

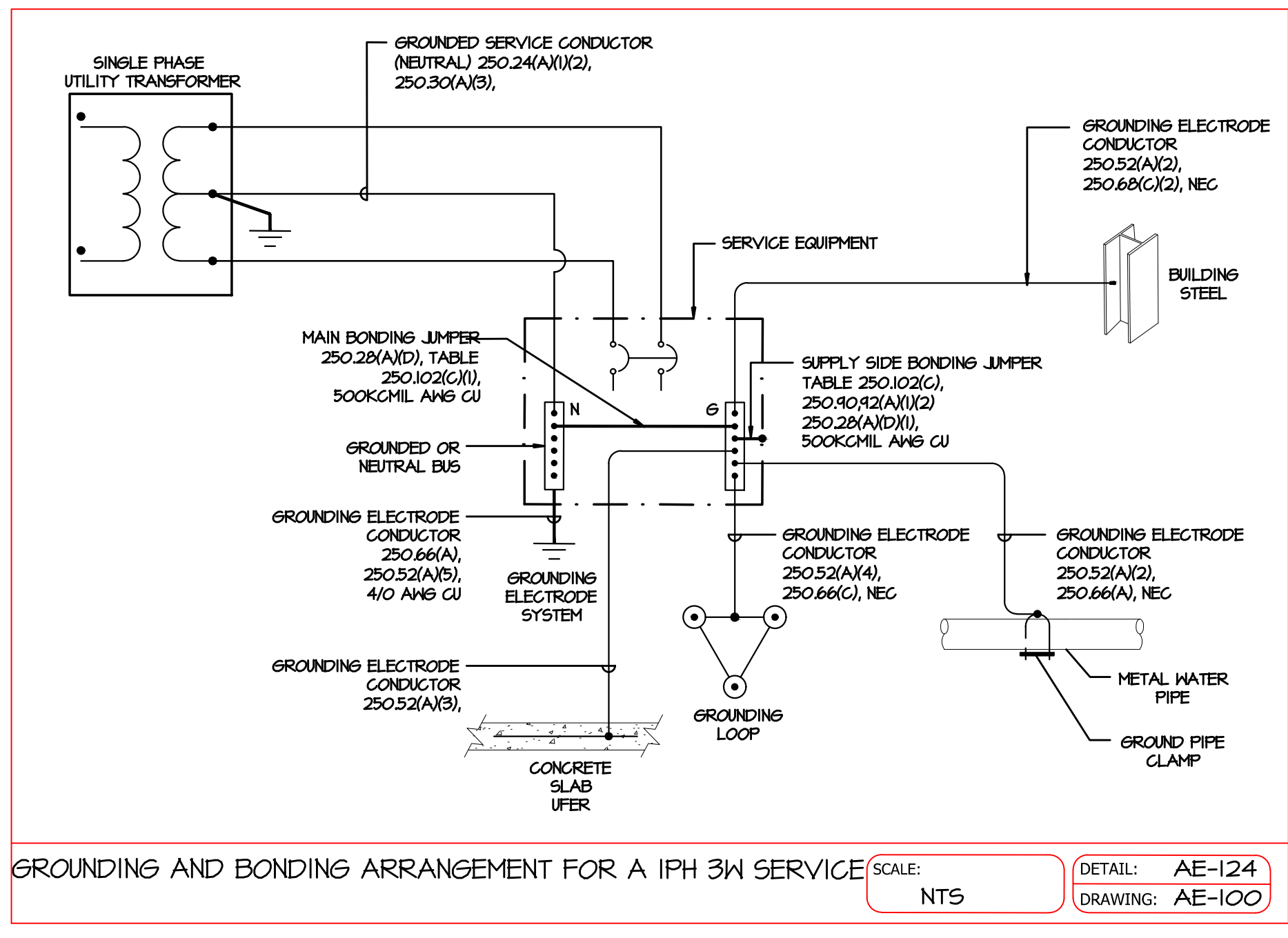
Height	Conductor	Conduit
UP TO 175'	(3) #1 AWG & (1) # 6 GND COPPER CONDUCTOR	1 1/4" CONDUIT
176' TO 215'	(3) #1/0 AWG & (1) # 6 GND COPPER CONDUCTOR	1 1/2" CONDUIT
216' TO 250'	(3) #2/0 AWG & (1) # 6 GND COPPER CONDUCTOR	1 1/2" CONDUIT
251' TO 300'	(3) #3/0 AWG & (1) # 6 GND COPPER CONDUCTOR	2" CONDUIT
301' TO 375'	(3) #4/0 AWG & (1) # 6 GND COPPER CONDUCTOR	2" CONDUIT

- REFERENCE KEYNOTES
- PROVIDE NEW TRANSFORMER PAD AND VAULT AS DETERMINED BY UTILITY COMPANY SERVICE REQUIREMENTS. PROVIDE PVC CONDUIT FOR PRIMARY AND SECONDARY CONDUCTORS STUBBED OUT PAST TRANSFORMER PAD. MAINTAIN CLEARANCE REQUIREMENTS SPECIFIED BY UTILITY COMPANY, INCLUDING 10' MINIMUM CLEAR ZONE IN FRONT OF TRANSFORMER.
 - INSTALL GROUNDING PER UTILITY COMPANY.
 - PROVIDE CONDUIT AND TRENCH PER UTILITY COMPANY SERVICE REQUIREMENTS. CONDUIT AND TRENCHES MUST BE INSPECTED BY UTILITY COMPANY PRIOR TO BACKFILLING. UTILITY COMPANY WILL MAKE UP THE SOURCE SIDE CONNECTIONS.
 - CONSULT UTILITY COMPANY FOR AVAILABLE FAULT CURRENT BEFORE PURCHASING ELECTRIC SERVICE EQUIPMENT.
 - PROVIDE RIGID STEEL CONDUIT THAT EXTENDS APPROXIMATELY 12" BELOW THE FINISHED GRADE AND IS THREADED TO ACCEPT A PVC OR RIGID COUPLING.
 - GROUNDING AND CONNECTIONS TO THE PANEL SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND STATE AND LOCAL CODES.
 - E.G. SHALL FURNISH AND INSTALL LANDING LUGS. CONSULT UTILITY COMPANY ENGINEERING DEPARTMENT FOR SIZE AND NUMBER OF SOURCE-SIDE CONDUCTORS.
- GROUNDING NOTES
- TRANSFORMER SECONDARY BONDING PER NEC 250.154(A)(1)
 - PROVIDE GROUNDING ELECTRODE CONDUCTOR TO NEAREST EFFECTIVE GROUNDING COLD WATER PIPING SYSTEM IF AVAILABLE.
 - IF (A) IS NOT AVAILABLE, PROVIDE GROUNDING ELECTRODE CONDUCTOR TO NEAREST EFFECTIVELY-GROUNDED STEEL FRAME OF BUILDING STRUCTURE IF AVAILABLE.
 - PROVIDE GROUNDING ELECTRODE CONDUCTORS TO UPFER AND GROUND RODS AT TRANSFORMER.
- PROVIDE G.E.C. SIZE SERVICE CONDUCTOR SIZES #2 AND SMALLER

- NOTES
- ELECTRICAL CONTRACTOR TO VERIFY ALL SWITCHGEAR WITH POWER COMPANY STANDARDS AND REQUIREMENTS PRIOR TO BIDDING. SUBMIT ALL SWITCHGEAR EQUIPMENT CUT SHEETS TO POWER COMPANY FOR FINAL APPROVAL PRIOR TO ORDERING ANY EQUIPMENT.
 - ALL CONDUCTOR SIZES SHOWN ARE BASED ON NEC FOR COPPER WIRE, 75°C RATED.
 - ELECTRICAL CONTRACTOR MAY ELECT TO INCREASE OR DECREASE THE NUMBER OF CONDUCTOR SETS SHOWN. CONDUCTOR AND CONDUIT SIZING TO BE BASED ON NEC. COORDINATE ANY UNDERGROUND CONDUIT COUNT AND SIZING CHANGES WITH G.C.
 - FAULT CURRENT DATA FROM THE UTILITY MUST BE VERIFIED AND THE AIC RATING OF THE EQUIPMENT MUST BE RATED FOR THE FAULT CURRENT THAT IS AVAILABLE.
 - DISTRIBUTION TRANSFORMER IS SELECTED AND INSTALLED BY UTILITY COMPANY.
 - TRANSFORMER SECONDARY CONDUCTOR SIZES ARE BASED ON 350' AND 2% VOLTAGE DROP. IF DISTANCE IS SIGNIFICANTLY LESS THAN 350', SMALLER SIZE CONDUCTOR CAN BE USED AFTER CONSULTING WITH E.O.R. AND UPON RECEIVING UPDATED DESIGN DOCUMENTS.

Project Name:	0794 SC: HEARTHSTONE LAKES			
Total Units:	METER BANK #1, 18 APARTMENT UNITS			
Voltage:	120/240			
Phase:	1			
STEP 1 General Lighting And Receptacle Load:				
General Lighting (5VA per sq ft)	Table 220.84(C)(1)	2	19,944	58,032
Small Appliance Circuits (1500 VA per circuit) (minimum 2)	NEC 220.84(C)(2)	1,500	36	54,000
Laundry Circuit (1500 VA per circuit)	NEC 220.84(C)(2)	1,500	18	27,000
STEP 2 Fixed Appliance Load:	NEC 220.84(C)(3)(a)			
Water Pump				0
Refrigerator (1000VA or name plate)		18	800	14,400
Disposal (500VA or name plate)		18	800	14,400
Convector (1000VA or name plate)				0
Dishwasher (1500VA or name plate)		18	1,200	21,600
Microwave (.750VA or name plate)		18	1,200	21,600
Range Hood				0
Freezer (1500VA or more)				0
Appliance #1				0
Appliance #2				0
Appliance #3				0
Appliance #4				0
STEP 3 Cooking Equipment Load:	NEC 220.84(C)(3)(b)			
Electric Range		18	7680	138,240
Cooking Equipment #1				0
Cooking Equipment #2				0
Cooking Equipment #3				0
Cooking Equipment #4				0
STEP 4 Electric Clothes Dryers Load:	NEC 220.84(C)(3)(c)			
Dryer name plate value		18	5000	90,000
STEP 5 Water Heater Load:	NEC 220.84(C)(3)(d)			
Water Heater		18	4200	81,000
STEP 6 Permanent Motor Name Plates Load:	NEC 220.84(C)(4)			
Motor #1				0
Motor #2				0
STEP 7 Largest of Heating or HVAC Load:	NEC 220.84(C)(5)			
Air-conditioning unit @ 100%				0
Heating System @ 100%		18	3600	64,800
TOTAL STEP 7:				64,800
TOTAL GENERAL LOADS (STEP 1, 2, 3, 4, 5 & 6, 7):	NEC 220.62(b)			585,072
Total Number of Dwelling Unit and demand factor:	NEC 220.84	18	0.38	
Total Service Demand Load Volt-Amperes (VA)				222,327
Total Service Demand Load Amperes (A)				926
Service OCPD (A)				1,000

Project Name:	0794 SC: HEARTHSTONE LAKES			
Total Units:	METER BANK #2, 18 APARTMENT UNITS AND HOUSE PANEL			
Voltage:	120/240			
Phase:	1			
STEP 1 General Lighting And Receptacle Load:				
General Lighting (5VA per sq ft)	Table 220.84(C)(1)	2	19,944	58,032
Small Appliance Circuits (1500 VA per circuit) (minimum 2)	NEC 220.84(C)(2)	1,500	36	54,000
Laundry Circuit (1500 VA per circuit)	NEC 220.84(C)(2)	1,500	18	27,000
STEP 2 Fixed Appliance Load:	NEC 220.84(C)(3)(a)			
Water Pump				0
Refrigerator (1000VA or name plate)		18	800	14,400
Disposal (500VA or name plate)		18	800	14,400
Convector (1000VA or name plate)				0
Dishwasher (1500VA or name plate)		18	1,200	21,600
Microwave (.750VA or name plate)		18	1,200	21,600
Range Hood				0
Freezer (1500VA or more)				0
Appliance #1				0
Appliance #2				0
Appliance #3				0
Appliance #4				0
STEP 3 Cooking Equipment Load:	NEC 220.84(C)(3)(b)			
Electric Range		18	7680	138,240
Cooking Equipment #1				0
Cooking Equipment #2				0
Cooking Equipment #3				0
Cooking Equipment #4				0
STEP 4 Electric Clothes Dryers Load:	NEC 220.84(C)(3)(c)			
Dryer name plate value		18	5000	90,000
STEP 5 Water Heater Load:	NEC 220.84(C)(3)(d)			
Water Heater		18	4200	81,000
STEP 6 Permanent Motor Name Plates Load:	NEC 220.84(C)(4)			
Motor #1				0
Motor #2				0
STEP 7 Largest of Heating or HVAC Load:	NEC 220.84(C)(5)			
Air-conditioning unit @ 100%				0
Heating System @ 100%		18	3600	64,800
TOTAL STEP 7:				64,800
TOTAL GENERAL LOADS (STEP 1, 2, 3, 4, 5 & 6, 7):	NEC 220.62(b)			585,072
Total Number of Dwelling Unit and demand factor:	NEC 220.84	18	0.38	
Total Service Demand Load Volt-Amperes (VA)				222,327
Total Service Demand Load Amperes				926
House Panel Demand Load (Panel-HP) (A)				177
Total Service Demand Load Volt-Amperes (VA)				1,103
Service OCPD (A)				1,200



GROUNDING AND BONDING ARRANGEMENT FOR A 1PH 3W SERVICE SCALE: NTS DETAIL: AE-124 DRAWING: AE-100



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CONTRACTOR: **AKES**

NO.	REVISION	DATE
0	ISSUED FOR PERMIT APPLICATION	02/12/20
1	REVISED AS PER COMMENTS	02/24/20
2	REVISED AS PER COMMENTS	02/12/20

NEW CONSTRUCTION FOR **AKES**
 PHASE 5 - MULTIFAMILY HARDEEVILLE, SOUTH CAROLINA

DATE ISSUED: 02/12/2020
 DESIGNED BY: DEE
 AE JOB # 0994
 DRAWING TITLE: ONE LINE, GROUNDING & SERVICE SIZE CALCULATION
 DRAWING NUMBER:

E-1.1

PANEL INFORMATION: ID: PANEL P1. PANEL SCHEDULE: LOAD KVA. LOCATION: TYPE: DISTRIBUTION PANEL. MOUNTING: SURFACE. BRANCH CIRCUITS: 42. NOTES: BEDROOM RECEPTACLE, MEDIA CENTER, RANGE, X, BATHROOM RECEPTACLE, CLOSET RECEPTACLE, WASHER RECEPTACLE, PTAC #1 RECEPTACLE, PTAC #1, X, KITCHEN, LAUNDRY, CLOSET, BATH & WIC LIGHTS & EF-1, LIVING RM, BEDROOM, MECH. ROOM & BALCONY LIGHTS. SUMMARY, LOAD BUS A, LOAD BUS B, TOTAL CONNECTED LOAD.

PANEL INFORMATION: ID: PANEL P2. PANEL SCHEDULE: LOAD KVA. LOCATION: TYPE: DISTRIBUTION PANEL. MOUNTING: SURFACE. BRANCH CIRCUITS: 42. NOTES: BEDROOM #1 RECEPTACLE, LIVING ROOM RECEPTACLE, RANGE, X, BEDROOM #1 AND BATH #1 RECEPTACLE, BATH #2 AND ENTRY RECEPTACLE, WASHER RECEPTACLE, MEDIA CENTER, PTAC #2, X, PTAC #2 RECEPTACLE, KITCHEN, CLOSET, LAUNDRY, BATH & WIC #2 LIGHTS & EF-1. SUMMARY, LOAD BUS A, LOAD BUS B, TOTAL CONNECTED LOAD.

- NOTES:
1. PANEL SCHEDULE FOR TYPICAL ENLARGED 1 BEDROOM UNITS.
2. ALL BREAKERS TO BE ARC FAULT CIRCUIT INTERRUPTER (AFCI) TYPE.
3. ALL ELECTRIC PANEL COVERS SHALL BE POWDER-COATED WHITE.

- NOTES:
1. PANEL SCHEDULE FOR TYPICAL ENLARGED 2 BEDROOM UNITS.
2. ALL BREAKERS TO BE ARC FAULT CIRCUIT INTERRUPTER (AFCI) TYPE.
3. ALL ELECTRIC PANEL COVERS SHALL BE POWDER-COATED WHITE.

PANEL-1 SCHEDULE

PANEL-2 SCHEDULE

PANEL INFORMATION: ID: PANEL HP. PANEL SCHEDULE: LOAD KVA. LOCATION: TYPE: DISTRIBUTION PANEL. MOUNTING: SURFACE. BRANCH CIRCUITS: 42. NOTES: CORRIDOR 1L LIGHTS & RECEPTACLE, CORRIDOR 2L LIGHTS & RECEPTACLE, CORRIDOR 3L LIGHTS & RECEPTACLE, CORRIDOR 1C LIGHTS & RECEPTACLE, CORRIDOR 2C LIGHTS & RECEPTACLE, CORRIDOR 3C LIGHTS & RECEPTACLE, CORRIDOR 1L N. EWH, CORRIDOR 1L S. EWH, CORRIDOR 2L N. EWH, CORRIDOR 2L S. EWH, CORRIDOR 3L N. EWH, CORRIDOR 3L S. EWH, CORRIDOR 1C N. EWH, CORRIDOR 1C S. EWH, CORRIDOR 2C N. EWH, CORRIDOR 2C S. EWH, CORRIDOR 3C N. EWH, CORRIDOR 3C S. EWH. SUMMARY, LOAD BUS A, LOAD BUS B, TOTAL CONNECTED LOAD, TOTAL DEMAND LOAD.

Demand Load Calculation. Factor, Connect Load KVA, Demand Load KVA. Dwelling Units Lighting, Receptacles, Largest Motor Load, Kitchen Equipment, Electric Clothes Dryers, Air Conditioner, Electric Space Heating, Continuous Loads, No Continuous Loads, Sun Panels.

PANEL-HP SCHEDULE

Panel P1 - Single Family Dwelling Feeder Calculation. NEC Optional Method. Project Name: 0994-SC-HEARTHSTONE LAKES. Unit/Apt: 1-BEDROOM UNITS. Description: General Lighting And Receptacle Load, Fixed Appliance Load, Cooking Equipment Load, Electric Clothes Dryers Load, Water Heater Load, Permanent Motor Name Plates Load. Sub-Total General Loads, First 10,000 VA of General Loads, Remaining General Load @ 40%, TOTAL GENERAL LOADS, Largest of Heating or HVAC Load, Total Service Demand Load Volt-Amperes (VA), Total Service Demand Load Amperes (A), Service OCPD (A).

PANEL-P1 DEMAND LOAD CALCULATION

Panel P2 - Single Family Dwelling Feeder Calculation. NEC Optional Method. Project Name: 0994-SC-HEARTHSTONE LAKES. Unit/Apt: 2-BEDROOM UNITS. Description: General Lighting And Receptacle Load, Fixed Appliance Load, Cooking Equipment Load, Electric Clothes Dryers Load, Water Heater Load, Permanent Motor Name Plates Load. Sub-Total General Loads, First 10,000 VA of General Loads, Remaining General Load @ 40%, TOTAL GENERAL LOADS, Largest of Heating or HVAC Load, Total Service Demand Load Volt-Amperes (VA), Total Service Demand Load Amperes (A), Service OCPD (A).

PANEL-P2 DEMAND LOAD CALCULATION



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CONTRACTOR: AKES. PHASE 5 - MULTIFAMILY HARDEEVILLE, SOUTH CAROLINA.

REVISION TABLE. DATE, REVISION, ISSUED FOR PERMIT APPLICATION, REVISED AS PER COMMENTS, REVISED AS PER COMMENTS.

NEW CONSTRUCTION FOR PHASE 5 - MULTIFAMILY HARDEEVILLE, SOUTH CAROLINA.

DATE ISSUED: 02/12/2020

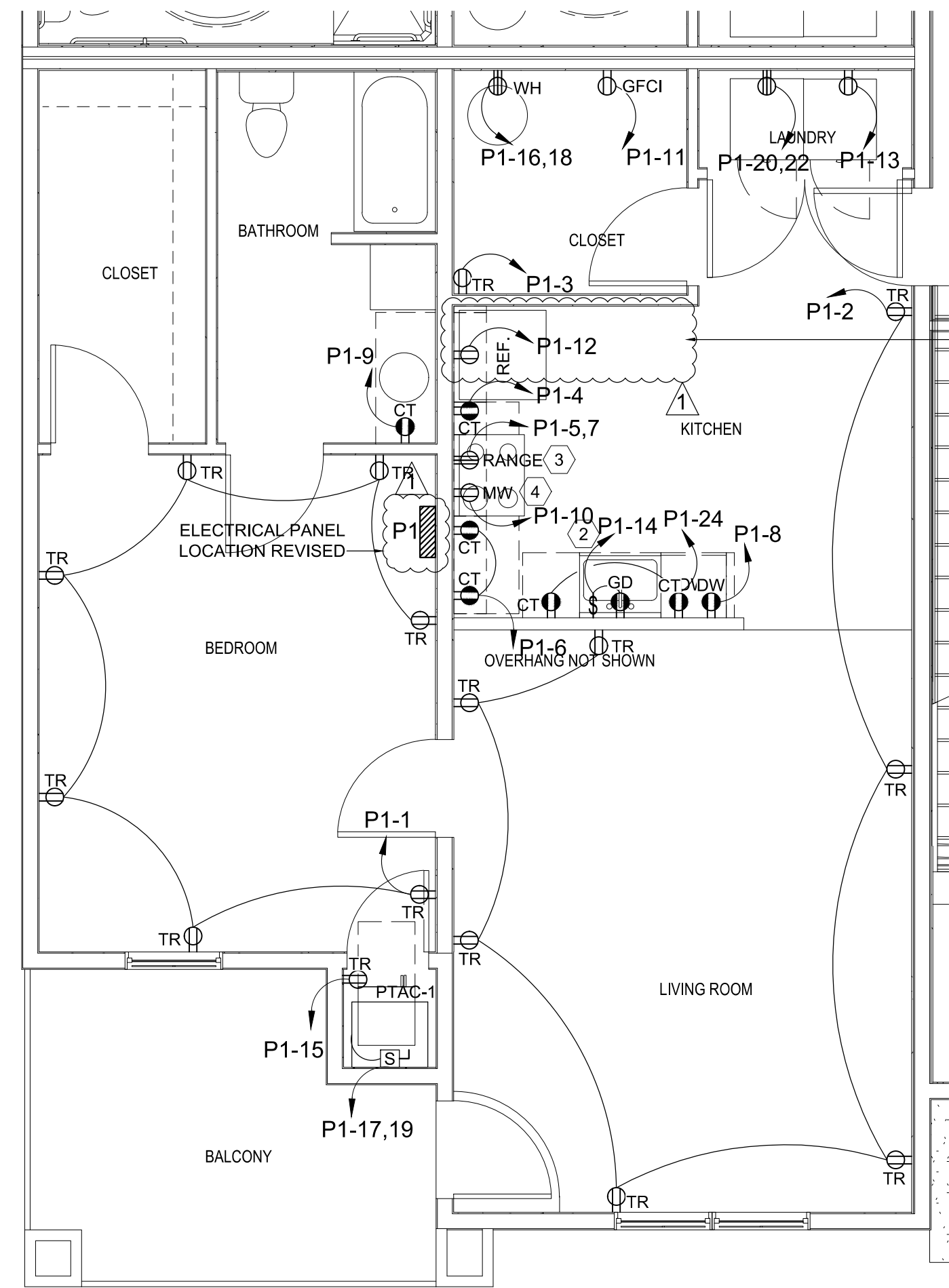
DESIGNED BY: DEE

AE JOB # 0994

DRAWING TITLE: PANEL SCHEDULES AND DWELLING LOAD CALCULATIONS

DRAWING NUMBER:

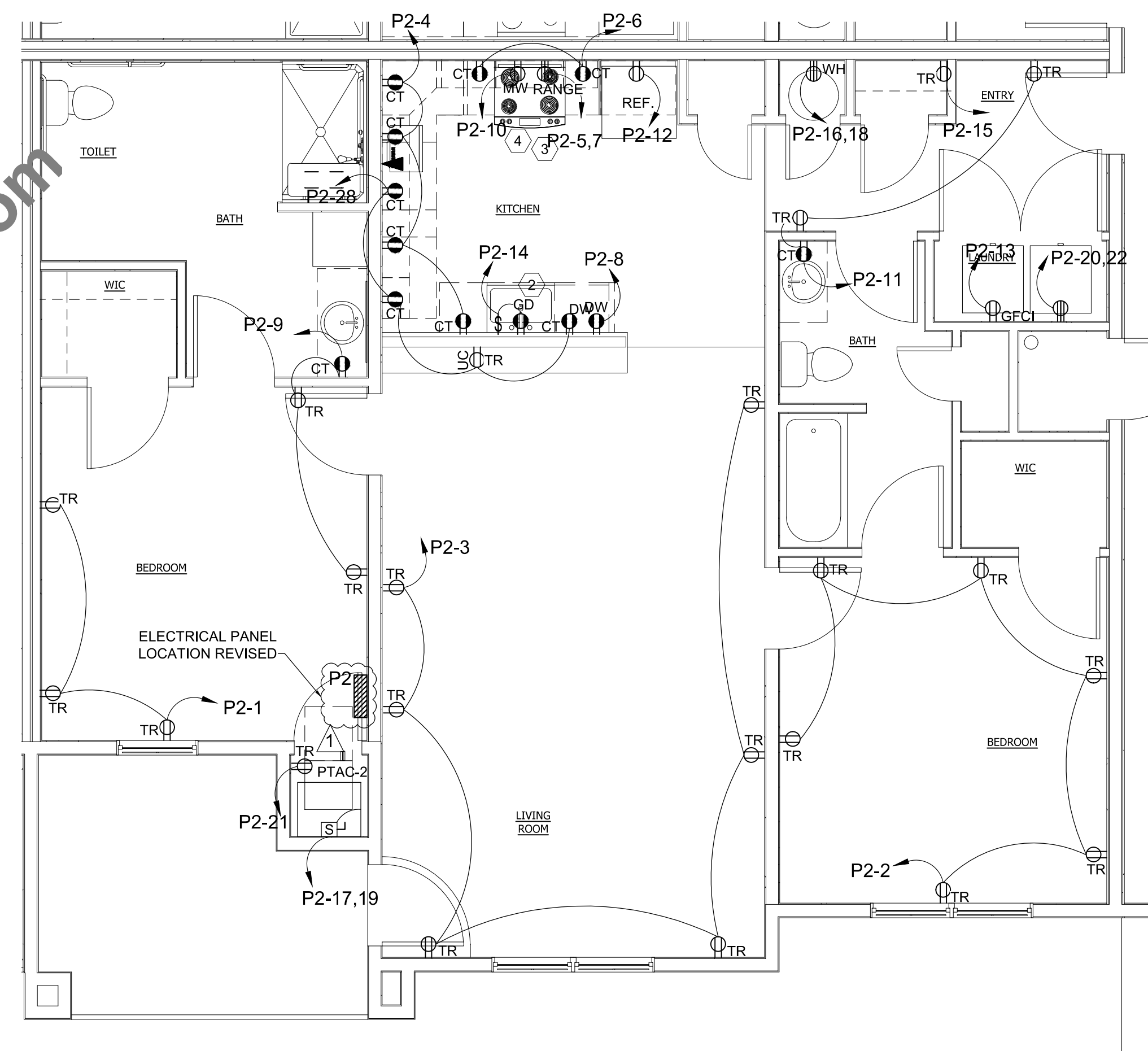
E-1.2



1 **1-BEDROOM UNIT POWER PLAN**
SCALE: 1/4" = 1'-0"
0 2 4 8 16

NEW KITCHEN LAYOUT PER ARCH. PLANS
REFRIGERATOR HAS BEEN MOVED TO DIFFERENT WALL.
NO OUTLETS ADDED OR REMOVED

- DRAWING NOTES:**
- 1 ALL RECEPTACLES WILL BE TAMPER RESISTANT.
 - 2 DW RECEPTACLE MOUNTED SIDEWAYS: 4 1/2" AFF TO CENTER OF BOX.
 - 3 RANGE RECEPTACLE MOUNTED 4 1/2" AFF TO CENTER OF BOX.
 - 4 MICROWAVE OR EXHAUST HOOD RECEPTACLES MOUNTED 6'-6" AFF.



