



818 S. FLORES ST. SAN ANTONIO, TEXAS 78204 www.saha.org

Procurement Department

## ADDENDUM # 2

To: File 1809-909-23-4837  
IFB for: T. L. Shaley Burn Unit Rebuild

### The following questions were received:

**Question 1:** The following drawings appear to have been only partially copied and some data is missing that we need: E4.0, M0.0, M2.0, M3.0, P0.0, P2.0, P3.0

**Answer 1:** See attached drawings, please replace the corrupted drawings with the complete ones..

By: Charles R Bode  
Charles Bode Asst. Director of Procurement

Date: October 5, 2018



**General Notes Lighting Sheets:**  
 (Applies to all Lighting Sheets)

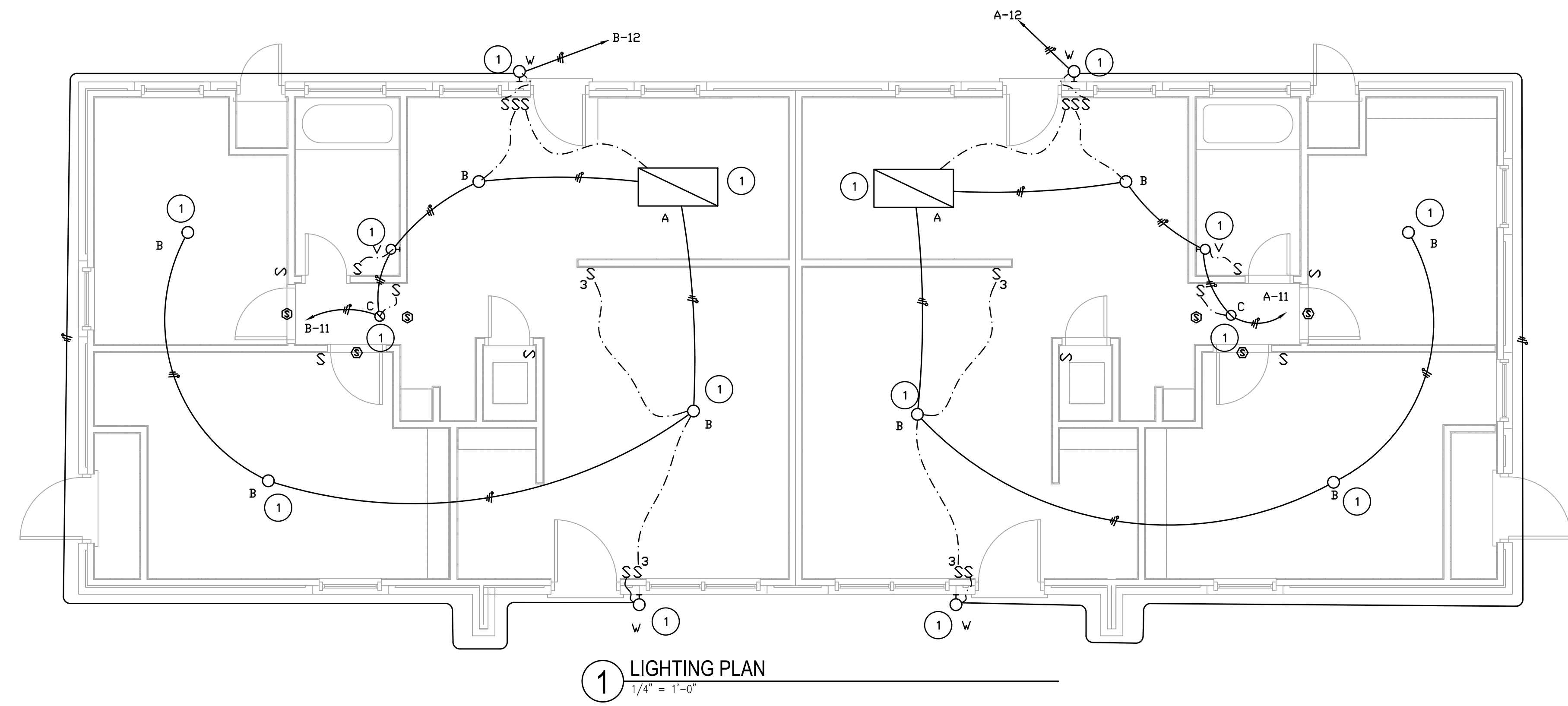
- A. WHEN LIGHTING SYSTEMS NEXT TO DOORS, LOCATE 8 INCHES OFF DOOR JAMB TO CENTER OF DEVICE. WHEN MULTIPLE DEVICES ARE TOGETHER, STACK BUT NO MORE THAN 72 INCHES AFF. COORDINATE SWITCH LOCATIONS IN ROOMS WITH ARCHITECT AND OTHER DEVICES (THERMOSTATS, FIRE ALARM, AND CALL BUTTONS).
- B. MINIMUM CIRCUIT SIZE IS 2 #12 AND 1 #12 GROUND IN 3/4" CONDUIT. MAXIMUM FIXTURE WHIP LENGTH FROM ANY J-BOX 6 FEET. LIGHTING CIRCUITS JOINTS SHALL BE MADE UP IN OVERHEAD J-BOXES SECURED TO STRUCTURE WITH LIGHTING WHIPS FROM THE J-BOXES. FIXTURES DESIGNED TO BE QUICK-CLIPPED TOGETHER SHALL BE CONNECTED AS PER MANUFACTURER.
- C. COORDINATE LIGHT LOCATIONS WITH OTHER CEILING ITEMS OR JOIST ITEMS PRIOR TO INSTALLATION. LIGHT LOCATIONS TAKE PRECEDENCE OVER AIR DEVICES.
- D. PROVIDE SECONDARY SUPPORT WIRES FROM ALL FOUR (4) CORNERS OF THE LAY-IN FIXTURES TO THE STRUCTURE ABOVE. DO NOT SUPPORT FIXTURES FROM CEILING GRID WIRE SUPPORTS, PIPING, CONDUIT, SIDE WALLS, OR MECHANICAL EQUIPMENT. CEILING SPECIFICATIONS DO NOT SUPERCEDE THIS REQUIREMENT.
- E. PROVIDE INTEGRAL BATTERY BACK-UP W/INTEGRAL BATTERY BACK-UP & TEST SWITCH FOR ALL FIXTURES WITH AN "E" SUFFIX.
- F. FIRESTOP ALL CONDUIT PENETRATIONS IN RATED WALLS. SEE ARCHITECTURAL FOR WALL RATINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO SHEET ROCK AND REPAIR. PROVIDE FIRE RATED SLEEVES IN ALL FLOOR PENETRATIONS.
- G. CONTRACTOR TO VERIFY FIXTURE VOLTAGE PRIOR TO INSTALLING ANY RELOCATED FIXTURE. COORDINATE WITH RCP FOR FIXTURE LOCATIONS.
- H. ALL ROOMS AND HALLWAYS SHALL HAVE SWITCHES WHETHER SHOWN ON PLAN OR NOT. ALL SPACES WITH MORE THAN ONE FIXTURE SHALL HAVE DUAL SWITCHING UNLESS OTHERWISE NOTED. ALL HALLWAYS SHALL HAVE AT LEAST (2) 3-WAY SWITCHES.

REVISED ISSUE DATES:

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**Keyed Notes:**

- ① COORDINATE WITH OWNER FOR FIXTURE SELECTIONS. TYPICAL OF ALL FIXTURES.



① LIGHTING PLAN  
 1/4" = 1'-0"

AN APARTMENT RESTORATION  
 T L SHALEY APARTMENTS  
 4827 PETTUS  
 SAN ANTONIO, TEXAS, 78228



04/10/18

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**HM3**  
**ENGINEERING**  
 CONSULTANTS

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 SAN ANTONIO, TEXAS 78212  
 210.393.1840 PHONE  
 SAN ANTONIO - RGV  
 TPBE FIRM REGISTRATION NO. 13361

