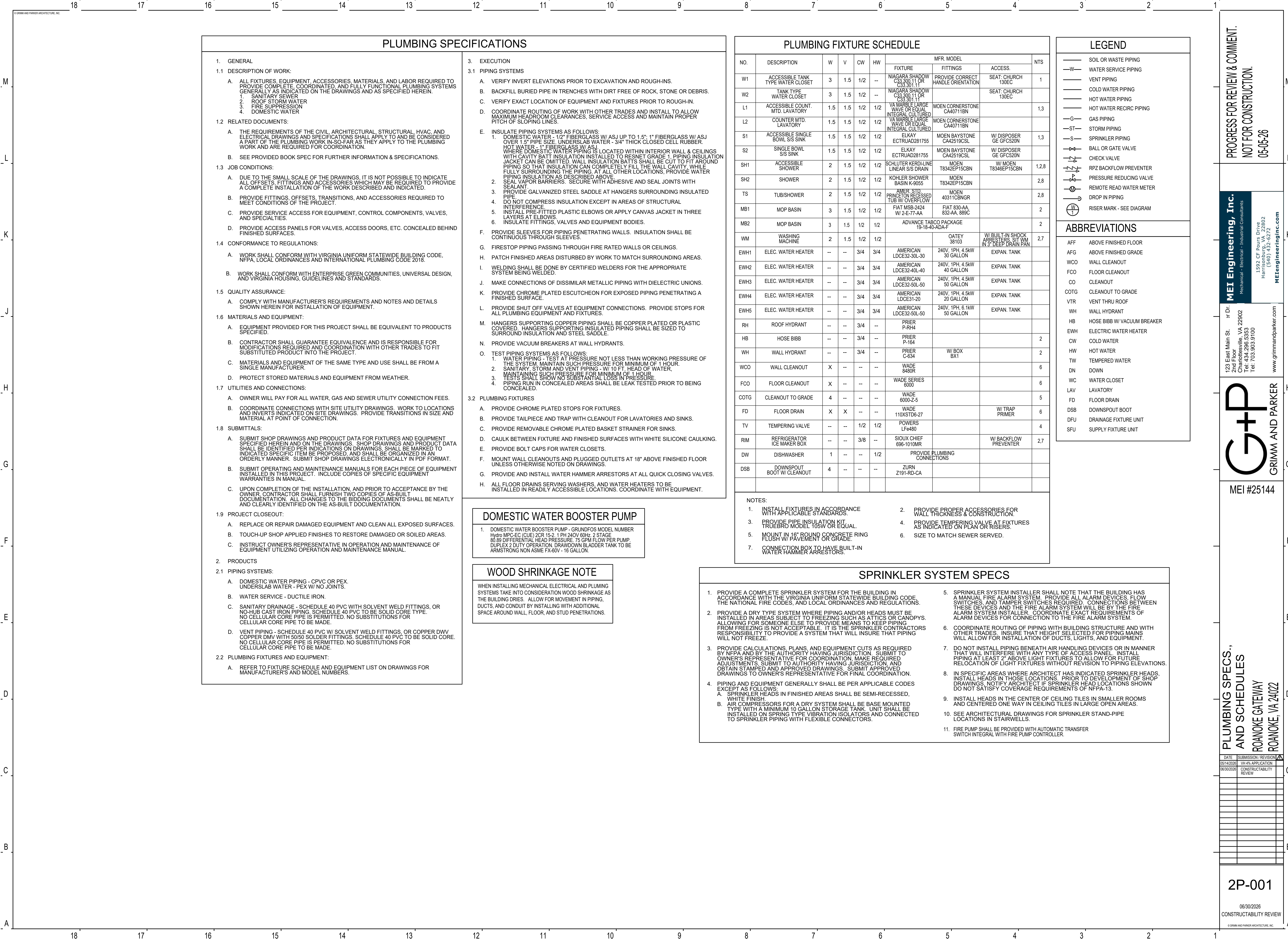
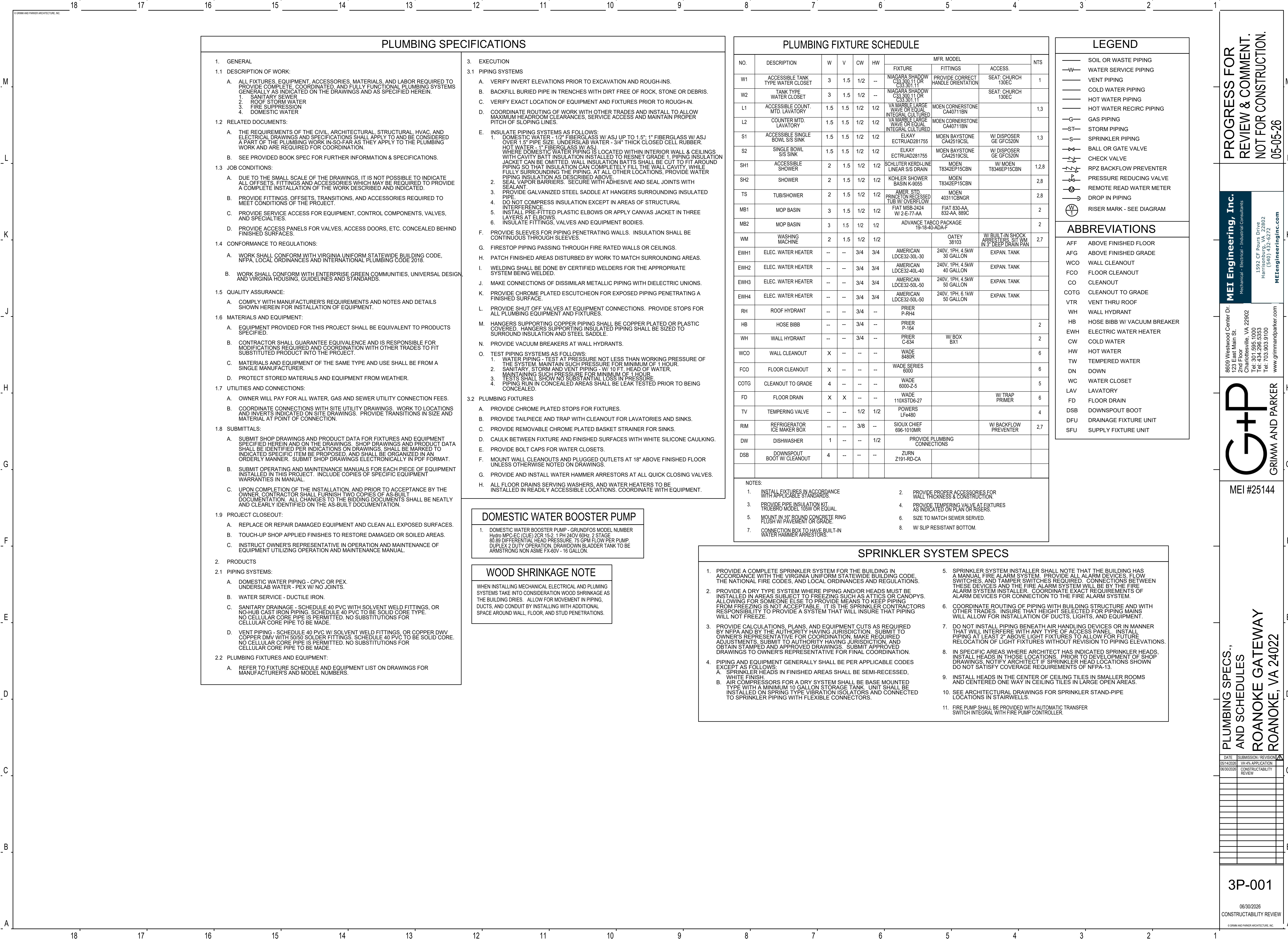






06/30/2026
CONSTRUCTABILITY REVIEW



PLUMBING SPECIFICATIONS

1. GENERAL
- 1.1 DESCRIPTION OF WORK:
- A. ALL FIXTURES, EQUIPMENT, ACCESSORIES, MATERIALS, AND LABOR REQUIRED TO PROVIDE COMPLETE, COORDINATED, AND FULLY FUNCTIONAL PLUMBING SYSTEMS GENERALLY AS INDICATED ON THE DRAWINGS AND AS SPECIFIED HEREIN.
1. SANITARY SEWER
2. ROOF STORM WATER
3. FIRE SUPPRESSION
4. DOMESTIC WATER
- 1.2 RELATED DOCUMENTS:
- A. THE REQUIREMENTS OF THE CIVIL, ARCHITECTURAL, STRUCTURAL, HVAC, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS SHALL APPLY TO AND BE CONSIDERED A PART OF THE PLUMBING WORK IN-AS-FAR AS THEY APPLY TO THE PLUMBING WORK AND ARE REQUIRED FOR COORDINATION.
- B. SEE PROVIDED BOOK SPEC FOR FURTHER INFORMATION & SPECIFICATIONS.
- 1.3 JOB CONDITIONS:
- A. DUE TO THE SMALL SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS AND ACCESSORIES WHICH MAY BE REQUIRED TO PROVIDE A COMPLETE INSTALLATION OF THE WORK DESCRIBED AND INDICATED.
- B. PROVIDE FITTINGS, OFFSETS, TRANSITIONS, AND ACCESSORIES REQUIRED TO MEET CONDITIONS OF THE PROJECT.
- C. PROVIDE SERVICE ACCESS FOR EQUIPMENT, CONTROL COMPONENTS, VALVES, AND SPECIALTIES.
- D. PROVIDE ACCESS PANELS FOR VALVES, ACCESS DOORS, ETC. CONCEALED BEHIND FINISHED SURFACES.
- 1.4 CONFORMANCE TO REGULATIONS:
- A. WORK SHALL CONFORM WITH VIRGINIA UNIFORM STATEWIDE BUILDING CODE, NFPA, LOCAL ORDINANCES AND INTERNATIONAL PLUMBING CODE 2018.
- B. WORK SHALL CONFORM WITH ENTERPRISE GREEN COMMUNITIES, UNIVERSAL DESIGN, AND VIRGINIA HOUSING, GUIDELINES AND STANDARDS.
- 1.5 QUALITY ASSURANCE:
- A. COMPLY WITH MANUFACTURER'S REQUIREMENTS AND NOTES AND DETAILS SHOWN HEREIN FOR INSTALLATION OF EQUIPMENT.
- 1.6 MATERIALS AND EQUIPMENT:
- A. EQUIPMENT PROVIDED FOR THIS PROJECT SHALL BE EQUIVALENT TO PRODUCTS SPECIFIED.
- B. CONTRACTOR SHALL GUARANTEE EQUIVALENCE AND IS RESPONSIBLE FOR MODIFICATIONS REQUIRED AND COORDINATION WITH OTHER TRADES TO FIT SUBSTITUTED PRODUCT INTO THE PROJECT.
- C. MATERIALS AND EQUIPMENT OF THE SAME TYPE AND USE SHALL BE FROM A SINGLE MANUFACTURER.
- D. PROTECT STORED MATERIALS AND EQUIPMENT FROM WEATHER.
- 1.7 UTILITIES AND CONNECTIONS:
- A. OWNER WILL PAY FOR ALL WATER, GAS AND SEWER UTILITY CONNECTION FEES.
- B. COORDINATE CONNECTIONS WITH SITE UTILITY DRAWINGS. WORK TO LOCATIONS AND INVERTS INDICATED ON SITE DRAWINGS. PROVIDE TRANSITIONS IN SIZE AND MATERIAL AT POINT OF CONNECTION.
- 1.8 SUBMITTALS:
- A. SUBMIT SHOP DRAWINGS AND PRODUCT DATA FOR FIXTURES AND EQUIPMENT SPECIFIED HEREIN AND ON THE DRAWINGS. SHOP DRAWINGS AND PRODUCT DATA SHALL BE IDENTIFIED PER INDICATIONS ON DRAWINGS. SHALL BE MARKED TO INDICATED SPECIFIC ITEM BE PROPOSED. AND SHALL BE ORGANIZED IN AN ORDERLY MANNER. SUBMIT SHOP DRAWINGS ELECTRONICALLY IN PDF FORMAT.
- B. SUBMIT OPERATING AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT INSTALLED IN THIS PROJECT. INCLUDE COPIES OF SPECIFIC EQUIPMENT WARRANTIES IN MANUAL.
- C. UPON COMPLETION OF THE INSTALLATION, AND PRIOR TO ACCEPTANCE BY THE OWNER, CONTRACTOR SHALL FURNISH TWO COPIES OF AS-BUILT DOCUMENTATION. ALL CHANGES TO THE BIDDING DOCUMENTS SHALL BE NEATLY AND CLEARLY IDENTIFIED ON THE AS-BUILT DOCUMENTATION.
- 1.9 PROJECT CLOSEOUT:
- A. REPLACE OR REPAIR DAMAGED EQUIPMENT AND CLEAN ALL EXPOSED SURFACES.
- B. TOUCH-UP SHOP APPLIED FINISHES TO RESTORE DAMAGED OR SOILED AREAS.
- C. INSTRUCT OWNER'S REPRESENTATIVE IN OPERATION AND MAINTENANCE OF EQUIPMENT UTILIZING OPERATION AND MAINTENANCE MANUAL.
2. PRODUCTS
- 2.1 PIPING SYSTEMS:
- A. DOMESTIC WATER PIPING - CPVC OR PEX.
UNDERSLAB WATER - PEX W/ NO JOINTS.
- B. WATER SERVICE - DUCTILE IRON.
- C. SANITARY DRAINAGE - SCHEDULE 40 PVC WITH SOLVENT WELD FITTINGS, OR NO-HUB CAST IRON PIPING. SCHEDULE 40 PVC TO BE SOLID CORE TYPE. NO CELLULAR CORE PIPE IS PERMITTED. NO SUBSTITUTIONS FOR CELLULAR CORE PIPE TO BE MADE.
- D. VENT PIPING - SCHEDULE 40 PVC W/ SOLVENT WELD FITTINGS, OR COPPER DWV COPPER DMV WITH 50/50 SOLDER FITTINGS. SCHEDULE 40 PVC TO BE SOLID CORE. NO CELLULAR CORE PIPE IS PERMITTED. NO SUBSTITUTIONS FOR CELLULAR CORE PIPE TO BE MADE.
- 2.2 PLUMBING FIXTURES AND EQUIPMENT:
- A. REFER TO FIXTURE SCHEDULE AND EQUIPMENT LIST ON DRAWINGS FOR MANUFACTURER'S AND MODEL NUMBERS.