2 **2-BEDROOM UNIT POWER PLAN**
SCALE: 1/4" = 1'-0"
0 2 4 8 16

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NEW CONSTRUCTION FOR
AKES
PHASE 5 - MULTIFAMILY
HARDEEVILLE, SOUTH CAROLINA

DATE ISSUED:
02/12/2020

DESIGNED BY:
DEE

AE JOB # 0994

DRAWING TITLE:
ENLARGED POWER PLAN

DRAWING NUMBER:

E-2.0



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CONTRACTOR
AKES
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02/24/20
02/12/20

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NEW CONSTRUCTION FOR
AKES
 PHASE 5 - MULTIFAMILY
 HARDEEVILLE, SOUTH CAROLINA

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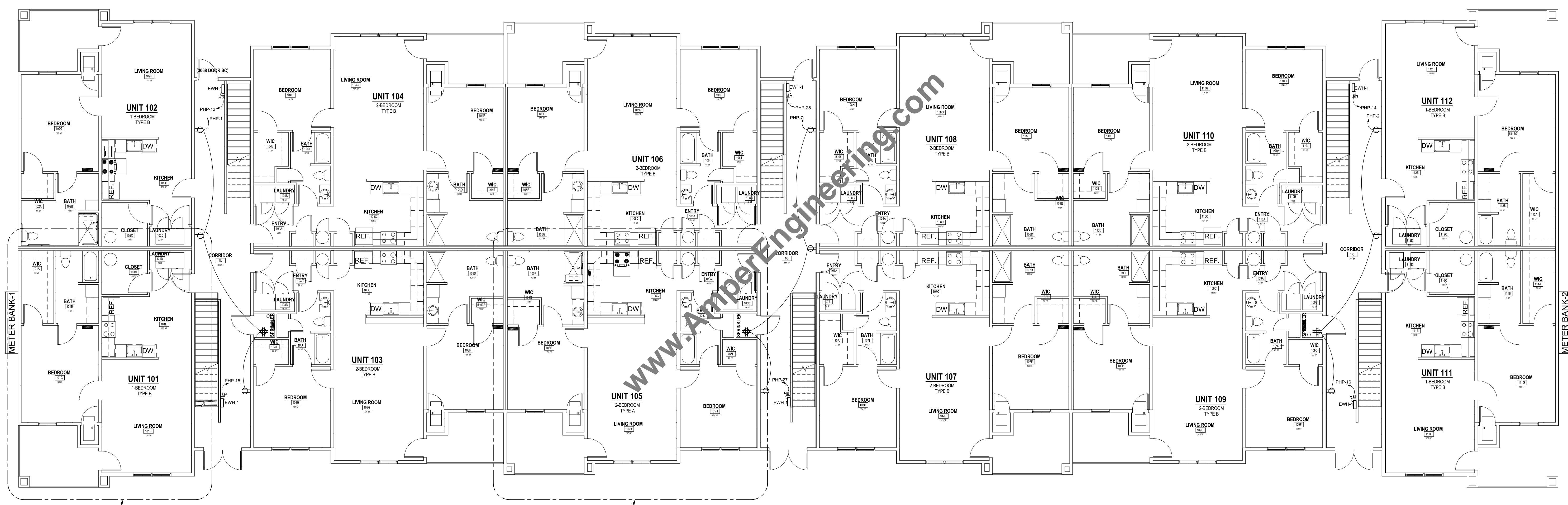
DESIGNED BY:
DEE

AE JOB # 0994

DRAWING TITLE:
1ST FLOOR
POWER PLAN

DRAWING NUMBER:

E-2.1



1 1ST FLOOR POWER PLAN



1
E-2.0

2
E-2.0

DATE
02/12/20
02/24/20
02/12/20

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 PHASE 5 - MULTIFAMILY
 HARDEEVILLE, SOUTH CAROLINA

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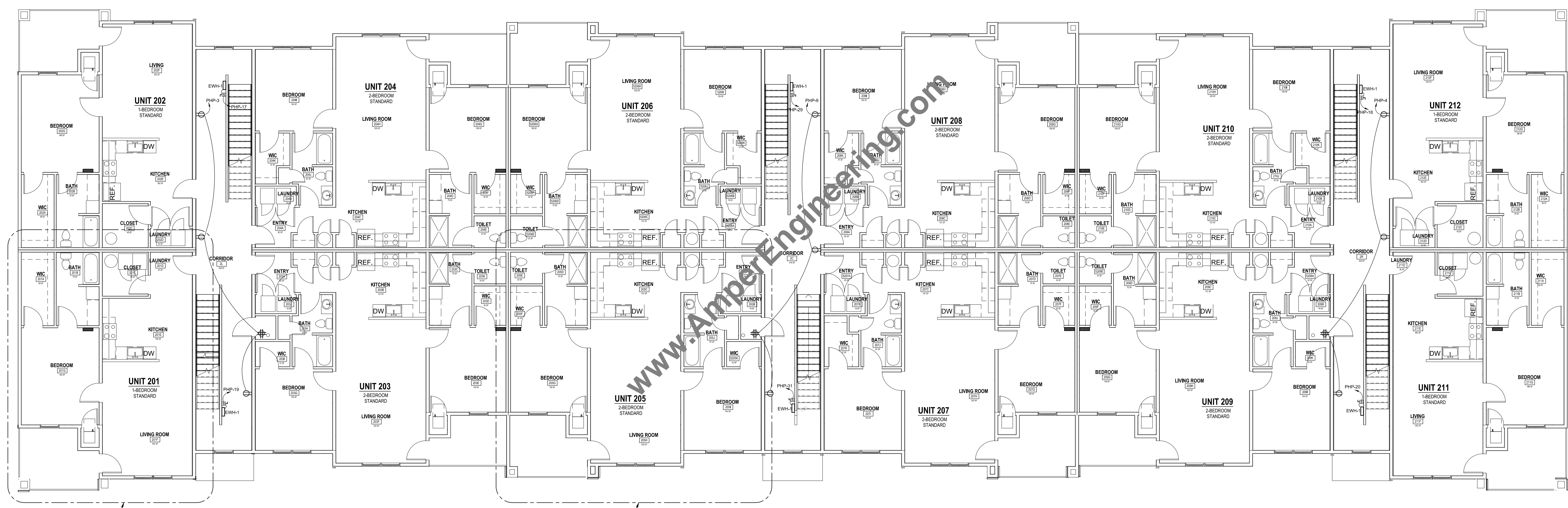
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AE JOB # 0994

DRAWING TITLE:
 2ND FLOOR
 POWER PLAN

DRAWING NUMBER:

E-2.2



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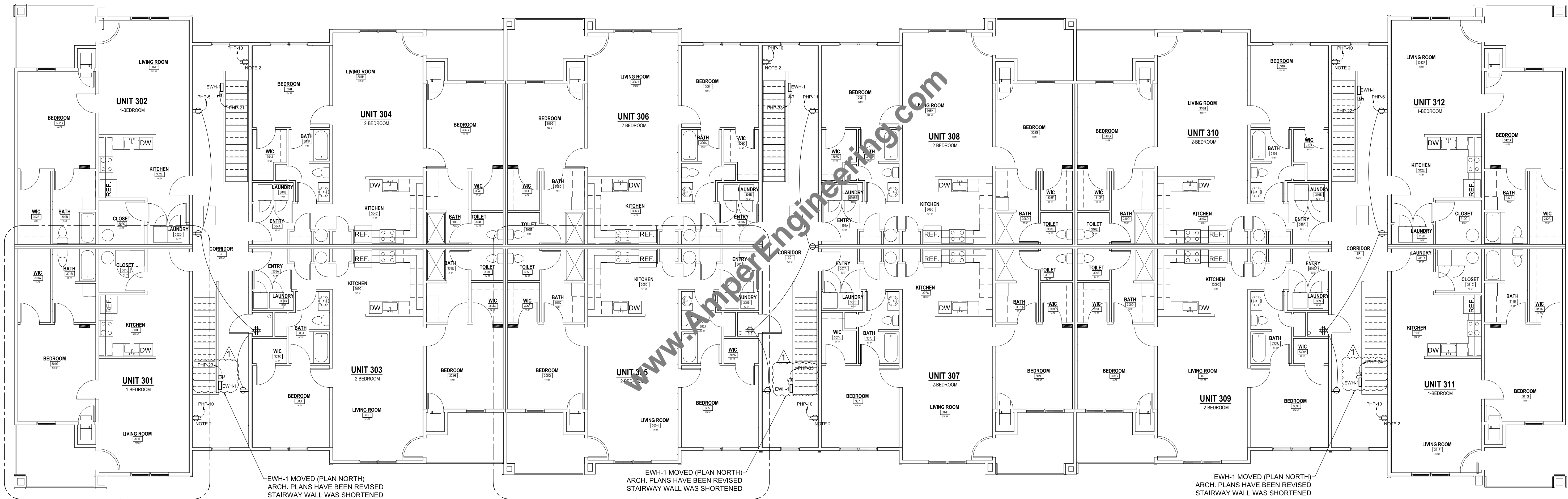
1
E-2.0

2
E-2.0

1 2ND FLOOR POWER PLAN

SCALE: 1/8" = 1'-0"
 0 4 8 16 32

- NOTES:
 1. SEE E-2.0 FOR TYPICAL UNIT POWER LAYOUT.
 2. ATTIC RECEPTACLES, LOCATION TO BE DETERMINED BY CONTRACTOR.



1
E-2.0

2
E-2.0

1 3RD FLOOR POWER PLAN

SCALE: 1/8" = 1'-0"
 0 4 8 16 32



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 PHASE 5 - MULTIFAMILY
 HARDEEVILLE, SOUTH CAROLINA

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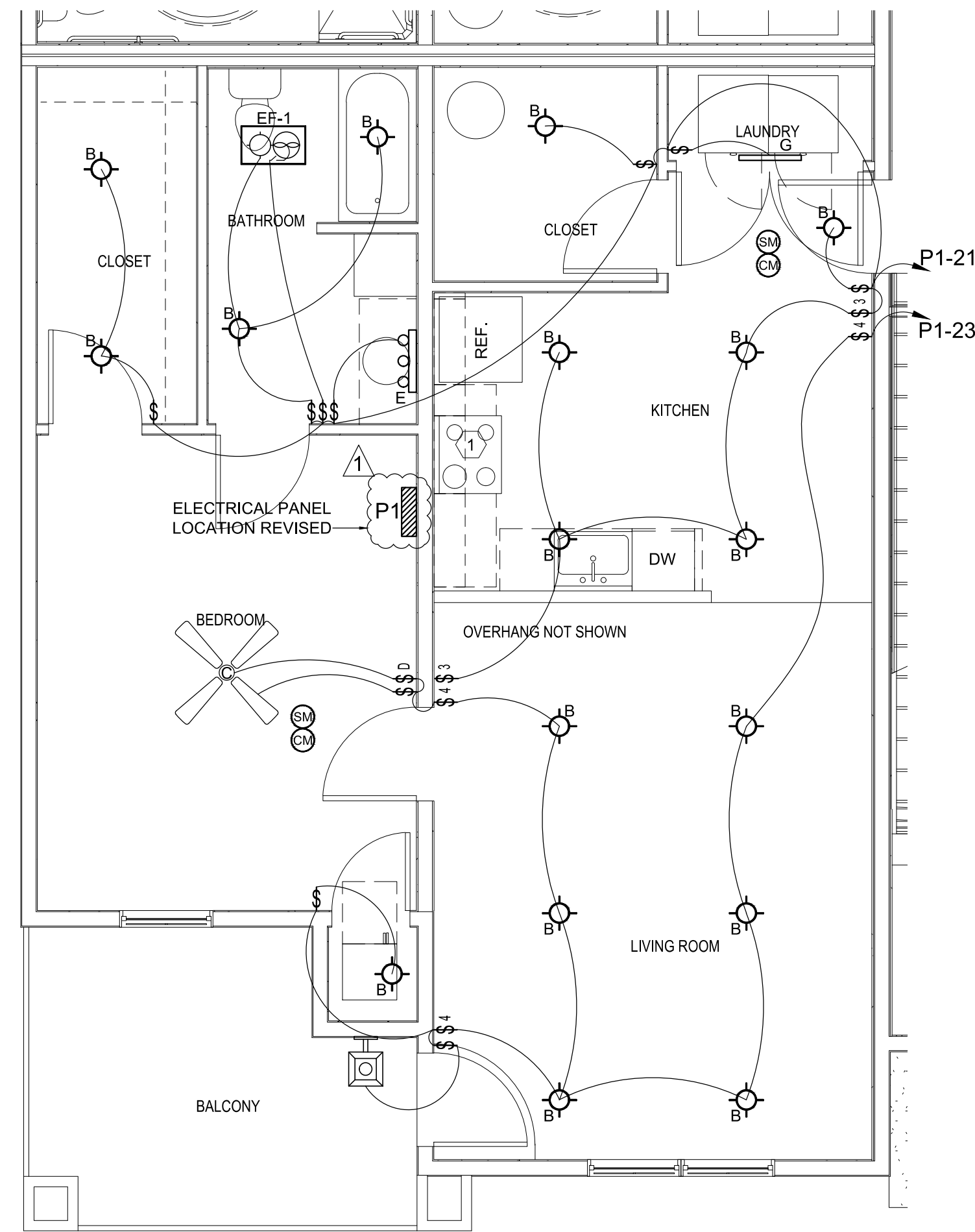
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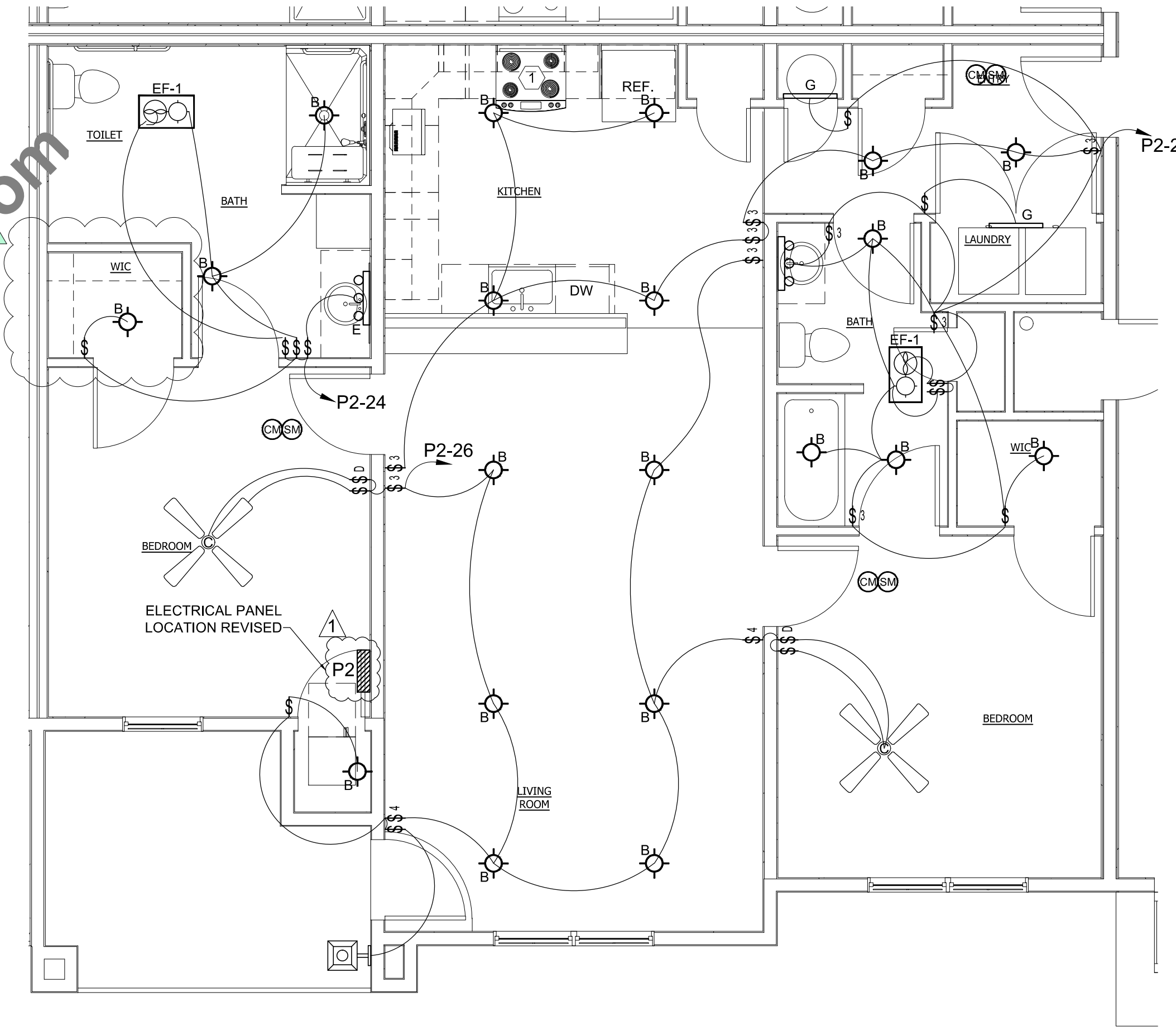
DRAWING TITLE:
3RD FLOOR
POWER PLAN

DRAWING NUMBER:

E-2.3



1 1-BEDROOM UNIT LIGHTING PLAN
 SCALE: 1/4" = 1'-0"
 0 2 4 8 16



2 2-BEDROOM UNIT LIGHTING PLAN
 SCALE: 1/4" = 1'-0"
 0 2 4 8 16

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DRAWING NOTES:

- ① TYPE A UNITS PROVIDE WALL MOUNTED SWITCH TO CONTROL EXHAUST HOOD AND LIGHT.
- ② ALL LIGHT SWITCHES WILL BE TOGGLE TYPE WITH SIDE DIMMERS, AND THE COVER PLATES WILL BE NYLON.



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NEW CONSTRUCTION
 FOR
AKES
 PHASE 5 - MULTIFAMILY
 HARDEEVILLE, SOUTH CAROLINA

DATE ISSUED:
 02/12/2020

DESIGNED BY:
 DEE

AE JOB # 0994

DRAWING TITLE:
 ENLARGED LIGHTING
 PLAN

DRAWING NUMBER:

E-3.0

DATE
02/12/20
02/24/20
02/12/20

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NEW CONSTRUCTION FOR
 AKES
 PHASE 5 - MULTIFAMILY
 HARDEEVILLE, SOUTH CAROLINA

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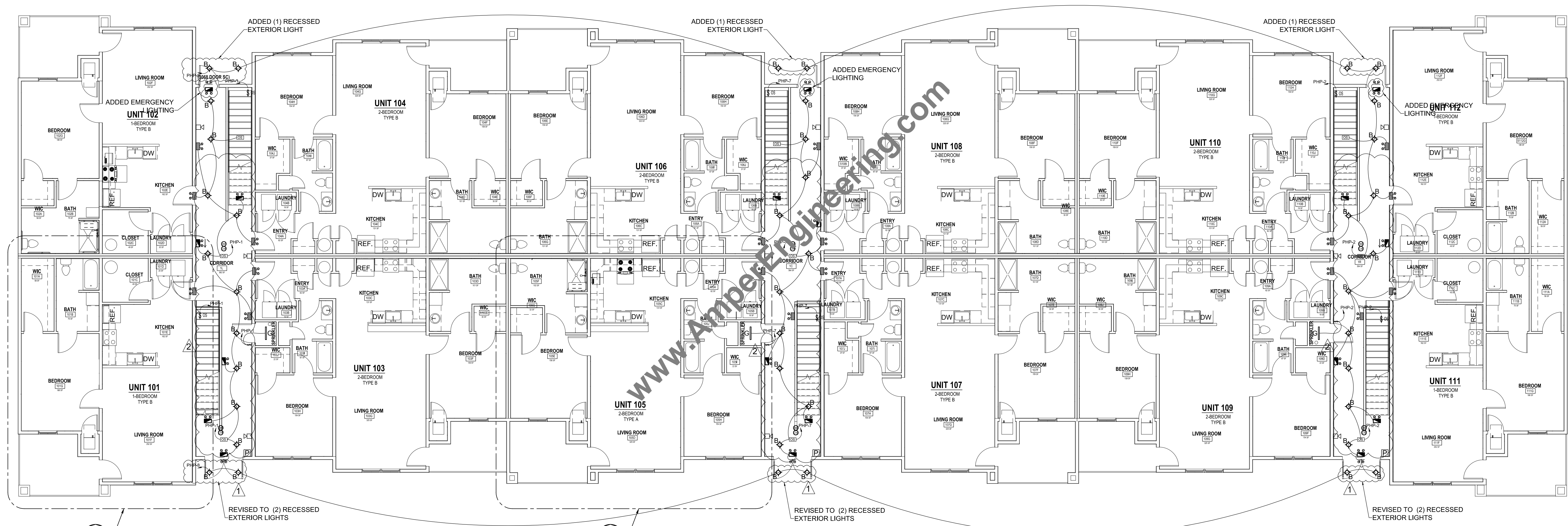
DESIGNED BY:
 DEE

AE JOB # 0994

DRAWING TITLE:
 1ST FLOOR
 LIGHTING PLAN

DRAWING NUMBER:

E-3.1



1 1ST FLOOR LIGHTING PLAN
 SCALE: 1/8" = 1'-0"
 0 4 8 16 32

DRAWING NOTES:
 ① EMERGENCY LIGHTS AND EXIT SIGNS TO BE WIRED LINE SIDE OF THE NEAR BY LIGHTING CIRCUIT.

