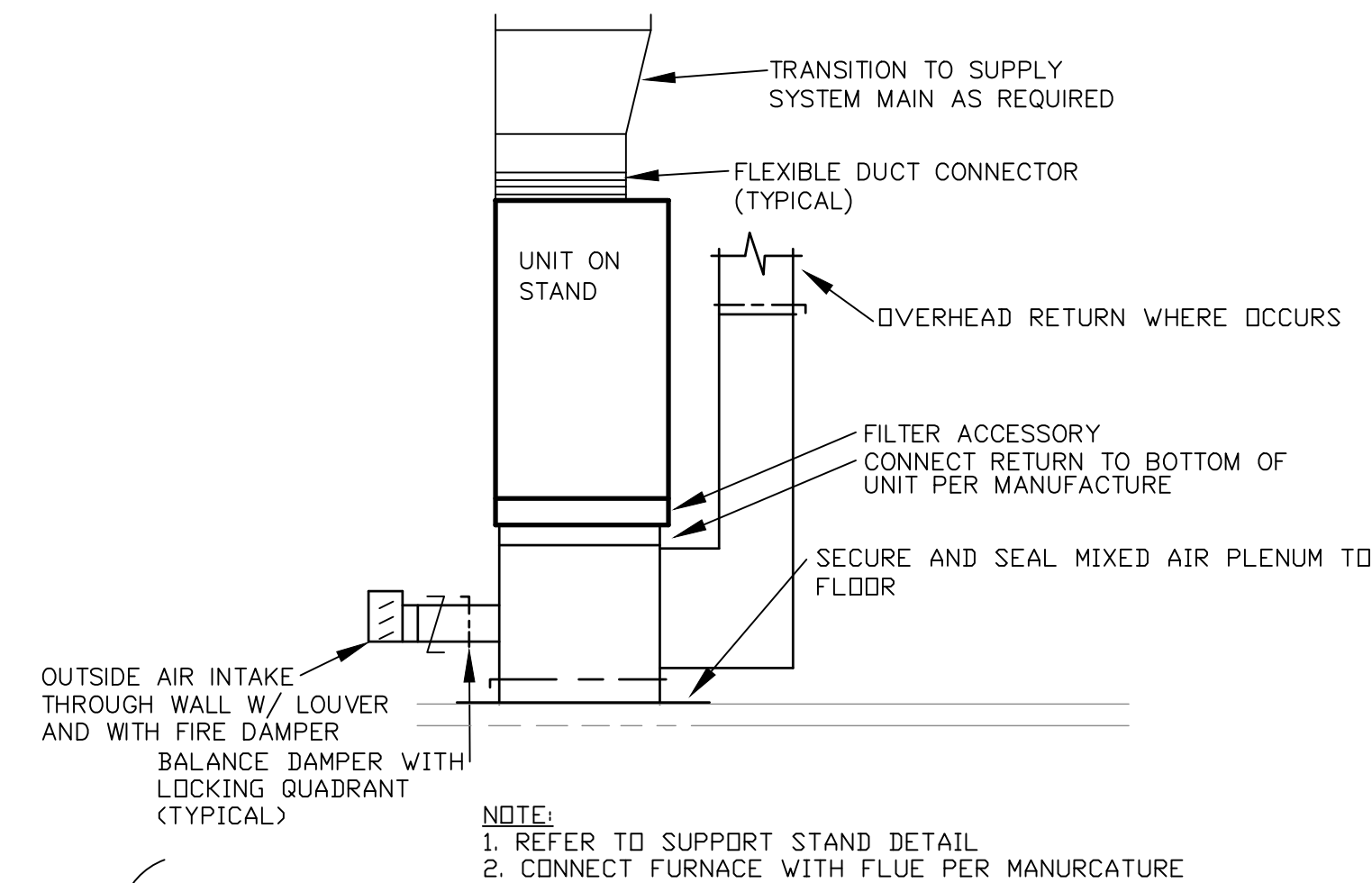
VERTICAL A/C UNIT SUPPORT

N.T.S.



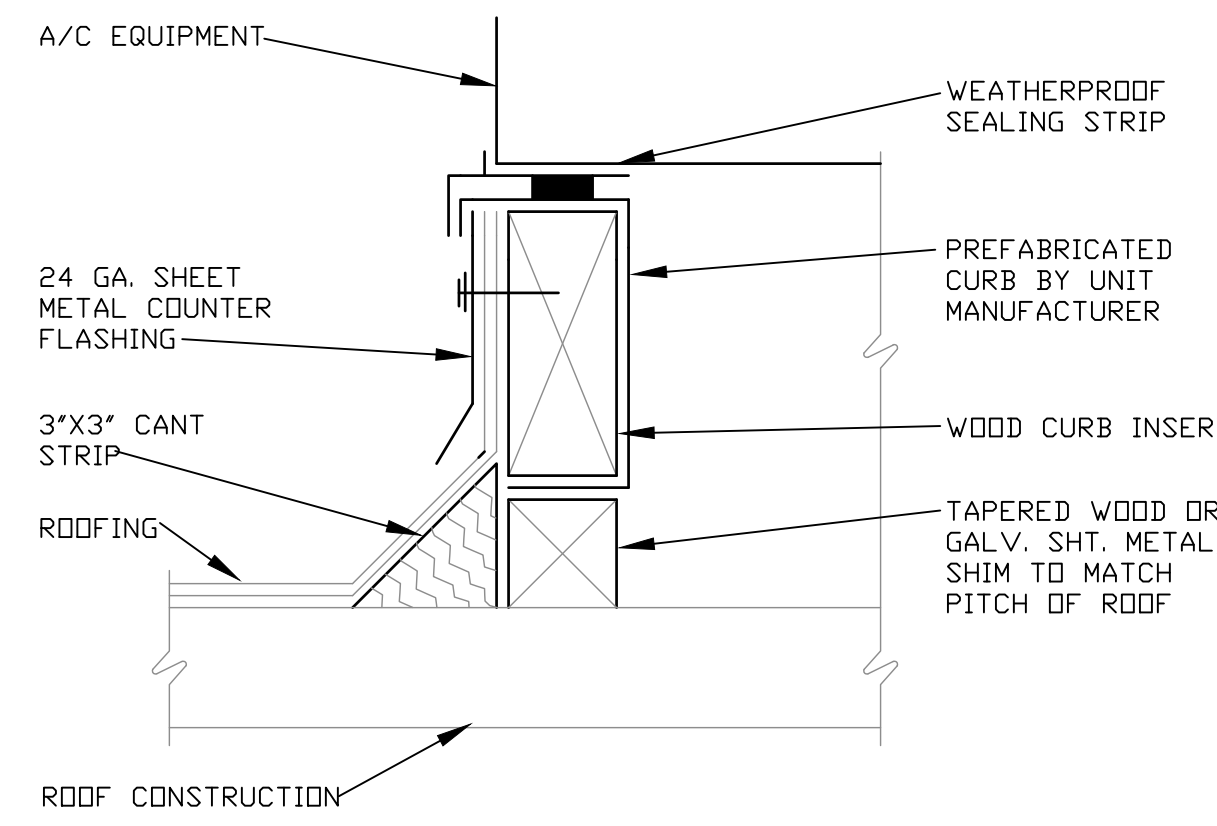
CEILING/ROOF FIRE DAMPER

N.T.S.



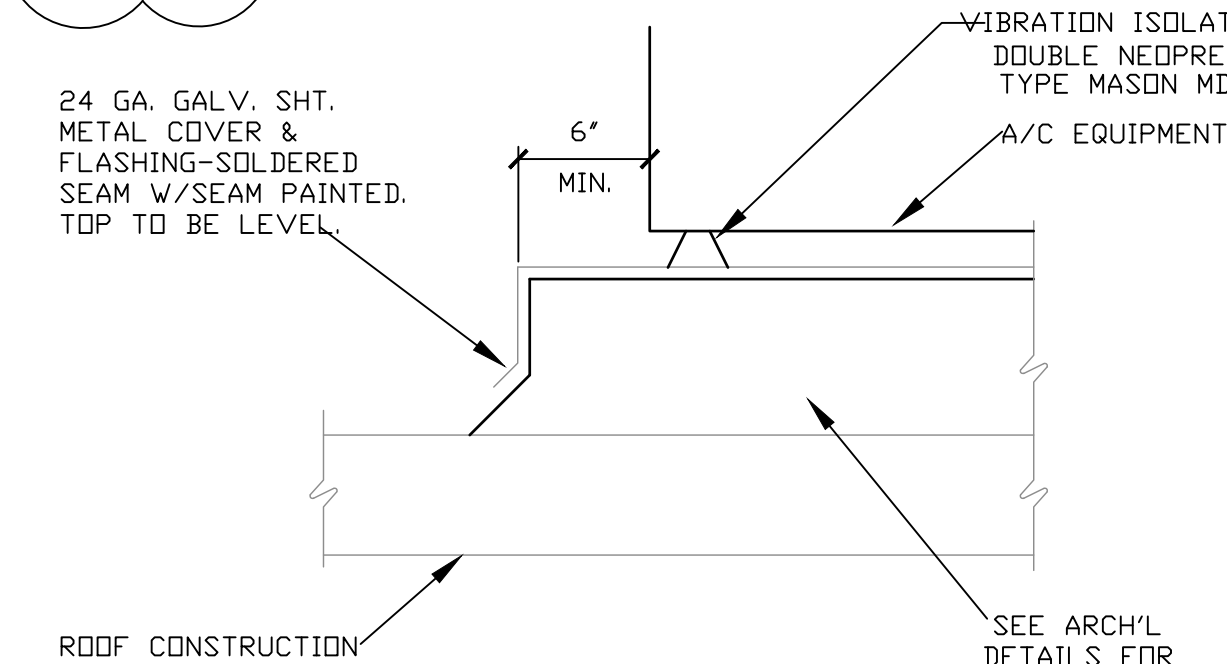
VERTICAL UNIT

N.T.S.



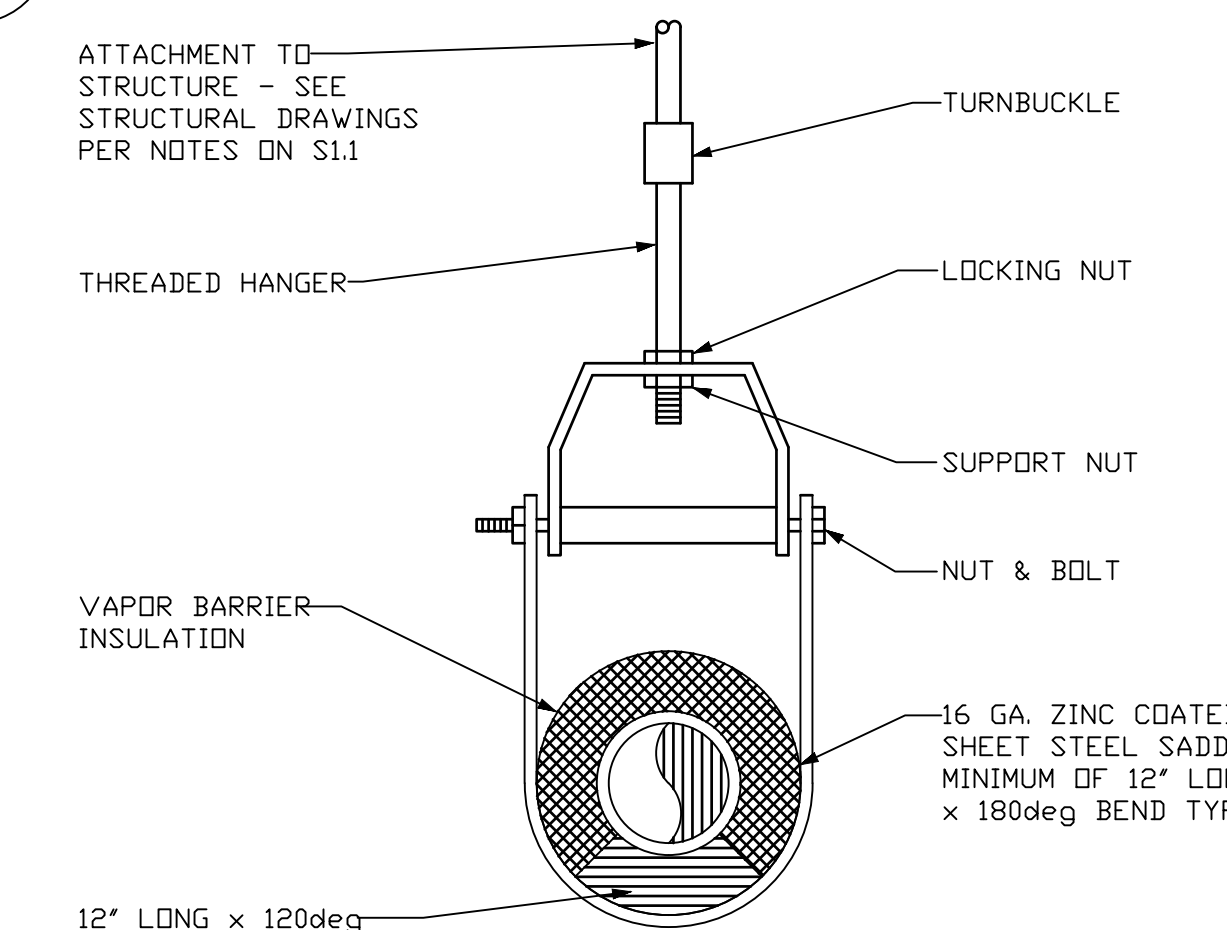
MECH. EQUIPMENT CURB DETAIL

N.T.S.



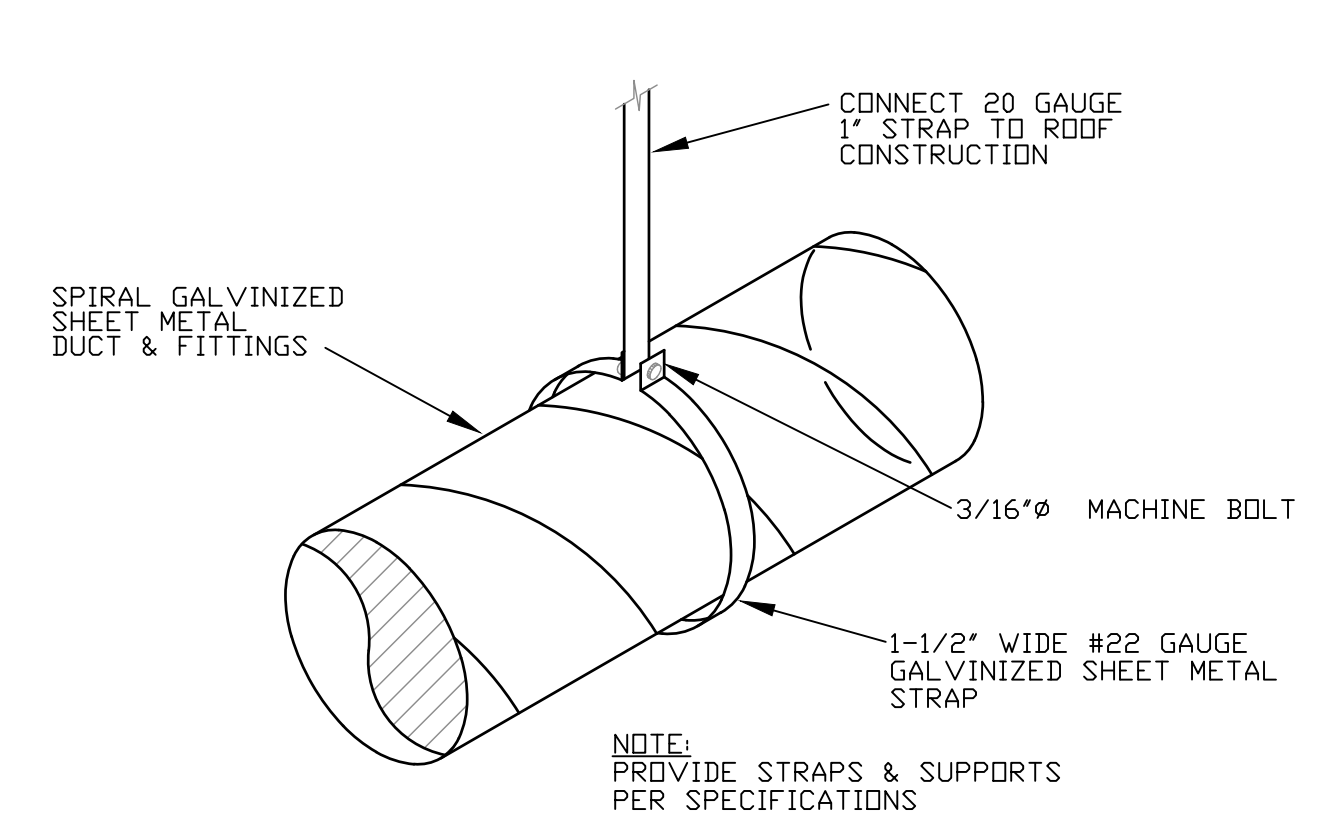
MECH. EQUIPMENT BASE DETAIL

N.T.S.



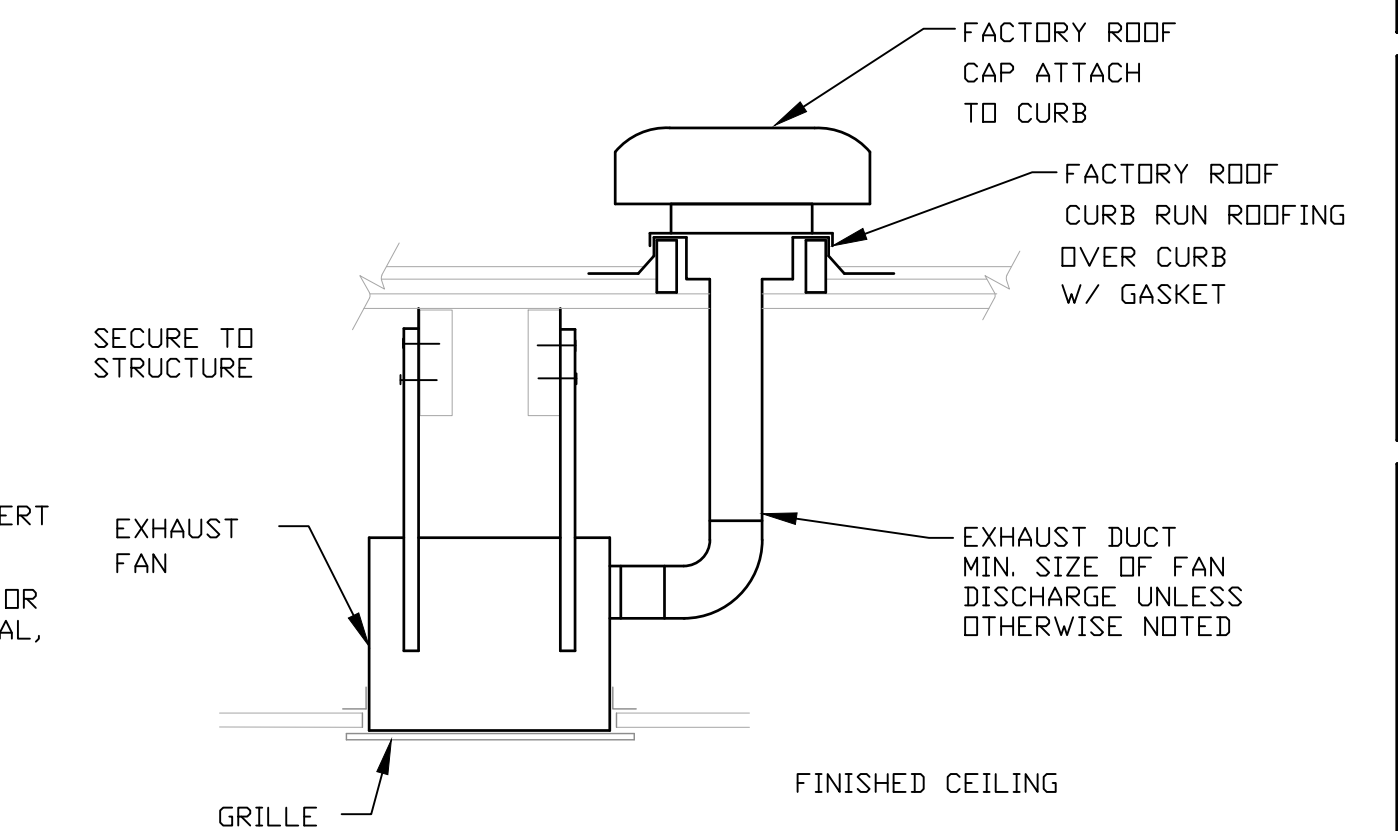
CLEVIS HANGER DETAIL INSULATED PIPE

N.T.S.



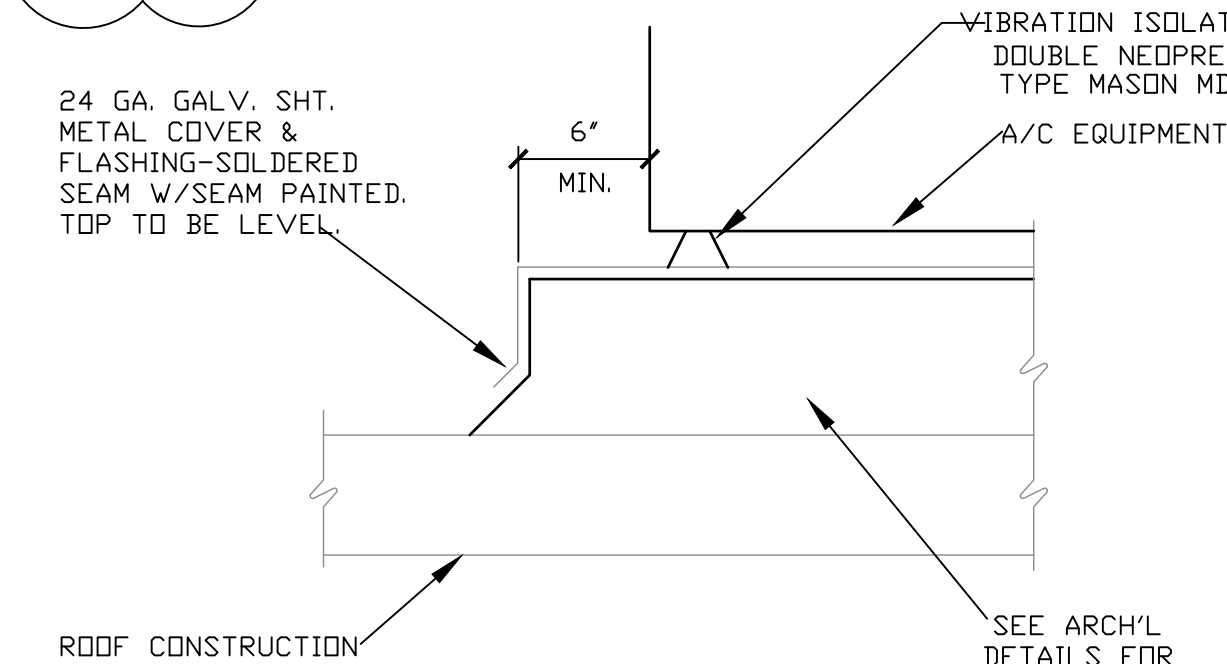
ROUND DUCT SUPPORT DETAIL

N.T.S.



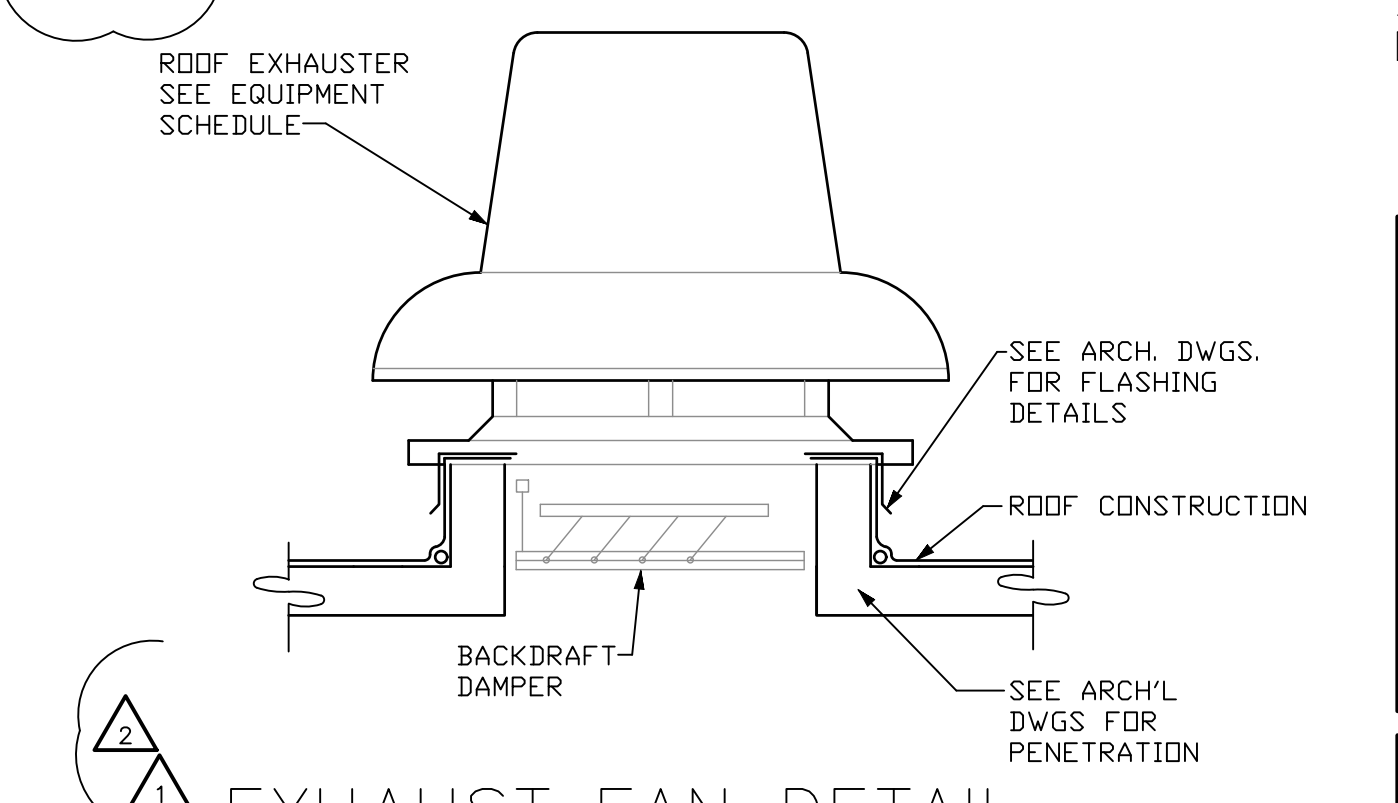
EXHAUST FAN - CEILING TYPE

N.T.S.



KITCHEN EXHAUST FAN DETAIL

NO SCALE



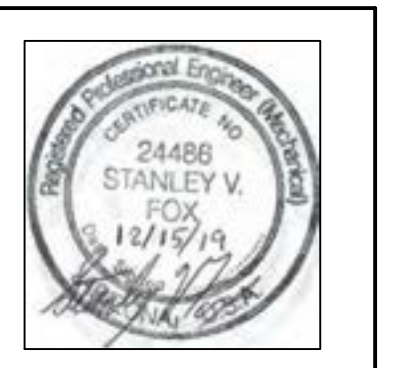
EXHAUST FAN DETAIL

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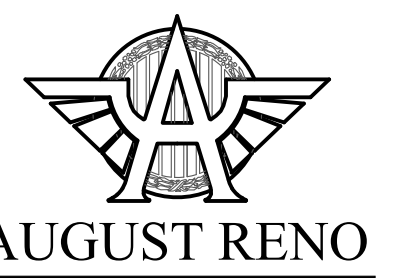
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CAREFREE CHURCH
5025 E. CAREFREE HIGHWAY,
PHOENIX, AZ



AUGUST RENO

PO BOX 2302
Carefree, AZ 85377
37417 Tom Darlington Drive
Carefree, AZ 85377
(480) 488-9858
FAX (480) 636-1325
WEB SITE
www.augustreno.com
EMAIL ADDRESS
augie@augustreno.com

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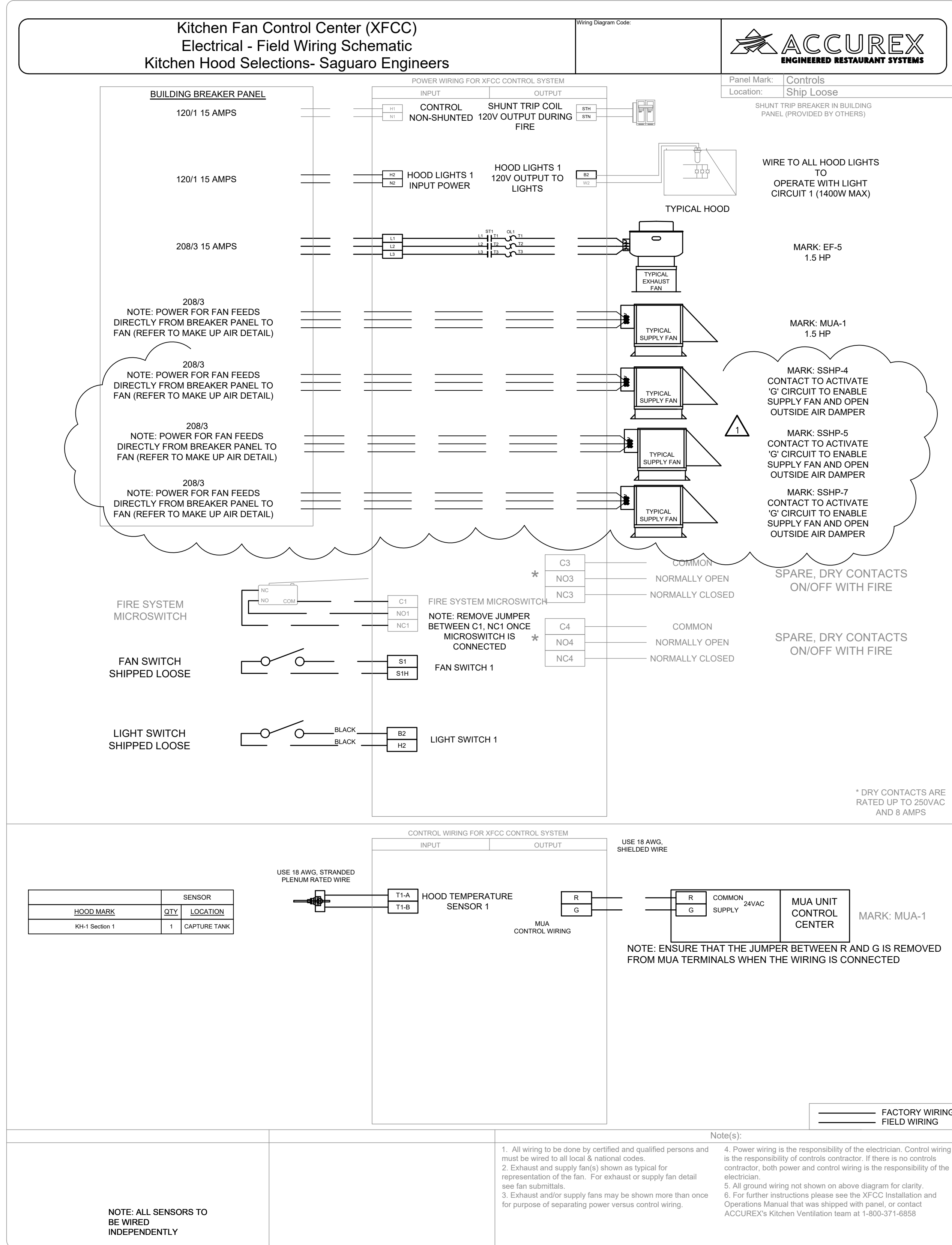
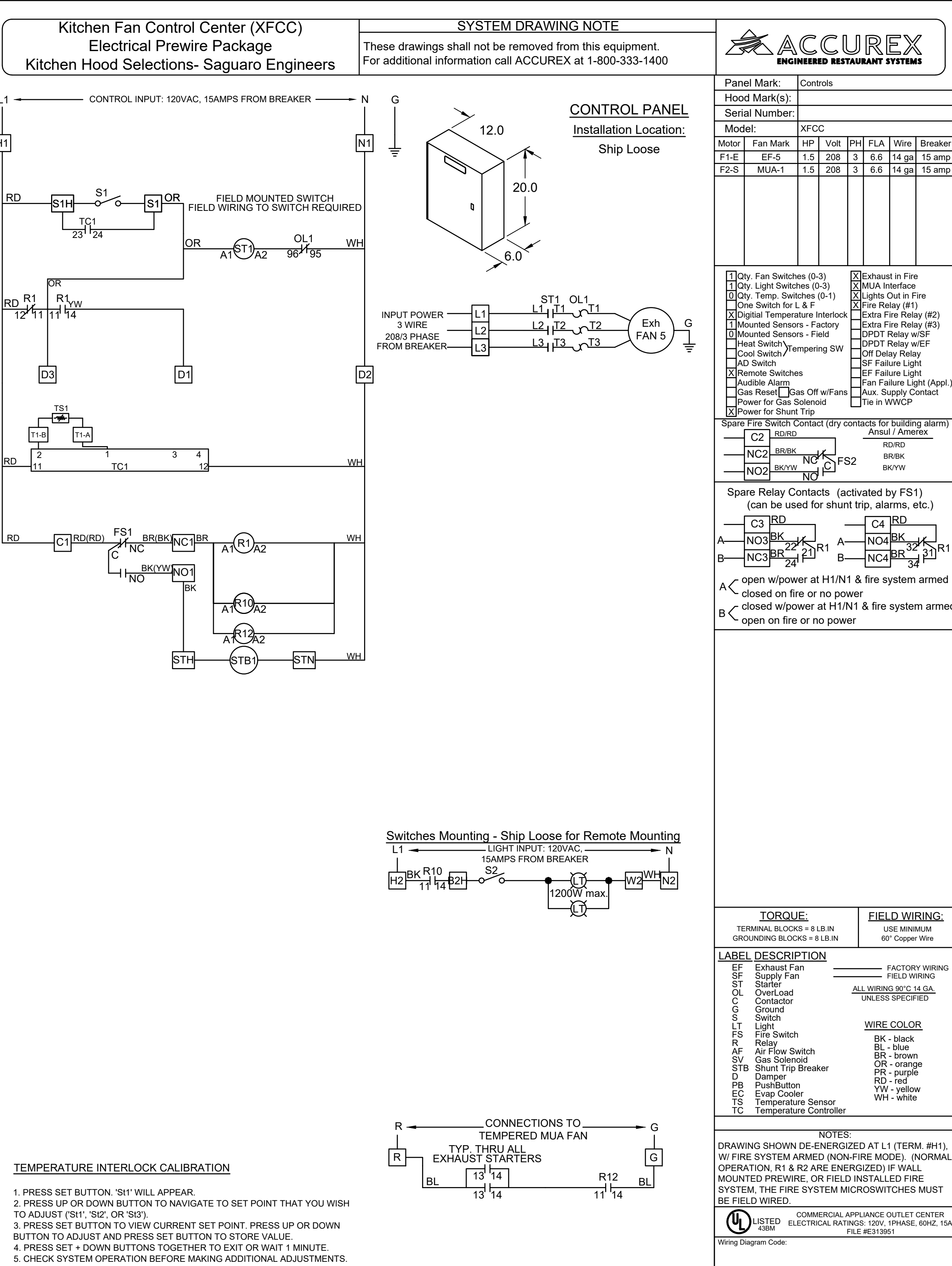
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CONTROL INFORMATION