3. EXECUTION
- 3.1 PIPING SYSTEMS
- A. VERIFY INVERT ELEVATIONS PRIOR TO EXCAVATION AND ROUGH-INS.
- B. BACKFILL BURIED PIPE IN TRENCHES WITH DIRT FREE OF ROCK, STONE OR DEBRIS.
- C. VERIFY EXACT LOCATION OF EQUIPMENT AND FIXTURES PRIOR TO ROUGH-IN.
- D. COORDINATE ROUTING OF WORK WITH OTHER TRADES AND INSTALL TO ALLOW MAXIMUM HEADROOM CLEARANCES, SERVICE ACCESS AND MAINTAIN PROPER PITCH OF SLOPING LINES.
- E. INSULATE PIPING SYSTEMS AS FOLLOWS:
1. DOMESTIC WATER - 1/2" FIBERGLASS W/ ASJ UP TO 1.5". 1" FIBERGLASS W/ ASJ OVER 1.5" PIPE SIZE. UNDERSLAB WATER - 3/4" THICK CLOSED CELL RUBBER. HOT WATER - 1" FIBERGLASS W/ ASJ WHERE DOMESTIC WATER PIPING IS LOCATED WITHIN INTERIOR WALL & CEILINGS WITH CAVITY BATT INSULATION INSTALLED TO RESNET GRADE 1. PIPING INSULATION JACKET CAN BE OMITTED. WALL INSULATION BATTS SHALL BE CUT TO FIT AROUND PIPING SO THAT INSULATION CAN COMPLETELY FILL THE WALL CAVITY. WHILE FULLY SURROUNDING THE PIPING. AT ALL OTHER LOCATIONS, PROVIDE WATER PIPING INSULATION AS DESCRIBED ABOVE.
2. SEAL VAPOR BARRIERS. SECURE WITH ADHESIVE AND SEAL JOINTS WITH SALANT.
3. PROVIDE GALVANIZED STEEL SADDLE AT HANGERS SURROUNDING INSULATED PIPE.
4. DO NOT COMPRESS INSULATION EXCEPT IN AREAS OF STRUCTURAL INTERFERENCE.
5. INSTALL PRE-FITTED PLASTIC ELBOWS OR APPLY CANVAS JACKET IN THREE LAYERS AT ELBOWS.
6. INSULATE FITTINGS, VALVES AND EQUIPMENT BODIES.
- F. PROVIDE SLEEVES FOR PIPING PENETRATING WALLS. INSULATION SHALL BE CONTINUOUS THROUGH SLEEVES.
- G. FIRESTOP PIPING PASSING THROUGH FIRE RATED WALLS OR CEILINGS.
- H. PATCH FINISHED AREAS DISTURBED BY WORK TO MATCH SURROUNDING AREAS.
- I. WELDING SHALL BE DONE BY CERTIFIED WELDERS FOR THE APPROPRIATE SYSTEM BEING WELDED.
- J. MAKE CONNECTIONS OF DISSIMILAR METALLIC PIPING WITH DIELECTRIC UNIONS.
- K. PROVIDE CHROME PLATED ESCUTCHEON FOR EXPOSED PIPING PENETRATING A FINISHED SURFACE.
- L. PROVIDE SHUT OFF VALVES AT EQUIPMENT CONNECTIONS. PROVIDE STOPS FOR ALL PLUMBING EQUIPMENT AND FIXTURES.
- M. HANGERS SUPPORTING COPPER PIPING SHALL BE COPPER PLATED OR PLASTIC COVERED. HANGERS SUPPORTING INSULATED PIPING SHALL BE SIZED TO SURROUND INSULATION AND STEEL SADDLE.
- N. PROVIDE VACUUM BREAKERS AT WALL HYDRANTS.
- O. TEST PIPING SYSTEMS AS FOLLOWS:
1. WATER PIPING - TEST AT PRESSURE NOT LESS THAN WORKING PRESSURE OF THE SYSTEM. MAINTAIN SUCH PRESSURE FOR MINIMUM OF 1 HOUR.
2. SANITARY, STORM AND VENT PIPING - W/ 10 FT. HEAD OF WATER, MAINTAINING SUCH PRESSURE FOR MINIMUM OF 1 HOUR.
3. TESTS SHALL SHOW NO SUBSTANTIAL LOSS IN PRESSURE.
4. PIPING RUN IN CONCEALED AREAS SHALL BE LEAK TESTED PRIOR TO BEING CONCEALED.
- 3.2 PLUMBING FIXTURES
- A. PROVIDE CHROME PLATED STOPS FOR FIXTURES.
- B. PROVIDE TAILPIECE AND TRAP WITH CLEANOUT FOR LAVATORIES AND SINKS.
- C. PROVIDE REMOVABLE CHROME PLATED BASKET STRAINER FOR SINKS.
- D. CAULK BETWEEN FIXTURE AND FINISHED SURFACES WITH WHITE SILICONE CAULKING.
- E. PROVIDE BOLT CAPS FOR WATER CLOSETS.
- F. MOUNT WALL CLEANOUTS AND PLUGGED OUTLETS AT 18" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED ON DRAWINGS.
- G. PROVIDE AND INSTALL WATER HAMMER ARRESTORS AT ALL QUICK CLOSING VALVES.
- H. ALL FLOOR DRAINS SERVING WASHERS, AND WATER HEATERS TO BE INSTALLED IN READILY ACCESSIBLE LOCATIONS. COORDINATE WITH EQUIPMENT.

DOMESTIC WATER BOOSTER PUMP

1. DOMESTIC WATER BOOSTER PUMP - GRUNDFOS MODEL NUMBER Hydro MPC-EC (CUE) 2CR 15-2, 1 PH 240V 60Hz, 2 STAGE, 80/80 DIFFERENTIAL HEAD PRESSURE, 75 GPM FLOW PER PUMP, DUPLEX 2 DUTY OPERATION, DRAWDOWN BLADDER TANK TO BE ARMSTRONG NON ASME FX-60V - 16 GALLON.

WOOD SHRINKAGE NOTE

WHEN INSTALLING MECHANICAL ELECTRICAL AND PLUMBING SYSTEMS TAKE INTO CONSIDERATION WOOD SHRINKAGE AS THE BUILDING DRIES. ALLOW FOR MOVEMENT IN PIPING, DUCTS, AND CONDUIT BY INSTALLING WITH ADDITIONAL SPACE AROUND WALL, FLOOR, AND STUD PENETRATIONS.

