GENERAL PLUMBING NOTES

1. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. IT IS INTENDED THAT A COMPLETE PLUMBING SYSTEM BE PROVIDED WITH ALL NECESSARY EQUIPMENT, ACCESSORIES, AND CONTROLS COMPLETELY COORDINATED WITH ALL TRADES. ALL REQUIREMENTS GIVEN IN THESE DOCUMENTS SHALL BE STRICTLY CONFORMED TO. ANY ITEMS AND LABOR REQUIRED FOR A COMPLETE PLUMBING SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS, LOCAL AUTHORITIES, AND THESE CONTRACT DOCUMENTS SHALL BE FURNISHED WITHOUT INCURRING ANY ADDITIONAL COST TO THE OWNER. CAREFULLY REVIEW ALL CONTRACT DOCUMENTS AND THE DESIGN OF OTHER TRADES BEFORE PREPARING SHOP DRAWINGS.
2. COORDINATE ALL WORK WITH ARCHITECTURAL, STRUCTURAL, HVAC, AND ELECTRICAL TRADES. PIPE ROUTING SHOWN IS DIAGRAMMATIC. PROVIDE ALL OFFSETS, ETC., TO AVOID INTERFERENCES WITH EQUIPMENT, PIPING, DUCTWORK, LIGHTS, CONDUIT, ETC.
3. FIELD VERIFY EXACT SIZE, MATERIAL, AND LOCATION OF ALL EXISTING UTILITIES BEFORE BEGINNING WORK.
4. VERIFY LOCATION OF ALL FIXTURES WITH ARCHITECTURAL PLANS.
5. VERIFY ALL FIXTURE MOUNTING HEIGHTS WITH ENGINEER AND ARCHITECT.
6. COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL DRAWINGS. SET SLEEVES IN FLOORS/WALLS AND ATTACHMENTS FOR HANGERS AS CONSTRUCTION PROGRESSES. ALL PENETRATIONS MUST BE SEALED AND HELD AS TIGHT TO COLUMNS OR WALLS AS POSSIBLE.
7. PROVIDE 12"X12" ACCESS PANEL FOR SHOCK ABSORBERS, TRAP PRIMERS, AND ALL VALVES LOCATED ABOVE NON-ACCESSIBLE CEILINGS AND INSIDE PIPE CHASES. EXACT LOCATION MUST BE COORDINATED WITH ARCHITECTURAL AND APPROVED BY ARCHITECT PRIOR TO INSTALLATION.
8. ALL PIPING SHALL BE CONCEALED INSIDE WALLS, WITHIN PIPE CHASES, OR ABOVE CEILINGS. HOLD ALL PIPING ABOVE CEILING AS HIGH AS POSSIBLE.
9. COORDINATE ALL UNDERGROUND PIPING WITH GRADE BEAMS, WALL FOOTINGS, AND OTHER STRUCTURAL CONDITIONS.
10. PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL EQUIPMENT INDICATED ON DRAWINGS FINAL CONNECTION SHALL INCLUDE ANY ADAPTORS, NIPPLES, SHUT-OFF VALVES, PRV'S, SHOCK ABSORBERS, BACKFLOW PREVENTION DEVICES, REGULATORS, ETC.
11. ALL STRUCTURAL PENETRATIONS (SLEEVES, BLOCK OUTS, ETC.) ARE TO BE LOCATED AND COORDINATED IN THE FIELD BY THE CONTRACTOR IN RELATION TO THE REQUIREMENTS OF FINAL EQUIPMENT AND FIXTURES SELECTED.
12. CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL DOMESTIC WATER AND SANITARY SEWERS, UNLESS OTHERWISE NOTED.
13. ALL PLUMBING COMPONENTS TO BE LEAD-FREE.
14. ENCASE ALL WASTE/WATER PIPING, VALVES, WATER HEATER, OR ANY OTHER ASSOCIATED PLUMBING EQUIPMENT BELOW WALL HUNG LAVATORY, WITH TRUEBRO LAV-SHIELD (OR APPROVED EQUAL). THIS APPLIES TO ALL ADA LAVS, LAVS WITH MIXING VALVES MOUNTED BELOW LAV, AND ALL LAVS THAT INCLUDE INSTANTANEOUS ELECTRIC WATER HEATERS MOUNTED BELOW LAVS. LAV GUARD SHALL INCLUDE STAINLESS STEEL TAMPER RESISTANT SCREWS. LAV-SHIELD SHALL BE ORDERED TO MATCH SPECIFIED/APPROVED LAVATORY.
15. HORIZONTAL DRAINAGE PIPING OF 2-1/2" DIAMETER OR LESS SHALL BE INSTALLED WITH A FALL OF NOT LESS THAN 1/4" PER FOOT. PIPING 3" AND LARGER SHALL BE INSTALLED WITH A FALL OF NOT LESS THAN 1/8" PER FOOT.
16. SET FLOOR DRAIN ELEVATION DEPRESSED BELOW FINISHED SLAB ELEVATION AS LISTED BELOW TO PROVIDE PROPER FLOOR SLOPE TO DRAIN:
    5 FOOT DRAIN RADIUS : 1/2" DEPRESSION
    10 FOOT DRAIN RADIUS : 3/4" DEPRESSION
    15 FOOT DRAIN RADIUS : 1" DEPRESSION
    20 FOOT DRAIN RADIUS : 1-1/4" DEPRESSION
    25 FOOT DRAIN RADIUS ; 1-1/2" DEPRESSION
17. ALL TRAP ARMS, P-TRAPS, ETC. EXPOSED UNDER LAVATORIES SHALL BE 18. GA. CHROME PLATED.
18. ABOVE GROUND DRAINAGE AND VENT PIPING LOCATED WITHIN FIRE RATED WALLS SHALL BE COPPER PIPE IN ACCORDANCE WITH STANDARDS ASTM B42 AND B302 OR CAST IRON PIPE IN ACCORDANCE WITH STANDARDS ASTM A 74; ASTM A 888; CISPI 301. COORDINATE WITH ARCHITECTURAL LIFE SAFETY PLANS FOR EXACT LOCATION OF ALL FIRE WALLS.
19. COORDINATE ALL FLOOR SINK GRATE ORIENTATIONS AND REQUIRED OPEN SPACES (1/2 GRATE, 3/4 GRATE, ETC.) WITH KITCHEN CONSULTANT, ARCHITECT, OR ENGINEER.
20. ALL SANITARY SEWER PIPING ROUTED BELOW BUILDING AND 10' BEYOND BUILDING FOOTINGS, SHALL BE CAST IRON.
21. INSTALL ANGLE COVER OVER CONDENSATE LINES, SPRINKLER LINES, ETC. THAT CROSS MEZZANINE/MECH ROOM FLOOR WHERE TRIPPING MIGHT BE A HAZARD. PRIME AND PAINT ANGLE COVER SAFETY YELLOW COLOR.
22. VERIFY ORIENTATION OF FLUSHING MECHANISM ON TOILET/URINAL WITH ARCHITECT/ENGINEER PRIOR TO ROUGH-IN.
23. PROVIDE WATER PRESSURE REDUCING/REGULATING VALVE ON MAIN SERVICE WHEN MAIN PRESSURE EXCEEDS 75 PSI AT ANY TIME OF DAY. COORDINATE WITH LOCAL UTILITY.
24. PROVIDE REDUCED PRESSURE BACKFLOW PREVENTER AT ALL CONNECTIONS TO MECHANICAL EQUIPMENT. KITCHEN AND LAUNDRY EQUIPMENT, ETC., AS REQUIRED BY CODE AND BY LOCAL AUTHORITY. CONTRACTOR IS TO VERIFY WITH THE LOCAL AUTHORITY THE TYPE OF BACKFLOW PREVENTION DEVICE REQUIRED FOR ALL APPLICATIONS PRIOR TO INSTALLATION.
25. ALL OVERHEAD WATER PIPING SHALL BE INSTALLED BELOW CEILING INSULATION.
26. INSTALL BACKFLOW PREVENTION IN ACCORDANCE WITH CITY AND STATE REQUIREMENTS. INSTALL ON MAIN DOMESTIC WATER SERVICE TO THE BUILDING.
27. CONTRACTOR SHALL INSTALL WATER HAMMER ARRESTER EQUAL TO ZURN SERIES 1700 AT EACH PLUMBING GROUP.
28. CONTRACTOR TO FURNISH AND INSTALL ANTI-SIPHON VALVE ON EACH WATER HEATER.
29. CONTRACTOR SHALL FURNISH AND INSTALL BALL VALVES FOR WATER SHUT-OFF AT FIXTURE GROUPINGS.
30. TRAP PRIMERS TO BE PRECISION PLUMBING PRODUCTS MODEL NO. PO-500 WITH A6-500 AIR GAPS OR APPROVED EQUAL. DISTRIBUTION CUP (DU-4) ABOVE CEILING OR BEHIND ACCESS PANEL FOR UP TO FOUR FLOOR DRAINS.
31. ALL STOPS/SUPPLIES SHALL BE CHROME PLATED BRASS.

GAS PLUMBING NOTES

1. ALL GAS PIPING SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH NFPA 54, INTERNATIONAL FUEL GAS CODE.
2. ALL EXPOSED INTERIOR OR EXTERIOR GAS LINES ARE TO BE PAINTED BY THE PLUMBING CONTRACTOR WITH ONE COAT OF LATEX PAINT. INTERIOR COLOR TO MATCH WALL. EXTERIOR COLOR TO BE SELECTED BY ARCHITECT.
3. PROVIDE INSULATING UNION BETWEEN ABOVE AND BELOW GROUND GAS PIPING.
4. LABEL ALL 2PSIG GAS PIPING IN ACCORDANCE WITH 2015 INTERNATIONAL CODES (6 FT. CENTERS).
5. FURNISH AND INSTALL GAS PRESSURE REGULATING/REDUCING VALVES WITH LEAK LIMITING DEVICE AT EACH APPLIANCE. WHERE REGULATORS ARE NOT SELF-LIMITING TYPE, VENTS SHALL BE EXTENDED TO THE BUILDING EXTERIOR.
6. UNDERGROUND GAS PIPING TO BE ASTM D 2513, POLYETHYLENE, DR 11 OR DR 11.5. REFERENCE GAS PLUMBING PLAN FOR PRESSURE OF UNDERGROUND GAS PIPING.
7. FURNISH AND INSTALL STEEL RISER TO A MINIMUM DEPTH OF 36" BELOW GRADE AT ALL LOCATIONS WHERE PE GAS PIPING RISES ABOVE GRADE.

PLUMBING LEGEND

SS	SANITARY SEWER	C.O.	CLEANOUT UP TO GRADE
GW	GREASE WASTE		FLOOR DRAIN
GO	GREASE/OIL WASTE		FLOOR SINK
V	VENT		HUB DRAIN
VBG	VENT BELOW GRADE/FLOOR		GRIT/SAND TRAP
CW	COLD WATER		HOT WATER RETURN PUMP
110	110° HOT WATER	SV	BALL VALVE
140	140° HOT WATER		BALL VALVE IN PLASTIC METER BOX W/ CAST IRON LID
140HWR	140° HOT WATER RETURN		GAS COCK
NG	NATURAL GAS		CHECK VALVE
CD	CONDENSATE DRAIN		BUTTERFLY VALVE
A	COMPRESSED AIR (SHOP)		THREE WAY VALVE
------------	1/2" TRAP PRIMER LINE	VTR	VENT THRU ROOF
		AAV	AIR ADMITTANCE VALVE (SBCCI APPROVED)

MIXING VALVE SCHEDULE

MARK NO.	MANUFACTURER'S MODEL NO.	TEMPERATURE (°F)	INLET	OUTLET
MV-1	POWERS SERIES LFLM495 BELOW SINK	SET AT 90°-110°	1/2"	1/2"
MV-2	POWERS SERIES LFLM496 ABOVE CEILING THERMOSTATIC MIXING VALVE	SET AT 90°-110°	3/4"	3/4"

NOTES:
1. UNLESS OTHERWISE NOTED, MIXING VALVES SHALL CONFORM TO ASSE 1070 AND ASSE 1017

CONDENSATE PLUMBING NOTES

1. CONDENSATE PIPING, FITTINGS, & ACCESSORIES SHALL BE PROVIDED & INSTALLED IN ACCORDANCE WITH 2024 IMC SECTION 307.
2. SLOPE ALL CONDENSATE 1/8 INCH/FT (1% SLOPE)
3. CONDENSATE TO ALL UNITS SHALL BE IN ACCORDANCE W/ MANUFACTURER'S RECOMMENDATIONS AND THE INTERNATIONAL MECHANICAL CODE, SECTION 307 (2024 IMC)
4. ALL CONDENSATE FITTING SHALL BE SANITARY TYPE FITTINGS.
5. ALL CONDENSATE PIPING SHALL BE INSULATED WITH 1/2" ARMAFLEX INSULATION (OR APPROVED EQUAL). INSULATION SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATION.
6. ALL CONDENSATE DRAIN PIPING LOCATED WITHIN RETURN AIR PLENUM, SHALL BE TYPE "L" COPPER. ALL COPPER PIPING MUST BE INSULATED WITH 1/2" ARMAFLEX OR APPROVED EQUAL. PIPING CAN ALSO BE SCHEDULE 40 CPVC WITH 3M FIRE BARRIER PLENUM WRAP 5A+ OR APPROVED EQUAL. COORDINATE WITH HVAC PLAN FOR REQUIREMENT AND LOCATION OF AIR PLENUM(S).
7. INSTALL ANGLE COVER OVER CONDENSATE LINES THAT CROSS MEZZANINE/MECHANICAL ROOM FLOOR WHERE TRIPPING MIGHT BE A HAZARD. PRIME AND PAINT ANGLE COVER SAFETY YELLOW COLOR.
8. DUCTLESS MINI-SPLIT EQUIPMENT THAT PRODUCES CONDENSATE SHALL BE PROVIDED WITH AN IN-LINE CHECK VALVE LOCATED IN THE DRAIN LINE OR TRAP. COORDINATE WITH MANUFACTURER'S RECOMMENDATIONS.
9. AN AUXILIARY DRAIN PAN WITHOUT A SEPARATE DRAIN LINE SHALL BE PROVIDED UNDER THE COILS ON WHICH CONDENSATE WILL OCCUR. SUCH PAN SHALL BE EQUIPPED WITH A WATER-LEVEL DETECTION DEVICE CONFORMING TO UL 508 THAT WILL SHUT OFF THE EQUIPMENT SERVED PRIOR TO OVERFLOW OF THE PAN. THE AUXILIARY DRAIN PAN SHALL HAVE A MINIMUM DEPTH OF 1-1/2 INCHES, SHALL BE NOT LESS THAN 3 INCHES LARGER THAN THE UNIT, OR THE COIL DIMENSIONS IN WIDTH AND LENGTH AND SHALL BE CONSTRUCTED OF CORROSION-RESISTANT MATERIAL. GALVANIZED SHEET STEEL PANS SHALL HAVE A MINIMUM THICKNESS OF NOT LESS THAN 0.0236 INCH (NO 24 GAGE). NONMETALLIC PANS SHALL HAVE A MINIMUM THICKNESS OF NOT LESS THAN 0.0625 INCH.
10. A WATER-LEVEL DETECTION DEVICE CONFORMING TO UL 508 SHALL BE PROVIDED THAT WILL SHUT OFF THE EQUIPMENT SERVED IN THE EVENT THAT THE PRIMARY DRAIN IS BLOCKED. THE DEVICE SHALL BE INSTALLED IN THE PRIMARY DRAIN LINE, THE OVERFLOW DRAIN LINE, OR IN THE EQUIPMENT-SUPPLIED DRAIN PAN, LOCATED AT A POINT HIGHER THAN THE PRIMARY DRAIN LINE CONNECTION AND BELOW THE OVERFLOW RIM OF SUCH PAN.
11. WATER-LEVEL MONITORING DEVICES : ON DOWN-FLOW UNITS AND ALL OTHER COILS THAT DO NOT HAVE A SECONDARY DRAIN OR PROVISIONS TO INSTALL A SECONDARY OR AUXILIARY DRAIN PAN, A WATER-LEVEL MONITORING DEVICE SHALL BE INSTALLED INSIDE THE PRIMARY DRAIN PAN. THIS DEVICE SHALL SHUT OFF THE EQUIPMENT SERVED IN THE EVENT THAT THE PRIMARY DRAIN BECOMES RESTRICTED. DEVICES INSTALLED IN THE DRAIN LINE SHALL NOT BE PERMITTED.
12. APPLIANCE, EQUIPMENT AND INSULATION IN PANS : WHERE APPLIANCES, EQUIPMENT OR INSULATION ARE SUBJECT TO WATER DAMAGE WHEN AUXILIARY DRAIN PANS FILL, THAT PORTION OF THE APPLIANCE, EQUIPMENT AND INSULATION SHALL BE INSTALLED ABOVE THE RIM OF THE PAN. SUPPORTS LOCATED INSIDE OF THE PAN TO SUPPORT THE APPLIANCE OR EQUIPMENT SHALL BE WATER RESISTANT AND APPROVED.
13. TRAPS : CONDENSATE DRAINS SHALL BE TRAPPED AS REQUIRED BY THE EQUIPMENT OR APPLIANCE MANUFACTURER.
14. DUCTLESS MINI-SPLIT SYSTEM TRAPS : DUCTLESS MINI-SPLIT EQUIPMENT THAT PRODUCES CONDENSATE SHALL BE PROVIDED WITH AN INLINE CHECK VALVE LOCATED IN THE DRAIN LINE, OR A TRAP.
15. CONDENSATE PUMPS : CONDENSATE PUMPS LOCATED IN UNINHABITABLE SPACES, SUCH AS ATTICS AND CRAW SPACES, SHALL BE CONNECTED TO THE APPLIANCE OR EQUIPMENT SERVED SUCH THAT WHEN THE PUMP FAILS, THE APPLIANCE OR EQUIPMENT WILL BE PREVENTED FROM OPERATING PUMPS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

CODES AND STANDARDS

2021 INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL MECHANICAL CODE
2021 INTERNATIONAL FUEL GAS CODE
2021 INTERNATIONAL FIRE CODE
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

PLUMBING EQUIPMENT SCHEDULE

MARK NO.	FIXTURE TYPE	MANUFACTURER'S MODEL NO.	MOUNT	MOUNT HEIGHT	WASTE SIZE	VENT SIZE	C.W. SIZE	H.W. SIZE	NOTES
WC-1	WATER CLOSET FLUSH VALVE	ZURN MODEL NO. Z5655.395 1.1 GALLONS PER FLUSH OR APPROVED EQUAL	FLOOR	14" TO RIM	4"	2"	1 1/4"	–	WHITE ELONGATED VITREOUS CHINA, FLUSH VALVE WALL SUPPORT, WHITE OPEN FRONT SOLID PLASTIC SEAT, BOLT CAPS, 12" ROUGH-IN, ZURN BATTERY OPERATED ZTR6200-ONE FLUSHOMETER VALVE W/ MANUAL OVERIDE
WC-1A	WATER CLOSET FLUSH VALVE ADA	ZURN MODEL NO. Z5665-BWL1 1.1 GALLONS PER FLUSH OR APPROVED EQUAL	FLOOR	16-1/8" TO RIM	4"	2"	1 1/4"	–	WHITE ELONGATED VITREOUS CHINA, FLUSH VALVE WALL SUPPORT, WHITE OPEN FRONT SOLID PLASTIC SEAT, BOLT CAPS, HCP, 12" ROUGH-IN ZURN BATTERY OPERATED ZTR6200-ONE FLUSHOMETER VALVE W/ MANUAL OVERIDE
U-1	URINAL	ZURN MODEL NO. Z5798 OR APPROVED EQUAL	WALL	24" TO LIP	2"	1-1/4"	1"	–	WHITE VITREOUS CHINA, ZURN ZTR6203-ULF BATTERY OPERATED FV, BOLT CAPS, WALL HANGER, 1/8 GAL. VERSION
U-1A	URINAL ADA	ZURN MODEL NO. Z5798 OR APPROVED EQUAL	WALL	17" TO LIP	2"	1-1/4"	1"	–	WHITE VITREOUS CHINA, ZURN ZTR6203-ULF BATTERY OPERATED FV, BOLT CAPS, WALL HANGER, 1/8 GAL. VERSION
L-1	LAVATORY 20"X18"	ZURN MODEL NO. Z5344 OR APPROVED EQUAL	WALL	31" TO LIP	1-1/4"	1-1/4"	1/2"	1/2"	WHITE VITREOUS CHINA, OPEN GRID STRAINER, P-TRAP W CLEANOUT, SLOAN EBF 85 BATTERY OPERATED, 0.5 GPM, P-TRAP W/ CLEANOUT, CONCEALED ARM CARRIER, SUPPLIES W/ STOPS
L-1A	LAVATORY, ADA 20"X18"	ZURN MODEL NO. Z5344 OR APPROVED EQUAL	WALL	34" TO LIP	1-1/4"	1-1/4"	1/2"	1/2"	WHITE VITREOUS CHINA, OPEN GRID STRAINER, P-TRAP W CLEANOUT, SLOAN EBF 85 BATTERY OPERATED, 0.5 GPM, P-TRAP W/ CLEANOUT, CONCEALED ARM CARRIER, SUPPLIES W/ STOPS
L-2	LAVATORY 20"X17"	ZURN MODEL NO. Z5114 OR APPROVED EQUAL	CABINET	–	1-1/4"	1-1/4"	1/2"	1/2"	WHITE VITREOUS CHINA, OPEN GRID STRAINER, P-TRAP W CLEANOUT, SLOAN EBF 85 BATTERY OPERATED, 0.5 GPM, P-TRAP W/ CLEANOUT, CONCEALED ARM CARRIER, SUPPLIES W/ STOPS
SS-1	SERVICE SINK	FIAT MODEL NO. MSB-2424 OR APPROVED EQUAL	FLOOR	SEE DETAIL	3"	2"	1/2"	1/2"	MOLDED-STONE, DELTA NO. 28T8183, 3" IPS STRAINER, POLISHED CHROME FAUCET WITH VACUUM BREAKER, HOSE/ WALL BRACKET, MOP HANGER
S-1	STAINLESS SINK TWO COMPARTMENT	JUST MODEL NO. DL-2133-A-GR OR APPROVED EQUAL	CABINET	–	1-1/2"	1-1/4"	1/2"	1/2"	ELKAY MODEL NO. LK-335 STRAINER, DELTA MODEL NO. 100LF-HDF (1.5 GPM) FAUCET, SUPPLIES WITH STOPS, P-TRAP WITH CLEANOUT, 8" BOWL DEPTH
SH-1	SHOWER BUILT-IN	BUILT-IN OR APPROVED EQUAL	FLOOR	–	2"	2"	1/2"	1/2"	DELTA MODEL T13291 VALVE W/ DELTA NO. RP38357 1.75 GPM SHOWER HEAD ZURN MODEL ZN-415 5" DIA. NICKEL BRONZE SHOWER DRAIN

EQUALS BY ELJER, KOHLER, TOTO, AND AMERICAN STANDARD WILL BE ACCEPTED.

PLUMBING SPECIALITY SCHEDULE

MARK NO.	FIXTURE TYPE	MANUFACTURER'S MODEL NO.	MOUNT	MOUNT HEIGHT	WASTE SIZE	VENT SIZE	C.W. SIZE	H.W. SIZE	MIXED WATER SIZE	NOTES
FD-1	FLOOR DRAIN	ZURN MODEL NO. ZN-415B-P OR APPROVED EQUAL	FLOOR	–	4"	2"	1/2"	–	–	5" DIA. NICKEL BRONZE ADJUSTABLE TOP 1/2" TRAP PRIMER W/ PROSET SYSTEM INC. TG34IP RETROFIT TRAP GUARD
FD-2	FLOOR DRAIN (SHOWER)	ZURN MODEL NO. ZN-415-B OR APPROVED EQUAL	FLOOR	–	2"	2"	–	–	–	5" DIA. NICKEL BRONZE ADJUSTABLE TOP
FD-3	FLOOR DRAIN (KITCHEN)	ZURN MODEL NO. ZN-513-AR-P OR APPROVED EQUAL	FLOOR	–	4"	2"	1/2"	–	–	9"X9" NICKEL BRONZE ADJUSTABLE TOP, ACID RESISTANT 1/2" TRAP PRIMER W/ PROSET SYSTEM INC. TG34IP RETROFIT TRAP GUARD
FS-1	FLOOR SINK (KITCHEN)	ZURN MODEL NO. ZN-1910-1 OR APPROVED EQUAL	FLOOR	–	4"	2"	–	–	–	8"X8" TOP, DOME STRAINER, WHITE ACID RESISTANT INTERIOR, ALUM. BUCKET W/ SST LINER, LESS GRATE
HD-1	HUB DRAIN	PROSET MODEL SYSTEM INC. MODEL NO. TG34IP OR APPROVED EQUAL	FLOOR	–	4"	2"	1/2"	–	–	STUB TO 1" A.F.F. 1/2" TRAP PRIMER
WH-1	WALL HYDRANT	WOODFORD MODEL NO. B65 OR APPROVED EQUAL	WALL	18" TO 24"	–	–	3/4"	–	–	FREEZELESS, ANTI-SIPHON, LOCKING BOX
WB-1	ICEMAKER WALLBOX	OATEY MODEL NO. 38574 OR APPROVED EQUAL	WALL	36" A.F.F.	–	–	1/2"	–	–	1/4 TURN BRASS BALL VALVE – COPPER SWEAT – STANDARD PACK WITH 6' STAINLESS STEEL HOSE
F.C.O.	FLOOR CLEANOUT	ZURN MODEL NO. ZN-1400-2 OR APPROVED EQUAL	FLOOR	–	4"	–	–	–	–	6" DIA. ADJUSTABLE NICKEL BRONZE TOP
W.C.O.	WALL CLEANOUT	ZURN MODEL NO. Z-1441 OR APPROVED EQUAL	WALL	–	4"	–	–	–	–	7" DIA. STAINLESS STEEL COVER
W.H.A.	WATER HAMMER ARRESTOR	ZURN SERIES 1700 OR APPROVED EQUAL	–	–	–	–	VARIES	VARIES	–	

EQUALS BY SMITH OR JONES WILL BE ACCEPTED

ELECTRIC WATER COOLER SCHEDULE

MARK NO.	FIXTURE TYPE	MANUFACTURER'S MODEL NO.	MOUNT	MOUNT HEIGHT	WASTE SIZE	VENT SIZE	C.W. SIZE	NOTES
EWC-1	ELECTRIC WATER COOLER, ADA SPLIT LEVEL	ELKAY MODEL NO. EZSTL8WSLK OR APPROVED EQUAL	WALL	34-1/2" TO NOZ. CENTER	1-1/4"	1-1/4"	1/2"	ADA MOUNTED AT 34.5" AFF TO NOZZLE CENTERLINE, STAINLESS STEEL W/ TRIM BEZEL, WITH BOTTLE FILLING STATION, FILTER, MOUNTING KIT

PLUMBING DRAWING INDEX

SHEET NO.	SHEET TITLE
RP1.1	READINESS CENTER – PLUMBING SCHEDULES, LEGEND, AND NOTES
RP1.2	READINESS CENTER – PLUMBING SCHEDULES AND DETAILS
RP1.3	READINESS CENTER – PLUMBING DETAILS
RP2.1	READINESS CENTER – WASTE & CONDENSATE PLUMBING PLAN – ZONE A
RP2.1	READINESS CENTER – WASTE & CONDENSATE PLUMBING PLAN – ZONE B
RP2.1	READINESS CENTER – WASTE & CONDENSATE PLUMBING PLAN – ZONE C
RP2.1	READINESS CENTER – WASTE & CONDENSATE PLUMBING PLAN – ZONE D
RP3.1	READINESS CENTER – WATER & GAS PLUMBING PLAN – ZONE A
RP3.2	READINESS CENTER – WATER & GAS PLUMBING PLAN – ZONE B
RP3.3	READINESS CENTER – WATER PLUMBING PLAN – ZONE C
RP3.4	READINESS CENTER – WATER & GAS PLUMBING PLAN – ZONE D
RP4.1	READINESS CENTER – WASTE PLUMBING RISER DIAGRAM – ZONES A & C
RP4.2	READINESS CENTER – WASTE PLUMBING RISER DIAGRAM – ZONES B & D
RP4.3	READINESS CENTER – WATER PLUMBING RISER DIAGRAMS
RP4.4	READINESS CENTER – GAS PLUMBING RISER DIAGRAM

READINESS CENTER - PLUMBING SCHEDULES, LEGEND, AND NOTES

NOT TO SCALE

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Rev.	Description	Date

Job Number 21112
AL ARNG IFB # AC-25-B-0006-S
Date NOVEMBER 1, 2024
Drawn By TMW
Checked By RDW