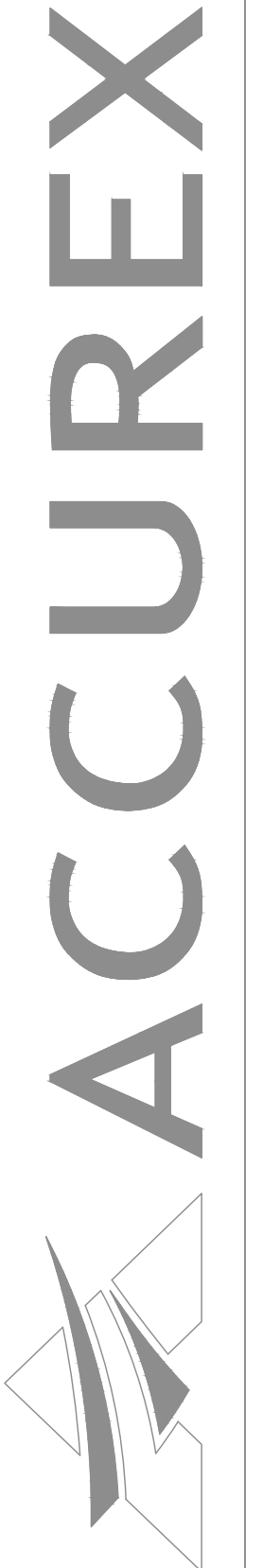
MARK	ELECTRICAL CONTROL PACKAGE		USER INTERFACE		FANS CONTROLLED				
	MODEL	LOCATION	TYPE	LOCATION	MARK	TYPE	VOLT	PHASE	HP
CONTROLS	XFCC	SHIP LOOSE	SWITCHES	SHIP LOOSE	EF-5	EXHAUST	208	3	1 1/2
					MUA-1	SUPPLY	208	3	1 1/2
					SSHP-4	SUPPLY	24	1	
					SSHP-5	SUPPLY	24	1	
					SSHP-7	SUPPLY	24	1	

CONTROL FEATURES

CONTROL PANEL ENCLOSURE - 16 GA 300 SERIES STAINLESS STEEL ENCLOSURE (NEMA-1) - DIMENSIONS 12 X 20 X 6
 STARTERS PROVIDED IN CONTROL PANEL - QTY 1
 2 POSITION LIGHT SWITCH - QTY 1
 2 POSITION FAN SWITCH - QTY 1
 -FACTORY MOUNTED EXHAUST TEMPERATURE SENSORS - QTY 1
 TURN ON EXHAUST IN FIRE
 LIGHTS OUT IN FIRE
 MUA INTERFACE
 POWER FOR SHUNT TRIP
 THERMAL OVERLOADS IN CABINET



PROJECT: 12/12/2017
 ACCUREX - AZ, NM & EL PASO, TX
 COURTNEY ARAIZA
 COURTNEY.ARAIZA@ACCUREX.COM
 (512)673-3386



KITCHEN HOOD SELECTIONS-
 SAGUARO ENGINEERS
 CONTROLS

ISSUED FOR:
 BUILDING PERMIT
 BIDDING

REVISION:
 12-15-2019 ENGINE CORR
 CITY REVIEW COMMENTS
 06-10-2019
 CITY REVIEW COMMENTS

PROJECT NO: 16135.00
 DRAWN BY: SVF
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 ISSUE DATE: 12/15/2019
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 PHOENIX, AZ



PO BOX 2302
 Carefree, AZ 85377
 37417 Tom Darlington Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325
 WEB SITE
 www.augustreno.com
 EMAIL ADDRESS
 augie@augustreno.com

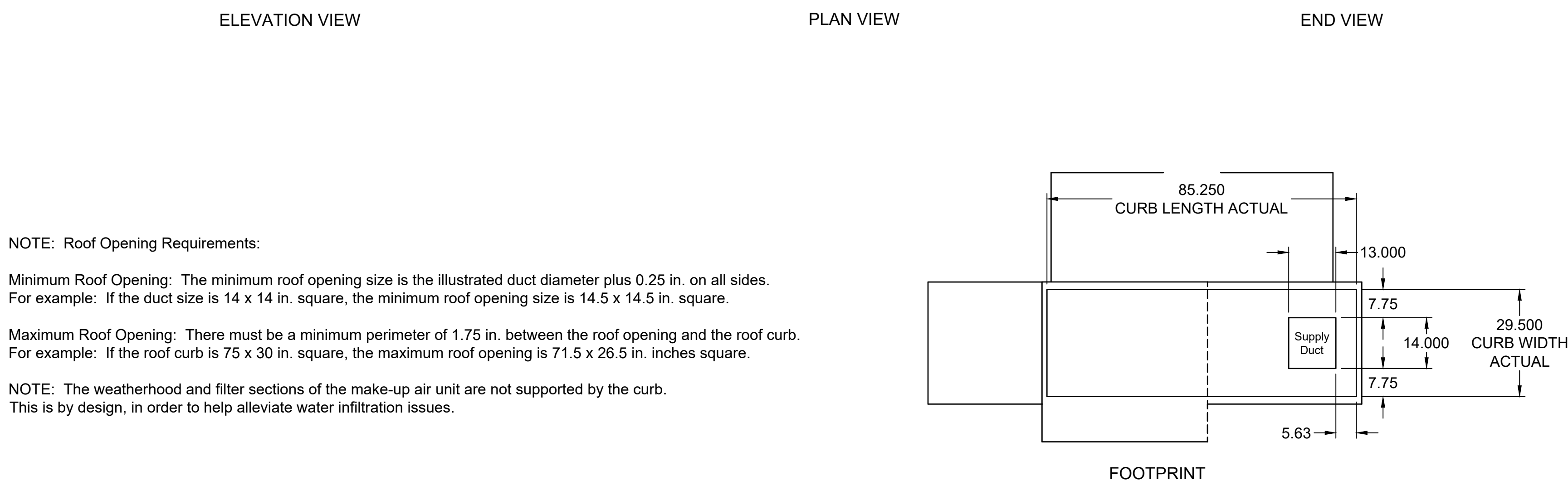
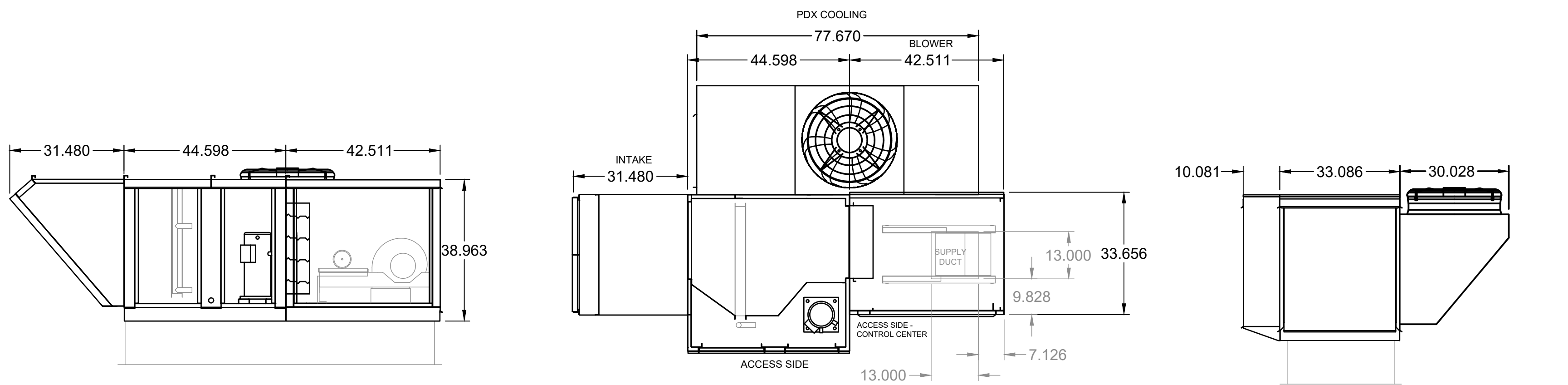
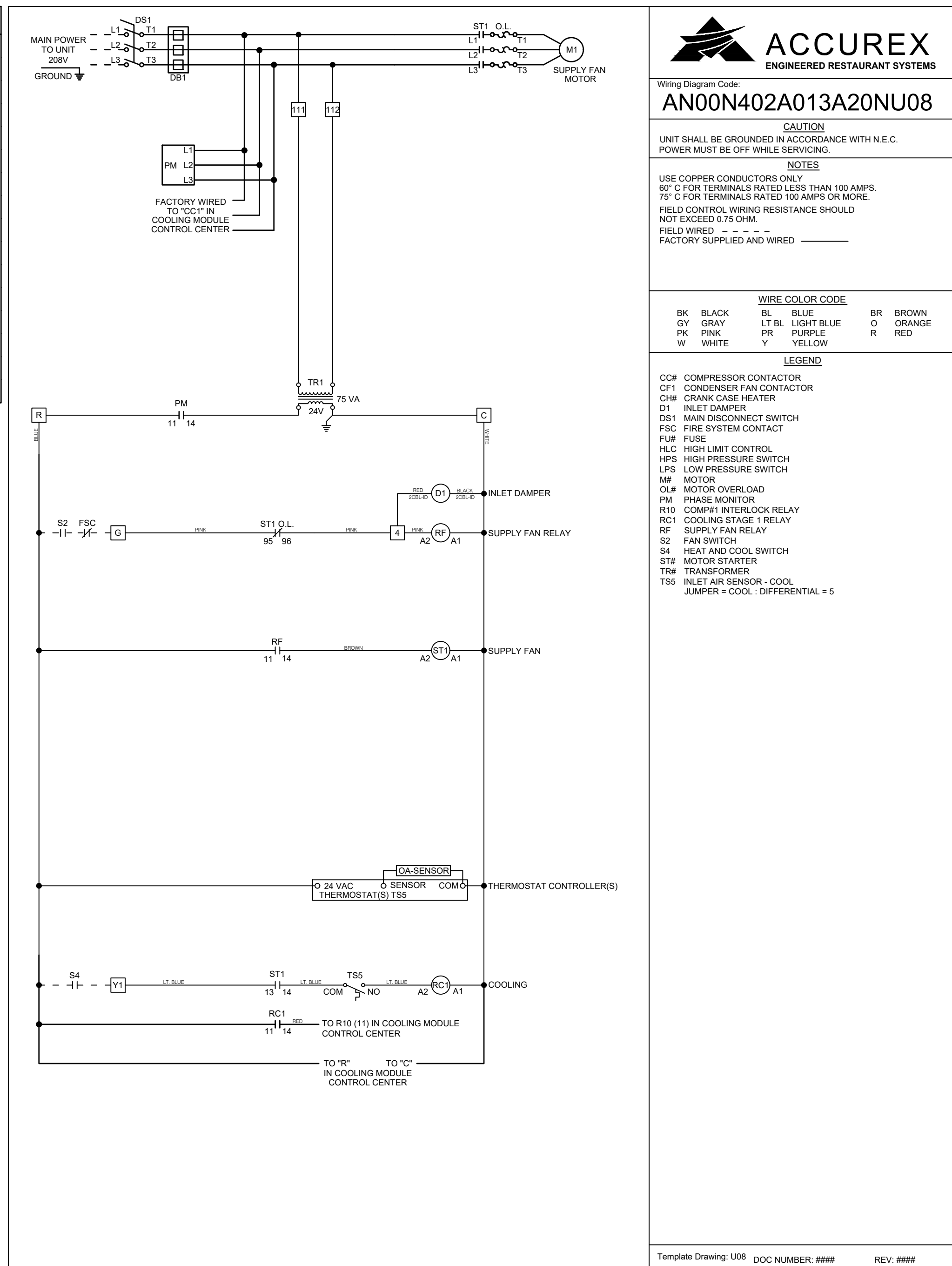
Construction Drawings:

SHEET NO:
 HVAC SCHEDULES
M2.4

EQUIPMENT SCHEDULE											
Tempered Make-Up Air Unit							Mark: MUA-1				
Qty	Accurex Model	Volume	External SP	Total SP	FRPM	Operating Power	Weight				
1	XMSX-109-H12	2,408 CFM	0.37 in. wg	0.55 in. wg	1144	1.03 hp	1,301 lb				
Motor Information							MCA	MOP			
Size	V/C/P	Enclosure	Motor with Shaft Grounding No	Motor RPM	Windings						
1 1/2 hp	208/60/3	ODP		1725	1	27.2	40				
Cooling											
Cooling Type	Coil Model		Rows Deep	Fins Per Inch	Face Velocity	Total Energy	Sensible Energy	Leaving Dry Bulb	Leaving Wet Bulb		
Packaged DX	DX38S01S10-30x30		1	10	385 ft/min	44.4 MBH	44.4 MBH	93.3 F	71.5 F		
Coil SP	Refrigerant	Suction Temp	Liquid Temp	Super Heat	Code 18/19			Suction Conn Qty / Size	Liquid Conn Qty / Size		
NA	R-410a	47.0 F	110 F	8 F	0			NA	NA		
Outlet Sound Power By Octave Band											
	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
	97	94.5	83	74.8	72.9	70.2	69	64.2	82.6	71.6	20.6
<small>*LwA - A weighted sound power level based on ANSI S1.4 *dBA - A weighted sound pressure level base on 11.1 dB attenuation per octave band at 5.0 ft. *Noise Criteria (NC) based on an average attenuation of 11.5 dB per octave band at 5.0 ft.</small>											

OPTIONS AND ACCESSORIES

Air Flow Arrangement: Outdoor Air Only
 Weatherhood: Aluminum Mesh, 16x20x2 - (4)
 Damper: Inlet
 Outdoor Air Intake Position: End
 Discharge Position: Bottom
 Coating: Galvanized
 Cooling Coil Coating - None
 Insulation: Double Wall - Cool Source On
 Access Side: Right-Hand
 Control Center
 Cool Inlet Air Sensor
 Terminal Strip
 Mounting: GPI-29.5/85.25-G12
 Curb Includes: 1 in. Insul.
 Unit Warranty: 1 Yr (Standard)



ACCUREX
 ENGINEERED RESTAURANT SYSTEMS

KITCHEN HOOD SELECTIONS - SAGUARO ENGINEERS

PROJECT: 12/12/2017
 MARK: MUA-1

ACCUREX - AZ, NM EL PASO, TX
 COURTNEY ARAIZA
 COURTNEY.ARAIZA@ACCUREX.COM
 (512)673-3386

ACCUREX

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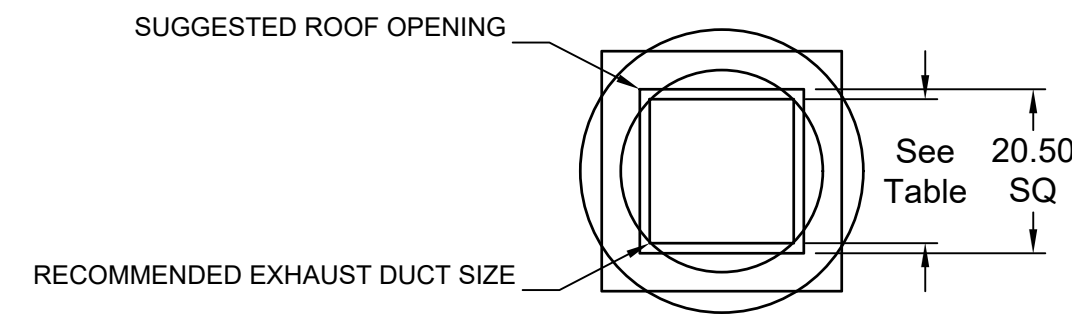
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37417 Tom Darlington Drive
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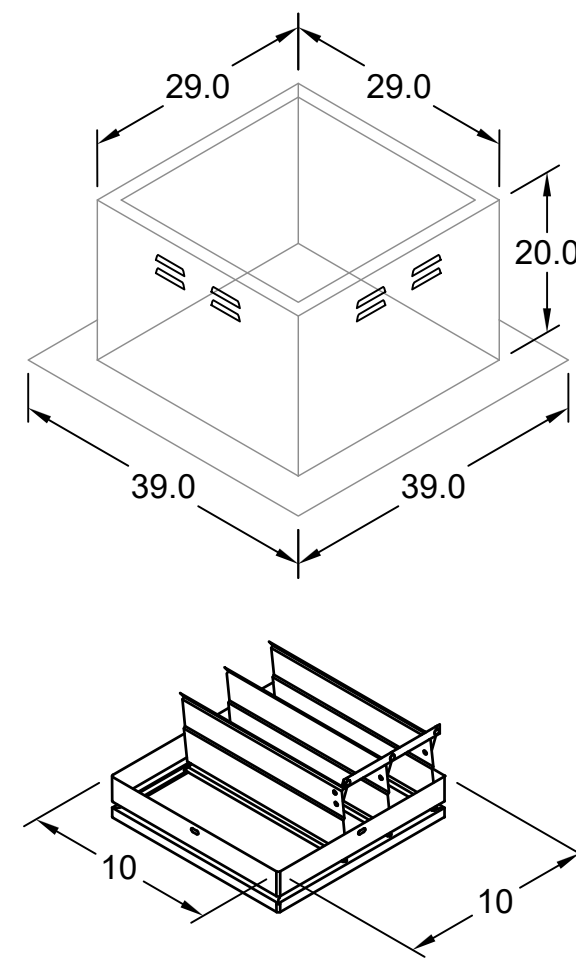
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 www.augustreno.com
 EMAIL ADDRESS
 augie@augustreno.com

Construction Drawings:

SHEET NO:
 HVAC SCHEDULES
M2.5



DUCT TYPE	SIZE
FIRE-WRAPPED	20 SQ



DUCT DIMENSIONS ARE LARGEST POSSIBLE DUCT TO FIT THROUGH CURB.
CONSULT SYSTEM DESIGN ENGINEER FOR RECOMMENDED DUCT SIZE.

OVERALL HEIGHT MAY BE GREATER DEPENDING ON MOTOR.

DAMPER

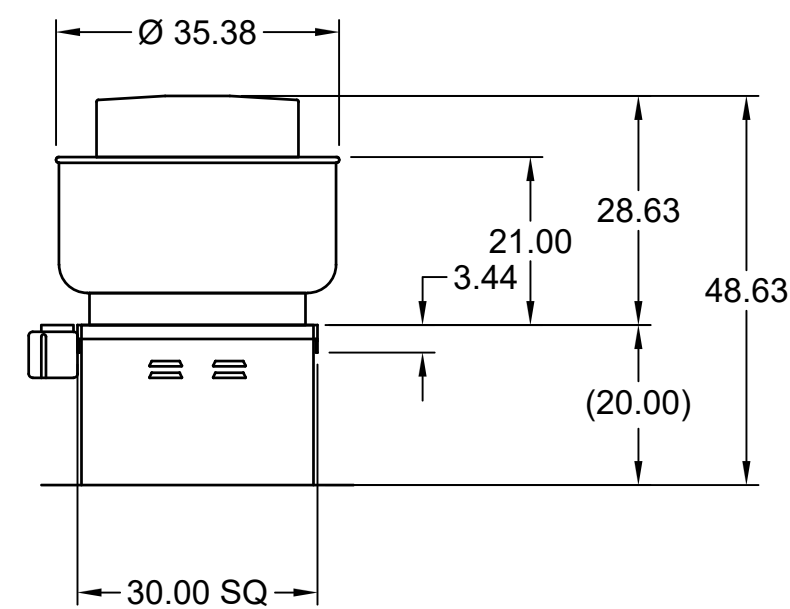
Belt Drive Upblast Centrifugal Roof Exhaust Fan

MARK INFORMATION			FAN INFORMATION					MOTOR INFORMATION					
QTY	MARK	MODEL	VOLUME (CFM)	TOTAL EXTERNAL SP (IN WG)	FAN RPM	OPERATING POWER (HP)	WEIGHT (LB.)	SIZE (HP)	V/C/P	ENCLOSURE	MOTOR RPM	WINDINGS	NEC FLA*
1	EF-5	XRUB-180HP-15	3,010	1	1,328	1.03	169	1.5	208/60/3	OP	1725	1	6.6

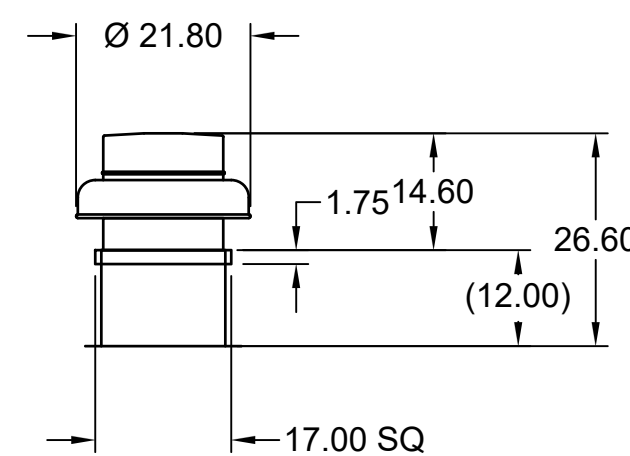
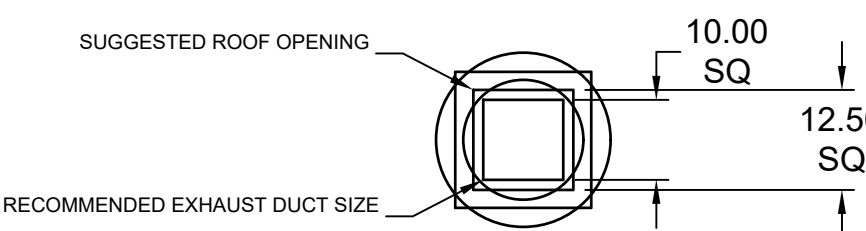
*NEC FLA - Based on tables 150 or 148 of National Electrical Code 2002. Actual motor FLA may vary, for sizing thermal overload, consult factory.

EF-5 : SELECTED OPTIONS AND ACCESSORIES

UL/cUL 762 Listed - "Power Ventilators for Rest. Exh. Appliances"
Switch, NEMA-1, Toggle, Shipped with Unit
Roof Curb-Galv., GPFV-30-G20, Under Sized 1 in. Total
Hinged Base (Attached)
High Temp Curb Seal Rated for Continuous Duty at 2000 F (Attached)
Grease Trap (PN 475538)
Heat Baffle (Attached)
Bearings with Grease Fittings, L10 life of 100,000 hrs (L50 avg. life 500,000 hrs)



TYP. SECTION VIEW



DUCT DIMENSIONS ARE LARGEST POSSIBLE DUCT TO FIT THROUGH CURB.
CONSULT SYSTEM DESIGN ENGINEER FOR RECOMMENDED DUCT SIZE.

OVERALL HEIGHT MAY BE GREATER DEPENDING ON MOTOR.

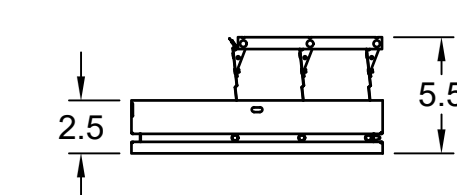
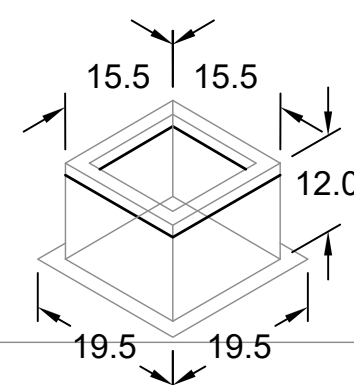
Direct Drive Centrifugal Roof Exhaust Fan

MARK INFORMATION			FAN INFORMATION					MOTOR INFORMATION					
QTY	MARK	MODEL	VOLUME (CFM)	TOTAL EXTERNAL SP (IN WG)	FAN RPM	OPERATING POWER (HP)	WEIGHT (LB.)	SIZE (HP)	V/C/P	ENCLOSURE	MOTOR RPM	WINDINGS	NEC FLA*
1	EF-6	XRED-085-VG	488	0.284	1,650	0.06	40	0.1	115/60/1	OP	1725	1	NA

*NEC FLA - Based on tables 150 or 148 of National Electrical Code 2002. Actual motor FLA may vary, for sizing thermal overload, consult factory.

EF-6 : SELECTED OPTIONS AND ACCESSORIES

UL/cUL 705 Listed - "Power Ventilators"
Switch, NEMA-1, Toggle, Shipped with Unit
Roof Curb-Galv., GPI-17-G12, Under Sized 1.5 in. Total
Damper Shipped Loose, BD-100-PB-10X10, Gravity Operated, Not Coated



TYP. SECTION VIEW

PROJECT: 12/12/2017
MARK

ACCUREX - AZ, NM, EL PASO, TX
COURTNEY ARAIZA
COURTNEY.ARAIZA@ACCUREX.COM
(512)673-3386

ACCUREX

Saguaro Engineers, Inc
Consulting Engineers
12025 N. 25TH AVENUE, SUITE 111A
PHOENIX, AZ 85029
PH: (602) 870-2118P-C, NO. 1712810

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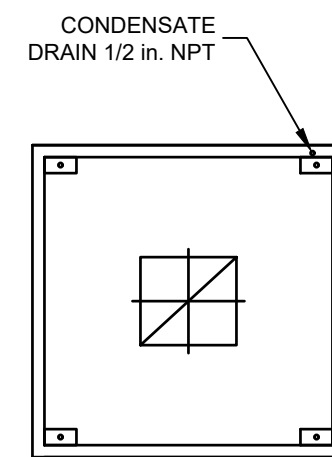
SHEET NO:
HVAC SCHEDULES
M2.6

FIRE SYSTEM INFORMATION

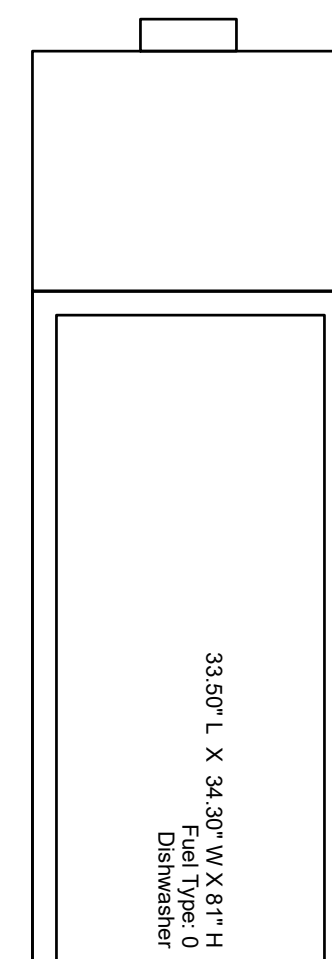
MARK	MODEL	LOCATION	FLOW POINTS		SUPPLY LINE	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
			HOODS	PCU			
FIRE SUPPRESSION	AMEREX KP WET CHEMICAL	REMOTE MOUNTED	11 UTILIZED 11 AVAILABLE		CONTINUOUS	FUSIBLE LINK	KH-1 SECTION 1

FIRE SYSTEM OPTIONS AND ACCESSORIES

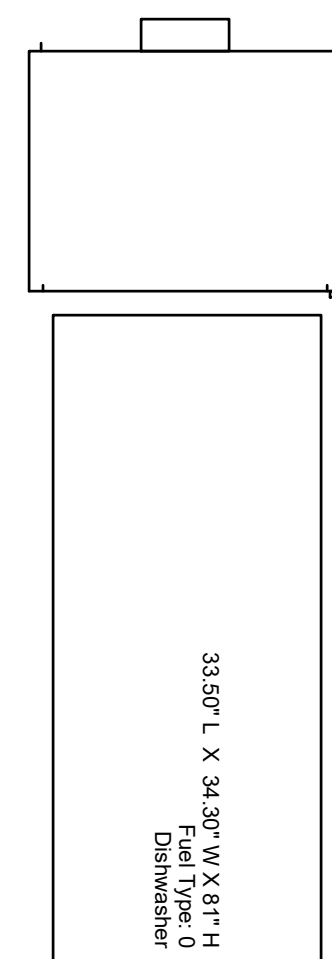
FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL)
 CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED
 METAL BLOW-OFF CAPS - INCLUDED
 GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, 2.00" (AMEREX) - PART# AMEREXMECHSHUTOFFVALVE200
 HOOD SUPPRESSION AGENT - INCLUDED - 3.75 GAL. - [(1) 3.75 TANK(S)]
 REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS



MARK: KH-2 - SECTION 1
PLAN VIEW



MARK: KH-2 - SECTION 1
ELEVATION VIEW



MARK: KH-2
SECTION 1 VIEW

HOOD INFORMATION

HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN.)					HOOD CONSTR.	COOKING LOAD / DUTY RATING	TOTAL CFM	EXHAUST COLLAR(S)					SUPPLY		TOTAL WEIGHT LBS.	SECTION LOCATION
			LENGTH	WIDTH	HEIGHT	MUA	AC				CFM	S.P.	CFM	CFM					
															WIDTH	LENGTH	DIA.		
1	KH-2	XD1-39-S	39.00	39	30	430 SS 100%	0	488	11	12		488	0.034			98	SINGLE		

HOOD INFORMATION

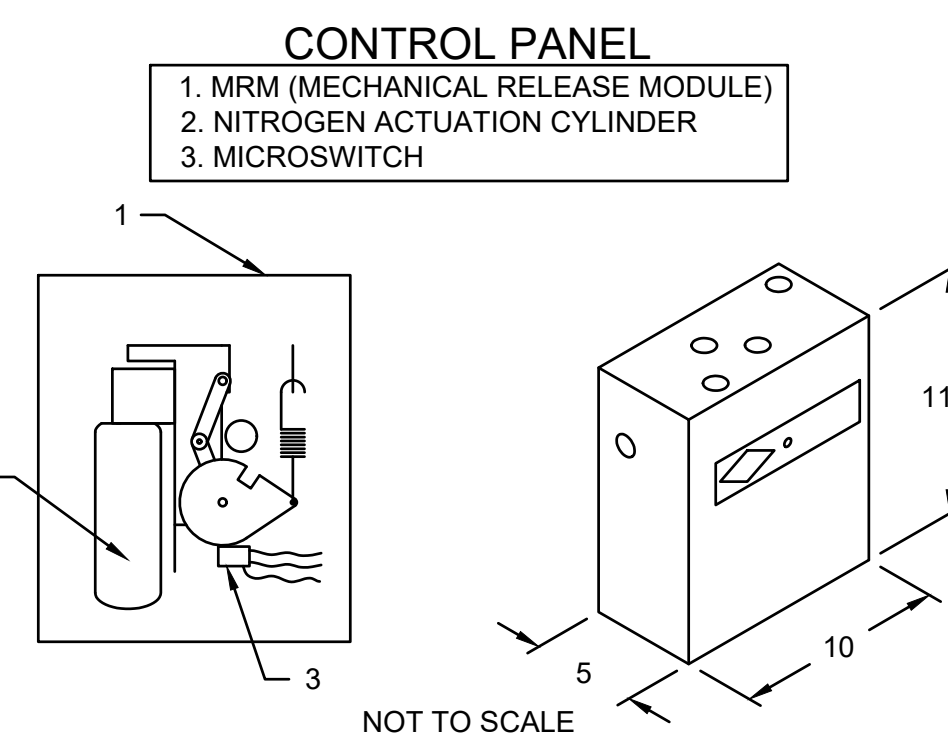
MARK	LIGHTING DETAILS				BAFFLE FILTRATION DETAILS				UTILITY CABINET(S)			
	QTY	L	H	LOCATION	QTY	L	H	LOCATION	FIRE SYSTEM		CONTROLS	
									TYPE	SIZE	MODEL	INTERFACE
KH-2												

HOOD OPTIONS

FACTORY MOUNTED EXHAUST COLLAR(S)
 BACKSPASH 84.00 IN HIGH 39.00 IN LONG

KH-2

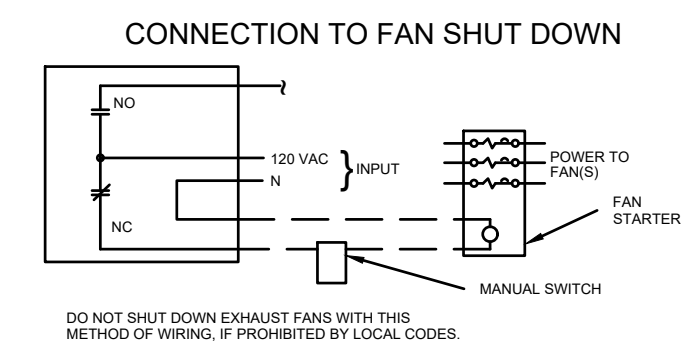
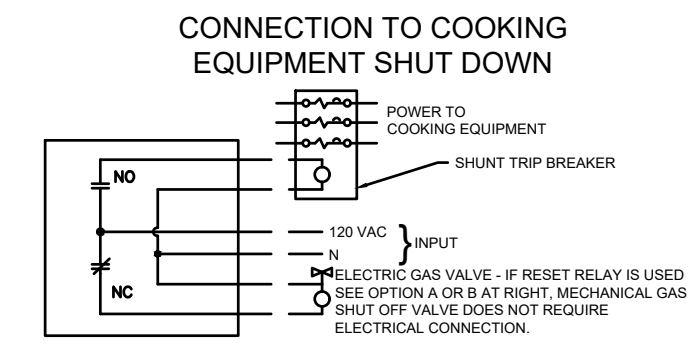
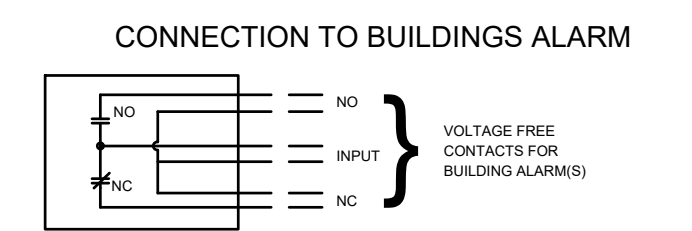
AMEREX KP (WET CHEMICAL) FIRE PROTECTION SYSTEM - MODEL FSSK



NOTES:
 WET CHEMICAL FIRE PROTECTION SYSTEM TO BE AMEREX KP, DESIGNED IN COMPLIANCE WITH UL 900 REQUIREMENTS.
 -VERIFICATION OF ALL COOKING EQUIPMENT MAKE, MODEL AND LOCATION REQUIRED FOR ALL FIRE PROTECTION SYSTEMS.
 -ALL FIRE SYSTEM PIPING IS STANDARDLY TO THE RIGHT END OF THE HOOD UNLESS A WALL IS LOCATED ON THE RIGHT END.
 -AMEREX MRM/PRM TO BE LOCATED WITHIN 60" OF HOOD.
 THE BASIC FIRE SYSTEM WILL INCLUDE THE FOLLOWING:
 -GAS SHUT-OFF VALVE, IF REQUIRED, TO BE SUPPLIED BY MANUFACTURER (UP TO 2" DIAMETER AS STANDARD), AND INSTALLED BY A LICENSED PLUMBER.
 -MICRO SWITCH TO BE SUPPLIED BY MANUFACTURER FOR CONNECTION TO, BUT NOT LIMITED TO, BUILDING ALARM SYSTEM(S), EXHAUST AND SUPPLY FANS AND ELECTRICAL POWER SHUT DOWN. FIELD WIRING AND CONNECTIONS TO BE PERFORMED BY A LICENSED ELECTRICIAN.
 -THREE TRIPS TO THE JOBSITE
 -ANY STATE OR LOCAL INSTALLATION PERMITS.