PROJECT NO. 17-019  
 ISSUE DATE: 04.10.18  
 DRAWN BY: HM3  
 REVIEWED BY: AH

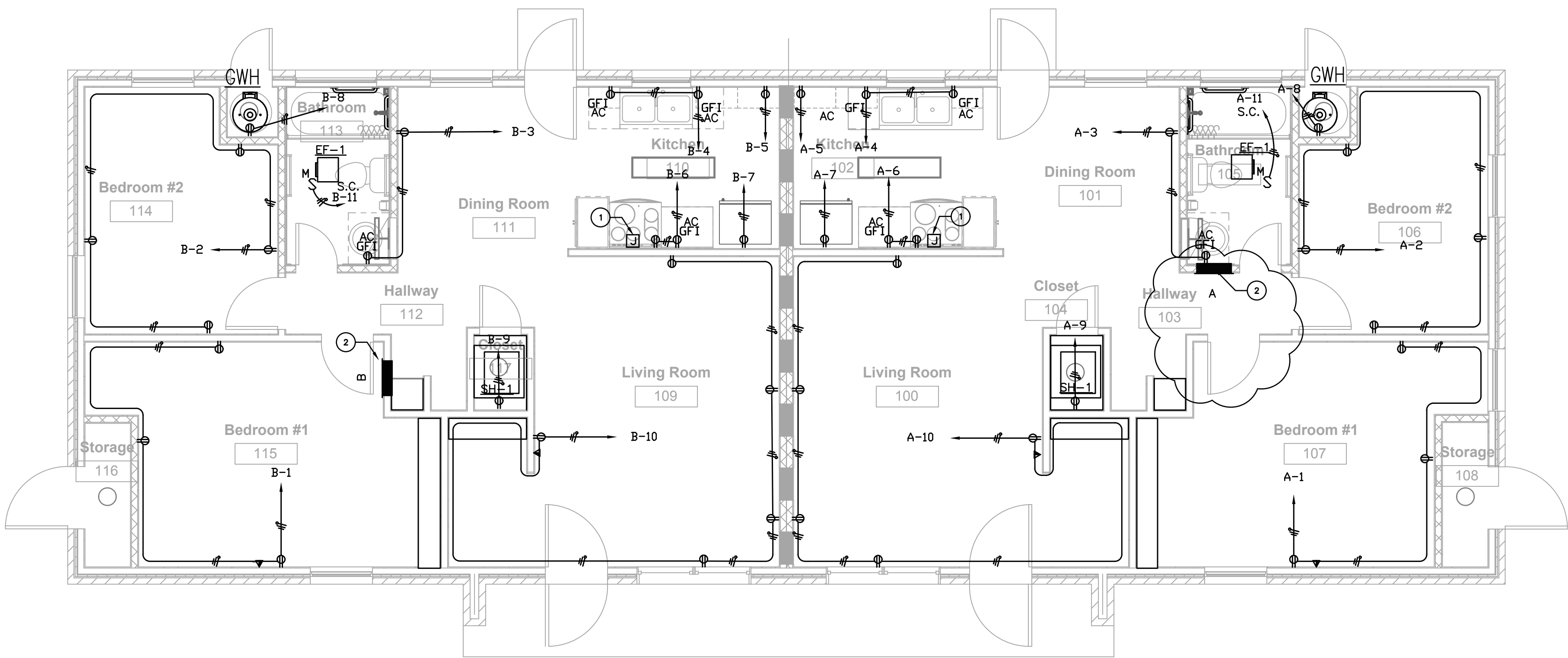
LIGHTING PLAN  
**E2.0**

**General Notes Power Sheets:  
(Applies to all Power Sheets)**

- A. SEE ALL OTHER PLANS FOR ADDITIONAL DEVICES. SOME POWER CIRCUITING MAY BE ON OTHER PLANS. COORDINATE THE LOCATIONS OF DATA/CATV JACKS WITH THE RECEPTACLES. MOUNT ADJACENT TO EACH OTHER.
- B. WHEN LOCATING SYSTEMS NEXT TO DOORS, LOCATE 8 INCHES OFF DOOR JAMB TO CENTER OF DEVICE. WHEN MULTIPLE DEVICES ARE TOGETHER, STACK BUT NO MORE THAN 72 INCHES AFF.
- C. MINIMUM CIRCUIT SIZE IS 2 #12 AND 1 #12 GROUND IN 3/4" CONDUIT FOR INDIVIDUAL CIRCUITS, 3/4" CONDUIT FOR MULTIPLE CIRCUITS. ALL CONDUCTORS SHALL BE 75 DEGREE (MINIMUM) COPPER THHN, COLOR CODED AS PER NEC AND LOCAL AMENDMENTS WITH SIZE, TEMPERATURE, AND VOLTAGE PERMANENTLY PRINTED ON THE JACKET. ALL JOINTS SHALL BE MADE UP USING SELF LOCKING, TWIST-ON, COLOR CODED, SQUARE WIRE SPRING GRAB, LONG SKIRT, WIRE CONNECTORS WITH SWEPT WINGS.
- D. PROVIDE #10 AWG MIN NEUTRAL FOR ALL MULTIWIRE BRANCH CIRCUITS AND PROVIDE HANDLE TIES FOR CIRCUIT BREAKERS AS REQUIRED BY NEC 210.4
- E. CONDUCTOR SIZES INDICATED ASSUME NO MORE THAN (3) SINGLE POLE BRANCH CIRCUITS IN EACH CONDUIT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DE-RATE CONDUCTORS PER NEC TABLE 310.15(B)(2)(a) FOR CONDUITS WITH MORE THAN (3) CURRENT "CARRYING CONDUCTORS".
- F. REFER TO VOLTAGE DROP FEEDER SCHEDULE FOR BRANCH CIRCUITS EXCEEDING 100' IN LENGTH.
- G. COORDINATE RECEPTACLE LOCATIONS WITH MILLWORK AND COUNTERS. DO NOT LOCATE RECEPTACLES BEHIND DRAWERS OR HIDDEN IN MILLWORK UNLESS SPECIFICALLY DIRECTED BY OWNER/ARCHITECT. REVIEW ARCHITECTURAL ELEVATIONS PRIOR TO RECEPTACLE ROUGH-INS. SEE ARCH. ELEVATIONS IN BREAKROOMS FOR APPLIANCES AND RECEPTACLE MOUNTING LOCATIONS.
- H. MOUNT RECEPTACLES 18" AFF, 6" ABOVE BACKSPLASH AT COUNTERS, 48" IN TOILET ROOMS, AT EQUIPMENT ROUGH-IN LOCATIONS FOR APPLIANCES, AND 96" FOR TV'S. PROVIDE GFI RECEPTACLES AT/LOCATED ALL SINKS, ROOFTOP RECEPTACLES, KITCHEN RECEPTACLES, BATHROOM/TOILET ROOMS, EXTERIOR RECEPTACLES, AND UNDERCOUNTER EQUIPMENT. ALSO, ALL RECEPTACLES SERVING DRINKING FOUNTAINS SHALL HAVE GFI. COORDINATE WITH MILLWORK CONTRACTOR FOR MOUNTING OF DEVICES IN BACKSPLASH.
- M. ALL RECEPTACLES NOT DEDICATED TO EQUIPMENT WITHIN 6' OF SINK, MOP SINK, DRINKING FOUNTAIN OR OTHER USER WATER SOURCE SHALL BE GFI PROTECTED.
- N. ALL RECEPTACLES IN KITCHENS SHALL BE GFI PROTECTED.
- O. ALL EQUIPMENT SHALL HAVE A LOCAL DISCONNECTING MEANS, EITHER CORDED PLUG AND RECEPTACLE OR SWITCHED DISCONNECT. VERIFY FROM EQUIPMENT SUBMITTED OR RELOCATED IF DIRECT CONNECT OR RECEPTACLE. IF DIRECT CONNECT, PROVIDE SWITCH AS PER NEC OTHERWISE, PROVIDE RECEPTACLE, CORD PLUG AS REQUIRED BY EQUIPMENT SUBMITTAL.
- P. FIRESTOP ALL CONDUIT PENETRATIONS IN RATED WALLS. SEE ARCHITECTURAL FOR WALL RATINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO SHEET ROCK AND REPAIR.
- Q. PROVIDE FIRE RATED SLEEVES IN ALL FLOOR PENETRATIONS.
- R. PROVIDE A MINIMUM OF (10) SPARE 20A/1P BREAKERS AND (3) 20A/1P SPACES IN EACH PANEL WHETHER SHOWN ON SCHEDULE OR NOT.

REVISED ISSUE DATES:

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**1 POWER PLAN**  
1/4" = 1'-0"

**Keyed Notes:**

- 1) PROVIDE JBOX FOR CONNECTION TO EXHAUST VENT HOOD. CONNECT TO 20A/1P SPARE IN UNIT PANEL.
- 2) APPROXIMATE NEW PANEL LOCATION. VERIFY LOCATION WITH OWNER PRIOR TO ROUGH-IN.

AN APARTMENT RESTORATION  
**T L SHALEY APARTMENTS**  
4827 PETTUS  
SAN ANTONIO, TEXAS, 78228



04/10/18

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TBPB FIRM REGISTRATION NO. 13361

PROJECT NO. 17-019  
ISSUE DATE: 04.10.18  
DRAWN BY: HM3  
REVIEWED BY: AH

**POWER PLAN**  
**E3.0**

REVISED ISSUE DATES:  
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PROJECT NO. 17-019  
 ISSUE DATE: 04.10.18  
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ELECTRICAL ONE LINE DIAGRAM

**E4.0**

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 TBE FIRM REGISTRATION NO. 13361

**PANEL A**

VOLTAGE (L-N):	120	ENCLOSURE TYPE:	NEMA 1
VOLTAGE (L-L):	240	MOUNTING:	SURFACE
PHASES, WIRES:	1 $\phi$ , 3 W	AIC RATING:	10000
MINIMUM BUS CAPACITY (A):	60 A	NOTES:	----
MAIN O.C. DEVICE (A):	60 A		

CKT NO	DESCRIPTION	TRIP AMPS	POLE	PHASE LOADS (VA)				POLE	TRIP AMPS	DESCRIPTION	CKT NO
				A	B						
1	RECEPTACLES	20	1	540	720			1	20	RECEPTACLES	2
3	RECEPTACLES	20	1			360	360	1	20	RECEPTACLES	4
5	WASHER	20	1	180	360			1	20	RECEPTACLES	6
7	REFRIGERATOR	20	1			180	180	1	20	GWH	8
9	SPACE HEATER	20	1	756	900			1	20	RECEPTACLES	10
11	LIGHTING	20	1			436	64	1	20	LIGHTING EXTERIOR	12
13	SPARE	20	1	0	0			1	20	SPARE	14
15	SPACE ONLY	----	----			0	0	----	----	SPACE ONLY	16
17	SPACE ONLY	----	----	0	0			----	----	SPACE ONLY	18
19	SPACE ONLY	----	----			0	0	----	----	SPACE ONLY	20
21	SPACE ONLY	----	----	0	0			----	----	SPACE ONLY	22
23	SPACE ONLY	----	----			0	0	----	----	SPACE ONLY	24
				CONNECTED LOAD PHASE TOTALS (VA)							
				3456		1580					

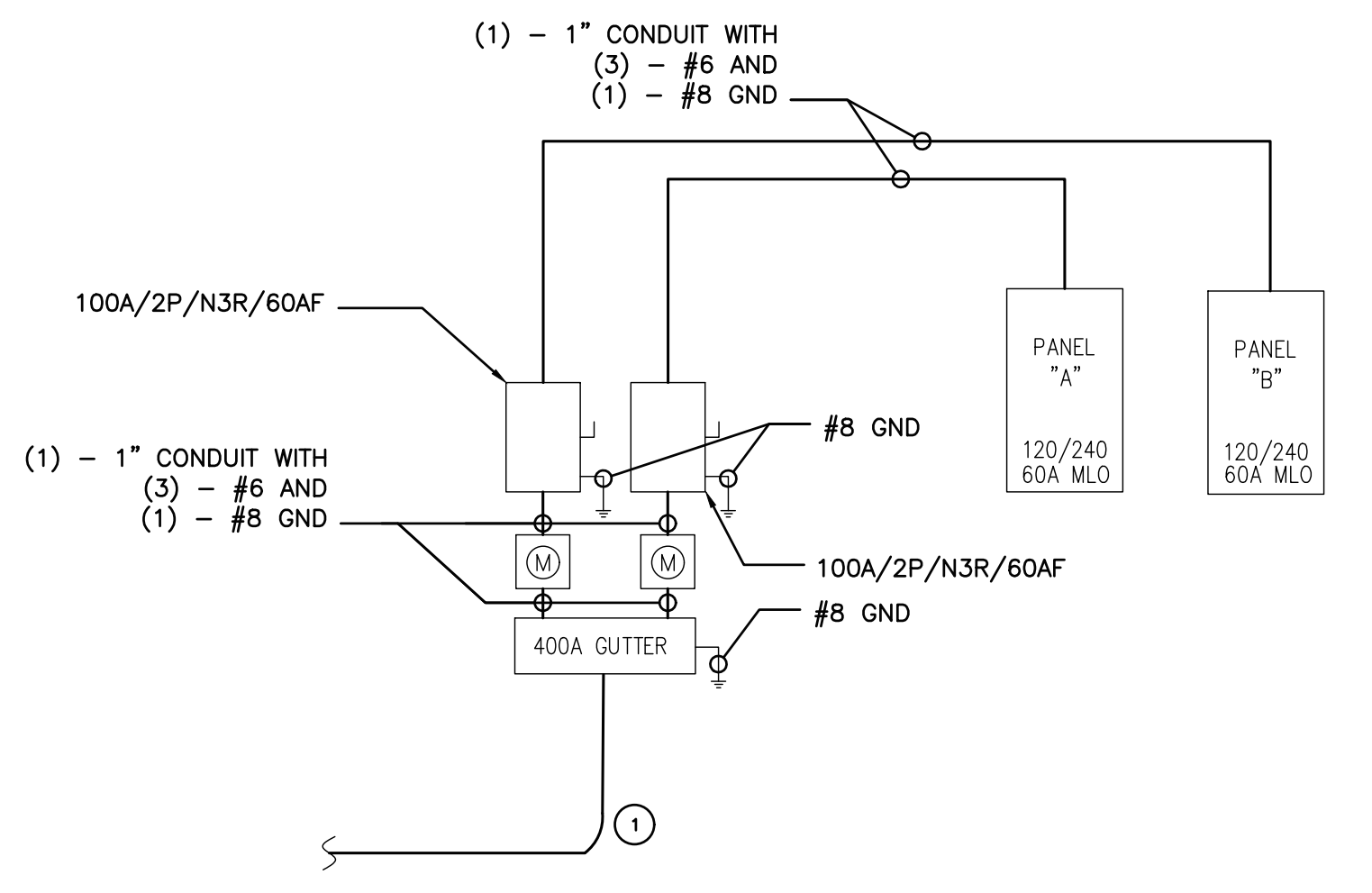
	CONNECTED LOAD (KVA)	DEMAND FACTOR	DEMAND LOAD (KVA)	DEMAND LOAD SPARE CAPACITY
Receptacles (0 - 10 KVA)	4.4	1.00	4.4	5.2 KVA
Heating	0.2	1.00	0.2	9.2 KVA
Lighting	0.3	1.25	0.4	38.5 AMPS
Motors	0.0	1.00	0.0	64 %
Motors (Largest)	0.2	1.25	0.2	
<b>TOTAL:</b>	<b>5.0</b>		<b>5.2</b>	
<b>LOAD (AMPS):</b>	<b>21.0</b>		<b>21.5</b>	