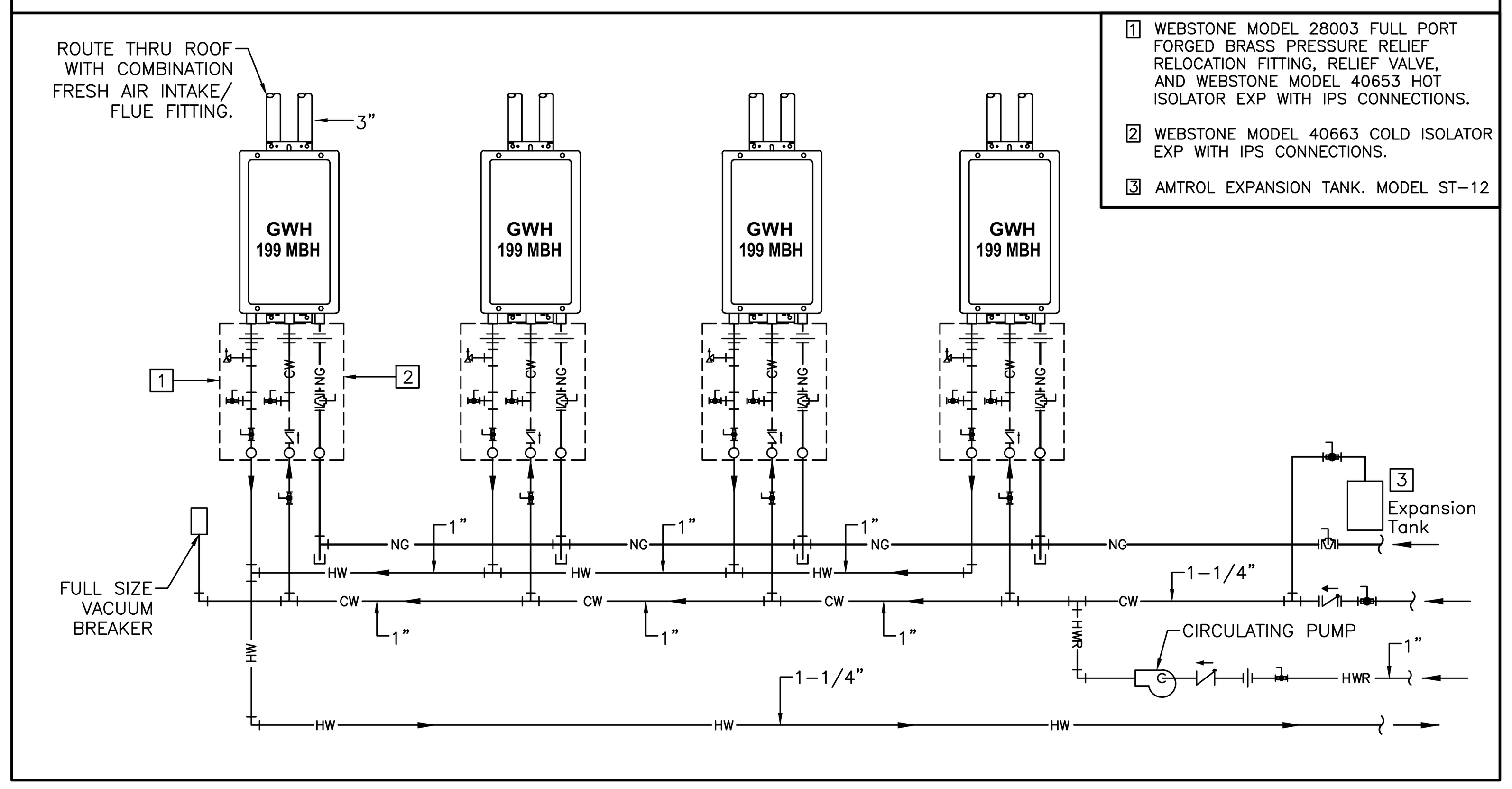
Project Title
HUNTSVILLE READINESS CENTER
5180 MOORE'S MILL ROAD
HUNTSVILLE AL, 35811

Sheet Title
READINESS CENTER - PLUMBING SCHEDULES, LEGEND, AND NOTES

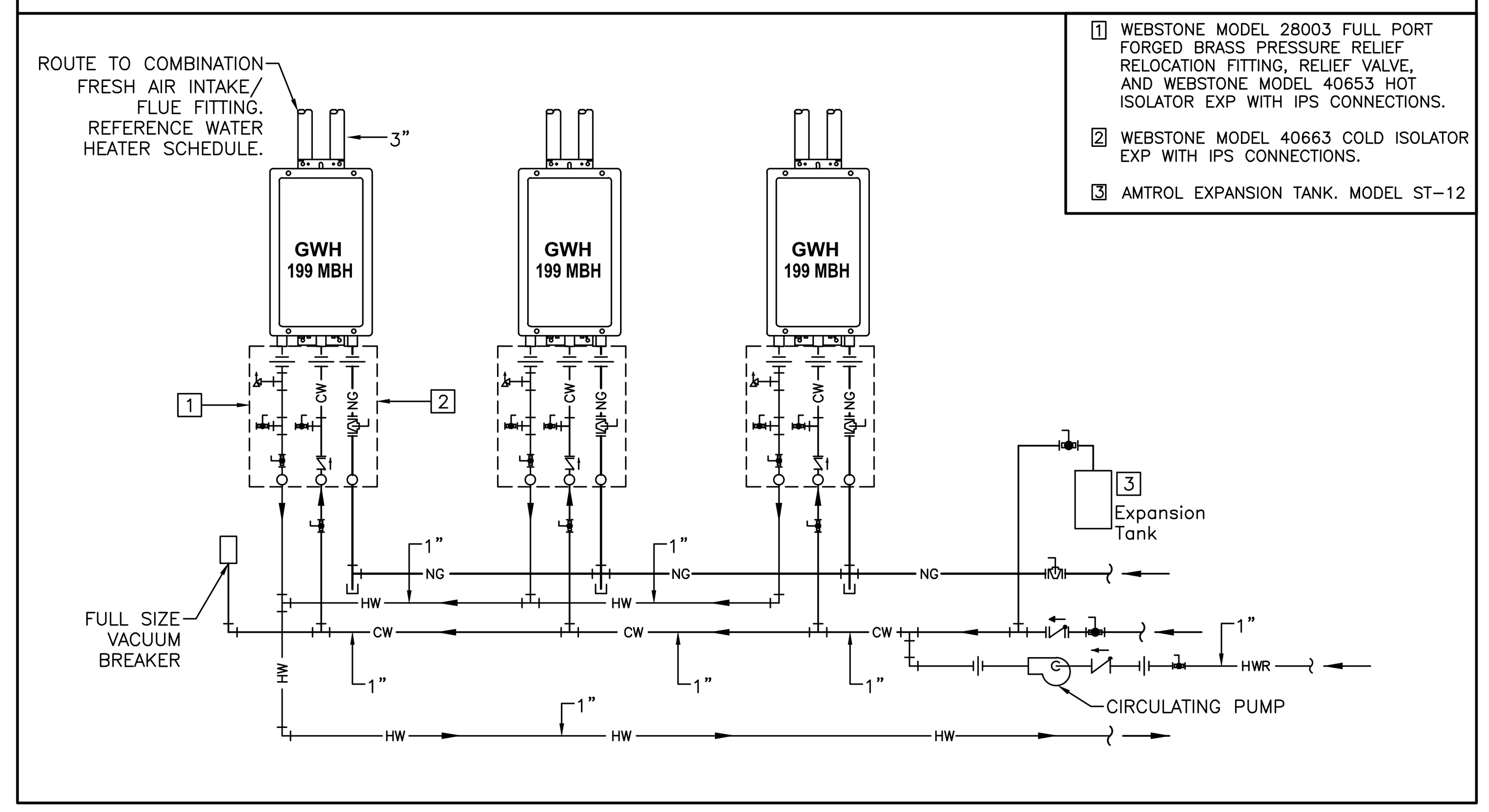
Sheet Number
RP1.1

STATE OF ALABAMA REGISTERED PROFESSIONAL ENGINEER No.14192 RANDALL D. WHORTON
11-05-2024

INDOOR GAS WATER HEATER SYSTEM DETAIL



INDOOR GAS WATER HEATER SYSTEM DETAIL



KITCHEN EQUIPMENT SCHEDULE

MARK NO.	FIXTURE TYPE	MANUFACTURER'S MODEL NO.	MOUNT	MOUNT HEIGHT	WASTE SIZE	VENT SIZE	C.W. SIZE	H.W. SIZE	NOTES
K-2	COLD PAN, DROP-IN	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	FS-1	–	–	–	
K-3	HOT PAN, DROP-IN	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	FS-1	–	–	–	
K-5	GRIDDLE	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	–	–	–	–	INPUT = 108 MBH
K-6	SOILED DISHTABLE	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	FS-1	FS-1	K-7	K-7	
K-7	SPRAY ASSEMBLY FAUCET	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	–	–	K-7 & 1/2"	K-7 & 1/2"	
K-8	PORTABLE SOAK SINK	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	FS-1	FS-1	–	–	
K-10	DISHWASHER	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	FS-1	FS-1	–	1/2"	
K-12	3 COMP. SINK	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	FS-1	FS-1	1/2"	1/2"	
K-13	SINK HEATER	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	FS-1	FS-1	–	–	
K-14	BOOSTER HEATER FOR POT SINK	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	–	–	–	1/2"	
K-15	DISHWASHER BOOSTER HEATER	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	FS-1	FS-1	–	1/2"	
K-16	TILT KETTLE	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	–	–	–	–	INPUT = 100 MBH
K-17	TILT SKILLET	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	–	–	–	–	INPUT = 90 MBH
K-18	POT FILLER	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	–	–	1/2"	–	
K-19	RANGE	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	–	–	–	–	INPUT = 85 MBH
K-20	CONVECTION OVEN	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	–	–	–	–	INPUT = 60 MBH
K-21	FLOOR TROUGH DRAIN	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	4"	2"	–	–	
K-22	VEGETABLE SINK	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	FS-1	FS-1	K-7	K-7	
K-23	VEGETABLE PEELER	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	FS-1	FS-1	1/2"	–	
K-24	ICE MAKER W/ BIN	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	HD-1	HD-1	WB-1	–	FURNISH & INSTALL WATER FILTER PRIOR TO CONENCTION TO ICE MAKER
K-25	HAND SINK	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	WALL	31" TO LIP	1-1/4"	1-1/4"	1/2"	1/2"	FURNISH & INSTALL SUPPLIES WITH STOPS, P-TRAP W/ CLEANOUT *INSTALL NEW MV-1 MIXING VALVE BELOW LAVATORY SEE TYPICAL DETAIL
K-30	COFFEE MAKER	FURNISHED BY KITCHEN SUPPLIER. INSTALLED BY PLUMBING CONTRACTOR.	–	–	–	–	1/2"	–	

INDOOR GAS WATER HEATER SCHEDULE

MARK NO.	MODEL NO.	BTU INPUT	RECOVERY GPM @ 45°/67° RISE	GAS CONN SIZE	WIDTH SIZE	DEPTH SIZE	HEIGHT SIZE	WATER CONN SIZE	APPROX SHIP WEIGHT	VOLTAGE
GWH-R1	RHEEM NO RTGH-S11i OR APP'V EQUAL.	199,900	8.8/5.9	3/4"	17-5/16"	13-11/16"	28-9/16"	3/4"	78	120-1-60
GWH-R2	RHEEM NO RTGH-S11i OR APP'V EQUAL.	199,900	8.8/5.9	3/4"	17-5/16"	13-11/16"	28-9/16"	3/4"	78	120-1-60
GWH-R3	RHEEM NO RTGH-S11i OR APP'V EQUAL.	199,900	8.8/5.9	3/4"	17-5/16"	13-11/16"	28-9/16"	3/4"	78	120-1-60
GWH-R4	RHEEM NO RTGH-S11i OR APP'V EQUAL.	199,900	8.8/5.9	3/4"	17-5/16"	13-11/16"	28-9/16"	3/4"	78	120-1-60
GWH-R5	RHEEM NO RTGH-S11i OR APP'V EQUAL.	199,900	8.8/5.9	3/4"	17-5/16"	13-11/16"	28-9/16"	3/4"	78	120-1-60
GWH-R6	RHEEM NO RTGH-S11i OR APP'V EQUAL.	199,900	8.8/5.9	3/4"	17-5/16"	13-11/16"	28-9/16"	3/4"	78	120-1-60
GWH-R7	RHEEM NO RTGH-S11i OR APP'V EQUAL.	199,900	8.8/5.9	3/4"	17-5/16"	13-11/16"	28-9/16"	3/4"	78	120-1-60

NOTES:

1. SINGLE COMMERCIAL WALL MOUNTED REMOTE CONTROL
2. SEE DETAIL FOR VENTING
3. NATURAL GAS PRESSURE : 7" – 10.5" W.C.
4. ELECTRICAL IS 120-1-60 , 85 WATTS
5. INSTALLATION SHALL INCLUDE GAS PRESSURE REGULATOR TO REDUCE GAS PRESSURE FROM 2 PSIG TO 9 W.C.
6. WARRANTY: 15 YEARS HEAT EXCHANGER, 5 YEAR PARTS, 1 YEAR LABOR
7. MSA MANIFOLD CONTROL PACK FOR MULTIPLE WATER HEATERS (SEE PLAN FOR QUANTITY)

CIRCULATOR PUMP SCHEDULE

MARK NO.	TYPE	GPM	TOTAL HEAD FT. W.G.	MAXIMUM H.P.	MINIMUM EFFICIENCY	ELECTRICAL	DESIGN MFGR.	DESIGN MFGR. MODEL NO.
CP-R1	IN-LINE CENTRIF.	0-7	0-4.5	1/40	–	115-1-60	TACO	003-IQB
CP-R2	IN-LINE CENTRIF.	0-7	0-4.5	1/40	–	115-1-60	TACO	003-IQB

NOTES:

1. SMARTPLUS HOT WATER RECIRCULATION PUMP FOR DOMESTIC WATER
2. 3/4" BRONZE SWEAT
3. 6 FT. CORD

PVC PIPE HANGER SPACING GUIDE

PVC PIPE SUPPORTS - SCHEDULE 40

MAXIMUM SUPPORT SPACING (FEET)

NPS (INCHES)	OPERATING TEMPERATURE (°F)		
	60	100	140
1/2	4.5	4	2.5
3/4	5	4	2.5
1	5.5	4.5	2.5
1-1/4	5.5	5	3
1-1/2	6	5	3
2	6	5	3
3	7	6	3.5
4	7.5	6.5	4
6	8.5	7.5	4.5
8	9	8	4.5

READINESS CENTER - PLUMBING SCHEDULES AND DETAILS

NOT TO SCALE

WHORTON ENGINEERING, INC.

HVAC – PLUMBING – PROCESS CONTROL

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25 SUMMERALL GATE ROAD
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Rev.	Description	Date

Job Number: 21112

AL ARNG IFB #: AC-25-B-0006-S

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Drawn By: TMW

Checked By: RDW

Project Title: HUNTSVILLE READINESS CENTER
5180 MOORE'S MILL ROAD
HUNTSVILLE AL, 35811

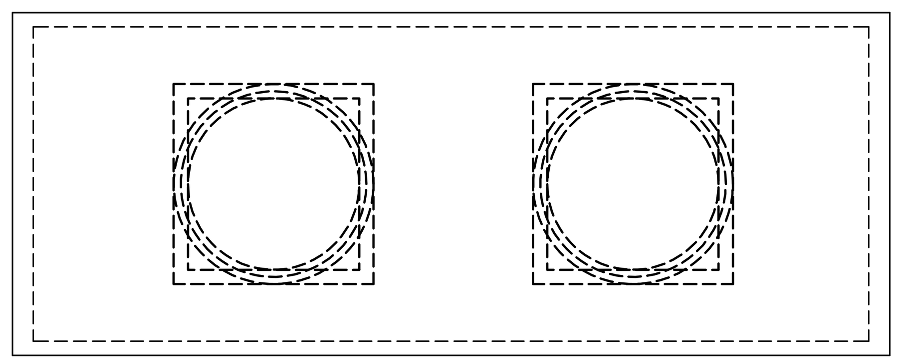
Sheet Title: READINESS CENTER - PLUMBING SCHEDULES AND DETAILS

Sheet Number: RP1.2

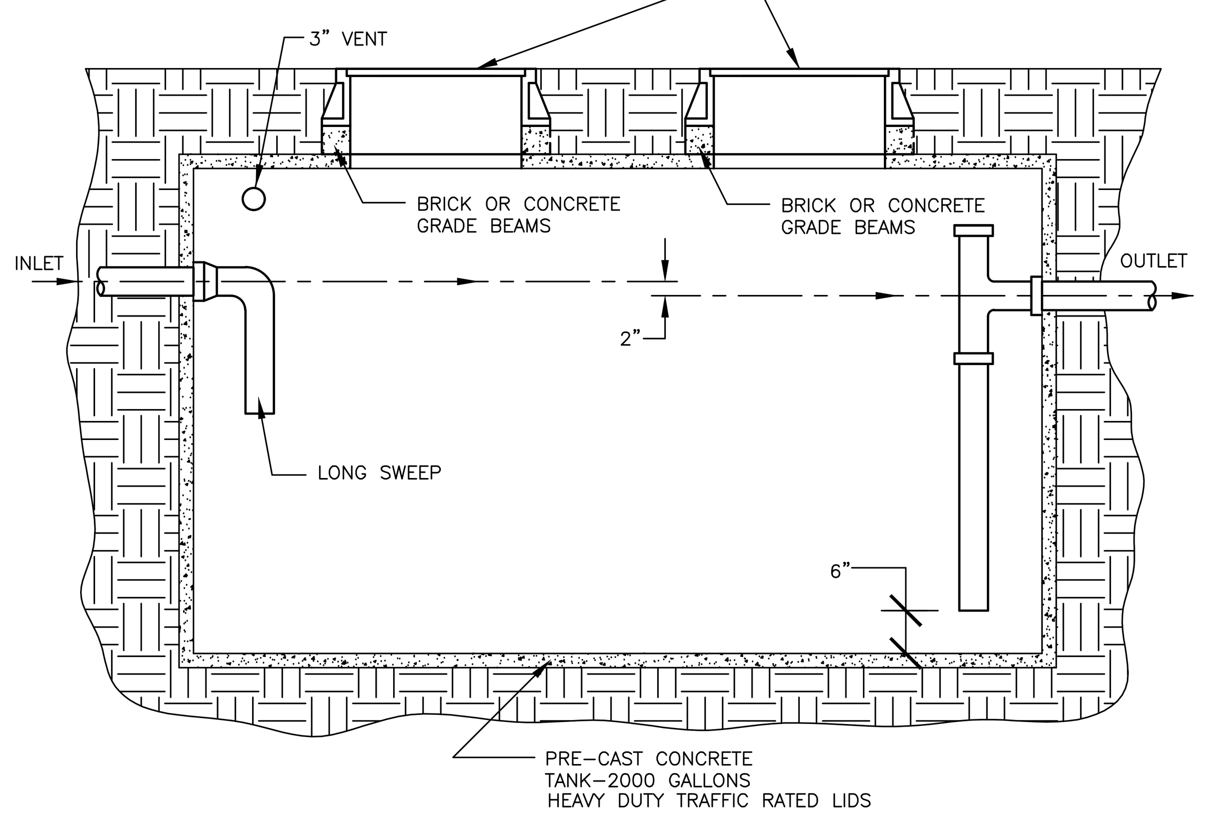
ALABAMA No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON

11-05-2024

DETAILS OF GREASE TRAP

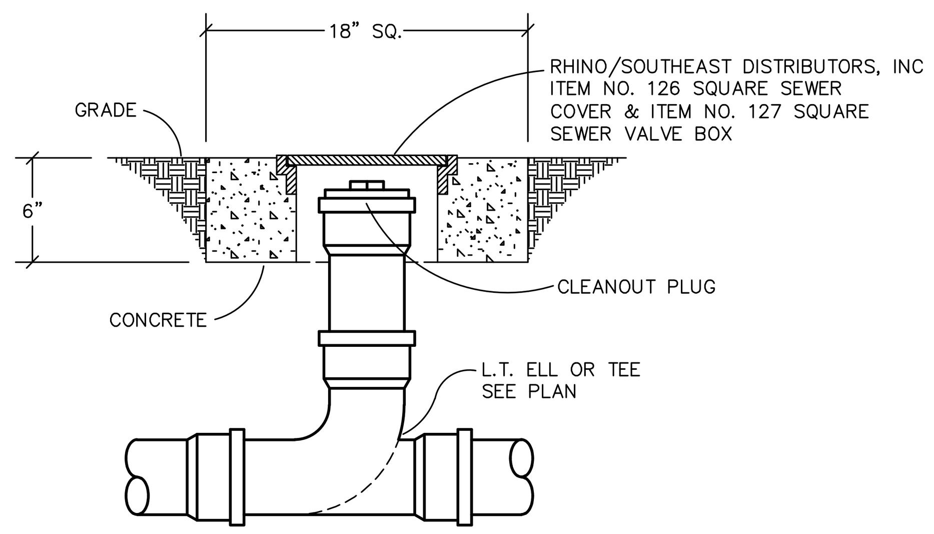


PLAN

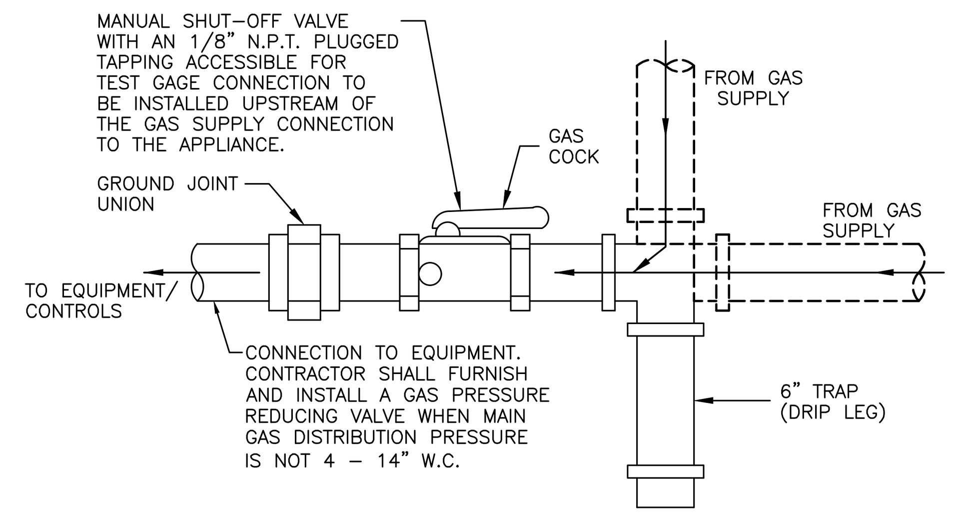


SECTION

NOTES:
1. VENT GREASE TRAP WITH 3" VENT AND CONNECT TO BUILDING VENT SYSTEM IN ACCORDANCE WITH STANDARD PLUMBING CODE.
2. VERIFY LOCAL AUTHORITY REQUIREMENTS FOR EITHER TWO TANKS @ 1,000 GALLONS IN SERIES OR ONE TANK @ 2,000 GALLONS.



CLEANOUT UP TO GRADE

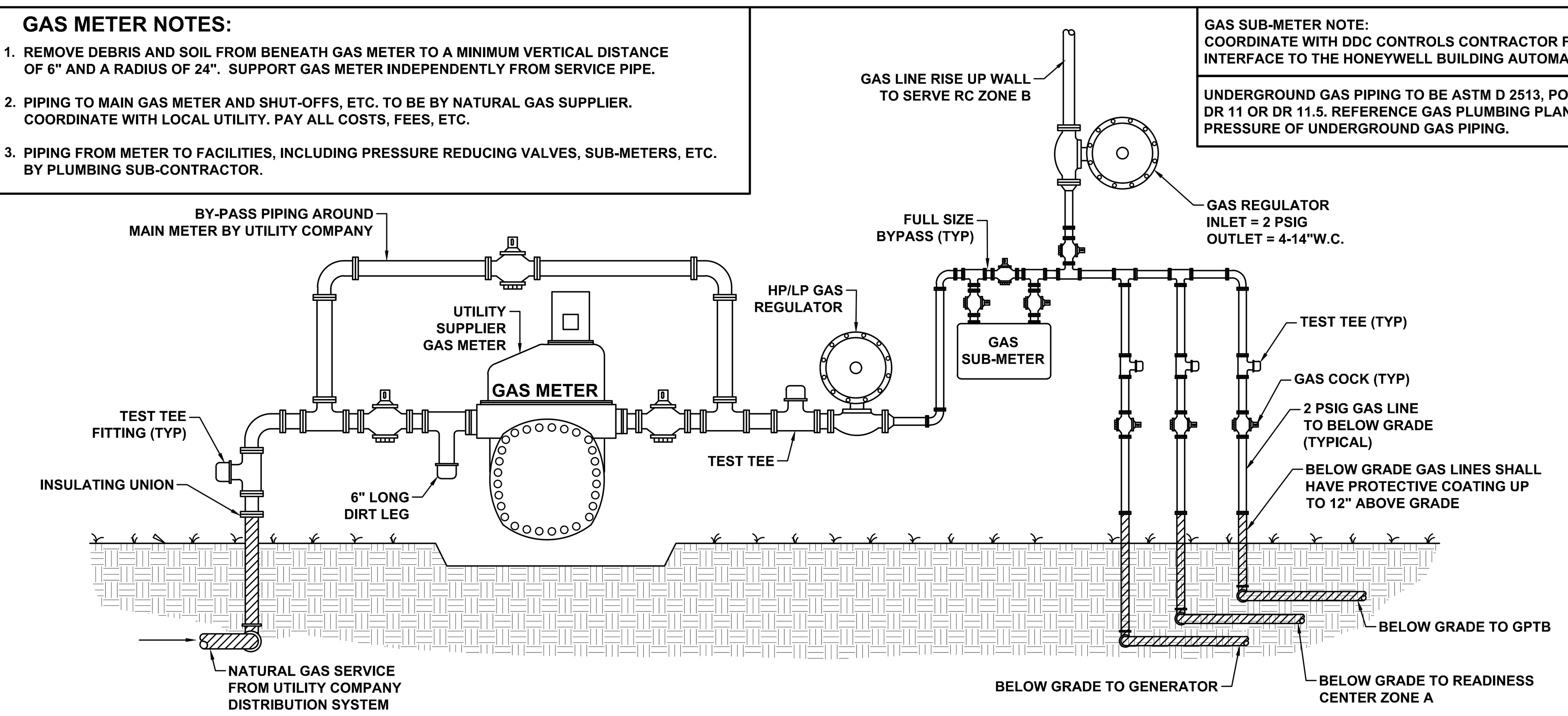


GAS CONNECTION TO EQUIPMENT DETAIL

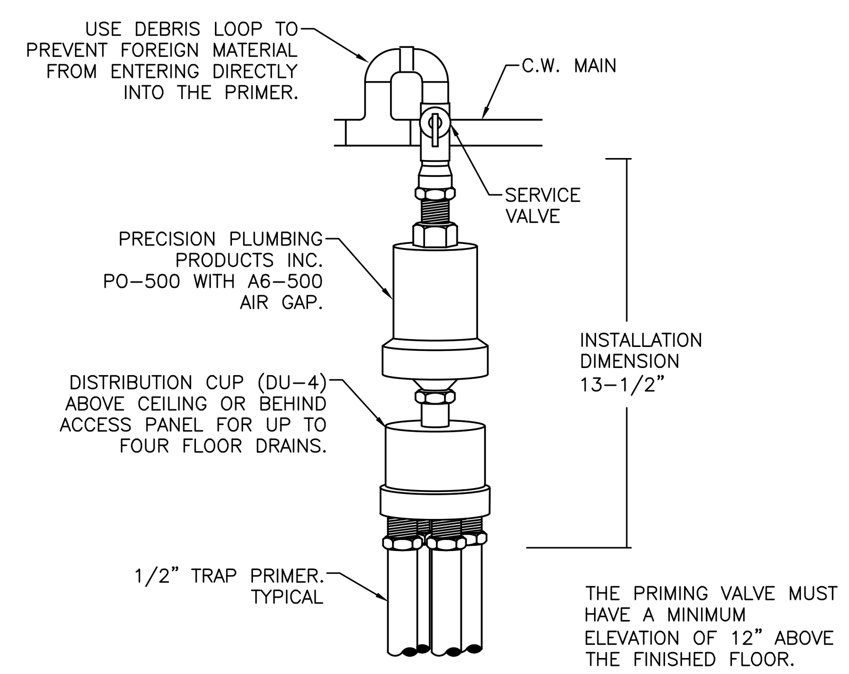
GAS METER NOTES:
1. REMOVE DEBRIS AND SOIL FROM BENEATH GAS METER TO A MINIMUM VERTICAL DISTANCE OF 6" AND A RADIUS OF 24". SUPPORT GAS METER INDEPENDENTLY FROM SERVICE PIPE.
2. PIPING TO MAIN GAS METER AND SHUT-OFFS, ETC. TO BE BY NATURAL GAS SUPPLIER. COORDINATE WITH LOCAL UTILITY. PAY ALL COSTS, FEES, ETC.
3. PIPING FROM METER TO FACILITIES, INCLUDING PRESSURE REDUCING VALVES, SUB-METERS, ETC. BY PLUMBING SUB-CONTRACTOR.

GAS SUB-METER NOTE:
COORDINATE WITH DDC CONTROLS CONTRACTOR FOR COMPLETE INTERFACE TO THE HONEYWELL BUILDING AUTOMATION SYSTEM.

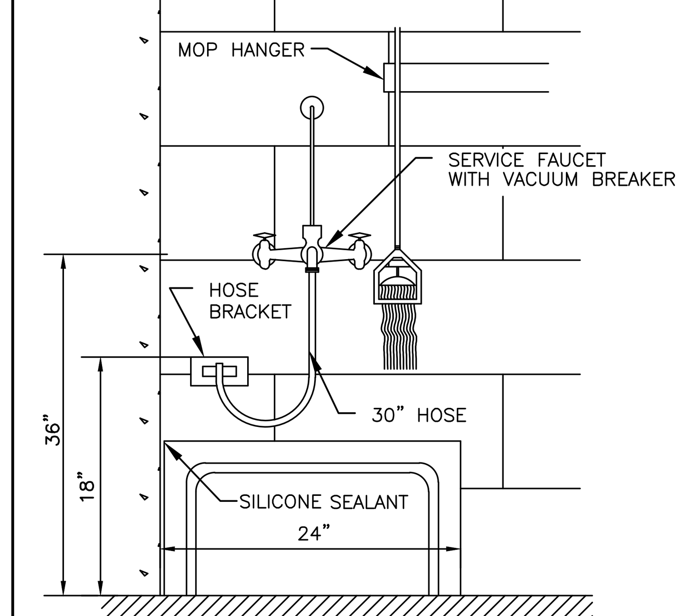
UNDERGROUND GAS PIPING TO BE ASTM D 2513, POLYETHYLENE, DR 11 OR DR 11.5. REFERENCE GAS PLUMBING PLAN FOR PRESSURE OF UNDERGROUND GAS PIPING.