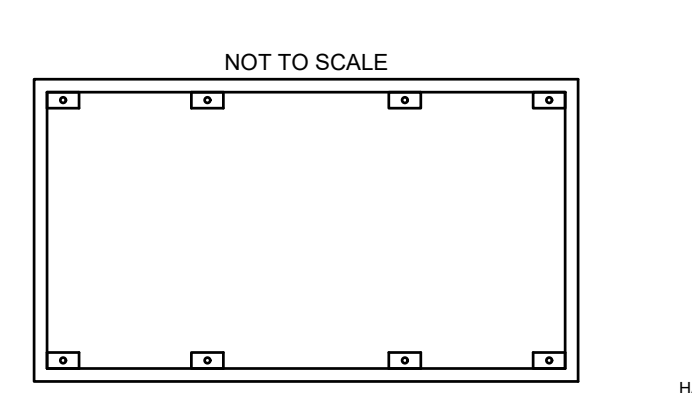
THE BASIC FIRE SYSTEM DOES NOT INCLUDE THE FOLLOWING:
 -FULL DUMP TEST OTHER THAN WHAT IS SPECIFIED PER THE INSTALLATION MANUAL OR TO SATISFY A STATE OR LOCAL CODE.
 -MORE THAN THREE TRIPS TO THE JOBSITE OR SPECIAL TRANSPORTATION, OR OVERNIGHT LODGING REQUIREMENTS IN REMOTE AREAS. NORMAL TRAVEL DISTANCE IS FIRST 50 MI. (80.5 KM) FROM OFFICE.
 -SPECIAL CLASSES OR ADDITIONAL LABOR FOR ACCESS TO SECURITY SENSITIVE AREAS.
 -INSTALLATION OF GAS SHUT-OFF VALVE.
 -SPECIAL DRAWINGS REQUIRED TO SATISFY STATE OR LOCAL CODE.
 -UNION LABOR, GOVERNMENT LABOR, OR PREVAILING WAGES REQUIRED FOR FINAL FIELD HOOK-UP.
 -ANY AND ALL ELECTRICAL COMPONENTS/CONNECTIONS REQUIRED TO SHUT DOWN FANS, SHUT OFF DEVICE FOR ELECTRIC COOKING EQUIPMENT (SHUNT TRIP BREAKER), OR ACTIVATE AN ALARM SYSTEM, ETC.
 -ANY DISMANTLING OR REASSEMBLY REQUIRED TO GAIN ACCESS TO THE FIRE SUPPRESSION PIPING LOCATED ON THE TOP OF THE HOOD.
 -PLAN EXAMINATION FEES, PE OR FPS APPROVAL STAMP.
 -ROUGH-IN CONDUIT FOR REMOTE PULL STATION OR GAS VALVE (FOR FLUSH MOUNTED PULL STATION).
 -INSTALLATION OF MORE THAN (1) REMOTE PULL STATIONS OR DISTANCES GREATER THAN 20 FT (6.1M).
 -PARTS OR LABOR REQUIRED TO CORRECT PIPING DUE TO COOKING EQUIPMENT CHANGES OR DEVIATION FROM PLANS. OR ANY CHARGES FOR MISSING OR ADDITIONAL PARTS OTHER THAN THOSE INDICATED ON THE FIRE SUPPRESSION DETAIL.

WIRING DIAGRAMS
 W/ DPDT MICRO SWITCH
 DPDT SWITCHES PROVIDED BY MANUFACTURER MAY BE WIRED PER TYPICAL EXAMPLES SHOWN. VERIFY WITH LOCAL CODES AND EQUIPMENT SUPPLIED AS THE CONNECTION NEEDED FOR YOUR INSTALLATION.

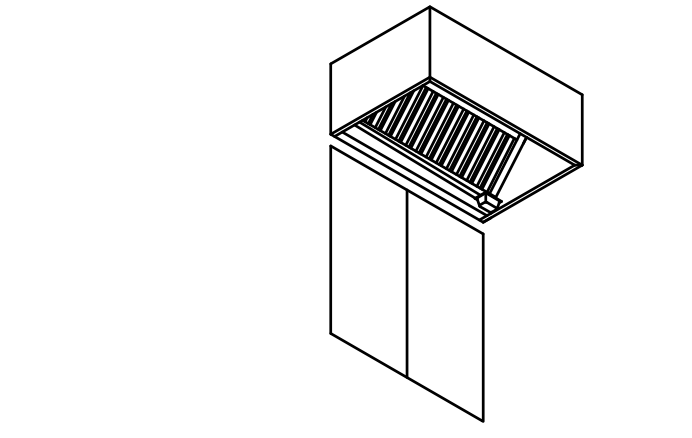


NOTES:
 1. --- DENOTES FIELD INSTALLATION.
 2. --- DENOTES FACTORY INSTALLATION.
 3. GAS VALVES: *UL LISTED ELECTRICALLY-OPERATED SAFETY VALVE FOR NATURAL, OR LP GAS AS NEEDED OF APPROPRIATE PRESSURE AND TEMPERATURE RATINGS. 110#/60 HZ OR AMEREX GAS VALVES. PART NUMBERS 12790, 12791, 12792, 12793, 12794, 12870, 12871, 12872, 12873, 12874, 12875 AND 12876.

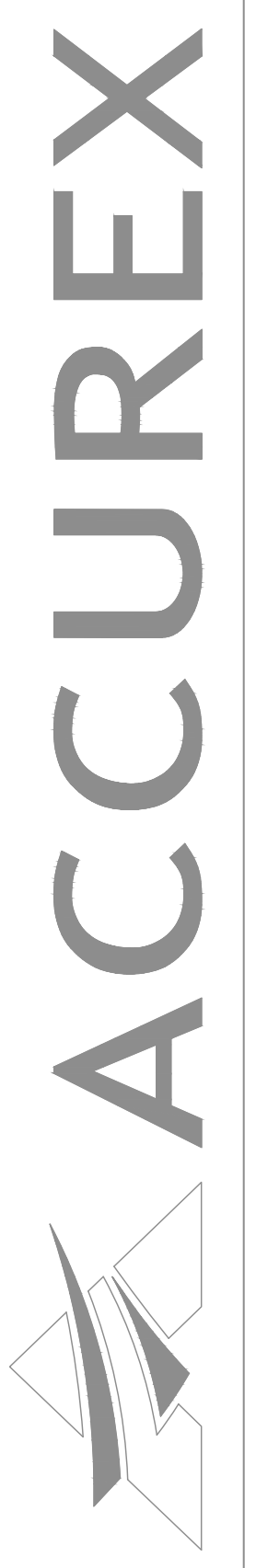
HOOD HANGER BRACKET DETAIL



FLAT BACKSPASH PANEL INST. DETAIL



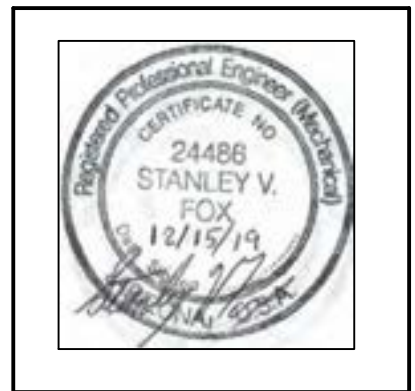
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 ACCUREX - AZ, NM & EL PASO, TX
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 COURTNEY.ARAIZA@ACCUREX.COM
 (512)673-3386
 FIRE SUPPRESSION
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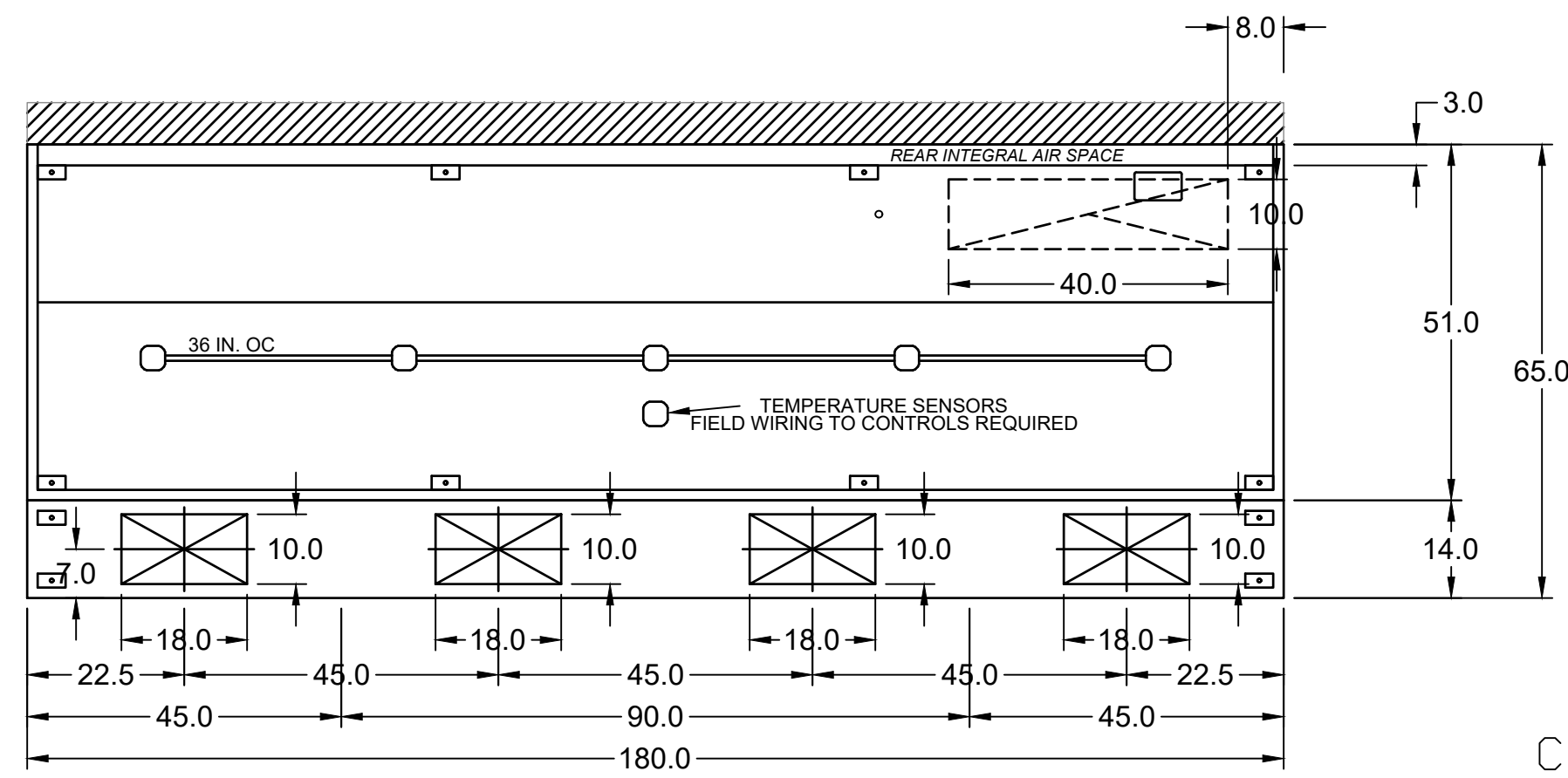
HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN.)			HOOD CONSTR.	COOKING LOAD / DUTY RATING	EXHAUST COLLAR(S)					SUPPLY		TOTAL WEIGHT LBS.	SECTION LOCATION	
			LENGTH	WIDTH	HEIGHT			TOTAL CFM	COLLAR(S)			MUA CFM	AC CFM				
									WIDTH	LENGTH	DIA.			CFM			S.P.
1	KH-1	XXEW-180-S	180	51	24	430 SS 100%	HEAVY	3010	10	14		1505	0.503	2408		547.5	SINGLE
									10	14		1505	0.503				

HOOD NO.	MARK	LIGHTING DETAILS				GREASE FILTRATION DETAILS				UTILITY CABINET(S)							
		FIXTURE TYPE BULB / LAMP INFO		QTY	FOOT CANDLES	TYPE / MODEL MATERIAL	QTY	SIZE (IN.)		LOCATION	FIRE SYSTEM		CONTROLS				
		L	W					H	L		H	TYPE	SIZE	MODEL	INTERFACE		
1	KH-1	INCANDESCENT (GLOBE) 100W A19 (BULBS NOT INCL.)		5	45.14	X-TRACTOR STAINLESS STEEL	5	16	16								

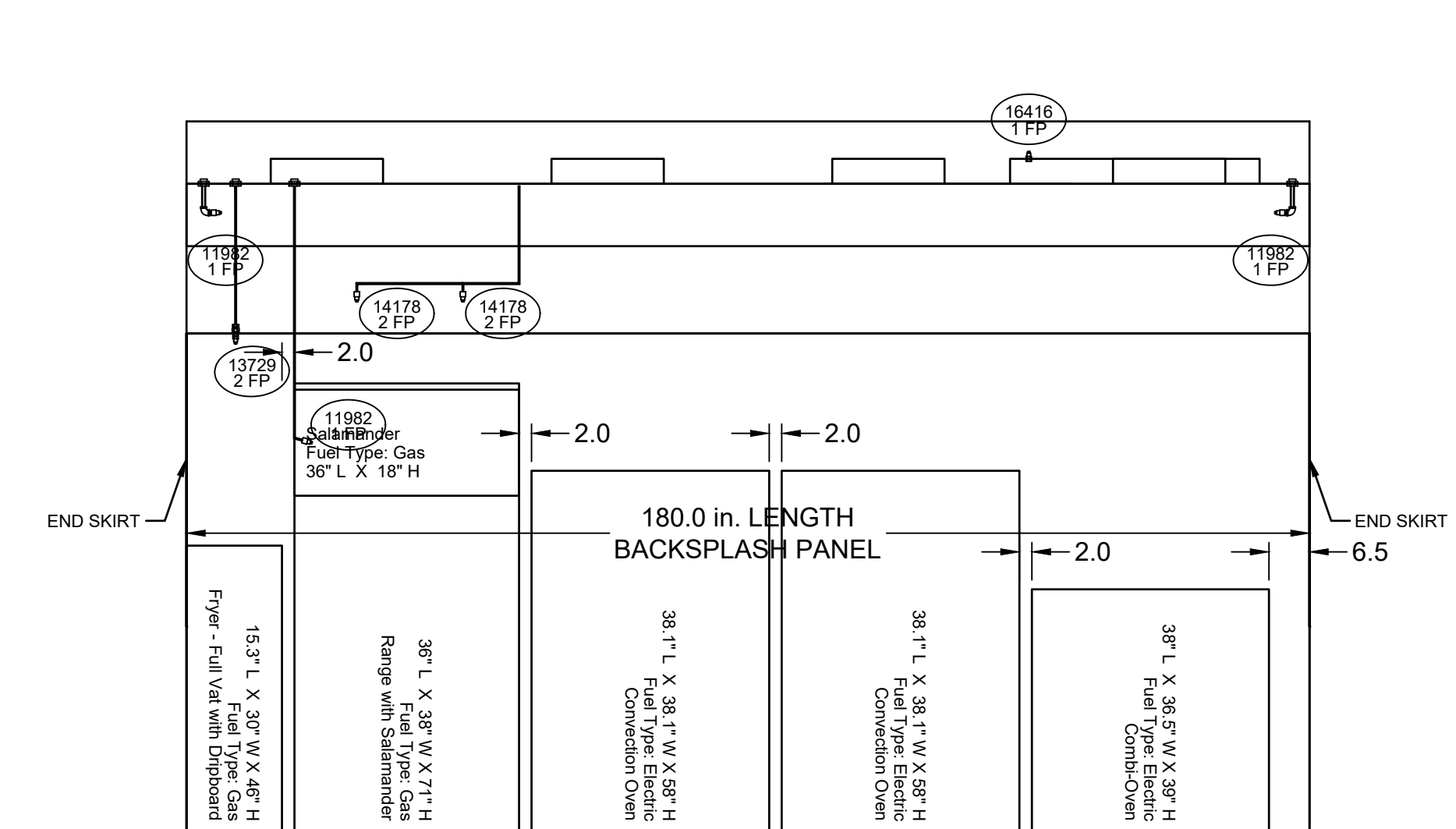
HOOD NO.	MARK	POS.	TYPE	SIZE (IN.)			INSULATED	DAMPER(S)	LED LIGHT(S)		TOTAL CFM	COLLARS								
				L	W	H			SUPPLIED	QTY		TYPE	MOUNTING	QTY	W	L	DIA.	CFM	S.P.	VEL.
				1	KH-1	FRONT			ASP	180		14	10	NO	NO	NO	2408	MUA	FACTORY	4

HOOD OPTIONS

- UL 710 LISTED W/ OUT EXHAUST FIRE DAMPER - UL #R25625
- BACK INTEGRAL AIR SPACE - 3 IN WIDE
- 10 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED
- FACTORY MOUNTED EXHAUST COLLAR(S)
- LEFT FULL END SKIRT - 45 IN HIGH 45.50 IN TOP WIDTH 39.5 IN BOTTOM WIDTH
- RIGHT FULL END SKIRT - 45 IN HIGH 45.50 IN TOP WIDTH 39.5 IN BOTTOM WIDTH
- GREASE GRABBER FILTER RACK(HOOD IS UPGRADABLE FOR HIGHER GREASE APPLICATIONS)
- BACKSPLASH 80.00 IN HIGH 180.00 IN LONG
- PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY
- STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH

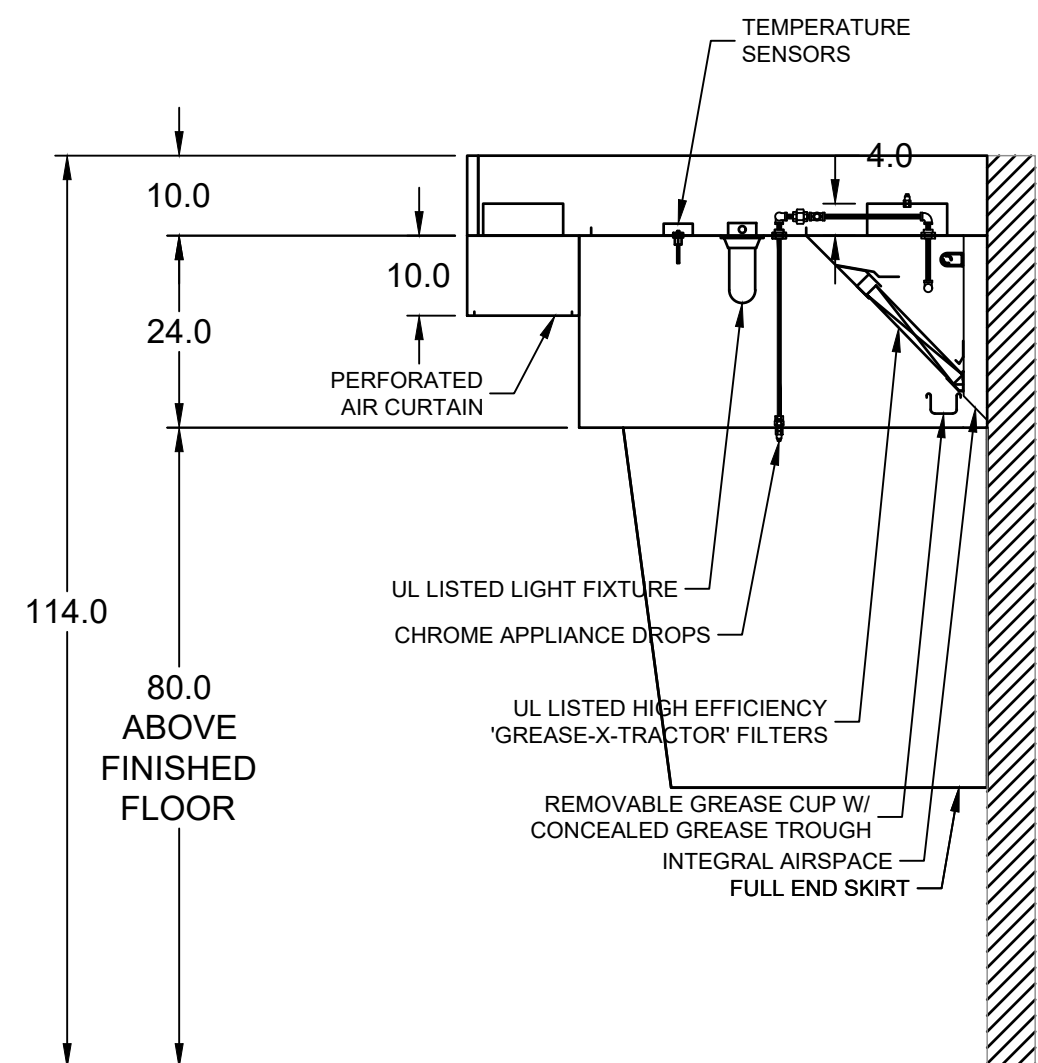


MARK: KH-1 - SECTION 1
PLAN VIEW

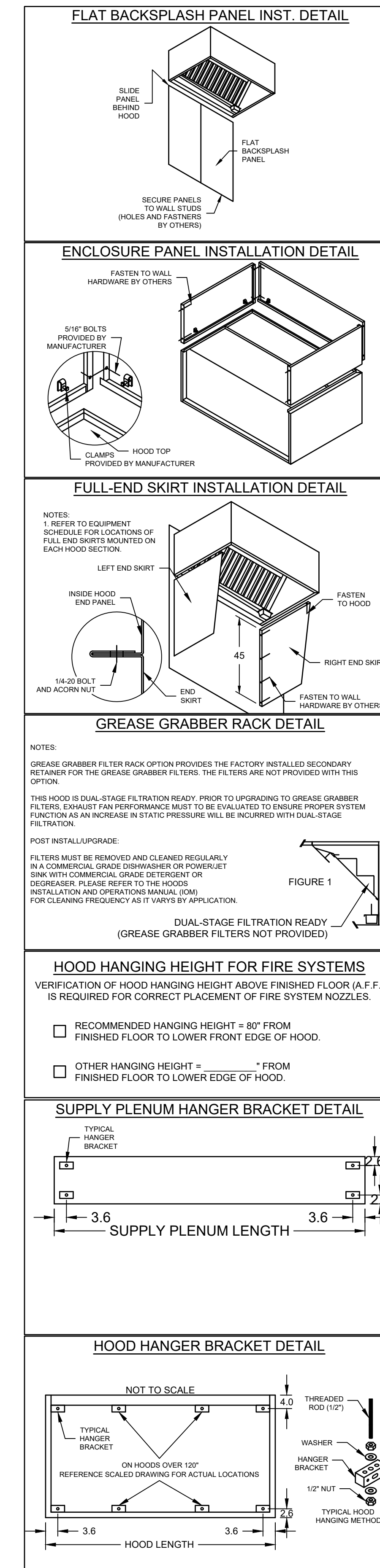


MARK: KH-1 - SECTION 1
ELEVATION VIEW

COORDINATE CEILING SOFFIT WITH GENERAL CONTRACTOR AND ARCHITECT

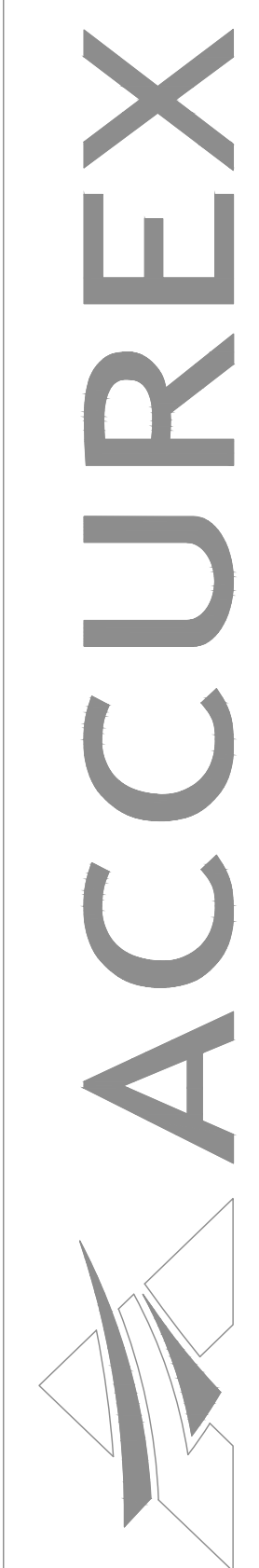


MARK: KH-1
SECTION VIEW



PROJECT: 12/12/2017
KITCHEN HOOD SELECTIONS-
SAGUARO ENGINEERS
MARK KH-1

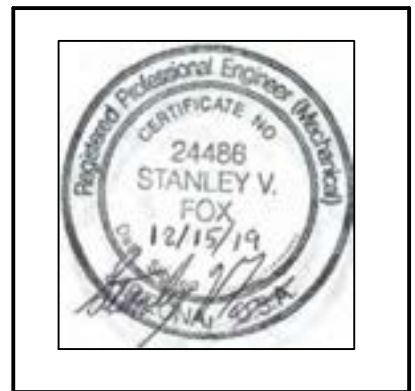
ACCUREX - AZ, NM & EL PASO, TX
COURTNEY ARAIZA
COURTNEY.ARAIZA@ACCUREX.COM
(512)673-3386



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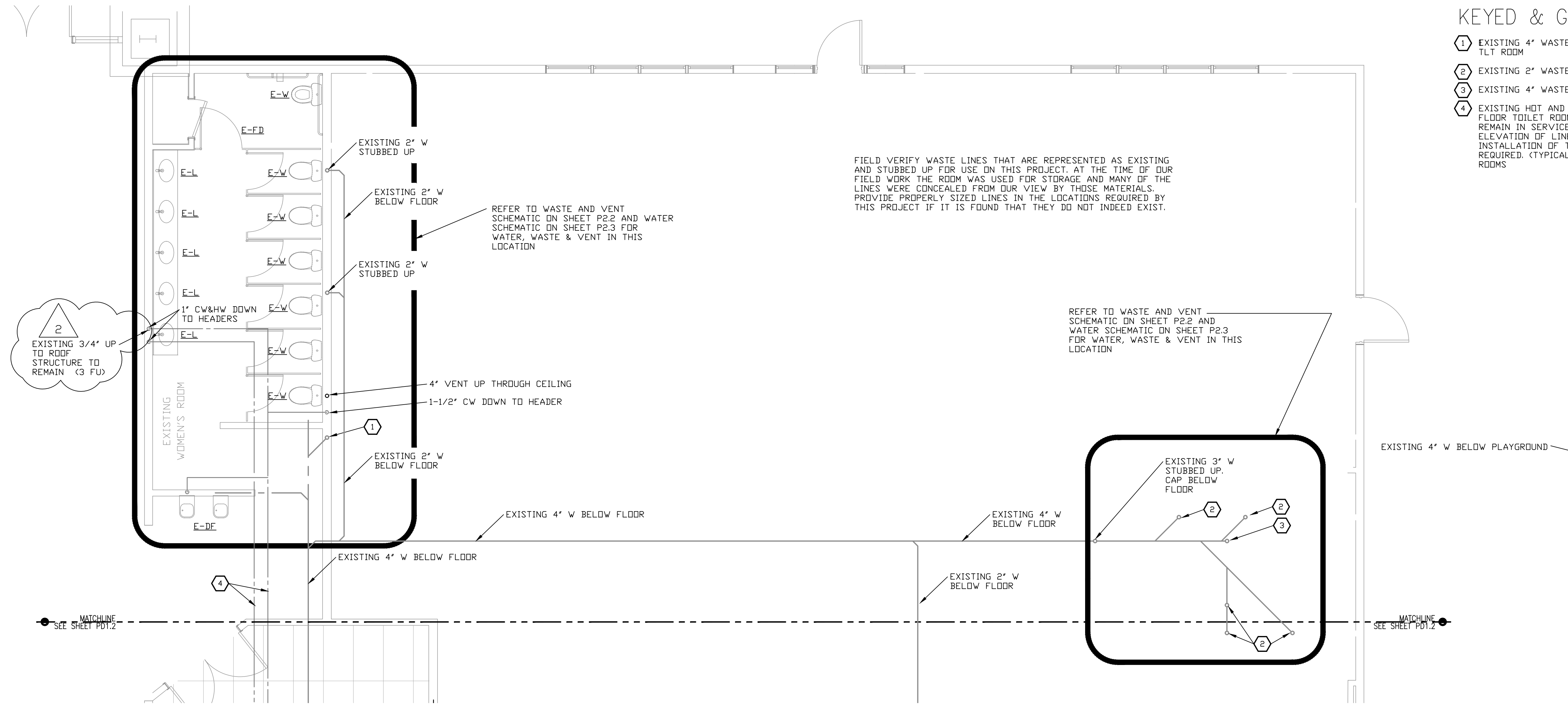
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HVAC SCHEDULES
M2.8