PLUMBING FIXTURE SCHEDULE

NO.	DESCRIPTION	W	V	CW	HW	MFR. MODEL			NTS
						FIXTURE	FITTINGS	ACCESS.	
W1	ACCESSIBLE TANK TYPE WATER CLOSET	3	1.5	1/2	--	NIAGARA SHADOW C33-300-11 DR	PROVIDE CORRECT HANDLE ORIENTATION	SEAT: CHURCH 130EC	1
W2	TANK TYPE WATER CLOSET	3	1.5	1/2	--	NIAGARA SHADOW C33-300-11 DR		SEAT: CHURCH 130EC	
L1	ACCESSIBLE COUNT. MTD. LAVATORY	1.5	1.5	1/2	1/2	VA MARBLE LARGE WAVE OR EQUAL INTEGRAL CULTURED	MOEN CORNERSTONE CA40711BN		1,3
L2	COUNTER MTD. LAVATORY	1.5	1.5	1/2	1/2	VA MARBLE LARGE WAVE OR EQUAL INTEGRAL CULTURED	MOEN CORNERSTONE CA40711BN		
S1	ACCESSIBLE SINGLE BOWL S/S SINK	1.5	1.5	1/2	1/2	ECLKAY ECTRUAD281755	MOEN BAYSTONE CA42519CSL	W/ DISPOSER GE GFC520N	1,3
S2	SINGLE BOWL S/S SINK	1.5	1.5	1/2	1/2	ECLKAY ECTRUAD281755	MOEN BAYSTONE CA42519CSL	W/ DISPOSER GE GFC520N	
SH1	ACCESSIBLE SHOWER	2	1.5	1/2	1/2	SCHLUTER KERDI-LINE LINEAR S/S DRAIN	MOEN T8342EP15CBN	W/ DISPOSER GE GFC520N	1,2,8
SH2	SHOWER	2	1.5	1/2	1/2	KOHLER SHOWER BASIN K-9055	MOEN T8342EP15CBN		2,8
TS	TUB/SHOWER	2	1.5	1/2	1/2	AMER. STD. PRINCETON RECESSED TUB W/ OVERFLOW W/ 2-E-77-AA	MOEN 40311CBNGR		2,8
MB1	MOP BASIN	3	1.5	1/2	1/2	FIAT M8B-2424	FIAT 830-AA 832-AA, 889C		2
MB2	MOP BASIN	3	1.5	1/2	1/2	ADVANCE TAPCO PACKAGE 18-18-40-ADA-F			2
WM	WASHING MACHINE	2	1.5	1/2	1/2		QATEY 38103	W/ BUILT-IN SHOCK ARRESTERS, SIT WM IN 3" DEEP DRAIN PAN	2,7
EWH1	ELEC. WATER HEATER	--	--	3/4	3/4	AMERICAN LDCE32-30L-30	240V, 1PH, 4.5kW 30 GALLON	EXPAN. TANK	
EWH2	ELEC. WATER HEATER	--	--	3/4	3/4	AMERICAN LDCE32-40L-40	240V, 1PH, 4.5kW 40 GALLON	EXPAN. TANK	
EWH3	ELEC. WATER HEATER	--	--	3/4	3/4	AMERICAN LDCE32-50L-50	240V, 1PH, 4.5kW 50 GALLON	EXPAN. TANK	
EWH4	ELEC. WATER HEATER	--	--	3/4	3/4	AMERICAN LDCE32-50L-50	240V, 1PH, 6.1kW 50 GALLON	EXPAN. TANK	
RH	ROOF HYDRANT	--	--	3/4	--	PRIER P-RH4			
HB	HOSE BIBB	--	--	3/4	--	PRIER P-164			2
WH	WALL HYDRANT	--	--	3/4	--	PRIER C-634	W/ BOX BX1		2
WCO	WALL CLEANOUT	X	--	--	--	WADE 8480R			6
FCO	FLOOR CLEANOUT	X	--	--	--	WADE SERIES 6000			6
COTG	CLEANOUT TO GRADE	4	--	--	--	WADE 6000-Z-5			5
FD	FLOOR DRAIN	X	X	--	--	WADE 110XSTD6-27		W/ TRAP PRIMER	6
TV	TEMPERING VALVE	--	--	1/2	1/2	POWERS LF480			4
RIM	REFRIGERATOR ICE MAKER BOX	--	--	3/8	--	SIUOX CHIEF 696-1010MR		W/ BACKFLOW PREVENTER	2,7
DW	DISHWASHER	1	--	--	1/2	PROVIDE PLUMBING CONNECTIONS			
DSB	DOWNSPOUT BOOT W/ CLEANOUT	4	--	--	--	ZURN Z191-RD-CA			

- NOTES:
1. INSTALL FIXTURES IN ACCORDANCE WITH APPLICABLE STANDARDS.
2. PROVIDE PROPER ACCESSORIES FOR WALL THICKNESS & CONSTRUCTION.
3. PROVIDE PIPE INSULATION KIT TRUEBRO MODEL 105W OR EQUAL.
4. PROVIDE TEMPERING VALVE AT FIXTURES AS INDICATED ON PLAN OR RISERS.
5. MOUNT IN 16" ROUND CONCRETE RING FLUSH W/ PAVEMENT OR GRADE.
6. SIZE TO MATCH SEWER SERVED.
7. CONNECTION BOX TO HAVE BUILT-IN WATER HAMMER ARRESTORS.
8. W/ SLIP RESISTANT BOTTOM.

SPRINKLER SYSTEM SPECS

1. PROVIDE A COMPLETE SPRINKLER SYSTEM FOR THE BUILDING IN ACCORDANCE WITH THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE, THE NATIONAL FIRE CODES, AND LOCAL ORDINANCES AND REGULATIONS.
2. PROVIDE A DRY TYPE SYSTEM WHERE PIPING AND/OR HEADS MUST BE INSTALLED IN AREAS SUBJECT TO FREEZING SUCH AS ATTICS OR CANOPYS. ALLOWING FOR SOMEONE ELSE TO PROVIDE MEANS TO KEEP PIPING FROM FREEZING IS NOT ACCEPTABLE. IT IS THE SPRINKLER CONTRACTORS RESPONSIBILITY TO PROVIDE A SYSTEM THAT WILL INSURE THAT PIPING WILL NOT FREEZE.
3. PROVIDE CALCULATIONS, PLANS, AND EQUIPMENT CUTS AS REQUIRED BY NFPA AND BY THE AUTHORITY HAVING JURISDICTION. SUBMIT TO OWNER'S REPRESENTATIVE FOR COORDINATION. MAKE REQUIRED ADJUSTMENTS. SUBMIT TO AUTHORITY HAVING JURISDICTION, AND OBTAIN STAMPED AND APPROVED DRAWINGS. SUBMIT APPROVED DRAWINGS TO OWNER'S REPRESENTATIVE FOR FINAL COORDINATION.
4. PIPING AND EQUIPMENT GENERALLY SHALL BE PER APPLICABLE CODES EXCEPT AS FOLLOWS:
- A. SPRINKLER HEADS IN FINISHED AREAS SHALL BE SEMI-RECESSED, WHITE FINISH.
- B. AIR COMPRESSORS FOR A DRY SYSTEM SHALL BE BASE MOUNTED TYPE WITH A MINIMUM 10 GALLON STORAGE TANK. UNIT SHALL BE INSTALLED ON SPRING TYPE VIBRATION ISOLATORS AND CONNECTED TO SPRINKLER PIPING WITH FLEXIBLE CONNECTORS.
5. SPRINKLER SYSTEM INSTALLER SHALL NOTE THAT THE BUILDING HAS A MANUAL FIRE ALARM SYSTEM. PROVIDE ALL ALARM DEVICES, FLOW SWITCHES, AND TAMPER SWITCHES REQUIRED. CONNECTIONS BETWEEN THESE DEVICES AND THE FIRE ALARM SYSTEM WILL BE BY THE FIRE ALARM SYSTEM INSTALLER. COORDINATE EXACT REQUIREMENTS OF ALARM DEVICES FOR CONNECTION TO THE FIRE ALARM SYSTEM.
6. COORDINATE ROUTING OF PIPING WITH BUILDING STRUCTURE AND WITH OTHER TRADES. INSURE THAT HEIGHT SELECTED FOR PIPING MAINS WILL ALLOW FOR INSTALLATION OF DUCTS, LIGHTS, AND EQUIPMENT.
7. DO NOT INSTALL PIPING BENEATH AIR HANDLING DEVICES OR IN MANNER THAT WILL INTERFERE WITH ANY TYPE OF ACCESS PANEL. INSTALL PIPING AT LEAST 2" ABOVE LIGHT FIXTURES TO ALLOW FOR FUTURE RELOCATION OF LIGHT FIXTURES WITHOUT REVISION TO PIPING ELEVATIONS.
8. IN SPECIFIC AREAS WHERE ARCHITECT HAS INDICATED SPRINKLER HEADS, INSTALL HEADS IN THOSE LOCATIONS. PRIOR TO DEVELOPMENT OF SHOP DRAWINGS, NOTIFY ARCHITECT IF SPRINKLER HEAD LOCATIONS SHOWN DO NOT SATISFY COVERAGE REQUIREMENTS OF NFPA-13.
9. INSTALL HEADS IN THE CENTER OF CEILING TILES IN SMALLER ROOMS AND CENTERED ONE WAY IN CEILING TILES IN LARGE OPEN AREAS.
10. SEE ARCHITECTURAL DRAWINGS FOR SPRINKLER STAND-PIPE LOCATIONS IN STAIRWELLS.
11. FIRE PUMP SHALL BE PROVIDED WITH AUTOMATIC TRANSFER SWITCH INTEGRAL WITH FIRE PUMP CONTROLLER.

LEGEND

- SOIL OR WASTE PIPING
- WATER SERVICE PIPING
- VENT PIPING
- COLD WATER PIPING
- HOT WATER PIPING
- HOT WATER RECIRC PIPING
- GAS PIPING
- STORM PIPING
- SPRINKLER PIPING
- BALL OR GATE VALVE
- CHECK VALVE
- RPZ BACKFLOW PREVENTER
- PRESSURE REDUCING VALVE
- REMOTE READ WATER METER
- DROP IN PIPING
- RISER MARK - SEE DIAGRAM

ABBREVIATIONS

- AFF ABOVE FINISHED FLOOR
- AFG ABOVE FINISHED GRADE
- WCO WALL CLEANOUT
- FCO FLOOR CLEANOUT
- CO CLEANOUT
- COTG CLEANOUT TO GRADE
- VTR VENT THRU ROOF
- WH WALL HYDRANT
- HB HOSE BIBB W/ VACUUM BREAKER
- EWB ELECTRIC WATER HEATER
- CW COLD WATER
- HW HOT WATER
- TW TEMPERED WATER
- DN DOWN
- WC WATER CLOSET
- LAV LAVATORY
- FD FLOOR DRAIN
- DSB DOWNSPOUT BOOT
- DFU DRAINAGE FIXTURE UNIT
- SFU SUPPLY FIXTURE UNIT

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PLUMBING SPECS., AND SCHEDULES
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06/30/2026	CONSTRUCTABILITY REVIEW

3P-001

06/30/2026
CONSTRUCTABILITY REVIEW
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DETAIL OF PIPING IN CEILING SPACE

COMMON AREA WATER HEATER DIAGRAM

APT. UNIT WASHING MACHINE DRAIN PAN DIAGRAM

WALL HYDRANT DETAIL

FLOOR DRAIN TRAP PRIMER DIAGRAM

SPRINKLER SERVICE RISER DIAGRAM

CLEANOUT TO GRADE DIAGRAM

DOMESTIC WATER SERVICE DETAIL

- 1 4" GATE VALVE DUCTILE IRON, NON-RISING, BOLTED BONNET, CLASS 125 CLASS, 3 INLET PIPE SIZE. 9" INLET TO OUTLET. GAMUT 337Z409 OR EQUAL.
- 2 4" REDUCED PRESSURE ZONE BACKFLOW PREVENTER, FLANGED CONNECTION, CAST IRON WATTS 909 OR EQUAL.
- 3 4" PRESSURE REDUCING VALVE, FLANGED CONNECTION, DUCTILE IRON, ZORO G1567501 OR EQUAL.
- 4 ZURN MODEL 25 PRESSURE GAUGE 2010-25L-400, 1/4" NPT.