DATE
02/12/20
02/24/20
02/12/20

REVISION	ISSUED FOR PERMIT APPLICATION
0	ISSUED AS PER COMMENTS
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2	REVISED AS PER COMMENTS

NO.
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1
2

NEW CONSTRUCTION FOR
 AKES
 PHASE 5 - MULTIFAMILY
 HARDEEVILLE, SOUTH CAROLINA

DATE ISSUED:
 02/12/2020

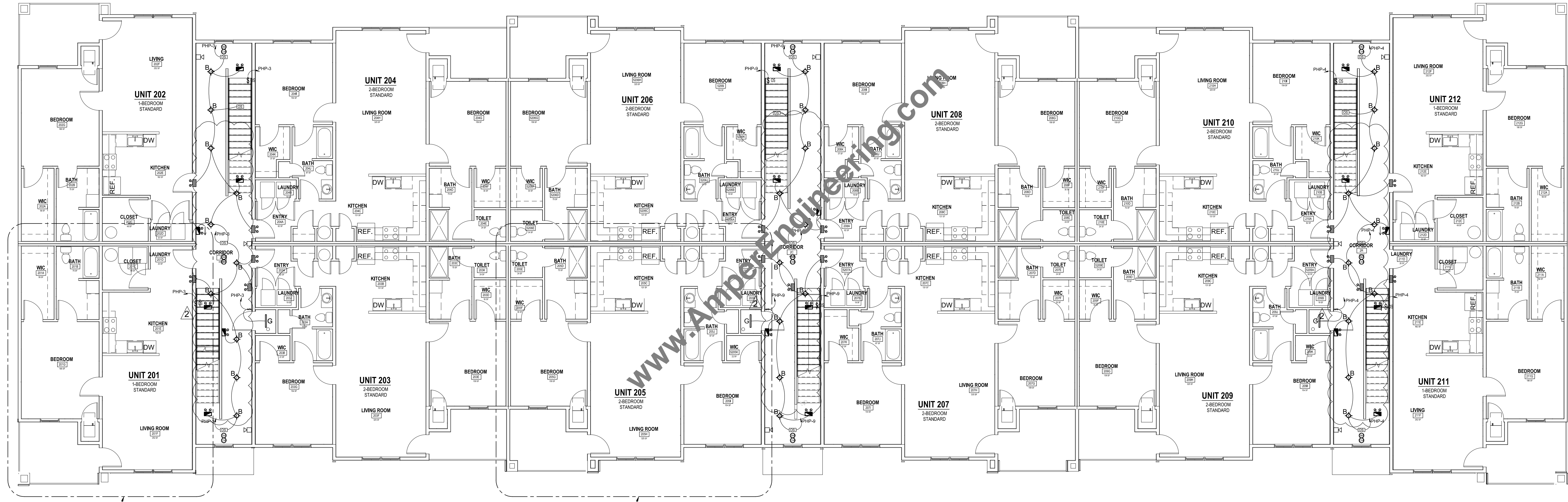
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AE JOB # 0994

DRAWING TITLE:
 2ND FLOOR
 LIGHTING PLAN

DRAWING NUMBER:

E-3.2



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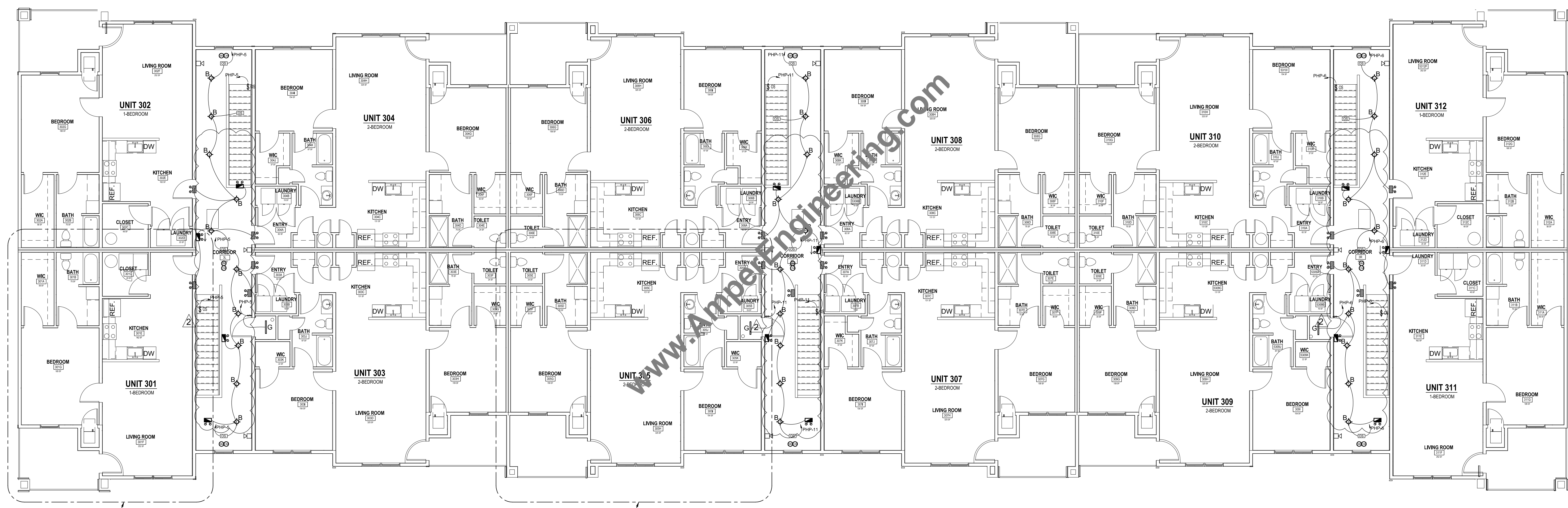
1
E-3.0

E-3.0
E-2.0

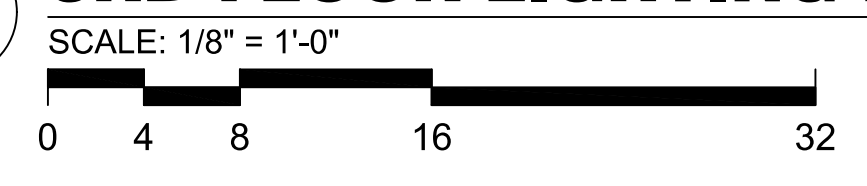
1 2ND FLOOR LIGHTING PLAN

SCALE: 1/8" = 1'-0"
 0 4 8 16 32

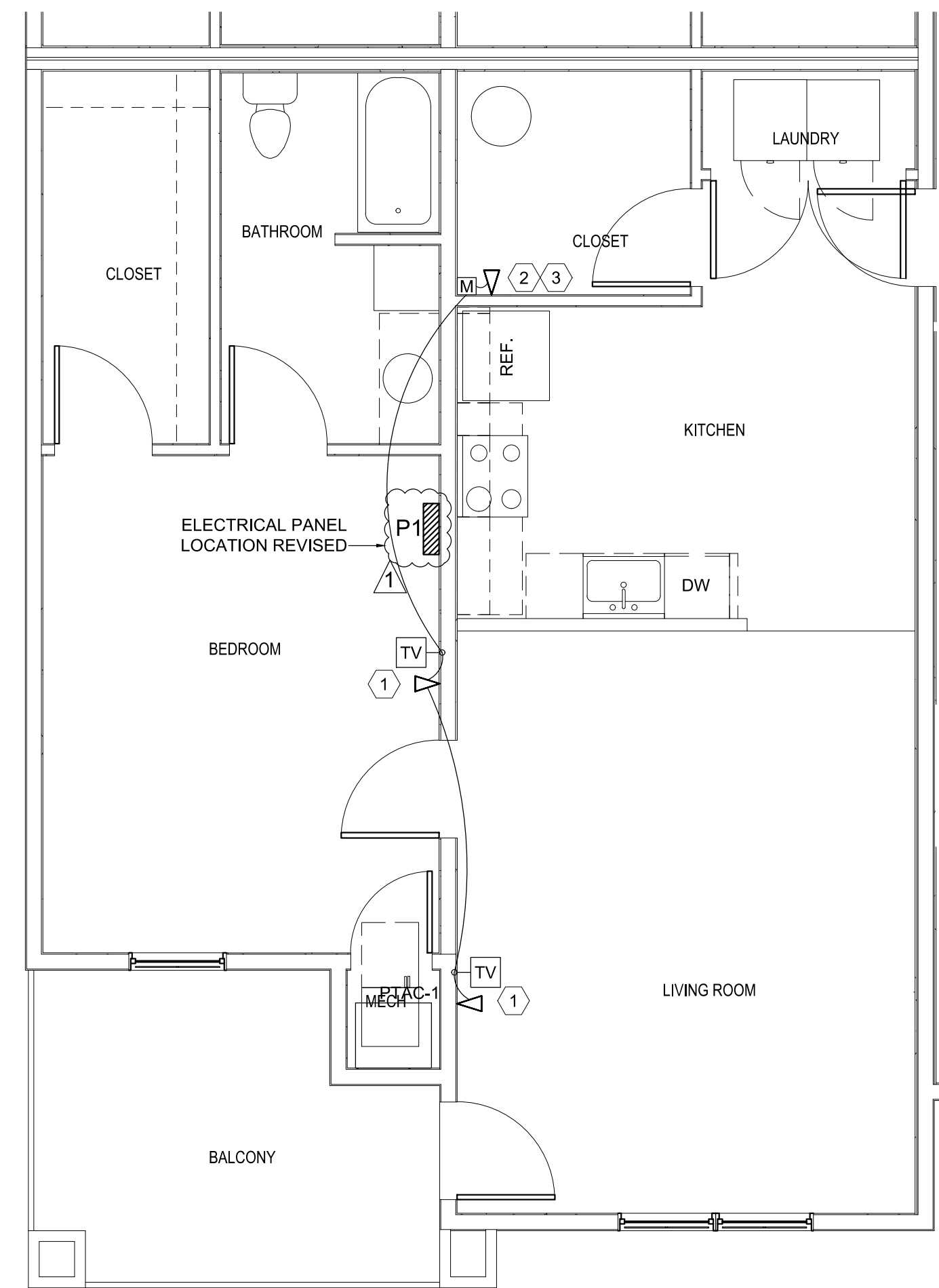
DRAWING NOTES:
 ① EMERGENCY LIGHTS AND EXIT SIGNS TO BE WIRED LINE SIDE OF THE NEAR BY LIGHTING CIRCUIT.



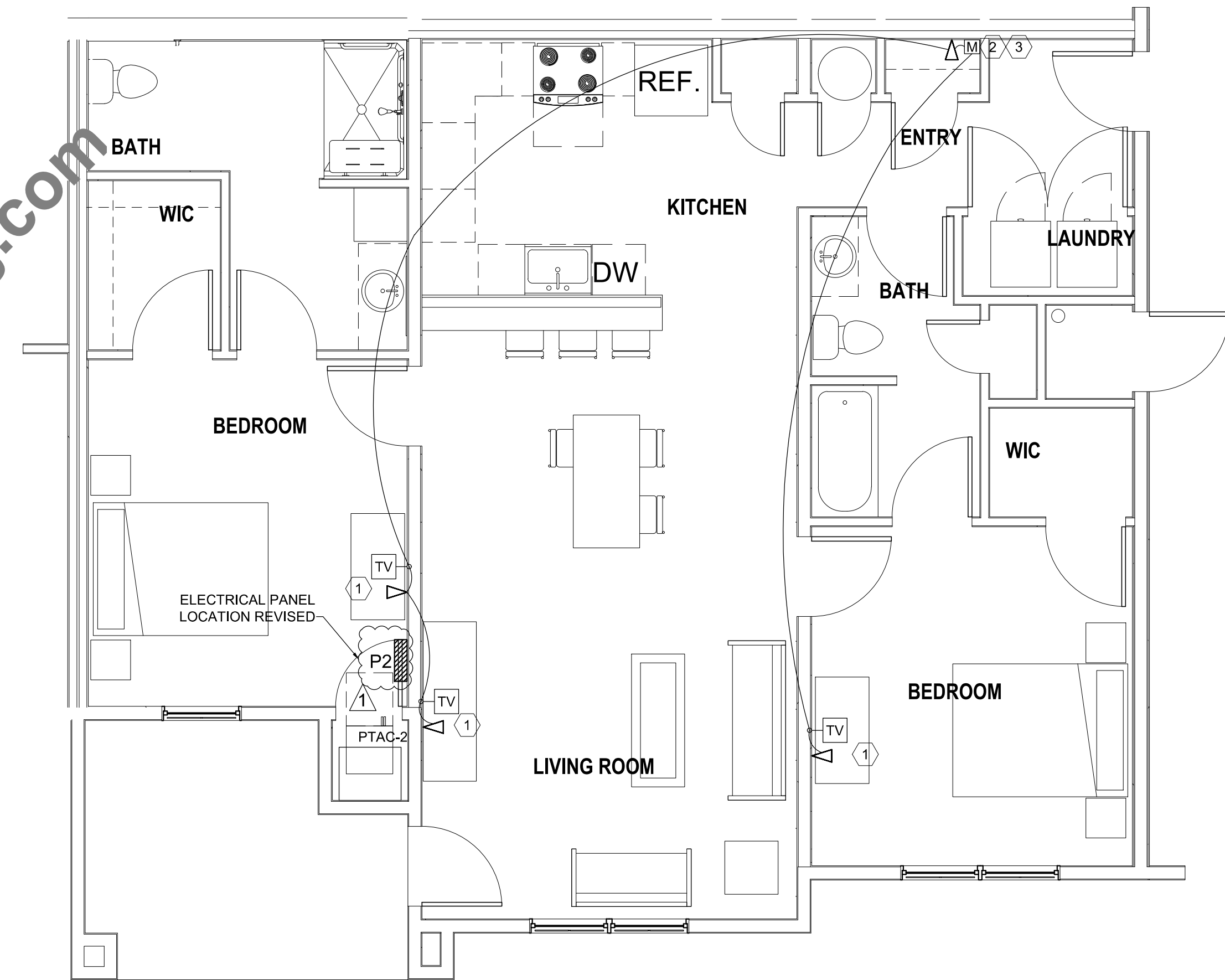
1 3RD FLOOR LIGHTING PLAN



- DRAWING NOTES:
- 1 EMERGENCY LIGHTS AND EXIT SIGNS TO BE WIRED LINE SIDE OF THE NEAR BY LIGHTING CIRCUIT.



1 **1-BEDROOM UNIT MEDIA PLAN**
SCALE: 1/4" = 1'-0"
0 2 4 8 16



2 **2-BEDROOM UNIT MEDIA PLAN**
SCALE: 1/4" = 1'-0"
0 2 4 8 16

- DRAWING NOTES:**
- ① ALL TELEVISION LOCATIONS WILL REQUIRE A SERIES 6 CABLE JACK AND HDMI PORT.
ALL TELEVISION LOCATIONS WILL ALSO SUPPORT BOTH HIGH AND LOW POWER BROADCASTING.
 - ② PREP FOR MEDIA BOX WITH 110V POWER INSIDE.
 - ③ 14"WIDE x 32" HIGH MEDIA CABINET.
 - ④ MEDIA CABINET IS FOR CABLE MODEM, SMART HOME MODEM, SMART SWITCH, CONTROL PAD, TRANSFORMER FOR LOW VOLTAGE.



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CONTRACTOR
AKES
MULTIFAMILY CONSTRUCTION

NO.	REVISION	DATE
0	ISSUED FOR PERMIT APPLICATION	02/12/20
1	REVISED AS PER COMMENTS	02/24/20
2	REVISED AS PER COMMENTS	02/12/20

NEW CONSTRUCTION FOR
AKES
PHASE 5 - MULTIFAMILY
HARDEEVILLE, SOUTH CAROLINA

DATE ISSUED:
02/12/2020

DESIGNED BY:
DEE

AE JOB # 0994

DRAWING TITLE:
MEDIA PLAN

DRAWING NUMBER:

E-4.0

HVAC BASIS OF DESIGN				
OUTDOOR DESIGN TEMPERATURES PER ASHRAE	92.1°F DB SUMMER 77.6°F WB SUMMER 30.4°F DB WINTER	STATE: SOUTH CAROLINA	COUNTY: JASPER	CLIMATE ZONE: 3A
DESIGN ALTITUDE 20 FT ABOVE SEA LEVEL				
INDOOR AREA DESIGN CONDITIONS	SUMMER		WINTER	
GENERAL SPACE DESIGNATION	Db (°F)	% HUMIDITY	Db (°F)	% HUMIDITY
GENERAL BUILDING	75	50	70	50

THESE DOCUMENTS WERE DEVELOPED USING THE 2018 SOUTH CAROLINA MECHANICAL CODE, THE 2009 INTERNATIONAL ENERGY CONSERVATION CODE (IECC).

REVISED CODE YEARS

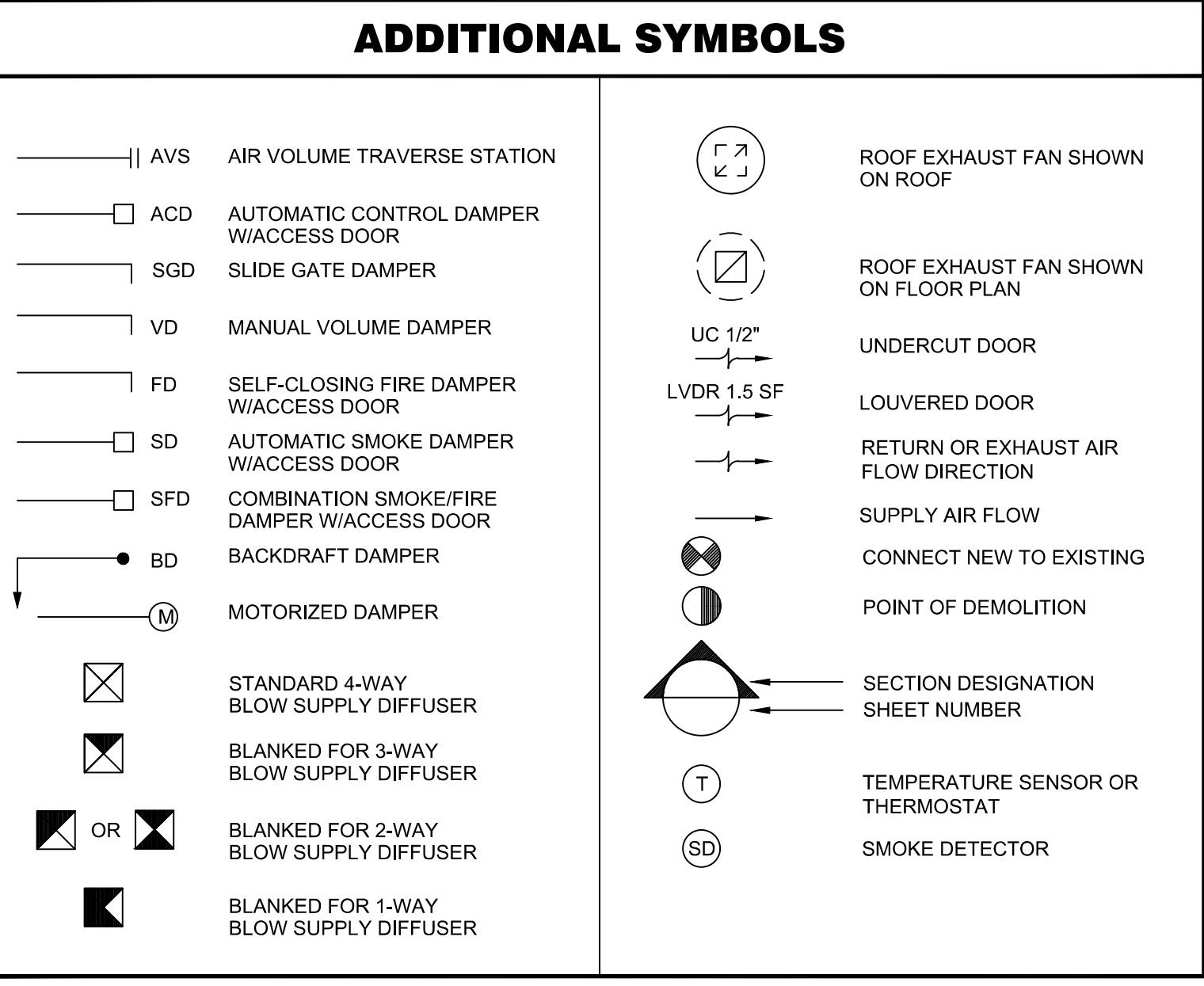
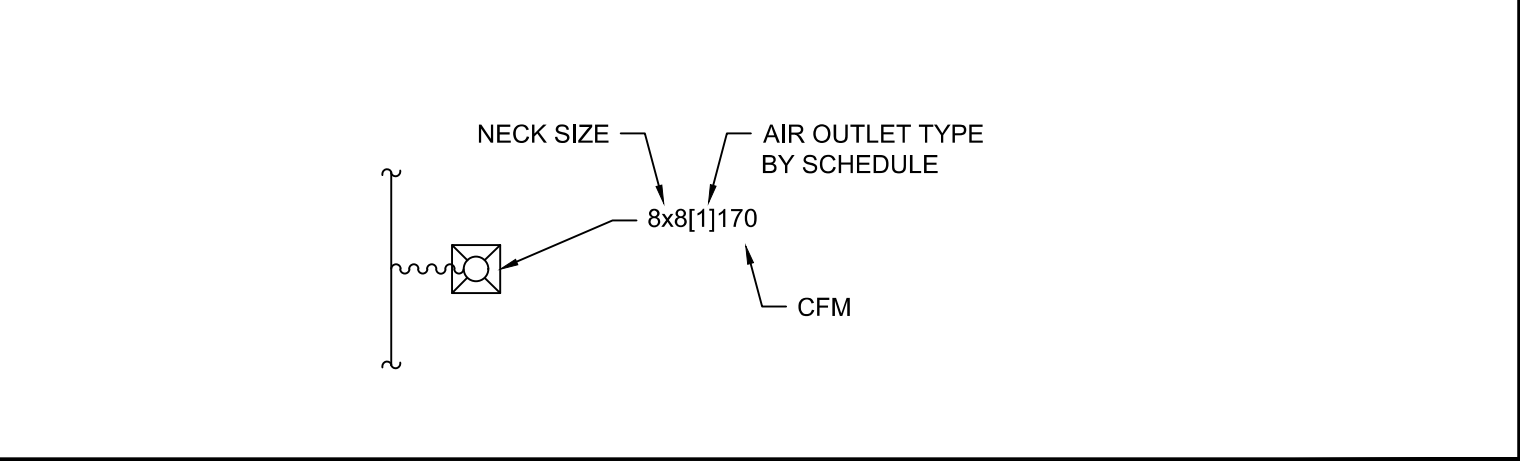
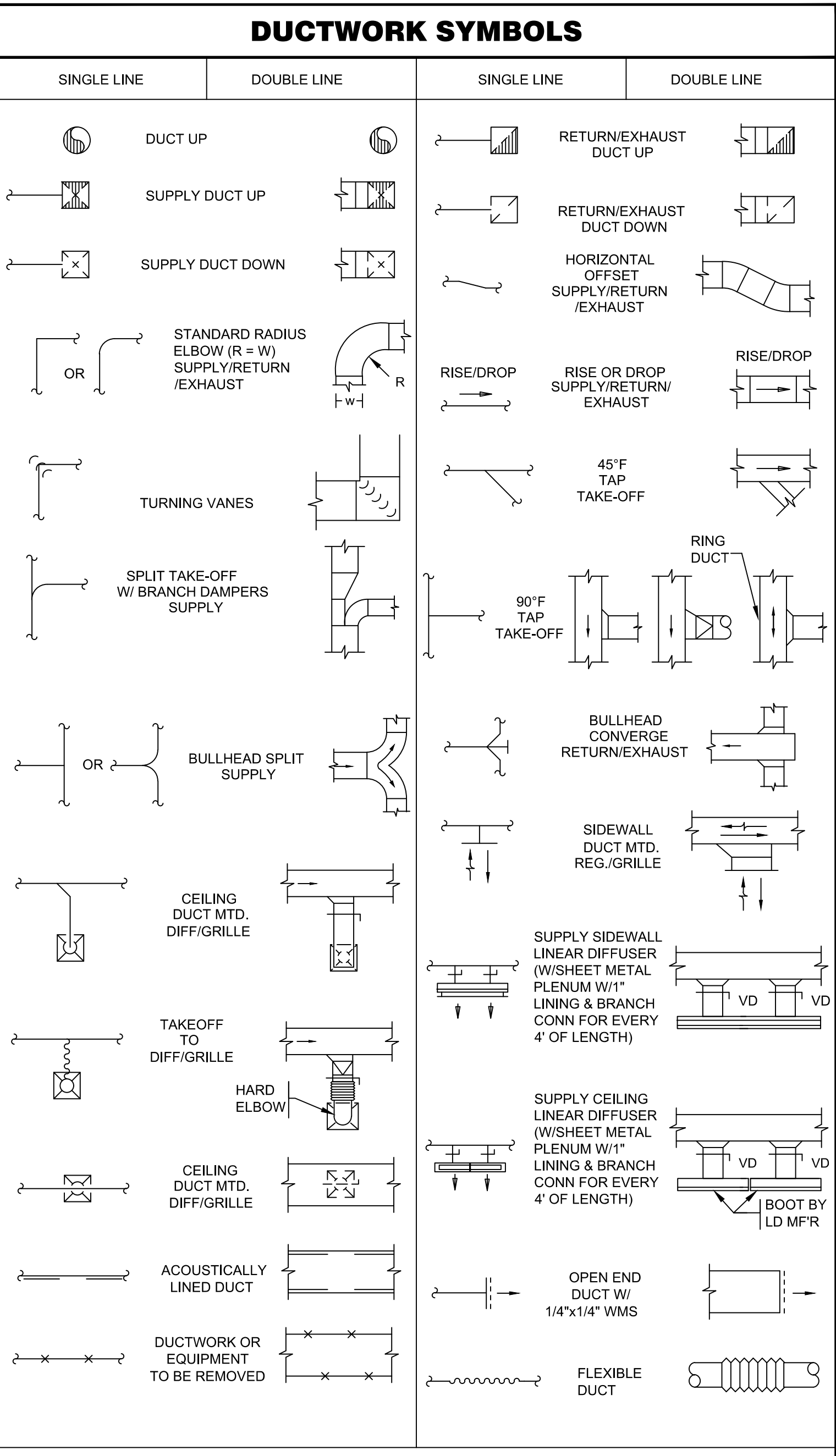
REVISED CODE YEARS

- ### MECHANICAL NOTES
- HVAC EQUIPMENT SHALL HAVE MINIMUM PERFORMANCE AT SPECIFIED RATING CONDITIONS NOT LESS THAN THE VALUES INDICATED IN THE TABLE C403.2.3(1) THROUGH C403.2.3(8) OF THE (IECC 2009) AND AS INDICATED ON THE CONTRACT DOCUMENTS.
 - THERMOSTATS:
 - PROVIDE THERMOSTAT WITH 7-DAY PROGRAMMABLE THERMOSTAT CAPABLE OF BEING SET FOR 7-DIFFERENT DAY TYPES PER WEEK (5+2 AND 5+1+1) THERMOSTATS ARE NOT ACCEPTABLE.
 - THERMOSTAT SHALL HAVE PROGRAMMING BACK UP CAPABLE OF RETAINING THE PROGRAMMING FOR A MINIMUM OF TEN HOURS UPON LOSS OF POWER.
 - THE THERMOSTAT SHALL BE CAPABLE OF MANUAL OVERRIDE.
 - FOR THERMOSTATS CONTROLLING HEATING AND COOLING EQUIPMENT SUPPLYING OVER 2,000 CFM OF SUPPLY AIR, THE THERMOSTAT SHALL BE PROVIDED WITH "OPTIMUM START" CAPABILITIES.
 - HVAC SYSTEMS SHALL BE EQUIPPED WITH AUTOMATIC CONTROLS CAPABLE OF ACCOMPLISHING SETBACK OR SHUTDOWN DURING UNOCCUPIED PERIODS AS REQUIRED BY SECTION C403.2.4.3 OF THE (IECC 2009) AND AS DESCRIBED IN THE TEMPERATURE CONTROL SEQUENCES.
 - PROVIDE DEADBAND BETWEEN HEATING/COOLING SPACE SENSOR SETPOINTS OF 5 DEGREES AS REQUIRED BY SECTION C403.2.4.2 OF THE (IECC 2009) OR AS DESCRIBED IN THE TEMPERATURE CONTROL SEQUENCES.
 - PROVIDE BALANCING DEVICES IN ALL BRANCH DUCTS AND PIPE RUNS TO TERMINAL DEVICES AS REQUIRED BY SECTION C408.2.2.1 OF THE (IECC 2009) AND AS INDICATED ON THE CONTRACT DOCUMENTS.
 - SEALANTS FOR GALVANIZED DUCTWORK: SEAL AIR DUCT JOINTS AND JOINTS BETWEEN FITTINGS AND DUCTS WITH HARDCAST SEALANT OR APPROVED EQUAL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 - ALL DUCTWORK SHALL COMPLY WITH SMACNA STANDARDS FOR CONSTRUCTION OF GALVANIZED DUCTWORK. ALL DUCTWORK SHALL BE SEALED AS REQUIRED BY SECTION C403.2.7 OF THE (IECC 2009).
 - DUCTWORK STATIC PRESSURE AND SEAL CLASS:

DUCT CONSTRUCTION CLASS	STATIC PRESSURE RATING	PRESSURE	SMACNA SEAL CLASS	SMACNA LEAKAGE CLASS	VELOCITY	NOTE
1"	1/2" TO 2"	POS. OR NEG.	B	12	2500 FPM OR LESS	SEAL TRANSVERSE JOINTS, LONGITUDINAL SEAMS AND DUCT WALL PENETRATIONS

DUCT TYPE	LOCATION	R-VALUE
SUPPLY/RETURN	NOT WITHIN CONDITIONED SPACE	R-6 (INCLUDE APPROVED WEATHERPROOF BARRIER)
SUPPLY/RETURN	OUTSIDE BUILDING	R-8
OUTSIDE AIR	WITHIN CONDITIONED SPACE (NOT CONSIDERED PART OF THE BUILDING ENVELOPE)	R-8 (DAMPER AT ENVELOPE PENETRATION)
SUPPLY	WITHIN CONDITIONED SPACE	R-3.3

- SUPPLY AIR (W/ WATER TEMPERATURES SHALL BE AUTOMATICALLY RESET AS REQUIRED IN SECTION C403.4.5) SHALL BE PROVIDED WITH "OPTIMUM START" CAPABILITIES AS DESCRIBED IN THE TEMPERATURE CONTROL SEQUENCES.
- ALL AIR SYSTEMS SHALL BE PROVIDED WITH A 100% CAPABLE AIR ECONOMIZER CAPABILITY AS REQUIRED BY SECTION C403.3.1 OF THE (IECC 2009) AND AS DESCRIBED IN THE TEMPERATURE CONTROL SEQUENCES.
- VARIABLE FREQUENCY DRIVES SHALL BE PROVIDED FOR VARIABLE FLOW HEATING AND AIR HANDLING SYSTEMS AS REQUIRED BY THE (IECC 2009) AND AS DESCRIBED IN THE CONTRACT DOCUMENTS INCLUDING TEMPERATURE CONTROL SEQUENCES.
- SHUTOFF DAMPERS SHALL BE PROVIDED AS INDICATED IN SECTION C403.2.4.3 OF THE (IECC 2009). BOTH OUTDOOR AIR SUPPLY AND EXHAUST DUCTS SHALL BE EQUIPPED WITH MOTORIZED DAMPERS THAT WILL AUTOMATICALLY SHUT WHEN THE SYSTEMS OF SPACES SERVED ARE NOT IN USE.
- GRAVITY DAMPERS MAY BE USED IN BUILDINGS LESS THAN THREE STORIES IN HEIGHT.
- GRAVITY DAMPERS MAY BE PERMITTED FOR BUILDINGS OF ANY HEIGHT LOCATED IN CLIMATE ZONES 1, 2, AND 3.
- GRAVITY DAMPERS SHALL BE PERMITTED FOR OUTSIDE AIR INTAKE OR EXHAUST AIR FLOWS OF 300 CFM OR LESS.
- MOTORIZED DAMPERS:
 - OUTDOOR AIR SUPPLY EXHAUST OPENINGS SHALL BE PROVIDED WITH CLASS 1A MOTORIZED DAMPERS WITH A MAXIMUM LEAKAGE RATE OF 4 CFM/SF AT 1.0 INCH WATER GAUGE WHEN TESTED IN ACCORDANCE WITH AMCA 500D.
 - DAMPERS LESS THAN 24" IN EITHER DIMENSION SHALL HAVE A TESTED MAXIMUM LEAKAGE RATE NOT TO EXCEED 40 CFM/SF.
- COMMISSIONING: MECHANICAL EQUIPMENT AND ASSOCIATED CONTROLS MUST BE COMMISSIONED IN ACCORDANCE WITH SECTION C408.2 OF THE (IECC 2009).
- A COMMISSIONING PLAN SHALL BE PROVIDED PER SECTION C408.2.1 OF THE (IECC 2009).
- COMMISSIONING SHALL BE PROVIDED AND REPORT OF COMMISSIONING SHALL BE SUBMITTED TO THE OWNER AS REQUIRED BY SECTION C408.1.2 OF THE (IECC 2009).
- MECHANICAL SYSTEMS SHALL BE ADJUSTED AND BALANCED AS REQUIRED BY SECTION C408.2.2 OF THE (IECC 2009).
- OPERATION AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE OWNER AS REQUIRED BY SECTION C408.1.3.2 OF THE (IECC 2009). AS MINIMUM, THE MANUALS SHALL INCLUDE:
 - SUBMITTAL DATA.
 - OPERATION AND MAINTENANCE DATA FOR EQUIPMENT.
 - NAMES AND ADDRESSES OF SERVICE AGENCIES.
 - HVAC CONTROLS SYSTEM MAINTENANCE AND CALIBRATION INFORMATION.
 - NARRATIVE OF HOW SYSTEM IS INTENDED TO OPERATE.
- RECORD DRAWINGS SHALL BE PROVIDED TO THE OWNER WITHIN 90 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE AS REQUIRED BY SECTION C408.1.3 OF THE (IECC 2009). THE DRAWINGS SHALL INDICATE THE LOCATION AND PERFORMANCE DATA OF EQUIPMENT, GENERAL CONFIGURATION OF DUCTWORK AND PIPING DISTRIBUTION SYSTEMS, INCLUDING FLOW RATES AS A MINIMUM.
- FUNCTIONAL TESTING: THE MECHANICAL EQUIPMENT AND ASSOCIATED CONTROLS MUST BE FUNCTIONALLY PERFORMANCE TESTED IN ACCORDANCE WITH THE (IECC 2009) REQUIREMENTS (SECTIONS C408.2.3.1 THROUGH C408.2.3.3).



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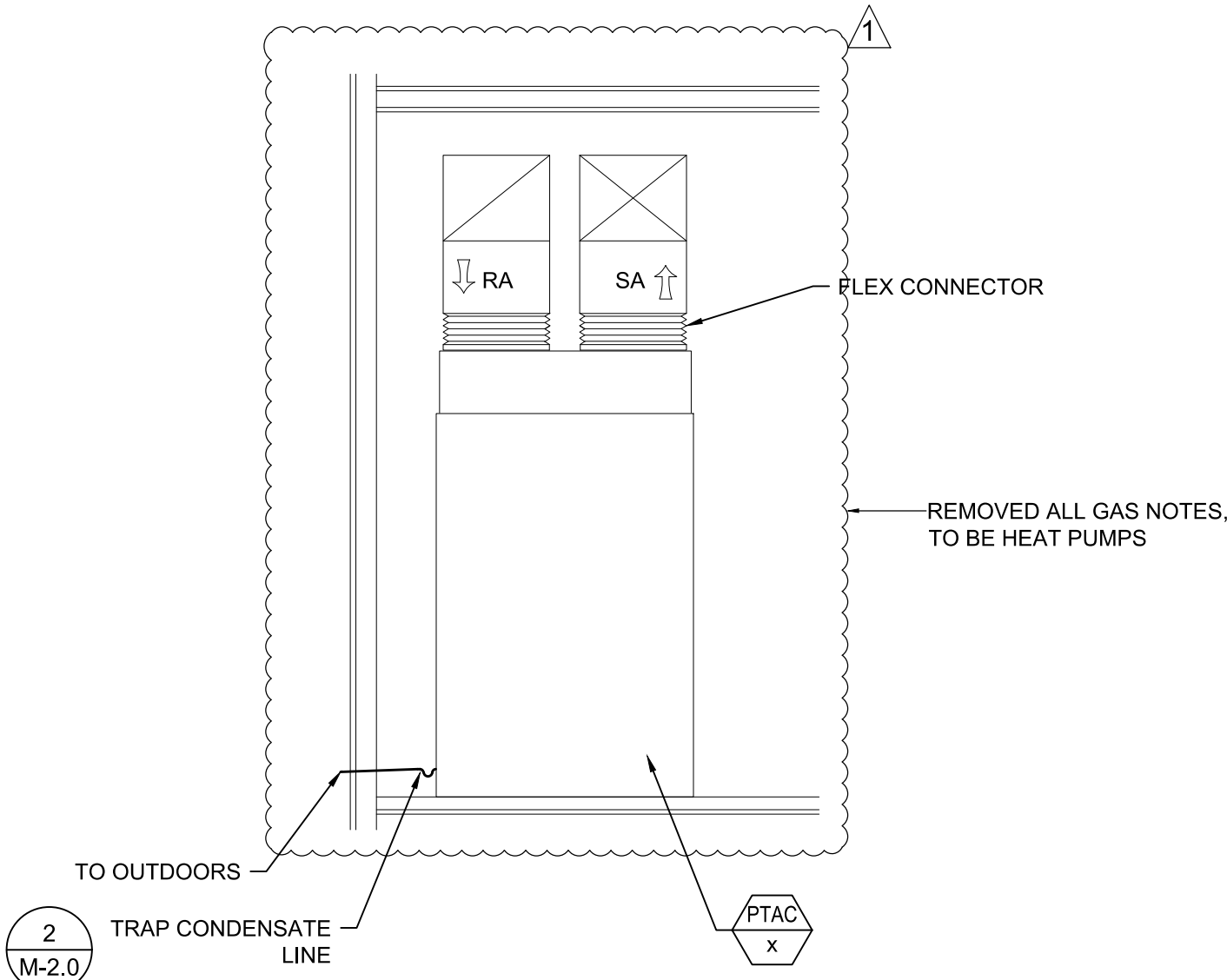
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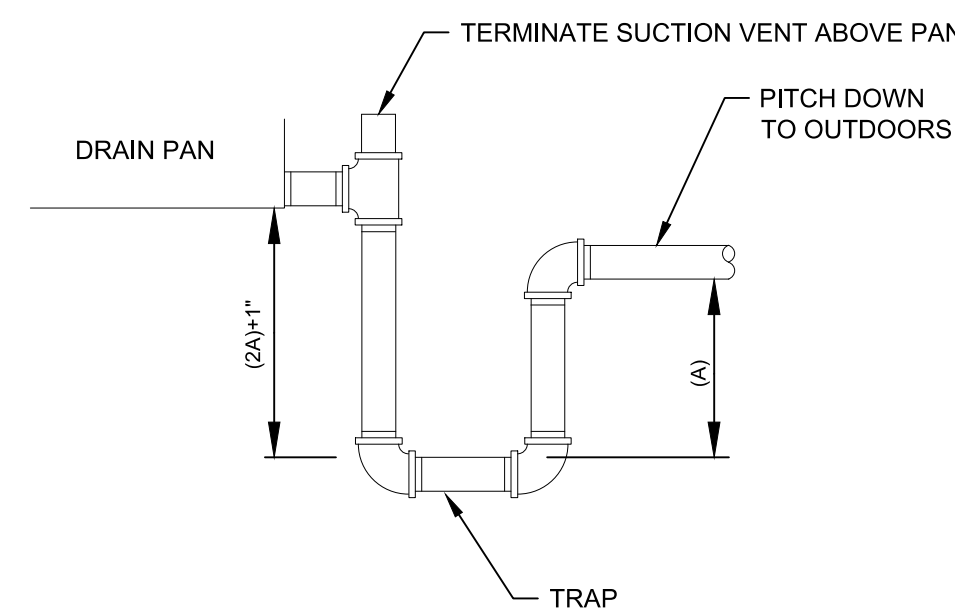
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DRAWING TITLE:
 MECHANICAL LEGEND AND SYMBOLS

DRAWING NUMBER:
M-1.0

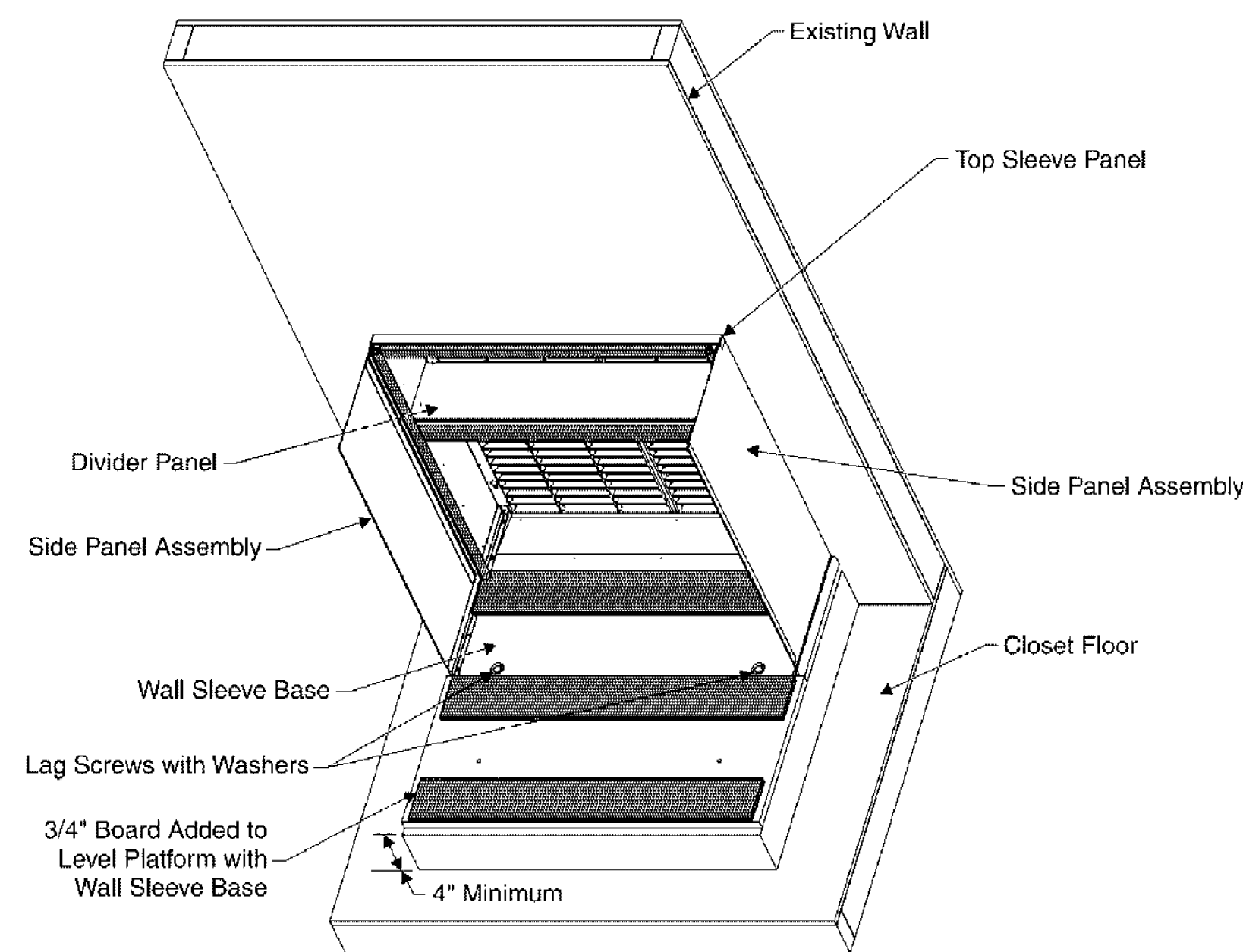


1 PACKAGED TERMINAL AIR CONDITIONER DETAIL
SCALE: NOT TO SCALE

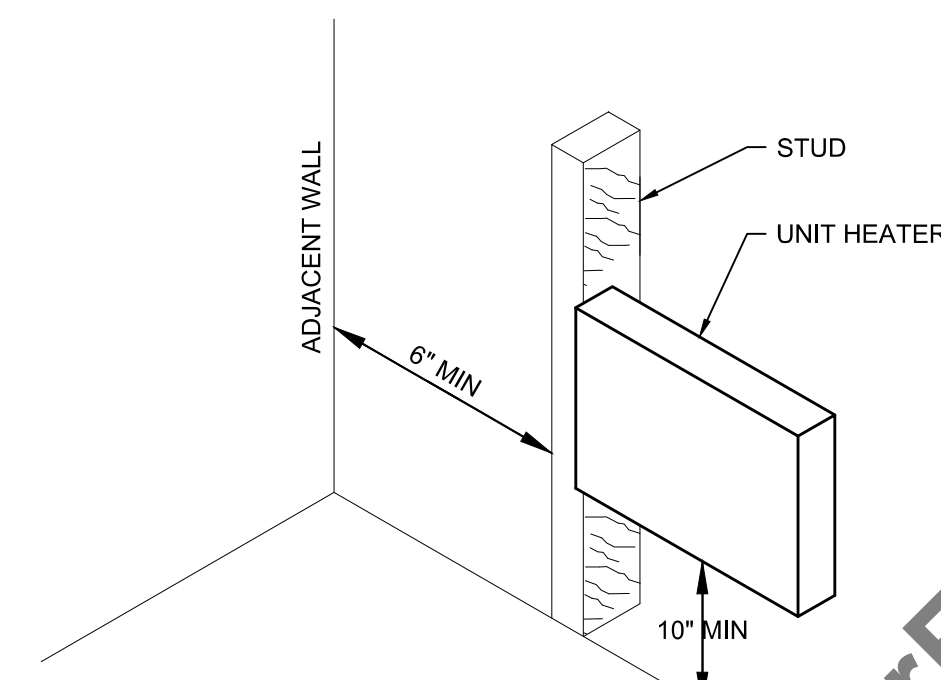


- NOTES:
1. ALL CONDENSATE DRAIN LINES SHALL BE FULL SIZE OF DRAIN PAN OUTLET
 2. A = UNIT TOTAL STATIC PRESSURE (T.S.P.)

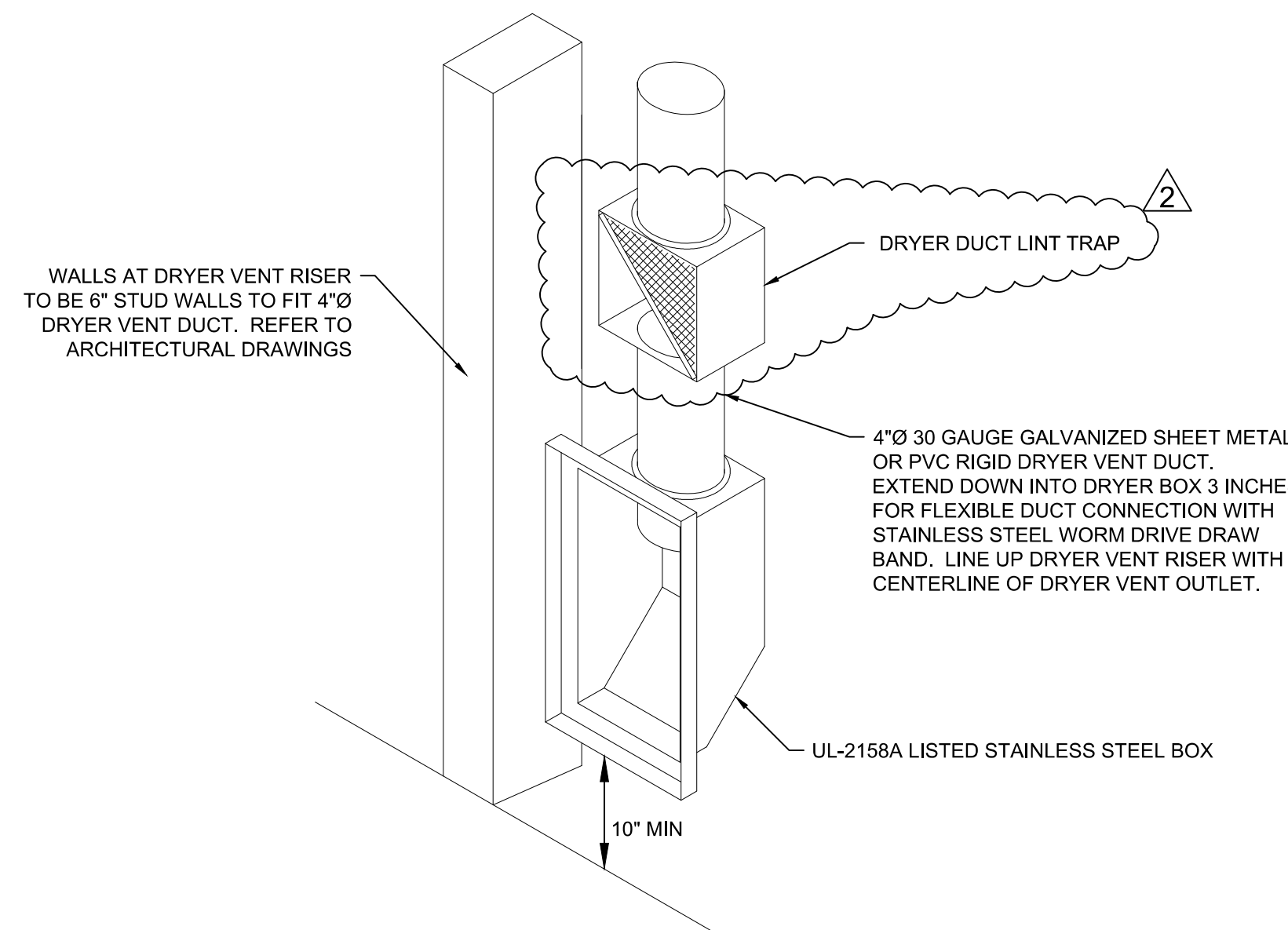
2 CONDENSATE DRAIN DETAIL
SCALE: NOT TO SCALE



3 WALL SLEEVE AND LOUVER KIT INSTALLED DETAIL
SCALE: NOT TO SCALE



5 ELECTRIC WALL HEATER DETAIL
SCALE: NOT TO SCALE



7 TYPICAL DRYER VENT DETAIL
SCALE: NOT TO SCALE

PACKAGED TERMINAL AIR CONDITIONERS SCHEDULE

TAG	LOCATION / SERVICE	INTERLOCK W/ CONDENSER UNIT	AIR HANDLER MFR MODEL#	FAN				COOLING			ELECTRICAL HEAT		ELECTRICAL				WEIGHT, LBS	NOTES
				CFM	OSA (CFM)	ESP	HP	NET CAPACITY, BTU/h	EER	REFR.	@230V	@208V	VOLT	PHASE	MCA	MOC		
PTAC-1	1-BEDROOM UNIT	HP-1	MAGIC-PAK 5MCE4-11-181CP	580	30	0.4	1/3	17,100	11	R410A	4.4KW /15.0A	3.6KW / 17.3A	208/230	1	22.9/26.3	25/30	207	1, 2, 3, 4, 5, 6
PTAC-2	2-BEDROOM UNIT	HP-2	MAGIC-PAK 5MCE4-11-241CP	820	45	0.5	1/2	22,800	11	R410A	4.4KW /15.0A	3.6KW / 17.3A	208/230	1	22.9/26.3	25/30	230	1, 2, 3, 4, 5, 6

- NOTES:
1. PROVIDE INTEGRATED DX COOLING COIL.
 2. PROVIDE INTEGRATED ELECTRIC HEATER.
 3. PROVIDE STANDALONE PROGRAMMABLE THERMOSTAT.
 4. PROVIDE FILTER.
 5. PROVIDE WALL SLEEVE AND ALUMINUM LOUVER.
 6. INTERLOCK W/ ASSOCIATED MOTORIZED DAMPER ON OUTSIDE AIR.
 7. OR APPROVED EQUAL.

ELECTRIC WALL HEATERS SCHEDULE

TAG	SERVICE	MFR / MODEL #	CFM	ELECTRICAL				NOTES
				VOLT	PHASE	KW	AMPS	
EWH-1	STAIRWELL	MARLEY / FRA 1512F	100	120	1	1.5	12.5	1, 2, 3

- NOTES:
1. PROVIDE WITH MANUAL INTEGRAL THERMOSTAT VERIFY SET POINT (NOT LESS THEN 40°F FOR FREEZE PROTECTION).
 2. PROVIDE WITH RECESSED WALL CAN MOUNT.
 3. POWER WIRING & DISCONNECT BY E.C.