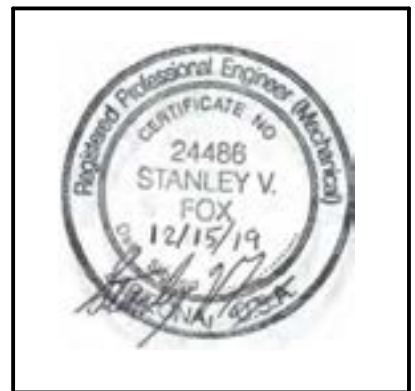
KEYED & GENERAL NOTES

- 1 EXISTING 4" WASTE TO ABOVE CEILING FOR 2ND FLOOR TLT ROOM
- 2 EXISTING 2" WASTE STUBBED ABOVE FLOOR
- 3 EXISTING 4" WASTE STUBBED ABOVE FLOOR
- 4 EXISTING HOT AND COLD WATER LINES FEEDING FIRST FLOOR TOILET ROOM AND DRINKING FOUNTAIN ARE TO REMAIN IN SERVICE. FIELD VERIFY AND ADJUST ELEVATION OF LINES AS REQUIRED TO ACCOMMODATE THE INSTALLATION OF THE SECOND FLOOR STRUCTURE AS REQUIRED. (TYPICAL AT MEN'S AND WOMEN'S TOILET ROOMS)

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 A 12-15-2019 ENGINEER CORR
 B CITY REVIEW COMMENTS
 C 06-10-2019
 D CITY REVIEW COMMENTS

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FIRST FLOOR DEMO PLAN – NORTH
 SCALE: 1/8"=1'-0"



PO BOX 2302
 Carefree, AZ 85377

37417 Tom Darlington Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325

WEB SITE
www.augustreno.com
 EMAIL ADDRESS
augie@augustreno.com

Construction Drawings:
 FIRST FLOOR PLAN
 DEMO – NORTH

SHEET NO:
PD1.1

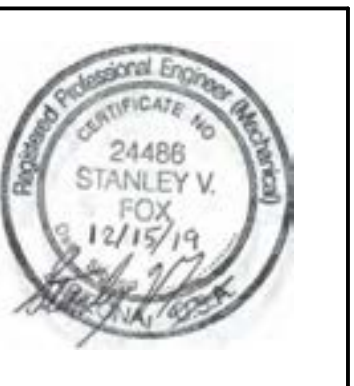
KEYED & GENERAL NOTES

- 1 ELEVATOR SUMP PUMP AND CONTROL NOTES: FURNISH AND INSTALL A 1/2HP, 120VOLT/1Ø SUMP PUMP ON ELEVATOR PIT FLOOR FURNISH CHECK AND GATE VALVE AND POWER CORD ZOEGLER #N137 (GRAINGER 4NV97) 8GPM AT 25' HEAD, 26' SHUT-OFF HEAD ZOEGLER OIL SMART PUMP SWITCH MOUNT ON WALL AT +72" ABOVE ELEVATOR PIT FLOOR. FURNISH WITH OIL SMART SENSOR, PIGGYBACK POWER CONNECTOR, 20 AMP RELAY CORD LENGTH AS REQUIRED. (THIS IS SUPPOSED TO BE EXISTING BUT WE DID NOT HAVE ACCESS TO THE ELEVATOR AREA DURING DESIGN TO PROVE IT EXISTS. PLEASE PROVIDE THIS COST AS AN ALLOWANCE IN THE PLUMBING BID.)
- 2 RUN 1-1/2" Ø OUT THROUGH WALL AT +6" AFG AND TURN DOWN ABOVE LANDSCAPE. (THIS IS SUPPOSED TO BE EXISTING BUT WE DID NOT HAVE ACCESS TO THE ELEVATOR AREA DURING DESIGN TO PROVE IT EXISTS. PLEASE PROVIDE THIS COST AS AN ALLOWANCE IN THE PLUMBING BID.)
- 3 1-1/2" ELEVATOR SUMP PUMP DISCHARGE LINE ABOVE CEILING OR BELOW FLOOR. (THIS IS SUPPOSED TO BE EXISTING BUT WE DID NOT HAVE ACCESS TO THE ELEVATOR AREA DURING DESIGN TO PROVE IT EXISTS. PLEASE PROVIDE THIS COST AS AN ALLOWANCE IN THE PLUMBING BID.)
- 4 REMOVE 4" VENT ABOVE WALL TO UNDERSIDE OF ROOF.
- 5 4" WASTE ABOVE CEILING FOR UPSTAIRS TOILET ROOM TO BE REMOVED AS REQUIRED TO INSTALL THE SECOND FLOOR.
- 6 REMOVE 2" VENT ABOVE WALL TO UNDERSIDE OF ROOF.
- 7 EXISTING HOT AND COLD WATER LINES FEEDING FIRST FLOOR TOILET ROOM AND DRINKING FOUNTAIN ARE TO REMAIN IN SERVICE. FIELD VERIFY AND ADJUST ELEVATION OF LINES AS REQUIRED TO ACCOMMODATE THE INSTALLATION OF THE SECOND FLOOR STRUCTURE AS REQUIRED. (TYPICAL AT MEN'S AND WOMEN'S TOILET ROOMS)
- 8 EXISTING 2" WASTE STUBBED UP

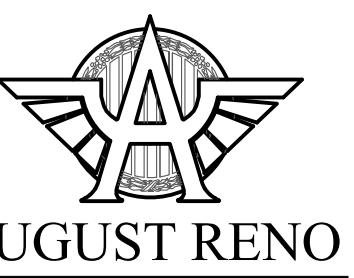
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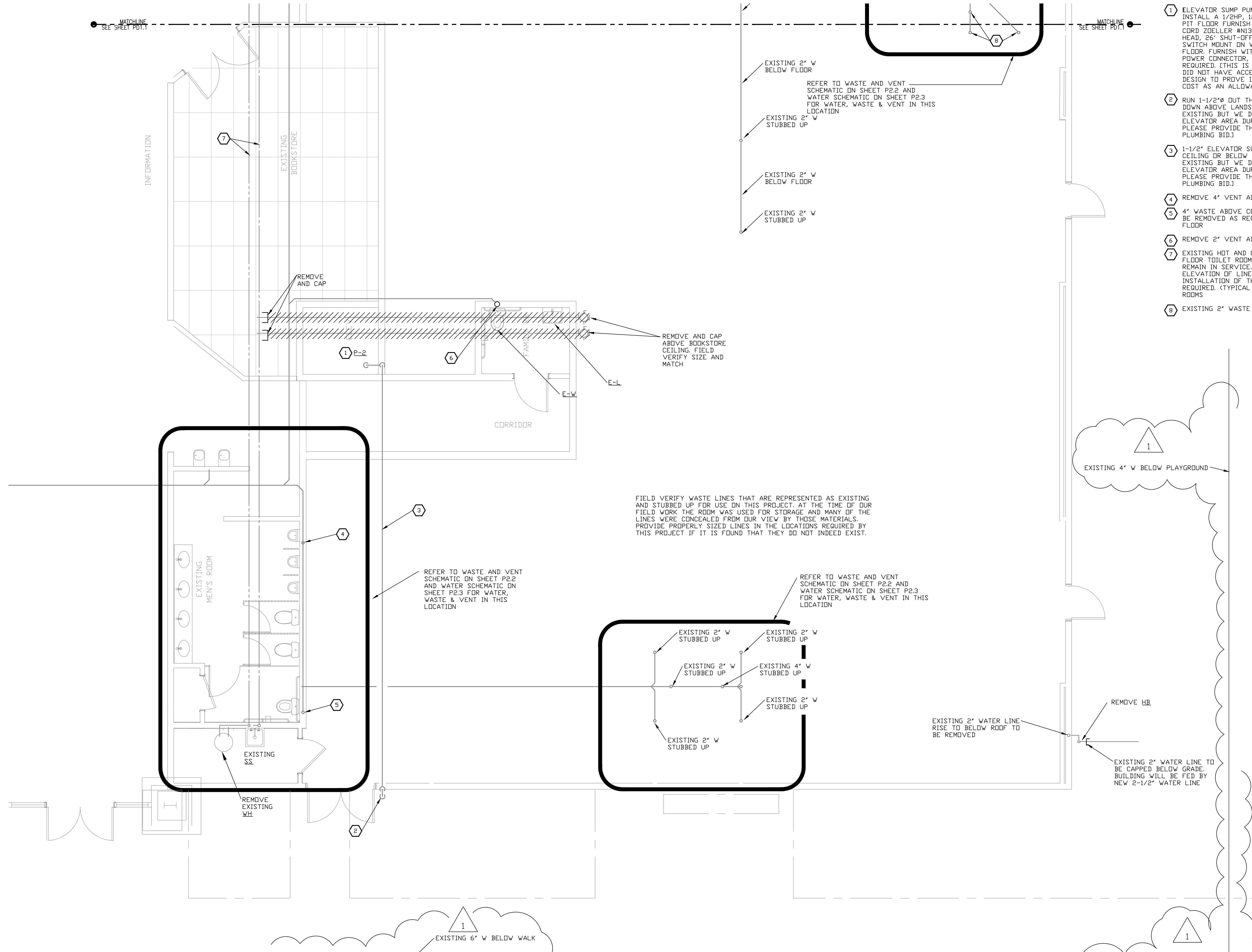
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37417 Tom Darlington Drive
 Carefree, AZ 85377
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 FAX (480) 636-1325

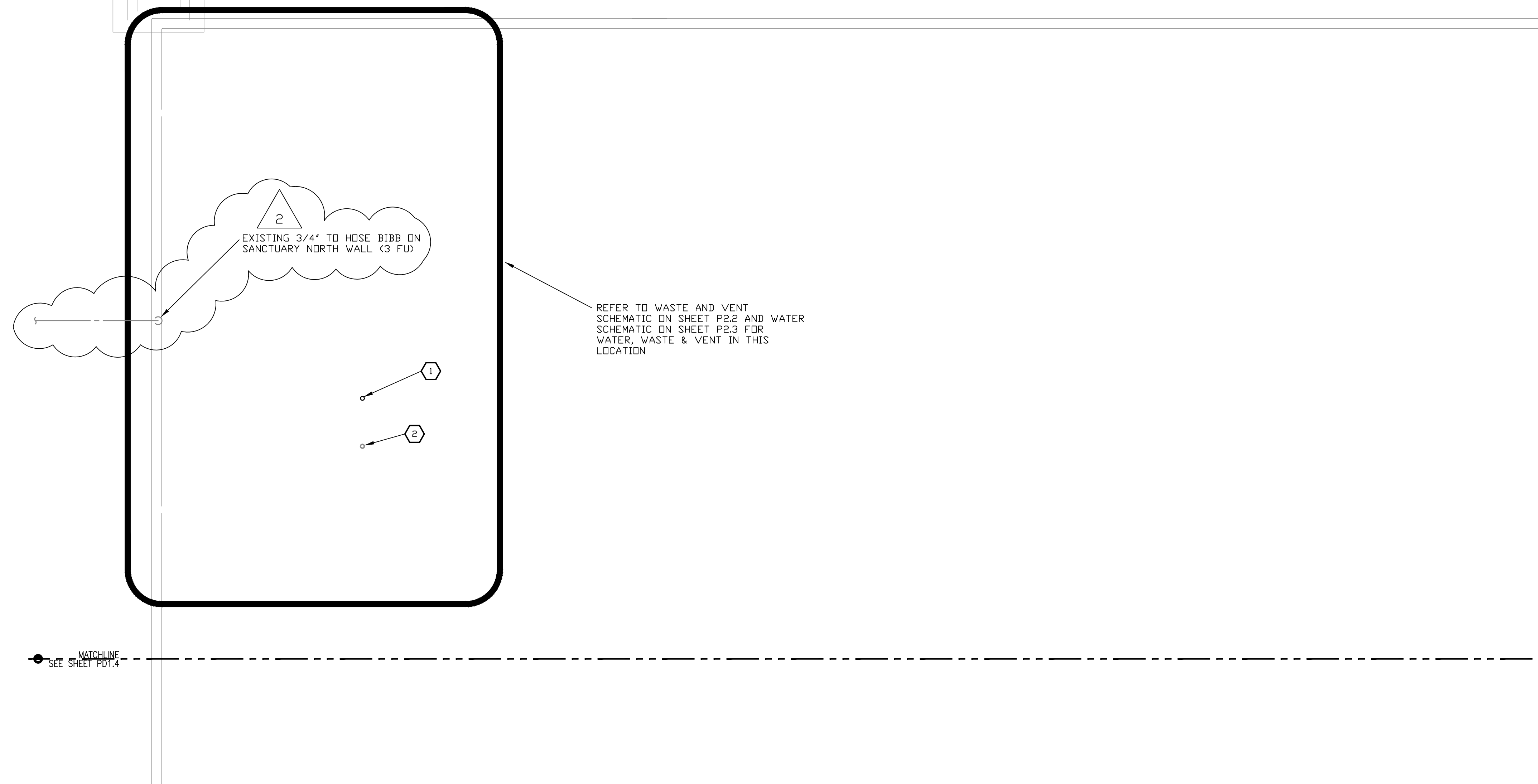
WEB SITE
www.augustreno.com
 EMAIL ADDRESS
augie@augustreno.com

Construction Drawings:
 FIRST FLOOR PLAN
 DEMO - SOUTH

SHEET NO:
PD1.2



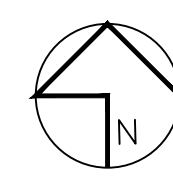
FIRST FLOOR DEMO PLAN - SOUTH
 SCALE: 1/8"=1'-0"



REFER TO WASTE AND VENT SCHEMATIC ON SHEET P2.2 AND WATER SCHEMATIC ON SHEET P2.3 FOR WATER, WASTE & VENT IN THIS LOCATION

MATCHLINE
SEE SHEET PD1.4






MATCHLINE
SEE SHEET PD1.4

 2ND FLOOR DEMO PLAN - NORTH
SCALE: 1/8"=1'-0"

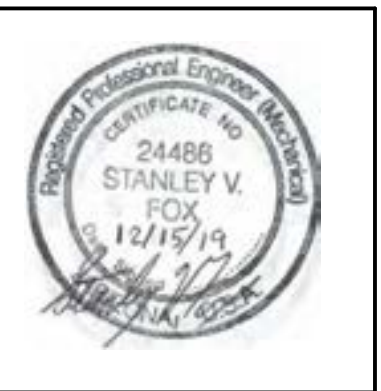
KEYED & GENERAL NOTES

- 1 EXISTING 4" VENT UP THROUGH ROOF FROM 1ST FLOOR. REMOVE AND REPLACE ALONG WITH ANY OTHER VENTS ABOVE 1ST FLOOR CEILING THAT SERVE 1ST FLOOR FIXTURES. A SECOND FLOOR IS BEING INSTALLED IN THIS AREA OF THE BUILDING SO ACCOMMODATE IT
- 2 EXISTING 4" WASTE STUBBED UP ABOVE THE CEILING IN THIS APPROXIMATE LOCATION FROM 1ST FLOOR. REMOVE AND REPLACE ALONG WITH ANY OTHER WASTE LINES NOT ILLUSTRATED ABOVE 1ST FLOOR CEILING THAT WERE TO SERVE 2ND FLOOR FIXTURES. A SECOND FLOOR IS BEING INSTALLED IN THIS AREA OF THE BUILDING SO ACCOMMODATE IT

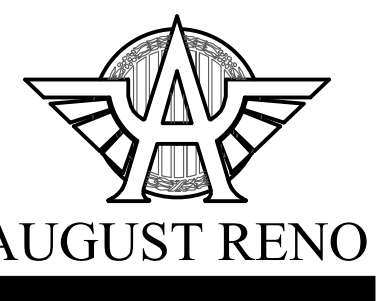
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PHOENIX, AZ



PO BOX 2302
 Carefree, AZ 85377

37417 Tom Darlington Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325

WEB SITE
www.augustreno.com
 EMAIL ADDRESS
augie@augustreno.com

Construction Drawings:
 2ND FLOOR PLAN
 DEMO - NORTH

SHEET NO:
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KEYED & GENERAL NOTES

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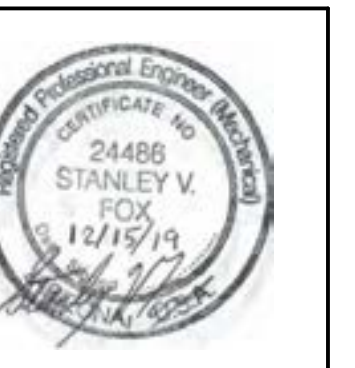
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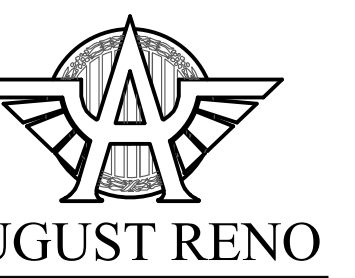
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37417 Tom Darlington Drive
Carefree, AZ 85377
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FAX (480) 636-1325

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EMAIL ADDRESS
augie@augustreno.com

Construction Drawings:
2ND FLOOR PLAN
DEMO - SOUTH

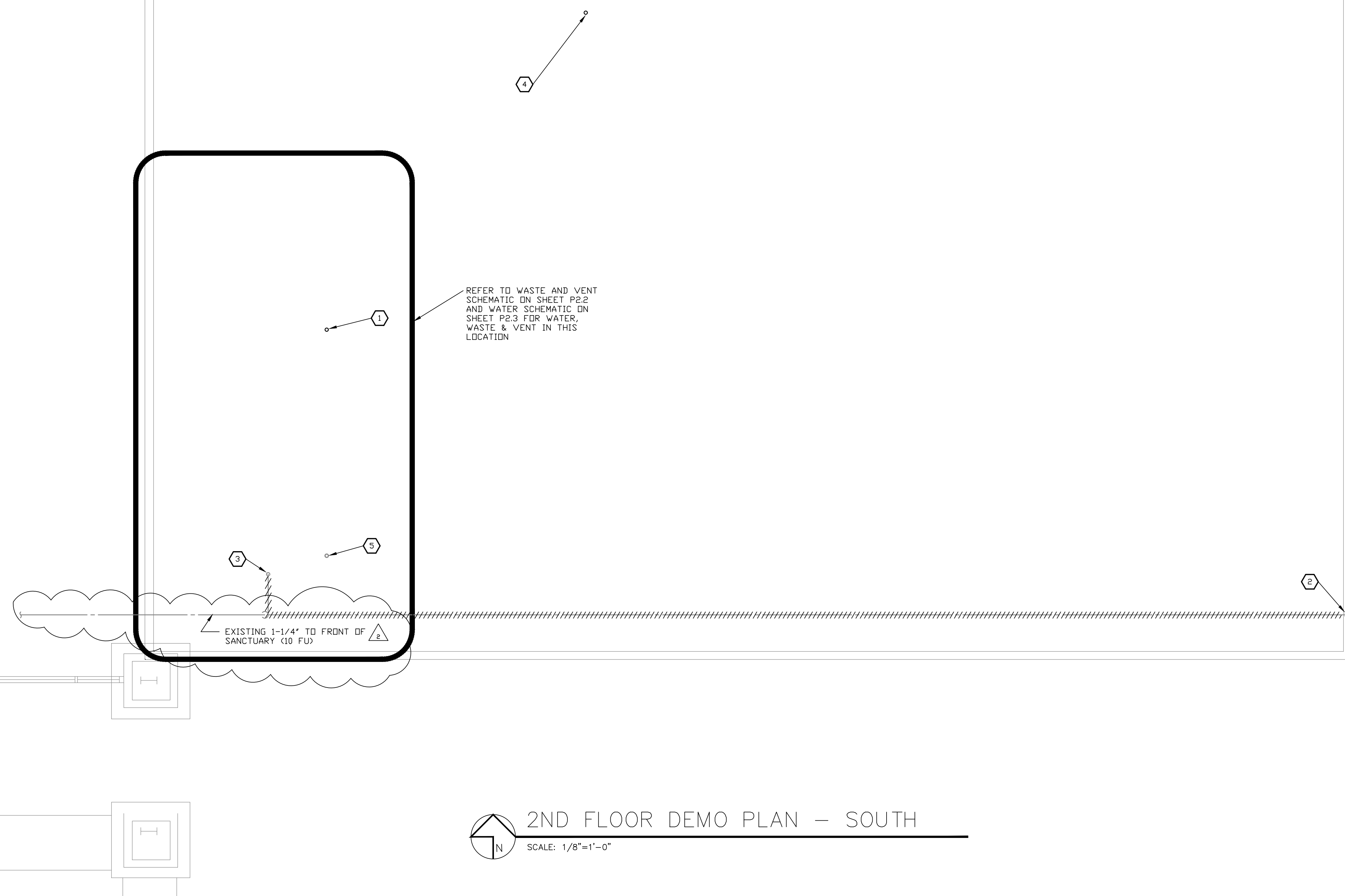
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- ① EXISTING 4" VENT UP THROUGH ROOF FROM 1ST FLOOR WILL NEED TO BE REMOVED AND REPLACED ALONG WITH THE VENTS ABOVE 1ST FLOOR CEILING THAT SERVE 1ST FLOOR FIXTURES THAT WE COULD NOT SEE. FIELD VERIFY EXTENT AND REMOVE/RELOCATE AS REQUIRED. VENT THROUGH ROOF TO BE RE-USED IN ITS EXISTING LOCATION IF POSSIBLE. REFER TO NEW SECOND FLOOR PLAN
- ② 2" WATER LINE UP TO BELOW ROOF STRUCTURE TO BE REMOVED. FIELD VERIFY SIZE AND LOCATION
- ③ REMOVE EXISTING 2" WATER LINE DROP TO 1ST FLOOR
- ④ EXISTING 2" VENT UP FROM 1ST FLOOR TOILET ROOM TO BE REMOVED TO BELOW ROOF. VENT THROUGH ROOF TO BE RE-USED IN ITS EXISTING LOCATION. REFER TO NEW SECOND FLOOR PLAN
- ⑤ EXISTING 4" WASTE STUBBED ABOVE FLOOR. RELOCATE AS REQUIRED TO PERMIT THE INSTALLATION OF THE 2ND FLOOR STRUCTURE

MATCHLINE
SEE SHEET PD1.3

MATCHLINE
SEE SHEET PD1.3



2ND FLOOR DEMO PLAN - SOUTH
SCALE: 1/8"=1'-0"

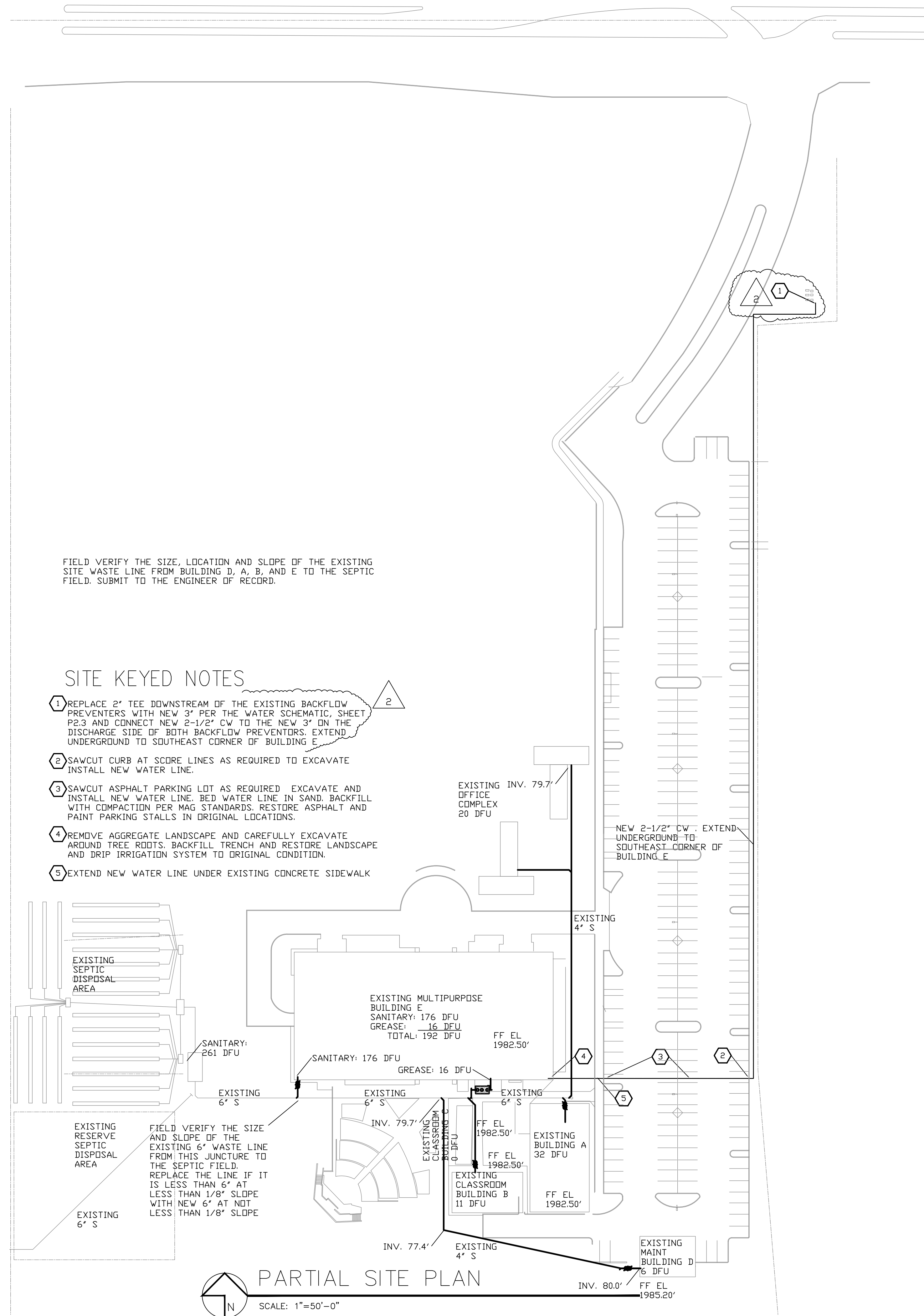
GENERAL NOTES AND GREASE INTERCEPTOR CALCULATION

1. HOT WATER LINES ARE TO BE INSULATED WITH MINIMUM 1" THICK INSULATION HAVING A CONDUCTIVITY NOT EXCEEDING 0.27 BTU PER INCH/Hr FT.SQ. X °F. (TYPICAL).
2. NEW WATER SUPPLY AND RETURN LINES ABOVE FLOOR ARE TO BE TYPE L COPPER WITH WROUGHT SOLDER FITTINGS.
3. NEW WATER LINES BELOW FLOOR ARE TO BE TYPE K ANNEALED TUBING WITH NO JOINTS PERMITTED BELOW THE FLOOR.
4. NEW ANGLE STOPS ARE TO BE INSTALLED WITH CHROME PLATED BRASS ESCUTCHEONS AT EACH PLUMBING FIXTURE CONNECTION. VALVES SHALL BE 1/4 TURN CHROME PLATED BRONZE.
5. NEW WATER LINES BELOW FLOOR TO BE RUN WITHIN 3" MINIMUM CONDUIT FOR SERVICE AND REMOVAL. HOT WATER SUPPLY AND RETURN ARE TO BE RUN IN ONE CONDUIT AND COLD WATER LINES ARE TO BE RUN SEPARATELY IN ANOTHER (TYPICAL). HOT WATER LINES ARE TO BE INSULATED WITH MINIMUM 1" THICK INSULATION HAVING A CONDUCTIVITY NOT EXCEEDING 0.27 BTU PER INCH/Hr FT.SQ. X °F. (TYPICAL).
6. NEW WASTE AND VENT LINES ARE TO BE SCHEDULE 40 ABS DWV OR PVC PLASTIC.
7. NEW FLOOR SINKS ARE TO BE WATTS FS-790 12 IN. SQUARE X 8" DEEP TYPE 304 STAINLESS STEEL SANITARY FLOOR SINK WITH FLANGE, LOOSE SET 1/2" CAST STAINLESS STEEL GRATE, STAINLESS STEEL BASKET STRAINER AND NO-HUB OUTLET WITH TRAP PRIMER CONNECTION. MODEL FS-780, 6" DEEP MAY BE USED IF THE WASTE LINE IS NOT DEEP ENOUGH. FURNISH AN ALTERNATE PRICE TO THE OWNER FOR WATTS FS-740 SANITARY FLOOR SINK, ENAMELED STEEL FLOOR SINK WITH BASKET STRAINER AND 1/2 GRATE FOR CONSIDERATION.
8. FLOOR CLEANOUTS ARE TO BE WATTS CO-1200-S ADJUSTABLE WITH SQUARE STAINLESS STEEL COVER AND GASKETED BRASS CLEANOUT PLUG.
9. WALL CLEANOUTS ARE TO BE PLASTIC BODY WITH PLASTIC PLUG AND STAINLESS STEEL COVER.
10. REMOVE WATER, WASTE AND VENT LINES THAT ARE INSTALLED SERVING EXISTING PLUMBING FIXTURES OR STUBBED UP FOR FUTURE CONNECTION AS REQUIRED TO FACILITATE THE INSTALLATION OF THE NEW SECOND FLOOR. REINSTALL AND MAKE EXISTING PLUMBING FIXTURES TO REMAIN ACTIVE.
11. SLOPE WASTE LINE AT 1/4" PER FOOT IN DIRECTION OF FLOW FURNISH TRAP PRIMERS ON ALL FLOOR DRAINS AND FLOOR SINKS.
12. ALL VALVES ARE TO BE FULL PORT 2-PIECE, BRONZE BODY BALL VALVES WITH STAINLESS STEEL BALL AND BLOW-OUT PROOF STEM, GALVANIZED STEEL HANDLE.
13. SAWCUT AND REMOVE CONCRETE FLOOR AND WALK AS REQUIRED TO INSTALL NEW WASTE LINES FLOOR TO BE RESTORED TO ORIGINAL CONDITION AND FINISH.
14. VARIOUS ITEMS OF EQUIPMENT WILL BE FURNISHED BY THE OWNER. THE EQUIPMENT WILL BE INSTALLED BY THE CONTRACTOR. COORDINATE THE SCOPE OF WORK THAT WILL BE REQUIRED BY THIS TRADE PRIOR TO BID AND INCLUDE IN THE BID THOSE ITEMS INCLUDING MATERIAL, LABOR, START-UP, CERTIFICATION, ETC AS REQUIRED TO PLACE THE EQUIPMENT IN PROPER OPERATION FOR A COMPLETE SYSTEM.
15. SHUT DOWN OF WATER SERVICE SHALL BE COORDINATED WITH OWNER AND SHALL BE SCHEDULED AT A TIME TO HAVE THE LEAST NEGATIVE IMPACT ON OPERATION AS IS PRACTICAL.
16. WATER LINE AND FILTERED WATER LINE TO ICE MACHINE IS TO BE INSULATED WITH VAPOR BARRIER SEALED TO LINE AT INSULATION ENDS WITH VAPOR BARRIER MASTIC.
17. FOOD PREP SINK SHALL BE INDIRECT WASTE.
18. SINKS USED FOR WASHING POTS, PANS, ETC. SHALL BE DIRECT WASTE.
19. SINKS USED FOR WASHING GREASE LADEN POTS, PANS, ETC. SHALL BE DIRECT WASTE TO THE GREASE WASTE LINE. IF SINK BOWL IS DEDICATED TO SANITIZING IT SHALL BE INDIRECT WASTE.
20. HAND AND DUMP SINKS SHALL BE DIRECT WASTE.
21. ALL BOWLS OF MULTI-COMPARTMENT SINKS SHALL BE USED FOR THE SAME PURPOSE IE: A MULTI COMPARTMENT SINK SHALL NOT BE USED FOR FOOD PREP AND WASHING PURPOSES.
22. THE DIRECT VENT/SEALED COMBUSTION OUTSIDE AIR AND VENT LINES SHALL BE FURNISH AND INSTALLED IN ACCORDANCE WITH THE WATER HEATER AND VENT MANUFACTURE'S U.L. LISTING, MANUFACTURE'S INSTALLATION INSTRUCTIONS AND CURRENT CODE.