APT. WATER HEATER DIAGRAM

GAS PIPING DIAGRAM

HUB DRAIN TRAP PRIMER DIAGRAM

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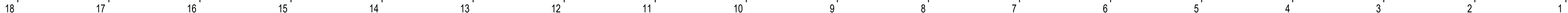
DATE	SUBMISSION / REVISION	
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06/30/2026	CONSTRUCTABILITY REVIEW	

3P-002

06/30/2026
CONSTRUCTABILITY REVIEW

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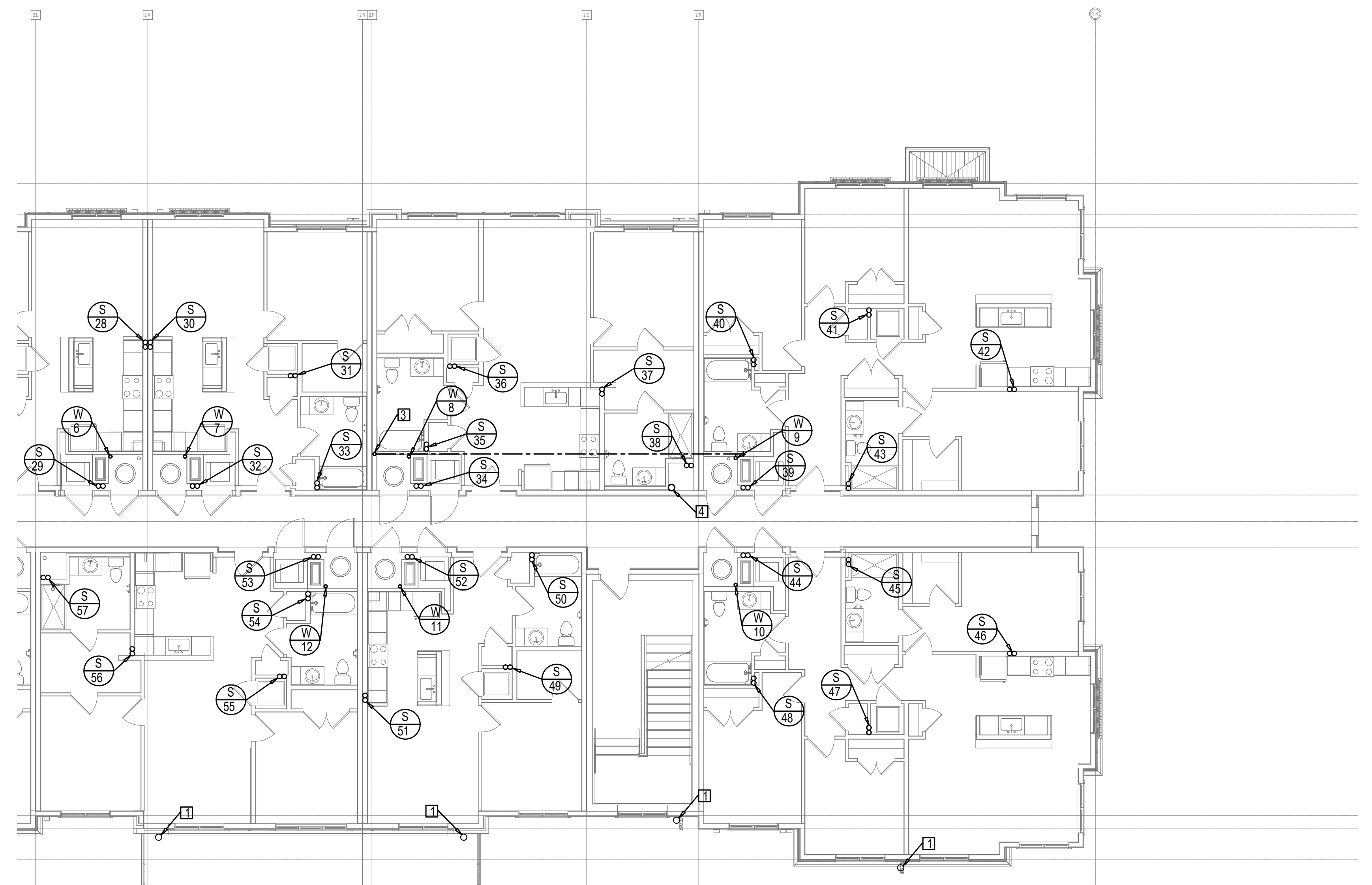
SECOND FLOOR AREA B PLUMBING PLAN
SCALE: 1/8" = 1'-0"



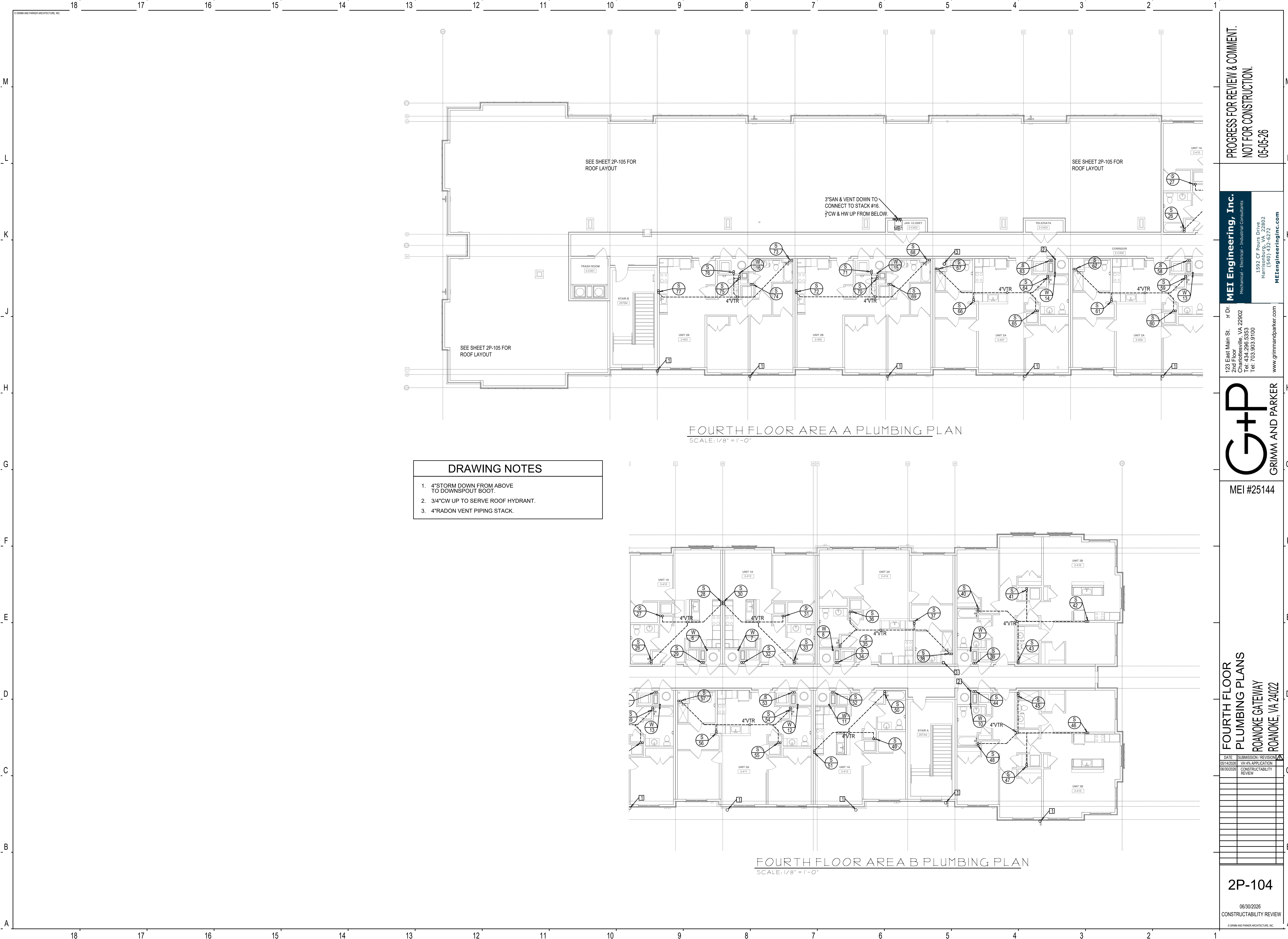
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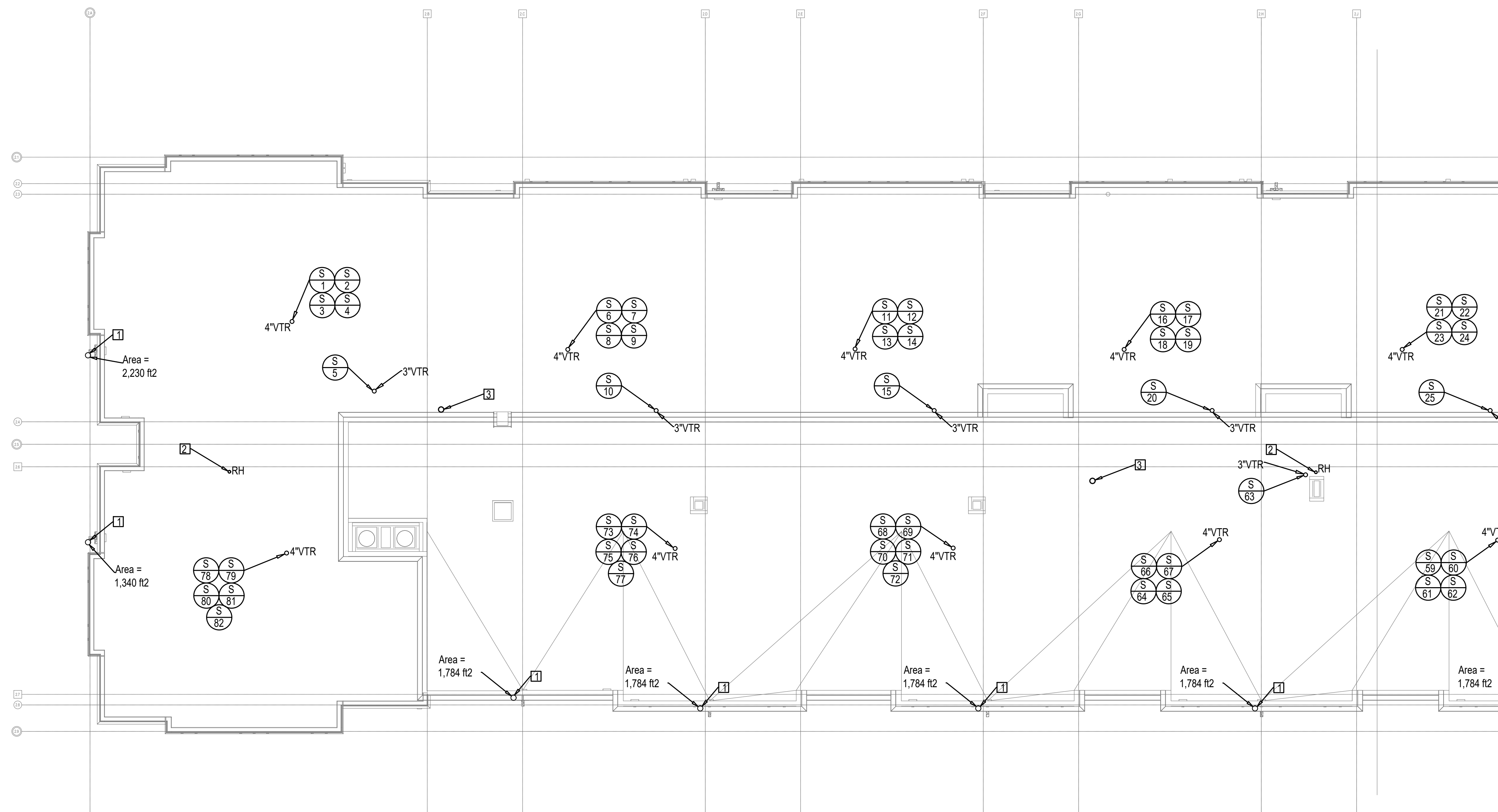
DRAWING NOTES	
1.	4"STORM DOWN FROM ABOVE TO DOWNSPOUT BOOT.
2.	3/4"CW UP TO SERVE ROOF HYDRANT.
3.	2"CW UP FROM BELOW TO RUN IN 3RD FLOOR CEILING SPACE.
4.	4"RADON VENT PIPING STACK.
5.	3"SAN & 2"VENT THIS AREA TO SERVE 3RD & 4TH FLOOR MOP BASINS. 3/4"CW & HW TO SERVE 3RD & 4TH FLOOR MOP BASINS.