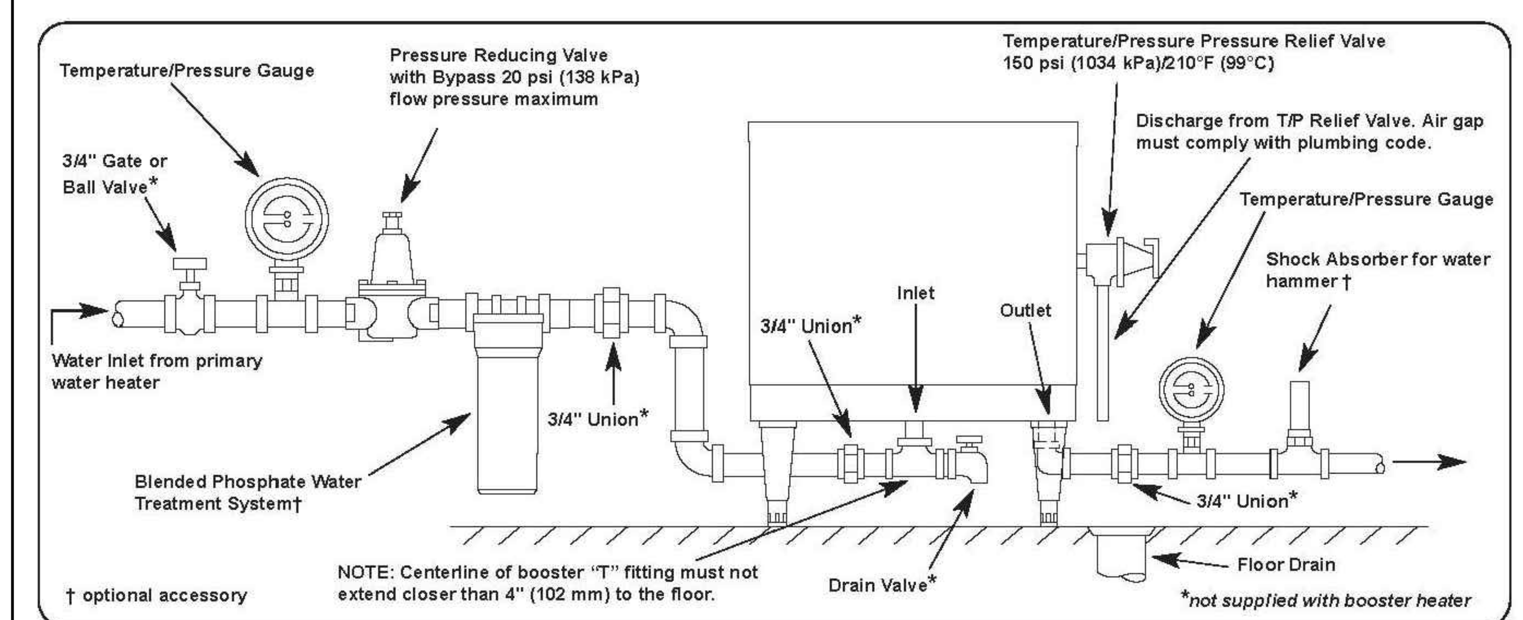
GAS METER WITH SUB-METERING PIPING DIAGRAM



TYPICAL TRAP PRIMER



MOP SINK DETAIL



TYPICAL ELECTRIC BOOSTER HEATER DETAIL

READINESS CENTER - PLUMBING DETAILS

NOT TO SCALE

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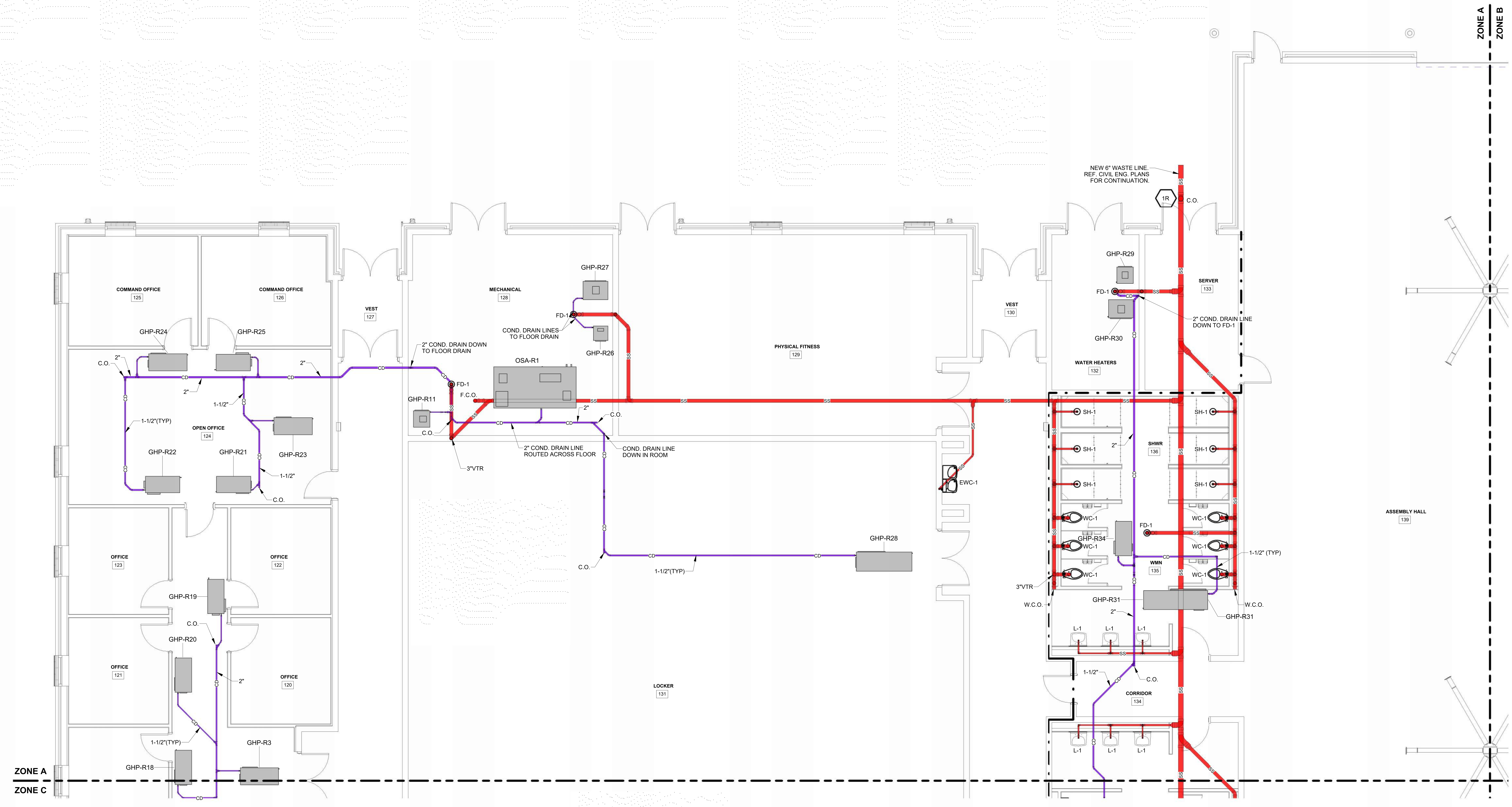
HUNTSVILLE READINESS CENTER
5180 MOORE'S MILL ROAD
HUNTSVILLE AL, 35811

Sheet Title
READINESS CENTER - PLUMBING DETAILS

Sheet Number
RP1.3

ALABAMA No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON
11-05-2024



READINESS CENTER SS & GW OUTFALL		
MARK NUMBER	HORIZONTAL LENGTH FT.	ESTIMATED BELOW FINISHED FLOOR FT.
1R	117'	± 4.22
2R	73'	± 3.76
3R	100'	± 4.04

FIRE WALL LEGEND

— · — · —	ONE HOUR RATED FIRE BARRIER

RSR1 RP2.1 RP2.3 RP4.1

READINESS CENTER - WASTE & CONDENSATE PLUMBING PLAN - ZONE A

3/16" = 1'-0"

0' 2' 4' 8' 16'

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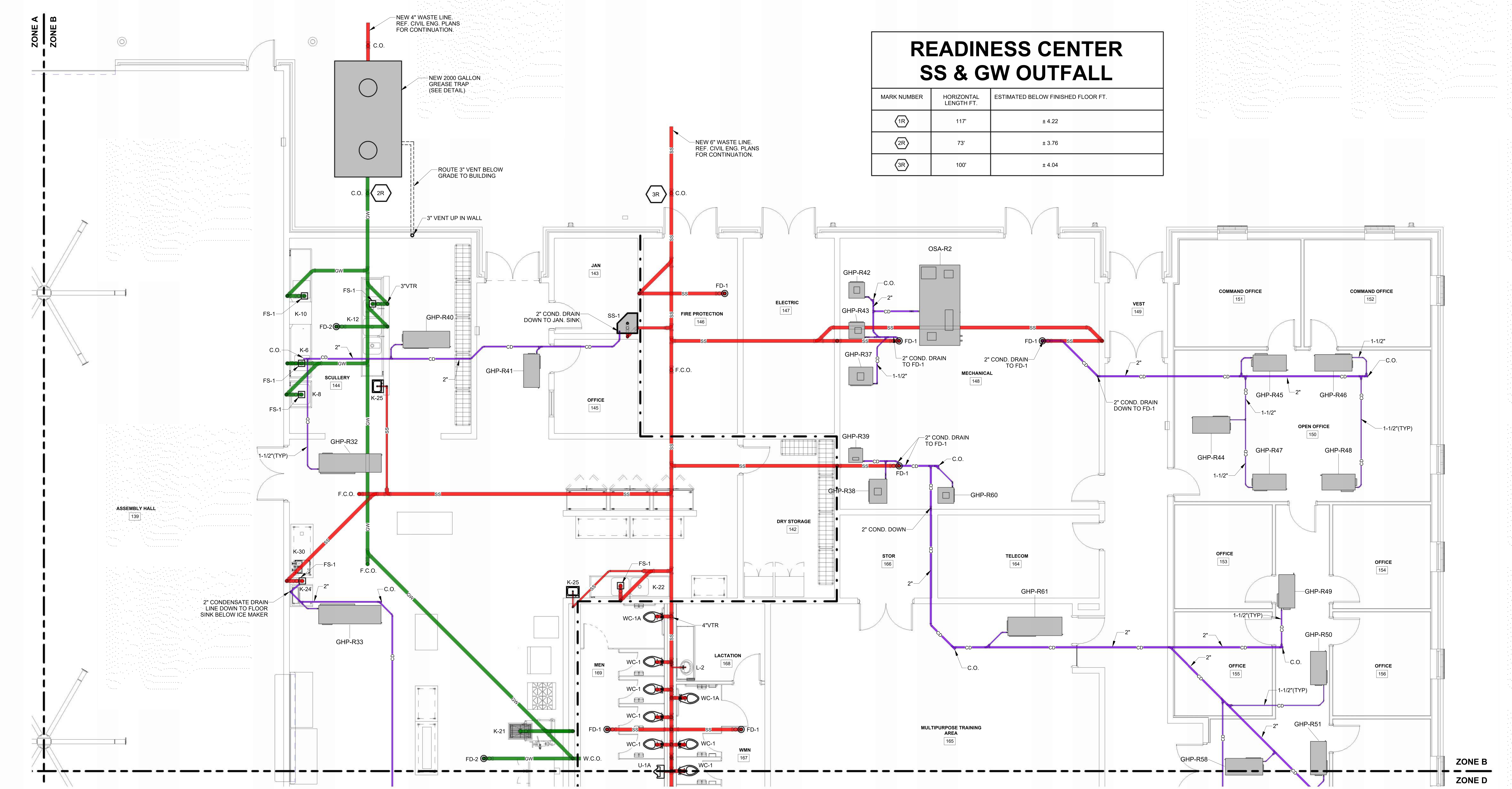
HUNTSVILLE AL, 35811

Sheet Title
RC - WASTE & CONDENSATE PLUMBING PLAN - ZONE A

Sheet Number
RP2.1

No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON
11-11-2024



READINESS CENTER SS & GW OUTFALL		
MARK NUMBER	HORIZONTAL LENGTH FT.	ESTIMATED BELOW FINISHED FLOOR FT.
1R	117'	± 4.22
2R	73'	± 3.76
3R	100'	± 4.04

FIRE WALL LEGEND

ONE HOUR RATED FIRE BARRIER

RSR2 RP2.2 RP2.4 RP4.2

READINESS CENTER - WASTE & CONDENSATE PLUMBING PLAN - ZONE B

3/16" = 1'-0"

0' 2' 4' 8' 16'

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HUNTSVILLE AL, 35811

Sheet Title
RC - WASTE & CONDENSATE PLUMBING PLAN - ZONE B

Sheet Number
RP2.2

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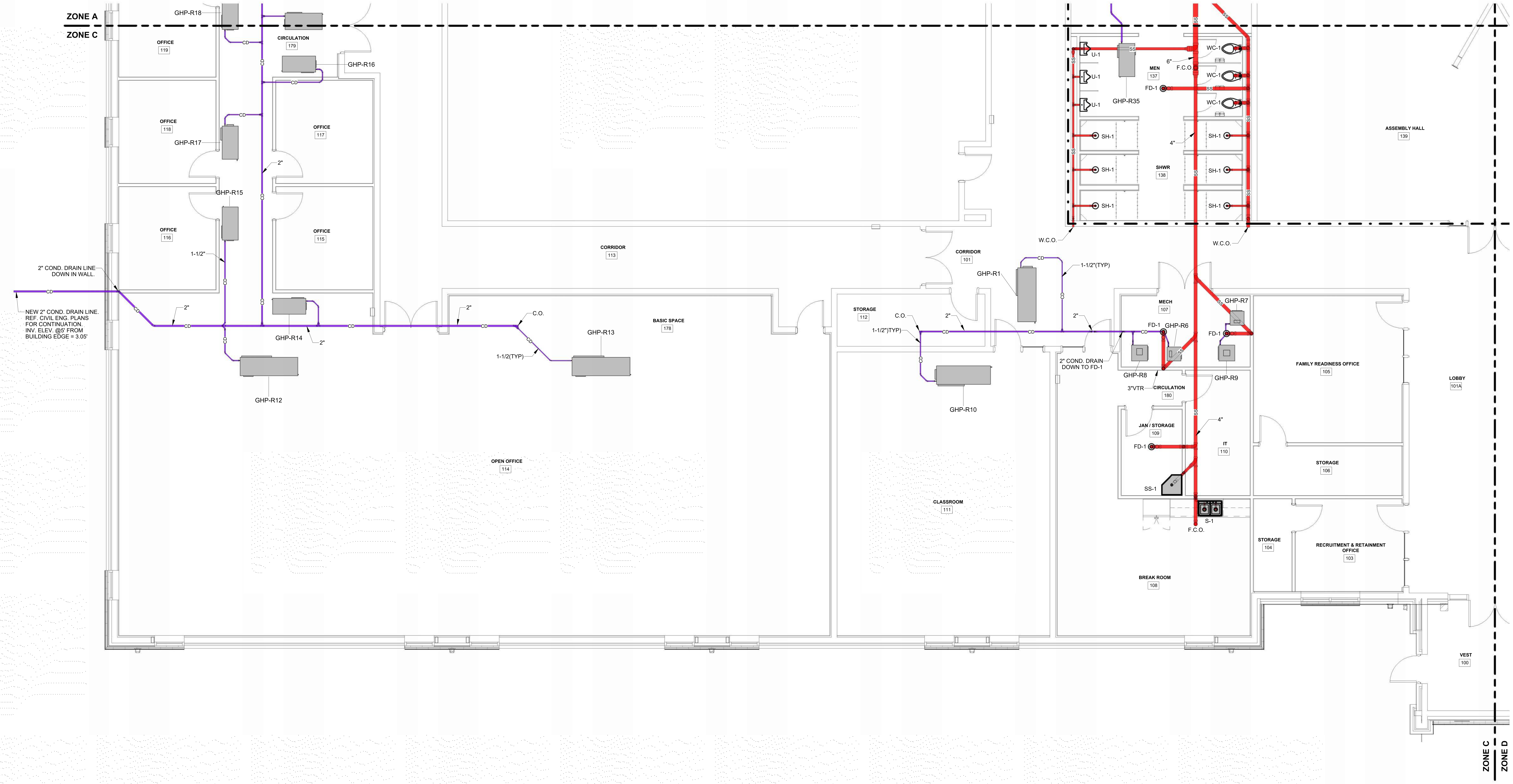
11-11-2024



FIRE WALL LEGEND

ONE HOUR RATED FIRE BARRIER

RSR1 RP2.1 RP2.3 RP4.1

READINESS CENTER - WASTE & CONDENSATE PLUMBING PLAN - ZONE C

3/16" = 1'-0"

0' 2' 4' 8' 16'

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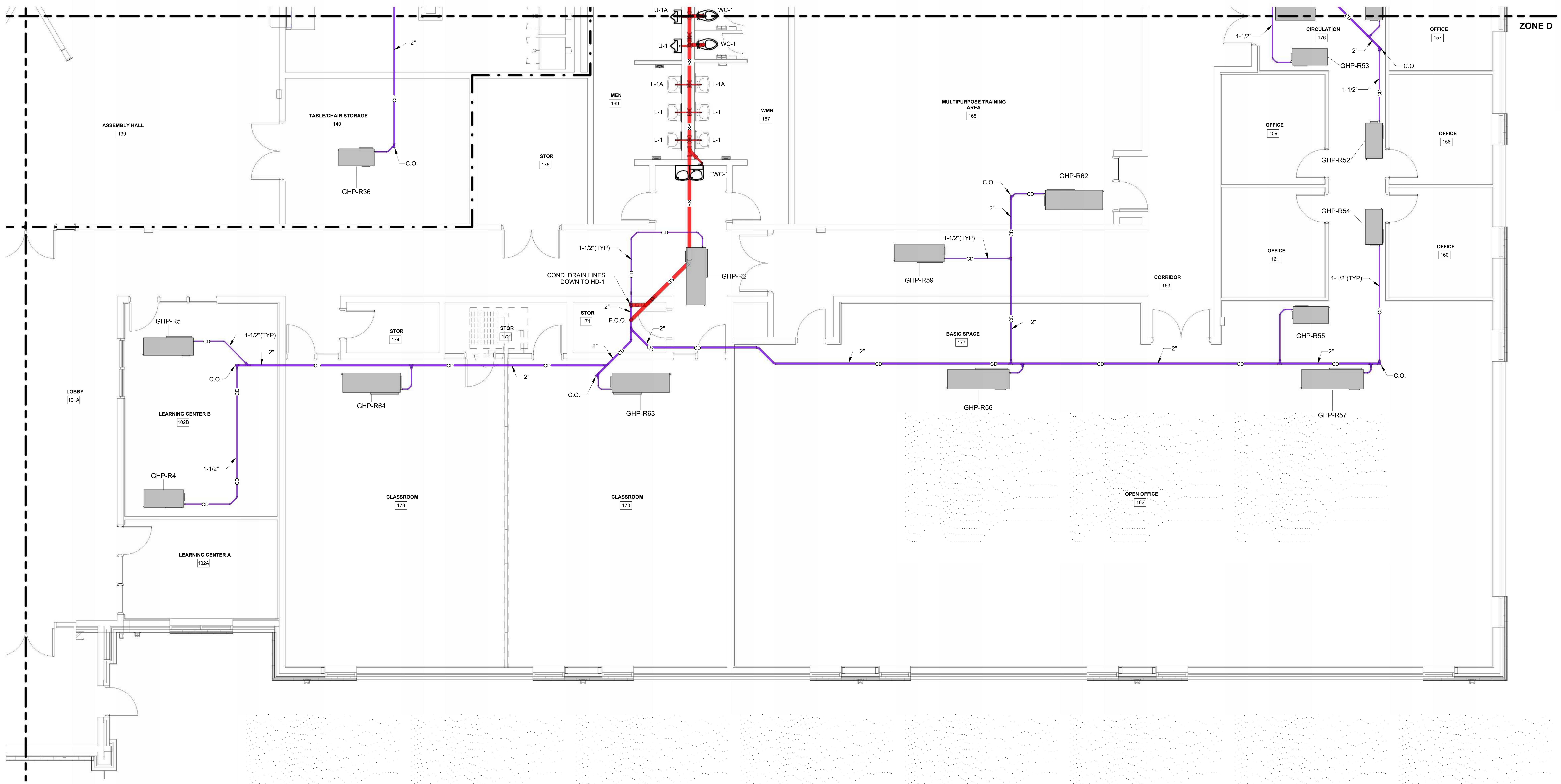
Sheet Title
RC - WASTE & CONDENSATE PLUMBING PLAN - ZONE C

Sheet Number
RP2.3

RANDALL D. WHORTON No.14192 PROFESSIONAL ENGINEER

11-11-2024



0' 2' 4' 8' 16'

FIRE WALL LEGEND

ONE HOUR RATED FIRE BARRIER

RSR2 RP2.2 RP2.4 RP4.2

READINESS CENTER - WASTE & CONDENSATE PLUMBING PLAN - ZONE D

3/16" = 1'-0"

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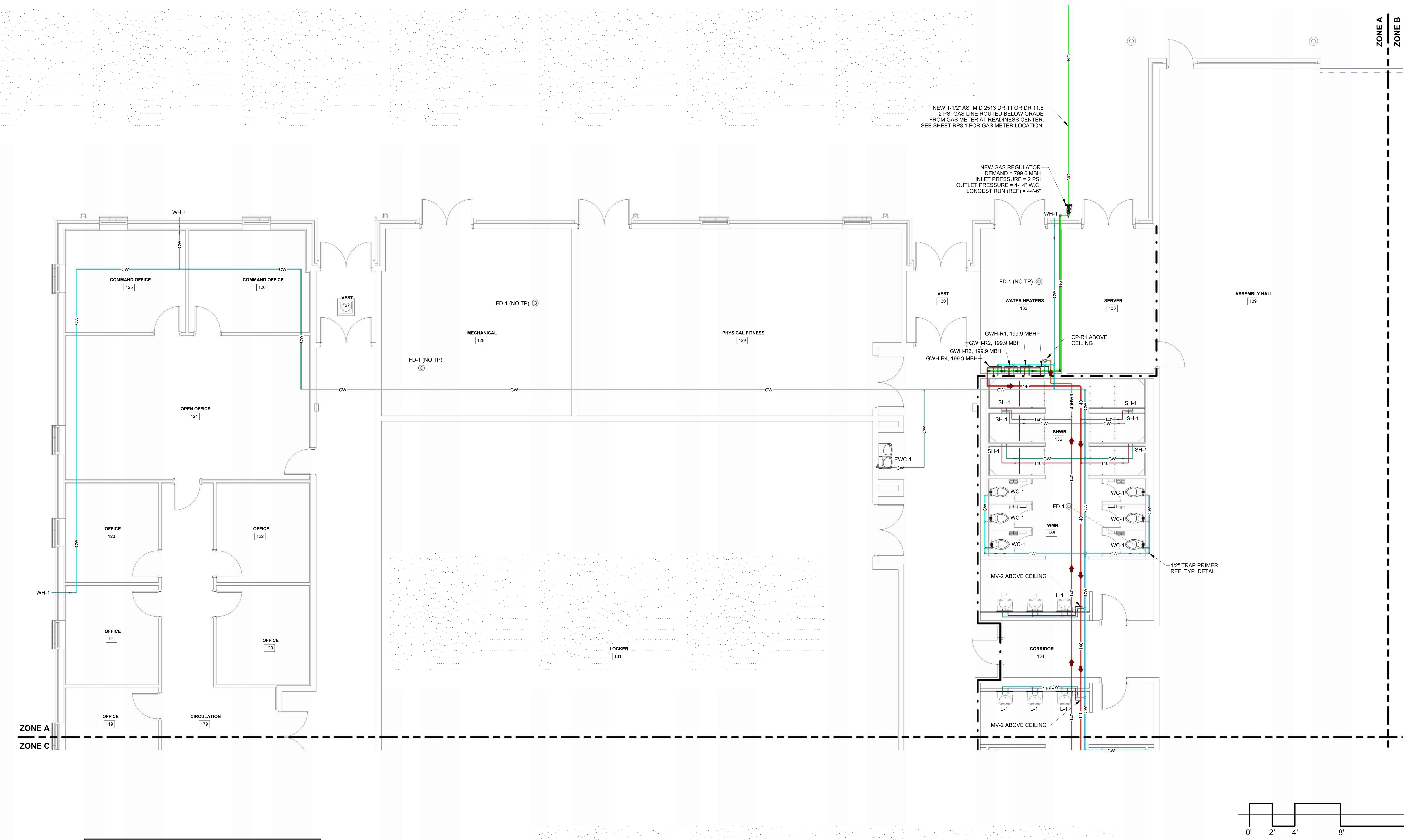
Sheet Title
RC - WASTE & CONDENSATE PLUMBING PLAN - ZONE D

Sheet Number
RP2.4

RANDALL D. WHORTON No.14192 PROFESSIONAL ENGINEER
11-11-2024



FIRE WALL LEGEND

ONE HOUR RATED FIRE BARRIER

RWR1 RP3.1 RP3.3 RP4.3

RGR1 RP3.1 RP3.2 RP4.4

READINESS CENTER - WATER & GAS PLUMBING PLAN - ZONE A

3/16" = 1'-0"

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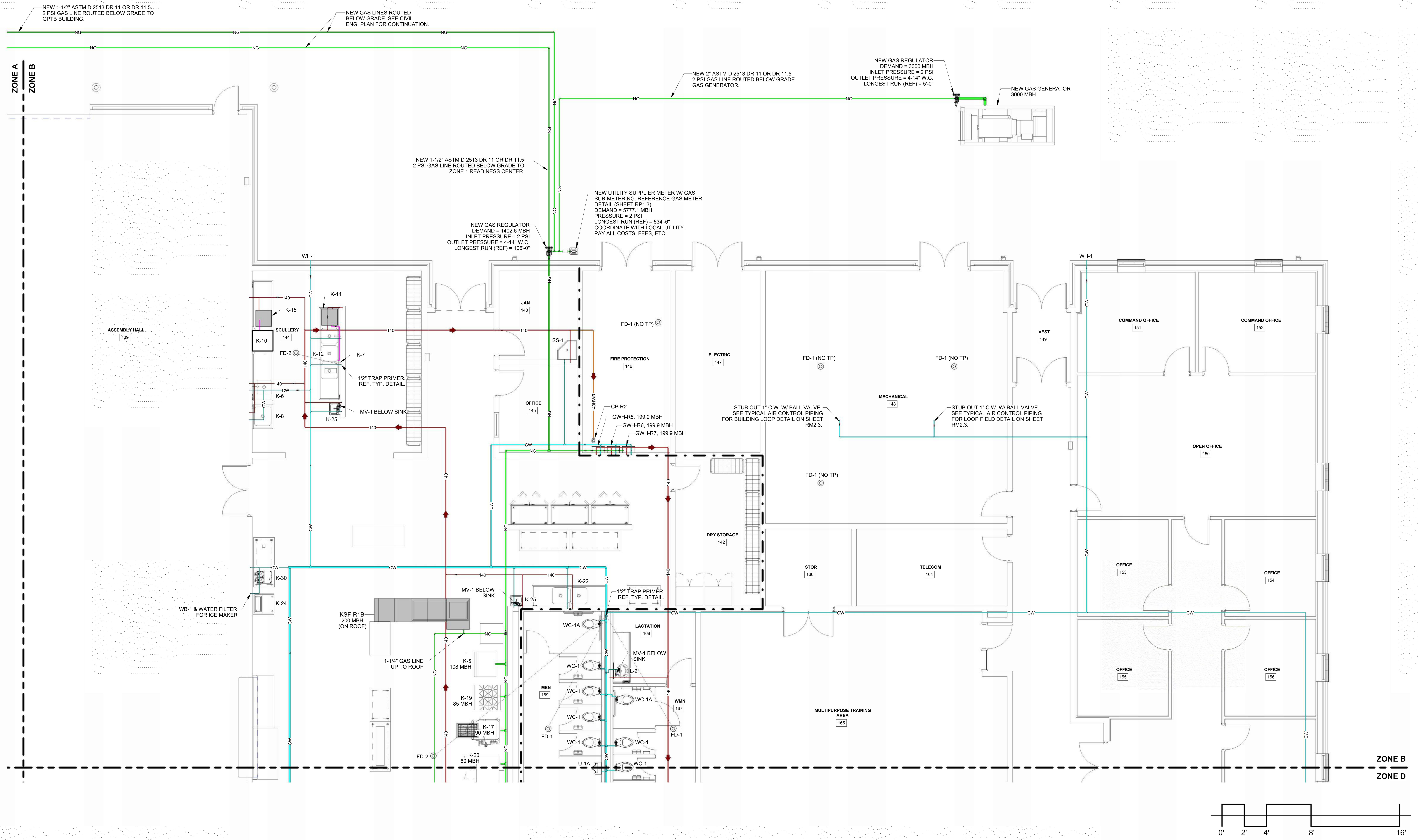
5180 MOORE'S MILL ROAD
HUNTSVILLE AL, 35811

Sheet Title: READINESS CENTER - WATER & GAS PLUMBING PLAN - ZONE A

Sheet Number: RP3.1

STATE OF ALABAMA
No.14192
PROFESSIONAL ENGINEER
RANDALL D. WHORTON
11-11-2024



READINESS CENTER - WATER & GAS PLUMBING PLAN - ZONE B

3/16" = 1'-0"

RWR2 RP3.2 RP3.4 RP4.3

RGR1 RP3.1 RP3.2 RP4.4

WHORTON ENGINEERING, INC.