GREASE INTERCEPTOR	QTY	DFU/FIXTURE	SUBTOTAL
DISHWASHER	1	X 4	4
3-COMP SINK	1	X 3	3 NO DISPOSER, NO PRE-RINSE
1-COMP PREP	1	X 3	3
SERVICE SK	1	X 3	3
FLOOR SINK	6	X 2	12
		TOTAL	25 DFU

25 DFU X 3 GPM/DFU X 12 MINUTES = 900 GALLONS

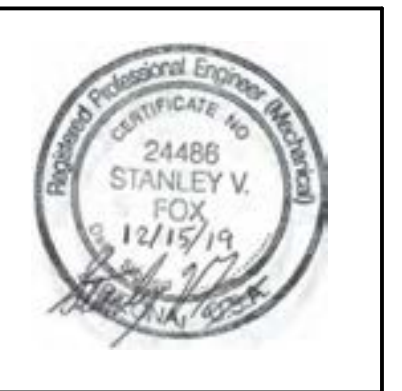
FURNISH AND INSTALL OLD CASTLE PRECAST MODEL 2010-SA, 1000 GALLON GREASE INTERCEPTOR COMPLETE WITH TOP AND (3) 24"Ø COVERS AND FRAMES WITH GRADE RINGS AS REQUIRED. COVERS SHALL BE GAS-TIGHT



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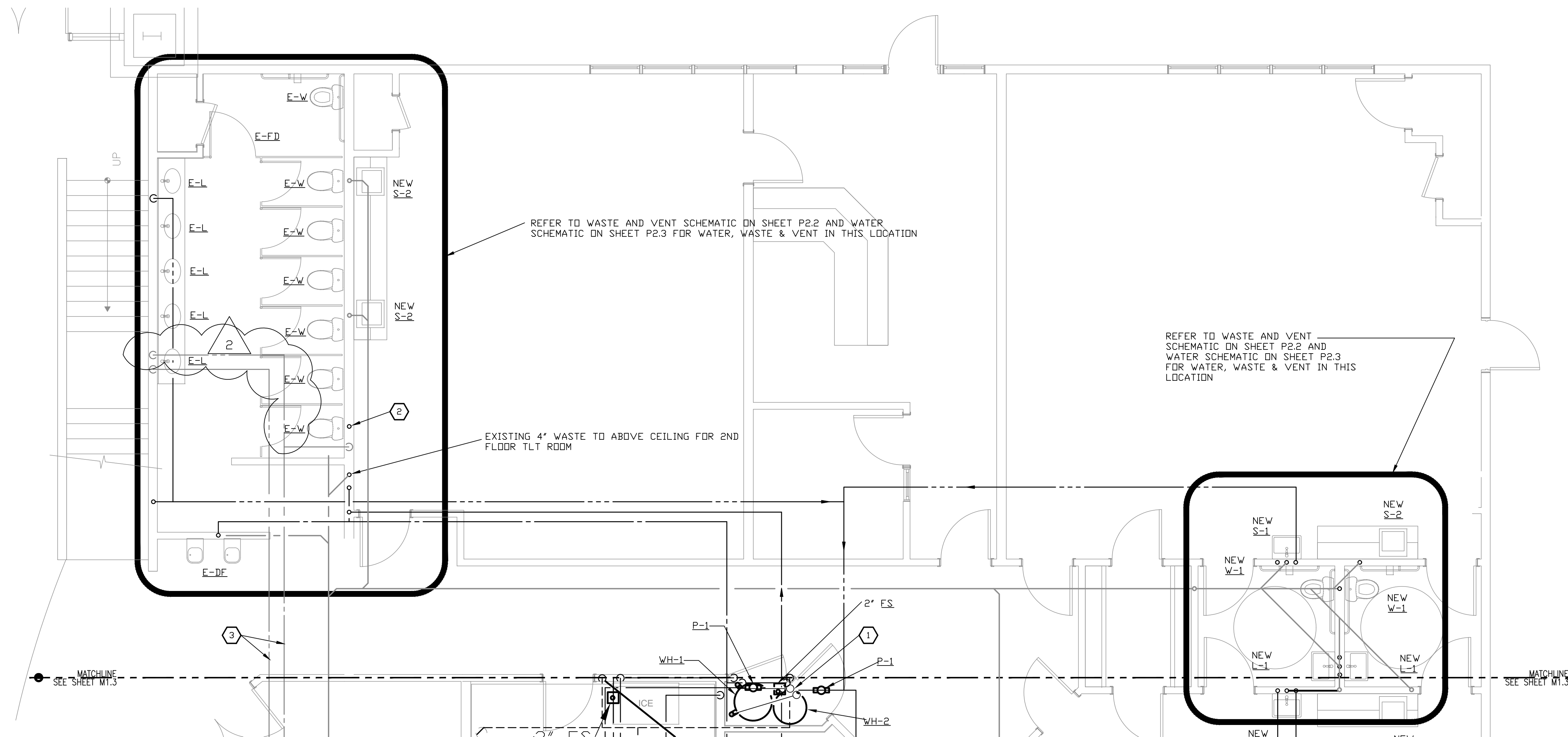
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Carefree, AZ 85377

37417 Tom Darlington Drive
Carefree, AZ 85377
(480) 488-9858
FAX (480) 636-1325

WEB SITE
www.augustreno.com
EMAIL ADDRESS
augie@augustreno.com

Construction Drawings:
PARTIAL FLOOR PLAN

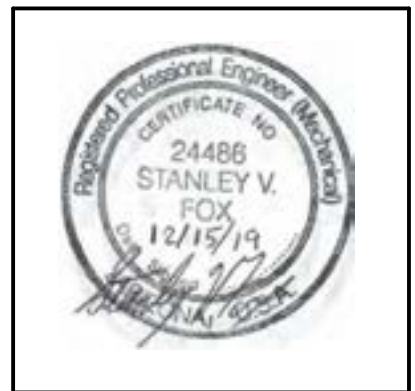
SHEET NO:
P1.1



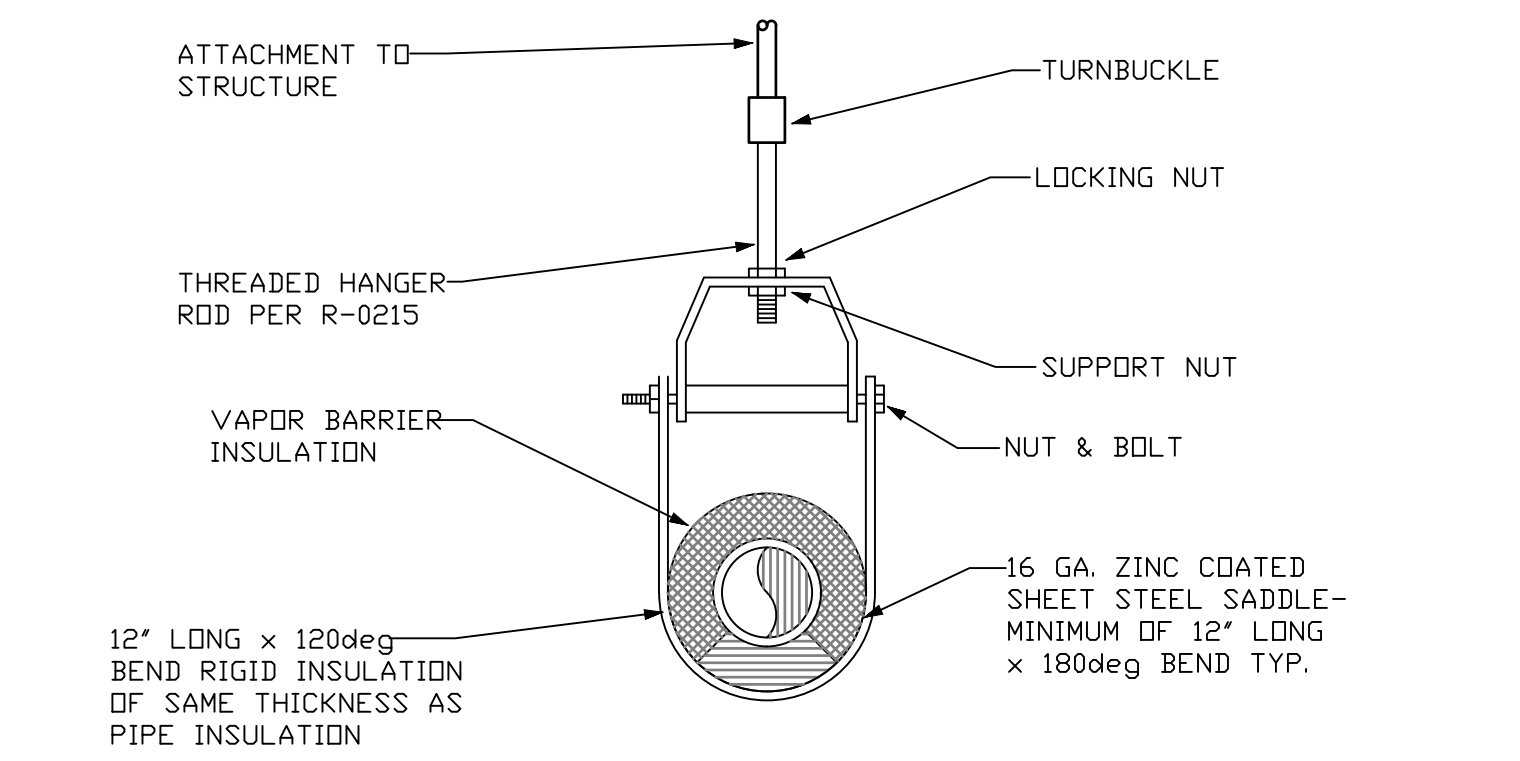
FIRST FLOOR PLAN - NORTH
SCALE: 1/8"=1'-0"

- KEYED & GENERAL NOTES**
- 1 DIRECT VENT LINES UP THROUGH FLOOR ABOVE INTO WALL ON 2ND FLOOR. COORDINATE WITH FRAMING CONTRACTOR
 - 2 VENT TO BE RECONNECTED TO NEW VENT ON NEW 2ND FLOOR ABOVE
 - 3 EXISTING HOT AND COLD WATER LINES FEEDING FIRST FLOOR TOILET ROOM AND DRINKING FOUNTAIN ARE TO REMAIN IN SERVICE. FIELD VERIFY AND ADJUST ELEVATION OF LINES AS REQUIRED TO ACCOMMODATE THE INSTALLATION OF THE SECOND FLOOR STRUCTURE AS REQUIRED. (TYPICAL AT MEN'S AND WOMEN'S TOILET ROOMS)

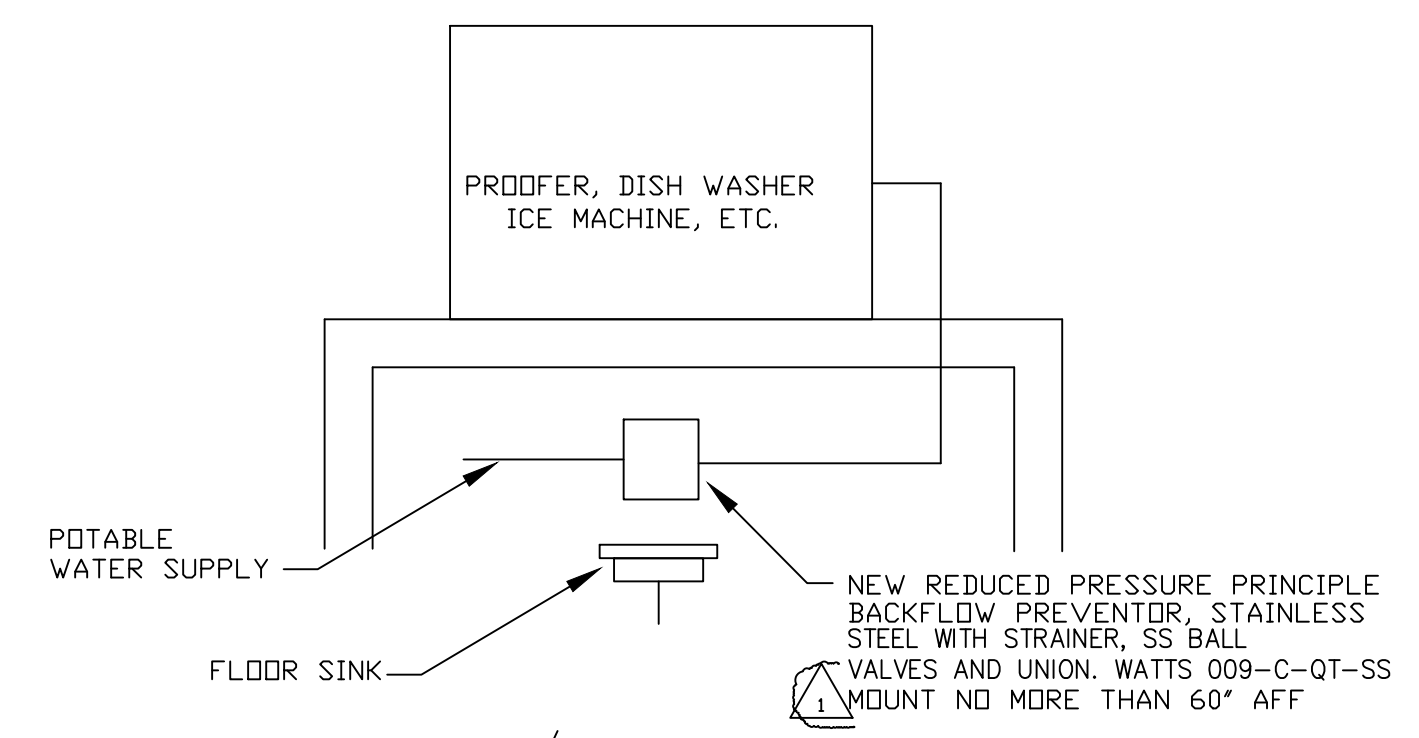
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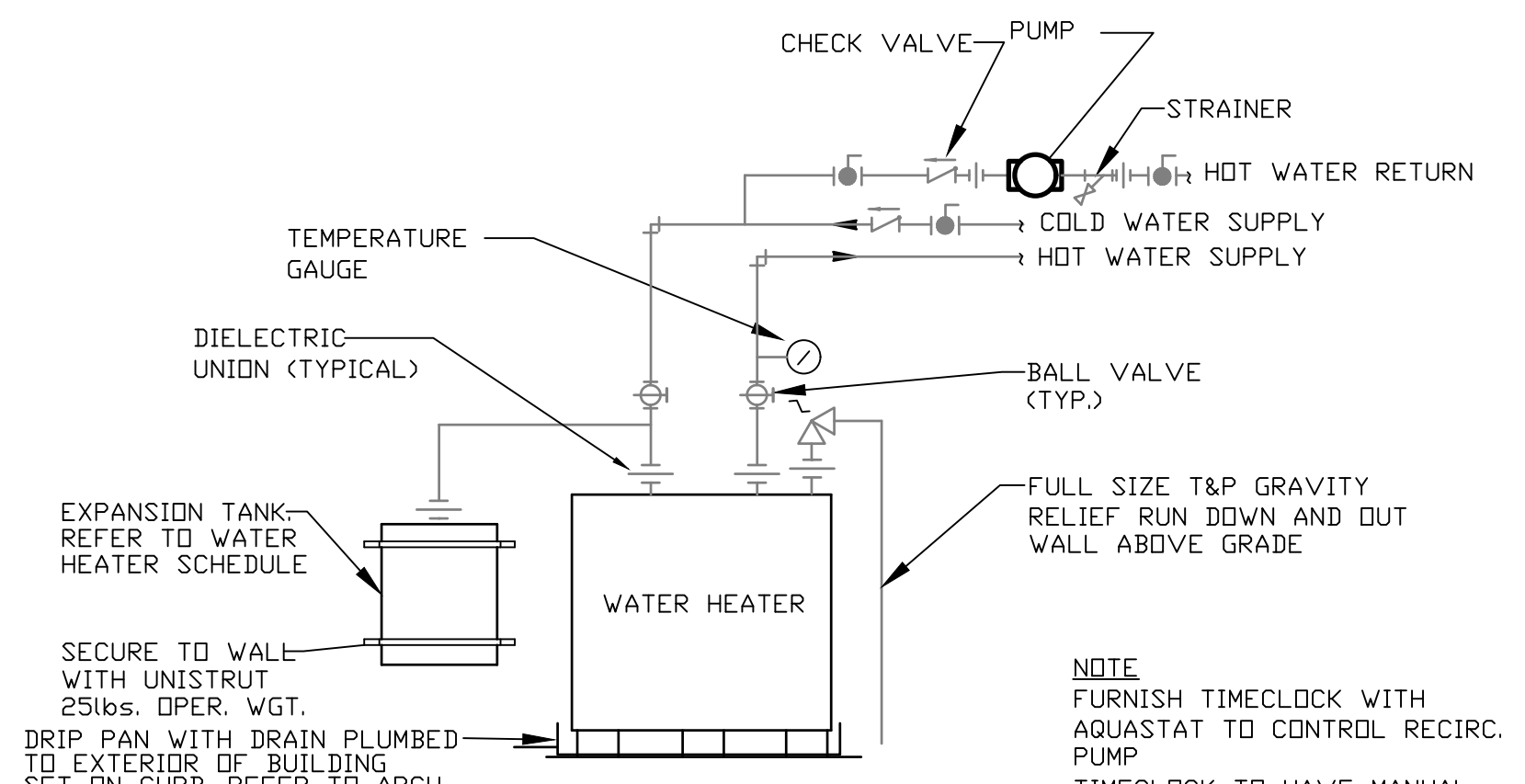
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CLEVIS HANGER INSULATED PIPE DETAIL
N.T.S.



DRINK/ICE MACHINE DETAIL
N.T.S.



WATER HEATER DETAIL
NOTE: FURNISH TIMECLOCK WITH AQUASTAT TO CONTROL RECIRC. PUMP. TIMECLOCK TO HAVE MANUAL OVERRIDE SWITCH.



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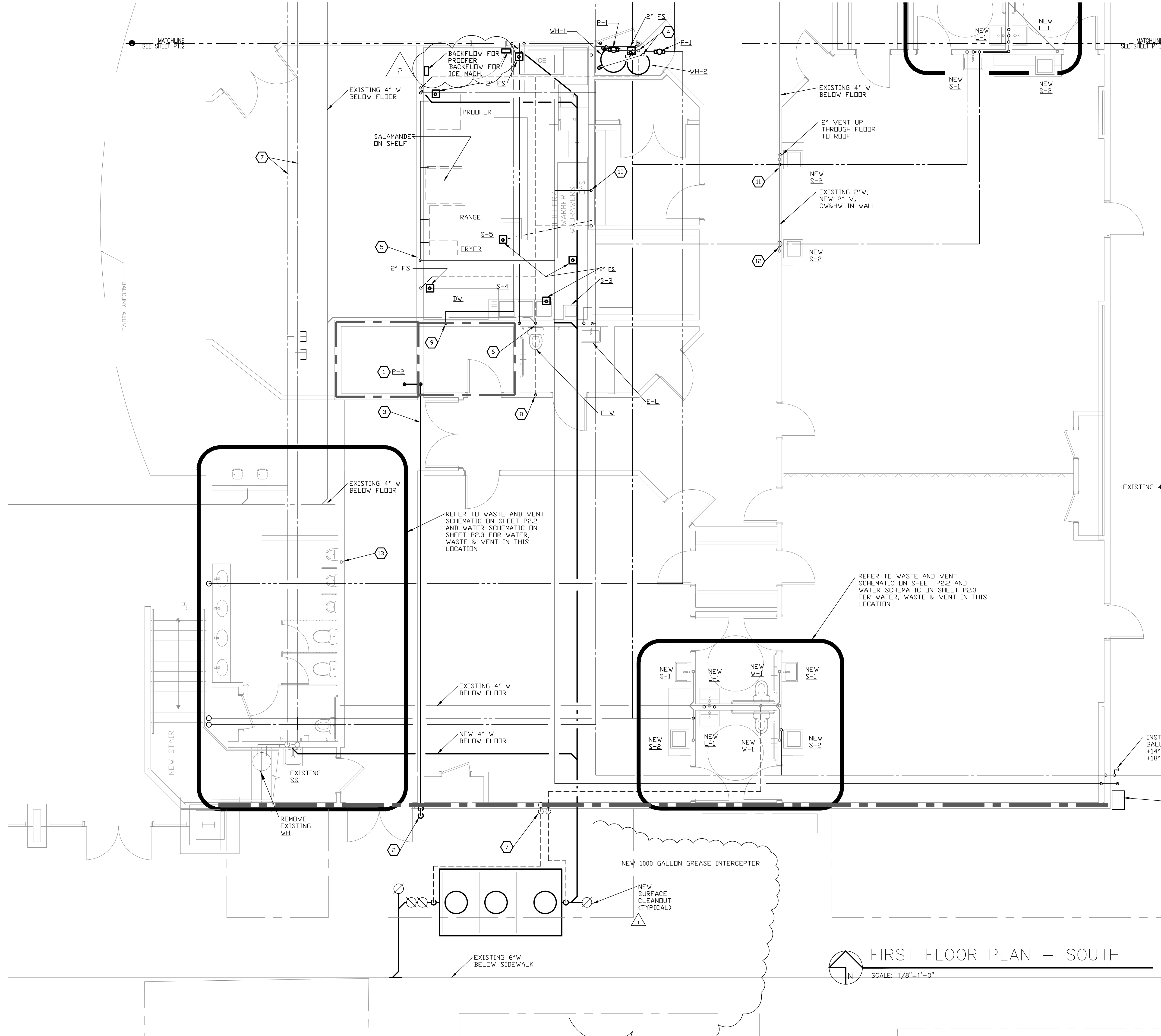
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Carefree, AZ 85377
(480) 488-9858
FAX (480) 636-1325

WEB SITE: www.augustreno.com
EMAIL ADDRESS: augie@augustreno.com

Construction Drawings:
FIRST FLOOR PLAN - NORTH

SHEET NO:
P1.2

Saguaro Engineers, Inc.
Consulting Engineers
12020 N. 35TH AVENUE, SUITE 111A
Phoenix, AZ 85026
PH: (602) 870-2018 Fax: No 17128.00



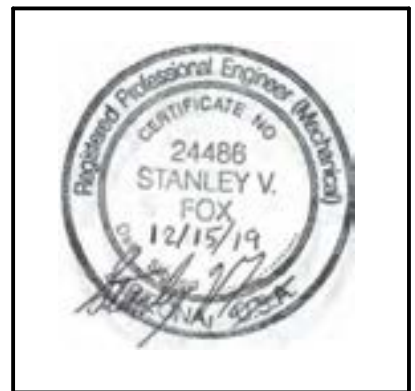
KEYED & GENERAL NOTES

- 1 ELEVATOR SUMP PUMP AND CONTRL NDTES: FURNISH AND INSTALL A 1/2HP, 120VOLT/1Ø SUMP PUMP ON ELEVATOR PIT FLOOR FURNISH CHECK AND GATE VALVE AND POWER CORD ZOEGLER #N137 (GRAINGER 4N997) 8GPM AT 25' HEAD, 26' SHUT-OFF HEAD ZOEGLER DIL SMART PUMP SWITCH MOUNT ON WALL AT +72" ABOVE ELEVATOR PIT FLOOR. FURNISH WITH DIL SMART SENSOR, PIGGYBACK POWER CONNECTOR, 20 AMP RELAY CORD LENGTH AS REQUIRED. (THIS IS SUPPOSED TO BE EXISTING BUT WE DID NOT HAVE ACCESS TO THE ELEVATOR AREA DURING DESIGN TO PROVE IT EXISTS. PLEASE PROVIDE THIS COST AS AN ALLOWANCE IN THE PLUMBING BID.)
- 2 RUN 1-1/2" Ø DUT THROUGH WALL AT +6" AFG AND TURN DOWN ABOVE LANDSCAPE
- 3 1-1/2" ELEVATOR SUMP PUMP DISCHARGE LINE ABOVE CEILING
- 4 DIRECT VENT LINES UP THROUGH FLOOR ABOVE INTO WALL ON 2ND FLOOR. COORDINATE WITH FRAMING CONTRACTOR
- 5 GAS DOWN TO GAS SOLENOID VALVE AND SUPPLY HEADER AT KITCHEN EQUIPMENT LINE
- 6 CONNECT NEW VENT TO EXISTING AND EXTEND ABOVE CEILING
- 7 EXISTING HOT AND COLD WATER LINES FEEDING FIRST FLOOR TOILET ROOM AND DRINKING FOUNTAIN ARE TO REMAIN IN SERVICE. FIELD VERIFY AND ADJUST ELEVATION OF LINES AS REQUIRED TO ACCOMMODATE THE INSTALLATION OF THE SECOND FLOOR STRUCTURE AS REQUIRED. (TYPICAL AT MEN'S AND WOMEN'S TOILET ROOMS)
- 8 EXTEND VENT UP THROUGH FLOOR INTO WALL ON SECOND FLOOR
- 9 HW DOWN TO DW
- 10 3/4" GAS DOWN TO +8" AFF. TURN OUT THROUGH WALL WITH VALVE AND CAP FOR FUTURE APPLIANCE
- 11 HW DOWN TO SINKS
- 12 CW DOWN TO SINKS
- 13 CONNECT EXISTING 4" VENT ON 1ST FLOOR AND EXTEND UP IN WALL ON 2ND FLOOR

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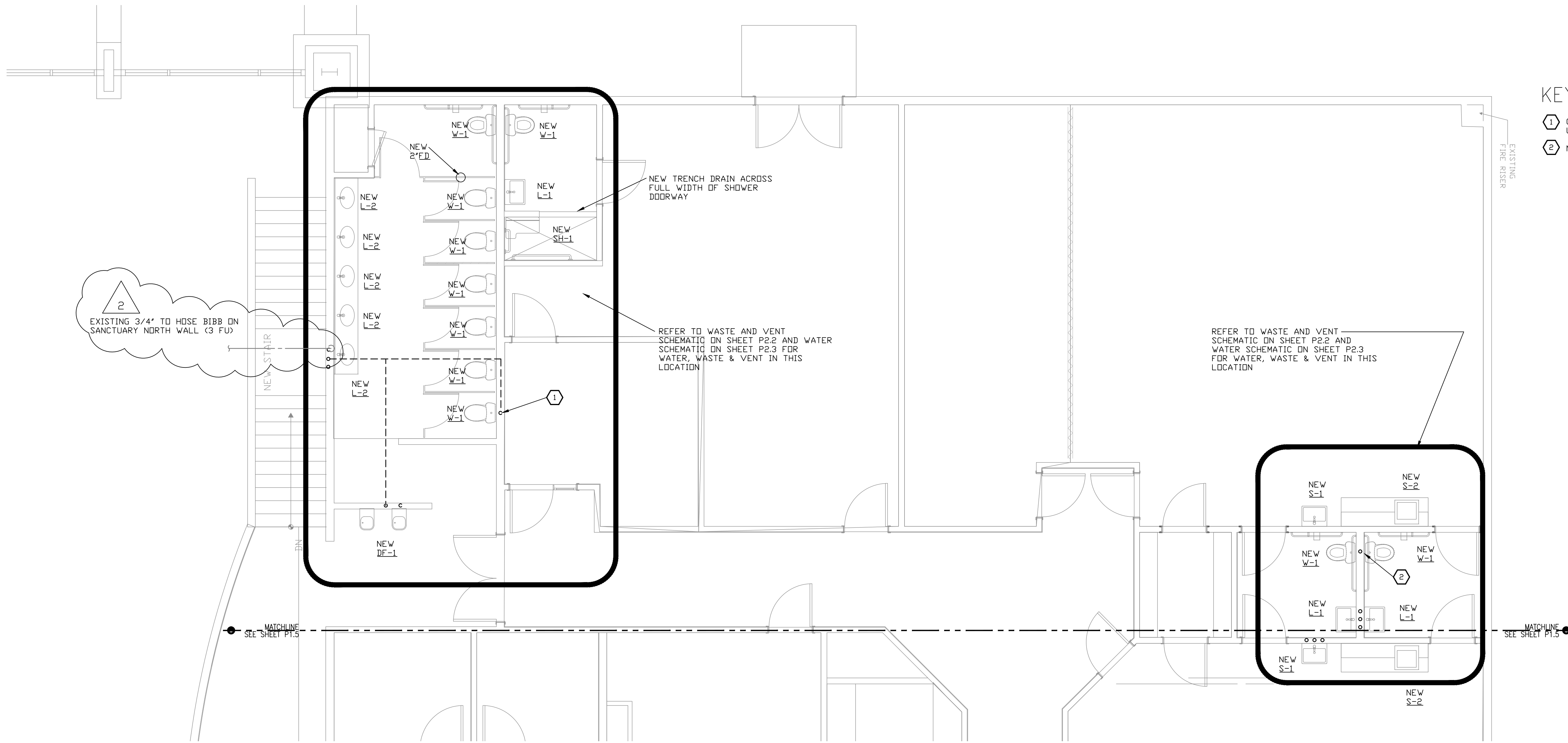
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 (480) 488-9858
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WEB SITE
www.augustreno.com
 EMAIL ADDRESS
augie@augustreno.com

Construction Drawings:
 PARTIAL FLOOR
 PLAN - SOUTH

SHEET NO:
P1.3

FIRST FLOOR PLAN - SOUTH
 SCALE: 1/8"=1'-0"



KEYED & GENERAL NOTES

- ① CONNECT EXISTING 4" VENT ON 1ST FLOOR AND EXTEND UP IN WALL TO EXISTING VENT THROUGH ROOF
- ② NEW 2" VENT THROUGH ROOF

②
EXISTING 3/4" TO HOSE BIBB ON SANCTUARY NORTH WALL (3 FU)

REFER TO WASTE AND VENT SCHEMATIC ON SHEET P2.2 AND WATER SCHEMATIC ON SHEET P2.3 FOR WATER, WASTE & VENT IN THIS LOCATION

REFER TO WASTE AND VENT SCHEMATIC ON SHEET P2.2 AND WATER SCHEMATIC ON SHEET P2.3 FOR WATER, WASTE & VENT IN THIS LOCATION

MATCHLINE SEE SHEET P1.5

MATCHLINE SEE SHEET P1.5

SECOND FLOOR PLAN – NORTH
SCALE: 1/4"=1'-0"

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CAREFREE CHURCH
5025 E. CAREFREE HIGHWAY,
PHOENIX, AZ



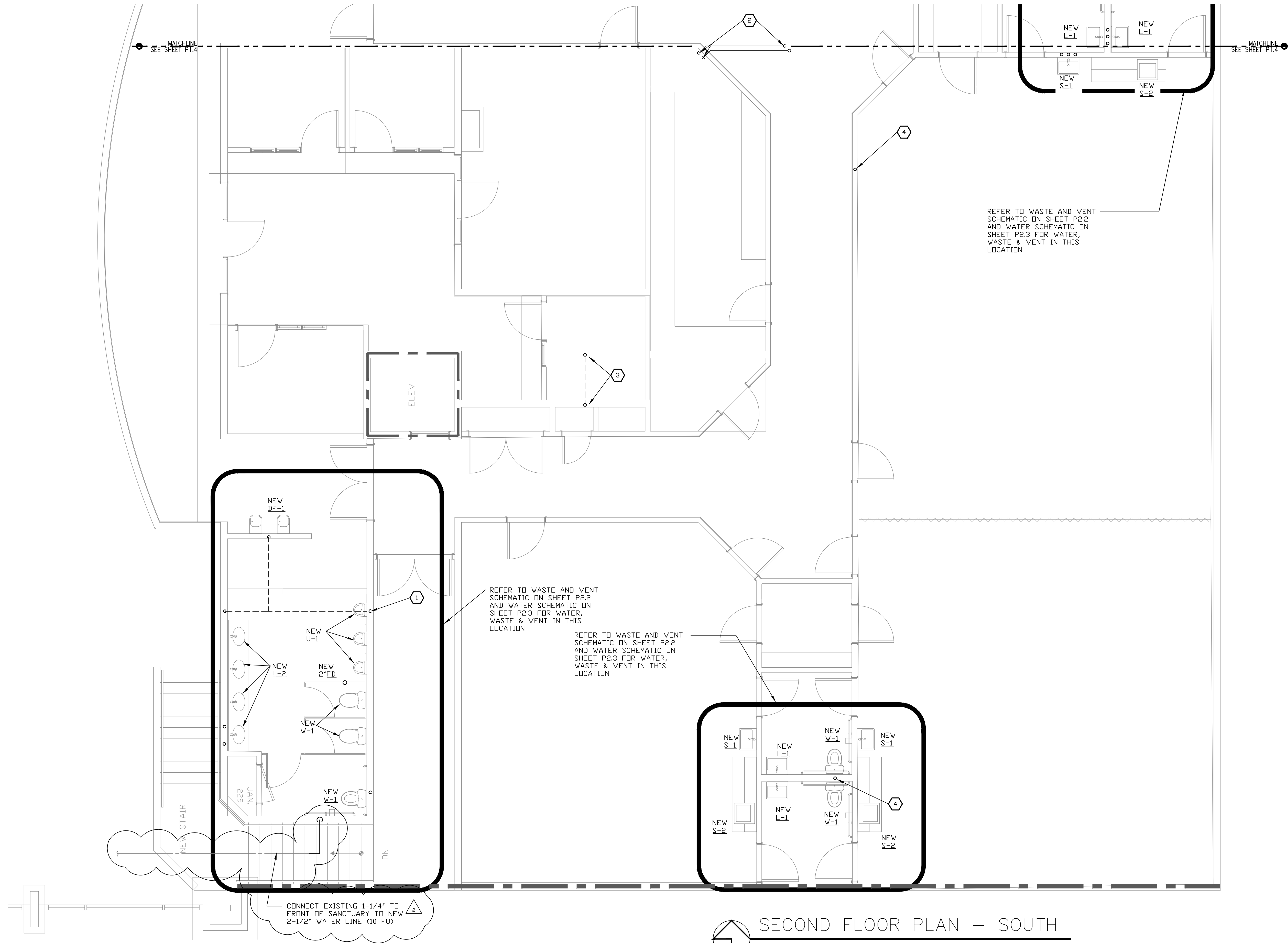
PO BOX 2302
Carefree, AZ 85377

37417 Tom Darlington Drive
Carefree, AZ 85377
(480) 488-9858
FAX (480) 636-1325

WEB SITE
www.augustreno.com
EMAIL ADDRESS
augie@augustreno.com

Construction Drawings:
2ND FLOOR PLAN
– NORTH

SHEET NO:
P1.4



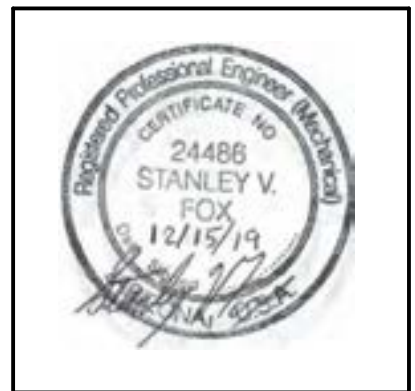
KEYED & GENERAL NOTES

- ① CONNECT EXISTING 4" VENT ON 1ST FLOOR AND EXTEND UP IN WALL TO EXISTING VENT THROUGH ROOF
- ② WATER HEATER COMBUSTION AIR AND VENT UP FROM FIRST FLOOR, OFFSET ABOVE CEILING AWAY FROM MECHANICAL EQUIPMENT ON ROOF AND EXTEND UP THROUGH ROOF TO FACTORY APPROVED WEATHER HOOD
- ③ 2" VENT UP FROM FIRST FLOOR WITHIN WALL ON SECOND FLOOR, RISE UP IN WALL TO ABOVE CEILING AND OFFSET BACK TO EXISTING VENT THROUGH ROOF PENETRATION
- ④ NEW 2" VENT THROUGH ROOF