EXHAUST FANS SCHEDULE

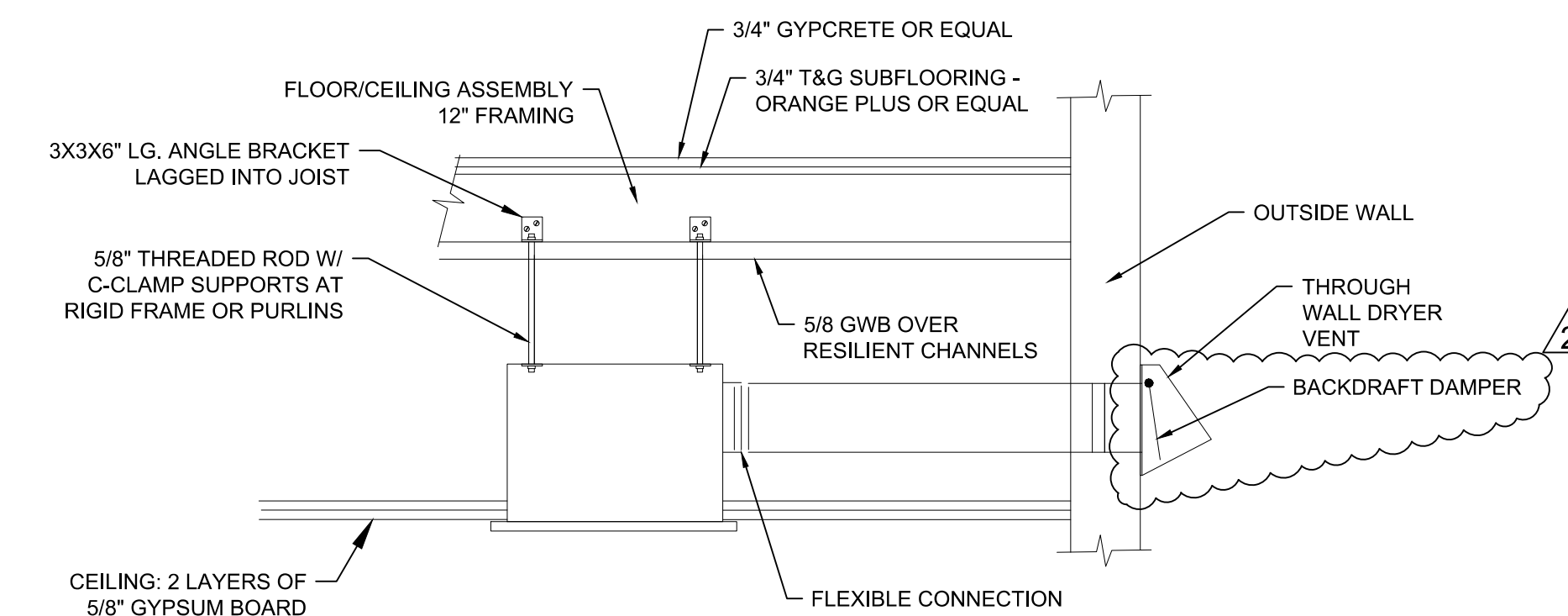
TAG	SERVICE	MANUFACTURER	MODEL NO.	DRIVE	AIR FLOW (CFM)	ESP (W.C.)	SOUND LEVEL	ELECTRICAL				NOTES
								VOLT	PHASE	HP (WATTS)	MCA	
EF-1	BATHROOM	BROAN	AE80SL	DIRECT	50	0.5	0.8	120	1	(27)	0.5	1, 2, 3

- NOTES:
1. BUILT-IN LED LIGHT.
 2. BUILT-IN LED HUMIDISTAT.
 3. OR APPROVED EQUAL.

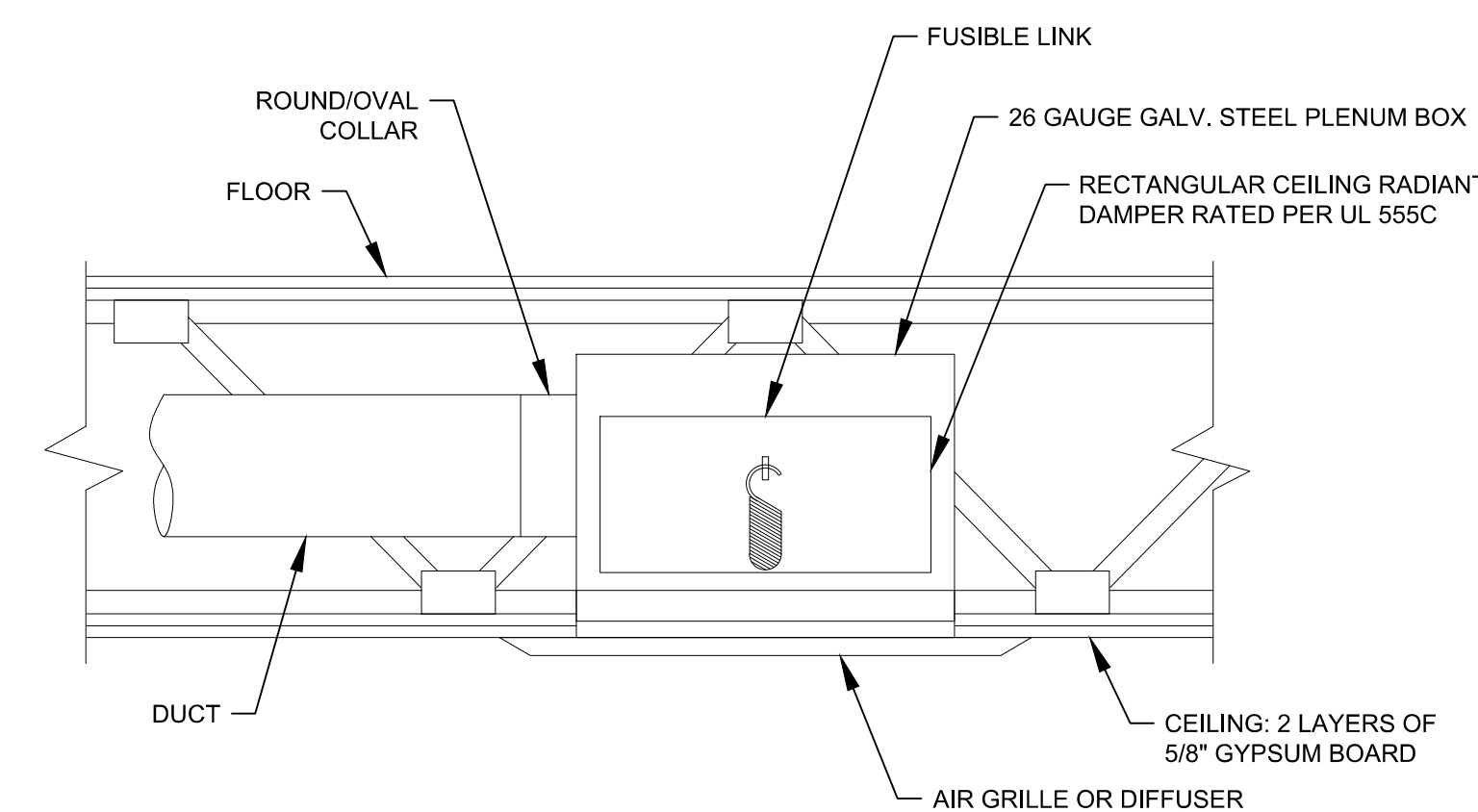
AIR OUTLET SCHEDULE

TYPE	SERVICE	MANUFACTURER	MODEL NO.	TYPE	MATERIAL	MOUNTING	BORDER	PATTERN	BLADE SPACING (INCH)	BLADE POSITION	BLADE DEFLECTION	NOTES
[S1]	SUPPLY	HART&COOLEY	A714MS	REGISTER	ALUMINUM	SURFACE	-	4-WAY	N/A	ADJUSTABLE	ADJUSTABLE	1, 2, 3, 4, 5
[2]	TRANSFER	HART&COOLEY	TG/TGF	GRILLE	ALUMINUM	SURFACE	-	FIXED	1/2	HORIZONTAL	45°	1, 5
[R1]	RETURN	HART&COOLEY	A650	GRILLE	ALUMINUM	SURFACE	-	FIXED	1/3	HORIZONTAL	20°	1, 2, 3, 4, 5

- NOTES:
1. FINISH SHALL BE WHITE ANODIC ACRYLIC PAINT.
 2. PROVIDE INTEGRAL MULTI-SHUTTER DAMPER.
 3. PROVIDE SQUARE TO ROUND TRANSITION AS REQUIRED.
 4. PROVIDE RADIANT DAMPER AT CEILING MEMBRANE PENETRATION.
 5. OR EQUIVALENT APPROVED.



4 EXHAUST FAN DETAIL
SCALE: NOT TO SCALE



6 CEILING RADIANT DAMPER DETAIL
SCALE: NOT TO SCALE



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CONTRACTOR
610-670-2200

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PHASE 5 - MULTIFAMILY
HARDEEVILLE, SOUTH CAROLINA

DATE ISSUED:
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DEE
AE JOB# 0994

DRAWING TITLE:
MECHANICAL
SCHEDULES AND
DETAILS

DRAWING NUMBER:
M-1.1



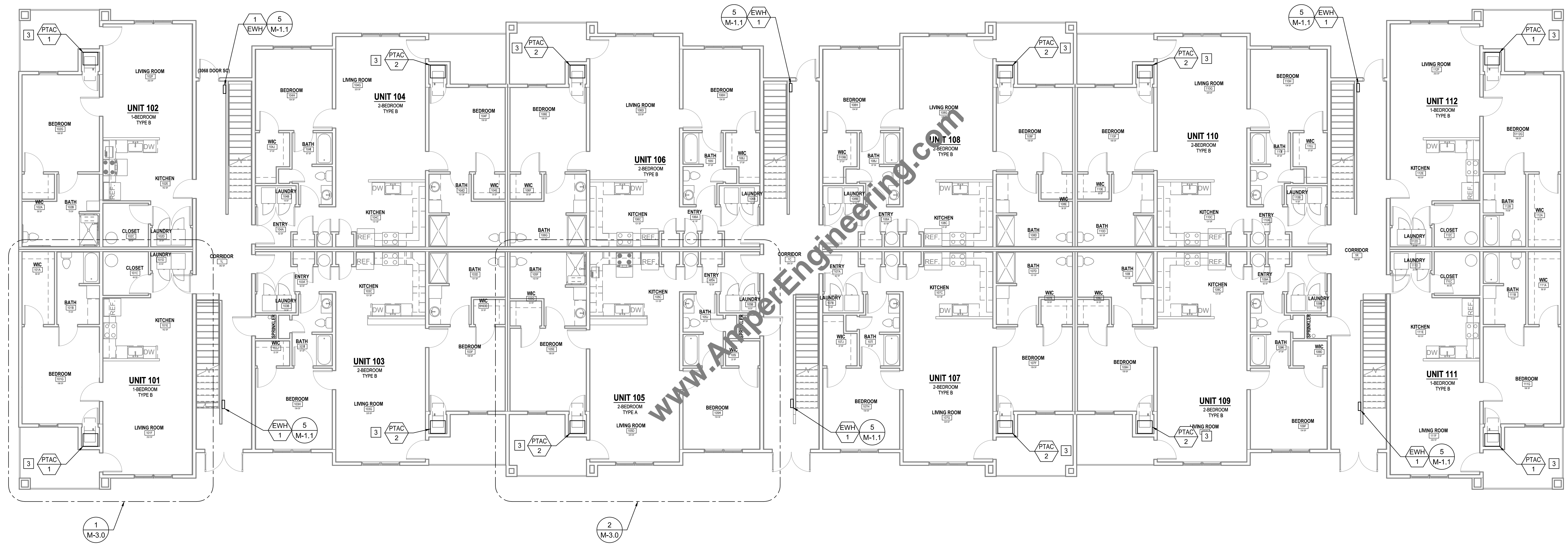
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GENERAL NOTES

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- CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

KEY NOTES

- GAS METERS MOUNTED ON WALL.
- 3/4" GAS UP TO SECOND FLOOR FRAMING TO SERVE 2ND FLOOR UNITS AND 3RD FLOOR UNITS.
- PROVIDE PVC CONDENSATE DRAIN TO OUTSIDE.



1 MECHANICAL 1ST FLOOR PLAN

SCALE: 1/8" = 1'-0"
 0 4 8 16 32

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MECHANICAL 1ST FLOOR PLAN

M-2.0

M-2.0



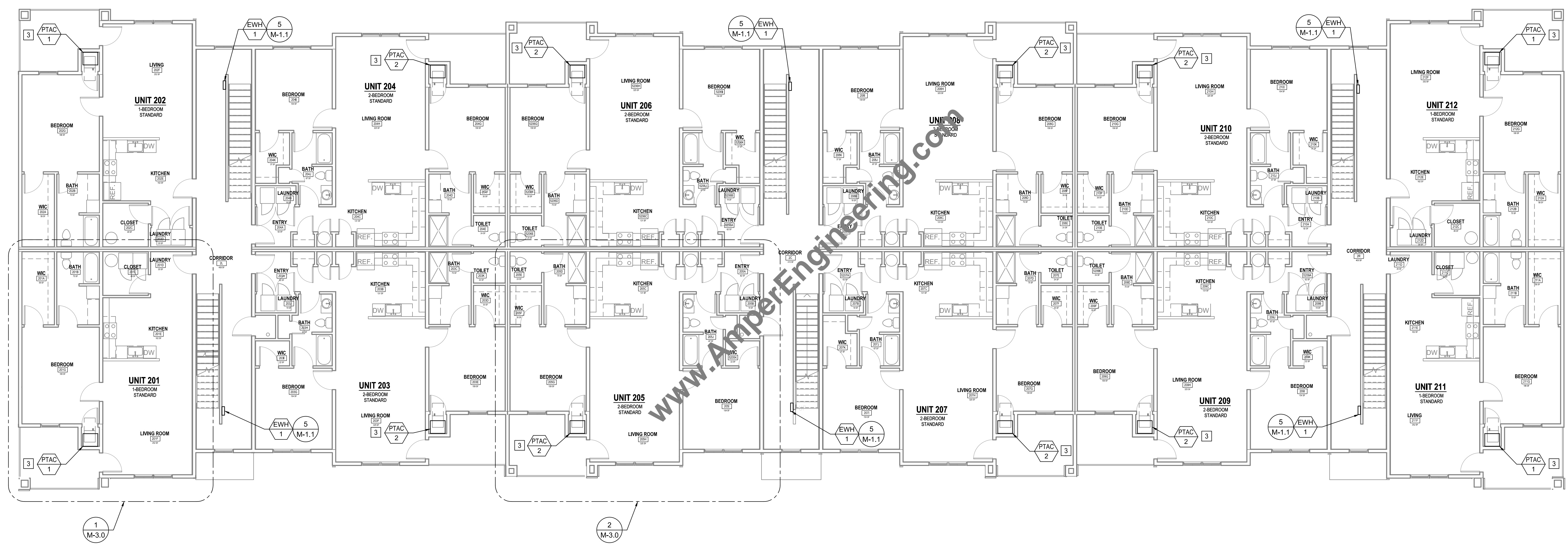
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KEY NOTES

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- PROVIDE PVC CONDENSATE DRAIN TO OUTSIDE.



1 MECHANICAL 2ND FLOOR PLAN

SCALE: 1/8" = 1'-0"
 0 4 8 16 32

CONTRACTOR

DATE

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DRAWING TITLE:

DRAWING NUMBER:

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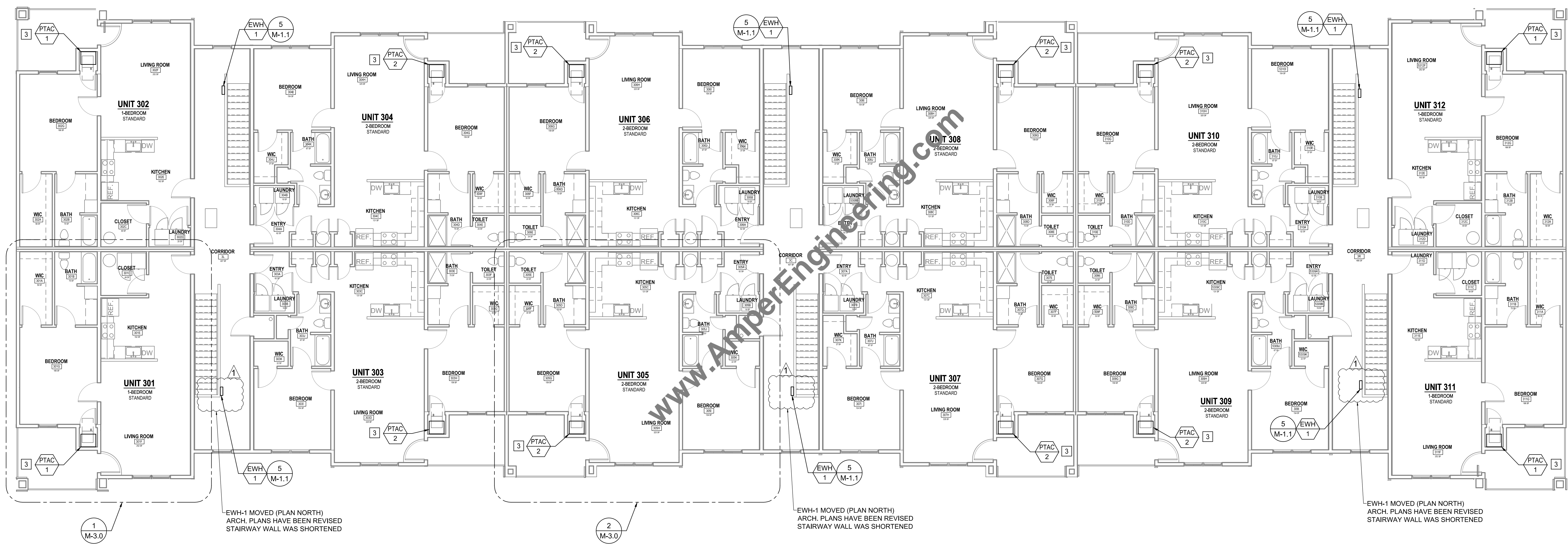
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KEY NOTES

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- 3/4" GAS UP TO SECOND FLOOR FRAMING TO SERVE 2ND FLOOR UNITS AND 3RD FLOOR UNITS.
- PROVIDE PVC CONDENSATE DRAIN TO OUTSIDE.



1 MECHANICAL 3RD FLOOR PLAN

SCALE: 1/8" = 1'-0"
 0 4 8 16 32

HAKES
 PHASE 5 - MULTIFAMILY
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02/12/2020

DEE

MECHANICAL 3RD FLOOR PLAN

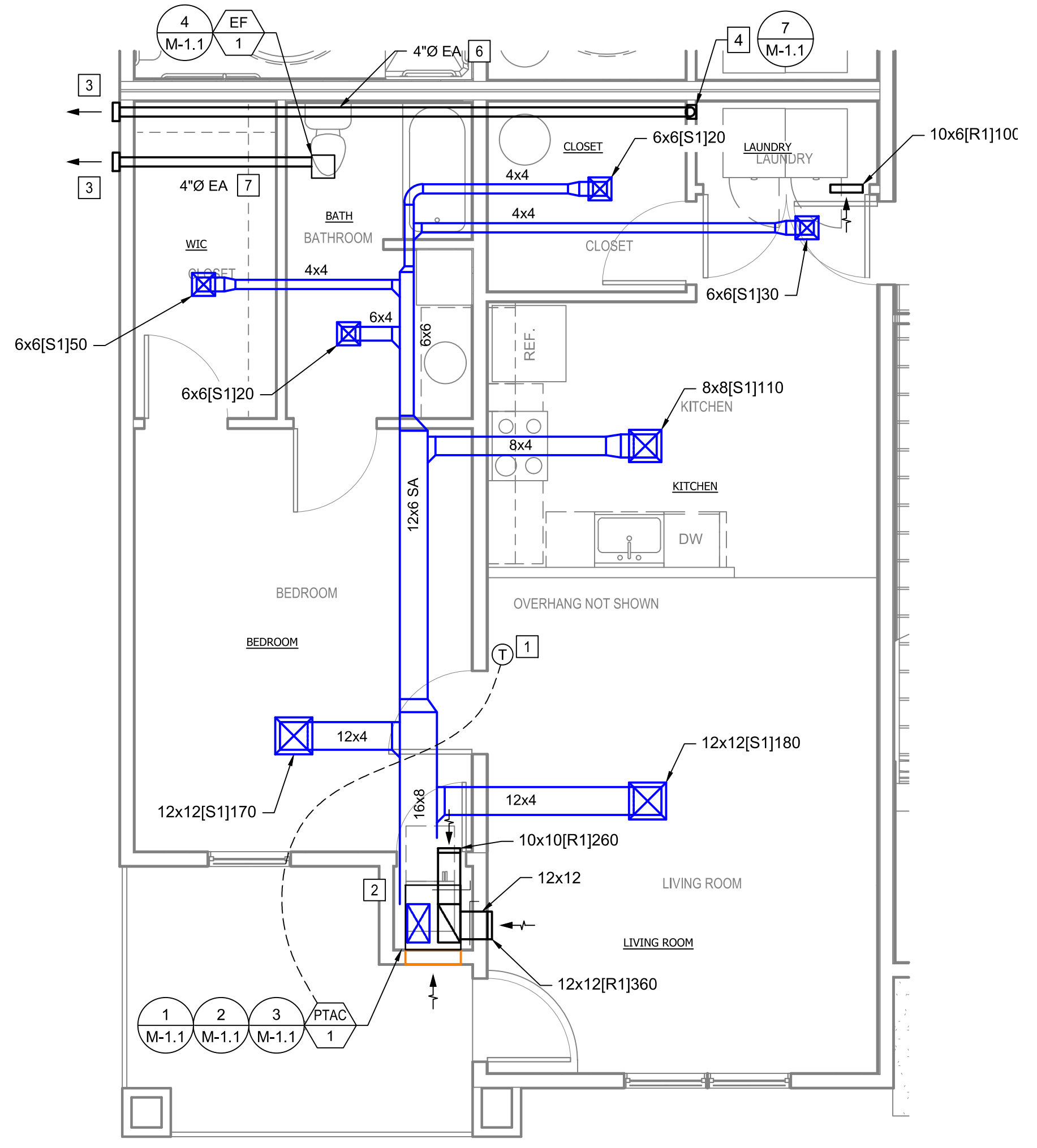
M-2.2

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- CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- PROVIDE CEILING RADIATION DAMPERS AT ALL SUPPLY REGISTERS/GRILLES.
- PROVIDE CEILING RADIATION DAMPERS AT ALL BATHROOM EXHAUST FAN HOUSINGS.
- BATHROOM AND DRYER EXHAUST DUCTS TO BE 26 GAUGE (0.0217") MIN. THICKNESS.
- BATHROOM AND DRYER EXHAUST DUCTS TO BE SLEEVED WITH RETAINING ANGLES AT EACH RATED EXTERIOR WALL (FIRE PARTITION WALL) PENETRATION. SLEEVES TO BE 12" LONG x 0.060" THK., RETAINING ANGLES TO BE 1-1/2" x 1-1/2" x 0.060" AND TO BE SCREWED TO THE SLEEVE AND WALL USING No. 10 SCREWS.
- WINDOWS SHALL SLEEVE THE REQUIRED OUTSIDE AIR / VENTILATION.
- ALL BOXES WITH DAMPERS SHALL HAVE 1" LIP TO RECEIVE THE 5/8" GYPSUM WALLBOARD.

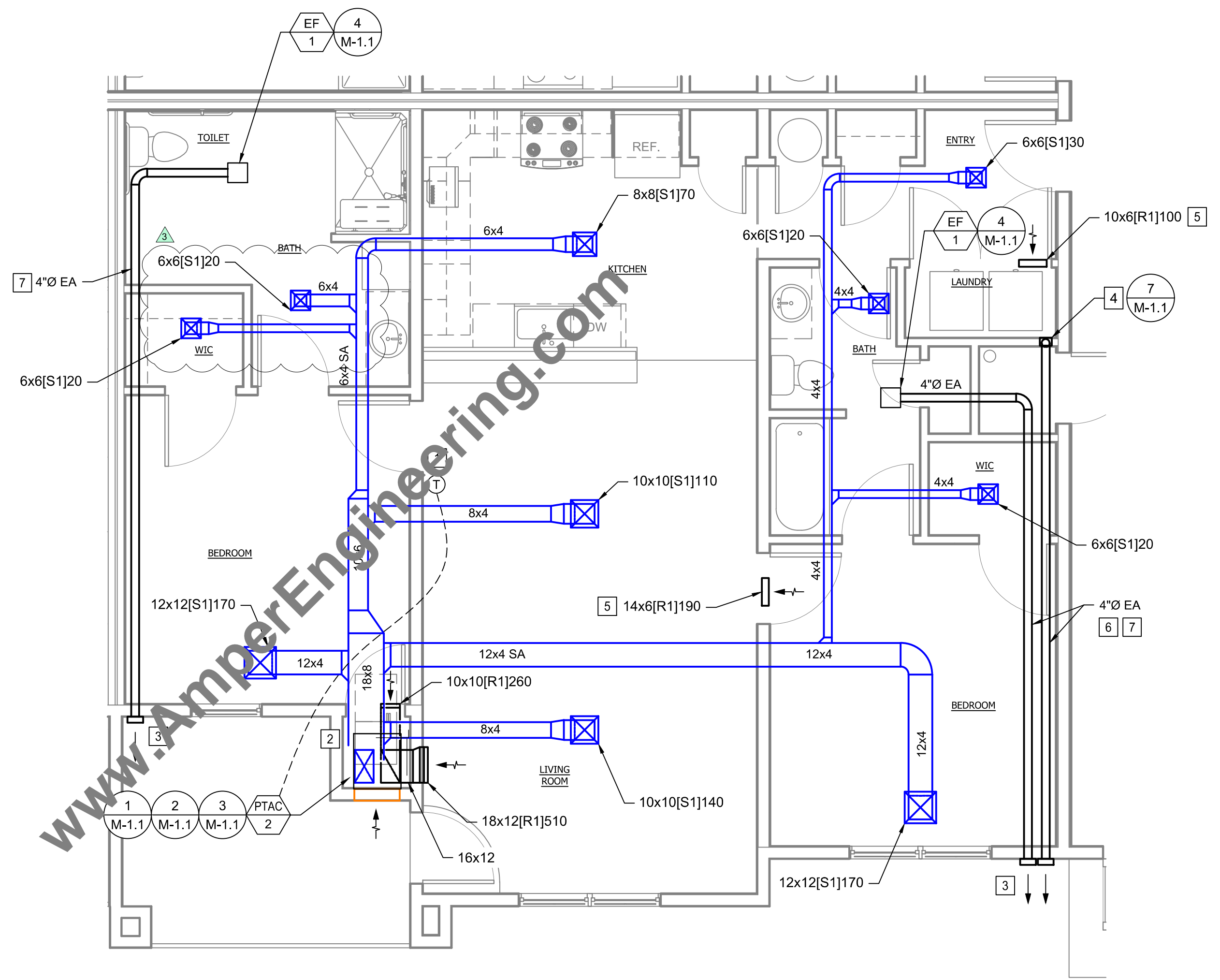
KEY NOTES

- 7 DAY PROGRAMMABLE T-STAT W/ AUTO CHANGEOVER. MOUNT 4' ABOVE FINISHED FLOOR. REFER TO ARCHITECTURAL DRAWING FOR FINAL LOCATION.
- SHOWN IS MINIMUM INTERNAL DUCT DIMENSION. PROVIDE 1" OF INTERNAL LINING IN DUCT FOR SOUND ATTENUATION AND INSULATION. TRANSITION FROM DUCT TO PTAC UNIT AS REQUIRED.
- VENT THROUGH WALL. PROVIDE BACK DRAFT DAMPER AND INSECT SCREEN.
- UL-2158A LISTED STAINLESS STEEL BOX FOR DRYER HOOKUPS.
- TRANSFER GRILLE IN WALL ABOVE DOOR.
- DRYER VENT DUCT TO BE RIGID SHEET METAL OR PVC. USE CLAMPS TO SEAL ALL JOINTS. DO NOT USE SCREWS OR OTHER FASTENING DEVICES THAT EXTEND INTO THE INTERIOR OF THE DUCT AND CATCH LINT. DO NOT USE DUCT TAPE.
- BATHROOM EXHAUST DUCT TO BE RIGID SHEET METAL OR PVC.