HVAC – PLUMBING – PROCESS CONTROL

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Sheet Title
READINESS CENTER - WATER & GAS PLUMBING PLAN - ZONE B

Sheet Number
RP3.2

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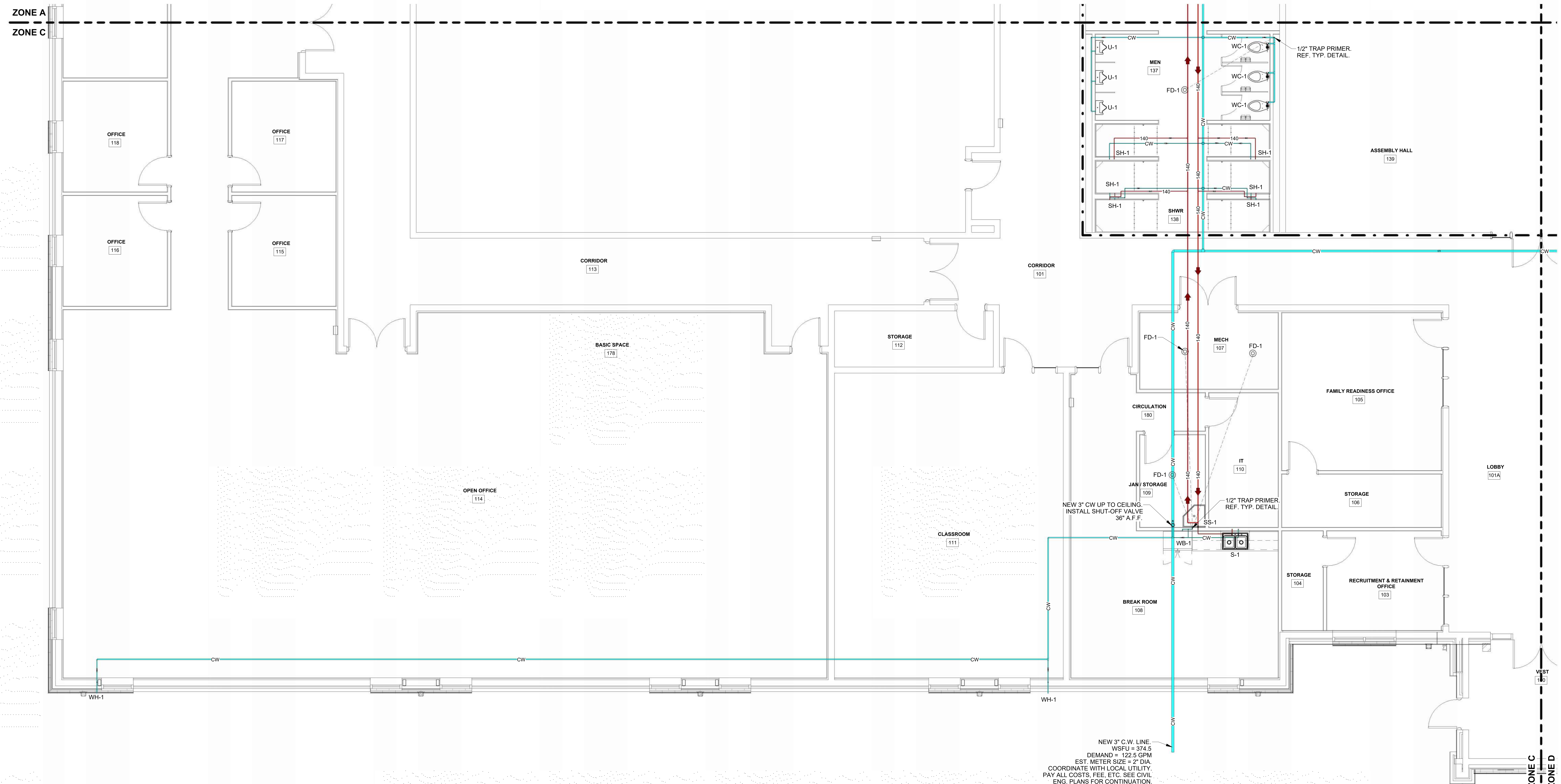
No.14192
PROFESSIONAL ENGINEER
RANDALL D. WHORTON

11-11-2024



FIRE WALL LEGEND

ONE HOUR RATED FIRE BARRIER

RWR1
RP3.1
RP3.3
RP4.3

READINESS CENTER - WATER PLUMBING PLAN - ZONE C

3/16" = 1'-0"

0' 2' 4' 8' 16'

WHORTON ENGINEERING, INC.

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RDW

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Sheet Title
READINESS CENTER - WATER PLUMBING PLAN - ZONE C

Sheet Number
RP3.3

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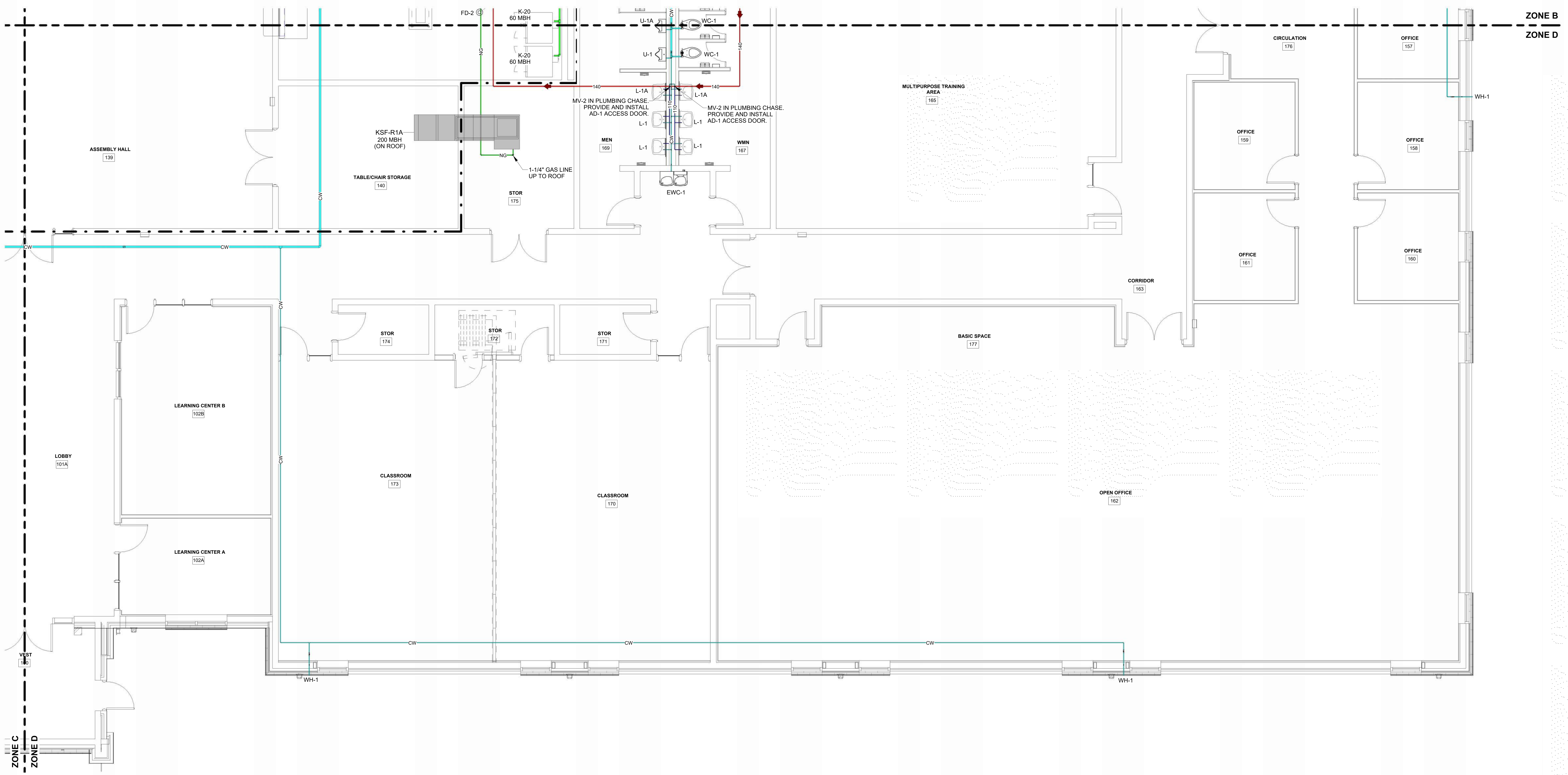
11-11-2024



0' 2' 4' 8' 16'

FIRE WALL LEGEND

ONE HOUR RATED FIRE BARRIER

RWR2 RP3.2 RP3.4 RP4.3

RGR1 RP3.1 RP3.2 RP4.4

READINESS CENTER - WATER & GAS PLUMBING PLAN - ZONE D

3/16" = 1'-0"

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Sheet Title

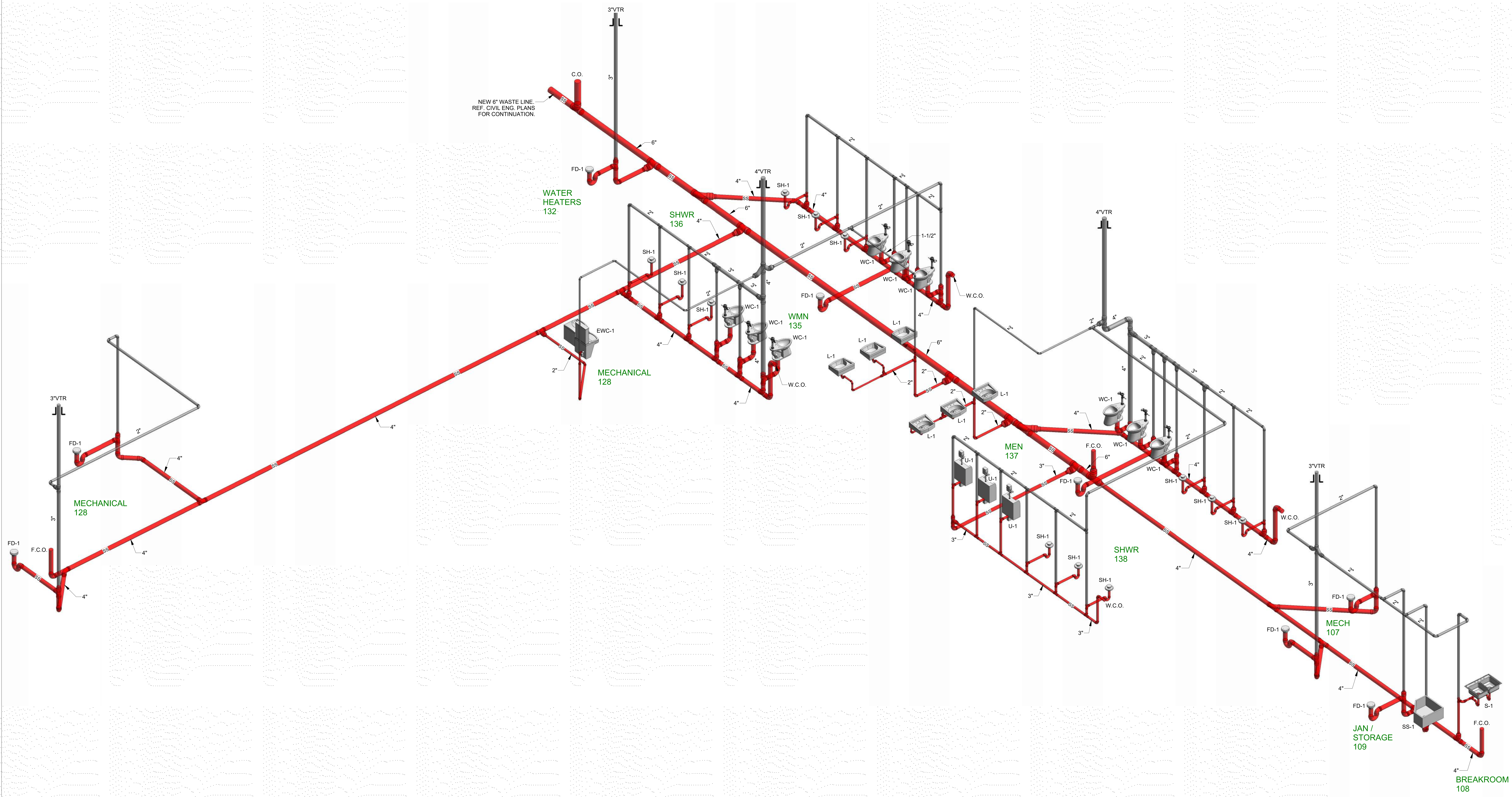
READINESS CENTER - WATER & GAS PLUMBING PLAN - ZONE D

Sheet Number

RP3.4

STATE OF ALABAMA REGISTERED No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON

11-11-2024



RSR1 RP2.1 RP2.3 RP4.1

READINESS CENTER - WASTE RISER DIAGRAM - ZONES A & C

NOT TO SCALE

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 22164

SS&L ARCHITECTS
Montgomery | Dothan | Auburn | Huntsville | Pensacola
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Rev.	Description	Date

Job Number 21112

AL ARNG IFB # AC-25-B-0006-S

Date NOVEMBER 1, 2024

Drawn By RDW

Checked By RDW

Project Title

HUNTSVILLE READINESS CENTER
5180 MOORE'S MILL ROAD
HUNTSVILLE AL, 35811

Sheet Title

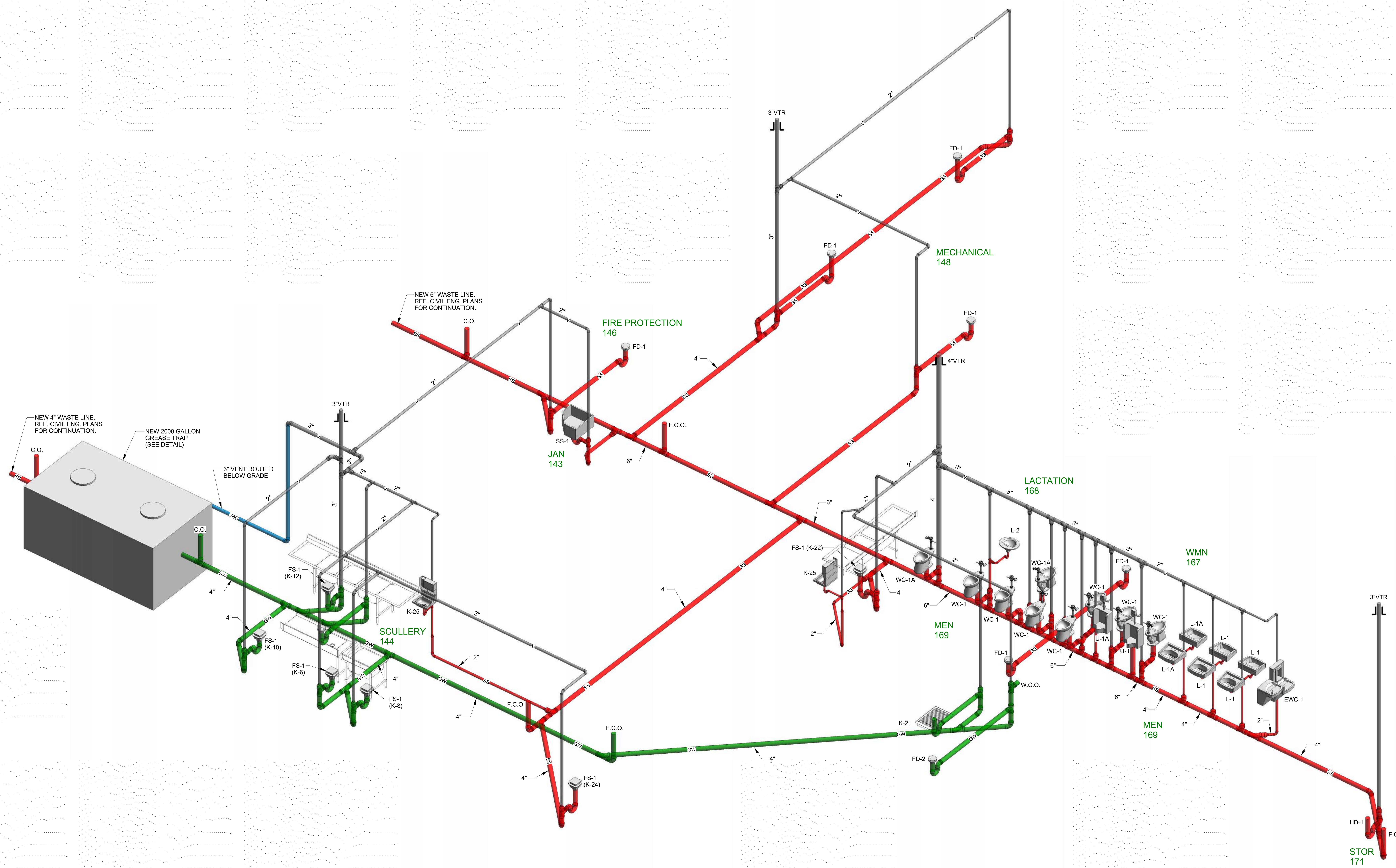
READINESS CENTER -WASTE PLUMBING RISER DIAGRAM - ZONES A & C

Sheet Number

RP4.1

ALABAMA No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON

11-05-2024



RSR2
RP2.2 RP2.4 RP4.2

READINESS CENTER - WASTE RISER DIAGRAM - ZONES B & D

NOT TO SCALE

WHORTON ENGINEERING, INC.

HVAC – PLUMBING – PROCESS CONTROL

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Rev.	Description	Date

Job Number: 21112

AL ARNG IFB #: AC-25-B-0006-S

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Drawn By: RDW

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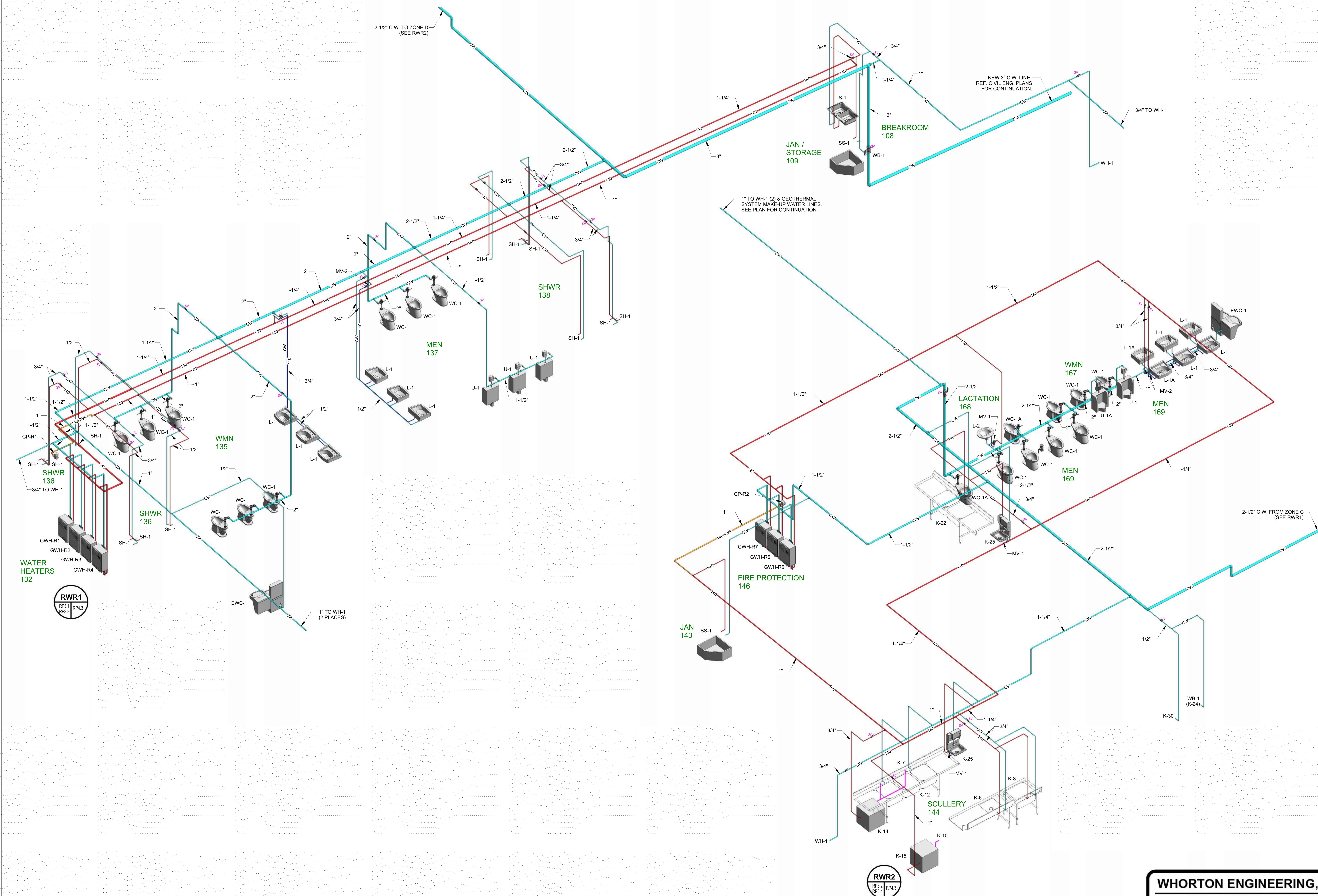
Project Title:
HUNTSVILLE READINESS CENTER
5180 MOORE'S MILL ROAD
HUNTSVILLE AL, 35811

Sheet Title:
READINESS CENTER - WASTE PLUMBING RISER DIAGRAM - ZONES B & D

Sheet Number:
RP4.2

RANDALL D. WHORTON
No.14192
PROFESSIONAL ENGINEER
STATE OF ALABAMA

11-05-2024



READINESS CENTER - WATER RISER DIAGRAMS

NOT TO SCALE

WHORTON ENGINEERING, INC.

HVAC – PLUMBING – PROCESS CONTROL

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Date: NOVEMBER 1, 2024

Drawn By: RDW

Checked By: RDW

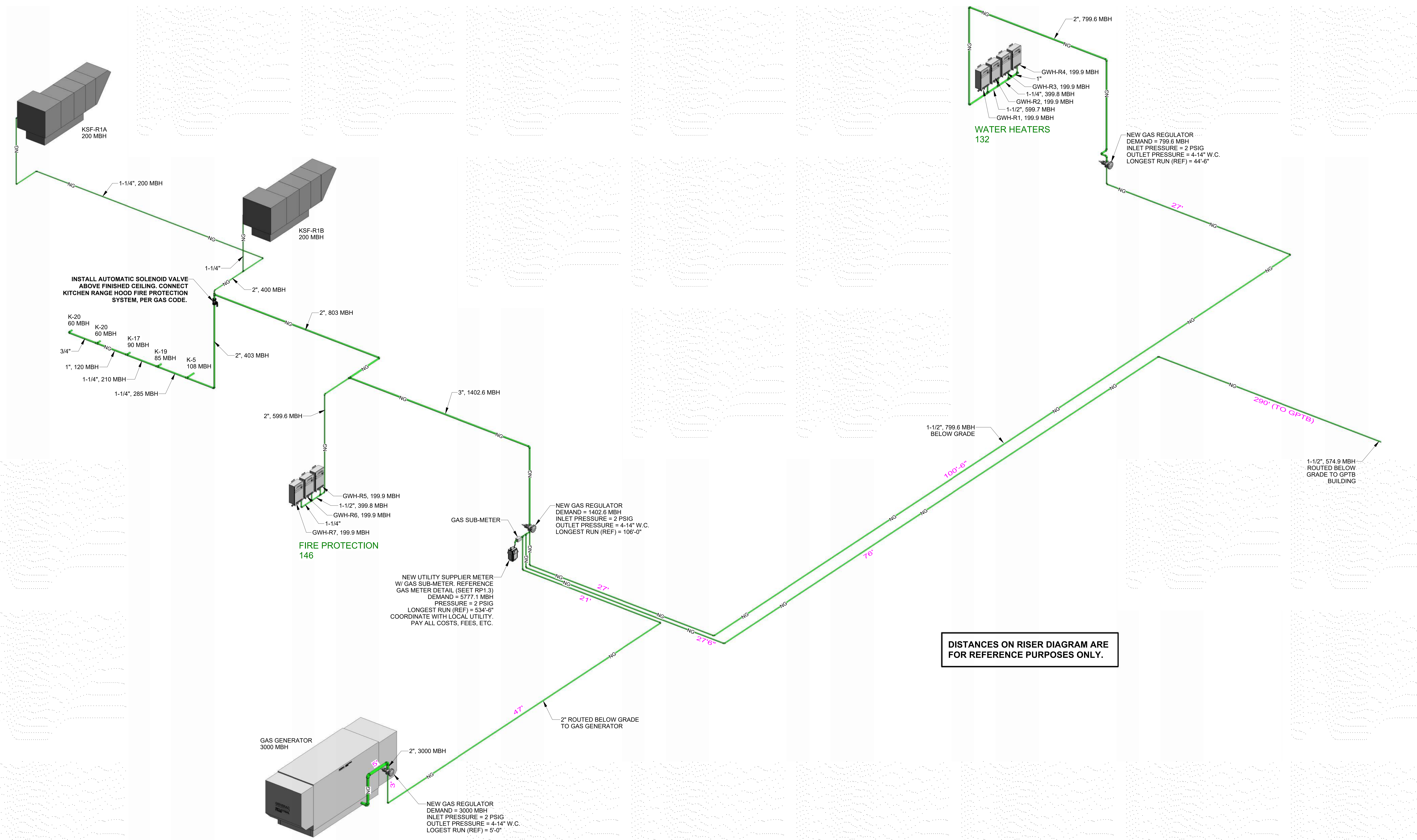
Project Title: HUNTSVILLE READINESS CENTER
5180 MOORE'S MILL ROAD
HUNTSVILLE AL, 35811

Sheet Title: READINESS CENTER - WATER PLUMBING RISER DIAGRAMS

Sheet Number: RP4.3

No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON

11-05-2024



RGR1
RP3.1
RP3.2
RP4.4

READINESS CENTER - GAS PLUMBING RISER DIAGRAM

NOT TO SCALE

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
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WHORTON ENGINEERING PROJECT NO. 22164

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Job Number
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AL ARNG IFB #
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Date
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Drawn By
RDW

Checked By
RDW

Project Title

HUNTSVILLE READINESS CENTER
5180 MOORE'S MILL ROAD
HUNTSVILLE AL, 35811

Sheet Title
READINESS CENTER - GAS PLUMBING RISER DIAGRAM

Sheet Number
RP4.4

ALABAMA
No.14192
PROFESSIONAL ENGINEER
RANDALL D. WHORTON
11-05-2024

GENERAL PLUMBING NOTES

1. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. IT IS INTENDED THAT A COMPLETE PLUMBING SYSTEM BE PROVIDED WITH ALL NECESSARY EQUIPMENT, ACCESSORIES, AND CONTROLS COMPLETELY COORDINATED WITH ALL TRADES. ALL REQUIREMENTS GIVEN IN THESE DOCUMENTS SHALL BE STRICTLY CONFORMED TO. ANY ITEMS AND LABOR REQUIRED FOR A COMPLETE PLUMBING SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS, LOCAL AUTHORITIES, AND THESE CONTRACT DOCUMENTS SHALL BE FURNISHED WITHOUT INCURRING ANY ADDITIONAL COST TO THE OWNER. CAREFULLY REVIEW ALL CONTRACT DOCUMENTS AND THE DESIGN OF OTHER TRADES BEFORE PREPARING SHOP DRAWINGS.
2. COORDINATE ALL WORK WITH ARCHITECTURAL, STRUCTURAL, HVAC, AND ELECTRICAL TRADES. PIPE ROUTING SHOWN IS DIAGRAMMATIC. PROVIDE ALL OFFSETS, ETC., TO AVOID INTERFERENCES WITH EQUIPMENT, PIPING, DUCTWORK, LIGHTS, CONDUIT, ETC.
3. FIELD VERIFY EXACT SIZE, MATERIAL, AND LOCATION OF ALL EXISTING UTILITIES BEFORE BEGINNING WORK.
4. VERIFY LOCATION OF ALL FIXTURES WITH ARCHITECTURAL PLANS.
5. VERIFY ALL FIXTURE MOUNTING HEIGHTS WITH ENGINEER AND ARCHITECT.
6. COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL DRAWINGS. SET SLEEVES IN FLOORS/WALLS AND ATTACHMENTS FOR HANGERS AS CONSTRUCTION PROGRESSES. ALL PENETRATIONS MUST BE SEALED AND HELD AS TIGHT TO COLUMNS OR WALLS AS POSSIBLE.
7. PROVIDE 12"X12" ACCESS PANEL FOR SHOCK ABSORBERS, TRAP PRIMERS, AND ALL VALVES LOCATED ABOVE NON-ACCESSIBLE CEILINGS AND INSIDE PIPE CHASES. EXACT LOCATION MUST BE COORDINATED WITH ARCHITECTURAL AND APPROVED BY ARCHITECT PRIOR TO INSTALLATION.
8. ALL PIPING SHALL BE CONCEALED INSIDE WALLS, WITHIN PIPE CHASES, OR ABOVE CEILINGS. HOLD ALL PIPING ABOVE CEILING AS HIGH AS POSSIBLE.
9. COORDINATE ALL UNDERGROUND PIPING WITH GRADE BEAMS, WALL FOOTINGS, AND OTHER STRUCTURAL CONDITIONS.
10. PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL EQUIPMENT INDICATED ON DRAWINGS FINAL CONNECTION SHALL INCLUDE ANY ADAPTORS, NIPPLES, SHUT-OFF VALVES, PRV'S, SHOCK ABSORBERS, BACKFLOW PREVENTION DEVICES, REGULATORS, ETC.
11. ALL STRUCTURAL PENETRATIONS (SLEEVES, BLOCK OUTS, ETC.) ARE TO BE LOCATED AND COORDINATED IN THE FIELD BY THE CONTRACTOR IN RELATION TO THE REQUIREMENTS OF FINAL EQUIPMENT AND FIXTURES SELECTED.
12. CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL DOMESTIC WATER AND SANITARY SEWERS, UNLESS OTHERWISE NOTED.
13. ALL PLUMBING COMPONENTS TO BE LEAD-FREE.
14. ENCASE ALL WASTE/WATER PIPING, VALVES, WATER HEATER, OR ANY OTHER ASSOCIATED PLUMBING EQUIPMENT BELOW WALL HUNG LAVATORY, WITH TRUEBRO LAV-SHIELD (OR APPROVED EQUAL). THIS APPLIES TO ALL ADA LAVS, LAVS WITH MIXING VALVES MOUNTED BELOW LAV, AND ALL LAVS THAT INCLUDE INSTANTANEOUS ELECTRIC WATER HEATERS MOUNTED BELOW LAVS. LAV GUARD SHALL INCLUDE STAINLESS STEEL TAMPER RESISTANT SCREWS. LAV-SHIELD SHALL BE ORDERED TO MATCH SPECIFIED/APPROVED LAVATORY.
15. HORIZONTAL DRAINAGE PIPING OF 2-1/2" DIAMETER OR LESS SHALL BE INSTALLED WITH A FALL OF NOT LESS THAN 1/4" PER FOOT. PIPING 3" AND LARGER SHALL BE INSTALLED WITH A FALL OF NOT LESS THAN 1/8" PER FOOT.
16. SET FLOOR DRAIN ELEVATION DEPRESSED BELOW FINISHED SLAB ELEVATION AS LISTED BELOW TO PROVIDE PROPER FLOOR SLOPE TO DRAIN:
    5 FOOT DRAIN RADIUS : 1/2" DEPRESSION
    10 FOOT DRAIN RADIUS : 3/4" DEPRESSION
    15 FOOT DRAIN RADIUS : 1" DEPRESSION
    20 FOOT DRAIN RADIUS : 1-1/4" DEPRESSION
    25 FOOT DRAIN RADIUS ; 1-1/2" DEPRESSION
17. ALL TRAP ARMS, P-TRAPS, ETC. EXPOSED UNDER LAVATORIES SHALL BE 18. GA. CHROME PLATED.
18. ABOVE GROUND DRAINAGE AND VENT PIPING LOCATED WITHIN FIRE RATED WALLS SHALL BE COPPER PIPE IN ACCORDANCE WITH STANDARDS ASTM B42 AND B302 OR CAST IRON PIPE IN ACCORDANCE WITH STANDARDS ASTM A 74; ASTM A 888; CISPI 301. COORDINATE WITH ARCHITECTURAL LIFE SAFETY PLANS FOR EXACT LOCATION OF ALL FIRE WALLS.
19. ALL SANITARY SEWER PIPING ROUTED BELOW BUILDING AND 10' BEYOND BUILDING FOOTINGS, SHALL BE CAST IRON.
20. INSTALL ANGLE COVER OVER CONDENSATE LINES, SPRINKLER LINES, ETC. THAT CROSS MEZZANINE/MECH ROOM FLOOR WHERE TRIPPING MIGHT BE A HAZARD. PRIME AND PAINT ANGLE COVER SAFETY YELLOW COLOR.
21. VERIFY ORIENTATION OF FLUSHING MECHANISM ON TOILET/URINAL WITH ARCHITECT/ENGINEER PRIOR TO ROUGH-IN.
22. PROVIDE WATER PRESSURE REDUCING/REGULATING VALVE ON MAIN SERVICE WHEN MAIN PRESSURE EXCEEDS 75 PSI AT ANY TIME OF DAY. COORDINATE WITH LOCAL UTILITY.
23. PROVIDE REDUCED PRESSURE BACKFLOW PREVENTER AT ALL CONNECTIONS TO MECHANICAL EQUIPMENT. KITCHEN AND LAUNDRY EQUIPMENT, ETC., AS REQUIRED BY CODE AND BY LOCAL AUTHORITY. CONTRACTOR IS TO VERIFY WITH THE LOCAL AUTHORITY THE TYPE OF BACKFLOW PREVENTION DEVICE REQUIRED FOR ALL APPLICATIONS PRIOR TO INSTALLATION.
24. ALL OVERHEAD WATER PIPING SHALL BE INSTALLED BELOW CEILING INSULATION.
25. INSTALL BACKFLOW PREVENTION IN ACCORDANCE WITH CITY AND STATE REQUIREMENTS. INSTALL ON MAIN DOMESTIC WATER SERVICE TO THE BUILDING.
26. CONTRACTOR SHALL INSTALL WATER HAMMER ARRESTER EQUAL TO ZURN SERIES 1700 AT EACH PLUMBING GROUP.
27. CONTRACTOR TO FURNISH AND INSTALL ANTI-SIPHON VALVE ON EACH WATER HEATER.
28. CONTRACTOR SHALL FURNISH AND INSTALL BALL VALVES FOR WATER SHUT-OFF AT FIXTURE GROUPINGS.
29. TRAP PRIMERS TO BE PRECISION PLUMBING PRODUCTS MODEL NO. PO-500 WITH A6-500 AIR GAPS OR APPROVED EQUAL. DISTRIBUTION CUP (DU-4) ABOVE CEILING OR BEHIND ACCESS PANEL FOR UP TO FOUR FLOOR DRAINS.
30. ALL STOPS/SUPPLIES SHALL BE CHROME PLATED BRASS.