1. 4"STORM DOWN FROM ABOVE TO DOWNSPOUT BOOT.
2. 3/4"CW UP TO SERVE ROOF HYDRANT.
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SCALE: 1/8" = 1'-0"

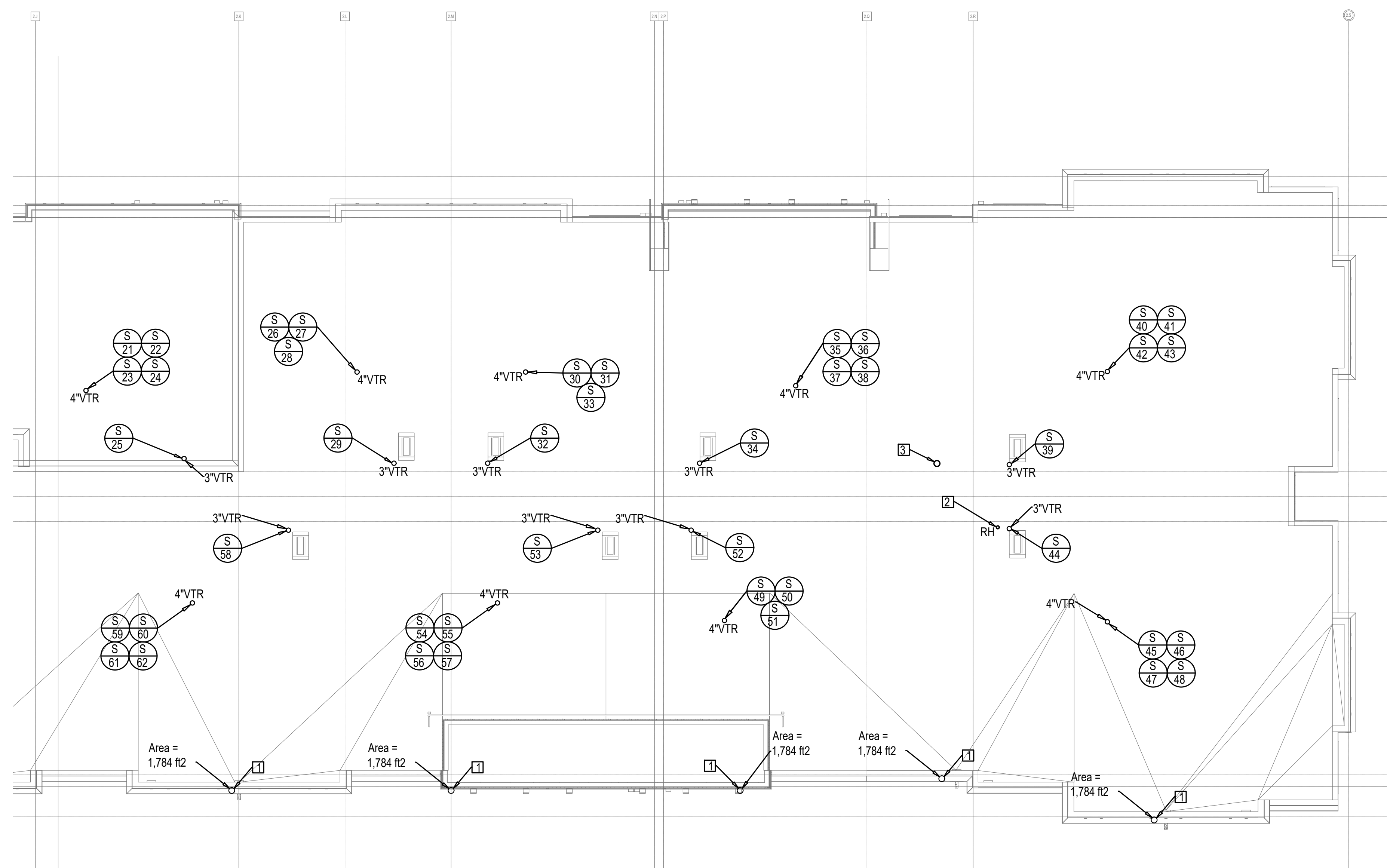




ROOF AREA A PLUMBING PLAN
SCALE: 1/8" = 1'-0"

DRAWING NOTES

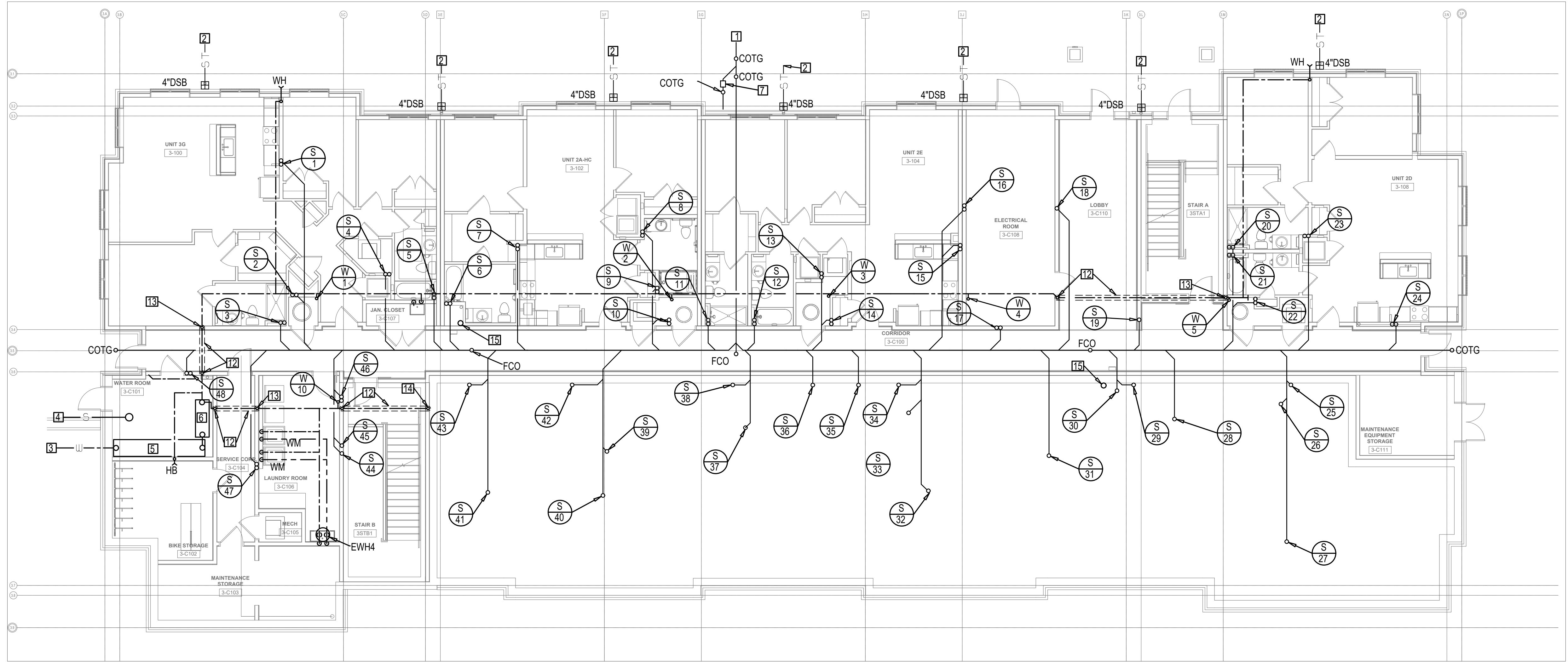
1. 4"SCUPPER DRAIN FOR ROOF STORM DRAINAGE DOWN TO DOWNSPOUT BOOT.
2. 3/4"CW UP FROM BELOW TO SERVE ROOF HYDRANT.
3. 4"RADON VENT PIPING STACK.



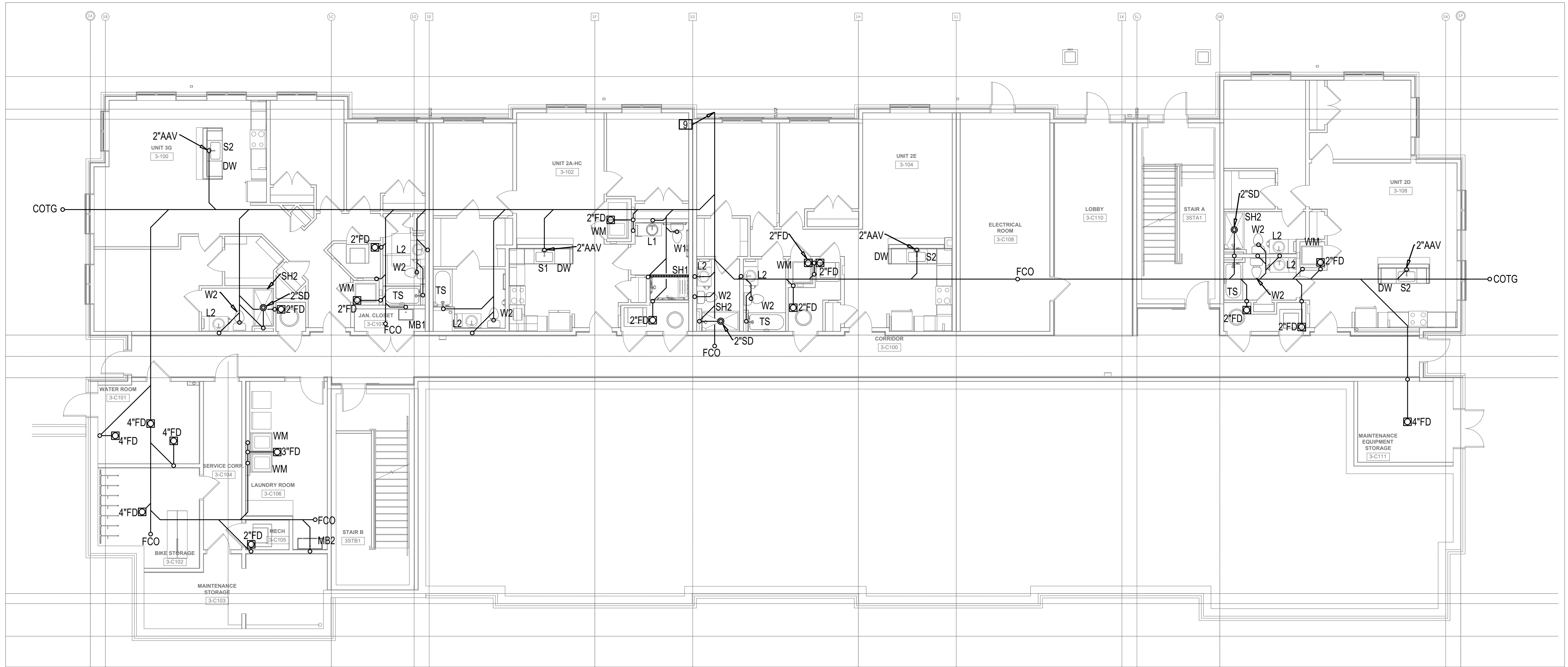
ROOF AREA B PLUMBING PLAN
SCALE: 1/8" = 1'-0"

DRAWING NOTES

1. 8" SANITARY MAIN TO SANITARY SEWER. SEE SITE PLAN FOR CONTINUATION. 812 DFUS.
2. 4" STORM MAIN FROM 4" DOWNSPOUT BOOT TO STORM SEWER. SEE SITE PLAN FOR CONTINUATION.
3. 2" DOMESTIC WATER SERVICE. SEE SITE PLAN FOR CONTINUATION. 408 SFUS.
4. 6" SPRINKLER SERVICE. SEE SITE PLAN FOR CONTINUATION.
5. DOMESTIC WATER SERVICE VALVES.
6. DOMESTIC WATER BOOSTER PUMP.
7. 4" SANITARY BACKWATER VALVE. BACKWATER VALVE TO BE CLEAN CHECK MODEL NUMBER 97034 OR EQUAL.
8. SEE BELOW SANITARY PLAN FOR CONTINUATION.
9. SEE ABOVE OVERALL PLUMBING PLAN FOR CONTINUATION.
12. 2.5" CW DOWN TO RUN BELOW SLAB WITH NO JOINTS IN 4" PVC SLEEVE.
13. 2.5" CW UP FROM BELOW SLAB TO RUN IN FIRST FLOOR CEILING SPACE.
14. 2.5" CW UP FROM BELOW SLAB TO RUN IN SECOND FLOOR CEILING SPACE.
15. 4" RADON PIPING UP FOR PASSIVE RADON SYSTEM.