ISSUED FOR:
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REVISION:
 ▲ 12-15-2019 ENGINEER CORR
 ▲ CITY REVIEW COMMENTS
 ▲ 06-10-2019
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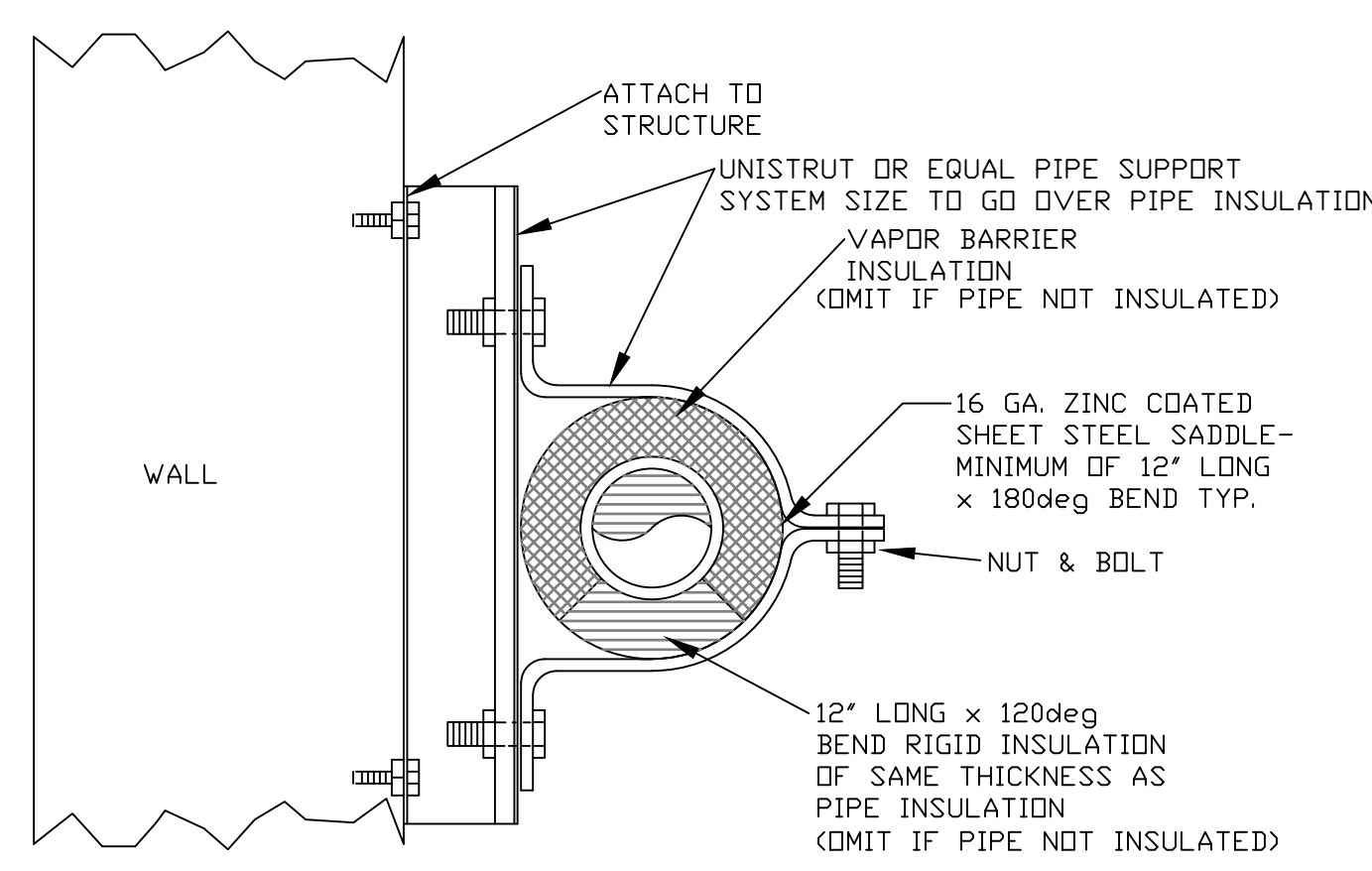
37417 Tom Darlington Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325

WEB SITE
 www.augustreno.com
 EMAIL ADDRESS
 augie@augustreno.com

Construction Drawings:
2ND FLOOR PLAN
-SOUTH

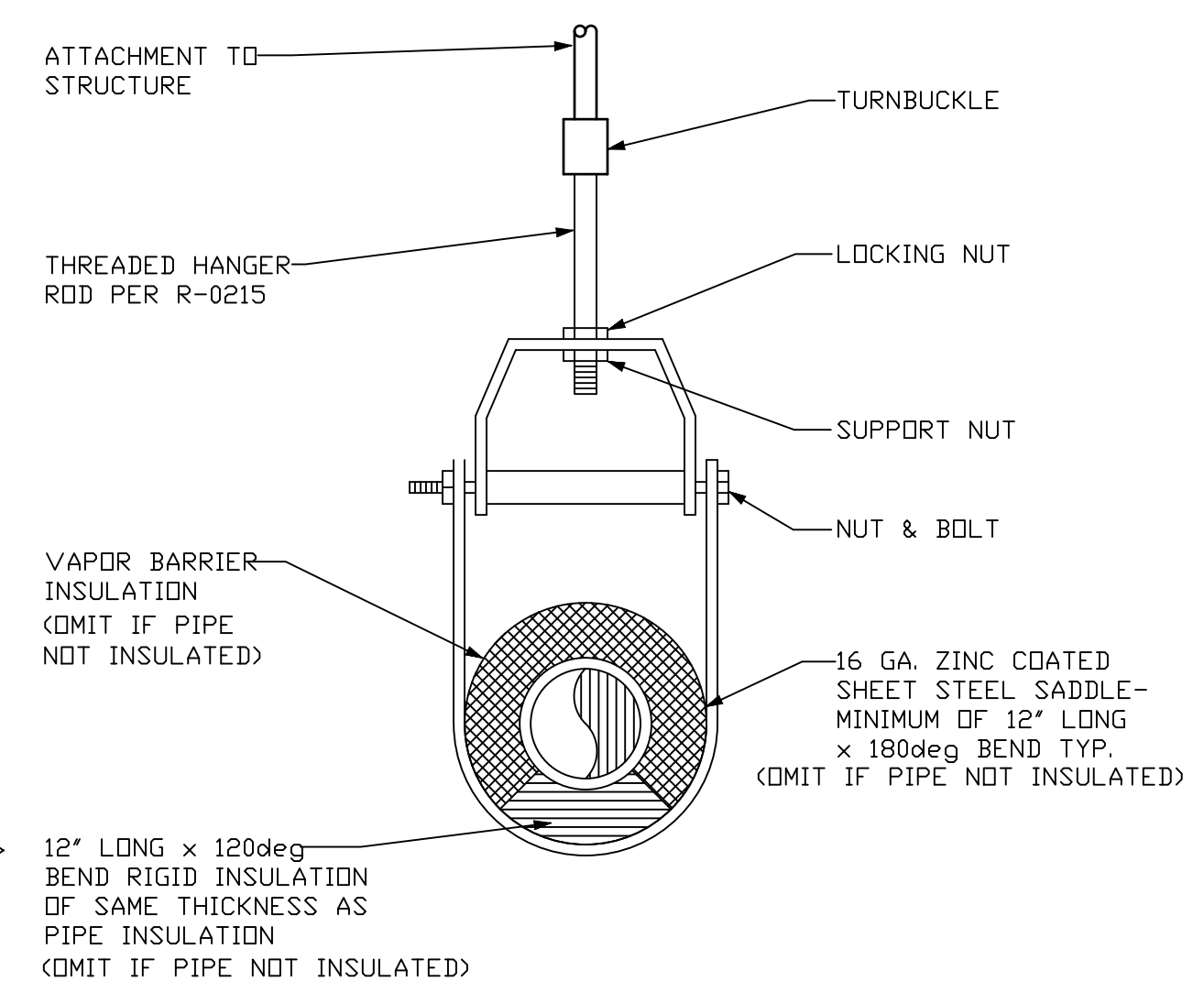
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P1.5

SECOND FLOOR PLAN – SOUTH
 SCALE: 1/4"=1'-0"



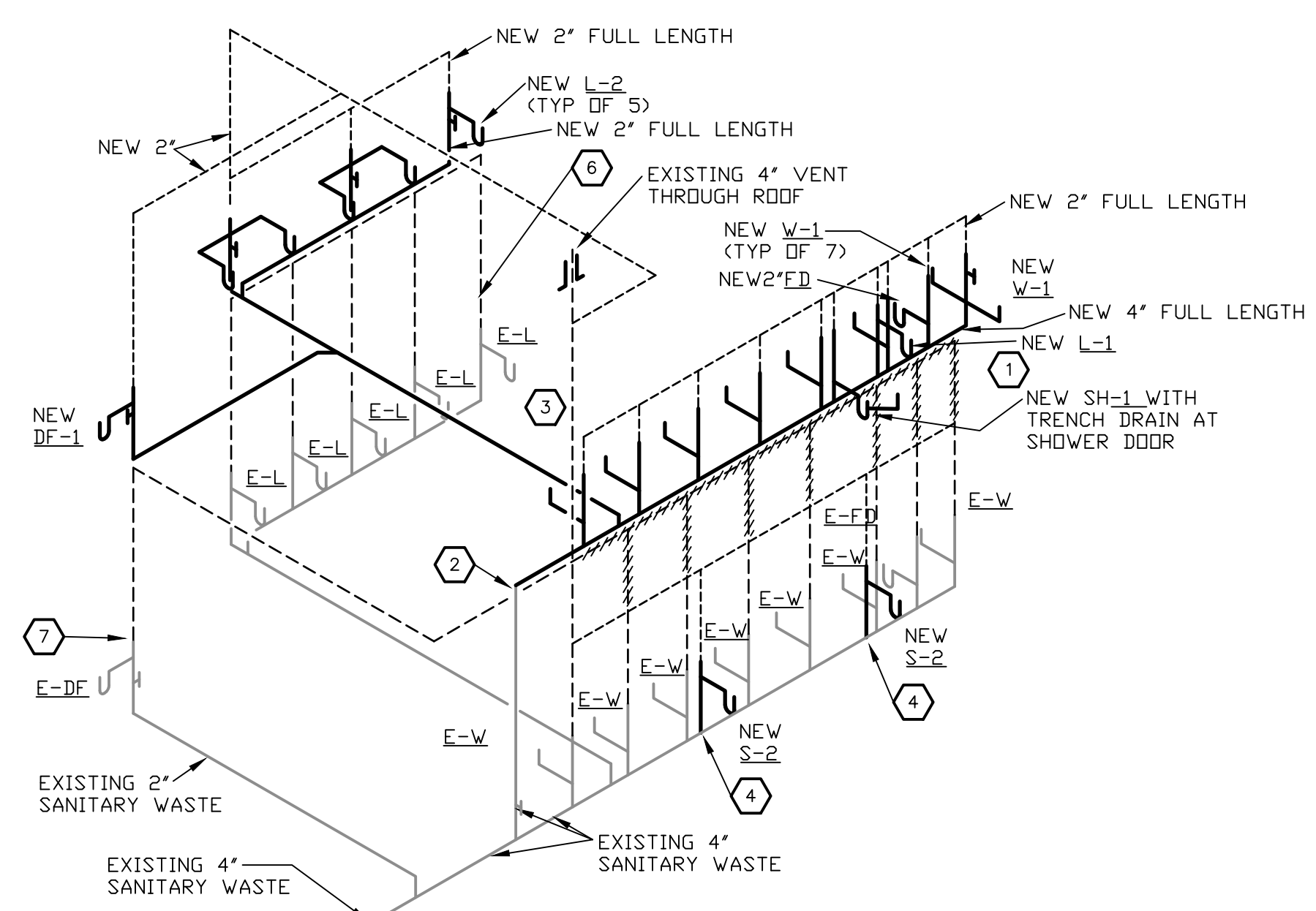
WALL SUPPORTED PIPE DETAIL

N.T.S.



CLEVIS HANGER PIPE DETAIL

N.T.S.

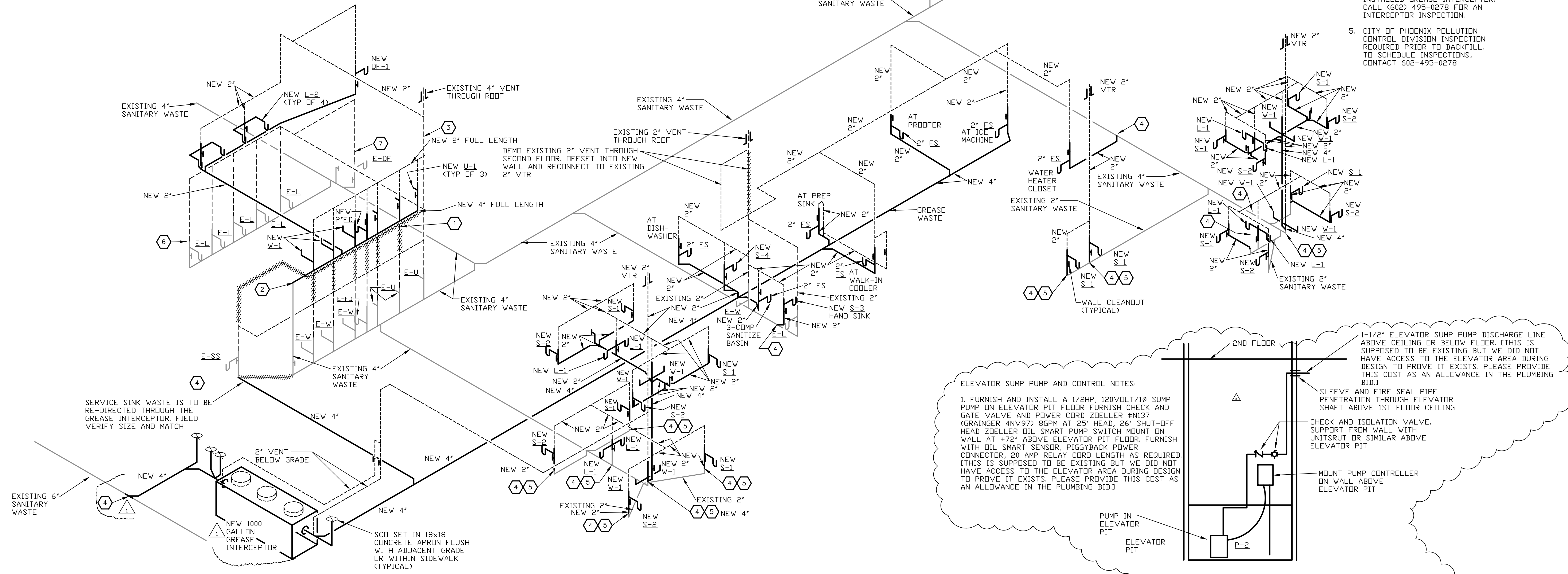


WASTE AND VENT SCHEMATIC

NO SCALE

- 1 THIS VENT LATERAL APPEARS TO BE VERY HIGH AND ABOVE THE EXISTING CEILING IN THE WAY OF THE NEW SECOND FLOOR. REMOVE THE LINE AND INSTALL NEW VENT LINE WITHIN WALL AS INDICATED
- 2 CONNECT NEW 4\"/>

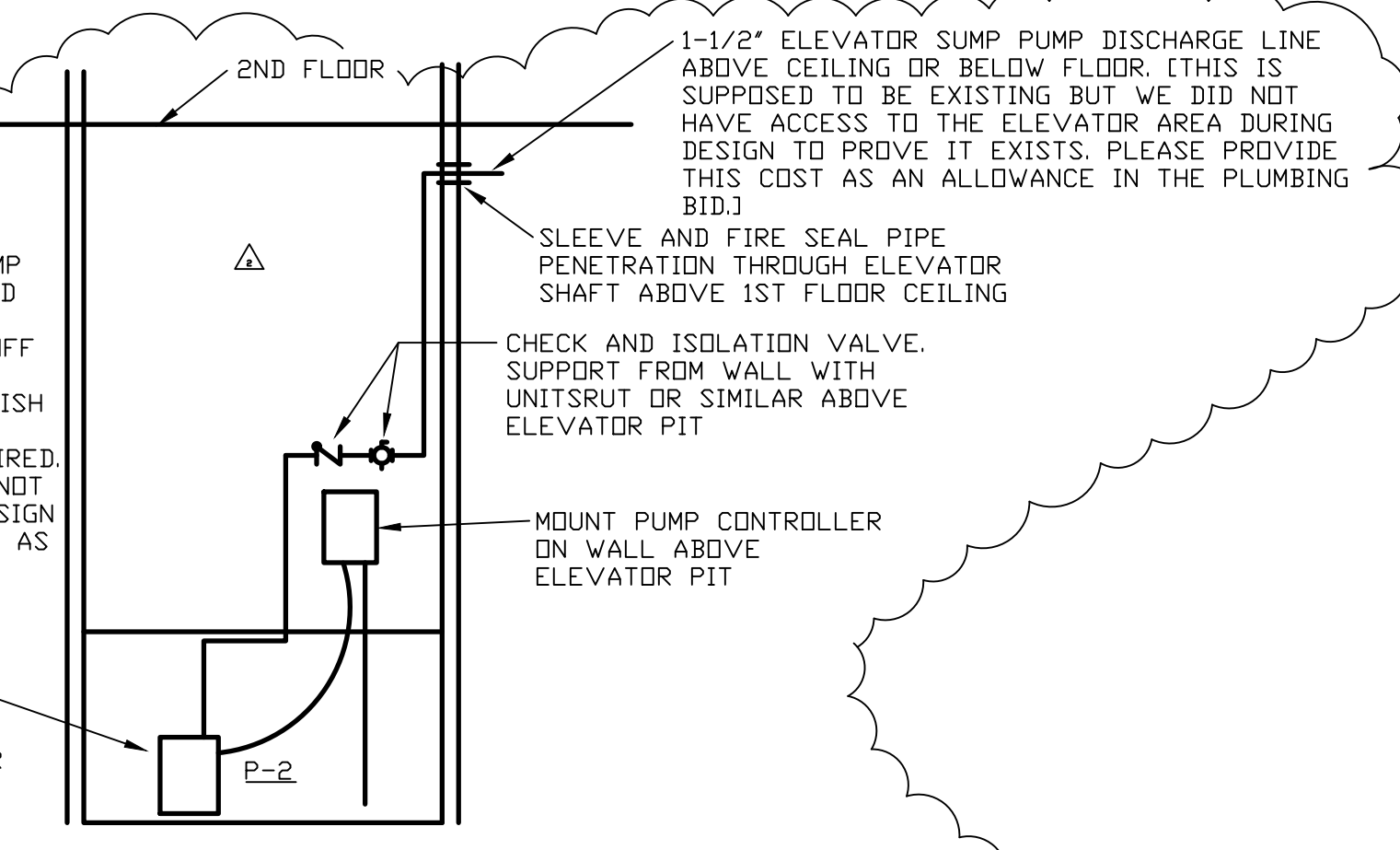
- NOTE:
1. ALL WASTE AND VENT LINES ON THE SECOND FLOOR ARE NEW UNLESS NOTED OTHERWISE.
 2. FIELD VERIFY SIZE, DEPTH AND LOCATION OF ALL EXISTING WASTE LINES.
 3. SUBMIT GREASE INTERCEPTOR SHOP DRAWING TO OWNER OR ENGINEER AND CITY OF PHOENIX INSPECTOR FOR REVIEW PRIOR TO ORDER
 4. CONSTRUCTION INSPECTION BY A WATER QUALITY INSPECTOR, AS WELL AS A PLUMBING/MECHANICAL BUILDING SAFETY INSPECTOR, IS REQUIRED PRIOR TO BACKFILLING THE INSTALLED GREASE INTERCEPTOR. CALL (602) 495-0278 FOR AN INTERCEPTOR INSPECTION.
 5. CITY OF PHOENIX POLLUTION CONTROL DIVISION INSPECTION REQUIRED PRIOR TO BACKFILL. TO SCHEDULE INSPECTIONS, CONTACT 602-495-0278



ELEVATOR PUMP DETAIL

NO SCALE

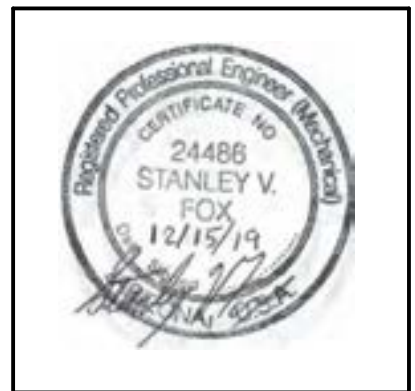
ELEVATOR SUMP PUMP AND CONTROL NOTES:
 1. FURNISH AND INSTALL A 1/2HP, 120VOLT/1Ø SUMP PUMP ON ELEVATOR PIT FLOOR. FURNISH CHECK AND GATE VALVE AND POWER CORD ZOLLER #N13 (GRAINGER 4N197) 8GPM AT 25' HEAD, 26\"/>



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 5025 E. CAREFREE HIGHWAY,
 PHOENIX, AZ



AUGUST RENO

PO BOX 2302
 Carefree, AZ 85377
 37417 Tom Darlington Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325
 WEB SITE
 www.augustreno.com
 EMAIL ADDRESS
 augie@augustreno.com

Construction Drawings:
 PLUMBING SCHEMATICS

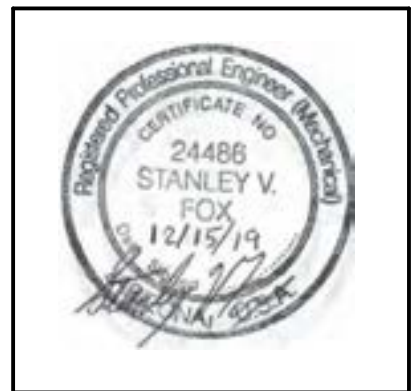
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P2.2

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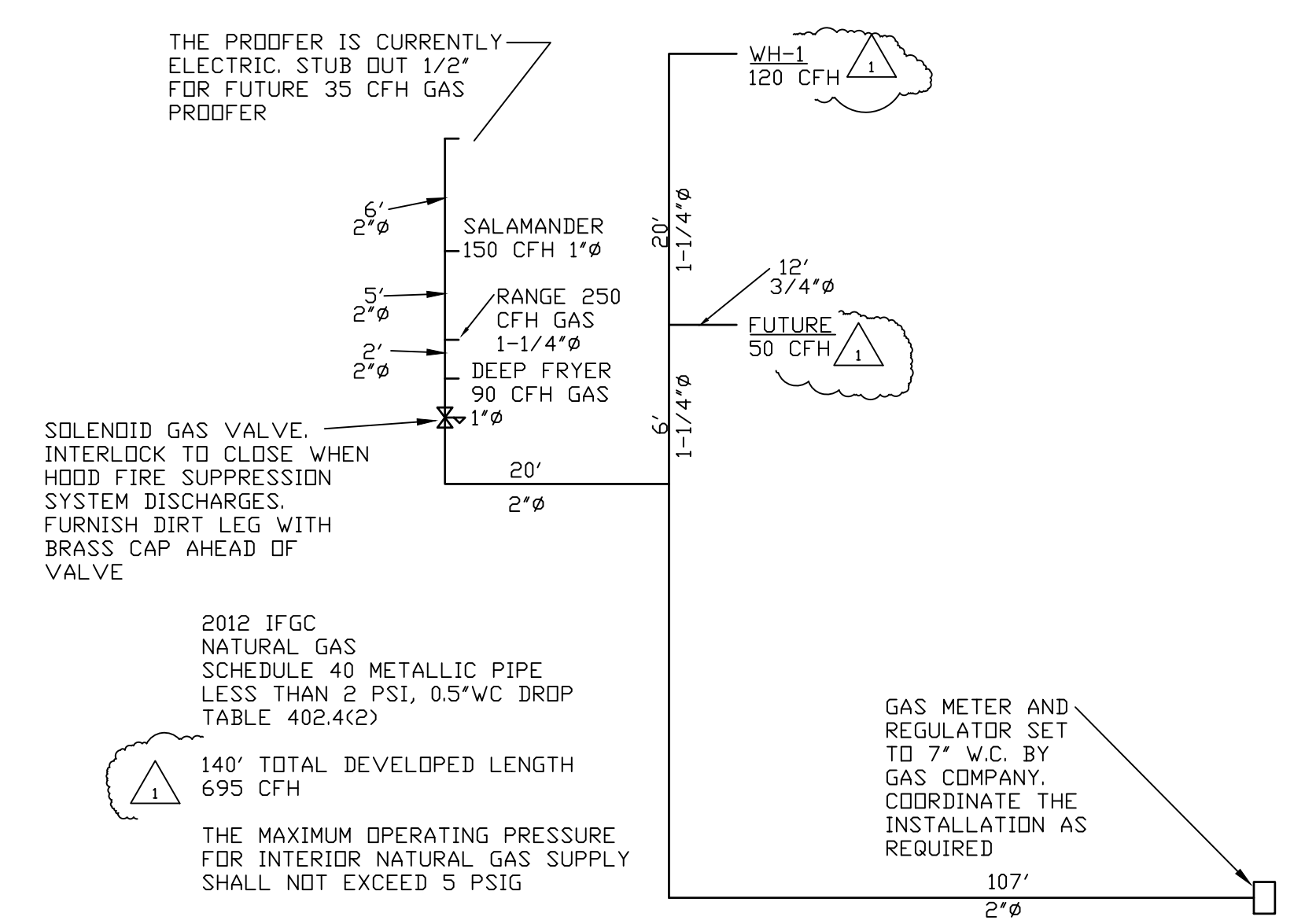
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5025 E. CAREFREE HIGHWAY,
PHOENIX, AZ



PO BOX 2302
 Carefree, AZ 85377
 37417 Tom Darlington Drive
 Carefree, AZ 85377
 (480) 488-9858
 FAX (480) 636-1325
 WEB SITE
 www.augustreno.com
 EMAIL ADDRESS
 augie@augustreno.com

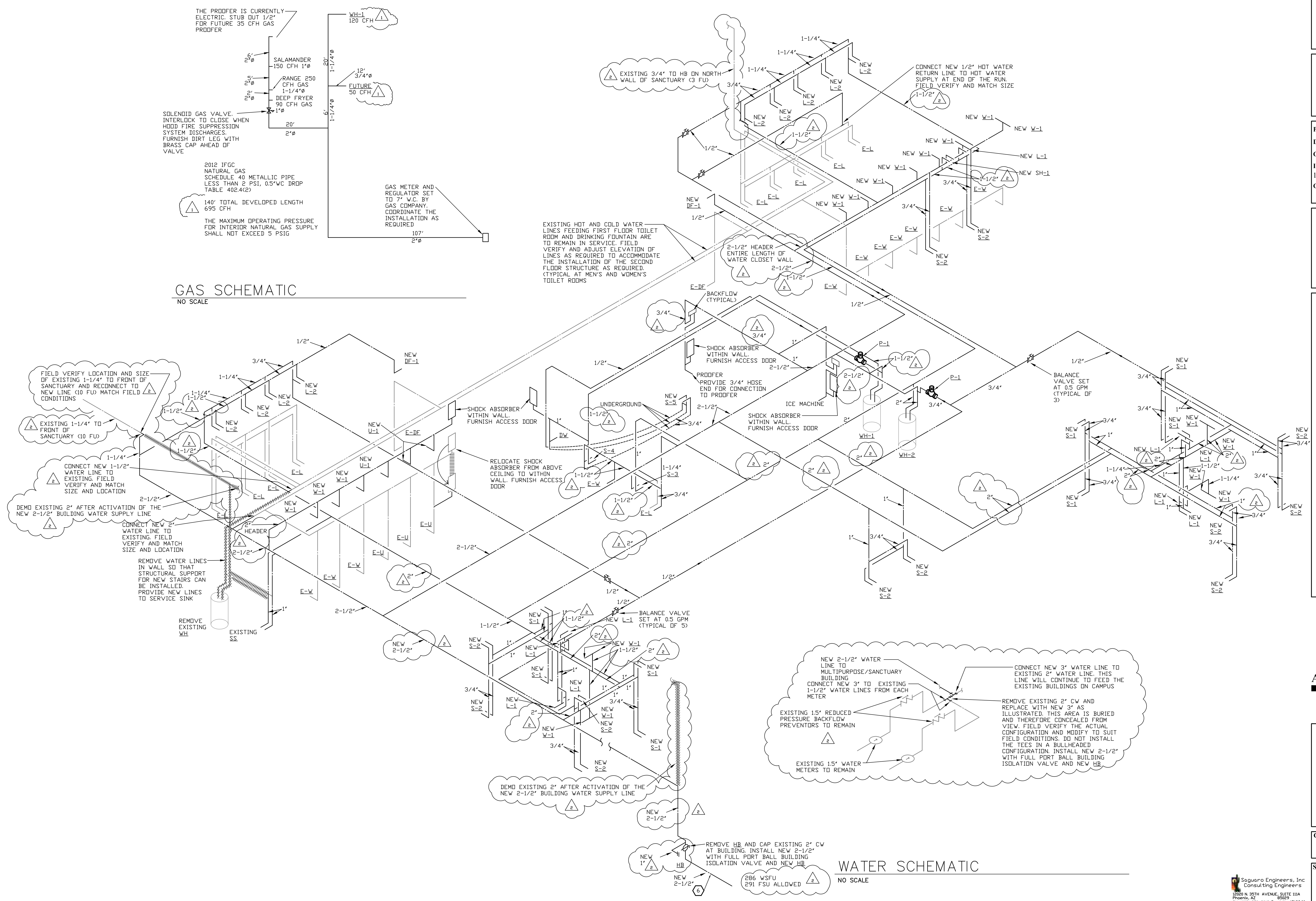
Construction Drawings:
PLUMBING SCHEMATICS

SHEET NO:
P2.3

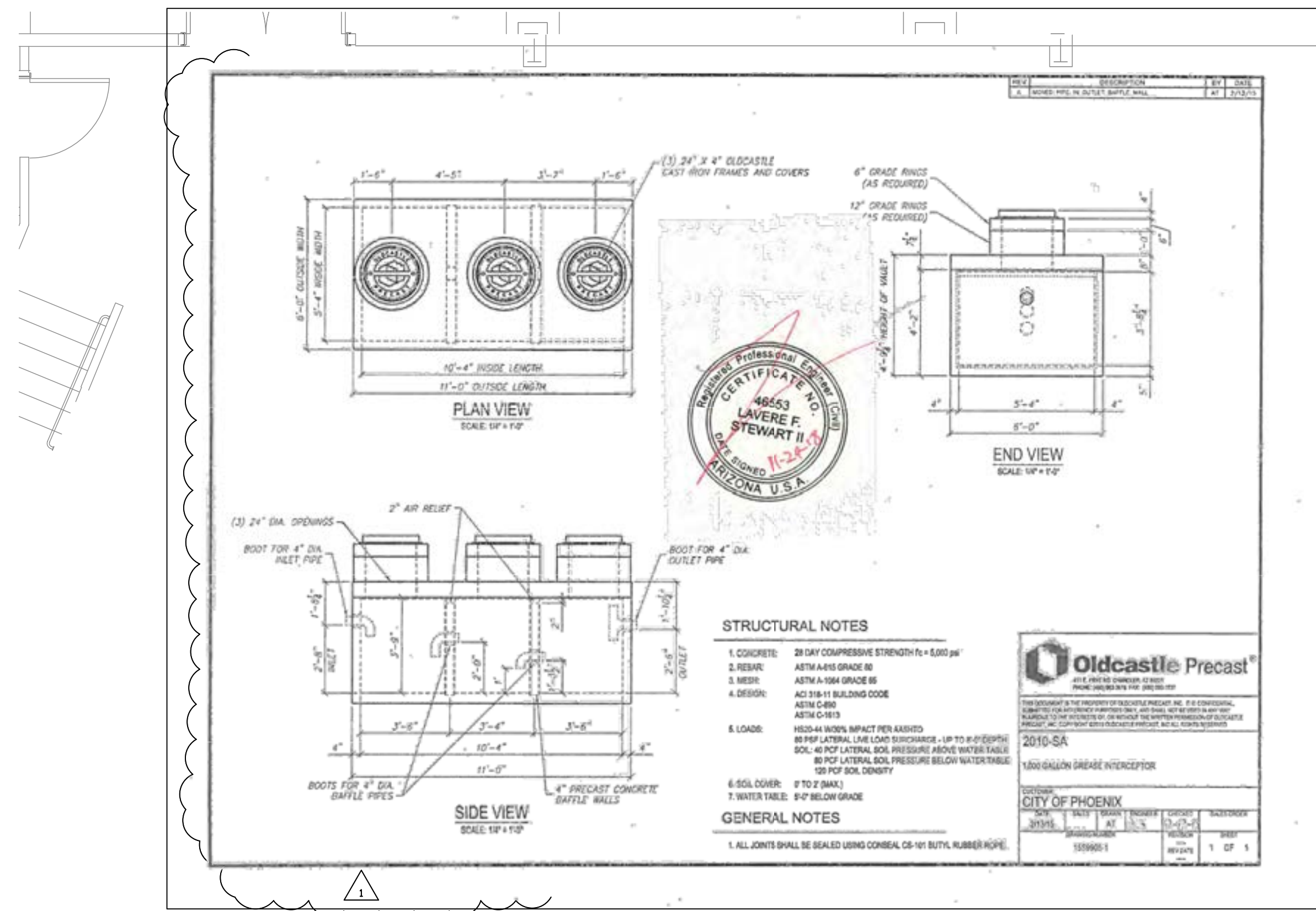


GAS SCHEMATIC
 NO SCALE

EXISTING HOT AND COLD WATER LINES FEEDING FIRST FLOOR TOILET ROOM AND DRINKING FOUNTAIN ARE TO REMAIN IN SERVICE. FIELD VERIFY AND ADJUST ELEVATION OF LINES AS REQUIRED TO ACCOMMODATE THE INSTALLATION OF THE SECOND FLOOR STRUCTURE AS REQUIRED. (TYPICAL AT MEN'S AND WOMEN'S TOILET ROOMS)



WATER SCHEMATIC
 NO SCALE



FUEL GAS SYSTEM (NATURAL GAS)

GENERAL

WORK INCLUDED HEREIN: INSTALL ALL NATURAL GAS PIPING UNDERGROUND AND WITHIN THE BUILDING AS INDICATED ON THE PLANS. FURNISH AND INSTALL PLASTIC MARKING TAPE BURIED ONE FOOT BELOW GRADE OVER ALL GAS LINES. TAPE SHALL BE YELLOW WITH BLACK LETTERS: "CAUTION - GAS LINE BURIED BELOW"

REGULATIONS: ALL MATERIALS, EQUIPMENT AND INSTALLATION MUST COMPLY WITH THE LATEST PUBLICATION OF ALL APPLICABLE CODES, RULES AND REGULATIONS, LOCAL GAS UTILITY COMPANY, ALL OF WHICH MUST BE CONSIDERED A PART OF THESE SPECIFICATIONS, INCLUDING THE REQUIREMENTS OF THE CITY.