GAS PLUMBING NOTES

1. ALL GAS PIPING SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH NFPA 54, INTERNATIONAL FUEL GAS CODE.
2. ALL EXPOSED INTERIOR OR EXTERIOR GAS LINES ARE TO BE PAINTED BY THE PLUMBING CONTRACTOR WITH ONE COAT OF LATEX PAINT. INTERIOR COLOR TO MATCH WALL. EXTERIOR COLOR TO BE SELECTED BY ARCHITECT.
3. PROVIDE INSULATING UNION BETWEEN ABOVE AND BELOW GROUND GAS PIPING.
4. LABEL ALL 2PSIG GAS PIPING IN ACCORDANCE WITH 2015 INTERNATIONAL CODES (6 FT. CENTERS).
5. FURNISH AND INSTALL GAS PRESSURE REGULATING/REDUCING VALVES WITH LEAK LIMITING DEVICE AT EACH APPLIANCE. WHERE REGULATORS ARE NOT SELF-LIMITING TYPE, VENTS SHALL BE EXTENDED TO THE BUILDING EXTERIOR.
6. UNDERGROUND GAS PIPING TO BE ASTM D 2513, POLYETHYLENE, DR 11 OR DR 11.5. REFERENCE GAS PLUMBING PLAN FOR PRESSURE OF UNDERGROUND GAS PIPING.
7. FURNISH AND INSTALL STEEL RISER TO A MINIMUM DEPTH OF 36" BELOW GRADE AT ALL LOCATIONS WHERE PE GAS PIPING RISES ABOVE GRADE.

PLUMBING EQUIPMENT SCHEDULE

MARK NO.	FIXTURE TYPE	MANUFACTURER'S MODEL NO.	MOUNT	MOUNT HEIGHT	WASTE SIZE	VENT SIZE	C.W. SIZE	H.W. SIZE	NOTES
WC-1A	WATER CLOSET FLUSH VALVE ADA	ZURN MODEL NO. Z5665-BWL1 1.1 GALLONS PER FLUSH OR APPROVED EQUAL	FLOOR	16-1/8" TO RIM	4"	2"	1 1/4"	–	WHITE ELONGATED VITREOUS CHINA, FLUSH VALVE WALL SUPPORT, WHITE OPEN FRONT SOLID PLASTIC SEAT, BOLT CAPS, HCP, 12" ROUGH-IN ZURN BATTERY OPERATED ZTR6200-ONE FLUSHOMETER VALVE W/ MANUAL OVERIDE
WC-1B	WATER CLOSET FV BACK-OUTLET ADA	ZURN MODEL NO. Z5640 OR APPROVED EQUAL	FLOOR	17" TO RIM	4"	2"	1 1/4"	–	WHITE ELONGATED VITREOUS CHINA, FLUSH VALVE WALL SUPPORT, WHITE OPEN FRONT SOLID PLASTIC SEAT, BOLT CAPS, HCP, 12" ROUGH-IN ZURN BATTERY OPERATED ZTR6200-ONE FLUSHOMETER VALVE W/ MANUAL OVERIDE
L-1	LAVATORY 20"X18"	ZURN MODEL NO. Z5344 OR APPROVED EQUAL	WALL	31" TO LIP	1-1/4"	1-1/4"	1/2"	1/2"	WHITE VITREOUS CHINA, OPEN GRID STRAINER, DELTA MODEL 501-DST FAUCET, W/ 0.5 GPM AERATOR; P-TRAP W/ CLEANOUT; CONCEALED ARM CARRIER; SUPPLIES W/ STOPS
L-1A	LAVATORY, ADA 20"X18"	ZURN MODEL NO. Z5344 OR APPROVED EQUAL	WALL	34" TO LIP	1-1/4"	1-1/4"	1/2"	1/2"	WHITE VITREOUS CHINA, OPEN GRID STRAINER, DELTA MODEL 501-DST FAUCET, W/ 0.5 GPM AERATOR; P-TRAP W/ CLEANOUT; CONCEALED ARM CARRIER; SUPPLIES W/ STOPS
U-1	URINAL	ZURN MODEL NO. Z5798 OR APPROVED EQUAL	WALL	24" TO LIP	2"	1-1/4"	1"	–	WHITE VITREOUS CHINA, ZURN ZTR6203-ULF BATTERY OPERATED FV, BOLT CAPS, WALL HANGER, 1/8 GAL. VERSION
SS-1	SERVICE SINK	FIAT MODEL NO. TSBC 6000 24" x 24" x 12" OR APPROVED EQUAL	FLOOR	SEE DETAIL	3"	2"	1/2"	1/2"	MOLDED-STONE, DELTA NO. 28T8183, 3" IPS STRAINER, POLISHED CHROME FAUCET WITH VACUUM BREAKER, HOSE/ WALL BRACKET, MOP HANGER
SH-1	SHOWER BUILT-IN	BUILT-IN OR APPROVED EQUAL	FLOOR	–	2"	2"	1/2"	1/2"	DELTA MODEL T13291 VALVE W/ DELTA NO. RP38357 1.75 GPM SHOWER HEAD ZURN MODEL ZN-415 5" DIA. NICKEL BRONZE SHOWER DRAIN

EQUALS BY ELJER, KOHLER, TOTO, AND AMERICAN STANDARD WILL BE ACCEPTED.

PLUMBING SPECIALITY SCHEDULE

MARK NO.	FIXTURE TYPE	MANUFACTURER'S MODEL NO.	MOUNT	MOUNT HEIGHT	WASTE SIZE	VENT SIZE	C.W. SIZE	H.W. SIZE	MIXED WATER SIZE	NOTES
FD-1	FLOOR DRAIN	ZURN MODEL NO. ZN-415B-P OR APPROVED EQUAL	FLOOR	–	4"	2"	1/2"	–	–	5" DIA. NICKEL BRONZE ADJUSTABLE TOP 1/2" TRAP PRIMER W/ PROSET SYSTEM INC. TG34IP RETROFIT TRAP GUARD
TD-1	NON-SLOPING TRENCH DRAIN 16'Lx12"Wx12"D	QUAZITE POLYCAST 800 SERIES MAXI OR APPROVED EQUAL	FLOOR	–	4"	2"	–	–	–	MAXI-CAST IRON SLOTTED COVER, END CAPS, ANCHOR AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
HD-1	HUB DRAIN	PROSET MODEL SYSTEM INC. MODEL NO. TG34IP OR APPROVED EQUAL	FLOOR	–	4"	2"	1/2"	–	–	STUB TO 1" A.F.F. 1/2" TRAP PRIMER
WH-1	WALL HYDRANT	WOODFORD MODEL NO. B65 OR APPROVED EQUAL	WALL	18" TO 24"	–	–	3/4"	–	–	FREEZELESS, ANTI-SIPHON, LOCKING BOX
HB-1	HOSE BIBB	WOODFORD MODEL NO. 24 OR APPROVED EQUAL	WALL	18" TO 24"	–	–	3/4"	–	–	ANTI-SIPHON, METAL WHEEL HANDLE
WB-1	ICEMAKER WALLBOX	OATEY MODEL NO. 38574 OR APPROVED EQUAL	WALL	36" A.F.F.	–	–	1/2"	–	–	1/4 TURN BRASS BALL VALVE – COPPER SWEAT – STANDARD PACK WITH 6' STAINLESS STEEL HOSE
F.C.O.	FLOOR CLEANOUT	ZURN MODEL NO. ZN-1400-2 OR APPROVED EQUAL	FLOOR	–	4"	–	–	–	–	6" DIA. ADJUSTABLE NICKEL BRONZE TOP
W.C.O.	WALL CLEANOUT	ZURN MODEL NO. Z-1441 OR APPROVED EQUAL	WALL	–	4"	–	–	–	–	7" DIA. STAINLESS STEEL COVER
W.H.A.	WATER HAMMER ARRESTOR	ZURN SERIES 1700 OR APPROVED EQUAL	–	–	–	–	VARIES	VARIES	–	

EQUALS BY SMITH OR JONES WILL BE ACCEPTED

OUTDOOR GAS WATER HEATER SCHEDULE

MARK NO.	MODEL NO.	BTU INPUT	RECOVERY GPH @ 45°/77° RISE	GAS CONN SIZE	WIDTH SIZE	DEPTH SIZE	HEIGHT SIZE	WATER CONN SIZE	APPROX SHIP WEIGHT	VOLTAGE
GWH-G1	RHEEM NO RTGH-S11i OR APP'V EQUAL.	199,900	8.8/5.9	3/4"	17-5/16"	13-11/16"	28-9/16"	3/4"	78	120-1-60

NOTES:
1. INCLUDE RTGH-SX OUTDOOR CONVERSION KIT
2. SINGLE COMMERCIAL WALL MOUNTED REMOTE CONTROL
3. STANDARD VENT DISCHARGE KIT
4. NATURAL GAS PRESSURE : 7" – 10.5" W.C.
5. INSTALLATION SHALL INCLUDE HEAT TRACING OF ALL WATER PIPING.
6. INSTALLATION SHALL INCLUDE SURFACE MOUNTED WALL BOX WITH PIPE ENCLOSURE CHASE.
7. ELECTRICAL IS 120-1-60 , 85 WATTS
8. INSTALLATION SHALL INCLUDE GAS PRESSURE REGULATOR TO REDUCE GAS PRESSURE FROM 2 PSIG TO 9 W.C.
9. WARRANTY: 15 YEARS HEAT EXCHANGER, 5 YEAR PARTS, 1 YEAR LABOR

PLUMBING DRAWING INDEX

SHEET NO.	SHEET TITLE
GP1.1	UNIT SUPPLY/GPTB – PLUMBING SCHEDULES, LEGEND, NOTES, AND DETAILS
GP1.2	UNIT SUPPLY/GPTB – PLUMBING DETAILS
GP1.3	UNIT SUPPLY/GPTB – PLUMBING DETAILS
GP2.1	UNIT SUPPLY/GPTB – WASTE & CONDENSATE PLUMBING PLAN – ZONE A
GP2.2	UNIT SUPPLY/GPTB – WASTE, AIR, & CONDENSATE PLUMBING PLAN – ZONE B
GP3.1	UNIT SUPPLY/GPTB – WATER PLUMBING PLAN – ZONE A
GP3.2	UNIT SUPPLY/GPTB – WATER & GAS PLUMBING PLAN – ZONE B
GP4.1	GPTB – WASTE PLUMBING RISER DIAGRAM
GP4.2	GPTB – WATER PLUMBING RISER DIAGRAM
GP4.3	GPTB – GAS PLUMBING RISER DIAGRAM

CONDENSATE PLUMBING NOTES

1. CONDENSATE PIPING, FITTINGS, & ACCESSORIES SHALL BE PROVIDED & INSTALLED IN ACCORDANCE WITH 2024 IMC SECTION 307.
2. SLOPE ALL CONDENSATE 1/8 INCH/FT (1% SLOPE)
3. CONDENSATE TO ALL UNITS SHALL BE IN ACCORDANCE W/ MANUFACTURER'S RECOMMENDATIONS AND THE INTERNATIONAL MECHANICAL CODE, SECTION 307 (2024 IMC)
4. ALL CONDENSATE FITTING SHALL BE SANITARY TYPE FITTINGS.
5. ALL CONDENSATE PIPING SHALL BE INSULATED WITH 1/2" ARMAFLEX INSULATION (OR APPROVED EQUAL). INSULATION SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATION.
6. ALL CONDENSATE DRAIN PIPING LOCATED WITHIN RETURN AIR PLENUM, SHALL BE TYPE "L" COPPER. ALL COPPER PIPING MUST BE INSULATED WITH 1/2" ARMAFLEX OR APPROVED EQUAL. PIPING CAN ALSO BE SCHEDULE 40 CPVC WITH 3M FIRE BARRIER PLENUM WRAP 5A+ OR APPROVED EQUAL. COORDINATE WITH HVAC PLAN FOR REQUIREMENT AND LOCATION OF AIR PLENUM(S).
7. INSTALL ANGLE COVER OVER CONDENSATE LINES THAT CROSS MEZZANINE/MECHANICAL ROOM FLOOR WHERE TRIPPING MIGHT BE A HAZARD. PRIME AND PAINT ANGLE COVER SAFETY YELLOW COLOR.
8. DUCTLESS MINI-SPLIT EQUIPMENT THAT PRODUCES CONDENSATE SHALL BE PROVIDED WITH AN IN-LINE CHECK VALVE LOCATED IN THE DRAIN LINE OR TRAP. COORDINATE WITH MANUFACTURER'S RECOMMENDATIONS.
9. AN AUXILIARY DRAIN PAN WITHOUT A SEPARATE DRAIN LINE SHALL BE PROVIDED UNDER THE COILS ON WHICH CONDENSATE WILL OCCUR. SUCH PAN SHALL BE EQUIPPED WITH A WATER-LEVEL DETECTION DEVICE CONFORMING TO UL 508 THAT WILL SHUT OFF THE EQUIPMENT SERVED PRIOR TO OVERFLOW OF THE PAN. THE AUXILIARY DRAIN PAN SHALL HAVE A MINIMUM DEPTH OF 1-1/2 INCHES, SHALL BE NOT LESS THAN 3 INCHES LARGER THAN THE UNIT, OR THE COIL DIMENSIONS IN WIDTH AND LENGTH AND SHALL BE CONSTRUCTED OF CORROSION-RESISTANT MATERIAL. GALVANIZED SHEET STEEL PANS SHALL HAVE A MINIMUM THICKNESS OF NOT LESS THAN 0.0236 INCH (NO 24 GAGE). NONMETALLIC PANS SHALL HAVE A MINIMUM THICKNESS OF NOT LESS THAN 0.0625 INCH.
10. A WATER-LEVEL DETECTION DEVICE CONFORMING TO UL 508 SHALL BE PROVIDED THAT WILL SHUT OFF THE EQUIPMENT SERVED IN THE EVENT THAT THE PRIMARY DRAIN IS BLOCKED. THE DEVICE SHALL BE INSTALLED IN THE PRIMARY DRAIN LINE, THE OVERFLOW DRAIN LINE, OR IN THE EQUIPMENT-SUPPLIED DRAIN PAN, LOCATED AT A POINT HIGHER THAN THE PRIMARY DRAIN LINE CONNECTION AND BELOW THE OVERFLOW RIM OF SUCH PAN.
11. WATER-LEVEL MONITORING DEVICES : ON DOWN-FLOW UNITS AND ALL OTHER COILS THAT DO NOT HAVE A SECONDARY DRAIN OR PROVISIONS TO INSTALL A SECONDARY OR AUXILIARY DRAIN PAN, A WATER-LEVEL MONITORING DEVICE SHALL BE INSTALLED INSIDE THE PRIMARY DRAIN PAN. THIS DEVICE SHALL SHUT OFF THE EQUIPMENT SERVED IN THE EVENT THAT THE PRIMARY DRAIN BECOMES RESTRICTED. DEVICES INSTALLED IN THE DRAIN LINE SHALL NOT BE PERMITTED.
12. APPLIANCE, EQUIPMENT AND INSULATION IN PANS : WHERE APPLIANCES, EQUIPMENT OR INSULATION ARE SUBJECT TO WATER DAMAGE WHEN AUXILIARY DRAIN PANS FILL, THAT PORTION OF THE APPLIANCE, EQUIPMENT AND INSULATION SHALL BE INSTALLED ABOVE THE RIM OF THE PAN. SUPPORTS LOCATED INSIDE OF THE PAN TO SUPPORT THE APPLIANCE OR EQUIPMENT SHALL BE WATER RESISTANT AND APPROVED.
13. TRAPS : CONDENSATE DRAINS SHALL BE TRAPPED AS REQUIRED BY THE EQUIPMENT OR APPLIANCE MANUFACTURER.
14. DUCTLESS MINI-SPLIT SYSTEM TRAPS : DUCTLESS MINI-SPLIT EQUIPMENT THAT PRODUCES CONDENSATE SHALL BE PROVIDED WITH AN INLINE CHECK VALVE LOCATED IN THE DRAIN LINE, OR A TRAP.
15. CONDENSATE PUMPS : CONDENSATE PUMPS LOCATED IN UNINHABITABLE SPACES, SUCH AS ATTICS AND CRAW SPACES, SHALL BE CONNECTED TO THE APPLIANCE OR EQUIPMENT SERVED SUCH THAT WHEN THE PUMP FAILS, THE APPLIANCE OR EQUIPMENT WILL BE PREVENTED FROM OPERATING PUMPS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

PLUMBING LEGEND

SS	SANITARY SEWER	C.O.	CLEANOUT UP TO GRADE
GW	GREASE WASTE		FLOOR DRAIN
GO	GREASE/OIL WASTE		FLOOR SINK
V	VENT		HUB DRAIN
VBG	VENT BELOW GRADE/FLOOR		GRIT/SAND TRAP
CW	COLD WATER		HOT WATER RETURN PUMP
110	110° HOT WATER	SV	BALL VALVE
140	140° HOT WATER		BALL VALVE IN PLASTIC METER BOX W/ CAST IRON LID
140HWR	140° HOT WATER RETURN		GAS COCK
NG	NATURAL GAS		CHECK VALVE
CD	CONDENSATE DRAIN		BUTTERFLY VALVE
A	COMPRESSED AIR (SHOP)		THREE WAY VALVE
------------	1/2" TRAP PRIMER LINE	VTR	VENT THRU ROOF
		AAV	AIR ADMITTANCE VALVE (SBCCI APPROVED)

MIXING VALVE SCHEDULE

MARK NO.	MANUFACTURER'S MODEL NO.	TEMPERATURE (°F)	INLET	OUTLET
MV-1	POWERS SERIES LFLM495 BELOW SINK	SET AT 90°-110°	1/2"	1/2"

NOTES:
1. UNLESS OTHERWISE NOTED, MIXING VALVES SHALL CONFORM TO ASSE 1070 AND ASSE 1017

CIRCULATOR PUMP SCHEDULE

MARK NO.	TYPE	GPM	TOTAL HEAD FT. W.G.	MAXIMUM H.P.	MINIMUM EFFICIENCY	ELECTRICAL	DESIGN MFGR.	DESIGN MFGR. MODEL NO.
CP-G1	IN-LINE CENTRIF.	0-11	0-4.5	1/40	–	120-1-60	TACO	006e3LC

NOTES:
1. SmartPlus-e HOT WATER RECIRCULATION PUMP WITH SmartPlug CONTROLS FOR DOMESTIC WATER
2. 1" BRONZE SWEAT
3. 6 FT. CORD

GPTB - PLUMBING SCHEDULES, LEGEND, NOTES, AND DETAILS

NOT TO SCALE

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
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WHORTON ENGINEERING PROJECT NO. 22164

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Rev.	Description	Date

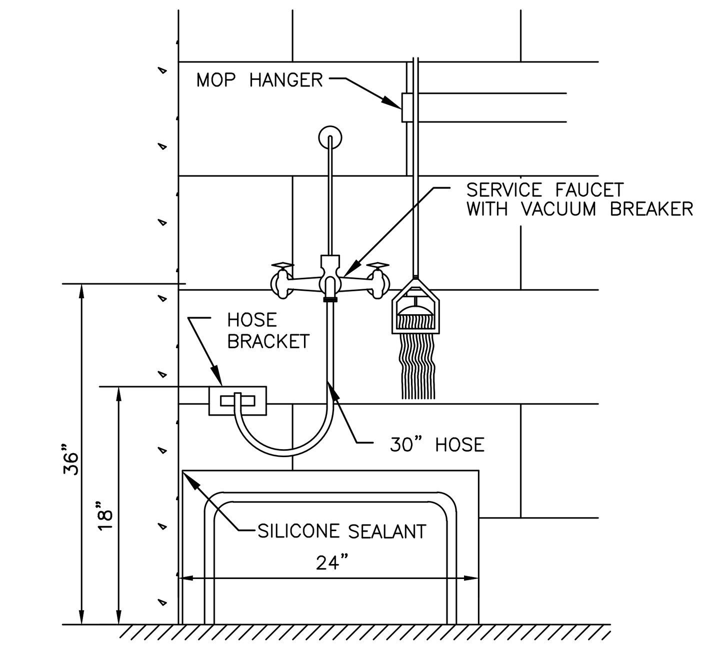
Job Number 21112
AL ARNG IFB # AC-25-B-0006-S
Date NOVEMBER 1, 2024
Drawn By TMW
Checked By RDW

Project Title
HUNTSVILLE READINESS CENTER
5180 MOORE'S MILL ROAD
HUNTSVILLE AL, 35811

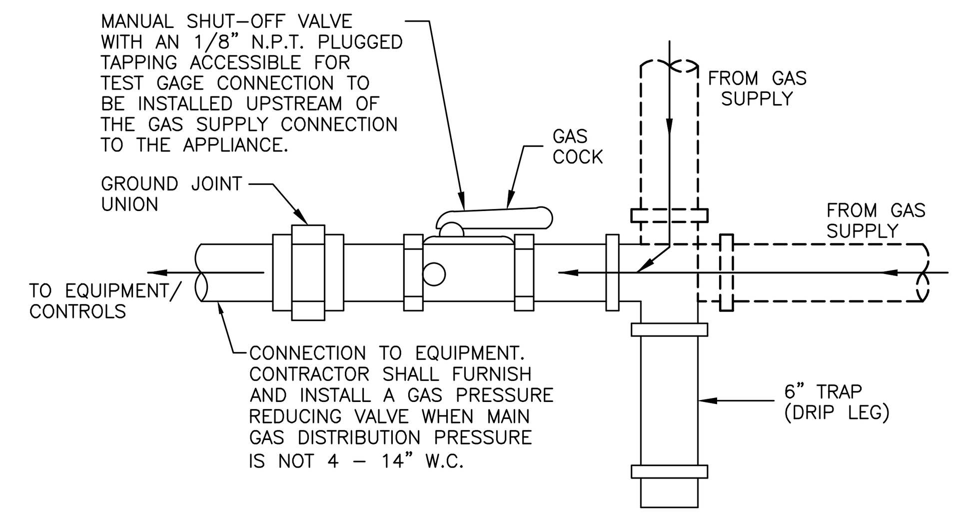
Sheet Title
GPTB - PLUMBING SCHEDULES, LEGEND, NOTES, AND DETAILS

Sheet Number
GP1.1

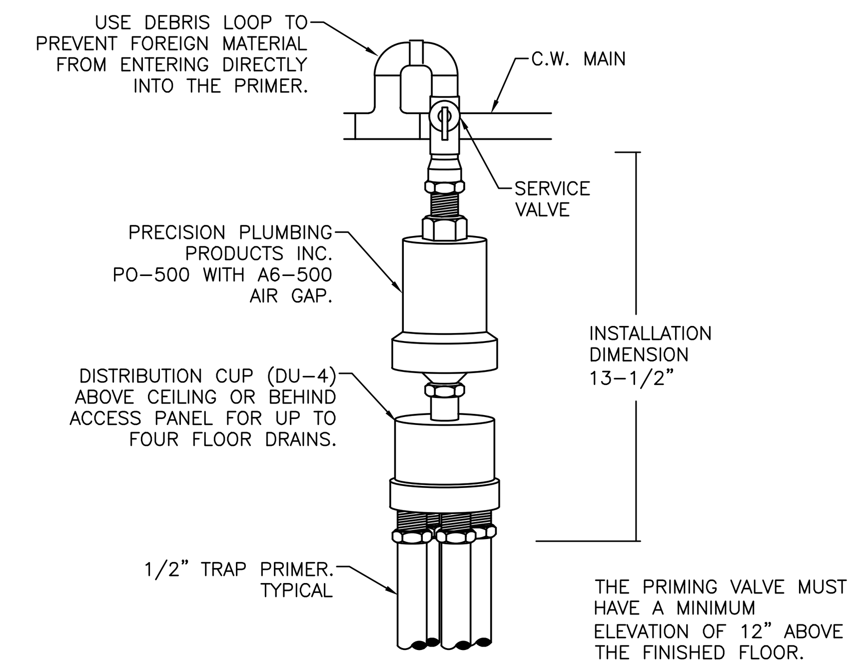
ALABAMA LICENSED No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON
11-05-2024



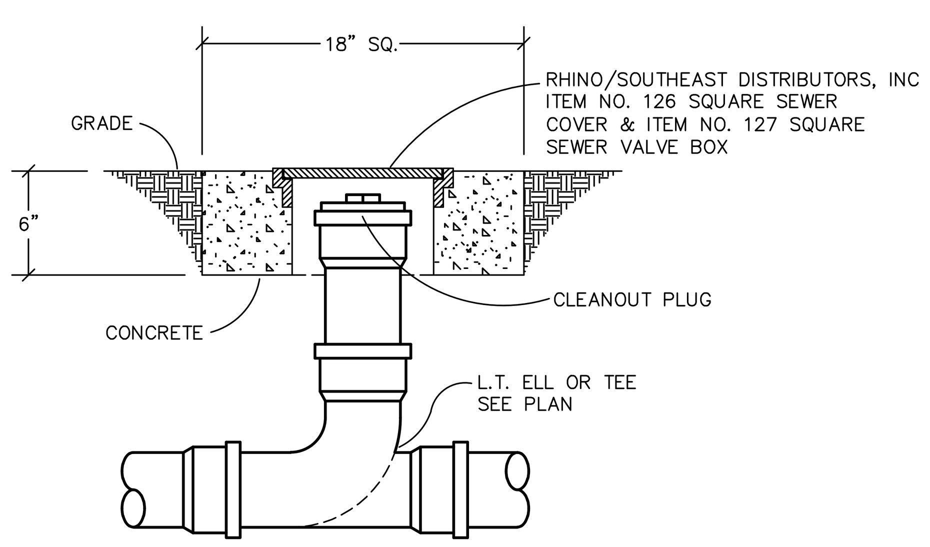
SERVICE/MOP SINK DETAIL



GAS CONNECTION TO EQUIPMENT DETAIL



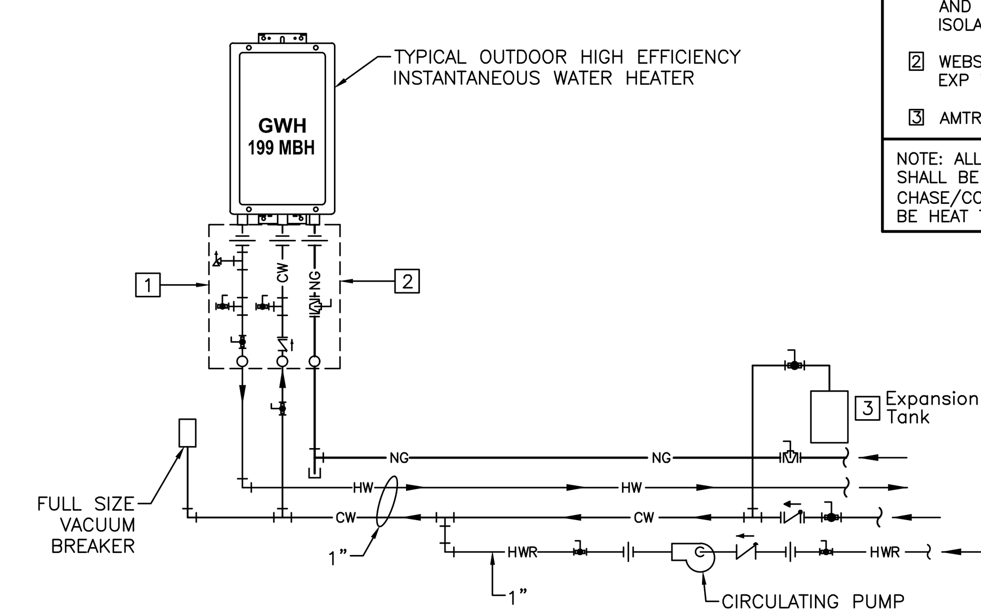
TYPICAL TRAP PRIMER



CLEANOUT UP TO GRADE

1. WEBSTONE MODEL 28003 FULL PORT FORGED BRASS PRESSURE RELIEF RELOCATION FITTING, RELIEF VALVE, AND WEBSTONE MODEL 40653 HOT ISOLATOR EXP WITH IPS CONNECTIONS.
2. WEBSTONE MODEL 40663 COLD ISOLATOR EXP WITH IPS CONNECTIONS.
3. AMTROL EXPANSION TANK. MODEL ST-12

NOTE: ALL PIPING ON EXTERIOR OF BUILDING SHALL BE CONCEALED INSIDE FACTORY PIPE CHASE/COVER. ALL OUTDOOR PIPING SHALL BE HEAT TRACED.