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



FIRST FLOOR SANITARY TO BACKWATER VALVE PLAN
SCALE: 1/8" = 1'-0"

PROGRESS FOR
REVIEW & COMMENT.
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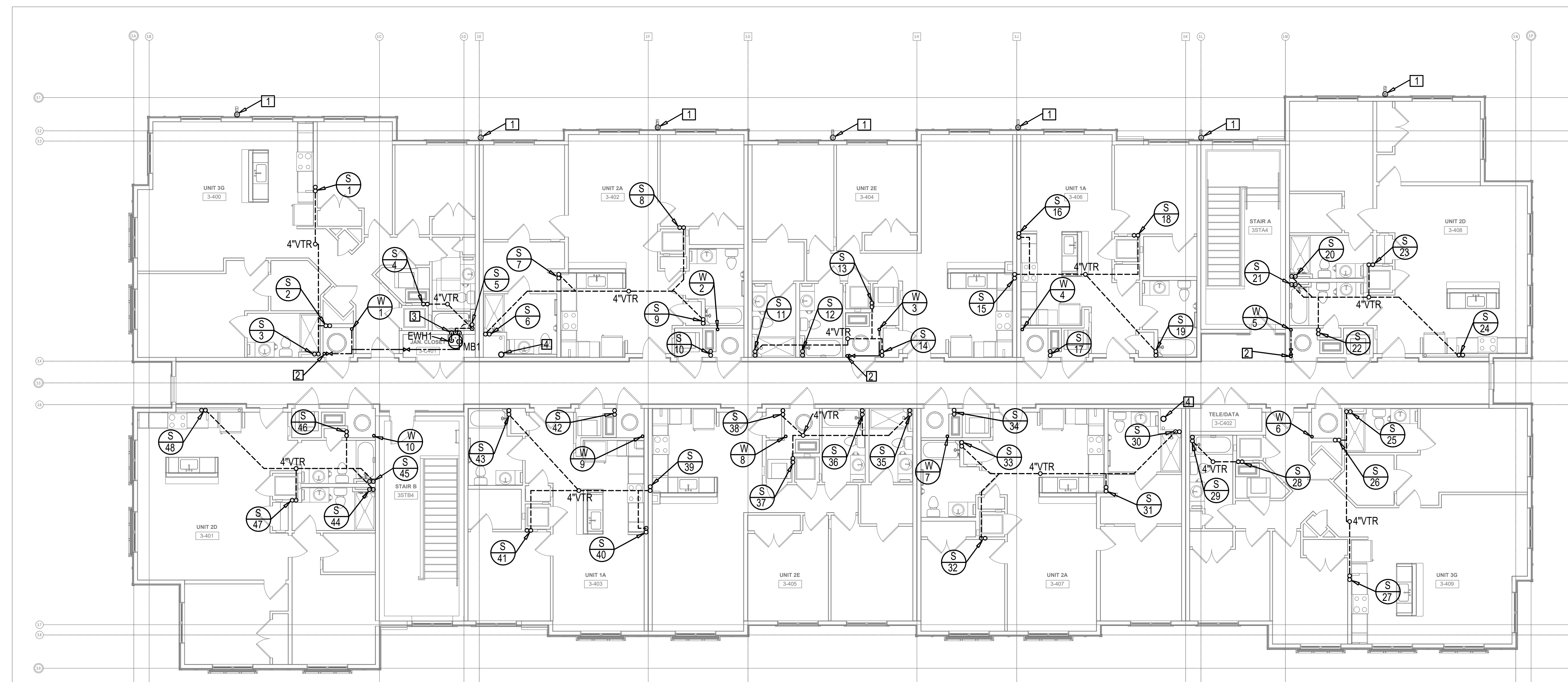
FIRST FLOOR
PLUMBING PLAN
ROANOKE GATEWAY
ROANOKE, VA 24022

DATE	SUBMISSION / REVISION
05/14/2026	VH 4% APPLICATION
06/30/2026	CONSTRUCTABILITY REVIEW

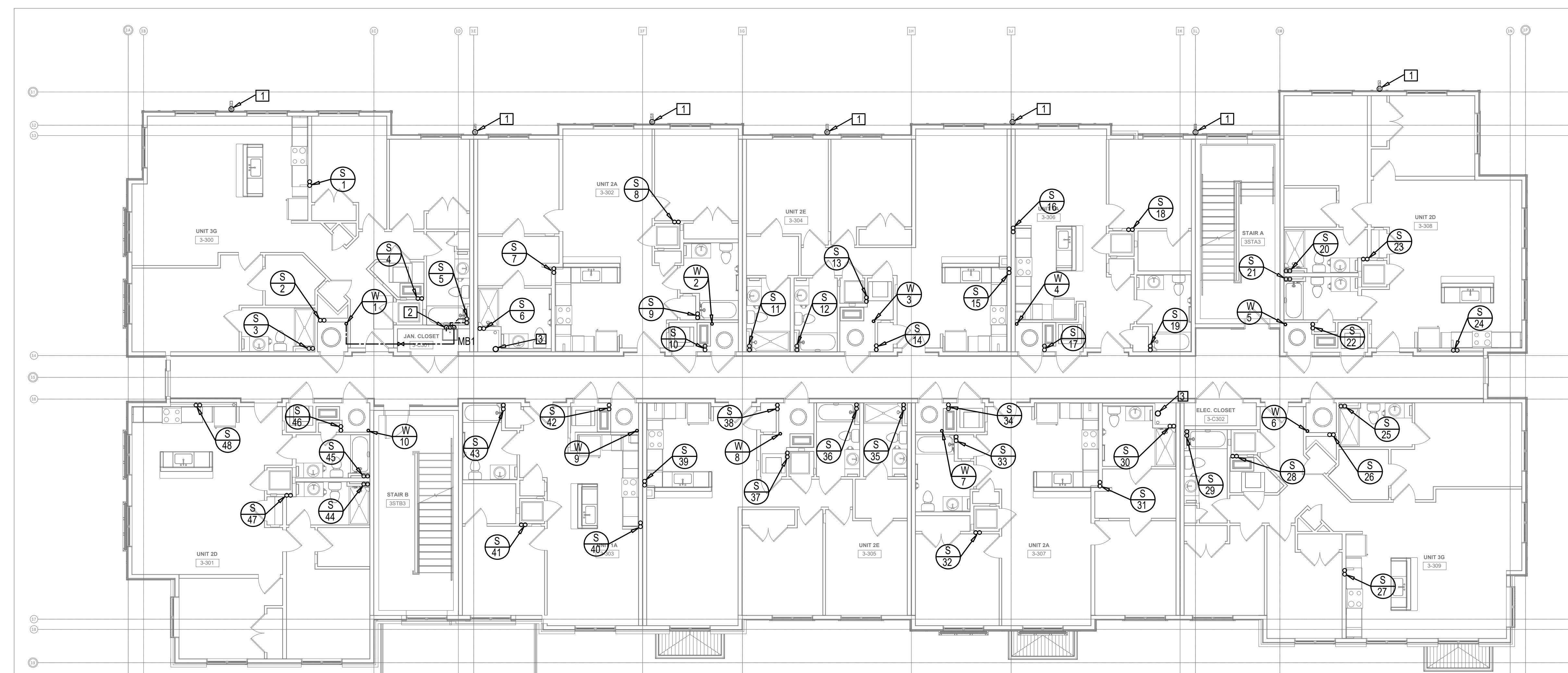
3P-101

06/30/2026
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1. 4"STORM FROM ABOVE AND DOWN TO DOWNSPOUT BOOT.
2. 3/4"CW UP TO SERVE ROOF HYDRANT.
3. 1"HW STACK TO SERVE MOP BASINS. PROVIDE PROTECTIVE 1/2"HW TAP AT EACH FLOOR MB.
4. 4"RADON VENT PIPE STACK.



FOURTH FLOOR PLUMBING PLAN
SCALE: 1/8" = 1'-0"



THIRD FLOOR PLUMBING PLAN
SCALE: 1/8" = 1'-0"

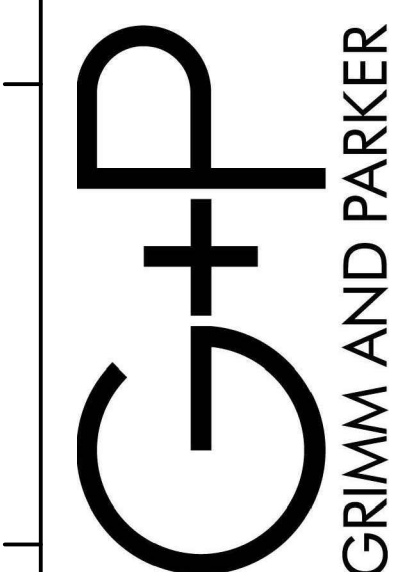
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THIRD AND FOURTH FLOOR
PLUMBING PLAN
ROANOKE GATEWAY
ROANOKE, VA 24022

[illegible]

3P-103

06/30/2026
CONSTRUCTABILITY REVIEW

1. 4"STORM THROUGH SCUPPER AND DOWN TO DOWNSPOUT BOOT.
2. 3/4"CW UP FROM BELOW TO SERVE ROOF HYDRANT.
3. 4"VTR FOR PASSIVE RADON VENT SYSTEM.