PRODUCTS

ALL GAS VALVES, FLANGES AND FITTINGS SHALL BE MARKED FOR IDENTIFICATION.

ABOVE GROUND PIPE:

STEEL PIPE: SCHEDULE 40 BLACK STEEL CONFORMING TO ASTM A53, GRADE A OR B, SEAMLESS WELDED PIPE. EXTERIOR PIPE ABOVE GRADE SHALL BE GALVANIZED.

FITTINGS:

STEEL PIPE 1-1/2" AND SMALLER: EXTRA-HEAVY BLACK MALLEABLE IRON CONFORMING TO USAS B16.3, 150 PSI SWP.

STEEL PIPE 2" AND LARGER: BLACK STEEL SEAMLESS WELDING FITTINGS CONFORMING TO USAS B16.9 AND ANSI B16.25, 150 PSI SWP.

STEEL UNIONS: BLACK MALLEABLE IRON, SCREWED CONNECTIONS, GROUND IRON-TO-BRONZE SEAT, CONFORMING TO ASTM A47, 250 PSI SWP.

VALVES:

PIPING 1-1/2" AND SMALLER: BALL VALVES LISTED FOR GAS SERVICE WITH UL OR AGA RATING.

EXECUTION

INSTALLATION:

INSTALL ALL PIPING IN THE BUILDING ABOVEGROUND OR IN ACCESSIBLE TRENCHES WHERE INDICATED ON THE DRAWINGS. INSTALL NO GAS PIPING IN OR UNDER CONCRETE FLOORS OR IN MASONRY WALLS. WHERE GAS LINES ARE INDICATED TO BE SLEEVED BELOW WALKS AND RISE ON INSIDE OF BUILDING, INSTALL IN ACCORDANCE WITH STANDARD CITY GAS SLEEVE DETAILS.

SUPERVISE THE PROPER INSTALLATION OF GAS METER AND PRESSURE REGULATOR BY THE UTILITY CONTRACTOR.

EXTEND GAS LINES FROM METER TO ALL EQUIPMENT AND CONNECTIONS REQUIRING GAS. INSTALL GAS PIPE WITH SUITABLE DIRT LEGS AT EQUIPMENT CONNECTIONS. INSTALL ACCESSIBLE VALVE AND UNION AT EACH EQUIPMENT CONNECTION. INSTALL VALVE AND UNION WITH CAPPED GAS AT ALL EQUIPMENT STUB-OUTS. COORDINATE LOCATION OF VALVED OUTLETS FOR MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR. INSTALL CHROME-PLATED ESCUTCHED PLATES AT ALL WALL PENETRATIONS EXPOSED TO VIEW. PLUG EACH GAS OUTLET, INCLUDING VALVES, WITH THREADED PLUG OR CAP IMMEDIATELY AFTER INSTALLATION AND RETAIN UNTIL INSTALLATION IS COMPLETE.

EXTERIOR EXPOSED PIPE SHALL BE FIELD WRAPPED OR PAINTED IN ACCORDANCE WITH 2012 IFGC REQUIREMENTS AND ANY OTHER APPLICABLE STANDARDS.

ABOVEGROUND PIPE SHALL BE ELECTRICALLY BONDED AND GROUNDED AS REQUIRED BY NFPA

COORDINATE PIPING WITH MECHANICAL DUCTWORK, CONDUITS, ETC.

ALL SYSTEM REGULATORS SHALL BE FLOW AND LOCKUP TESTED BEFORE LIGHT-UP PER CFR 192.197.

PRESSURE TEST:

COMPLY WITH 2012 IFGC REQUIREMENTS.

UPON COMPLETION OF THE INSTALLATION AND ASSURING THAT THE SYSTEM WILL PASS THE PRESSURE TEST AND MEET ALL THE REQUIREMENTS OF 2012 IFGC, CONTACT THE CITY FOR FINAL INSPECTION AND PRESSURE TEST BEFORE CONCEALING

GENERAL NOTES:

CONTRACTORS SHALL BECOME FAMILIAR WITH THE OWNER'S REQUIREMENTS PRIOR TO BIDDING AND SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THESE REQUIREMENTS.

CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BIDDING AND SHALL BECOME FAMILIAR WITH THE EXISTING CONDITIONS AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN THESE PLANS AND EXISTING CONDITIONS.

FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT OR ENGINEER OF ANY DISCREPANCIES.

ITEMS NOT INDICATED IN THESE DOCUMENTS THAT CAN BE LEGITIMATELY AND REASONABLY INFERRED TO COMPLETE THE WORK AT HAND SHALL BE FURNISHED BY THE CONTRACTOR AS THOUGH IT WERE DETAILED HEREIN.

THIS DOCUMENT SET SHALL BE ISSUED TO ALL PARTIES IN ITS ENTIRETY PER THE SHEET INDEX. THE ACTING GENERAL CONTRACTOR SHALL ENSURE THAT ALL SUBCONTRACTORS HAVE REVIEWED THE ENTIRE DOCUMENT SET FOR THEIR RESPONSIBILITIES AND THAT NO PARTIAL SETS HAVE BEEN ISSUED. ANY DISCREPANCIES THAT ARISE SHALL BE THE FULL RESPONSIBILITY OF THE GENERAL CONTRACTOR TO REMEDY IN RELATION TO SCHEDULE AND COST IMPACTS.

THE CONTRACTOR ACKNOWLEDGES AND UNDERSTANDS THAT THE CONTRACT DOCUMENTS MAY REPRESENT IMPERFECT DATA AND MAY CONTAIN ERRORS, OMISSIONS, CONFLICTS, INCONSISTENCIES, CODE VIOLATIONS AND IMPROPER USE OF MATERIALS. SUCH DEFICIENCIES WILL BE CORRECTED WHEN IDENTIFIED. THE CONTRACTOR AGREES TO CAREFULLY STUDY AND COMPARE THE INDIVIDUAL CONTRACT DOCUMENTS AND REPORT AT ONCE IN WRITING TO THE OWNER ANY DEFICIENCIES THE CONTRACTOR MAY DISCOVER. THE CONTRACTOR FURTHER AGREES TO REQUIRE EACH SUBCONTRACTOR TO LIKEWISE STUDY THE DOCUMENTS AND REPORT AT ONCE ANY DEFICIENCIES DISCOVERED.

THE CONTRACTOR SHALL RESOLVE ALL REPORTED DEFICIENCIES WITH THE OWNER AND ARCHITECT OF RECORD PRIOR TO AWARDED ANY SUBCONTRACTS OF STARTING ANY WORK WITH THE CONTRACTOR'S OWN EMPLOYEES. ANY WORK PERFORMED PRIOR TO RECEIPT OF INSTRUCTION FROM THE OWNER WILL BE DONE AT THE CONTRACTORS RISK.

CONDUIT, OUTLETS, PIPES, SUPPORTS, SWITCHES, SENSORS, ETC. TO BE INSTALLED LEVEL WITH EACH OTHER AND PLUMB

ALL WORK SHALL BE INSPECTED AND APPROVED BY CITY OF PHOENIX INSPECTORS AND ARCHITECT AS THE WORK PROGRESSES. COORDINATE THE REVIEWS THAT WILL BE REQUIRED PRIOR TO THE PREPARATION OF THE PROJECT SCHEDULE AND ACCOUNT FOR THE REVIEW IN THE SCHEDULE.

ALL EXPOSED STEEL SHALL BE PRIMED AND PAINTED WITH TWO COATS OF PRIMER AND PAINT TO THE SATISFACTION OF THE OWNER AND THE ARCHITECT. PAINT AND COLORS ARE TO BE AS REQUIRED BY THE OWNER'S REPRESENTATIVE.

ISSUED FOR:

BUILDING PERMIT

BIDDING

REVISION:

- △ 12-15-2019 ENGINEER CORR
- △ CITY REVIEW COMMENTS
- △ 06-10-2019 CITY REVIEW COMMENTS

PROJECT NO: 16135.00

DRAWN BY: SVF

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CAREFREE CHURCH
5025 E. CAREFREE HIGHWAY,
PHOENIX, AZ



PO BOX 2302
Carefree, AZ 85377

37417 Tom Darlington Drive
Carefree, AZ 85377
(480) 488-9858
FAX (480) 636-1325

WEBSITE
www.augustreno.com
EMAIL ADDRESS
augie@augustreno.com

Construction Drawings:
PARTIAL FLOOR
PLAN

SHEET NO:
PLUMBING
SPECS
P3.2

KITCHEN EQUIPMENT REQUIRMENTS

MARK	DESCRIPTION ▲	VOLT. / Ø	FLA	BRANCH CIRCUIT		WIRE / CONDUIT SIZE ■	TERMINATION TYPE ●
				PANEL	CIRCUIT		
B	COMMERCIAL FREEZER	120/1Ø	11.8	B1	26	(2) #12 CU. (1) #12 CU. GND. 3/4" C.	RECEPTACLE
C	CHILLER WITH DRAWERS	120/1Ø	7.5	B1	36	(2) #12 CU. (1) #12 CU. GND. 3/4" C.	RECEPTACLE
D	GAS STOVE	120/1Ø	200W	B1	28	(2) #12 CU. (1) #12 CU. GND. 3/4" C.	RECEPTACLE
E	ICE MAKER	208/1Ø	19.8	B	8-10	(2) #10 CU. (1) #10 CU. GND. 3/4" C.	RECEPTACLE
F	BEER REFRIGERATOR	120/1Ø	.917	B1	30	(2) #12 CU. (1) #12 CU. GND. 3/4" C.	RECEPTACLE
G	WALK IN REFRIGERATOR	208/1Ø	17.4	B	12-14	(2) #10 CU. (1) #10 CU. GND. 3/4" C.	RECEPTACLE
I	PRESCISION STAND UP FREEZER	208/1Ø	2.4	B	16-18	(2) #12 CU. (1) #12 CU. GND. 3/4" C.	RECEPTACLE
K	WARMER OVEN	208/3Ø	21.9	B	20-22-24	(3) #10 CU. (1) #10 CU. GND. 3/4" C.	RECEPTACLE
L	PITCO FRIALATOR	120/1Ø	12	B1	32	(2) #12 CU. (1) #12 CU. GND. 3/4" C.	RECEPTACLE
M	BAKERS PRIDE OVEN	208/3Ø	31.8	B	26-28-30	(3) #6 CU. (1) #8 CU. GND. 1" C.	RECEPTACLE
M1	BAKERS PRIDE OVEN	208/3Ø	31.8	B	32-34-36	(3) #6 CU. (1) #8 CU. GND. 1" C.	RECEPTACLE
N	DISHWASHER	120/1Ø	9.4	B1	34	(2) #12 CU. (1) #12 CU. GND. 3/4" C.	RECEPTACLE

KITCHEN EQUIPMENT REQUIRMENTS

- ELECTRICAL CONTRACTOR SHALL VERIFY ELECTRICAL CHARACTERISTICS (ie: KW, FLA, VOLTAGE, etc.) OF ACTUAL SUPPLIED EQUIPMENT PRIOR TO ORDERING ANY ELECTRICAL DEVICES, etc. SIZE FUSES AND DISCONNECT SWITCHES PER SUPPLIED MECHANICAL EQUIPMENT MANUFACTURER'S SPECIFICATIONS. PROVIDE CORRECT SIZE/TYPE/VOLTAGE/QUANTITY OF DUAL-ELEMENT, TIME-DELAY FUSE(S) SIZED PER EQUIPMENT MANUFACTURER UNLESS OTHERWISE SPECIFIED BY UNIT NAME PLATE OR MANUFACTURERS DATA.
- ALL FEEDERS SHALL BE IN ACCORDANCE WITH THE NEC 2011 (OR LATEST ADOPTED).
- ▲ COORDINATE EXACT LOCATIONS OF ALL; EQUIPMENT PRIOR TO ROUGH-IN

GENERAL NOTES:

ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH 2011 (OR LATEST ADOPTED) NATIONAL ELECTRICAL CODES AND ALL APPLICABLE LOCAL CODES, ORDINANCES AND MAG AMENDMENTS TO N.E.C.

CONTRACTOR IS TO CONTACT POWER COMPANY REGARDING EXACT LOCATIONS OF ALL PRIMARY SERVICE EQUIPMENT, TRENCH LOCATIONS, TRANSFORMER LOCATIONS, METER LOCATIONS, ETC.

ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY POWER TRENCHING, BACKFILL, SERVICE EQUIPMENT AND CONDUIT STUBS IN TRENCH AS REQUIRED BY POWER COMPANY AND TO THEIR SPECIFICATIONS.

CONTRACTOR IS TO CONTACT TELEPHONE COMPANY REGARDING EXACT LOCATIONS OF ALL PRIMARY SERVICE EQUIPMENT, TRENCHES, ETC.

ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY TELEPHONE TRENCHING, BACKFILL, AND CONDUIT STUBS INTO TRENCH AS REQUIRED BY THE TELEPHONE COMPANY AND TO THEIR SPECIFICATIONS.

ALL WIRING SHALL BE COPPER UNLESS OTHERWISE NOTED. INSULATION SHALL BE TYPE XHHW OR THHN/THWN. WIRING FOR OUTSIDE LIGHTING SHALL BE A MINIMUM OF #10AWG COPPER. FOR UNDERGROUND CIRCUITS RUN IN PVC CONDUIT, CONTRACTOR IS TO PROVIDE A COPPER BOND WIRE SIZED PER N.E.C. 250-122.

CONTRACTOR IS TO VERIFY EXACT LOCATION, MOUNTING HEIGHTS AND ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT PROVIDED BY OTHERS PRIOR TO ROUGH-IN. CONTRACTOR IS TO PROVIDE DISCONNECT SWITCHES AND TRANSFORMERS AS REQUIRED, AND FINAL CONNECTIONS TO EQUIPMENT PER OWNER.

CONTRACTOR IS TO COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATIONS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT PRIOR TO BID.

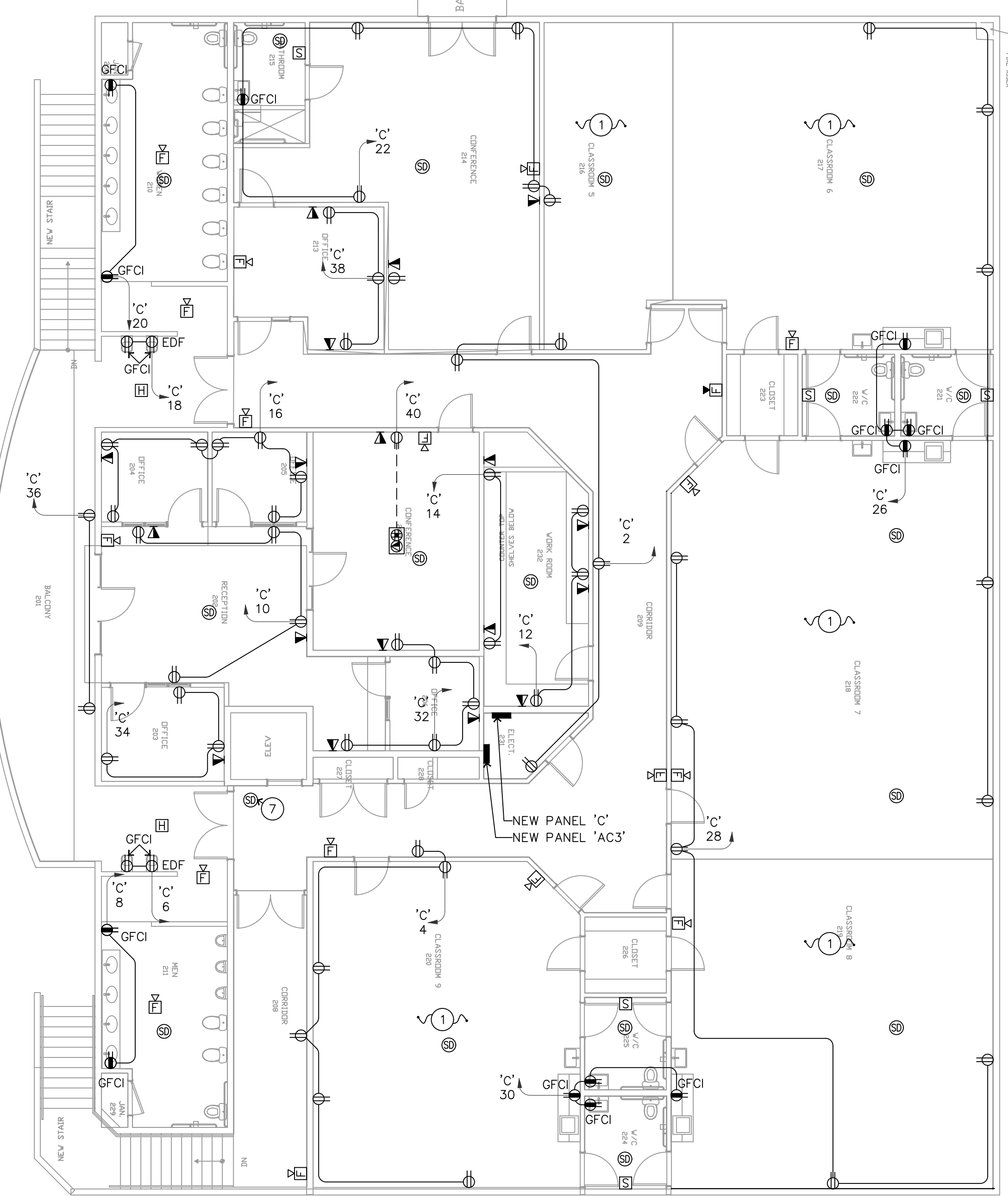
ALL GENERAL USE RECEPTACLES MOUNTED WITHIN 6' OF A BASIN OR SINK SHALL BE G.F.C.I.

CONTRACTOR IS TO PROVIDE BOND WIRE IN ALL RACEWAYS, SIZED PER N.E.C. ART. #250.

ELECTRICAL CONTRACTOR SHALL PROPERLY SUPPORT ALL EXISTING AND NEW CONDUIT FROM NEW SUPPORTS PER NEC ART. 300-11.

KEYED NOTES:

- 1 RECEPTACLES IN THIS AREA SHALL BE TAMPER-RESISTANT.
- 2 PROVIDE 2" CONDUIT TO TEL CO. POINT OF PRESENCE.
- 3 CIRCUIT TO ELEVATOR DISCONNECT IN S.E.S. 200-AMP, 208-VOLT, 3-PHASE "BUSSMAN" ALL-IN-ONE POWER MODULE WITH FUSED POWER SWITCH AND INTERNAL SHUNT-TRIP FOR COMPLETE CONNECTION TO ELEVATOR. PROVIDE WITH (1) SET OF AUXILIARY CONTACTS FOR AUTOMATIC RECALL AND INTER-LOCK WITH HEAT & SMOKE DETECTORS ASSOCIATED WITH EQUIPMENT ROOM & ELEVATOR SHAFT (REFER TO PLAN). FIELD-VERIFY EXACT LOCATION OF ELEVATOR EQUIPMENT. PROVIDE WITH 125-AMP, CLASS 'J' FUSES (VERIFY WITH ELEVATOR MANUFACTURER'S SPECIFICATIONS).
- 4 (CIRCUIT "B1"-9)ELEVATOR CAB LIGHT DISCONNECT SWITCH PER N.E.C. 620-22, 620-53.
- 5 (CIRCUIT "B1"-11)RECEPTACLE AND (CIRCUIT "B1"-13") LIGHT FIXTURE MOUNTED IN PIT PER N.E.C. 620-24.
- 6 HEAT DETECTORS IN ELEVATOR PIT/HOISTWAY AND EQUIPMENT ROOM MOUNTED WITH-IN 24" NEXT TO EACH FIRE SPRINKLER HEAD. HEAT DETECTORS SHALL BE TEMPERATURE-SET BELOW SPRINKLER HEAD AND SHALL SHUNT ELEVATOR POWER OFF.
- 7 SMOKE DETECTOR IN ELEVATOR LOBBY FOR ELEVATOR RECALL.



POWER PLAN FLOOR 2

SCALE: 1/8"=1'-0"

"N" INDICATES NEW DEVICE TO MATCH EXISTING BUILDING/TENANT STANDARDS. (TYPICAL U.N.O.)

"E" INDICATES EXISTING DEVICE AND BRANCH CIRCUITING TO REMAIN. (TYPICAL U.N.O.)

"R" INDICATES EXISTING DEVICE TO BE RELOCATED AS SHOWN. PROVIDE ADDITIONAL CONDUIT & CONDUCTORS AS REQUIRED. (TYPICAL U.N.O.)

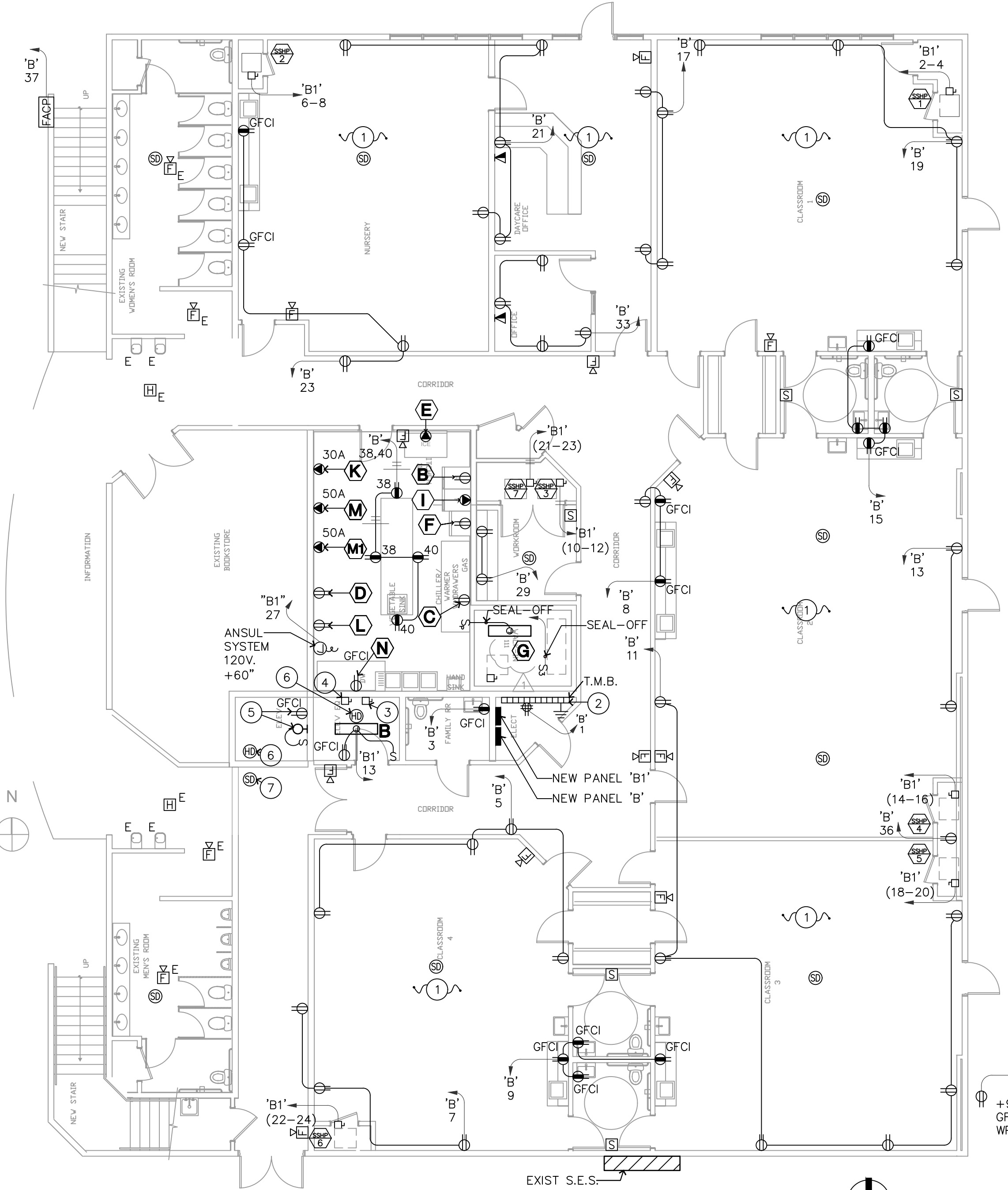
"XR" INDICATES EXISTING DEVICE TO BE ABANDONED. RETURN TO OWNER/TENANT STOCKPILE U.N.O. (TYPICAL)

CONTRACTOR NOTE:

CONTRACTOR SHALL MAKE THE NECESSARY MODIFICATIONS AND PROVIDE AND INSTALL ADDITIONAL DEVICES FOR THE EXISTING FIRE ALARM SYSTEM WHICH COMPLIES WITH 2003 (OR MOST RECENTLY ADOPTED) INTERNATIONAL BUILDING CODE (IBC), AND AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. PROVIDE AND SUBMIT PLANS AND SPECIFICATIONS TO THE GOVERNING AUTHORITY FOR APPROVAL. FORWARD (2) SETS OF APPROVED DRAWINGS TO THE ARCH/ENG. PROVIDE UNIT SHUTDOWN FOR ALL AIR CONDITIONERS WITH 2,000 CFM AND ABOVE FROM FIRE ALARM SYSTEM.

KITCHEN NOTE:

ALL 120V. RECEPTACLES IN KITCHEN SHALL BE GFCI.