OUTDOOR GAS WATER HEATER DETAIL

PVC PIPE HANGER SPACING GUIDE

PVC PIPE SUPPORTS - SCHEDULE 40
MAXIMUM SUPPORT SPACING (FEET)

NPS (INCHES)	OPERATING TEMPERATURE (°F)		
	60	100	140
1/2	4.5	4	2.5
3/4	5	4	2.5
1	5.5	4.5	2.5
1-1/4	5.5	5	3
1-1/2	6	5	3
2	6	5	3
3	7	6	3.5
4	7.5	6.5	4
6	8.5	7.5	4.5
8	9	8	4.5

CODES AND STANDARDS

2021 INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL MECHANICAL CODE
2021 INTERNATIONAL FUEL GAS CODE
2021 INTERNATIONAL FIRE CODE
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

GPTB - PLUMBING DETAILS

NOT TO SCALE

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Rev.	Description	Date

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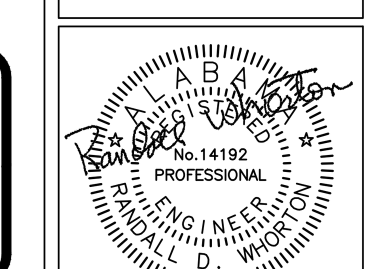
Project Title: HUNTSVILLE READINESS CENTER
5180 MOORE'S MILL ROAD
HUNTSVILLE AL, 35811

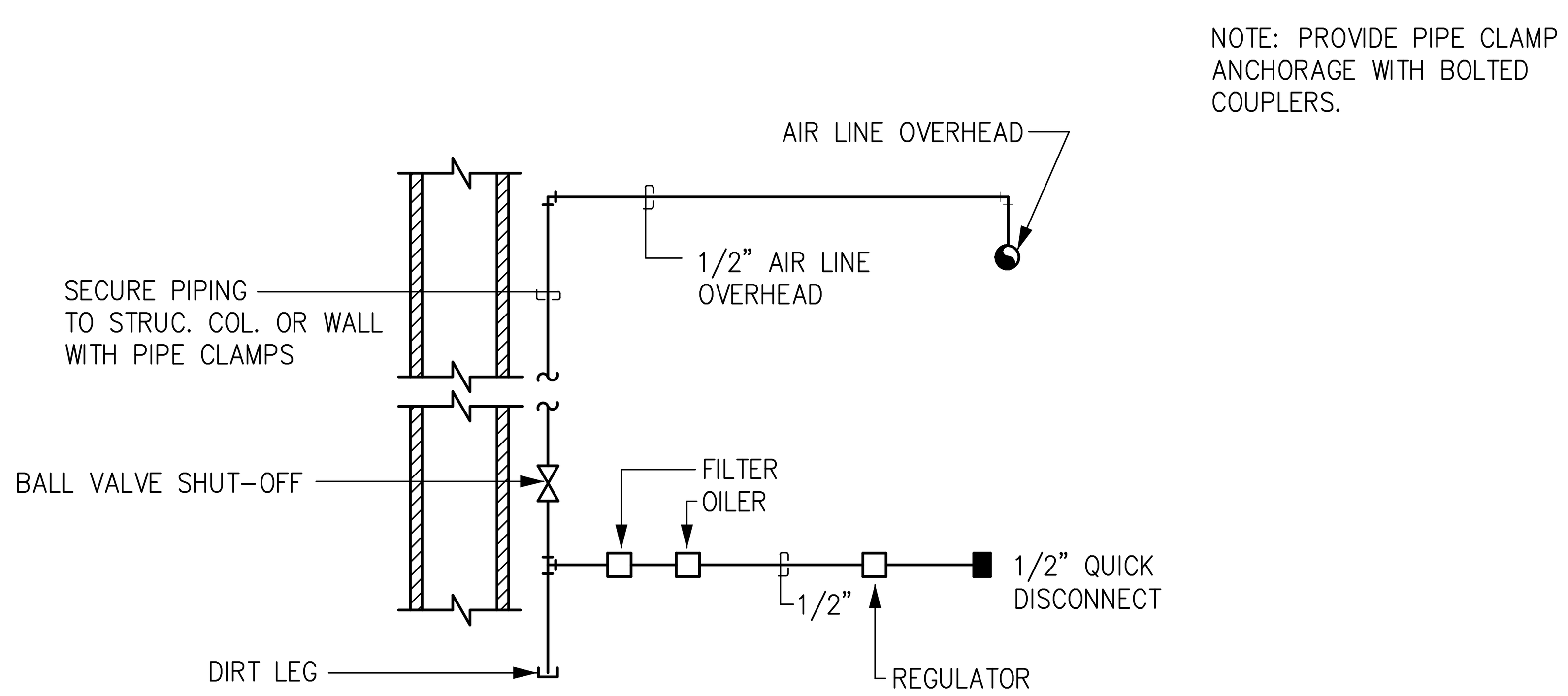
Sheet Title: GPTB - PLUMBING DETAILS

Sheet Number: GP1.2

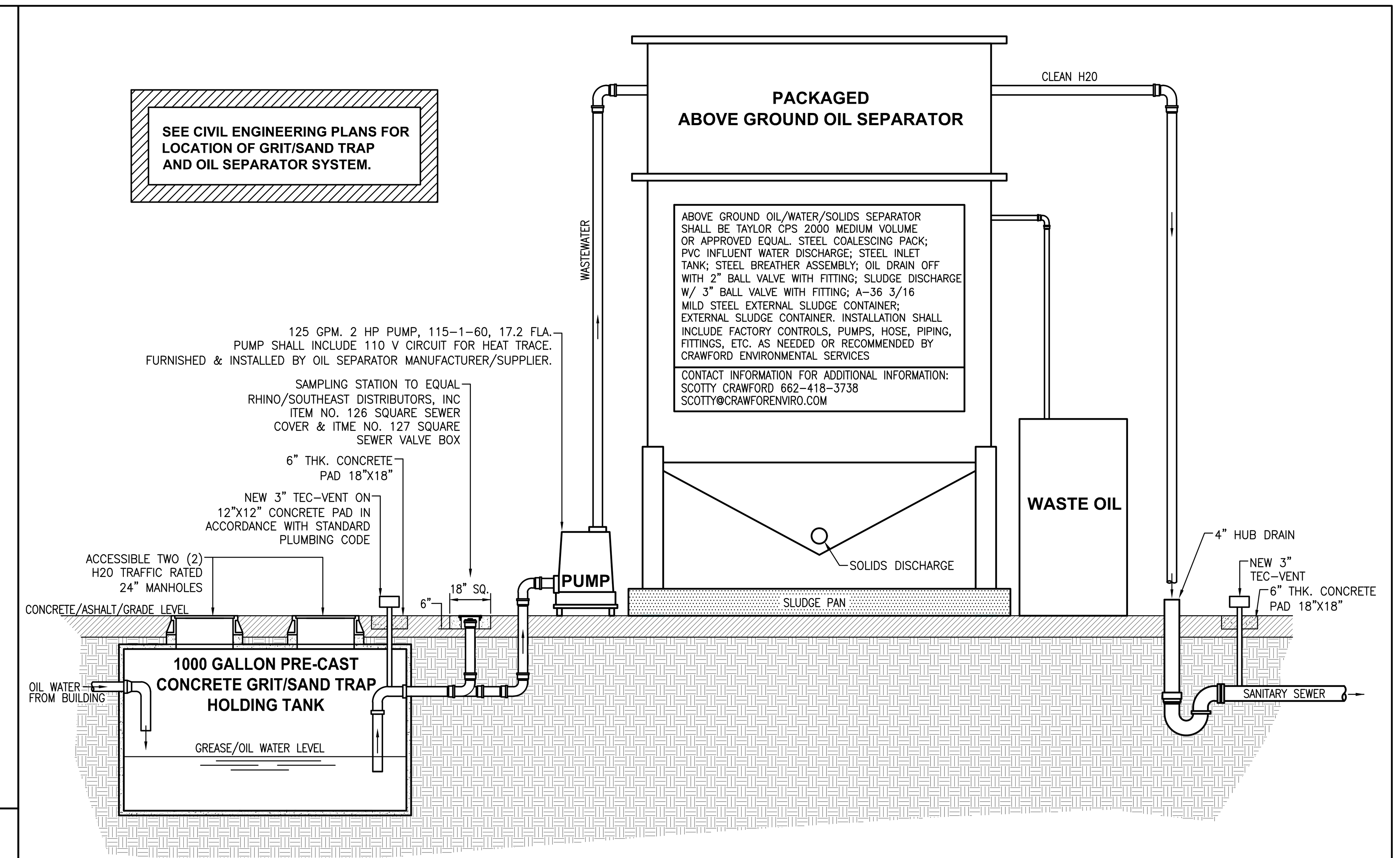


Proper filtration must be used for breathing air applications to meet OSHA29CFR1910.134.

AIR COMPRESSOR SCHEMATIC



1/2" TYPICAL AIR OUTLET SCHEMATIC



DETAILS OF GRIT/SAND TRAP WITH ABOVE GROUND OIL SEPARATOR

COMPRESSED AIR DRYER SCHEDULE

MARK NO.	PRESSURE MAX.	SCFM	ELECTRICAL	K.W.	MANUFACTURER	MFG MODEL NO.	NOTES:
PAD 1	232 PSI	75	115-1-60	1.6	QUINCY OR APP'D EQUAL	QRHT75	AIR COOLED, FACTORY INSTALLED GAUGES, 180' INLET OIL REMOVAL SYSTEM, WT = 168 LBS, R404A REFRIGERANT 3/4" NPT CONNECTIONS, 22.6"Lx18.1"Wx31"H

AIR COMPRESSOR SCHEDULE

MARK NO.	PRESSURE	SCFM	ELECTRICAL	H.P.	MANUFACTURER	MFG MODEL NO.	NOTES:
PAC 1	175 PSI	51	208-3-60	15	QUINCY OR APP'D EQUAL	QT-15 SIMPLEX	SEE BELOW

1. HORIZONTAL 120 GALLON TANK
2. AIR COOLED AFTER COOLER
3. DCN 5 MICRON, 5 PPM FILTER (BEFORE AIR DRYER)
4. CSN 1 MICRON, 0.01 PPM (AFTER DRYER - FINAL FILTER)
5. LOW OIL LEVEL MONITOR/SWITCH
6. POWER MONITOR
7. AUTOMATIC TANK DRAIN
8. QCS CONDENSATE PURIFIER
9. MAX PACKAGE OPTION
10. SIMPLEX CONTROL PANEL
11. QUINCY QRHT HIGH TEMPERATURE REFRIGERATED AIR DRYER (SCHEDULED ABOVE)

GPTB - PLUMBING DETAILS

NOT TO SCALE

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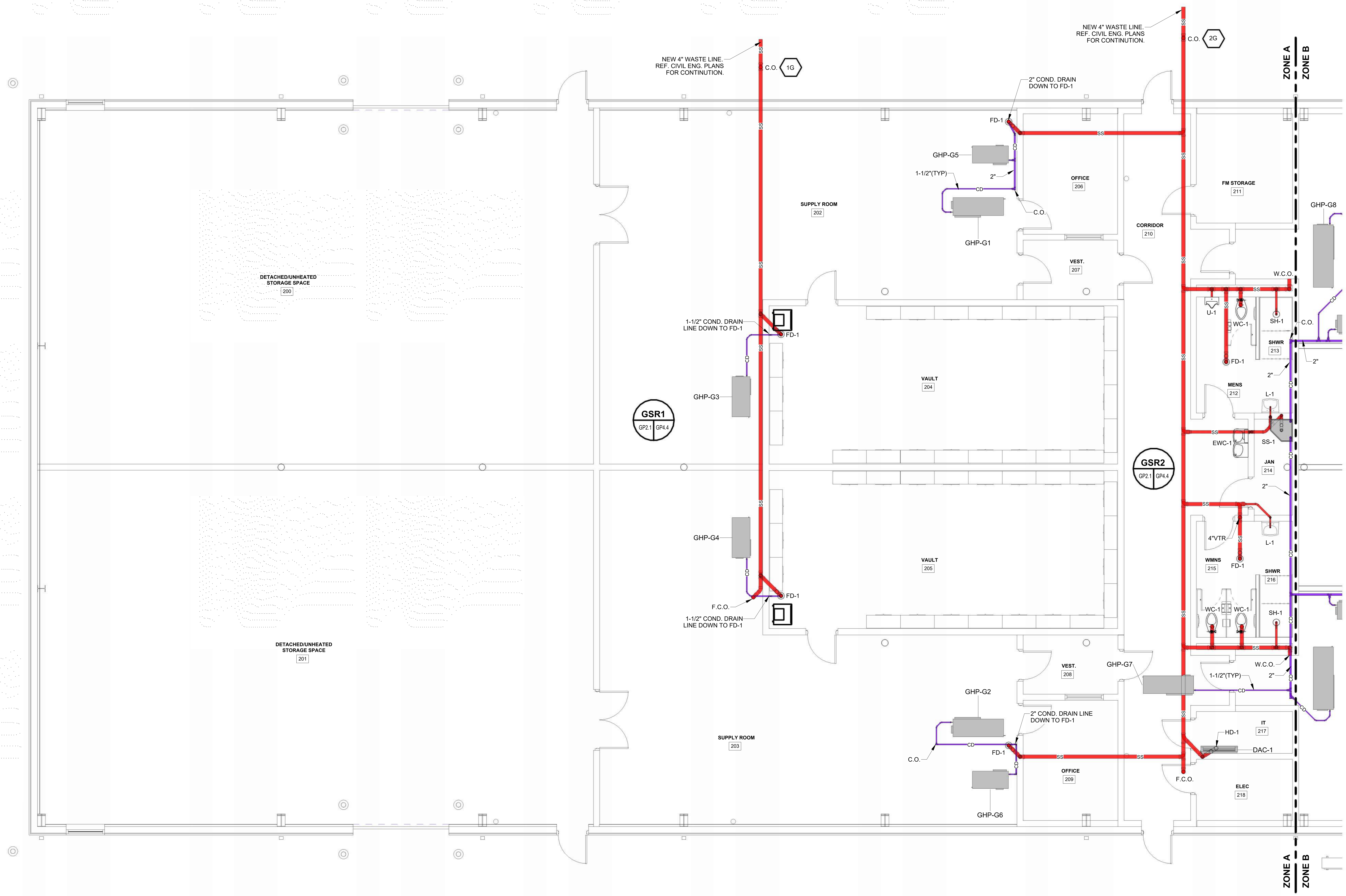
Sheet Title
GPTB - PLUMBING DETAILS

Sheet Number
GP1.3

STATE OF ALABAMA
No.14192
PROFESSIONAL ENGINEER
RANDALL D. WHORTON
11-05-2024



GPTB SS & GO WASTE OUTFALL

MARK NUMBER	HORIZONTAL LENGTH FT.	ESTIMATED BELOW FINISHED FLOOR FT.
1G	56'	± 3.58
2G	91'	± 3.95
3G	9'	± 3.03
4G	88'	± 3.92

GPTB - WASTE & CONDENSATE PLUMBING PLAN - ZONE A

3/16" = 1'-0"

0' 2' 4' 8' 16'

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Checked By RDW

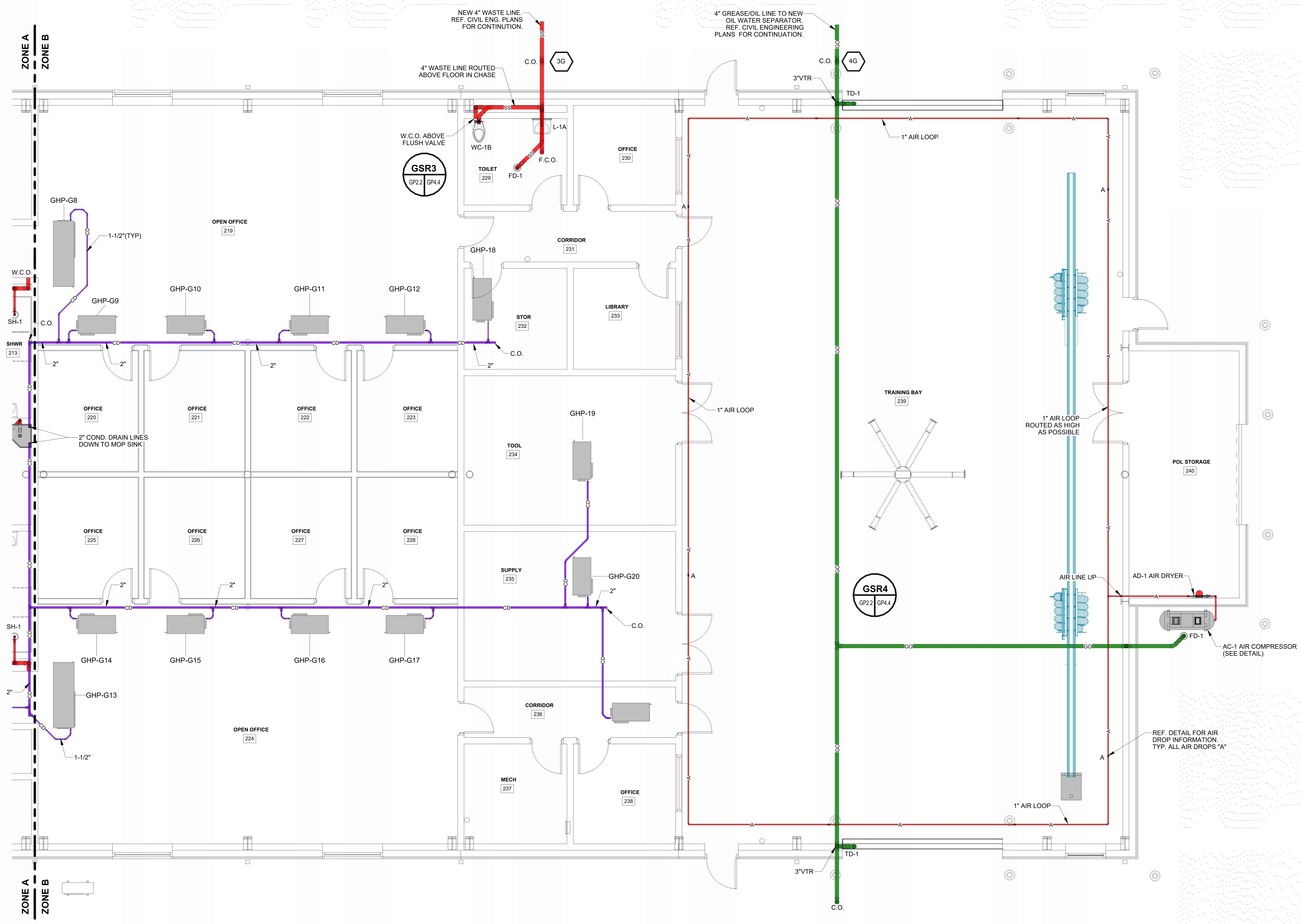
Project Title

HUNTSVILLE READINESS CENTER
5180 MOORE'S MILL ROAD
HUNTSVILLE AL, 35811

Sheet Title
GPTB - WASTE & CONDENSATE PLUMBING PLAN - ZONE A

Sheet Number
GP2.1

No.14192
PROFESSIONAL ENGINEER
RANDALL D. WHORTON
11-05-2024



GPTB SS & GO WASTE OUTFALL

MARK NUMBER	HORIZONTAL LENGTH FT.	ESTIMATED BELOW FINISHED FLOOR FT.
1G	56'	± 3.58
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3G	9'	± 3.03
4G	88'	± 3.92

GPTB - WASTE, AIR, & CONDENSATE PLUMBING PLAN - ZONE B

3/16" = 1'-0"

0' 2' 4' 8' 16'

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1	Revision 1	Date 1

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Checked By RDW

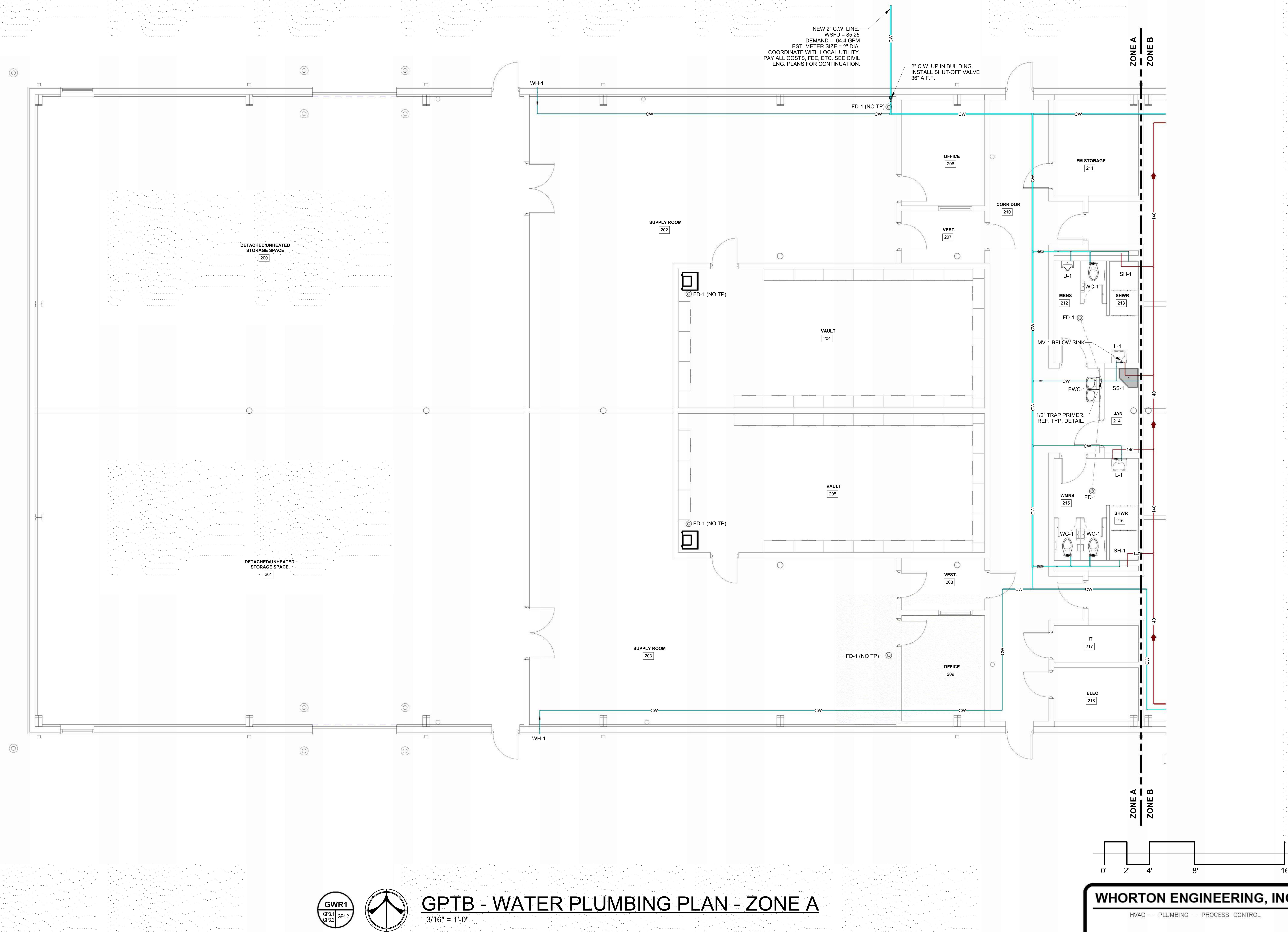
Project Title

HUNTSVILLE READINESS CENTER
5180 MOORE'S MILL ROAD
HUNTSVILLE AL, 35811

Sheet Title
GPTB - WASTE, AIR, & CONDENSATE PLUMBING PLAN - ZONE B

Sheet Number
GP2.2

RANDALL D. WHORTON No.14192 PROFESSIONAL ENGINEER
11-05-2024



GPTB - WATER PLUMBING PLAN - ZONE A

3/16" = 1'-0"

WHORTON ENGINEERING, INC.

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5180 MOORE'S MILL ROAD
HUNTSVILLE AL, 35811

Sheet Title:
GPTB - WATER PLUMBING PLAN - ZONE A

Sheet Number: GP3.1

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No.14192
PROFESSIONAL ENGINEER
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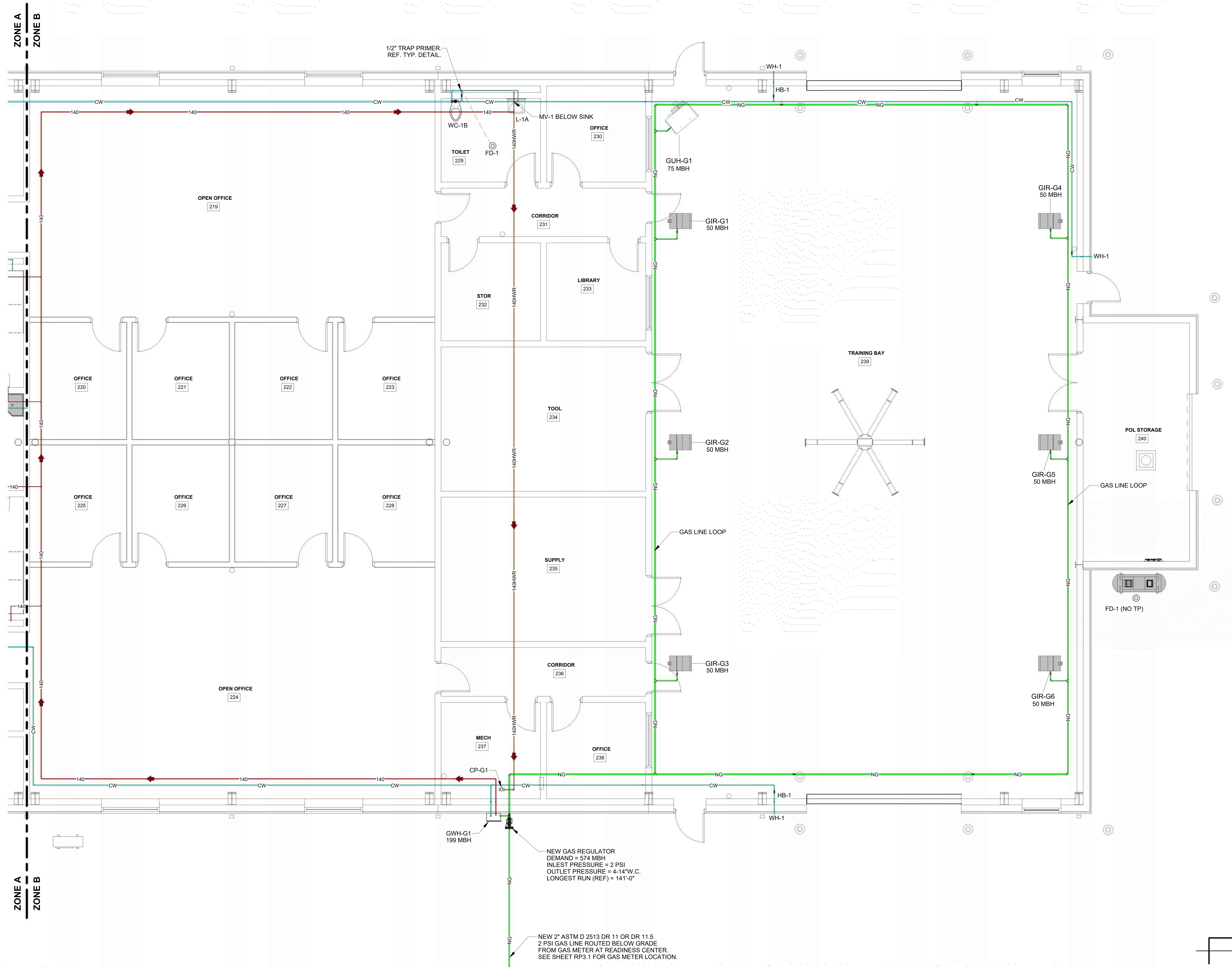

GGR1 GP3.2 GP4.3

GWR1 GP3.1 GP3.2 GP4.2

GPTB - WATER & GAS PLUMBING PLAN - ZONE B

3/16" = 1'-0"

0' 2' 4' 8' 16'

WHORTON ENGINEERING, INC.