**PANEL B**

VOLTAGE (L-N):	120	ENCLOSURE TYPE:	NEMA 1
VOLTAGE (L-L):	240	MOUNTING:	SURFACE
PHASES, WIRES:	1 $\phi$ , 3 W	AIC RATING:	10000
MINIMUM BUS CAPACITY (A):	60 A	NOTES:	----
MAIN O.C. DEVICE (A):	60 A		

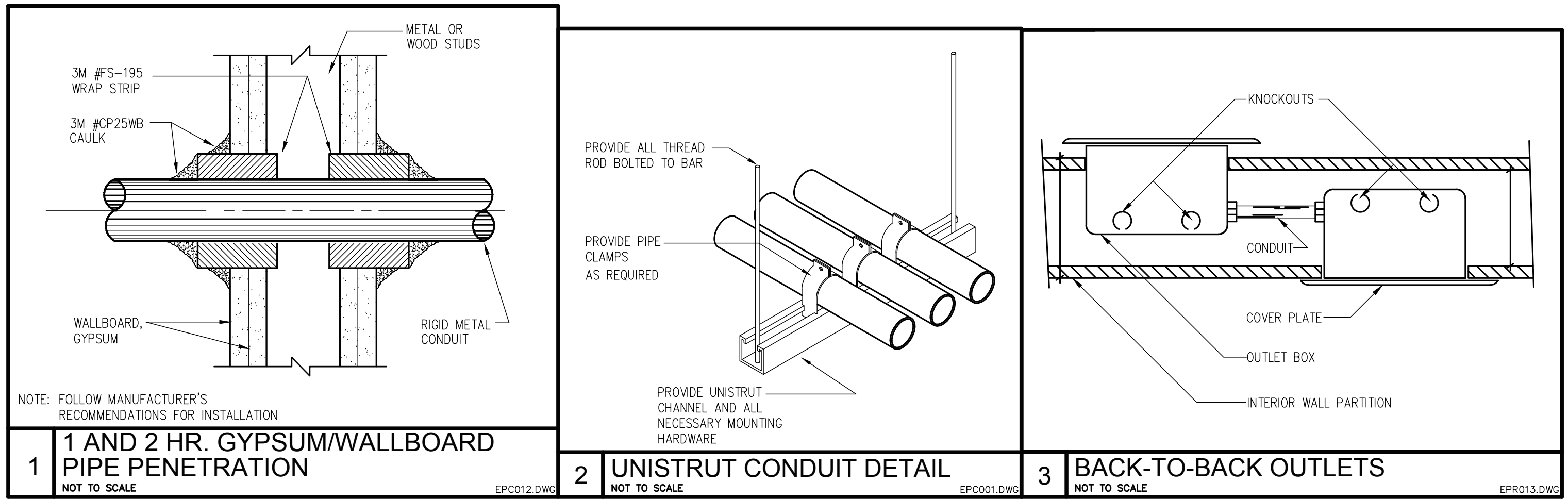
CKT NO	DESCRIPTION	TRIP AMPS	POLE	PHASE LOADS (VA)				POLE	TRIP AMPS	DESCRIPTION	CKT NO
				A	B						
1	RECEPTACLES	20	1	540	720			1	20	RECEPTACLES	2
3	RECEPTACLES	20	1			360	360	1	20	RECEPTACLES	4
5	WASHER	20	1	180	360			1	20	RECEPTACLES	6
7	REFRIGERATOR	20	1			180	180	1	20	GWH	8
9	SPACE HEATER	20	1	756	900			1	20	RECEPTACLES	10
11	LIGHTING	20	1			436	64	1	20	EXTERIOR LIGHTING	12
13	SPARE	20	1	0	0			1	20	SPARE	14
15	SPACE ONLY	----	----			0	0	----	----	SPACE ONLY	16
17	SPACE ONLY	----	----	0	0			----	----	SPACE ONLY	18
19	SPACE ONLY	----	----			0	0	----	----	SPACE ONLY	20
21	SPACE ONLY	----	----	0	0			----	----	SPACE ONLY	22
23	SPACE ONLY	----	----			0	0	----	----	SPACE ONLY	24
				CONNECTED LOAD PHASE TOTALS (VA)							
				3456		1580					

	CONNECTED LOAD (KVA)	DEMAND FACTOR	DEMAND LOAD (KVA)	DEMAND LOAD SPARE CAPACITY
Receptacles (0 - 10 KVA)	4.4	1.00	4.4	5.2 KVA
Heating	0.2	1.00	0.2	9.2 KVA
Lighting	0.3	1.25	0.4	38.5 AMPS
Motors	0.0	1.00	0.0	64 %
Motors (Largest)	0.2	1.25	0.2	
<b>TOTAL:</b>	<b>5.0</b>		<b>5.2</b>	
<b>LOAD (AMPS):</b>	<b>21.0</b>		<b>21.5</b>	

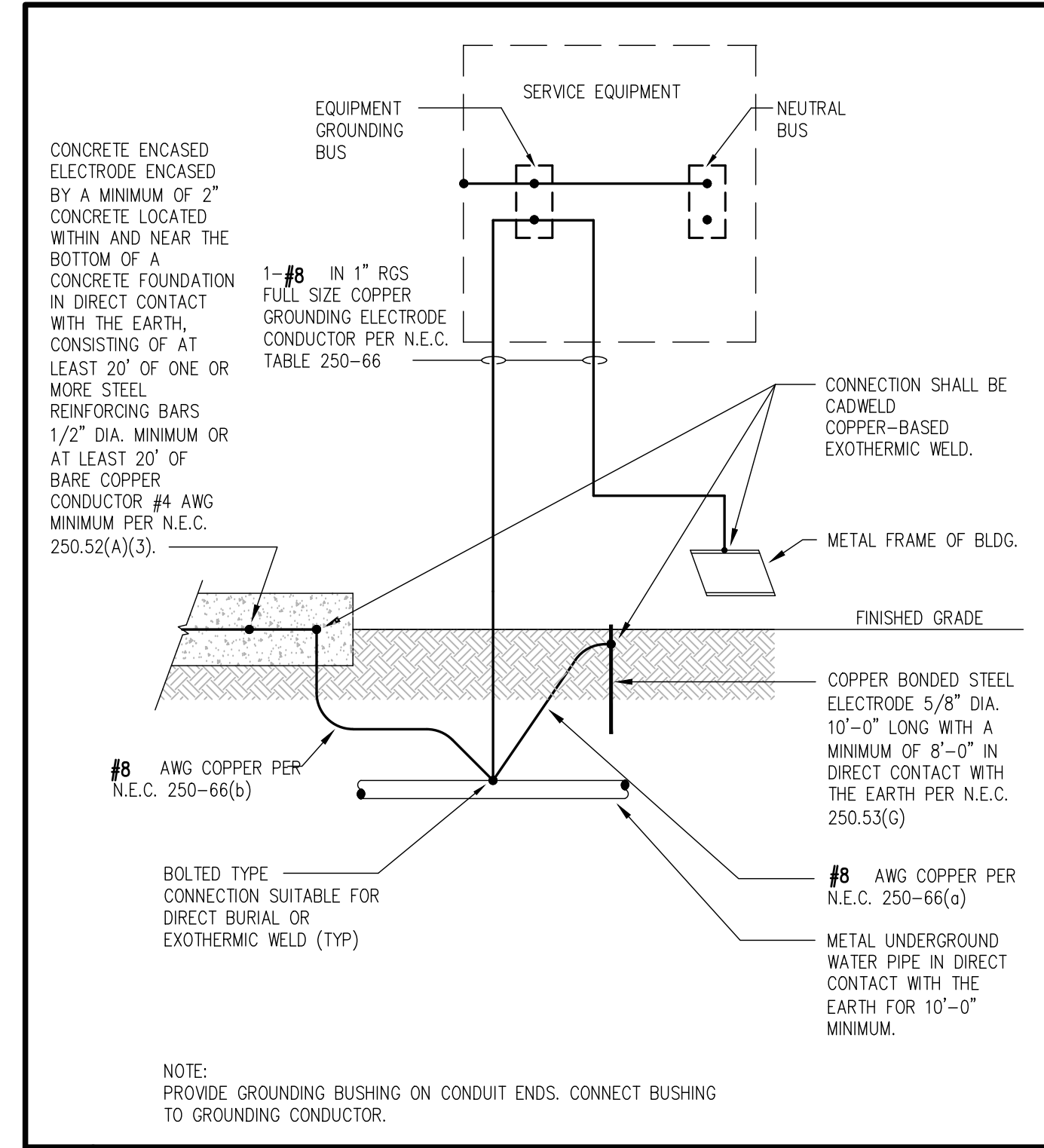


**1 PARTIAL ONE LINE DIAGRAM**  
 N.T.S.

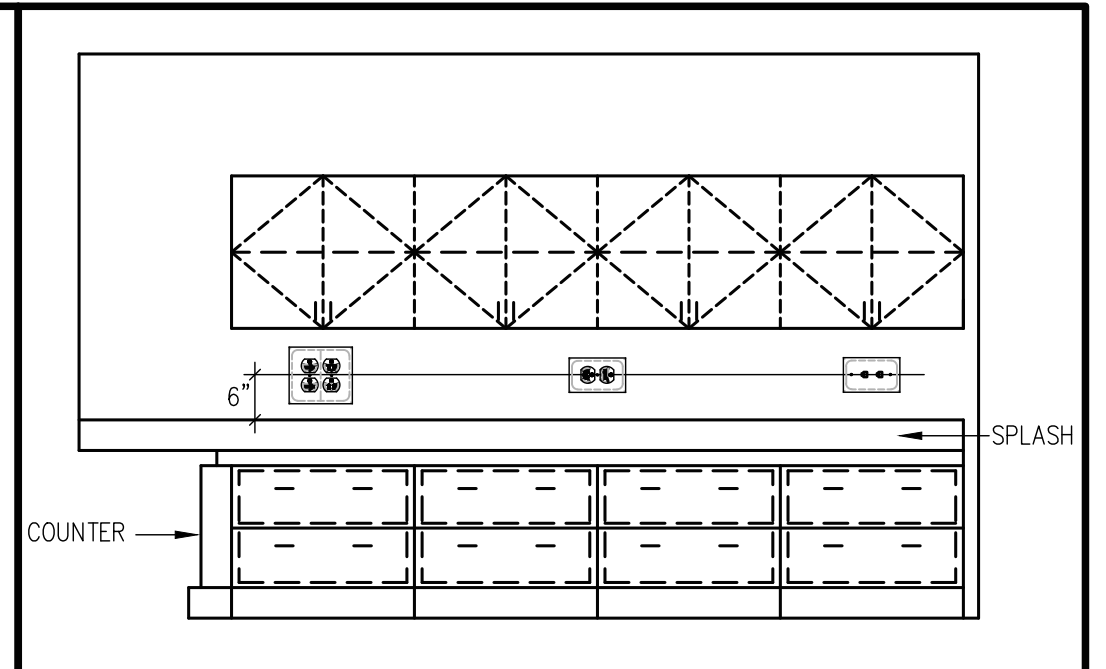
**Keyed Notes:**  
 1 FIELD VERIFY EXTENT OF DAMAGE TO FEEDERS AND FEEDER CONDUIT. CUT AT FURTHEST POINT OF DAMAGE, SPLICE AND EXTEND TO NEW 400A GUTTER. MATCH EXISTING FEEDER AND CONDUIT SIZE.