ROOF PLUMBING PLAN
SCALE: 1/8" = 1'-0"

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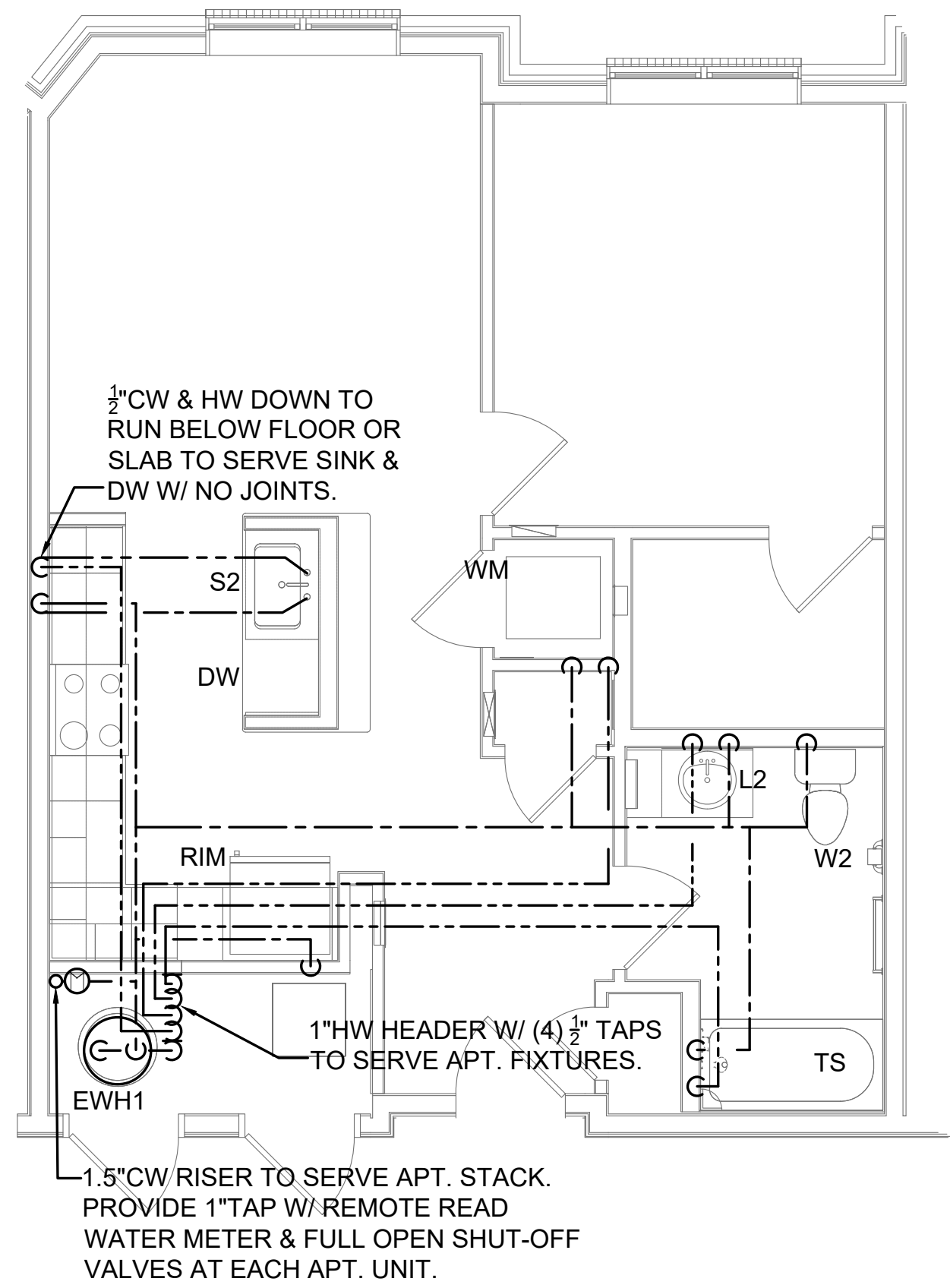
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ROOF
PLUMBING PLAN
ROANOKE GATEWAY
ROANOKE, VA 24022

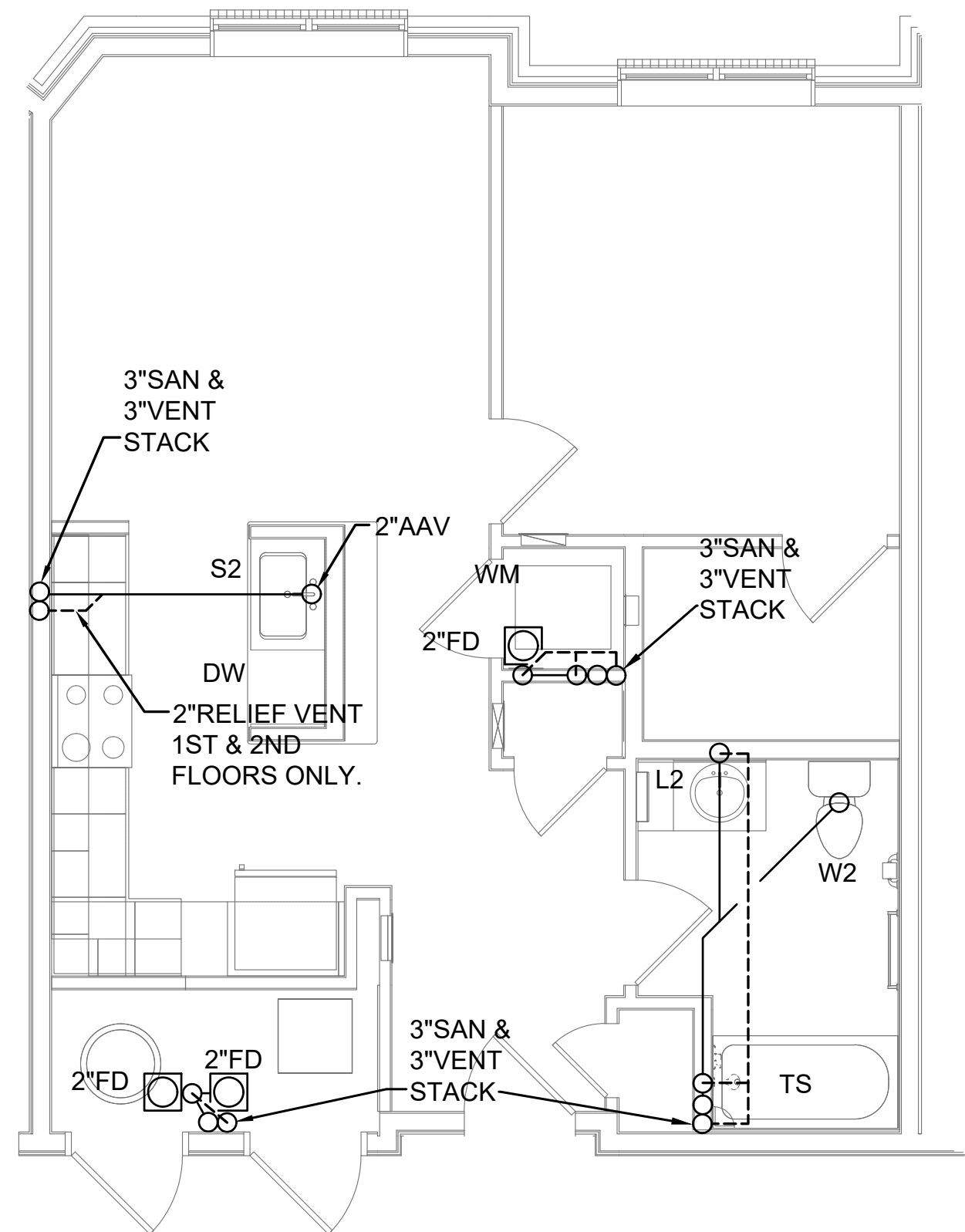
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3P-104

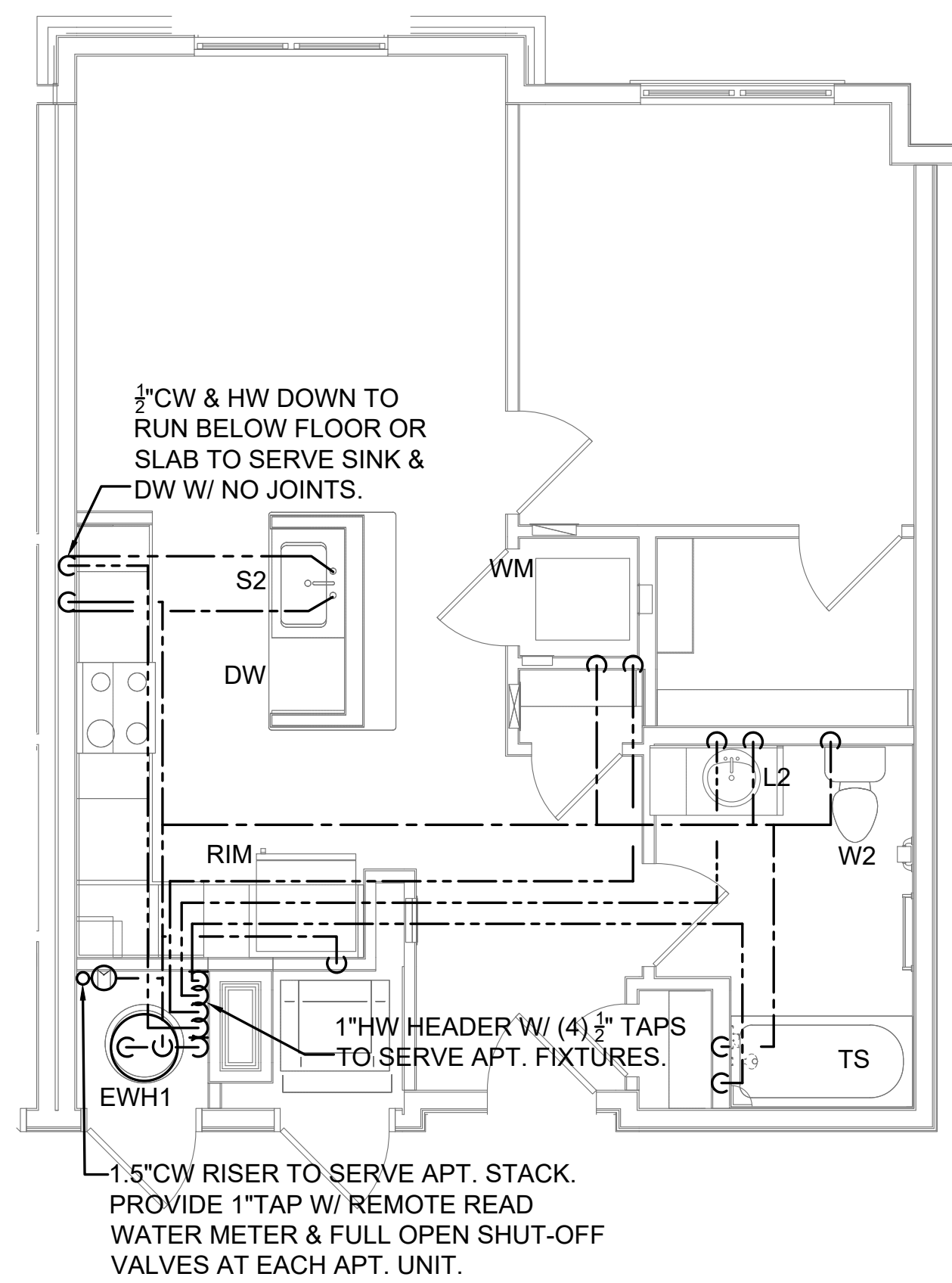
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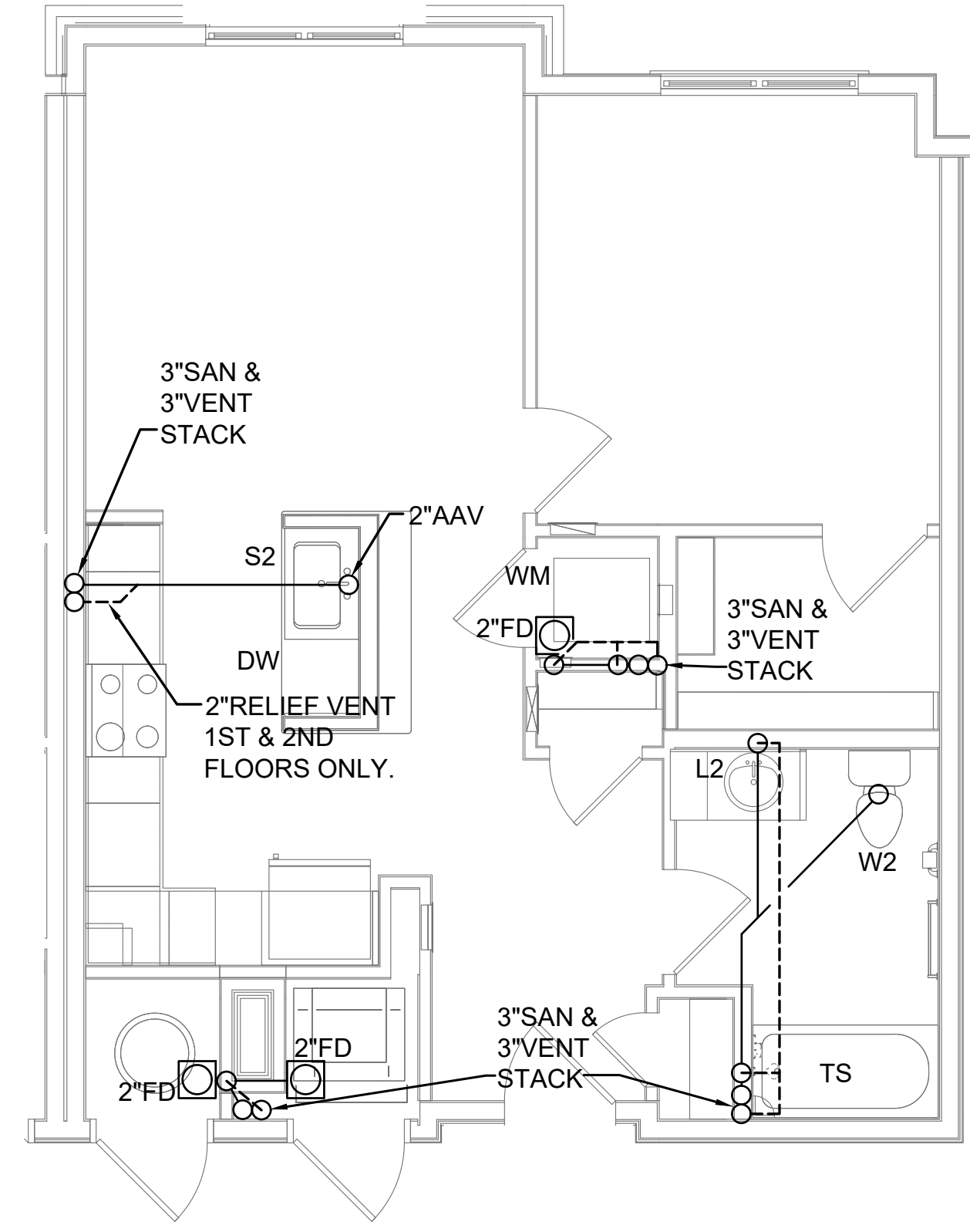
UNIT IB WATER PLAN
SCALE: 1/4" = 1'-0"