HVAC – PLUMBING – PROCESS CONTROL

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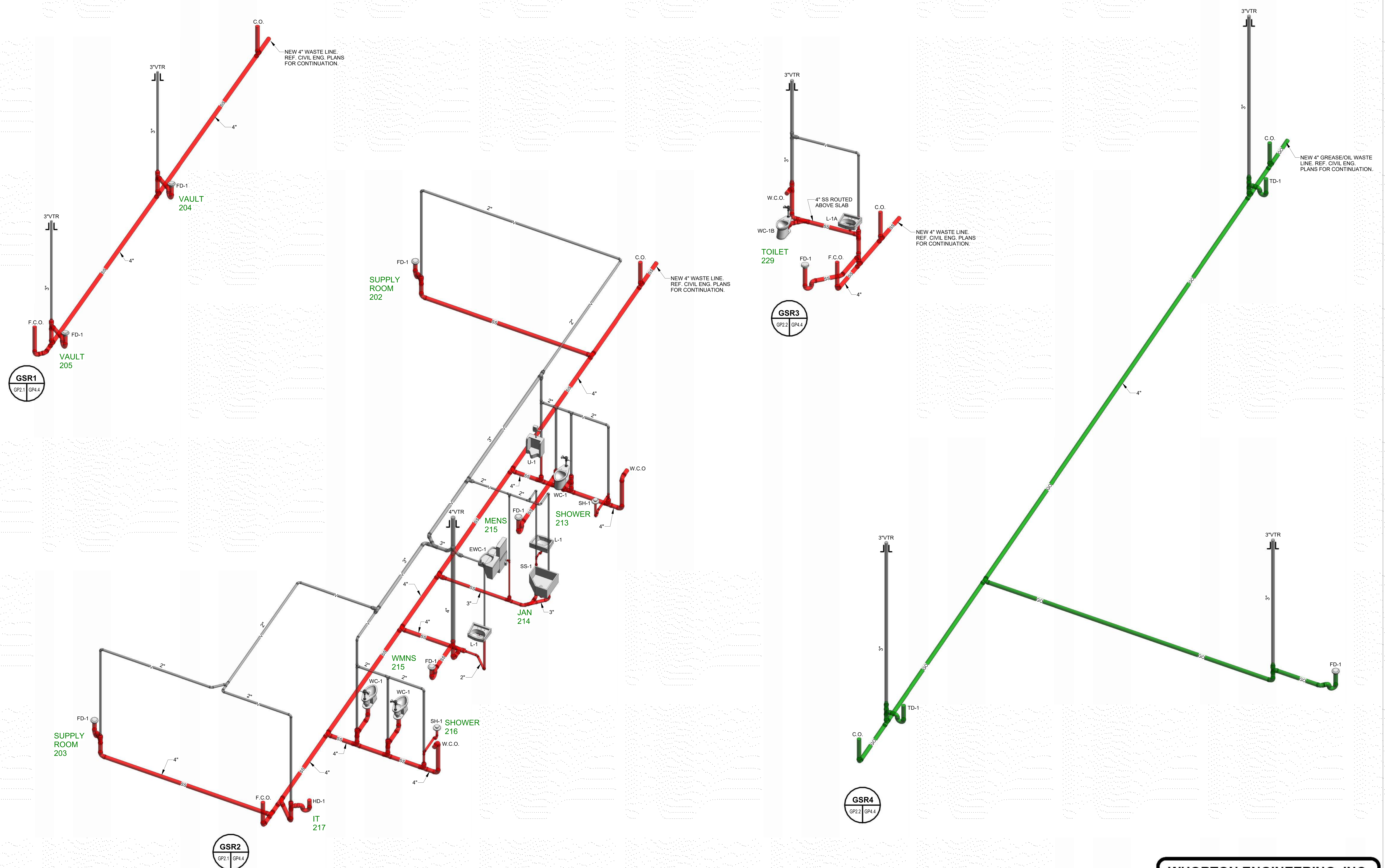
HUNTSVILLE AL, 35811

Sheet Title: GPTB - WATER & GAS PLUMBING PLAN - ZONE B

Sheet Number: GP3.2

ALABAMA No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON

11-05-2024



GPTB - WASTE RISER DIAGRAMS

NOT TO SCALE

WHORTON ENGINEERING, INC.

HVAC – PLUMBING – PROCESS CONTROL

RANDALL WHORTON, P.E.
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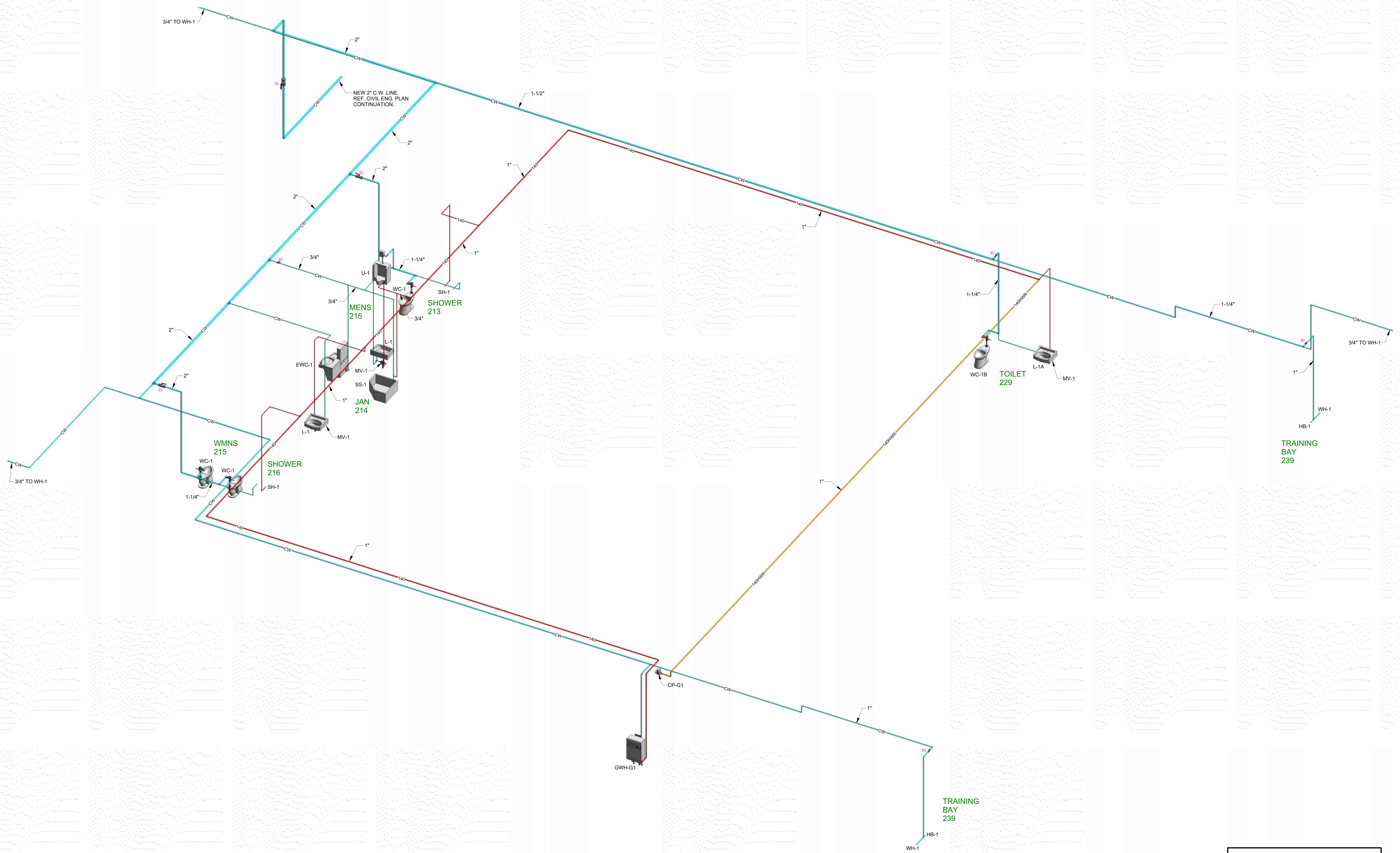
HUNTSVILLE READINESS CENTER
5180 MOORE'S MILL ROAD
HUNTSVILLE AL, 35811

Sheet Title: GPTB - WASTE PLUMBING RISER DIAGRAMS

Sheet Number: GP4.1

RANDALL D. WHORTON
No.14192
PROFESSIONAL ENGINEER
11-05-2024



DISTANCES ON RISER DIAGRAM ARE FOR REFERENCE PURPOSES ONLY.

GWR1
GP3.1
GP3.2
GP4.2

GPTB WATER PLUMBING RISER DIAGRAM

NOT TO SCALE

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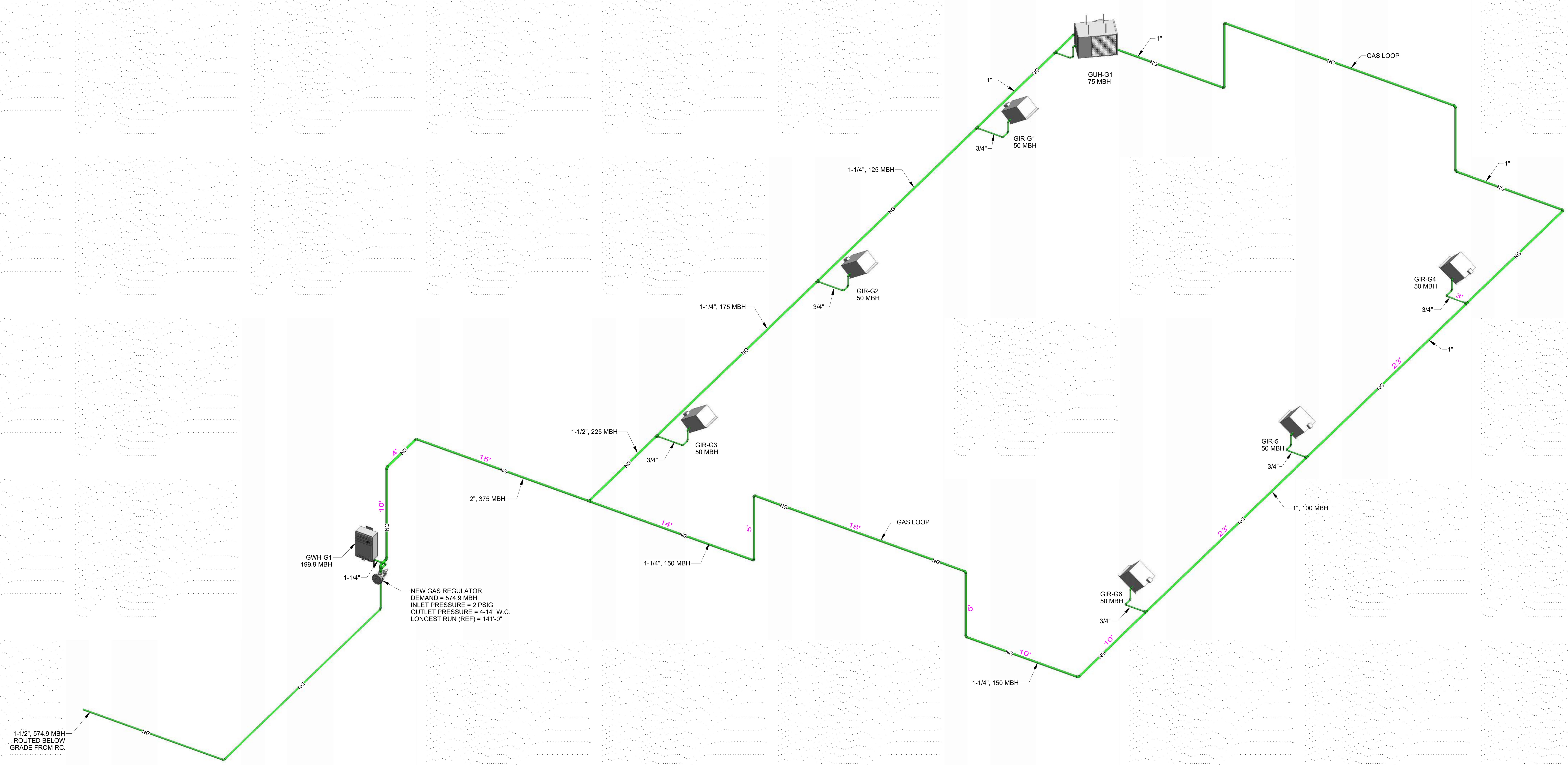
HUNTSVILLE AL, 35811

Sheet Title:
GPTB - WATER PLUMBING RISER DIAGRAM

Sheet Number:
GP4.2

STATE OF ALABAMA
No.14192
PROFESSIONAL ENGINEER
RANDALL D. WHORTON
11-05-2024



GGR1
GP3.2 | GP4.3

GPTB - GAS PLUMBING RISER DIAGRAM

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RDW

Checked By
RDW

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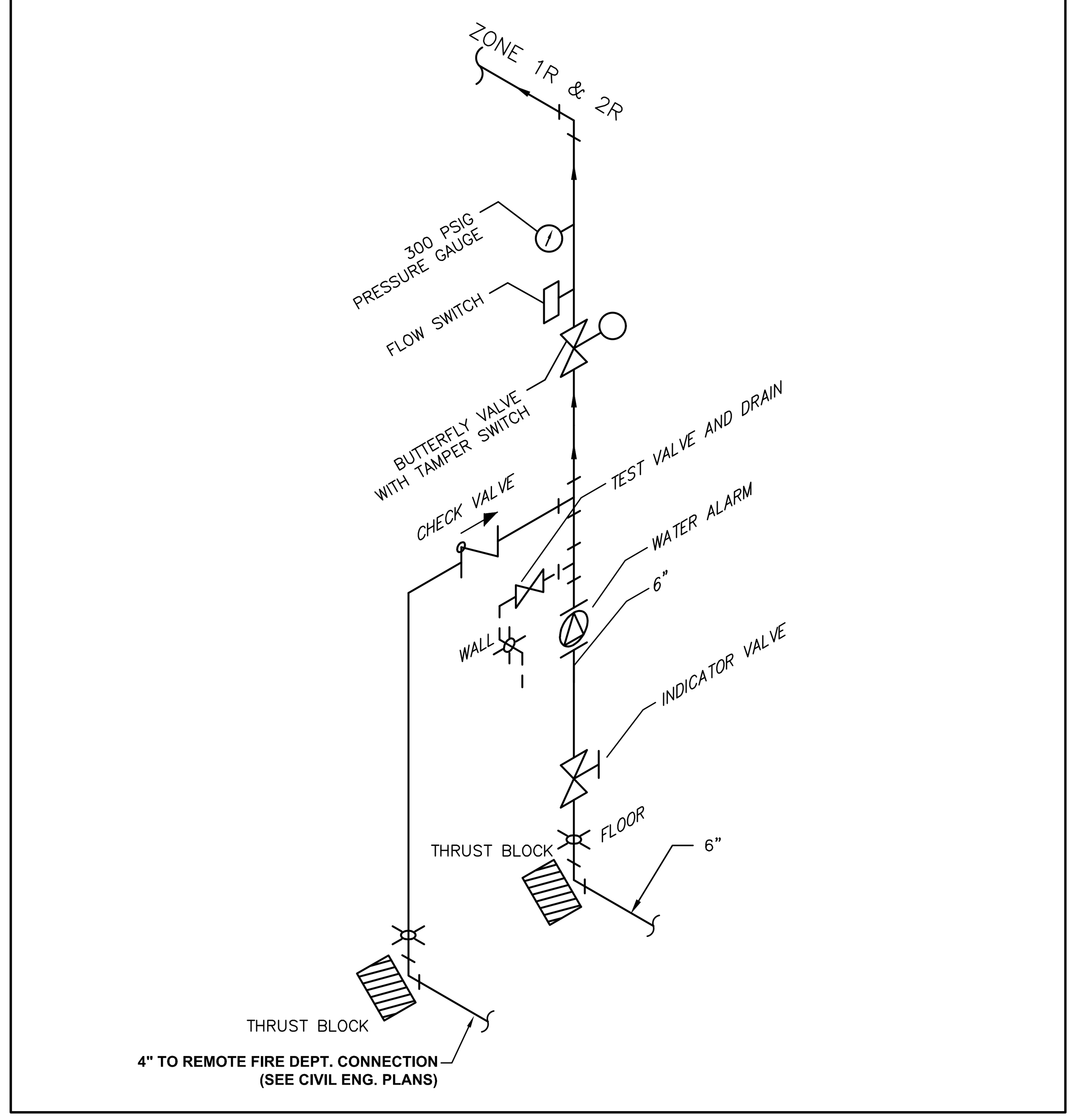
Sheet Title
GPTB - GAS PLUMBING RISER DIAGRAM

Sheet Number
GP4.3

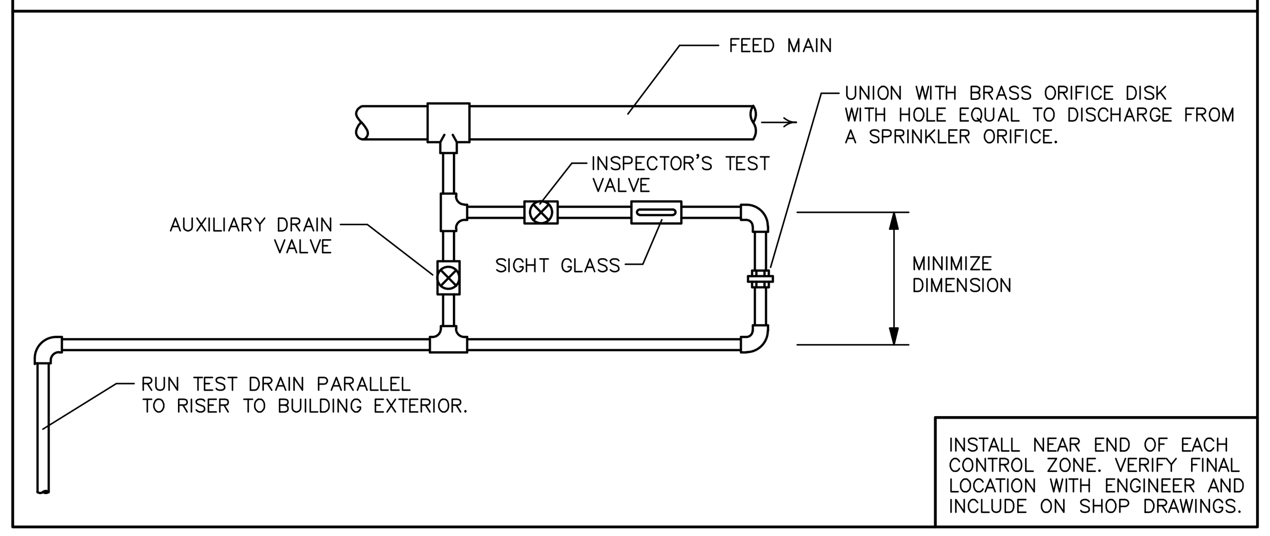
ALABAMA
No.14192
PROFESSIONAL ENGINEER
RANDALL D. WHORTON

11-05-2024

FIRE SERVICE RISER DIAGRAM



TYPICAL INSPECTOR'S TEST VALVE DETAIL



FIRE SPRINKLER SYSTEM NOTES

1. THE FIRE PROTECTION SYSTEM IS SHOWN IN SCHEMATIC FORM ONLY. THE SUCCESSFUL FIRE PROTECTION VENDOR SHALL LOCATE AND SIZE ALL SPRINKLER HEADS, FIRE DEPARTMENT CONNECTIONS, STANDPIPE SYSTEMS, PIPING, ETC. IN COMPLETE ACCORDANCE WITH NFPA 13 AND THE 2015 INTERNATIONAL BUILDING CODE AND LOCAL REQUIREMENTS.
2. SYSTEM DESIGN TO BE IN ACCORDANCE WITH WRITTEN SPECIFICATIONS. ALL HYDRAULIC CALCULATIONS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW AND APPROVAL.
3. ALL PIPING SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID PLUMBING AND HVAC INSTALLATIONS. FAILURE TO COORDINATE WORK WILL RESULT IN REWORK AT CONTRACTOR'S EXPENSE. MAINTAIN MINIMUM STAIR WELL EGRESS CLEARANCE.
4. INSTALL ALL ABOVE CEILING PIPING BELOW DUCT.
5. INSTALL ALL EXPOSED PIPING AS HIGH AS POSSIBLE.
6. ROUTE ALL EXPOSED PIPING IN CHASES WHERE POSSIBLE.
7. COORDINATE ALL WORK WITH ARCHITECTURAL, STRUCTURAL, HVAC AND ELECTRICAL TRADES, PLUMBING. PIPE ROUTING SHOWN IS DIAGRAMMATIC. PROVIDE ALL OFFSETS, ETC., TO AVOID INTERFERENCES WITH EQUIPMENT, PIPING, DUCTWORK, LIGHTS, CONDUIT, ETC..
8. COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL DRAWINGS. SET SLEEVES IN FLOORS AND WALLS AND ATTACHMENTS FOR HANGERS AS CONSTRUCTION PROGRESSES. ALL PENETRATIONS MUST BE SEALED AND HELD AS TIGHT TO COLUMNS OR WALLS AS POSSIBLE.
9. ALL PIPING SHALL BE CONCEALED INSIDE WALLS AND IN PIPE CHASES OR ABOVE CEILINGS. HOLD ALL PIPING ABOVE CEILING AS HIGH AS POSSIBLE.
10. ALL STRUCTURAL PENETRATIONS (SLEEVES, BLOCKOUTS, ETC.) ARE TO BE LOCATED AND COORDINATED IN THE FIELD BY THE CONTRACTOR IN RELATION TO THE REQUIREMENTS OF FINAL EQUIPMENT AND FIXTURES SELECTED.
11. FIELD VERIFY EXACT SIZE, MATERIAL, AND LOCATION OF ALL EXISTING UTILITIES BEFORE BEGINNING WORK.
12. ALL WET PIPING TO BE ROUTED BELOW CEILING INSULATION
13. ALL DRY PIPING TO BE ROUTED IN ATTIC SPACE
14. FIRE SPRINKLER CONTRACTOR SHALL BE LICENSED BY THE ALABAMA STATE FIRE MARSHALL'S OFFICE.

FIRE SPRINKLER LEGEND

	CONNECT TO EXISTING PIPING FIELD VERIFY LOCATION OF ALL EXISTING PIPING.
—— F ——	EXISTING FIRE PROTECTION PIPING FIELD VERIFY EXACT LOCATION.
—— FP ——	NEW FIRE PROTECTION PIPING
FDV	FIRE DEPARTMENT VALVE
	CONTROL VALVE
— - —	SPRINKLER ZONE DIVISION

FIRE SPRINKLER ZONE LEGEND

ZONE NO.	AREA DISCRIPTION	SYSTEM TYPE	ZONE COVERAGE (SQFT)	ZONE HATCH PATTERN
1R	READINESS CENTER	WET PIPE	48,800	
2R	READINESS CENTER - SERVER & TELECOM ROOM	DRY HEAD OFF WET PIPE	359	

FIRE SPRINKLER DRAWING INDEX

SHEET NO.	SHEET TITLE
RSP1.1	READINESS CENTER – FIRE SPRINKLER LEGEND, NOTES, AND DETAILS
RSP2.1	READINESS CENTER – FIRE SPRINKLER PLUMBING PLAN – ZONE A
RSP2.2	READINESS CENTER – FIRE SPRINKLER PLUMBING PLAN – ZONE B
RSP2.3	READINESS CENTER – FIRE SPRINKLER PLUMBING PLAN – ZONE C
RSP2.4	READINESS CENTER – FIRE SPRINKLER PLUMBING PLAN – ZONE D

READINESS CENTER
FIRE SPRINKLER LEGEND, NOTES, AND DETAILS

NOT TO SCALE

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5180 MOORE'S MILL ROAD
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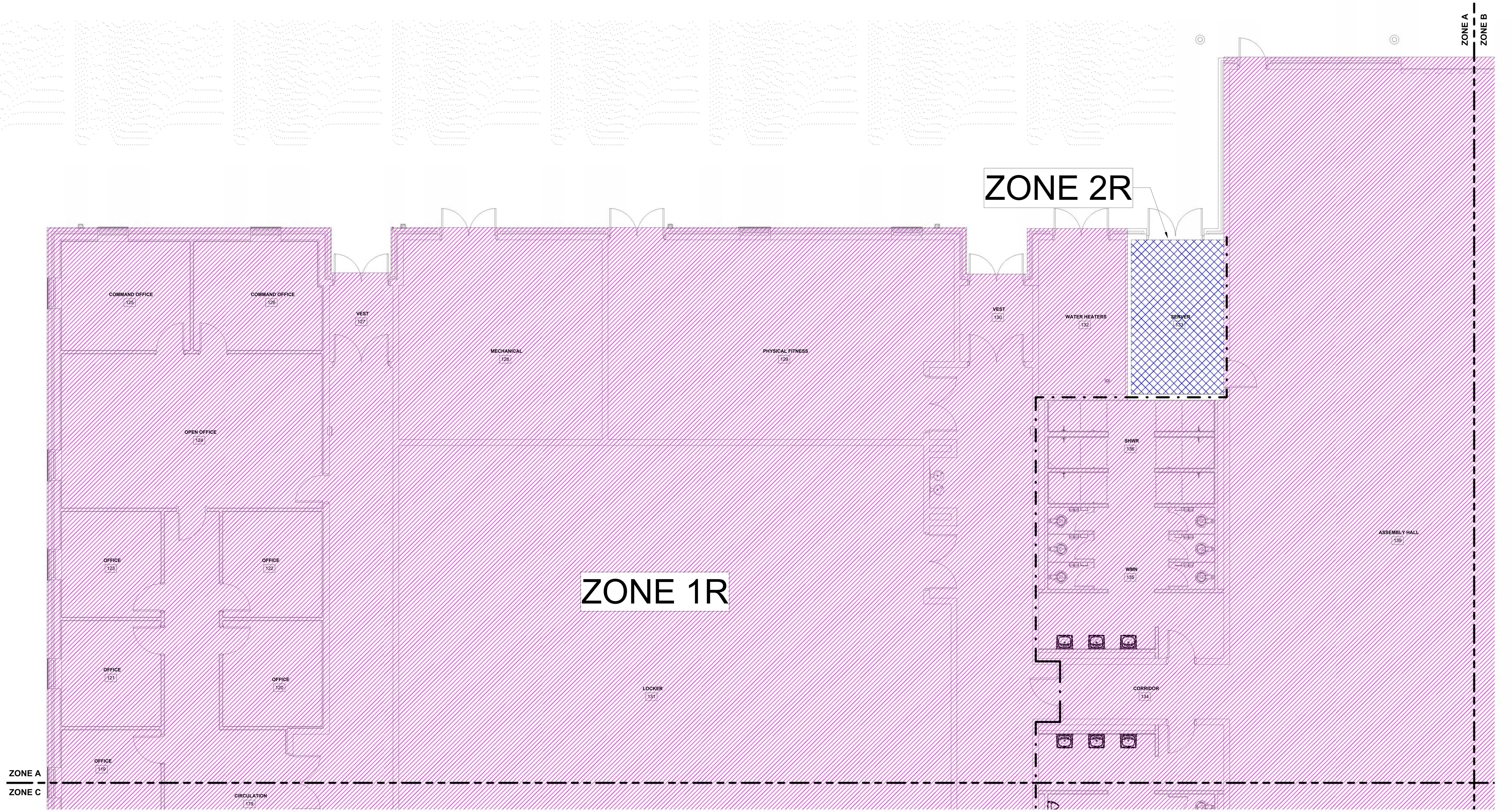
Sheet Title:
READINESS CENTER FIRE SPRINKLER LEGEND, NOTES, AND DETAILS

Sheet Number: RSP1.1

STATE OF ALABAMA
No.14192
PROFESSIONAL ENGINEER
RANDALL D. WHORTON
11-05-2024



FIRE WALL LEGEND	
— · — · —	ONE HOUR RATED FIRE BARRIER

READINESS CENTER - FIRE SPRINKLER PLUMBING PLAN - ZONE A

3/16" = 1'-0"

0' 2' 4' 8' 16'