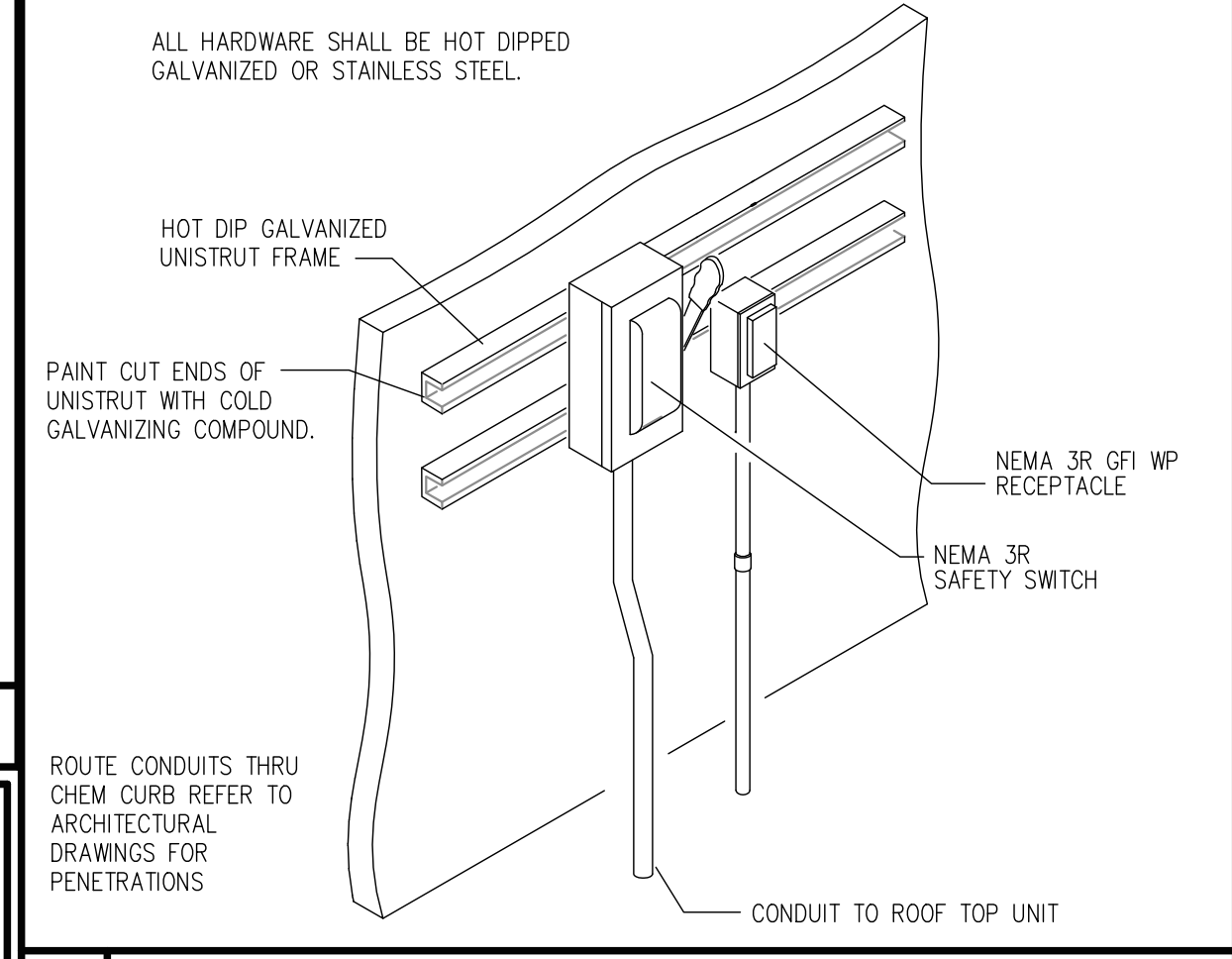
**1 AND 2 HR. GYPSUM/WALLBOARD PIPE PENETRATION** NOT TO SCALE  
**2 UNISTRUT CONDUIT DETAIL** NOT TO SCALE  
**3 BACK-TO-BACK OUTLETS** NOT TO SCALE



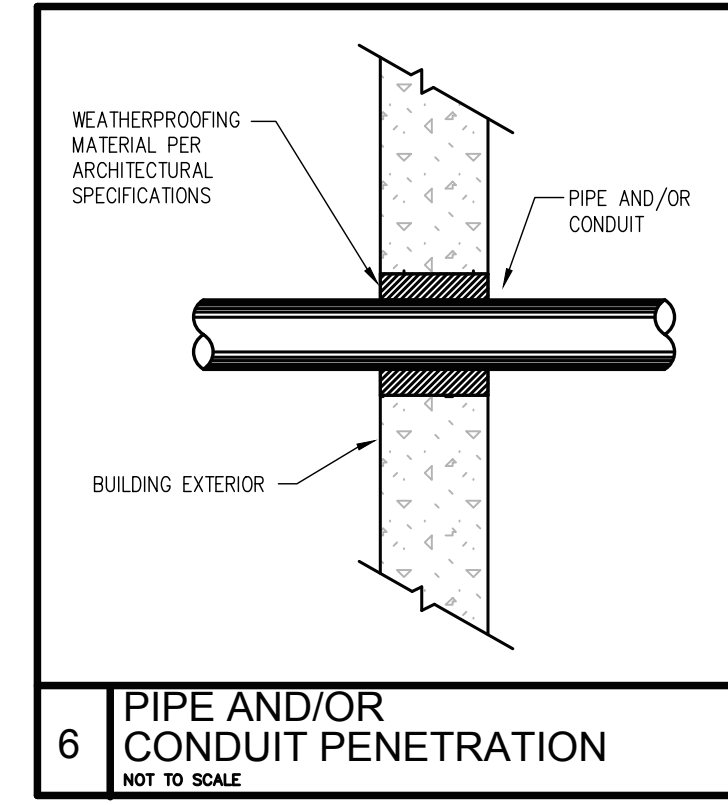
**4 GROUNDING ELECTRODE SYSTEM DETAIL**  
 NOT TO SCALE



**5 TYPICAL COUNTERTOP DEVICE ELEVATION**  
 NOT TO SCALE



**7 EXTERIOR WALL DISCONNECT DETAIL**  
 NOT TO SCALE



**6 PIPE AND/OR CONDUIT PENETRATION**  
 NOT TO SCALE

DUCT SYMBOLS

Table of duct symbols including double line symbols (e.g., 20x16 duct, mitered elbow, radius elbow, duct sections, air flow directions, flexible connectors, manual volume dampers, motorized dampers, branch taps, transitions, existing ductwork, HVAC equipment, air devices) and single line symbols (e.g., 20x16 duct, mitered elbow, radius elbow, duct sections, air flow directions, flexible connectors, manual volume dampers, motorized dampers, branch taps, transitions, existing ductwork, HVAC equipment, air devices).

ABBREVIATIONS

Table of abbreviations for mechanical components and materials, including: A (ABV, AC, ACMPR, etc.), B (BARO, BAROPR, etc.), C (CCL, CCLW, etc.), D (dB, D, DBT, etc.), E (E/A, EA, etc.), F (FCU, FLR, etc.), G (GAL, GPH, etc.), H (HCL, HD, etc.), I (ID, IH, etc.), J (J).

ABBREVIATIONS

Table of abbreviations for mechanical components and materials, including: K (KHE, KW, etc.), L (L-#, LAT, etc.), M (MA, MAX, etc.), N (N/A, NC, etc.), O (O/A, OD, etc.), P (PD, PH, etc.), R (R, R-22, etc.), S (S, SA, etc.), T (T, TD, etc.), U (U, U/C, etc.), V (V, VA, etc.), W (W, W/O, etc.), X (X, Y, etc.), Z (Z, ZN).

GENERAL MECHANICAL NOTES AND SPECIFICATIONS:

GENERAL

- 1. COORDINATE WORK AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE (PRIME) CONTRACTOR.
2. FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.
3. ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR SHALL VERIFY THEIR CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.
4. EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.
5. SUBMISSION OF BID PROPOSAL IS CONSIDERED AN ACKNOWLEDGEMENT THAT CONTRACTOR VISITED SITE, AND VERIFIED ALL EXISTING CONDITIONS, AND INCLUDED ANY MODIFICATIONS TO EXISTING AND NEW WORK REQUIRED FOR INSTALLATION OF A COMPLETE AND OPERATIONAL MECHANICAL SYSTEM.
6. COORDINATE WITH OWNER AND ENGINEER FOR ANY DISRUPTION IN UTILITY SERVICES, PARTICULARLY THOSE THAT MIGHT AFFECT OTHER BUILDINGS IN THE CAMPUS.
7. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S APPROVAL IN WRITING. UNLESS ENGINEER HAS AGREED TO SUCH CHANGE PRIOR TO IT BEING DONE, AND HAS AGREED THAT AN INCREASE IN COST ASSOCIATED WITH SUCH CHANGE IS WARRANTED; CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.
8. TESTING, ADJUSTING AND BALANCING (TAB) CONTRACTOR SHALL BE RETAINED BY THE PRIME CONTRACTOR TAB SHALL NOT BE A PART OF THE MECHANICAL CONTRACT.

CODES AND ORDINANCES

- 1. PERFORM ALL WORK PER LATEST VERSION OF INTERNATIONAL MECHANICAL CODE, AND APPLICABLE LOCAL CODES AND ORDINANCES, UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS.
2. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
3. NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.

COORDINATION

- 1. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DETAILS OF CONSTRUCTION, INCLUDING BEAMS, FLOOR AND WALL PENETRATIONS, CHASES, AND REFLECTED CEILING PLANS. VERIFY OPENING SIZES WITH EQUIPMENT FURNISHED.
2. COORDINATE WITH OWNER WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
3. CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, WORK BY OTHERS, AND MECHANICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
4. ENGINEER/ ARCHITECT MUST BE GIVEN AT LEAST A TEN (10) WORKING DAY NOTICE TO PERFORM ALL TYPES OF INSPECTIONS. COORDINATE WORK SCHEDULE WITH ARCHITECT AND ENGINEER TO PLAN ACCORDINGLY FOR APPROPRIATE INSPECTIONS.