1 1-BEDROOM UNIT MECHANICAL PLAN

SCALE: 1/4" = 1'-0"
 0 2 4 8 16



2 2-BEDROOM UNIT MECHANICAL PLAN

SCALE: 1/4" = 1'-0"
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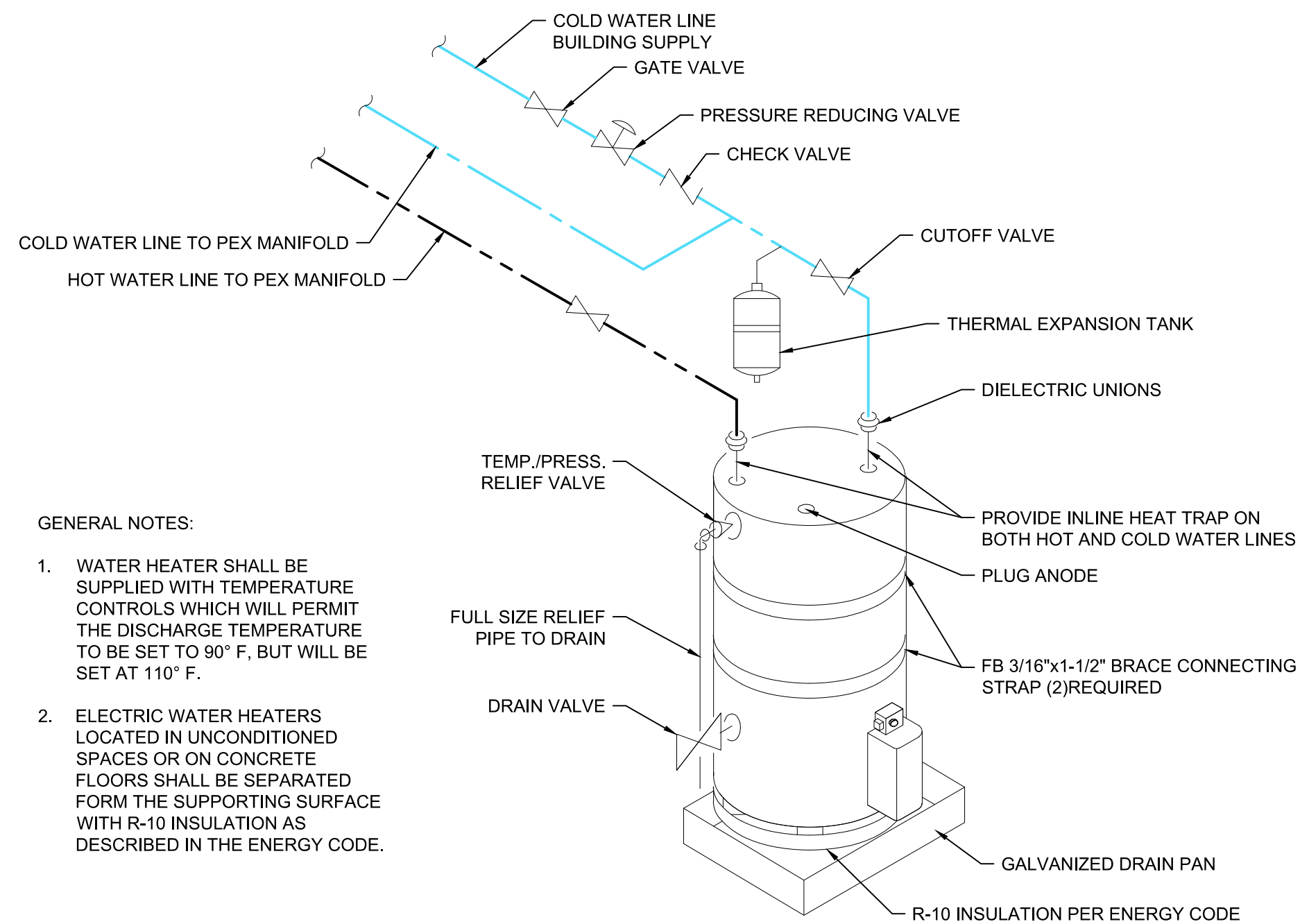
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 MECHANICAL
 ENLARGED PLANS

DRAWING NUMBER:

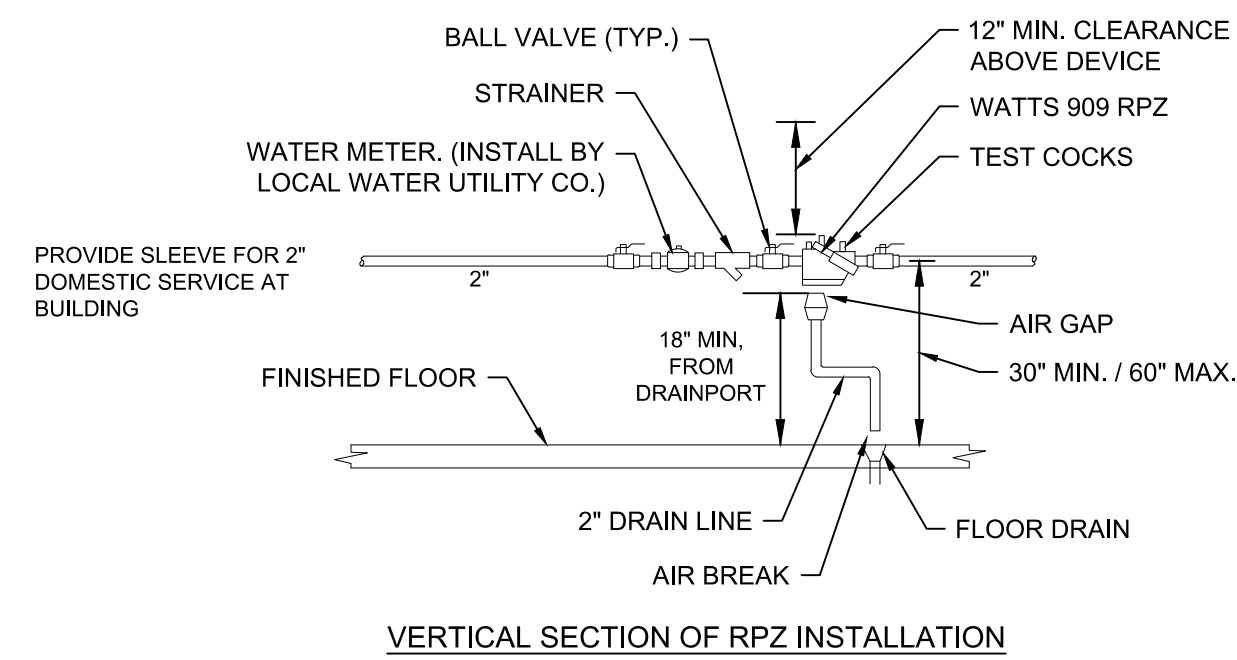
M-3.0

PLUMBING LEGEND	
SYMBOL OR ABBREVIATION	DEFINITION
—S—	SEWER LINE ABOVE GRADE
-S-	SEWER LINE BELOW GRADE
-V-	VENT
—CW—	DOMESTIC COLD WATER
—HW—	DOMESTIC HOT WATER
→	EXTENSION & CONTINUATION
⊕	FLOOR DRAIN

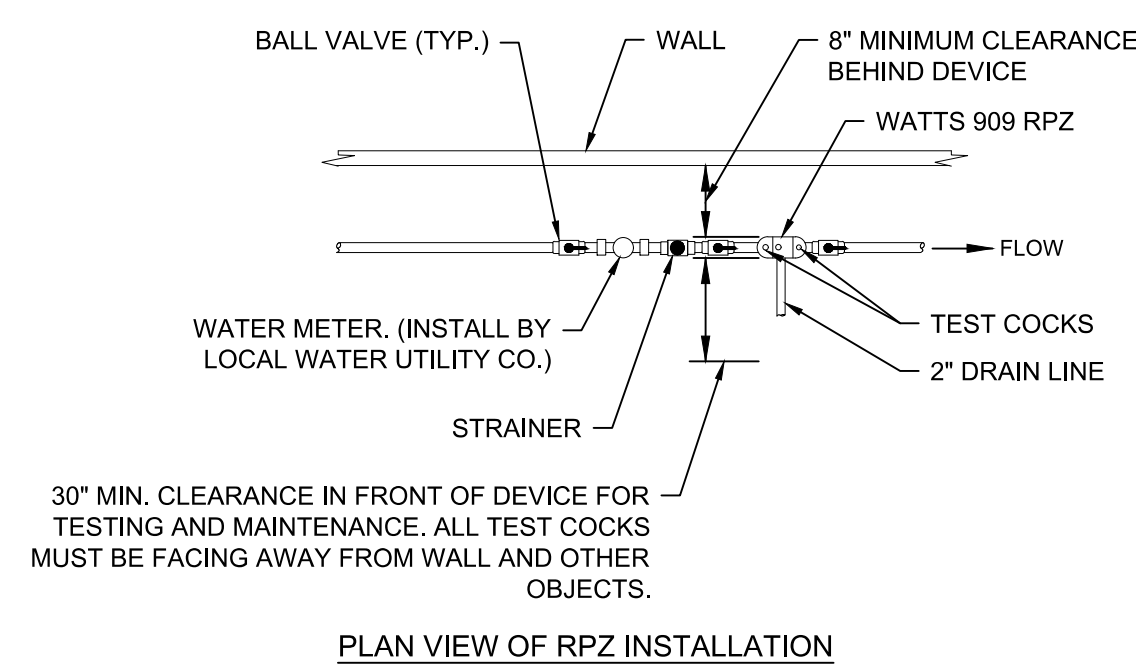
PLUMBING FIXTURE SCHEDULE								
SYMBOL	DESCRIPTION	MANUFACTURER AND CATALOG #	TRIM & DETAIL REFERENCES	CONNECTIONS				NOTES
				HW	CW	W	V	
BT-1	BATH TUB	TBD		1/2"	1/2"	2"	1-1/2"	
DW-1	DISHWASHER	TBD						
FCO	FLOOR CLEANOUT	SOUIX CHIEF 852-4PNQ	POLY PLUG, NICKEL-BRONZE COVER	-	-	4"	-	OR APPROVED EQUAL
FD-1	FLOOR DRAIN	J.R. SMITH OR SIOUX CHIEF		-	-	3"	2"	OR APPROVED EQUAL
L-1	LAVATORY	TBD		1/2"	1/2"	2"	1-1/2"	
S-1	KITCHEN SINK	TBD		1/2"	1/2"	2"	1-1/2"	
SH-1	SOWER	TBD	WITH ADA COMPLIANT CONTROLS	1/2"	1/2"	2"	1-1/2"	ADA SHOWERS SHALL HAVE 1/2" LIPS
WB-1	WASHER BOX	TBD		1/2"	1/2"	2"	1-1/2"	
WC-1	WATER CLOSET	TBD		-	1/2"	3"	2"	
WC-2	WATER CLOSET	TBD	WITH ADA SEAT AND LID, BERMIS SEAT 1500 EC	-	1/2"	3"	2"	
WCO	WALL CLEANOUT	TBD	SCHED 40 PVC, STREET TEE WITH PVC PLUG, PROVIDE SEPARATE WALL ACCESS PANEL	-	-	PER STACK	-	
WH-1	WATER HEATER	BRADFORD WHITE RE350S6	50 GALLON HOT WATER HEATER; 208-230V, 2x4500W (NON-SIMULTANEOUS)	3/4"	3/4"	-	-	EXPANSION TANK REQUIRED; OR APPROVED EQUAL
WHA	WATER HAMMER ARRESTOR	SOUIX CHIEF SC653-B	3/4" MIP 7ci COMMERCIAL HAMMER	3/4"	3/4"			OR APPROVED EQUAL



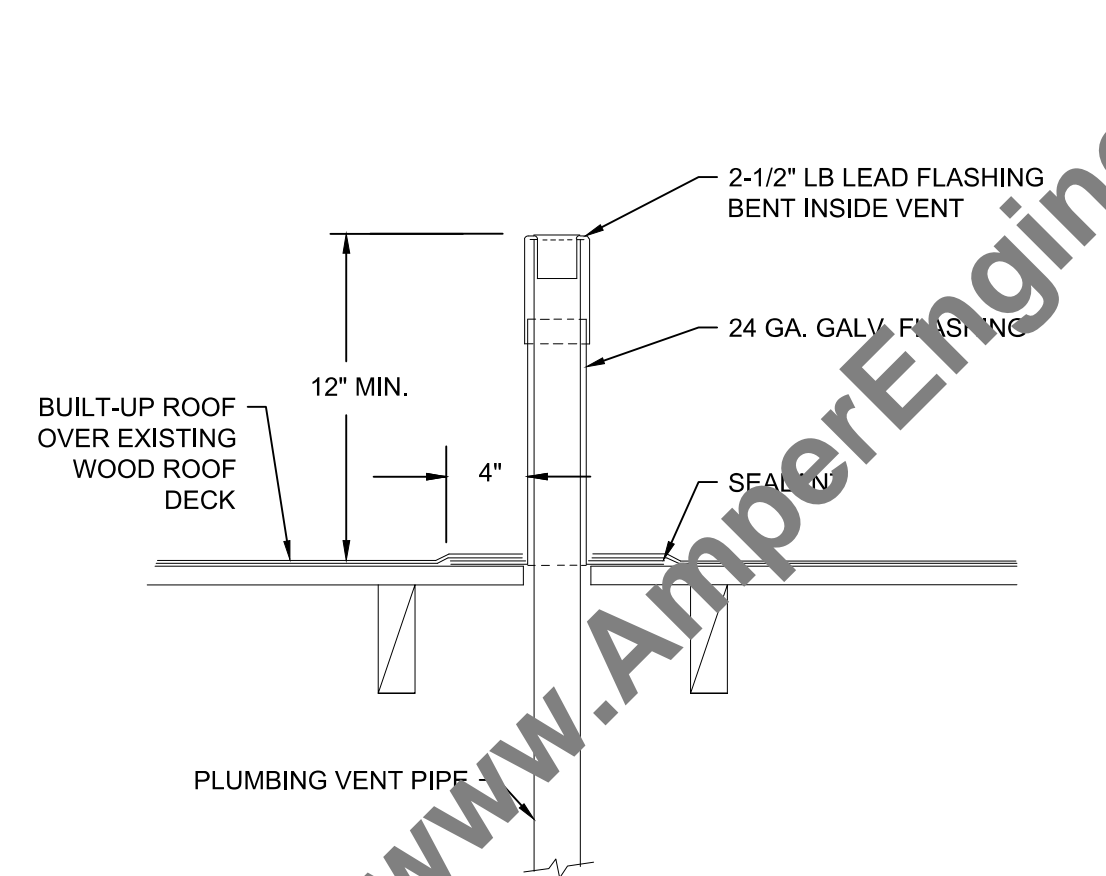
1 ELECTRICAL WATER HEATER
SCALE: NOT TO SCALE



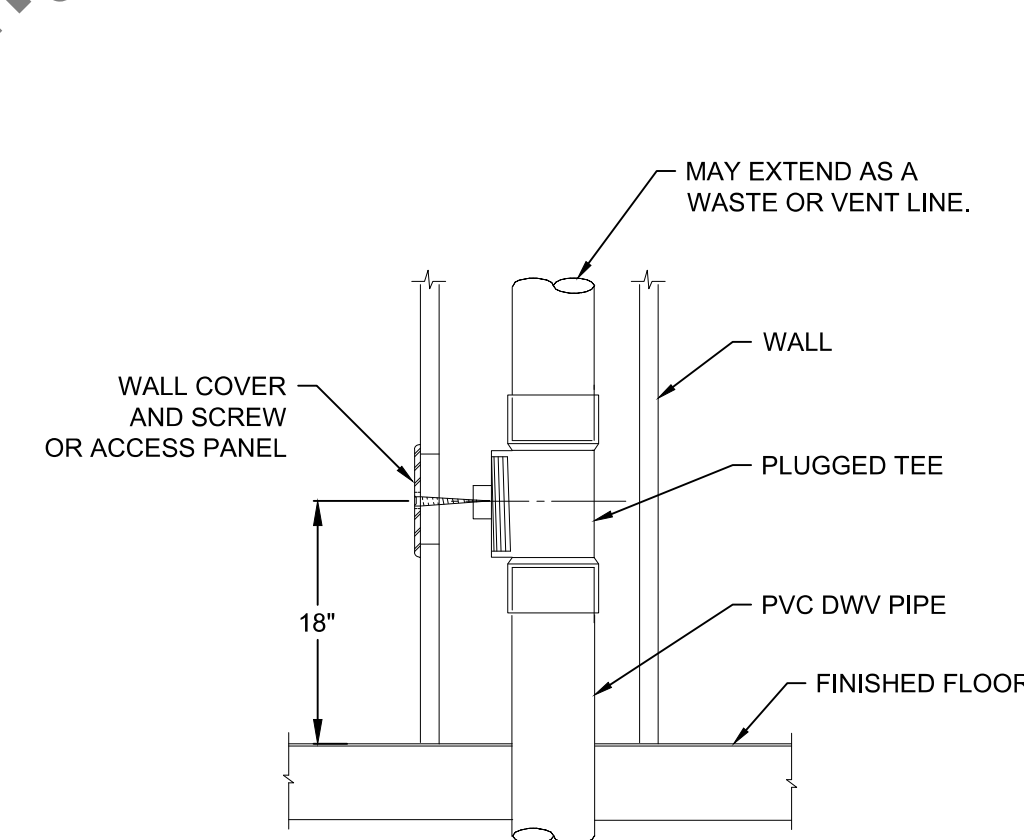
- ALL RPZ'S SHALL BE ADEQUATELY SUPPORTED TO PREVENT LATERAL MOVEMENT. PIPE HANGERS, BRACES, SADDLES, PIERS, ETC. SHOULD BE USED TO SUPPORT THE RPZ SHOULD BE PLACED IN A MANNER THAT WILL NOT OBSTRUCT THE FUNCTION OF, OR INTERFERE WITH ACCESS TO THE RPZ.
- LOCATION OF RPZ WILL BE HEATED AND LIGHTED.



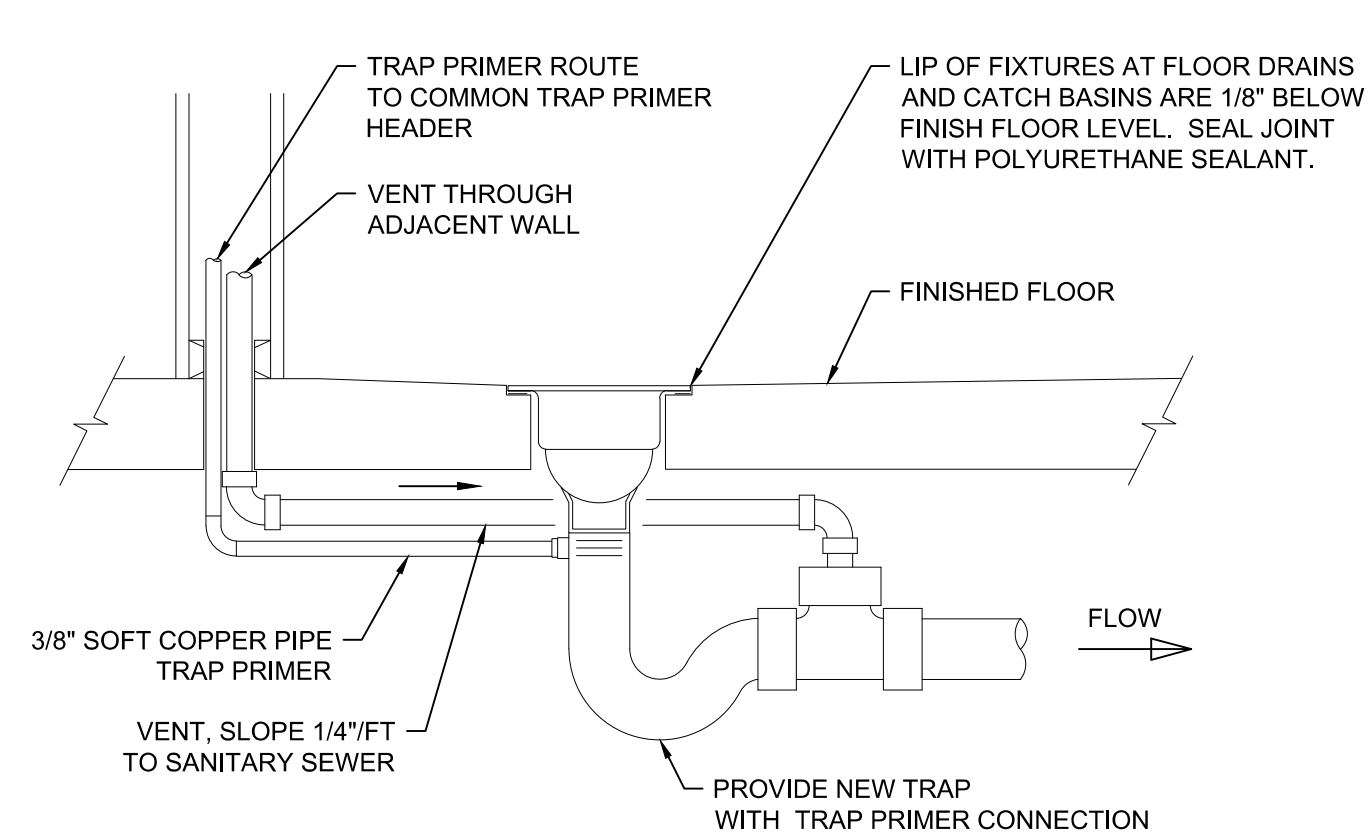
2 DOMESTIC WATER SERVICE DETAIL
SCALE: NOT TO SCALE



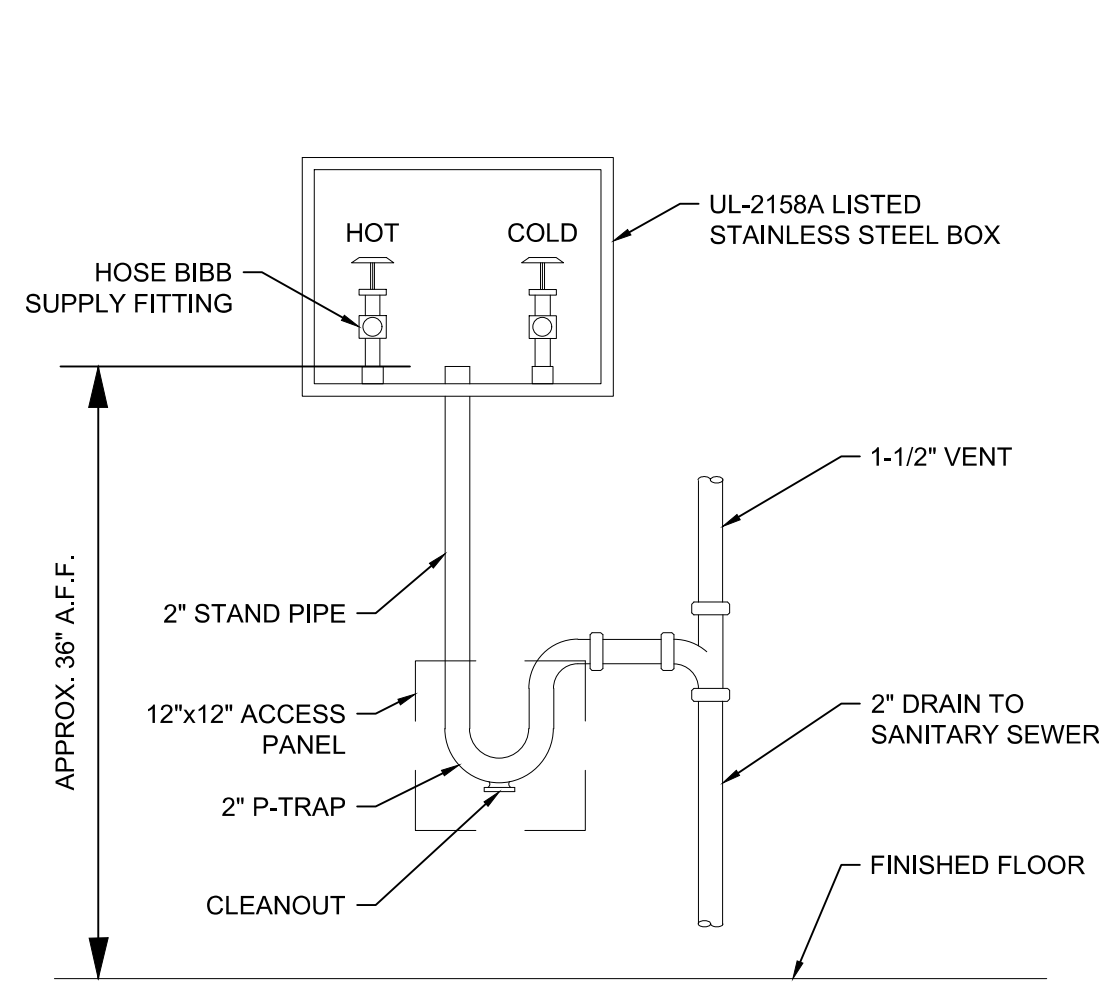
6 VENT THROUGH ROOF (VTR) DETAIL
SCALE: NOT TO SCALE



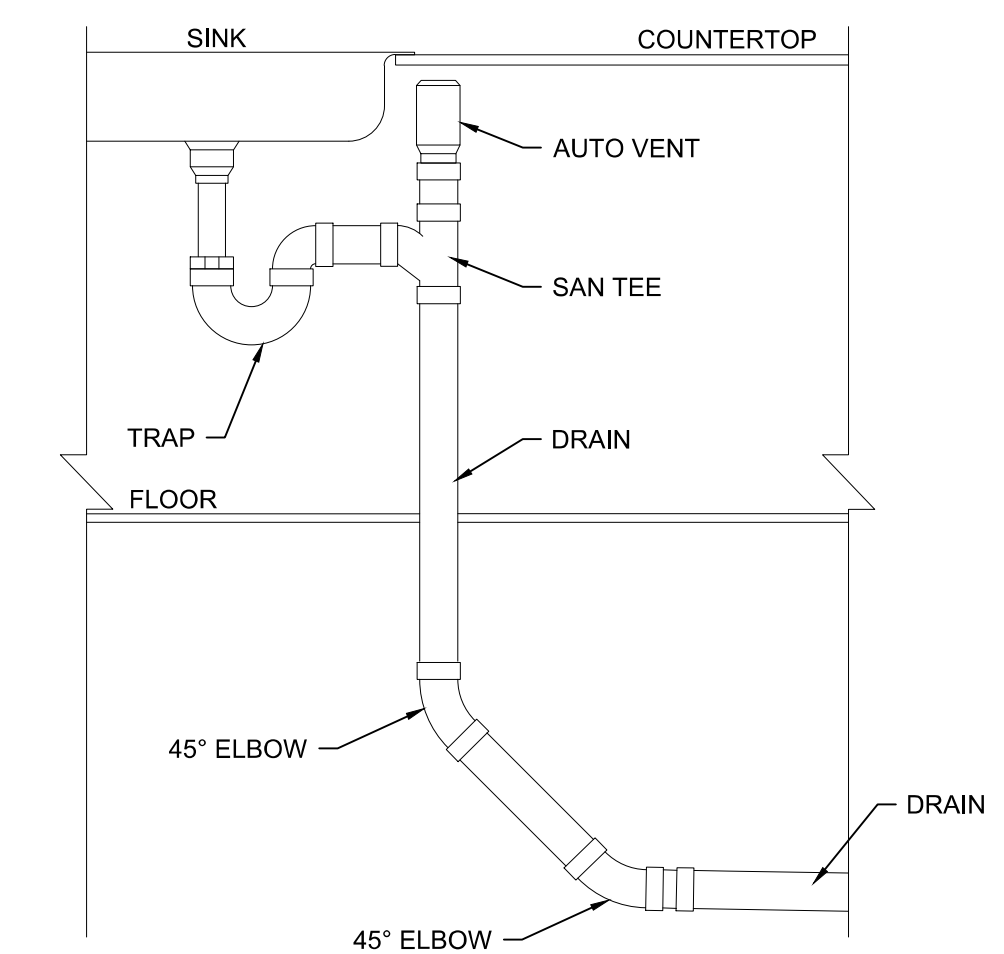
7 WALL CLEAN-OUT DETAIL
SCALE: NOT TO SCALE



5 FLOOR DRAIN DETAIL
SCALE: NOT TO SCALE



8 WASHER BOX DETAIL
SCALE: NOT TO SCALE



9 TYPICAL KITCHEN SINK VENT DETAIL
SCALE: NOT TO SCALE



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CONTRACTOR
DATE
02/12/20
02/24/20
07/20/20