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 22164

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Rev.	Description	Date

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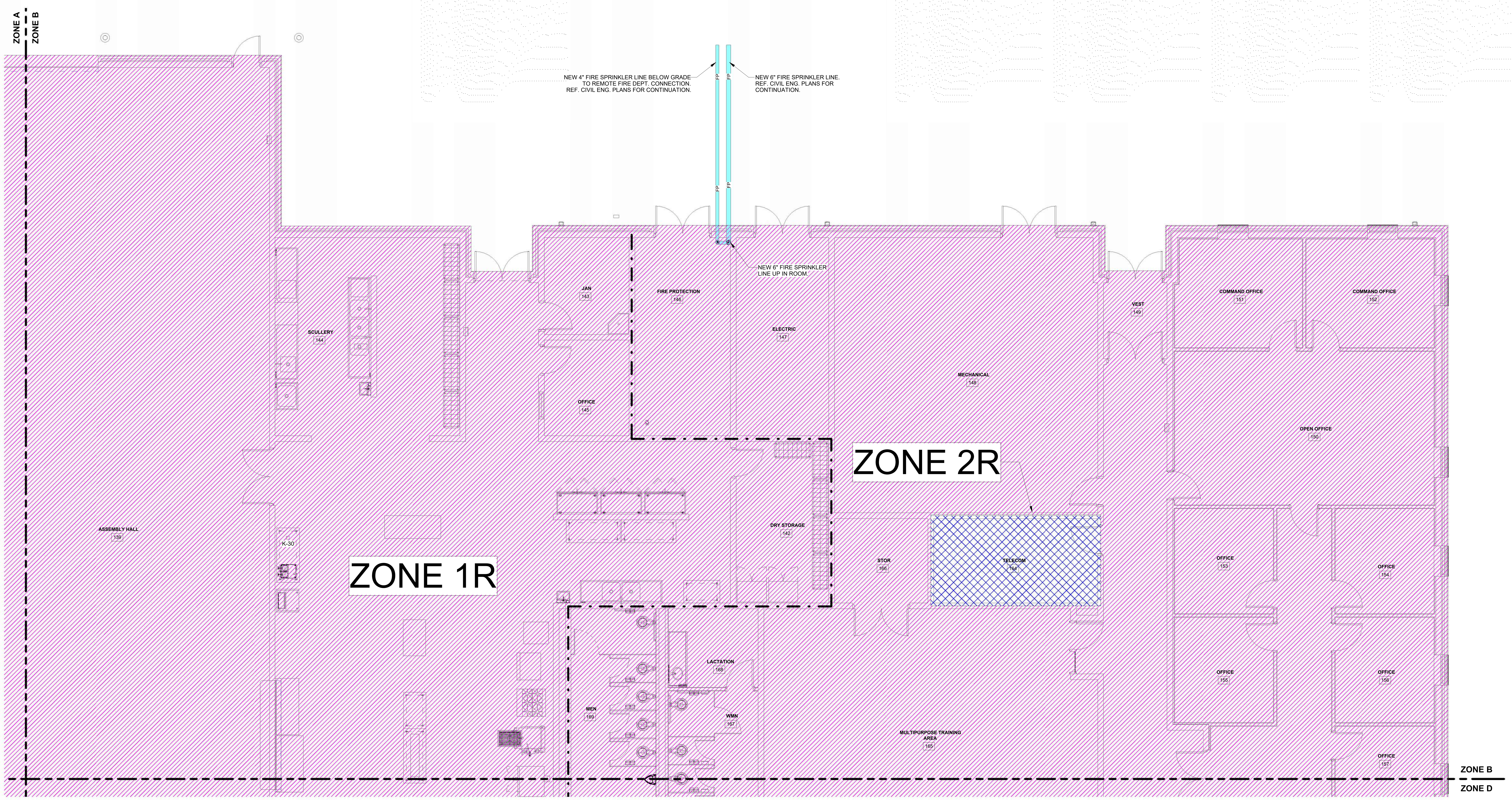
Drawn By: RDW
Checked By: RDW

Project Title: HUNTSVILLE READINESS CENTER
5180 MOORE'S MILL ROAD
HUNTSVILLE AL, 35811

Sheet Title: RC - FIRE SPRINKLER PLUMBING PLAN - ZONE A

Sheet Number: RSP2.1

No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON
11-11-2024



0' 2' 4' 8' 16'

FIRE WALL LEGEND

ONE HOUR RATED FIRE BARRIER

READINESS CENTER - FIRE SPRINKLER PLUMBING PLAN - ZONE B

3/16" = 1'-0"

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Checked By RDW

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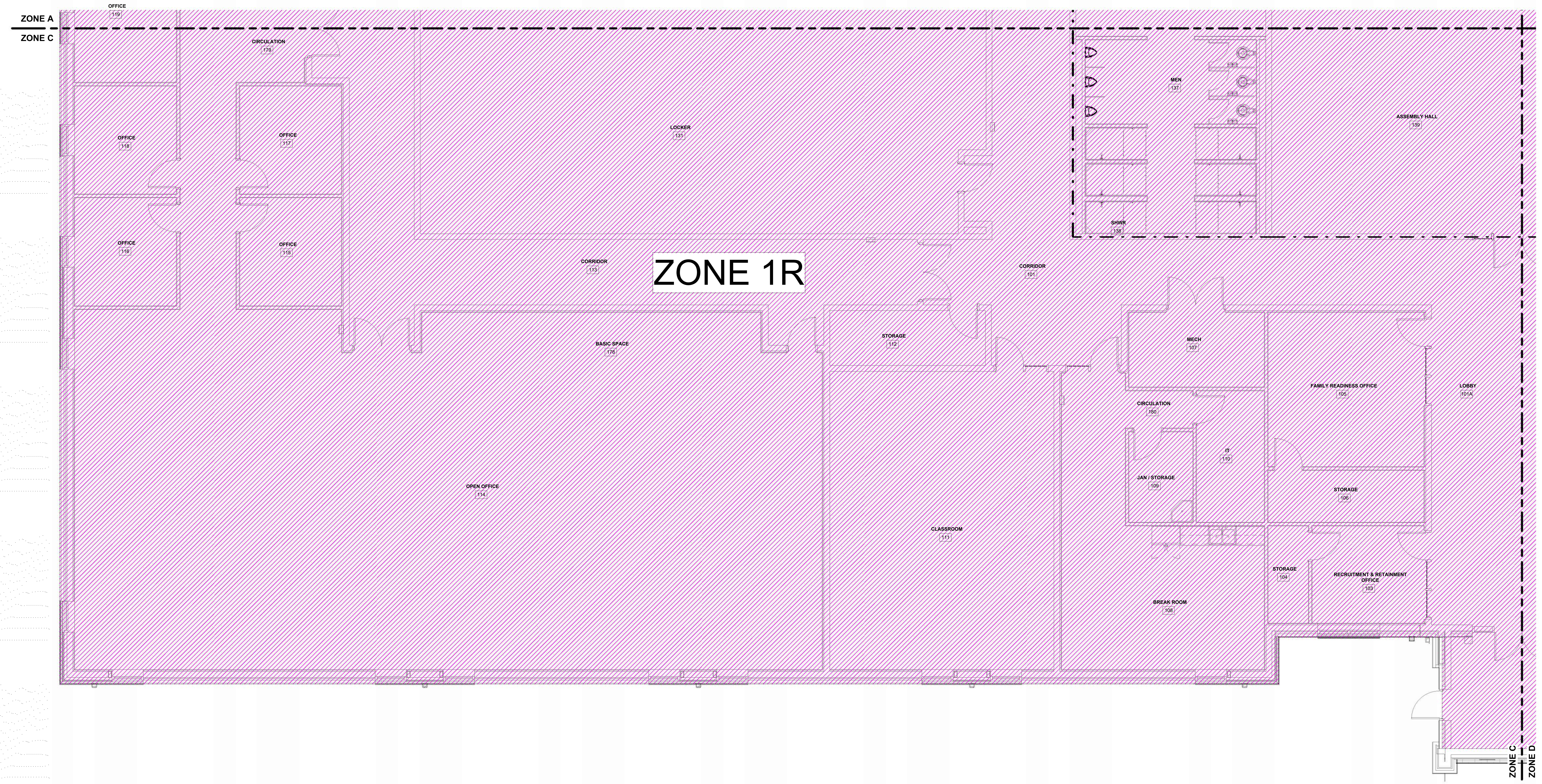
HUNTSVILLE READINESS CENTER
5180 MOORE'S MILL ROAD
HUNTSVILLE AL, 35811

Sheet Title
RC - FIRE SPRINKLER PLUMBING PLAN - ZONE B

Sheet Number
RSP2.2

STATE OF ALABAMA REGISTERED No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON
11-11-2024



0' 2' 4' 8' 16'

FIRE WALL LEGEND	
— · — · — ·	ONE HOUR RATED FIRE BARRIER

READINESS CENTER - FIRE SPRINKLER PLUMBING PLAN - ZONE C

3/16" = 1'-0"

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Sheet Title: RC - FIRE SPRINKLER PLUMBING PLAN - ZONE C

Sheet Number: RSP2.3

No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON
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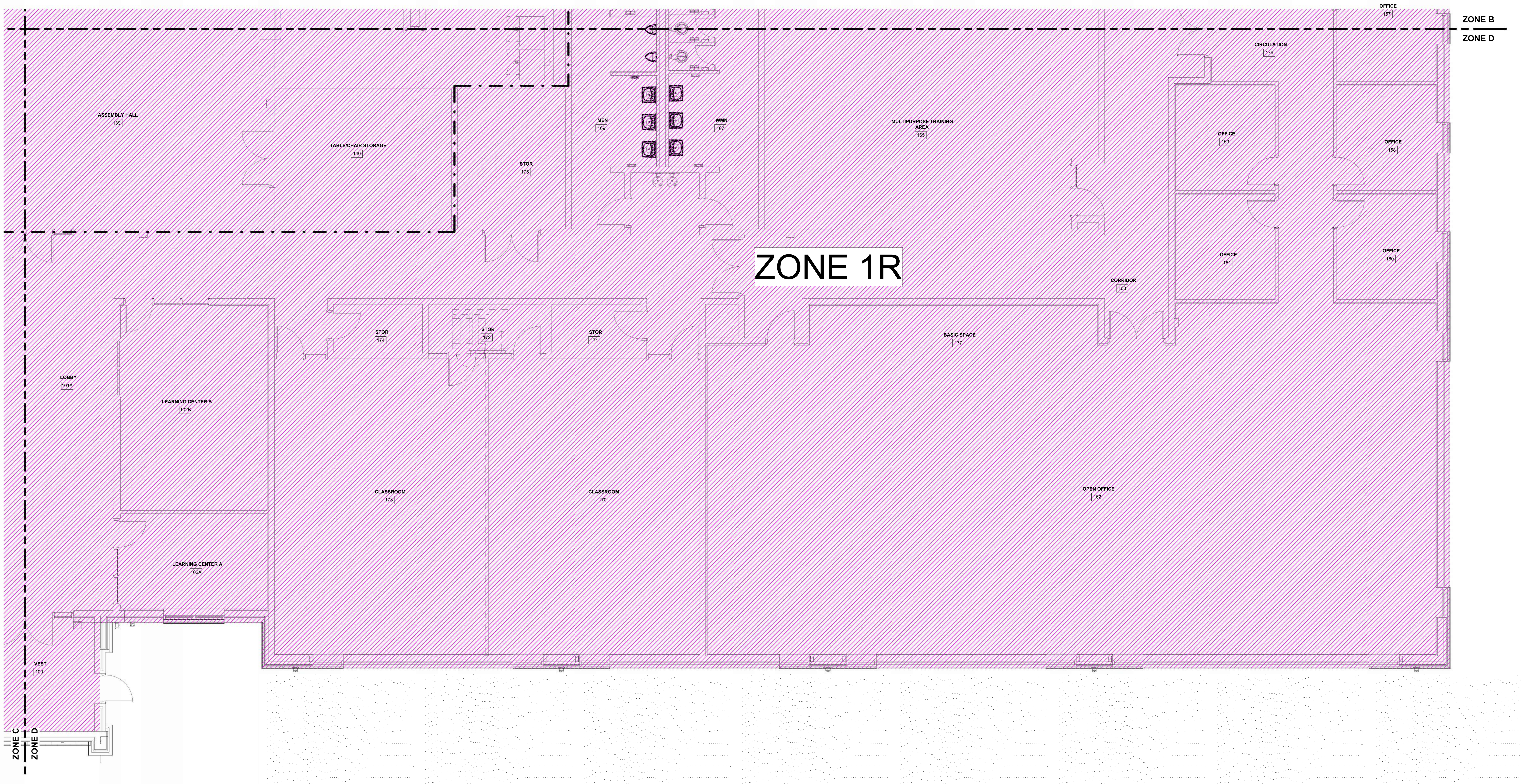

FIRE WALL LEGEND	
— · — · —	ONE HOUR RATED FIRE BARRIER

READINESS CENTER - FIRE SPRINKLER PLUMBING PLAN - ZONE D

3/16" = 1'-0"

0' 2' 4' 8' 16'

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HVAC – PLUMBING – PROCESS CONTROL

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Checked By RDW

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HUNTSVILLE READINESS CENTER
5180 MOORE'S MILL ROAD
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Sheet Title

RC - FIRE SPRINKLER PLUMBING PLAN - ZONE D

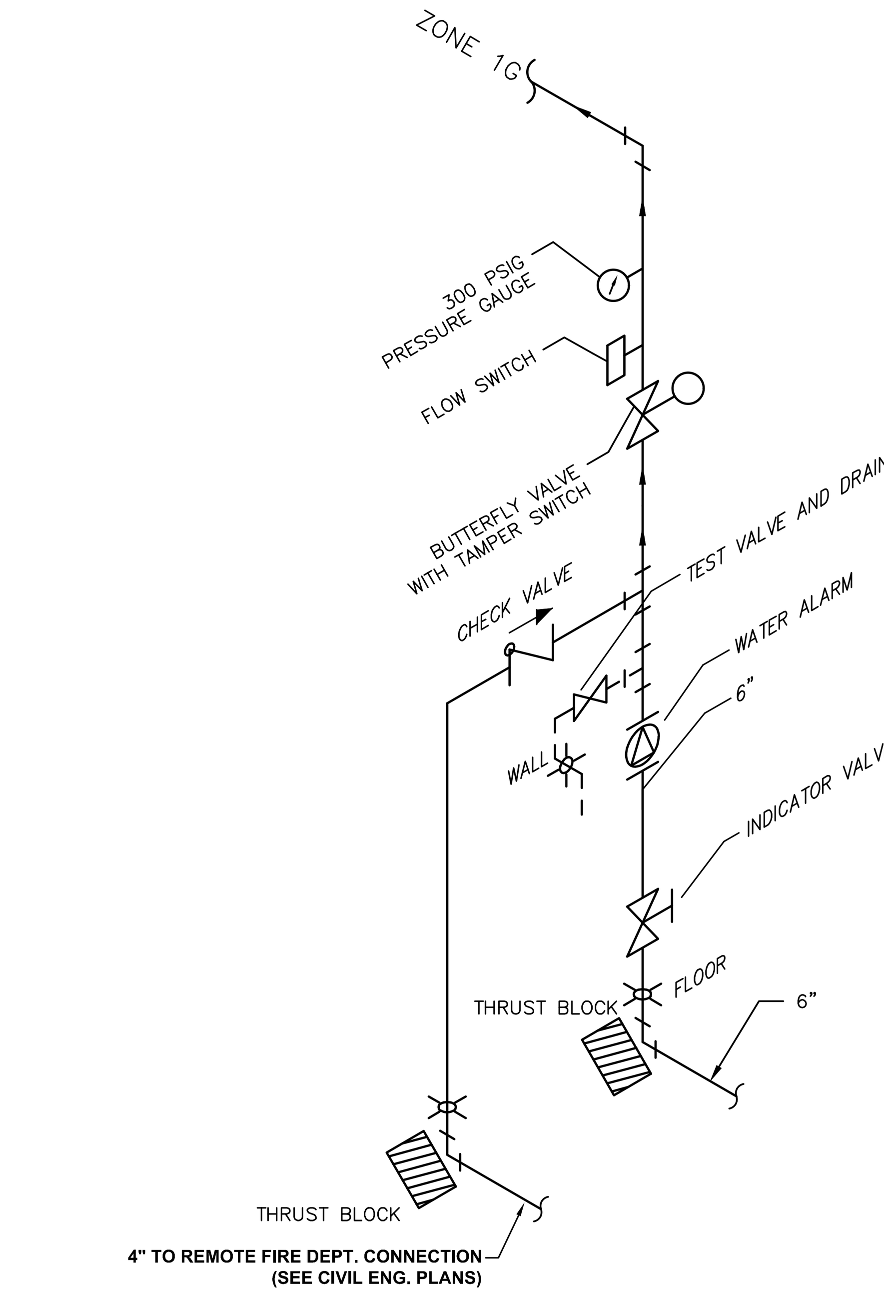
Sheet Number

RSP2.4

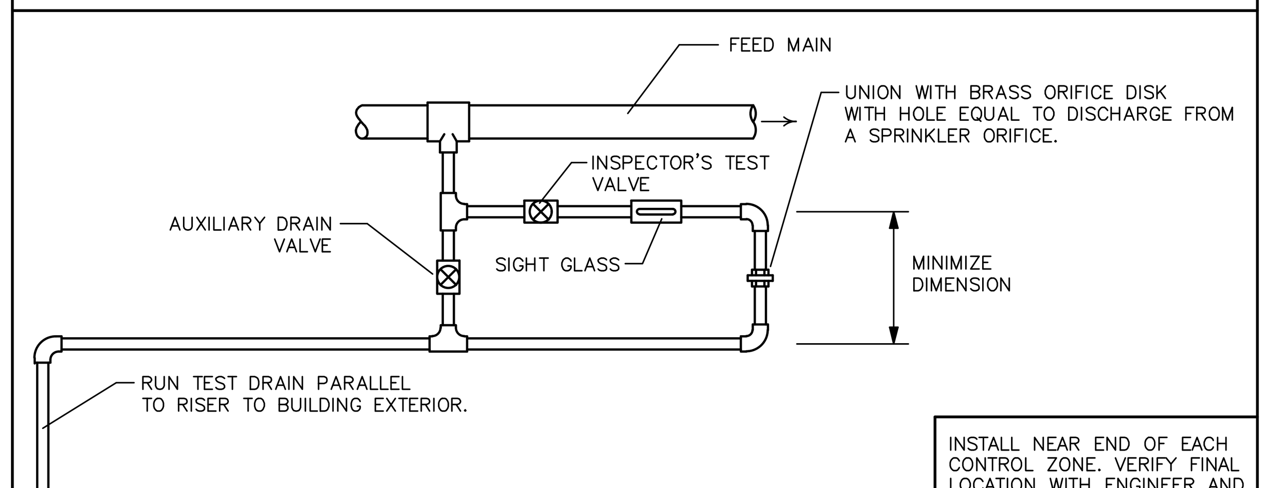
No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON

11-11-2024

FIRE SERVICE RISER DIAGRAM



TYPICAL INSPECTOR'S TEST VALVE DETAIL



INSTALL NEAR END OF EACH CONTROL ZONE. VERIFY FINAL LOCATION WITH ENGINEER AND INCLUDE ON SHOP DRAWINGS.

FIRE SPRINKLER SYSTEM NOTES

1. THE FIRE PROTECTION SYSTEM IS SHOWN IN SCHEMATIC FORM ONLY. THE SUCCESSFUL FIRE PROTECTION VENDOR SHALL LOCATE AND SIZE ALL SPRINKLER HEADS, FIRE DEPARTMENT CONNECTIONS, STANDPIPE SYSTEMS, PIPING, ETC. IN COMPLETE ACCORDANCE WITH NFPA 13 AND THE 2015 INTERNATIONAL BUILDING CODE AND LOCAL REQUIREMENTS.
2. SYSTEM DESIGN TO BE IN ACCORDANCE WITH WRITTEN SPECIFICATIONS. ALL HYDRAULIC CALCULATIONS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW AND APPROVAL.
3. ALL PIPING SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID PLUMBING AND HVAC INSTALLATIONS. FAILURE TO COORDINATE WORK WILL RESULT IN REWORK AT CONTRACTOR'S EXPENSE. MAINTAIN MINIMUM STAIR WELL EGRESS CLEARANCE.
4. INSTALL ALL ABOVE CEILING PIPING BELOW DUCT.
5. INSTALL ALL EXPOSED PIPING AS HIGH AS POSSIBLE.
6. ROUTE ALL EXPOSED PIPING IN CHASES WHERE POSSIBLE.
7. COORDINATE ALL WORK WITH ARCHITECTURAL, STRUCTURAL, HVAC AND ELECTRICAL TRADES, PLUMBING. PIPE ROUTING SHOWN IS DIAGRAMMATIC. PROVIDE ALL OFFSETS, ETC., TO AVOID INTERFERENCES WITH EQUIPMENT, PIPING, DUCTWORK, LIGHTS, CONDUIT, ETC..
8. COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL DRAWINGS. SET SLEEVES IN FLOORS AND WALLS AND ATTACHMENTS FOR HANGERS AS CONSTRUCTION PROGRESSES. ALL PENETRATIONS MUST BE SEALED AND HELD AS TIGHT TO COLUMNS OR WALLS AS POSSIBLE.
9. ALL PIPING SHALL BE CONCEALED INSIDE WALLS AND IN PIPE CHASES OR ABOVE CEILINGS. HOLD ALL PIPING ABOVE CEILING AS HIGH AS POSSIBLE.
10. ALL STRUCTURAL PENETRATIONS (SLEEVES, BLOCKOUTS, ETC.) ARE TO BE LOCATED AND COORDINATED IN THE FIELD BY THE CONTRACTOR IN RELATION TO THE REQUIREMENTS OF FINAL EQUIPMENT AND FIXTURES SELECTED.
11. FIELD VERIFY EXACT SIZE, MATERIAL, AND LOCATION OF ALL EXISTING UTILITIES BEFORE BEGINNING WORK.
12. ALL WET PIPING TO BE ROUTED BELOW CEILING INSULATION
13. ALL DRY PIPING TO BE ROUTED IN ATTIC SPACE
14. FIRE SPRINKLER CONTRACTOR SHALL BE LICENSED BY THE ALABAMA STATE FIRE MARSHALL'S OFFICE.

FIRE SPRINKLER LEGEND

—— FP ——	NEW FIRE PROTECTION PIPING
FDV	FIRE DEPARTMENT VALVE
—⋈—	CONTROL VALVE

FIRE SPRINKLER ZONE LEGEND

ZONE NO.	AREA DISCRIPTION	SYSTEM TYPE	ZONE COVERAGE (SQFT)	ZONE HATCH PATTERN
1G	GPTB BUILDING	WET PIPE	18,900	

FIRE SPRINKLER DRAWING INDEX

GPTB
FIRE SPRINKLER LEGEND, NOTES, AND DETAILS

NOT TO SCALE

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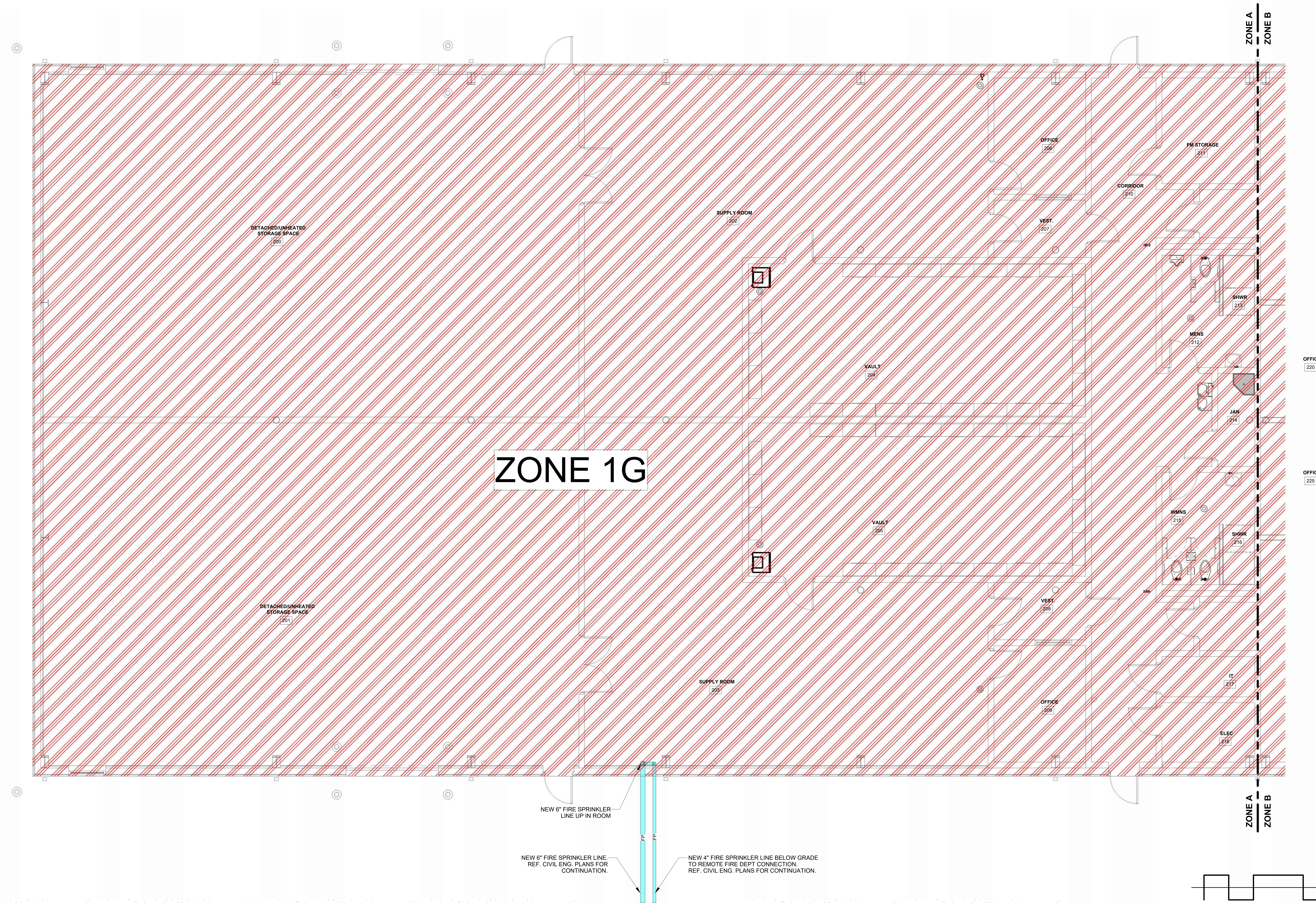
Sheet Title
GPTB - FIRE SPRINKLER LEGEND, NOTES, AND DETAILS

Sheet Number
GSP1.1

ALABAMA REGISTERED PROFESSIONAL ENGINEER No.14192 RANDALL D. WHORTON
11-05-2024



GPTB - FIRE SPRINKLER PLUMBING PLAN - ZONE A

3/16" = 1'-0"

0' 2' 4' 8' 16'

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Sheet Number: GSP2.1

STATE OF ALABAMA
No.14192
PROFESSIONAL ENGINEER
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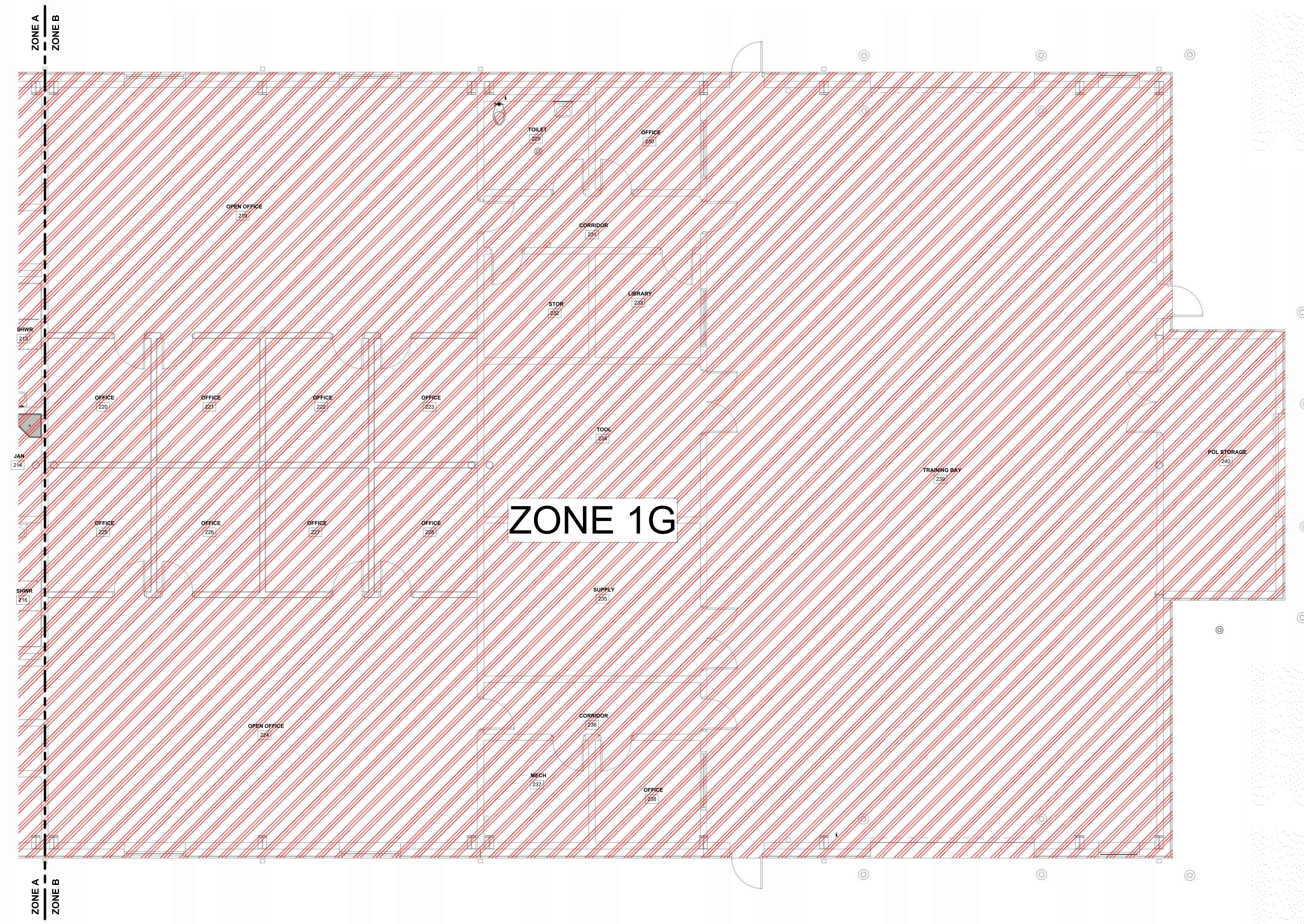
11-05-2024



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GPTB - FIRE SPRINKLER PLUMBING PLAN - ZONE B

3/16" = 1'-0"

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Sheet Title
GPTB - FIRE SPRINKLER PLUMBING PLAN - ZONE B

Sheet Number
GSP2.2

ALABAMA No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON

11-05-2024