ECONOMIZER

- 1. FOR SYSTEMS THAT REQUIRE ECONOMIZER, MECHANICAL CONTRACTOR SHALL PROVIDE A CONTROLLER EQUAL TO HONEYWELL JADE ECONOMIZER MODULE W7220. REFER TO ECONOMIZER DETAIL FOR ADDITIONAL INFORMATION.

METAL AND FLEXIBLE DUCTS

- 1. DRAWINGS ARE DIAGRAMMATIC IN NATURE. FOR CLARITY SAKE, MOST DUCT OFFSETS/RISES/DROPS ARE NOT SHOWN. RECTANGULAR AND ROUND DUCTWORK SHALL BE GALVANIZED STEEL. SIZES SHOWN ARE INSIDE CLEAR DIMENSION.
2. VERIFY BOTTOM OF DUCT ELEVATION AND COORDINATE WITH OTHER TRADES.
3. CONSTRUCT AND LEAKAGE TEST ALL DUCTWORK BASED ON SMACNA REQUIREMENTS. COORDINATE PRESSURE CLASSES WITH EQUIPMENT SCHEDULES.
4. ALL GALVANIZED SHEET METAL DUCT WORK SHALL COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS--METAL AND FLEXIBLE".
5. USE 2" GLASS FIBER-REINFORCED FABRIC JOINT AND SEAM TAPE. USE WATER BASED JOINT AND SEAM SEALER. USE FIRE RESISTANT SEALER FOR FILLING OPENINGS AROUND DUCT PENETRATIONS THROUGH WALLS. ACCEPTABLE PRODUCTS ARE DOW CORNING, FIRE STOP FOAM AND FIRE STOP SEALER OR EQUAL.
6. USE SHEET METAL SCREWS OR BLIND RIVETS COMPATIBLE WITH DUCT MATERIALS WHEN SECURING ALL DUCTWORK TO STRUCTURE.
7. FLEXIBLE DUCT MAY BE USED TO CONNECT TO SUPPLY DIFFUSERS. MAXIMUM LENGTH OF FLEXIBLE DUCT LIMITED TO 6 FEET. PROVIDE FLEXMASTER TYPE BM UL 181 CLASS I AIR DUCT OR EQUAL. FLEXIBLE DUCT SHALL HAVE MIN. R-8 INSULATING VALUE.
8. FLEXIBLE DUCT CLAMP SHALL BE OF STAINLESS STEEL BANDS WITH CADMIUM PLATED HEX SCREW TO TIGHTEN BAND WITH WORM GEAR ACTION.
9. PROVIDE TURNING VANES IN ALL SPLITS, TEES AND SWEEP 90 DEGREE ANGLE DUCT FITTINGS. MANUFACTURED TURNING VANES TO BE 1-1/2" WIDE, DOUBLE VANE, CURVED BLADES OF GALVANIZED SHEET STEEL SET "X" O.C. ACCEPTABLE MANUFACTURERS ARE DUCTMATE INDUSTRIES, METALFARE, WARD INDUSTRIES OR EQUAL.
10. WHERE RECTANGULAR TEE FITTINGS ARE SHOWN, PROVIDE FITTING WITH ADJUSTABLE DIVIDER SHEET AND TURNING VANES.
11. WHERE RECTANGULAR MAIN AND BRANCH CONNECTIONS ARE SHOWN, PROVIDE EXTRACTOR VANES.
12. PROVIDE MANUAL VOLUME CONTROL DAMPERS WHERE SHOWN ON DRAWINGS. DAMPERS TO HAVE NEOPRENE BLADE SEALS AND GALVANIZED STEEL FRAMES, THE BARS, DAMPER AND BRACKETS. ACCEPTABLE MANUFACTURER'S ARE RUSKIN CO., NAILOR INDUSTRIES, FLEXMASTER OR EQUAL.
13. ABOVE INACCESSIBLE CEILING AND WHERE DUCT CONFIGURATION DOES NOT ALLOW FOR INSTALLATION OF DAMPER IN DUCTWORK OR DIFFUSER, PROVIDE REMOTE MANUAL DAMPER BY YOUNG REGULATOR. (BOWEN CABLE CONTROL SYSTEM). CONTRACTOR MAY PROVIDE OPPOSED BLADE DAMPER THAT IS INTEGRAL TO GRID WITH ENGINEER'S APPROVAL.

INSULATION

- 1. DUCT WRAP INSULATION SHALL BE MINERAL FIBER INSULATION. ALL SERVICE JACKETING MANUFACTURED FROM KRAFT PAPER, REINFORCING SCRM, ALUMINUM FOIL AND VINYL FILM. ACCEPTABLE MANUFACTURER'S ARE CERTAINTEED, KNAUF OR OWENS-CORNING. INSTALL DUCT WRAP INSULATION PER MANUFACTURER'S INSTRUCTIONS.
INTERIOR DUCTWORK TO BE INSULATED WITH DUCT WRAP INSULATION. ALL SUPPLY DUCTS TO HAVE 3" MIN. THICKNESS (R-8) INSULATION AND ALL RETURN AND OUTSIDE AIR DUCTS TO HAVE 2" MIN. INSULATION.

TESTING, ADJUSTING AND BALANCING (TAB)

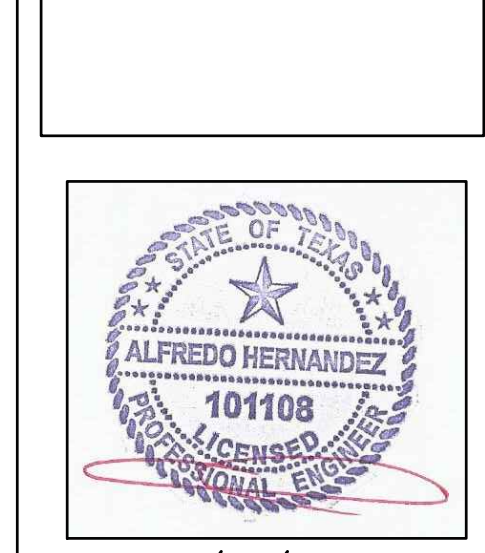
- 1. TAB TO BE PERFORMED BY AN INDEPENDENT ENTITY, CERTIFIED BY AMBC OR NEBB.
2. PERFORM TESTING AND BALANCING PROCEDURES PER AMBC'S "NATIONAL STANDARDS FOR TOTAL SYSTEM BALANCE" OR NEBB'S "PROCEDURAL STANDARDS FOR TESTING, ADJUSTING, AND BALANCING OF ENVIRONMENTAL SYSTEMS".



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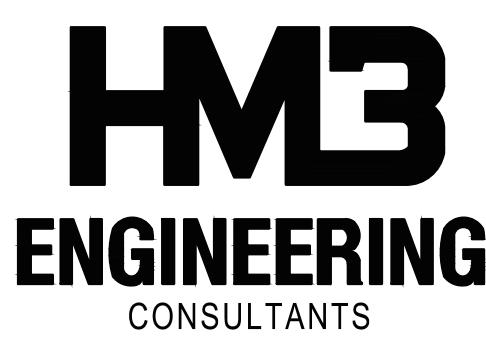
Table with 2 columns: REVISID ISSUE DATES: and revision symbols (A, B, C).

AN APARTMENT RESTORATION
T L SHALEY APARTMENTS
4827 PETTUS
SAN ANTONIO, TEXAS, 78228



04/10/18

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PROJECT NO. 17-019
ISSUE DATE: 04.10.18
DRAWN BY: HM3
REVIEWED BY: AH

MECHANICAL SYMBOLS & ABBREVIATIONS



REVISED ISSUE DATES:

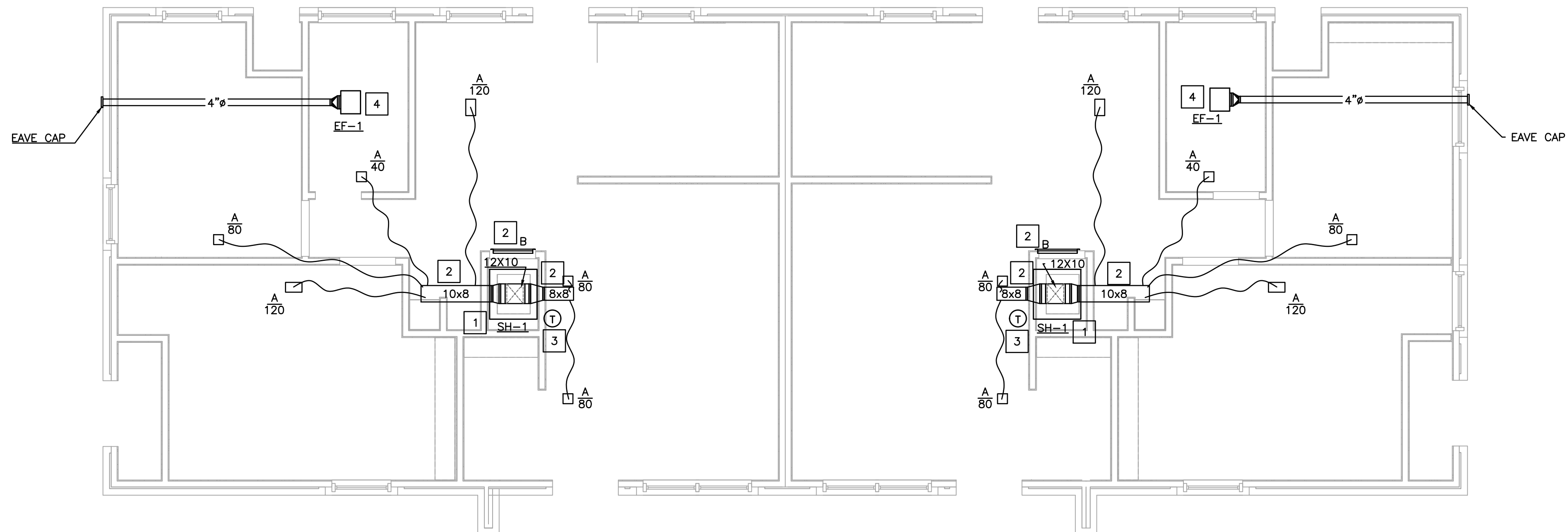
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**MECHANICAL GENERAL NOTES:**

- EQUIPMENT SIZES, DIMENSIONS AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT SELECTED VENDOR DRAWINGS BEFORE FABRICATION OF DUCTWORK, PIPING, ETC...
- DUCT SIZES SHOWN ON PLANS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.
- CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL HVAC BASED ON ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.
- REFER TO M3.0 FOR DIFFUSERS AND RETURNS GRILLE SIZES.