POWER PLAN FLOOR 1

SCALE: 1/8"=1'-0"

Job No. 17220
David Watson, P.E.
3172 David G. Watson
Professional Engineer, No. 3172
Arizona, U.S.A.
Capres 3/31/21

CITY COMMENTS
6/28/19
10.04.19
Revision 3

mw engineering, llc
Electrical Consulting Engineering Group

CAREFREE CHURCH
5025 E. CAREFREE HWY.
CAVE CREEK, AZ 86631

DRAWN BY: JW
CHECKED BY: DW
DATE: 06/28/2017
SCALE: AS NOTED
JOB NO. 17220

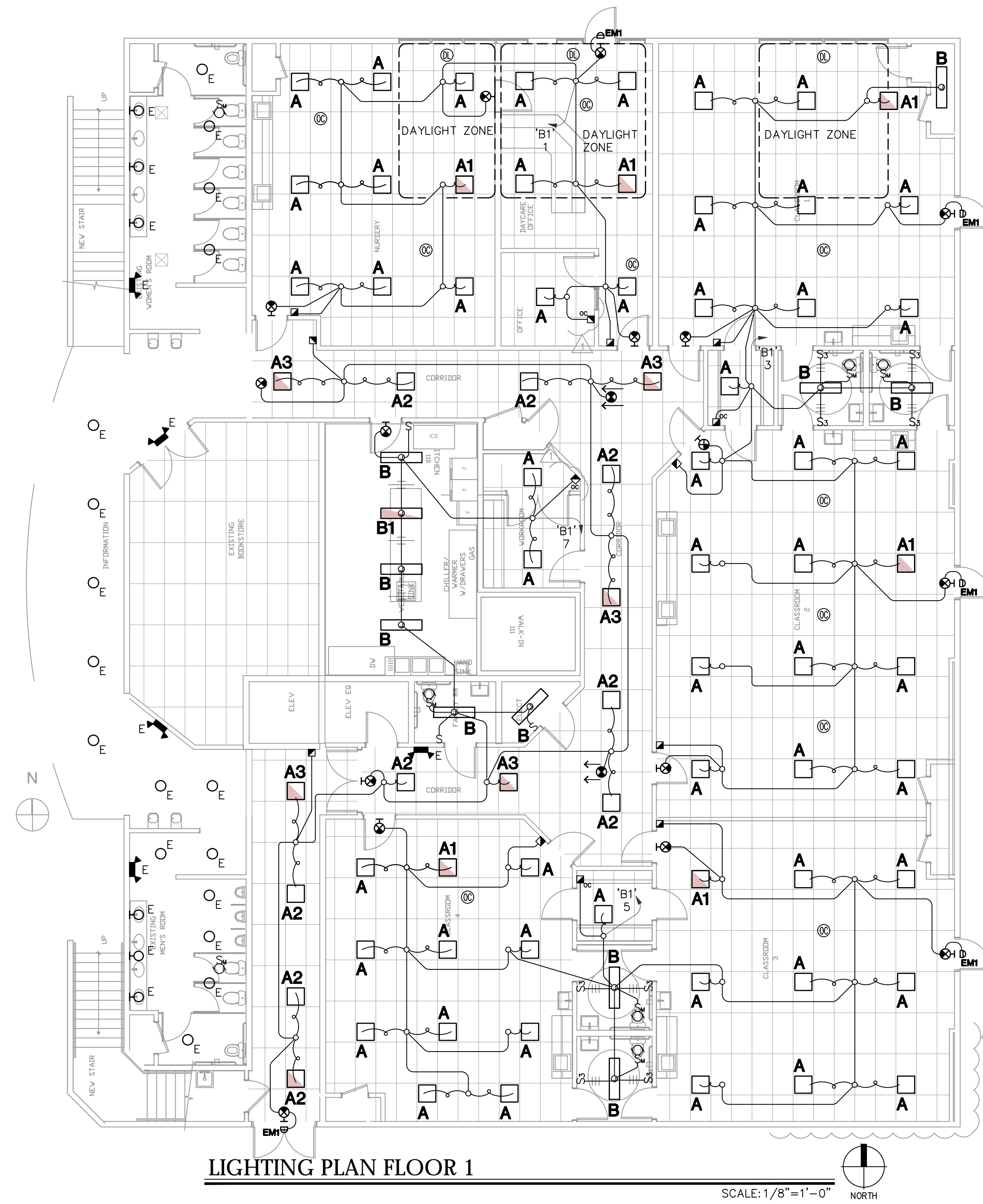
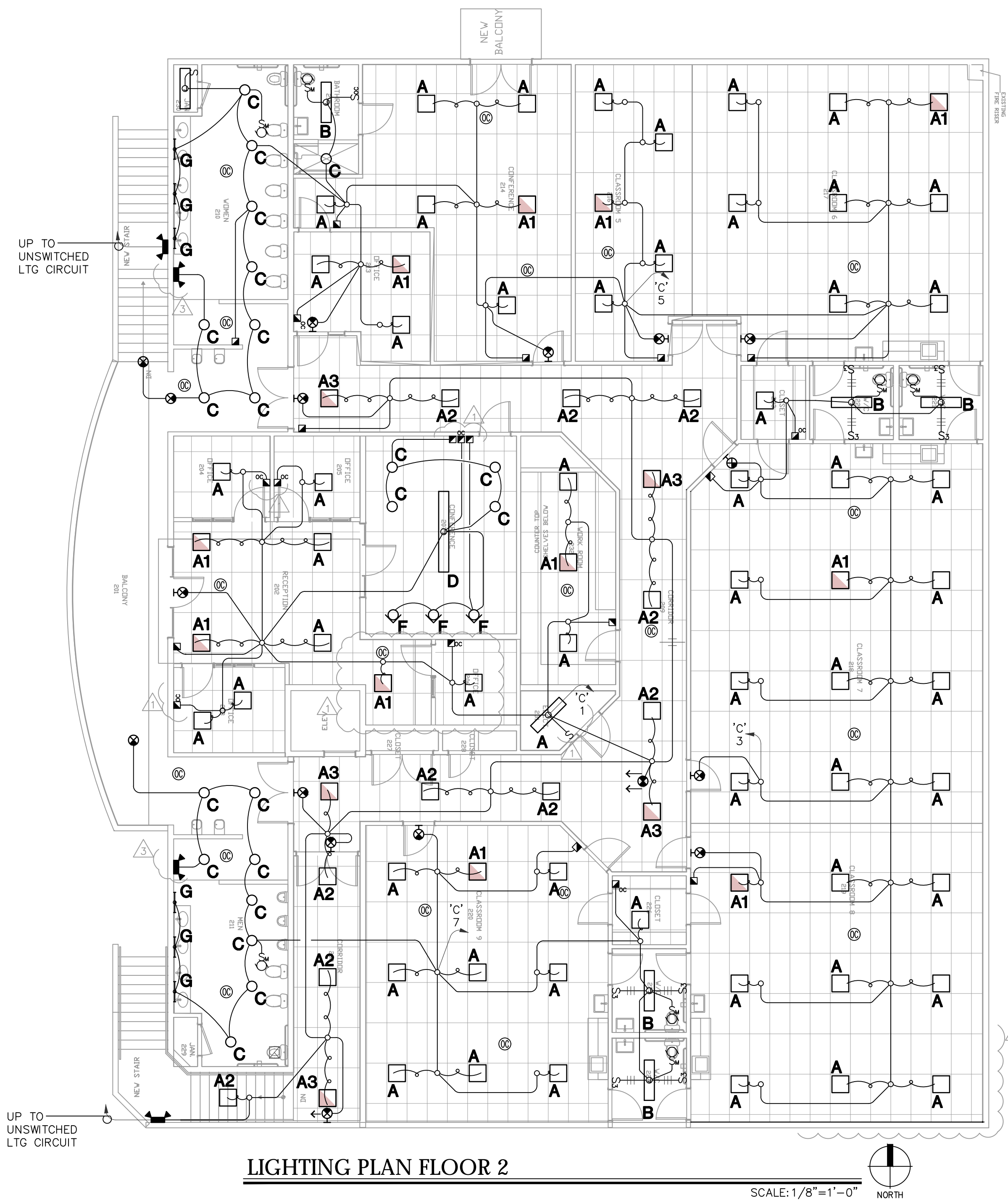
Professional Engineer, No. 3172
David G. Watson
Arizona, U.S.A.
Capres 3/31/21

E1

LIGHT FIXTURE SCHEDULE

MARK	DESCRIPTION	MFR.	CATALOG #	VOLT.	LAMPS # TYPE	REMARKS
A	2x2 TROFFER	COLUMBIA	LCAT22-35-MLG-EDU	120	29W LED	-
A1	2x2 TROFFER EMERGENCY BATTERY	COLUMBIA	LCAT22-35-MLG-EDU ELL14	120	29W LED	-
A2	2x2 TROFFER FIRE BLANKET OPTION	COLUMBIA	LCAT22-35-MLG-EDU	120	29W LED	-
A3	2x2 TROFFER FIRE BLANKET W EM BATTERY	COLUMBIA	LCAT22-35-MLG-EDU ELL14	120	29W LED	-
B	1X4 WRAP AROUND	COLUMBIA	LAW4-35ML-EDU	120	28W LED	-
B1	1X4 WRAP AROUND EMERGENCY BATTERY	COLUMBIA	LAW4-35ML-EDU-ELL14	120	28W LED	-
C	DOWN LIGHT	PRESCOLITE	LC6MLDM1-30L35K8	120	32.5W LED	-
D	8' LINEAR	FINE LITE	HP-4 ID-12-S-S-935 TG-F-120-FA-SC-C1	120	73.3W LED	-
F	DIRECTIONAL WALL WASH	PRESCOLITE	LC6MLDM1WWCP-30L35K8 WHWB24	120	32.5W LED	-

MARK	DESCRIPTION	MFR.	CATALOG #	VOLT.	LAMPS # TYPE	REMARKS
G	CONTEMPORARY LED WALL MOUNT	COLOMBIA	CWM352-MLSM-DIS-EDU	120	37W LED	-
	EMERGENCY LIGHT UNIT WITH BATTERY BACK-UP	DUAL-LITE	LZ	120/277	LED's W/FIXTURE	-
	EXIT SIGN WITH BATTERY BACK-UP	DUAL-LITE	SE		LED's W/FIXTURE	-
D EM1	EXTERIOR EMERGENCY LIGHT W/ BACKUP BATTERY	DUAL-LITE	PGZ		LED's W/FIXTURE	-



12/3/18 CITY COMMENTS
6/28/19 CITY COMMENTS
10.04.19 Revision 3

mw engineering, llc
Electrical Consulting Engineering Group
Job No. 17220
David Watson, PE
david@mweng.com
480.732.5281 / 480.732.5282
2001 W. Alameda Drive, Suite 102, Tempe, AZ 85283

CAREFREE CHURCH
5025 E. CAREFREE HWY.
CAVE CREEK, AZ 86631

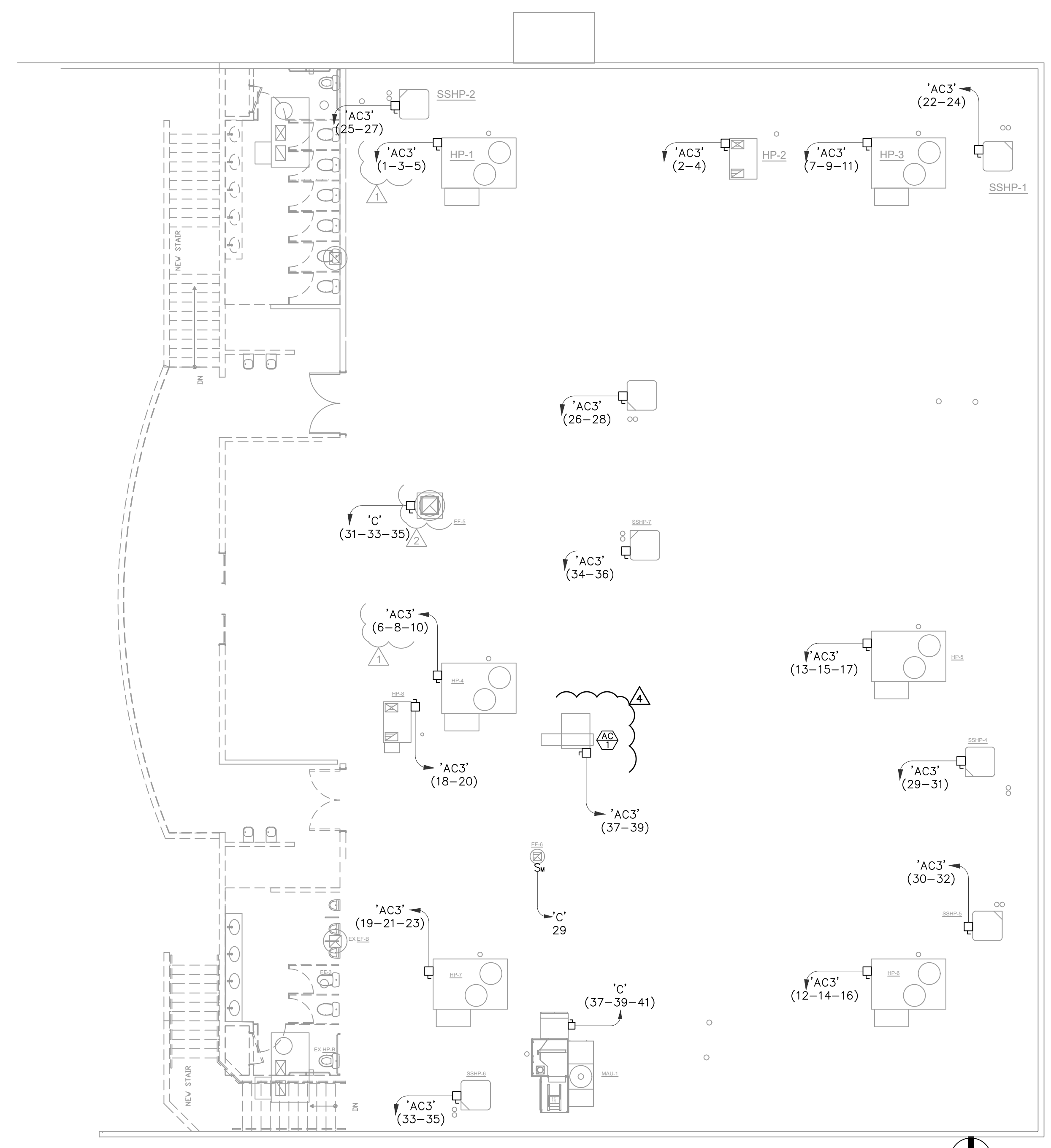
DRAWN BY: JW
CHECKED BY: DW
DATE: 08/28/2017
SCALE: AS NOTED
JOB NO. 17220

Professional Engineer Seal
3172
DAVID G. WATSON
Professional Engineer
Arizona, U.S.A.
Expires 3/31/21

E2

ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT						
EQUIP. NO.	VOLT/ PHASE	FLA	HP	HEATING (KW)	WIRE / CONDUIT SIZE	REMARKS
HP-1	208/3	16.6	-	-	(3) #10 CU. (1) #10 CU. GND. 3/4"C.	--
HP-2	208/1	17.9	-	-	(2) #8 CU. (1) #10 CU. GND. 3/4"C.	--
HP-3	208/3	19.7	-	-	(3) #8 CU. (1) #10 CU. GND. 3/4"C.	--
HP-4	208/3	30.1	-	-	(3) #6 CU. (1) #8 CU. GND. 3/4"C.	--
HP-5	208/3	25.7	-	-	(3) #6 CU. (1) #8 CU. GND. 3/4"C.	--
HP-6	208/3	19.7	-	-	(3) #8 CU. (1) #10 CU. GND. 3/4"C.	--
HP-7	208/3	25.7	-	-	(3) #6 CU. (1) #8 CU. GND. 3/4"C.	--
HP-8	208/1	17.9	-	-	(2) #8 CU. (1) #10 CU. GND. 3/4"C.	--
SSH-1	208/1	23	-	-	(2) #8 CU. (1) #10 CU. GND. 3/4"C.	OUTDOOR UNIT
SSH-2	208/1	17.4	-	-	(2) #8 CU. (1) #10 CU. GND. 3/4"C.	OUTDOOR UNIT
SSH-3	208/1	9.5	-	-	(2) #10 CU. (1) #10 CU. GND. 3/4"C.	OUTDOOR UNIT
SSH-4	208/1	27.6	-	-	(2) #6 CU. (1) #10 CU. GND. 3/4"C.	OUTDOOR UNIT
SSH-5	208/1	23	-	-	(2) #8 CU. (1) #10 CU. GND. 3/4"C.	OUTDOOR UNIT
SSH-6	208/1	17.4	-	-	(2) #8 CU. (1) #10 CU. GND. 3/4"C.	OUTDOOR UNIT
SSH-7	208/1	17.4	-	-	(2) #8 CU. (1) #10 CU. GND. 3/4"C.	OUTDOOR UNIT
EF-1	120/1	-	1/20	-	(2) #12 CU. (1) #12 CU. GND. 1/2"C.	--
EF-2	120/1	-	1/20	-	(2) #12 CU. (1) #12 CU. GND. 1/2"C.	--
EF-3	120/1	-	1/20	-	(2) #12 CU. (1) #12 CU. GND. 1/2"C.	--
EF-5	208/3	-	1.5	-	(3) #8 CU. (1) #10 CU. GND. 3/4"C.	--
EF-6	120/1	-	1/10	-	(2) #12 CU. (1) #12 CU. GND. 1/2"C.	--
SSH-1	208/1	24.9	3/4	5	(2) #8 CU. (1) #10 CU. GND. 3/4"C.	INDOOR UNIT/HEAT
SSH-2	208/1	22.4	1/2	5	(2) #8 CU. (1) #10 CU. GND. 3/4"C.	INDOOR UNIT/HEAT
SSH-3	208/1	22.4	1/2	5	(2) #8 CU. (1) #10 CU. GND. 3/4"C.	INDOOR UNIT/HEAT
SSH-4	208/1	24.9	3/4	5	(2) #8 CU. (1) #10 CU. GND. 3/4"C.	INDOOR UNIT/HEAT
SSH-5	208/1	24.9	3/4	5	(2) #8 CU. (1) #10 CU. GND. 3/4"C.	INDOOR UNIT/HEAT
SSH-6	208/1	22.4	1/2	5	(2) #8 CU. (1) #10 CU. GND. 3/4"C.	INDOOR UNIT/HEAT
SSH-7	208/1	22.4	1/2	5	(2) #8 CU. (1) #10 CU. GND. 3/4"C.	INDOOR UNIT/HEAT
AC-1	208/1	14.4	-	-	(2) #10 CU. (1) #10 CU. GND. 3/4"C.	INDOOR UNIT/HEAT

* VERIFY ELECTRICAL CHARACTERISTICS (ie: KW, FLA, VOLTAGE, etc.) OF ACTUAL SUPPLIED EQUIPMENT PRIOR TO ORDERING ANY ELECTRICAL DEVICES, etc. SIZE FUSES AND DISCONNECT SWITCHES PER SUPPLIED MECHANICAL EQUIPMENT MANUFACTURER'S SPECIFICATIONS.



ROOF POWER PLAN

SCALE: 1/8" = 1'-0" NORTH

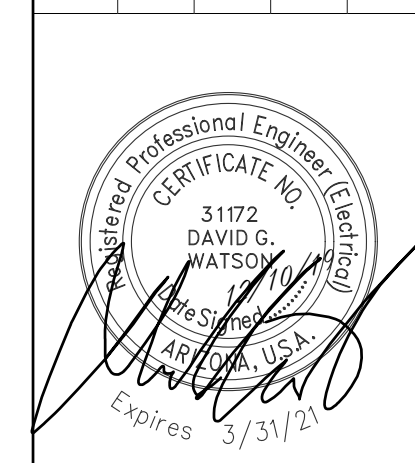
Job No. 17220
 4825 E. CAREFREE HWY. SUITE 100
 CAVE CREEK, AZ 85033
 480.481.1111
 www.mwengr.com

mw engineering, llc
 Electrical Consulting Engineering Group

12/3/18	CITY COMMENTS
6/28/19	CITY COMMENTS
10.04.19	Revision 3

CAREFREE CHURCH
 5025 E. CAREFREE HWY.
 CAVE CREEK, AZ 85033

DRAWN BY: JW
 CHECKED BY: DW
 DATE: 08/28/2017
 SCALE: AS NOTED
 JOB NO. 17220



3/31/21

E3

ELECTRICAL SYMBOLS (NOTE: ALL SYMBOLS MAY NOT APPLY TO THIS PROJECT)

- CEILING MOUNTED LIGHT FIXTURE
- ⊖ WALL MOUNTED LIGHT FIXTURE
- FLUORESCENT FIXTURE
- ⊗ EXIT SIGN - SEE LIGHT FIXTURE SCHEDULE
- ⊕ JUNCTION BOX IN ACCESSIBLE LOCATION ABOVE REMOVABLE CEILING W/ FLEXIBLE CONDUIT CONNECTION TO LIGHT FIXTURE
- ⊖ FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT
- ⊕ SURFACE-MOUNT EMERGENCY LIGHTING BATTERY PACK-SINGLE OR DOUBLE HEAD- SEE LIGHT FIXTURE SCHEDULE
- ⊖ RECESSED EMERGENCY LIGHTING BATTERY PACK-SINGLE OR DOUBLE HEAD- SEE LIGHT FIXTURE SCHEDULE
- ⊕ JUNCTION BOX IN ACCESSIBLE LOCATION
- ⊖ DUPLEX CONVENIENCE RECEPTACLE AT +15" A.F.F. TO BOTTOM OR AS NOTED
- ⊕ FOUR-PLEX CONVENIENCE RECEPTACLE AT +15" A.F.F. TO BOTTOM OR AS NOTED
- ⊖ ISOLATED GROUND RECEPTACLE AT + 15" A.F.F. TO BOTTOM OR AS NOTED
- ⊕ RECEPTACLE (TYPE AS SHOWN) AT + 42" A.F.F.
- ⊖ SPECIAL USE RECEPTACLE. VERIFY NEMA NUMBER AND MOUNTING HEIGHT WITH EQUIPMENT
- S₃ S₄ TOGGLE SWITCH - SINGLE POLE, 3-WAY, 4-WAY AT +42" OR AS NOTED ON PLANS.
- S_P SINGLE-POLE, ILLUMINATED HANDEL OR PILOT LIGHT TOGGLE SWITCH AT +42" OR AS NOTED ON PLANS
- S_M MOTOR RATED SWITCH WITH THERMAL PROTECTION
- S_{OC} TOGGLE SWITCH - SINGLE POLE OCCUPANCY SENSING SWITCH, WITH MANUAL AND AUTOMATIC CONTROL, DUAL TECHNOLOGY PIR AND ULTRASONIC, LUTRON OR EQUAL.
- ☉ PHOTOCELL - TORK #2100 - MOUNT ON ROOF AND AIM NORTH
- ⊕ TIMESWITCH: TORK "W" SERIES OR EQUAL
- CIRCUIT IN CONDUIT, CONCEALED, HASH MARKS INDICATE QUANTITY OF CONDUCTORS NO HASH MARKS INDICATE TWO CONDUCTORS, PLUS GROUND(S). (NOTE: WIRE AND OR CONDUIT SIZE SHOWN AT HOMERUN IS THE MINIMUM SIZE FOR THE ENTIRE CIRCUIT: #12 A.W.G. CU, 1/2" C. MINIMUM). LONG STROKE(S) INDICATE NEUTRAL CONDUCTOR(S), SHORT STROKES INDICATE PHASE OR SWITCHED CONDUCTORS AND LONG STROKES WITH DOT INDICATE GREEN INSULATED GROUNDING CONDUCTOR(S) TYPICAL. EACH ISOLATED GROUND CIRCUIT SHALL HAVE A SEPARATE NEUTRAL AND GROUND WIRE. BOND WIRES ARE NOT SHOWN ON DRAWINGS. BOND WIRES SHALL BE INSULATED CU, SIZED IN ACCORDANCE WITH N.E.C. #250.
- CIRCUIT IN CONDUIT CONCEALED IN FLOOR
- CIRCUIT IN CONDUIT CONCEALED IN WALLS OR ABOVE CEILING
- HOMERUN TO PANELBOARD OR AS NOTED
- PANELBOARD, MOUNT TOP OF PANEL AT + 6"-8". STUB (2) 3/4" E.C. INTO ACCESSIBLE CEILING SPACE ON FLUSH MOUNTED PANELS.
- ⊖ MOTOR: SIZE AND RATING AS SHOWN. EF INDICATES 55-WATT, 120V. EXHAUST FAN
- ⊗ A.C. MAGNETIC STARTER BY ELECTRICAL CONTRACTOR. HORSEPOWER, VOLTAGE AND PHASE RATED, NUMBER OF POLES REQUIRED. FURNISH WITH (1) N.O. AUXILIARY CONTACT (120 V. CONTROL) SINGLE SPEED NON-REVERSING UNLESS OTHERWISE SHOWN ON PLAN
- DISCONNECT SWITCH - HORSEPOWER RATED, FUSED, NEMA 3R WHERE OUTSIDE. N.F. INDICATES NON-FUSED. (FUSE PER EQUIPMENT MANUFACTURERS' SPECIFICATIONS.)
- ⊕ STRIP HEATER AND CONTROL
- ⊗ MOTOR CONTROLLER - FURNISHED WITH EQUIPMENT
- ▲ TELEPHONE OUTLET AT +15" TO BOTTOM OR AS NOTED WITH 3/4"C. UP INTO ACCESSIBLE CEILING SPACE UNLESS SHOWN OTHERWISE
- ▲ PAY PHONE OUTLET AT + 42" A.F.F. OR AS NOTED WITH 3/4"C. TO T.M.B.
- ▲ DATA OUTLET AT + 15" A.F.F. TO BOTTOM OR AS NOTED. STUB 3/4"C. INTO ACCESSIBLE CEILING SPACE
- ▲ DATA/TELEPHONE OUTLET AT + 15" A.F.F. TO BOTTOM OR AS NOTED. STUB 3/4"C. INTO ACCESSIBLE CEILING SPACE
- ⊕ APPROVED TEMPERATURE SEAL-OFF AND EXPANSION JOINTS AS REQ'D BY N.E.C. ART. #300-7
- ⊕ FLUSH FLOOR FOURPLEX OUTLET AND DATA/TELEPHONE OUTLET COMBO WITH BRASS DEVICE PLATE
- ⊕ FLUSH FLOOR DATA RECEPTACLE WITH BRASS COVER PLATE AND 3/4"C. STUBBED TO ABOVE ACCESSIBLE CEILING LOCATION
- ⊕ FLUSH FLOOR TELEPHONE RECEPTACLE WITH BRASS COVER PLATE AND 3/4"C. STUBBED TO ABOVE ACCESSIBLE CEILING LOCATION
- ⊕ FLUSH FLOOR DUPLEX OUTLET WITH BRASS DEVICE PLATE
- ⊕ FLUSH FLOOR FOURPLEX OUTLET WITH BRASS DEVICE PLATE
- ⊕ ISOLATED GROUND RECEPTACLE "HUBBELL" # IG5263 20A, 125V, FLUSH FLOOR WITH BRASS DEVICE PLATE
- ⊕ TELEVISION OUTLET AT + 15" TO BOTTOM OR AS NOTED. STUB 3/4"C INTO ACCESSIBLE CEILING SPACE
- ⊕ DIMMER SWITCH AT + 42" A.F.F. 0-10V DIMMER SWITCH. PROVIDE 0-10V CONTROL WIRING TO FIXTURES.
- ⊕ A.D.A.-APPROVED FIRE ALARM STROBE
- ⊕ A.D.A.-APPROVED FIRE ALARM HORN/STROBE
- ⊕ ADA APPROVED FIRE ALARM MINI STROBE.
- ⊕ A.D.A.-APPROVED FIRE ALARM PULL STATION
- ⊕ A.D.A.-APPROVED SMOKE DETECTOR MOUNTED IN CEILING OR AS INDICATED
- ⊕ OCCUPANCY SENSOR (DUAL TECHNOLOGY) 1000 WATT CEILING MOUNTED AS MANUFACTURED BY WATT STOPPER (NO SUBSTITUTIONS)
- ⊕ DAYLIGHT SENSOR
- ⊕ DIMMER SWITCH W/OC SENSOR AT + 42" A.F.F. 0-10V DIMMER SWITCH/OCCUPANCY SENSOR WITH MANUAL AND AUTOMATIC CONTROL, DUAL TECHNOLOGY PIR AND ULTRASONIC, LUTRON OR EQUAL. PROVIDE 0-10V CONTROL WIRING TO FIXTURES.
- WP WEATHER PROOF
- EDF ELECTRIC DRINKING FOUNTAIN
- S.E.S. SERVICE ENTRANCE SECTION
- T.M.B. TELEPHONE MOUNTING BOARD: 4' X 8' X 3/4" PLYWOOD WITH #6 CU. BOND WIRE TO GROUNDING ELECTRODE SYSTEM
- T.T.C. TELEPHONE TERMINAL CABINET: 36" W. X 36" H X 6" D 16 GA. WEATHERPROOF HINGED LOCKABLE COVER, 5/8" PLYWOOD BACKBOARD. PROVIDE A #6 CU BOND TO GROUNDING ELECTRODE SYSTEM

FAULT DESIG.	PANEL	LOAD AMPS	LENGTH (FT.)	SOURCE SHORT CKT AMPS	"1" OR "3" PHASE?	# OF CDTRS/ PHASE	"CU" OR "AL"	CDR SIZE (avg/kcmil)	METAL CONDUIT? "Y" OR "N"	"C" VALUE	X F M R			V	f	m	SOURCE lsc (amps)	MOTOR CONTRIB.	TOTAL lsc (amps)
											XMFR KVA	PRI VOLTS	DEG. C RISE (115/150)						
	SES	1000		56,194			CU							208			56194	0	56,194
F1	PANEL 'B'	400	65	56,194	3	2	CU	#4/0	N	16673				208	0.9121	0.5230	29,388	0	29,388
F2	PANEL 'B1'	200	5	29,388	3	1	CU	#4/0	N	16673				208	0.0734	0.9316	27,379	0	27,379
F3	PANEL 'C'	200	85	56,194	3	1	CU	#4/0	N	16673				208	2.3856	0.2954	16,598	0	16,598
F4	PANEL 'AC3'	400	90	56,194	3	2	CU	#4/0	N	16673				208	1.2629	0.4419	24,832	0	24,832

SERIES-RATING NOTE:

CONTRACTOR SHALL LABEL PANEL 'B', "CAUTION" SERIES-RATED SYSTEM (35/10), 28,918 AMPS AVAILABLE, IDENTIFIED REPLACEMENT COMPONENT REQUIRED." IN ACCORDANCE WITH NEC 110.22.

CONTRACTOR SHALL LABEL PANEL 'B1', "CAUTION" SERIES-RATED SYSTEM (35/10), 26,971 AMPS AVAILABLE, IDENTIFIED REPLACEMENT COMPONENT REQUIRED." IN ACCORDANCE WITH NEC 110.22.

CONTRACTOR SHALL LABEL PANEL 'C', "CAUTION" SERIES-RATED SYSTEM (22/10), 16,447 AMPS AVAILABLE, IDENTIFIED REPLACEMENT COMPONENT REQUIRED." IN ACCORDANCE WITH NEC 110.22.

CONTRACTOR SHALL LABEL PANEL 'AC3', "CAUTION" SERIES-RATED SYSTEM (25/10), 24,496 AMPS AVAILABLE, IDENTIFIED REPLACEMENT COMPONENT REQUIRED." IN ACCORDANCE WITH NEC 110.22.

NO DESIGN CHANGES MAY BE MADE TO THE SYSTEM WITHOUT THE PRIOR APPROVAL OF THE DESIGN ELECTRICAL ENGINEER AND THE ELECTRICAL INSPECTOR.

LOAD CALCULATION:

EXISTING LOADS:

EXISTING HIGH DEMAND = 115

$$\frac{115000}{8pt} \times 125\% + 208 \sqrt{3} = 499.1 \text{ AMPS}$$

NEW LOADS:

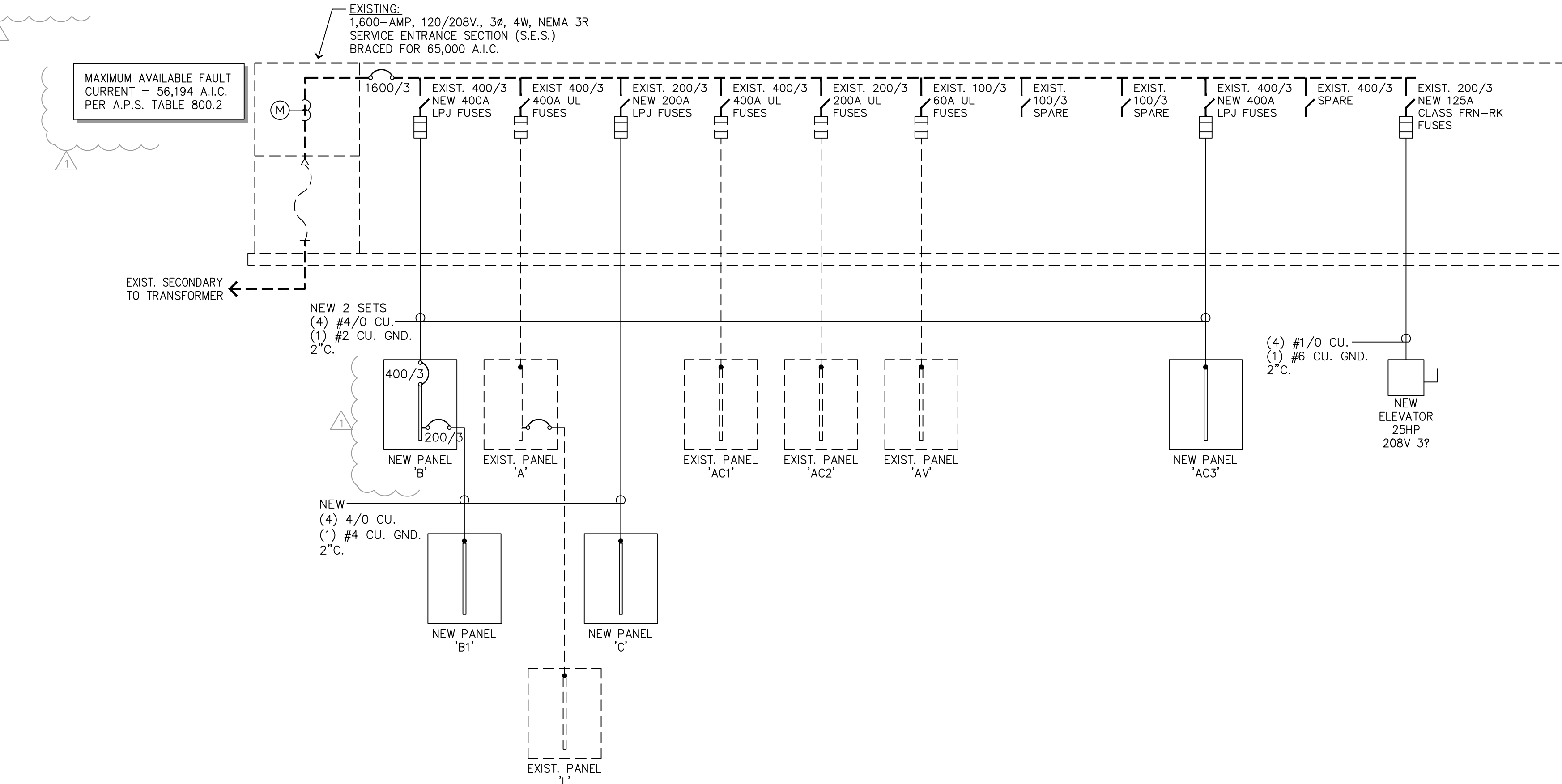
PANEL 'C' = 102 AMPS
 ELEVATOR = 80 AMPS
 PANEL 'B' = 340 AMPS
 PANEL 'AC3' = 302 AMPS
 TOTAL NEW LOAD ON 1600A S.E.S. = 1288 AMPS

C.B. NOTE:

CIRCUIT BREAKERS SHALL BE A BOLT-ON TYPE, UL-LISTED SERIES-RATED COMBINATION WITH THE FUSES AT S.E.S.

NEW PANEL NOTE:

NEW PANELS SHALL BE LABELED PER NEC 110.16 408.4B



EXISTING ONE-LINE DIAGRAM

- NOTES: 1. ALL EQUIPMENT & INSTALLATIONS ARE EXISTING UNLESS NOTED AS 'NEW'. N.T.S.
 2. ELECTRICAL CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING CONDITIONS PRIOR TO ANY WORK.
 3. ALL CONDUCTOR SIZES SHALL ON TYPE 'XHHW' & 'THHN/THWN' COPPER.

Job No. 17220
 David Watson, P.E.
 Electrical Engineering, LLC
 3172 W. Alameda, Suite 102, Tempe, AZ 85283
 480.732.5281 | 480.732.5282
 www.daveengineering.com

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E4