NO.	REVISION	DATE
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NEW CONSTRUCTION FOR
HAKES
PHASE 5 - MULTIFAMILY
HARDEEVILLE, SOUTH CAROLINA

DATE ISSUED:
02/12/2020

DESIGNED BY:
DEE

AE JOB# 0994

DRAWING TITLE:
PLUMBING LEGENDS,
SCHEDULES AND
DETAILS

DRAWING NUMBER:

P-1.0

CONTRACTOR

 010-010-2400

DATE
 02/12/20
 02/24/20
 07/20/20

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 HARDEEVILLE, SOUTH CAROLINA

DATE ISSUED:
 02/12/2020

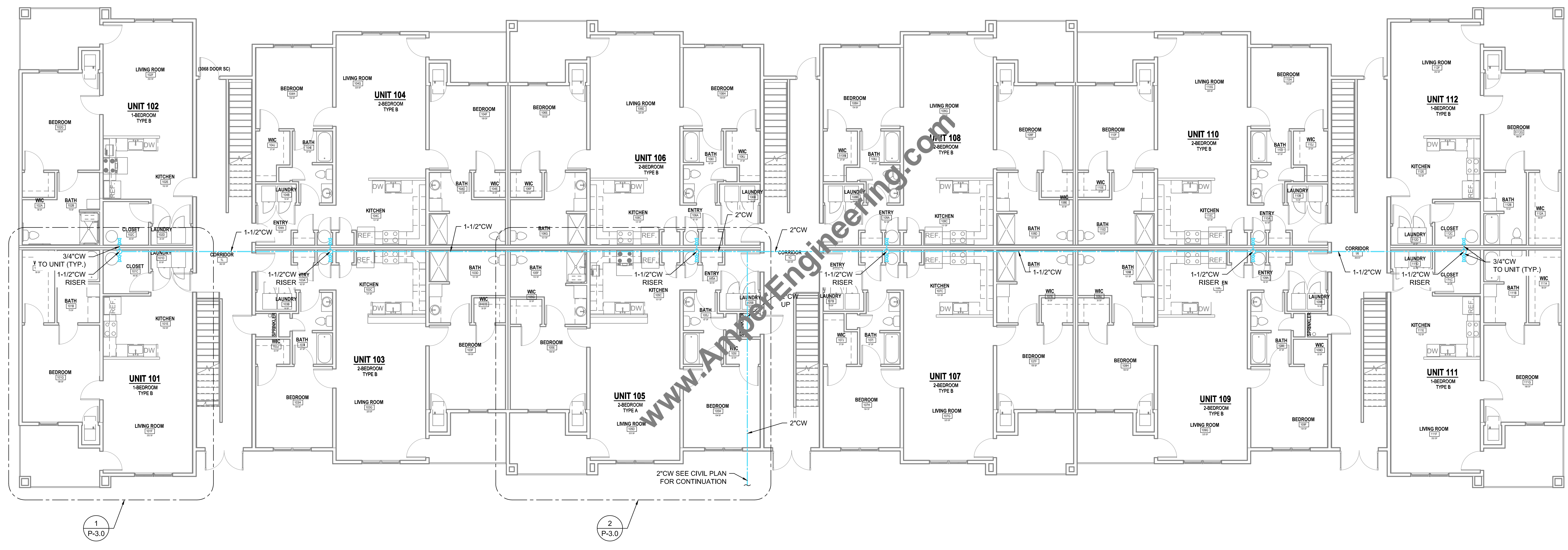
DESIGNED BY:
 DEE

AE JOB# 0994

DRAWING TITLE:
 COLD WATER
 PLUMBING 1ST
 FLOOR PLAN

DRAWING NUMBER:

P-2.0



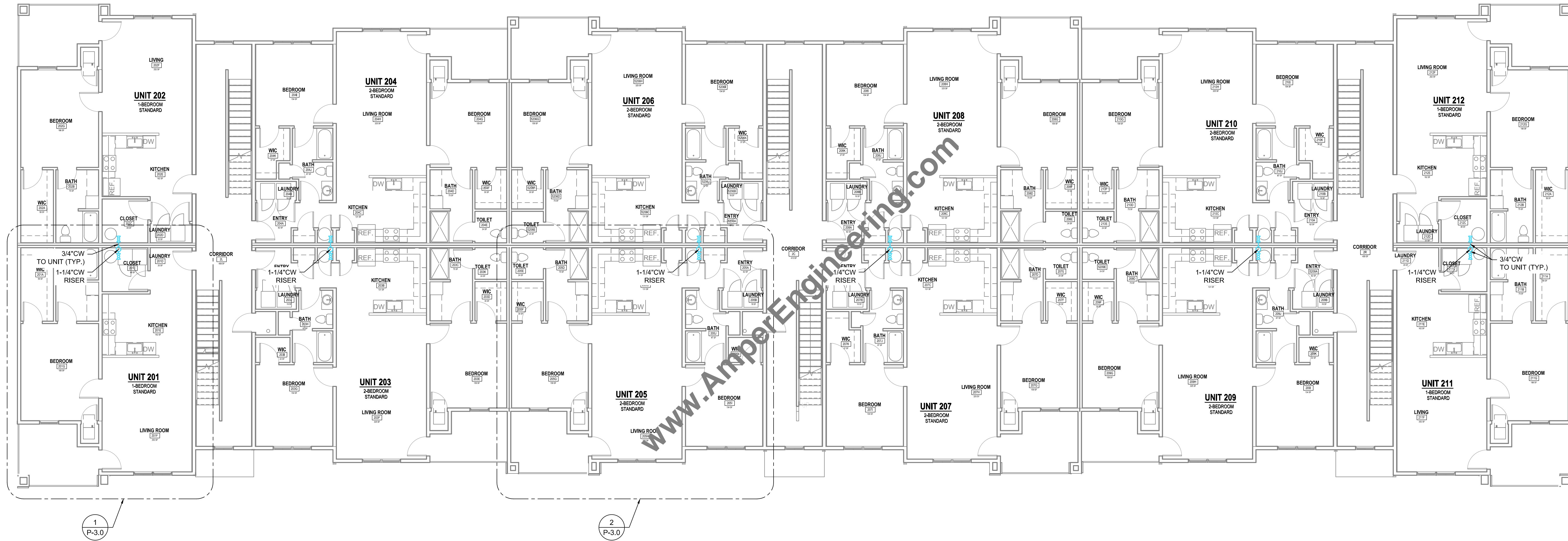
1 COLD WATER PLUMBING 1ST FLOOR PLAN

SCALE: 1/8" = 1'-0"
 0 4 8 16 32

1
 P-3.0

2
 P-3.0

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1 COLD WATER PLUMBING 2ND FLOOR PLAN
 SCALE: 1/8" = 1'-0"
 0 4 8 16 32



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CONTRACTOR
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DATE ISSUED:
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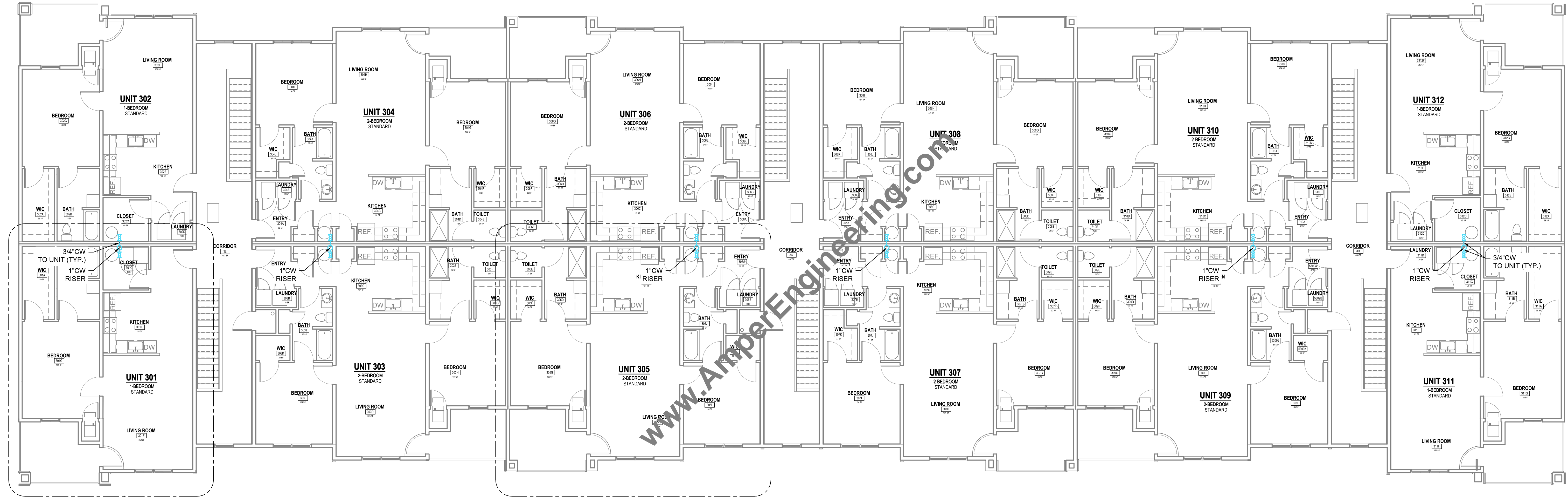
DESIGNED BY:
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AE JOB# 0994

DRAWING TITLE:
COLD WATER
PLUMBING 2ND
FLOOR PLAN

DRAWING NUMBER:

P-2.1



CONTRACTOR

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NEW CONSTRUCTION FOR
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 PHASE 5 - MULTIFAMILY
 HARDEEVILLE, SOUTH CAROLINA

DATE ISSUED:
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DESIGNED BY:
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DRAWING TITLE:
 COLD WATER
 PLUMBING 3RD
 FLOOR PLAN

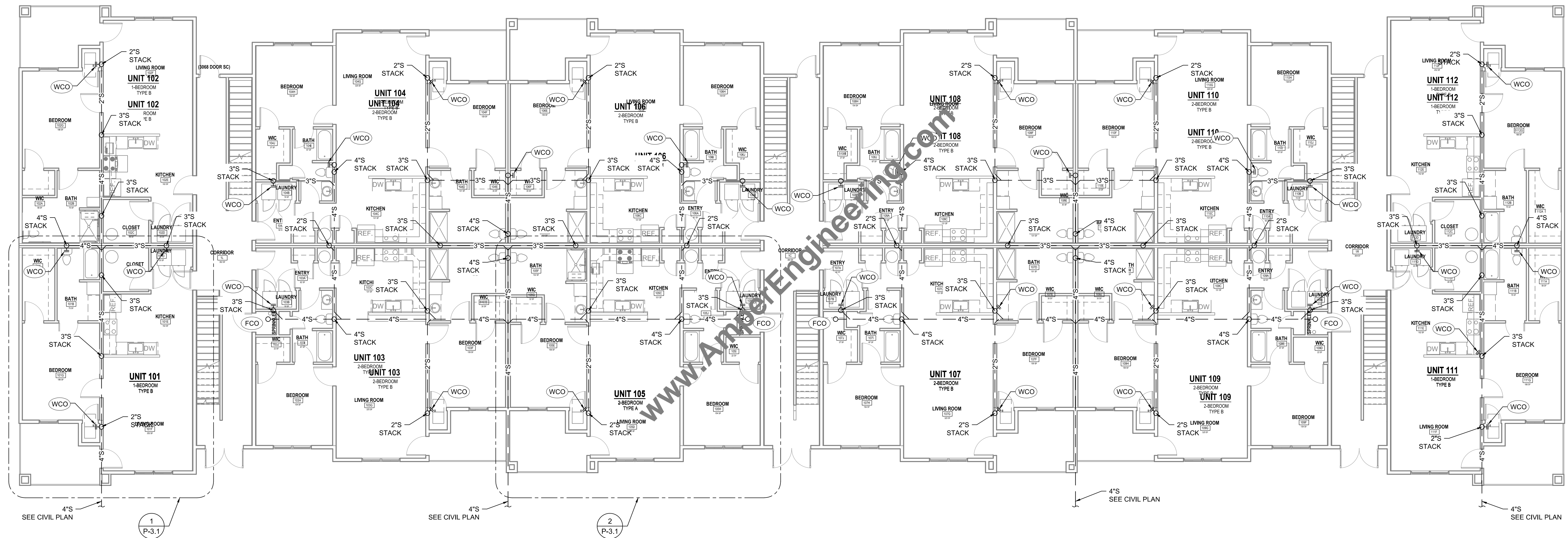
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P-2.2

1 COLD WATER PLUMBING 3RD FLOOR PLAN
 SCALE: 1/8" = 1'-0"
 0 4 8 16 32

1
 P-3.0

2
 P-3.0



1 DWV PLUMBING 1ST FLOOR PLAN
 SCALE: 1/8" = 1'-0"
 0 4 8 16 32

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0	ISSUED FOR PERMIT APPLICATION	02/12/20
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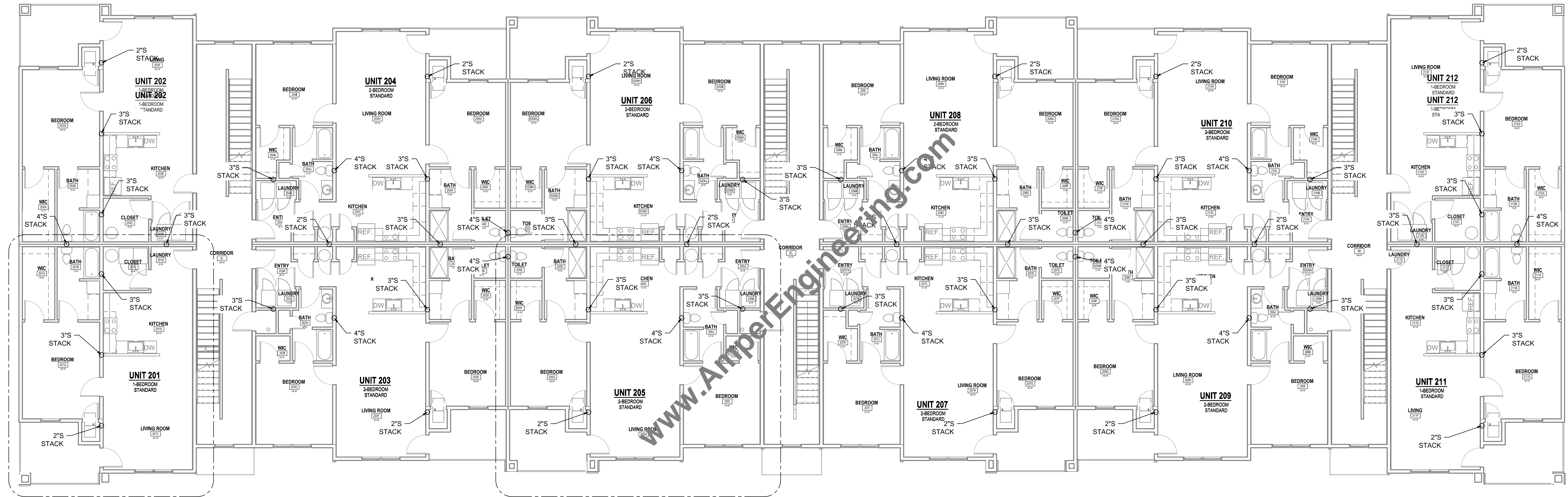
DESIGNED BY:
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DRAWING TITLE:
 DWV PLUMBING 1ST FLOOR PLAN

DRAWING NUMBER:

P-2.3



1
P-3.1

2
P-3.1

1 DWV PLUMBING 2ND FLOOR PLAN
 SCALE: 1/8" = 1'-0"
 0 4 8 16 32

CONTRACTOR
 - - - - -
 010-010-2444

DATE
 02/12/20
 02/24/20
 07/20/20

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 HARDEEVILLE, SOUTH CAROLINA

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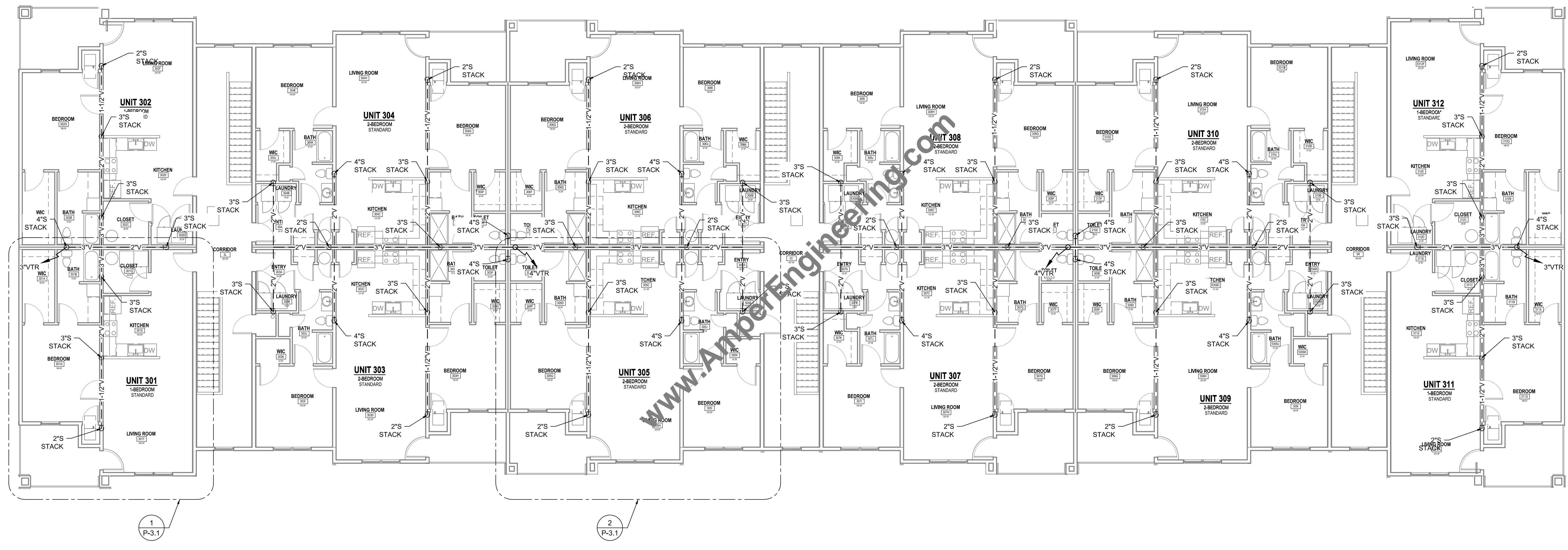
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DRAWING TITLE:
 DWV PLUMBING
 2ND FLOOR PLAN

DRAWING NUMBER:

P-2.4



1 DWV PLUMBING 3RD FLOOR PLAN
 SCALE: 1/8" = 1'-0"
 0 4 8 16 32

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DWV PLUMBING
3RD FLOOR PLAN
 DRAWING NUMBER:

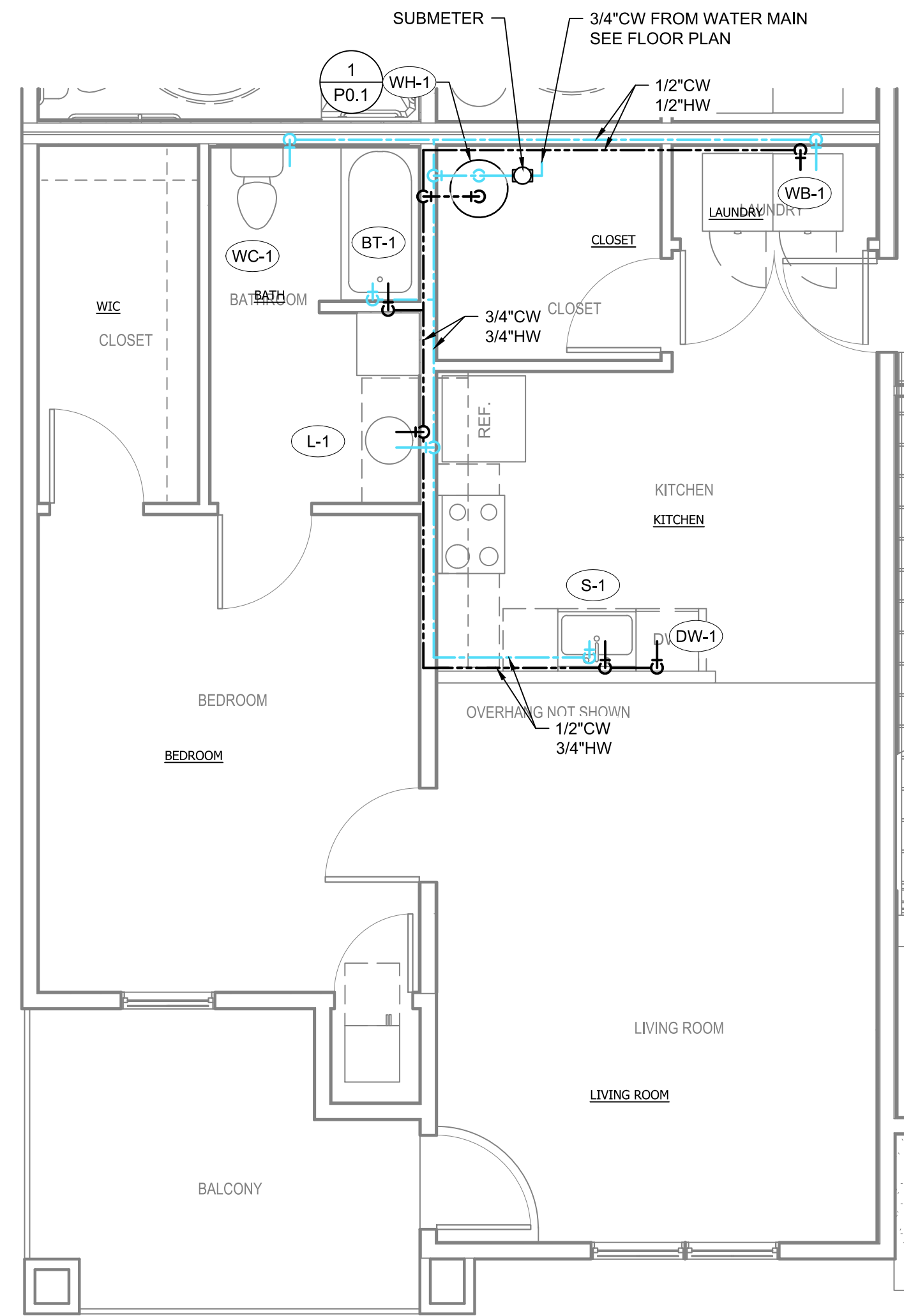
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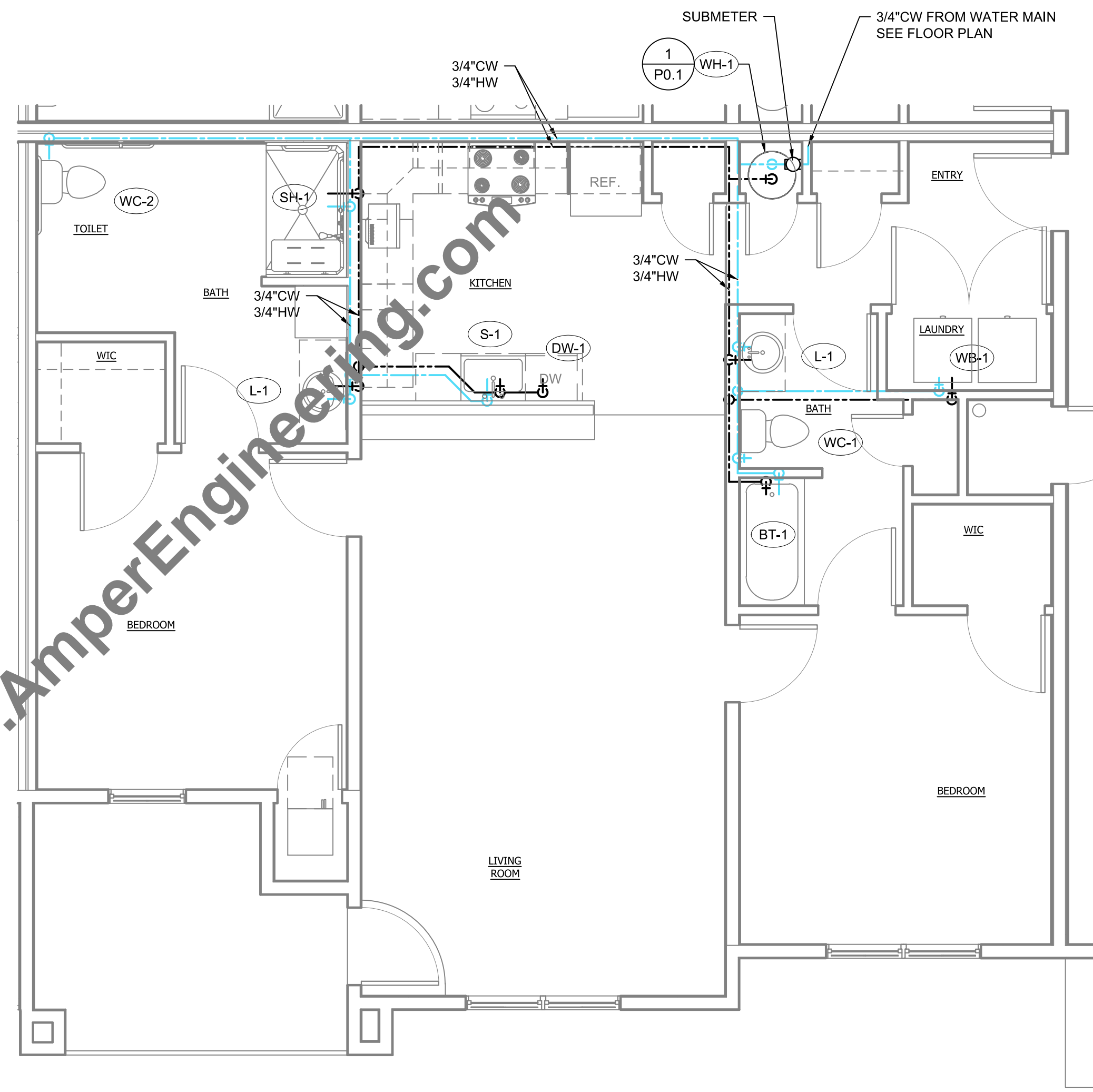
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- ALL WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH THE CURRENT STATE AND LOCAL PLUMBING CODES AND ORDINANCES.
- CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- COORDINATE EXACT LOCATION OF PIPING WITH OTHER TRADES.



1 1-BEDROOM UNIT WATER PLUMBING PLAN
 SCALE: 1/4" = 1'-0"
 0 2 4 8 16



2 2-BEDROOM UNIT WATER PLUMBING PLAN
 SCALE: 1/4" = 1'-0"
 0 2 4 8 16

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DRAWING TITLE:
 WATER PLUMBING
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DRAWING NUMBER:

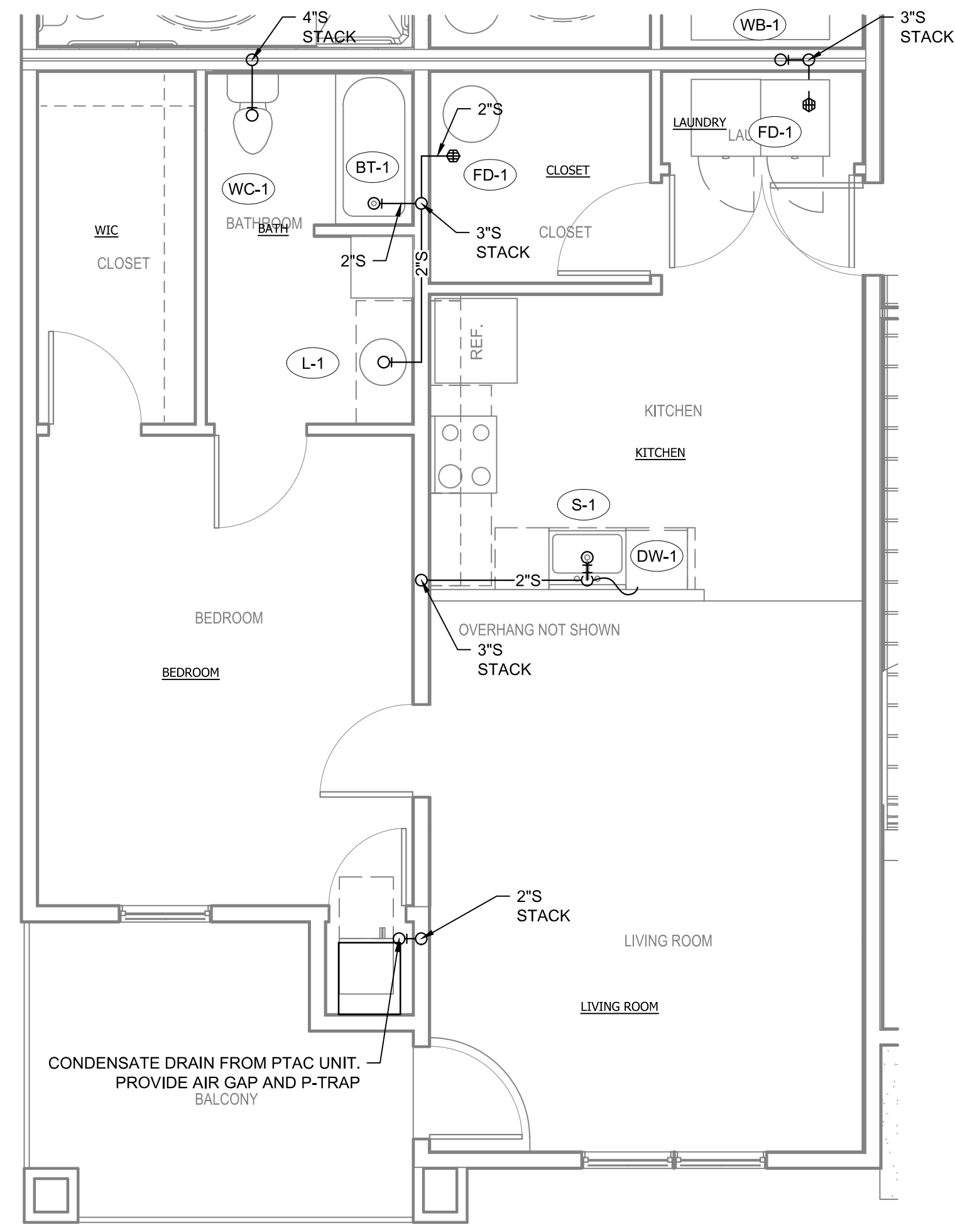
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- COORDINATE EXACT LOCATION OF PIPING WITH OTHER TRADES.
- SLOPE ALL SEWERS 1/4" PER FOOT WHEN POSSIBLE. NO LINES SHALL BE LESS THAN 1/8" PER FOOT.
- ALL VENT PIPING SHALL BE ABOVE FLOOD RIM LEVEL OF HIGHEST FIXTURE BEFORE CONNECTION TO COMMENT VENTS.
- HORIZONTAL DRAINAGE PIPE SHALL BE PROVIDED WITH A CLEANOUT AT ITS UPPER TERMINAL. AND EACH RUN OF PIPING, THAT IS MORE THAN 100' IN TOTAL DEVELOPED LENGTH. CLEANOUTS SHALL BE PROVIDED IN A DRAINAGE LINE FOR EACH AGGREGATE HORIZONTAL CHANGE OF DIRECTION EXCEEDING ONE HUNDRED THIRTY FIVE DEGREES.

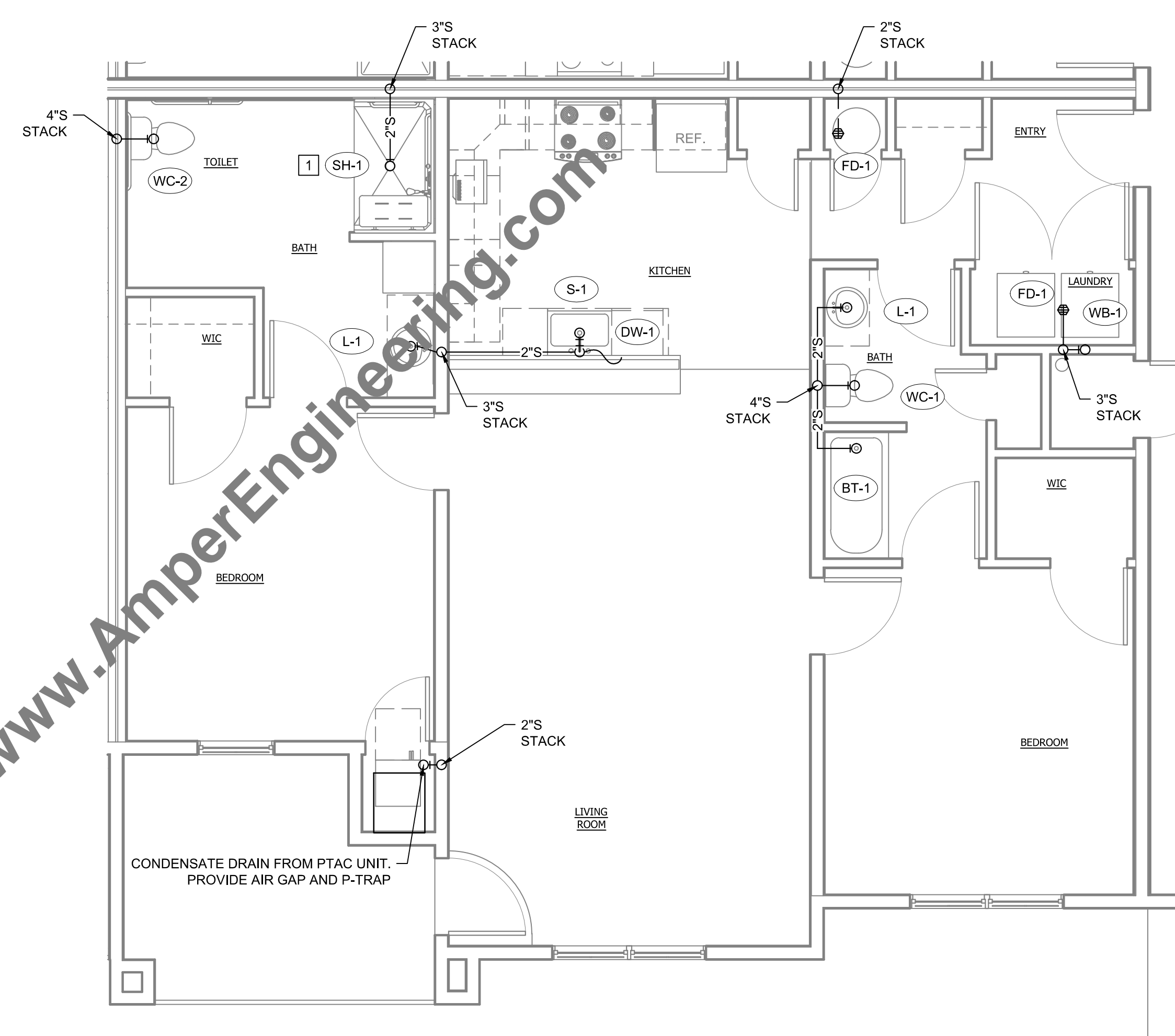
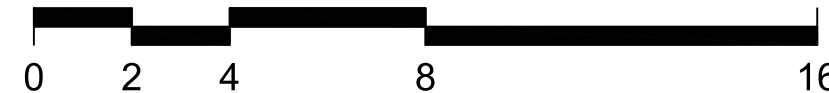
KEY NOTES

- ADA SHOWER TO BE RECESSED 3/4" INTO THE SLAB ON GRADE CONCRETE



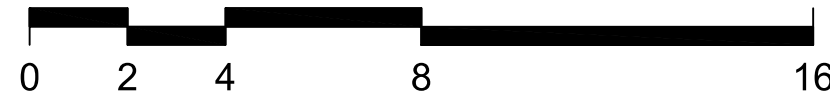
1 1-BEDROOM UNIT DWV PLUMBING PLAN

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



2 2-BEDROOM UNIT DWV PLUMBING PLAN

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



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NEW CONSTRUCTION FOR
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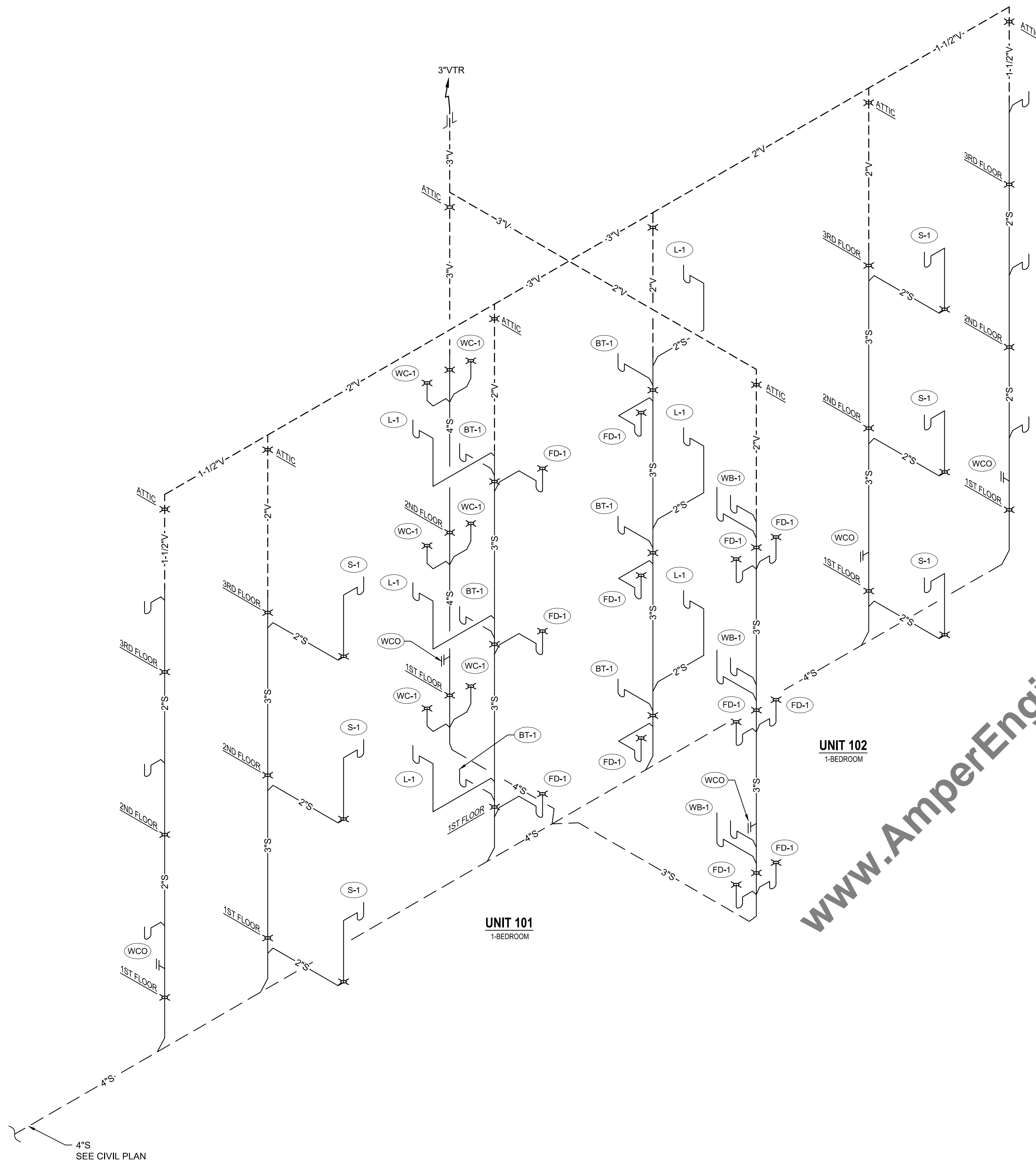
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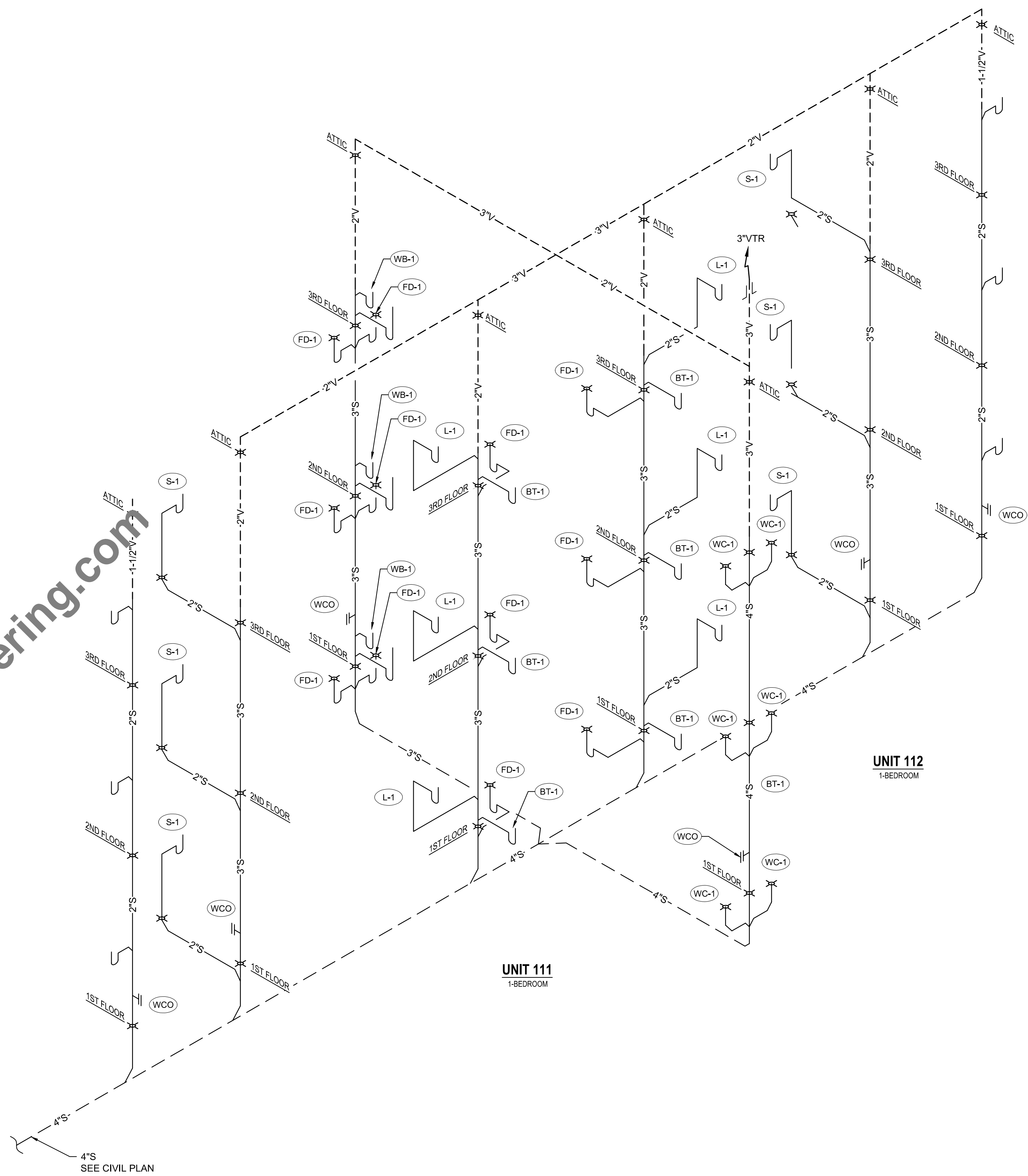
DRAWING TITLE:
 DWV PLUMBING
 ENLARGED PLANS

DRAWING NUMBER:

P-3.1



1 DWV PIPING DIAGRAM (UNITS X01, X02)
SCALE: NTS



2 DWV PIPING DIAGRAM (UNITS X11, X12)
SCALE: NTS



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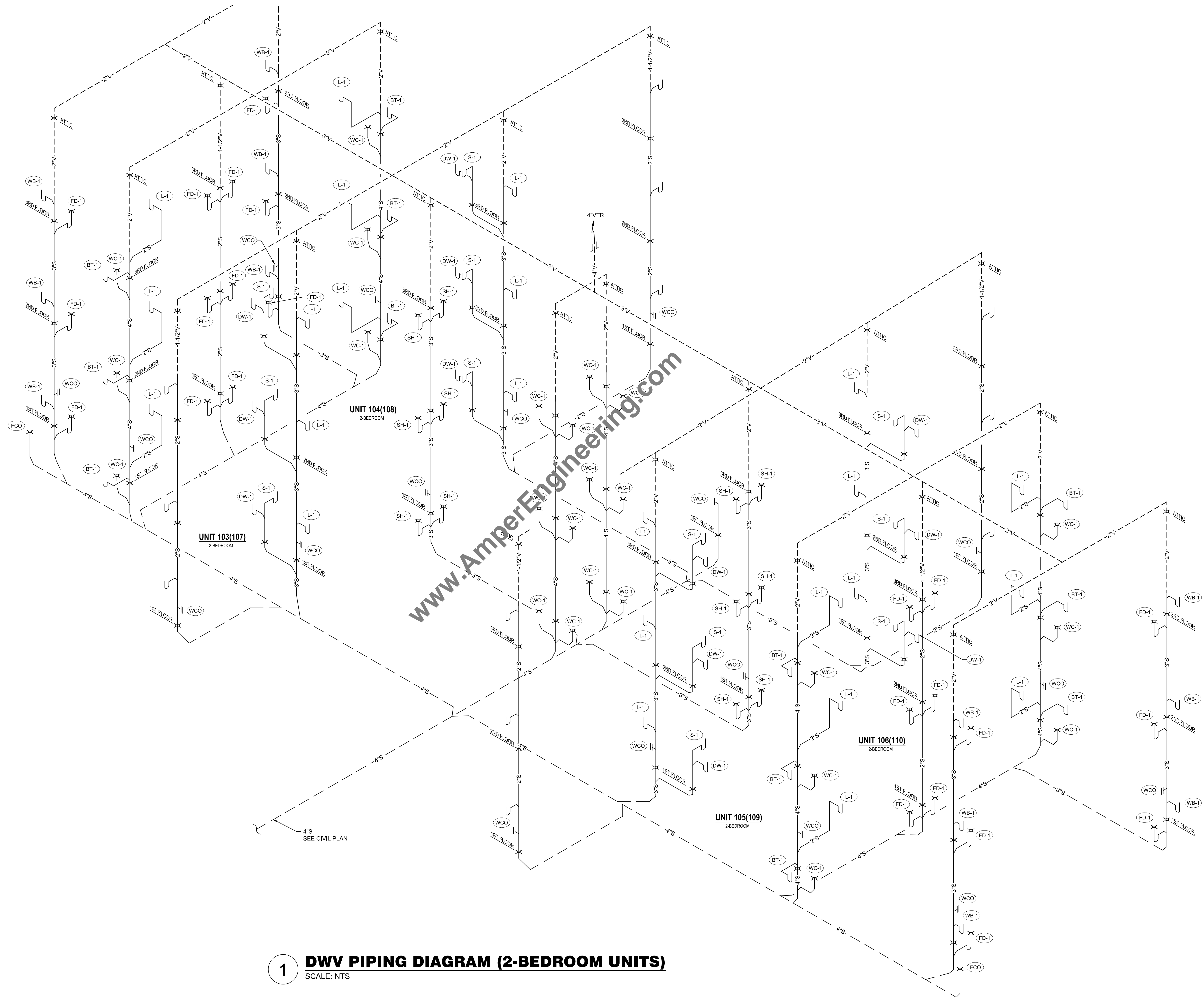
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DRAWING TITLE:
DWV PIPING
DIAGRAM
(1-BEDROOM UNITS)

DRAWING NUMBER:

P-4.0



1 DWV PIPING DIAGRAM (2-BEDROOM UNITS)
SCALE: NTS



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DRAWING TITLE:
DWV PIPING
DIAGRAM
(2-BEDROOM UNITS)
DRAWING NUMBER:

P-4.1