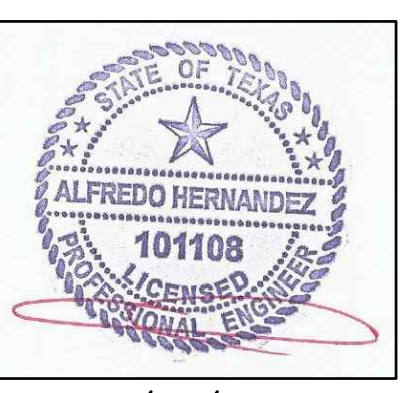
**KEYED NOTES: MECHANICAL**

- LOCATE CONCEAL INDOOR UNIT AS SHOWN ON DRAWINGS. VERIFY CLEARANCES. COORDINATE WITH ARCHITECTURE DRAWINGS PRIOR TO INSTALLATION.
- ROUTE SUPPLY AND RETURN DUCT AS SHOWN. TRANSITIONS AS REQUIRED. FIELD ADJUST TO ACCOMMODATE WITH STRUCTURE CLEARANCE.
- MOUNT CONTROL DEVICES ON WALL. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.
- INTERLOCK EXHAUST FAN WITH LIGHTING IN THIS ROOM.



**1** MECHANICAL PLAN  
 1/4" = 1'-0"

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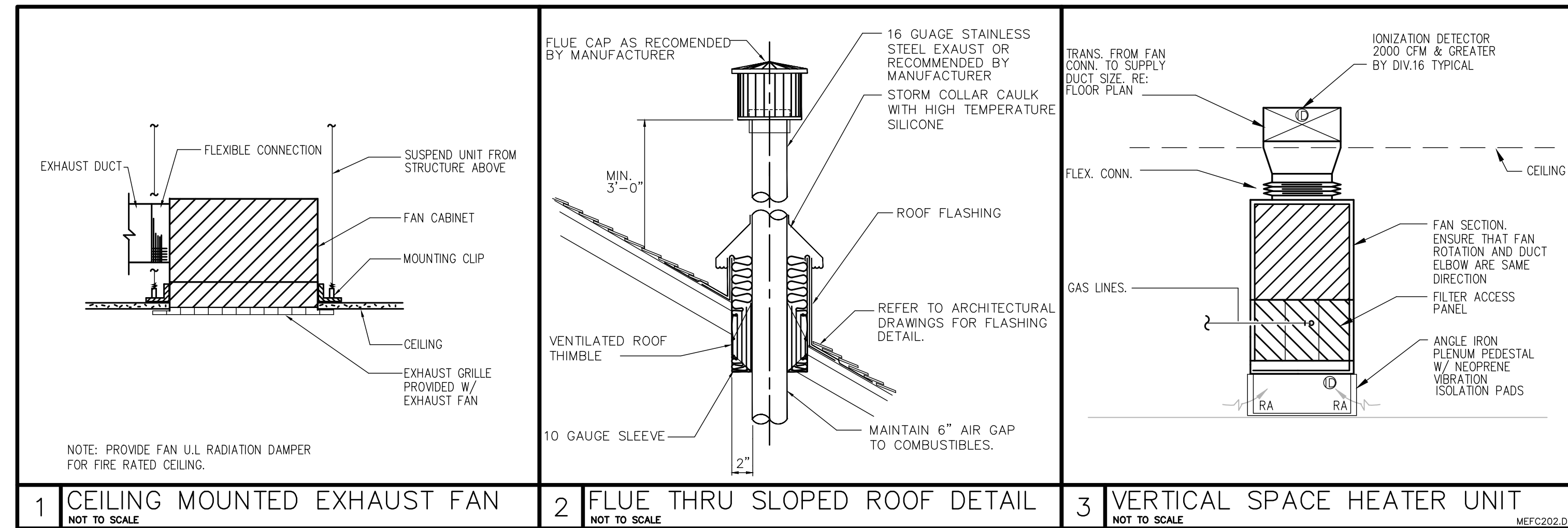
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PROJECT NO. 17-019  
 ISSUE DATE: 04.10.18  
 DRAWN BY: HM3  
 REVIEWED BY: AH

MECHANICAL  
 PLAN  
**M2.0**

REVISED ISSUE DATES:

	▲
	▲
	▲
	▲



MECHANICAL AIR TERMINAL DEVICES SCHEDULE						
TAG	SIZE	DESCRIPTION	CONSTRUCTION	BASIS OF DESIGN		NOTES
				FINISH	MANUFACTURER	
A	VARIES	SINGLE DEFLECTION SUPPLY GRILLE	STEEL	KRUEGER	800	ALL
B	18X18	FIXED DEFLECTION RETURN GRILLE, WITH FILTER FRAME	STEEL	KRUEGER	S80	ALL

NOTES:  
 1. PROVIDE STANDARD WHITE FINISH FOR ALL AIR DEVICES UNLESS NOTED OTHERWISE ON PLAN.  
 2. PAINT ALL SURFACES VISIBLE THROUGH FACE OF RETURN AIR GRILLES FLAT BLACK. THIS SHALL INCLUDE PIPING, CONDUIT, DUCTWORK, AND STRUCTURAL MEMBERS.  
 3. PROVIDE FRAME FOR MOUNTING AIR DEVICE IN LAY-IN GRID CEILING UNLESS REFLECTED CEILING PLAN INDICATES HARD CEILING. IN AREAS WITH HARD CEILINGS, PROVIDE FRAMES FOR SURFACE MOUNTING.  
 2. UNLESS OTHERWISE NOTED, BRANCH DUCTS SERVING AIR DEVICES SHALL BE SAME SIZE AS NECK OF AIR DEVICE.  
 5. AIR DEVICE SHALL BE OF GALVANIZED FINISH WHEN INSTALLED ON EXPOSED DUCTWORK.

NECK SIZE FOR SUPPLY GRILLE:  
 6"X6": 0-75 CFM  
 8"X6": 80-100 CFM  
 10"X6": 105-125 CFM  
 12"X6": 130-150 CFM  
 14"X6": 155-175 CFM

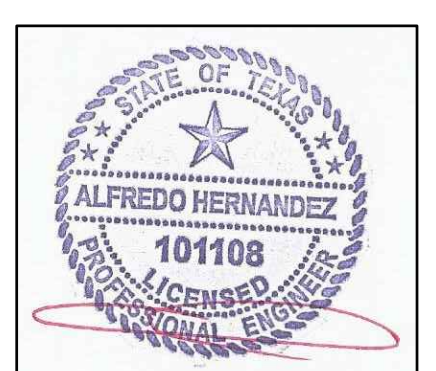
MECHANICAL EQUIPMENT (GAS HEAT) SCHEDULE													
TAG	FLOW RATE		STATIC PRESSURE		ELECTRICAL DATA		GAS HEATING		BASIS OF DESIGN			NOTES	
	SUPPLY	OA	EXTERNAL	MCA/MOCP	VOLTAGE	GAS HEATING	MANUFACTURER	MODEL OR SERIES	HP	SEER/EER	WEIGHT (LBS)		
	CFM	CFM	IN WG	AMPS/AMPS	VOLTS	MBH							
SH-1	520	-	0.3	6.3	15	115/1Ø	40	TRANE	TUD1A040A	1/5	-	110	1

NOTE: 1. UNIT TO BE PROVIDED WITH GAS HEAT, FAN AND FILTER SECTION.

MECHANICAL FAN SCHEDULE											
TAG	FLOW RATE	STATIC PRESSURE	MOTOR DATA		ELECTRICAL DATA		MAXIMUM LOUDNESS	BASIS OF DESIGN		NOTES	
			LOAD	SPEED	MCA/MOCP	VOLTAGE		MANUFACTURER	MODEL OR SERIES		
EF-1	75	.05	-	-	0.4	15	120	.6	BROAN	X880	1,2

NOTES:  
 1. INTERLOCK WITH LIGHTS IN ROOM.  
 2. PROVIDE FACTORY MOUNTED AND INSTALLED DISCONNECT.

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 DRAWN BY: HM3  
 REVIEWED BY: AH  
**MECHANICAL SCHEDULES & DETAILS**  
**M3.0**



# PLUMBING SYMBOLS AND ABBREVIATIONS

(NOT ALL OF THE SYMBOLS SHOWN MAY BE USED ON THE PROJECT.)

SYMBOL	DESCRIPTION	ABBREVIATION	SYMBOL	DESCRIPTION	ABBREVIATION	SYMBOL	DESCRIPTION	ABBREVIATION	ABBREVIATIONS	ABBREVIATIONS
	STORM DRAIN, RAINWATER DRAIN	SD, RT		OUTSIDE YOLK & STEM GATE VALVE	OSY		UPRIGHT FIRE SPRINKLER HEAD	-	A	MAX
	SUBSOIL DRAIN, FOOTING DRAIN	SSD		GATE VALVE	GV		FIRE HOSE RACK	FHR	AFF	MAXIMUM
	GREASE WASTE	GREASE WASTE		GLOBE VALVE	GLV		AUTOMATIC SPRINKLER PIPE	-	AC	MPS
	ABOVE GRADE SOIL, WASTE, OR SANITARY SEWER	S, W, SAN, SS		ANGLE VALVE	AV		DRY PIPE SPRINKLER	-	ACU	MTHW
	BELOW GRADE SOIL, WASTE, OR SANITARY SEWER	S, W, SAN, SS		BALL VALVE	BV		PREACTION SPRINKLER PIPE	-	AHU	HG
	VENT	V		BUTTERFLY VALVE	BFV		FIRE HOSE VALVE	FHV	AHP	MPH
	ACID WASTE	AW		GAS COCK, GAS STOP	-		FIRE HOSE CABINET (SURFACE-MOUNTED)	FHC	AC	MIN
	ACID VENT	AV		BALANCING VALVE (SPECIFY TYPE)	BLV		FIRE HOSE CABINET (RECESSED)	FHC	ALT	N
	INDIRECT DRAIN	D		CHECK VALVE	CV		CLEANOUT PLUG	CO	AMB	NC
	PUMP DISCHARGE LINE	PD		PLUG VALVE	PV		FLOOR CLEANOUT	FCO	ANSI	NO
	COLD WATER	CW		ACCESS PANEL LOCATION	AP		WALL CLEANOUT	WCO	AWG	NA
	HOT WATER SUPPLY (120°)	HW		PLUMBING FIXTURE DESIGNATION	-		YARD CLEANOUT OR CLEANOUT TO GRADE	CO	AMP	NIC
	HOT WATER SUPPLY (140°)	140'		SOLENOID VALVE	-		PITCH DOWN OR UP-IN DIRECTION OF ARROW	-	ANG	NTS
	HOT WATER RETURN (120°)	HWR		MOTOR-OPERATED VALVE (SPECIFY TYPE)	-		FLOW-IN DIRECTION OF ARROW	-	ANGI	NO.
	HOT WATER RETURN (140°)	140'R		PRESSURE-REDUCING VALVE	PRV		POINT OF CONNECTION	POC	ADP	O
	TEMPERED HOT WATER (TEMP.F)	TEMP, HW, TW		PRESSURE-RELIEF VALVE	RV		STEAM TRAP (ALL TYPES)	-	ADP	OZ
	TEMPERED HOT WATER RECIRCULATING (TEMP.F)	TEMP, HWR, TWR		TEMPERATURE-PRESSURE-RELIEF VALVE	TPV		FUNNEL FLOOR DRAIN	FDD	APP	OA
	(CHILLED) DRINKING WATER SUPPLY	DWS		REDUCED ZONE BACKFLOW PREVENTER	RZBP		FLOOR SINK (3/4 GRATE)	FS	A	P
	(CHILLED) DRINKING WATER RECIRCULATING	DWR		DOUBLE-CHECK BACKFLOW PREVENTER	DCBP		FLOOR SINK (1/2 GRATE)	FS	AVG	PPM
	SOFT WATER	SW		HOSE BIBB	HB		SOIL/VENT STACK DESIGNATION	-	B	PH
	CONDENSATE DRAIN	CD		RECESSED-BOX HOSE BIBB OR WALL HYDRANT	WH		REFERENCE: DETAIL NUMBER	-	BFF	PH
	DISTILLED WATER	DI		VALVE IN YARD BOX (VALVE TYPE SYMBOL AS REQUIRED FOR VALVE USE)	YB		REFERENCE: SHEET NUMBER	-	BG	PIPE
	DEIONIZED WATER	DE		UNION (SCREW)	-		UNION (FLANGED)	-	BHP	LB
	PIPING TO BE HEAT TRACED	-		UNION (FLANGED)	-		STRAINER (SPECIFY TYPE)	-	BTU	PSF
	LAWN SPRINKLER SUPPLY	LS		STRAINER (SPECIFY TYPE)	-		PIPE ANCHOR	PA	C	PSI
	FIRE PROTECTION WATER SUPPLY	F		PIPE ANCHOR	PA		EXPANSION JOINT	EJ	C	PSIA
	GAS-LOW-PRESSURE	G		EXPANSION JOINT	EJ		FLEXIBLE CONNECTOR	FC	C	PSIG
	GAS-MEDIUM-PRESSURE	MG		FLEXIBLE CONNECTOR	FC		TEE	-	C	PRES
	GAS-HIGH-PRESSURE	HG		TEE	-		SIAMESE FIRE DEPARTMENT CONNECTION	-	C	Q
	GAS VENT	GV		SIAMESE FIRE DEPARTMENT CONNECTION	-		FREESTANDING SIAMESE FIRE DEPARTMENT CONNECTION	-	C	QT
	CONCENTRIC REDUCER	-		FREESTANDING SIAMESE FIRE DEPARTMENT CONNECTION	-		WALL (SPECIFY NUMBERS AND SIZE OF OUTLETS)	-	C	R
	ECCENTRIC REDUCER	-		WALL (SPECIFY NUMBERS AND SIZE OF OUTLETS)	-		FIRE PUMP / JOCKEY PUMP	-	C	R
	EQUIPMENT DESIGNATION (GAS WATER HEATER #1)	-		FIRE PUMP / JOCKEY PUMP	-		TRAP PRIMER	TP	C	R
	NEW PLUMBING FIXTURE DESIGNATION	-		TRAP PRIMER	TP		PROPANE GAS	PG	C	R
	EXISTING PLUMBING FIXTURE TO BE REMOVED	-		PROPANE GAS	PG				C	R
	PLUMBING KEYED NOTE	-							C	R
	AQUASTAT	-							C	R
	TAMPER SWITCH	TS							C	R
	FLOW SWITCH	FS							C	R
	PRESSURE SWITCH	PS							C	R
	WATER HAMMER ARRESTER (PDI DESIGNATION "A")	WHA							C	R
	PRESSURE GAUGE WITH GAUGE COCK	PG							C	R
	THERMOMETER (SPECIFY TYPE)	-							C	R
	AUTOMATIC AIR VENT	AAV							C	R
	CIRCUIT SETTER	CS							C	R
	VALVE IN RISER (TYPE AS SPECIFIED OR NOTED)	-							C	R
	RISER DOWN (ELBOW)	-							C	R
	RISER (ELBOW) OR CHAMBER	-							C	R
	RISE OR DROP	-							C	R
	BRANCH-BOTTOM CONNECTION	-							C	R
	BRANCH-SIDE CONNECTION	-							C	R
	CAP ON END PIPE	-							C	R
	FLOW INDICATOR FOR STATIONARY METER (ORIFICE)	-							C	R
	FLOW INDICATOR FOR PORTABLE METER (SPECIFY FLOW RATE)	-							C	R

## GENERAL PLUMBING NOTES:

- ALL WORK SHALL CONFORM TO ALL STATE AND LOCAL CODES, RULES AND REGULATIONS, AND ORDINANCES.
- PLUMBING PLANS ARE DIAGRAMMATIC ONLY. THEY ARE INTENDED TO INDICATE CAPACITY, SIZE, LOCATION, DIRECTION AND GENERAL ARRANGEMENT. WHERE NOT SPECIFICALLY SHOWN ON PLANS, CONTRACTOR SHALL APPLY PROFESSIONAL STANDARDS SUCH AS THAT OF THE AMERICAN SOCIETY OF PLUMBING ENGINEERS.
- WORK SHALL INCLUDE ALL LABOR, MATERIALS, PERMITS AND OTHER COSTS AS ARE NECESSARY FOR THE INSTALLATION OF A COMPLETE AND SATISFACTORY OPERATIONAL PLUMBING AND SANITARY SYSTEM. EQUIPMENT SHALL BE INSTALLED IN SUCH A MANNER AS TO MAINTAIN ITS LISTING AND THE MANUFACTURER'S GUARANTEES AND WARRANTIES.
- THIS CONTRACTOR SHALL COORDINATE WITH THE OTHER TRADES TO INSURE THAT EACH TRADE SHALL HAVE SUFFICIENT SPACE TO INSTALL THEIR EQUIPMENT (DUCTWORK, PIPING, ELECTRICAL, ETC.), ALONG WITH THE PLUMBING WORK.
- WHERE THE TERM "PROVIDE" IS USED, IT SHALL MEAN "FURNISH AND INSTALL". THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL THE OTHER TRADES PRIOR TO THE FABRICATION, PURCHASE AND/OR INSTALLATION OF THE WORK.
- UNLESS NOTED, ALL MATERIALS SHALL BE NEW, COMPLETE, INCLUDE MANUFACTURER'S WARRANTY, AND BE U.L. APPROVED IF APPLICABLE. ALL WORK SHALL PRESENT A NEAT MECHANICAL APPEARANCE WHEN COMPLETED.
- FIELD VERIFY ALL DIMENSIONS. CONTRACTOR SHALL VERIFY ELEVATION OF UTILITY CONNECTIONS ON SITE PRIOR TO COMMENCING WORK. FINAL CONNECTION TO SITE UTILITIES SHALL BE BY THE PLUMBING CONTRACTOR.
- PIPING ROUTED THROUGH FOUNDATIONS SHALL BE SLEEVED AND INSTALLED IN ACCORDANCE WITH THE AMERICAN SOCIETY OF PLUMBING ENGINEERS STANDARDS.
- PLUMBING SYSTEM INSTALLER SHALL PROVIDE ALL STRUCTURAL MEMBERS, SUPPORT BRACKETS, FLASHING, HARDWARE, ETC., REQUIRED TO INSTALL A COMPLETE SYSTEM.
- DRAIN WASTE AND VENT PIPING SHALL BE PVC SCH. 40 WHEN INSTALLED BELOW GRADE OR UNDER CONCRETE SLABS. DRAIN WASTE AND VENT PIPING INSTALLED ABOVE GRADE SHALL BE PVC SCH. 40.
- DOMESTIC WATER PIPING SHALL BE TYPE "L" COPPER.
- PLUMBING CONTRACTOR SHALL CERTIFY ALL WATER PIPING AND SPECIALTIES FREE FROM MICROBIAL CONTAMINATION BY SANITIZING THE PLUMBING SYSTEM BEFORE OCCUPATION OF BUILDING.
- EXPOSED FIXTURE TRIM SHALL BE CHROME PLATED BRASS. PROVIDE INDIVIDUAL STOPS FOR EACH HOT AND COLD WATER CONNECTION TO FIXTURES.
- ALL SANITARY PIPING CHANGES OF DIRECTION 45 DEGREES OR MORE SHALL BE ACCOMPLISHED BY USING 45 DEGREE 1/8 BEND ELBOWS UNLESS OTHERWISE NOTED.
- ALL SANITARY PIPING UNDER SLAB SHALL BE 2" OR LARGER.
- INSTALL HEAT TRAPS ON ALL WATER HEATERS, WHERE THE SYSTEM IS NOT RECIRCULATED.
- PROVIDE MAINTENANCE AND/OR OTHER CLEARANCES AT EACH PIECE OF EQUIPMENT AS REQUIRED OR RECOMMENDED BY THE EQUIPMENT MANUFACTURER. COORDINATE WITH GENERAL CONTRACTOR TO PROVIDE ANY ADDITIONAL SPACE REQUIRED FOR SUBMITTED EQUIPMENT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF HIS OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTY AGAINST FIRE THEFT OR ENVIRONMENTAL CONDITIONS.
- ALL MODEL NUMBERS INDICATED ARE PROVIDED TO ESTABLISH THE QUALITY LEVEL AND FEATURES REQUIRED. LISTED MANUFACTURERS AND OTHER PRIOR APPROVED EQUALS MAY BE SUBSTITUTED WHEN PROVIDED WITH EQUAL FEATURES, EITHER STANDARD OR AS ACCESSORIES. SUBSTITUTED AIR DEVICES AND PLUMBING FIXTURES MUST BE SIMILAR IN APPEARANCE TO THE ITEMS SPECIFICALLY INDICATED.
- ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER. CLEAN THE SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSED BY THE WORK INCLUDED IN THIS CONTRACT.
- PROVIDE 1" ARMAFLEX INSULATION ON ALL HOT AND CIRCULATING WATER PIPING.

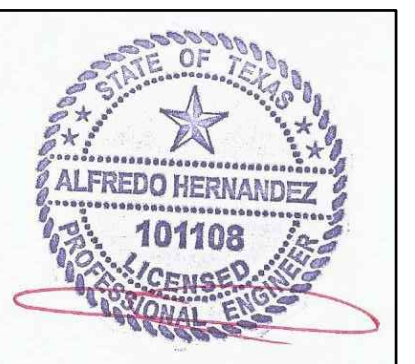


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### REVISED ISSUE DATES:

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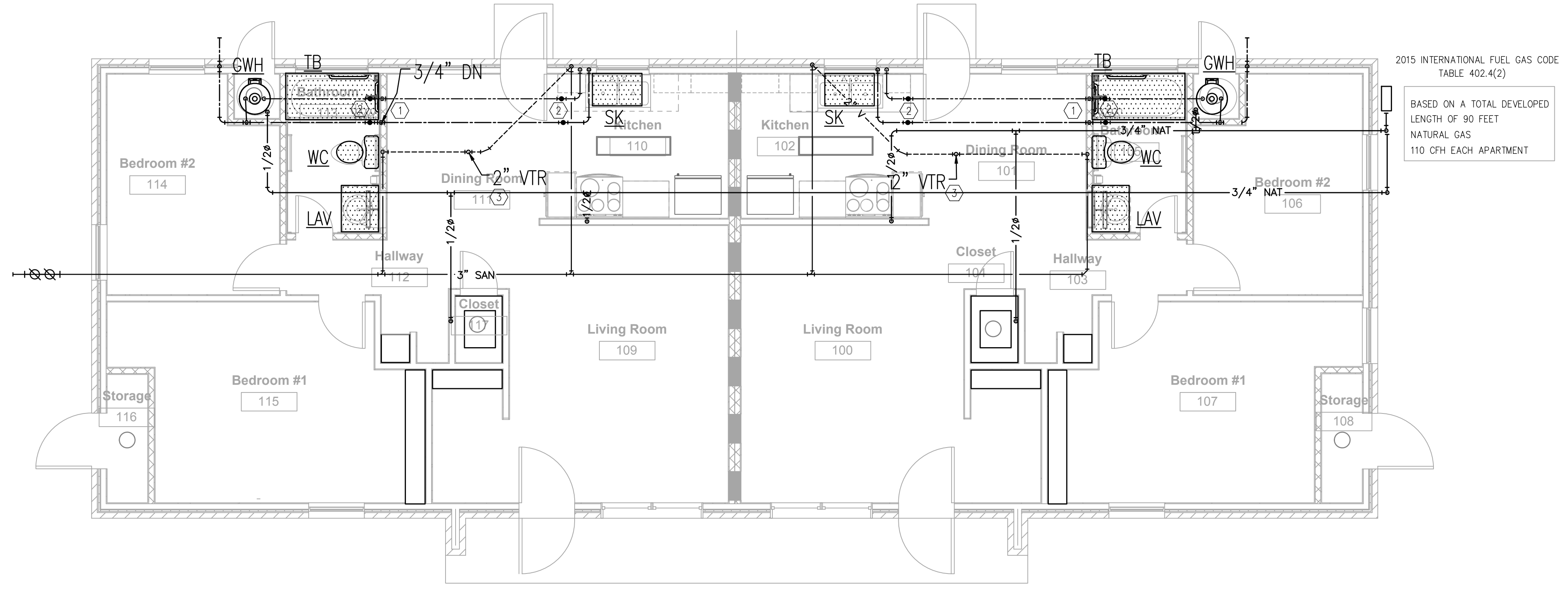
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PLUMBING SYMBOLS & ABBREVIATIONS

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REVISED ISSUE DATES:

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**PLUMBING GENERAL NOTE:**

- CONTRACTOR SHALL PROVIDE LABOR AND MATERIALS TO MAKE THE NECESSARY CHANGES AND MODIFICATION TO NEW AND EXISTING PLUMBING FIXTURE/FIXTURES. REFER TO ARCHITECTURAL DRAWINGS FOR GENERAL DEMOLITION NOTES, DIMENSIONED FLOOR PLANS, MOUNTING HEIGHTS AND SCOPE OF WORK REQUIREMENTS.
- CONTRACTOR PROVIDE NECESSARY MODIFICATION AND/OR EXTEND NEW WATER SUPPLY OR SANITARY WASTE AND VENT (CARRIER) TO NEW PLUMBING FIXTURE AND MAKE ALL FINAL CONNECTIONS.
- DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES.

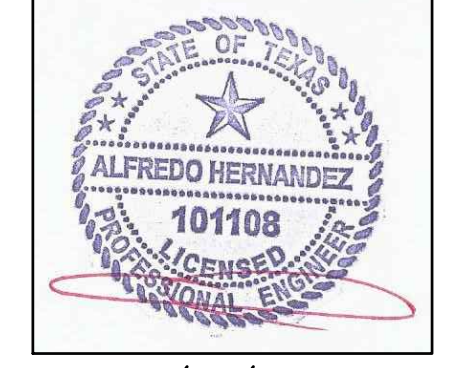
**PLUMBING KEYED NOTES:**

- COLD WATER DROP TO FIXTURES; SIZE AS NOTED. SEE PLUMBING RISER DIAGRAMS FOR CONTINUATION IN WALL OR CHASE. PROVIDE WATER HAMMER ARRESTORS AS INDICATED IN RISER DIAGRAMS, PROVIDE ACCESS PANEL WHERE WHA IS LOCATED IN INACCESSIBLE WALL OR CEILING.
- WATER HAMMER ARRESTOR, PROVIDE ACCESS PANEL WHERE LOCATED IN AN INACCESSIBLE WALL/CEILING. PANEL SHALL BE 12\"X12\" PAINTED TO MATCH WALL/CEILING.
- PROVIDE VTR. REFER TO DETAIL 1/P3.0

2015 INTERNATIONAL FUEL GAS CODE TABLE 402.4(2)  
 BASED ON A TOTAL DEVELOPED LENGTH OF 90 FEET NATURAL GAS 110 CFH EACH APARTMENT

**1 PLUMBING PLAN**  
 1/4\" = 1'-0\"

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 SAN ANTONIO - RGV  
 TBPE FIRM REGISTRATION NO. 13361

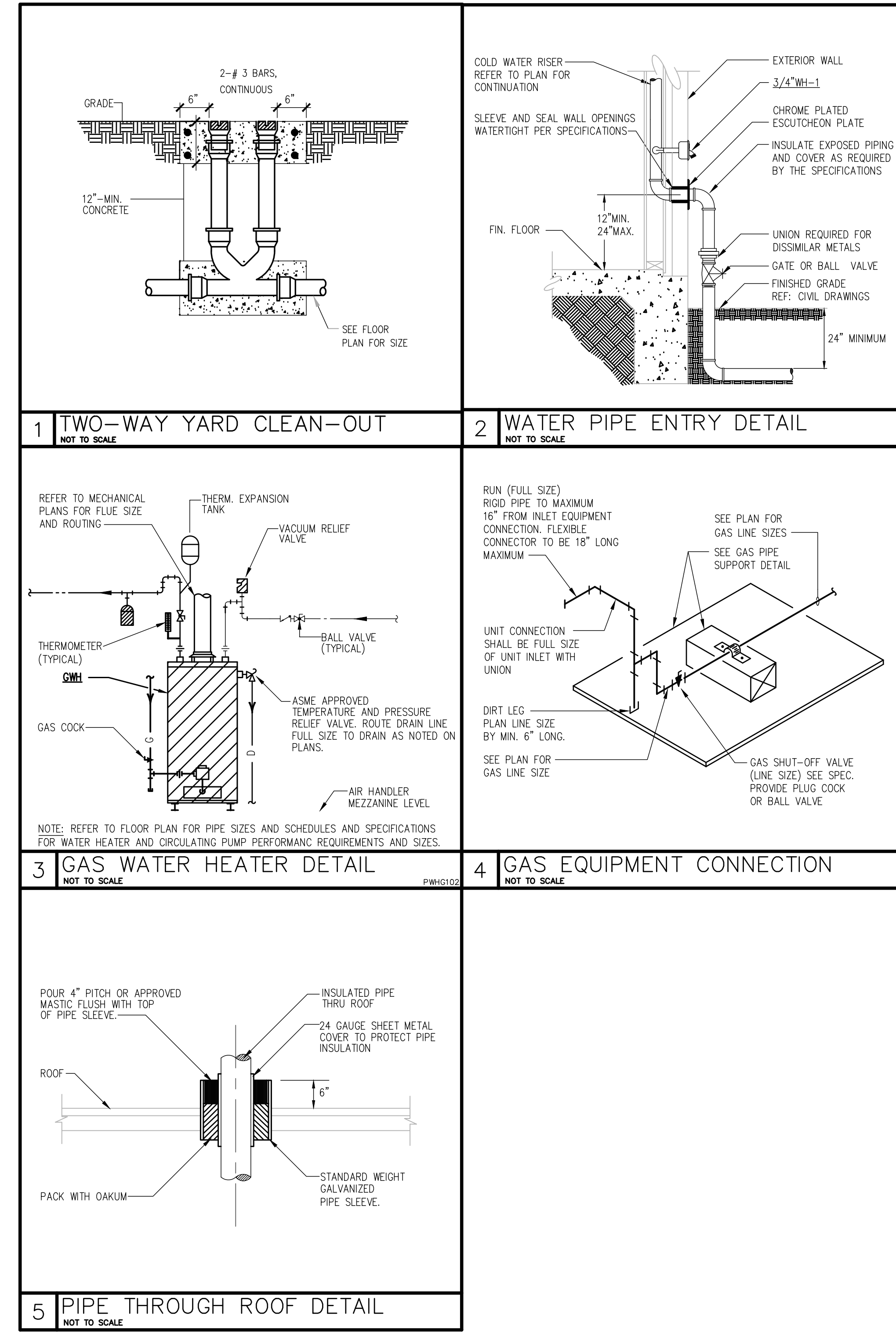
PROJECT NO. 17-019  
 ISSUE DATE: 04.10.18  
 DRAWN BY: HM3  
 REVIEWED BY: AH

PLUMBING  
 PLAN  
**P2.0**

REVISED ISSUE DATES:

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PLUMBING FIXTURE & PIPE CONNECTION SCHEDULE									
TAG	DESCRIPTION	BASIS OF DESIGN		CONNECTION SIZE					
		MANUFACTURER	CATALOG NUMBER	CW INCHES	HW INCHES	TW INCHES	WASTE INCHES	INDIRECT WASTE INCHES	VENT INCHES
WC-1	FLOOR MOUNTED WHITE V.C. ELONGATED PRESSURE-ASSISTED 1.1 GPF - BOWL, TANK AND SEAT	AMERICAN STANDARD	CADEFLOWISE T2467.100"	1/2"	-	-	4"	-	2"
LAV-1	WALL MOUNT V.C. 22" X 17" LAVATORY SINK 4" CENTERSET HOLE. PROVIDE WALL HANGER. TWO HANDLE CHROME PLATED FAUCET 0.5GPM	AMERICAN STANDARD	"LUCERNE" 0355.012 MOEN "M-BITION" 8800F05	1/2"	1/2"	1/2"	2"	-	2"
SK-1	TOP MOUNT SS EQUAL DOUBLE BOWL 37"x22" SINK WITH GOOSENECK PULL DOWN SPRAY CHROME FAUCET ADA	ELKAY	LRAD972255 FAUCET LKHA4031	1/2"	1/2"	-	2"	-	2"
SK-2	TOP MOUNT SS EQUAL DOUBLE BOWL 29"x18" SINK WITH GOOSENECK PULL DOWN SPRAY CHROME FAUCET ADA	ELKAY	LRAD291855 FAUCET LKHA4031	1/2"	1/2"	-	2"	-	2"
GWH	40 GALLON STORAGE ASME TANK, 40,000 BTUH INPUT, 43 G RECOVERY AT 90 TEMP RISE WITH 90% THERMAL EFFICIENCY. WITH POWER VENT, TEMP./PRESS. RELIEF VALVE AND FULLY AUTOMATIC CONTROLS, SPARK IGNITION, FLAME SAFEGUARD, REGULATORS SAFETY SHUT OFF. ENTIRE ASSEMBLY TO BE UL LISTED. PROVIDE 4" VENT FOR UP TO 120 LF OF EXHAUST. PROVIDE (2) 1/8"x1/8" LOUVERS EQUAL TO GREENHECK DHH-40L. INSTALL ON 12" FROM TOP OF WALL AND 12" FROM BOTTOM OF WALL.	BRADFORD WHITE	RG24056N	-	-	-	-	-	-
TB	SINGLE-HANDLE POSI-TEMP TUB/SHOWER. LEVER STYLE HANDLE WITH TEMP. INDICATOR IN ESCUTCHEON. EP SUFFIX MODEL LIMITED TO 1.75 GPM	MOEN	T2663EP + 2520	1/2"	1/2"	-	2"	-	2"



AN APARTMENT RESTORATION  
**T L SHALEY APARTMENTS**  
 4827 PETTUS  
 SAN ANTONIO, TEXAS, 78228



04/10/18

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