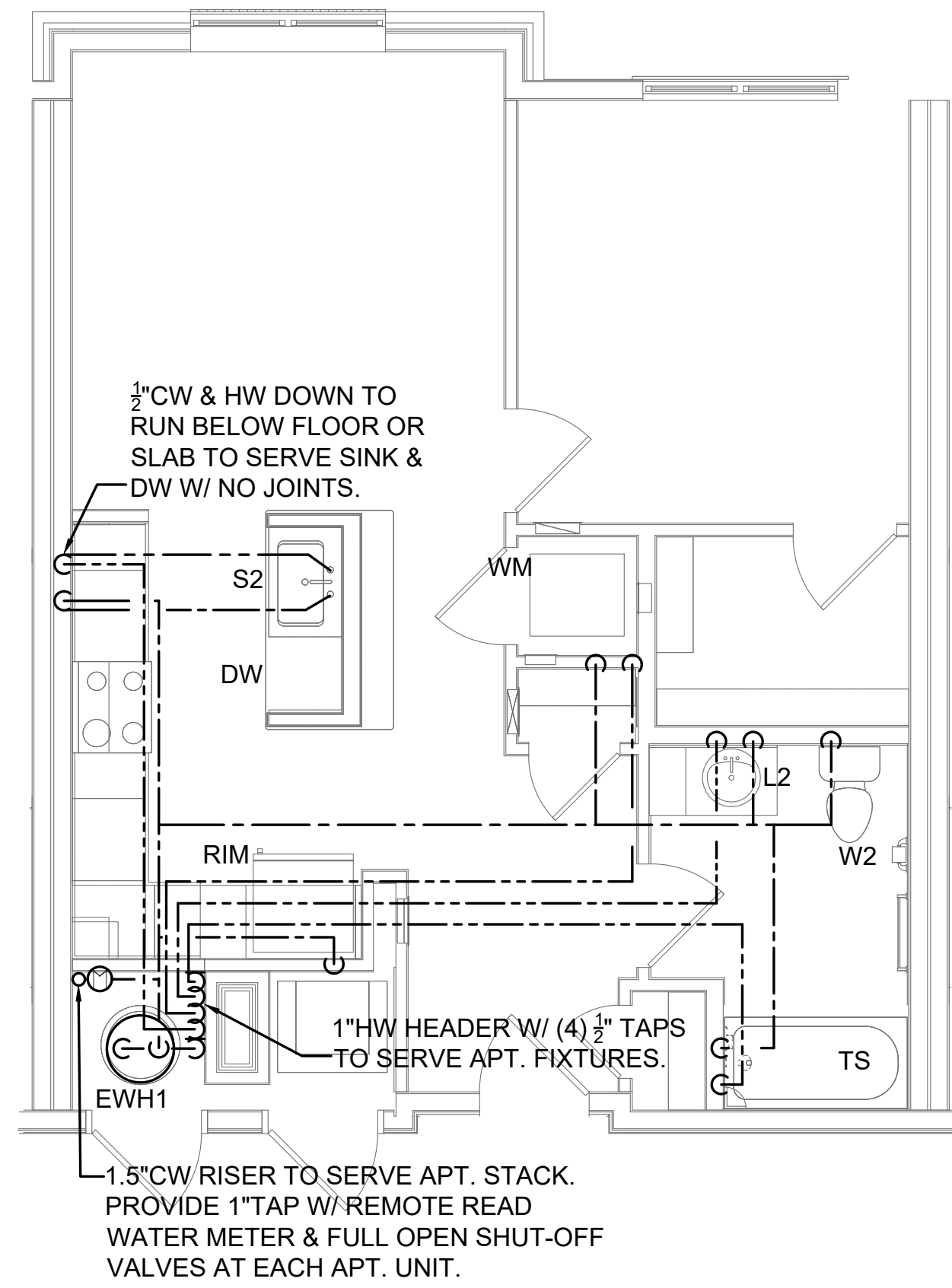
UNIT IB SANITARY/VENT PLAN
SCALE: 1/4" = 1'-0"



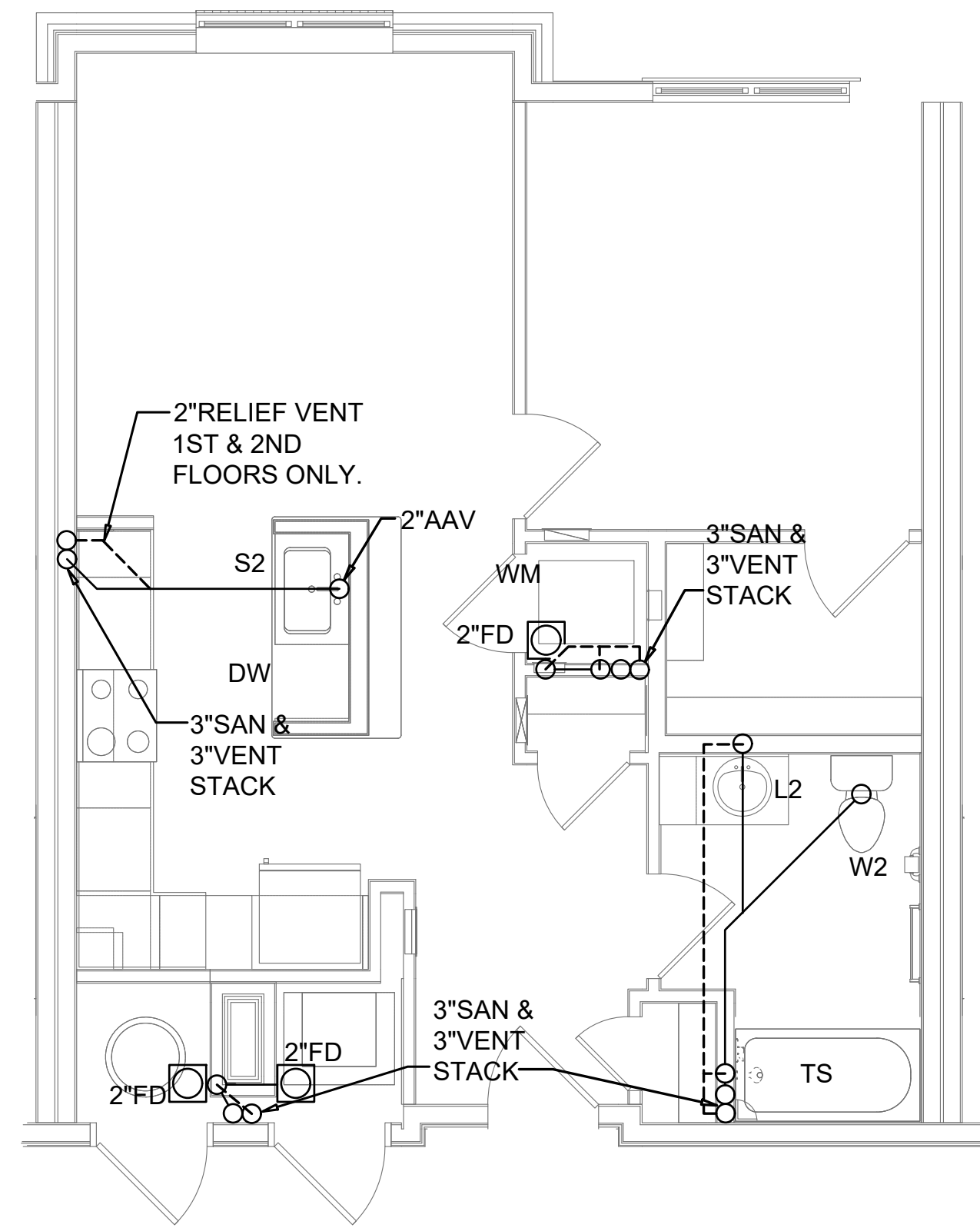
UNIT IC WATER PLAN
SCALE: 1/4" = 1'-0"



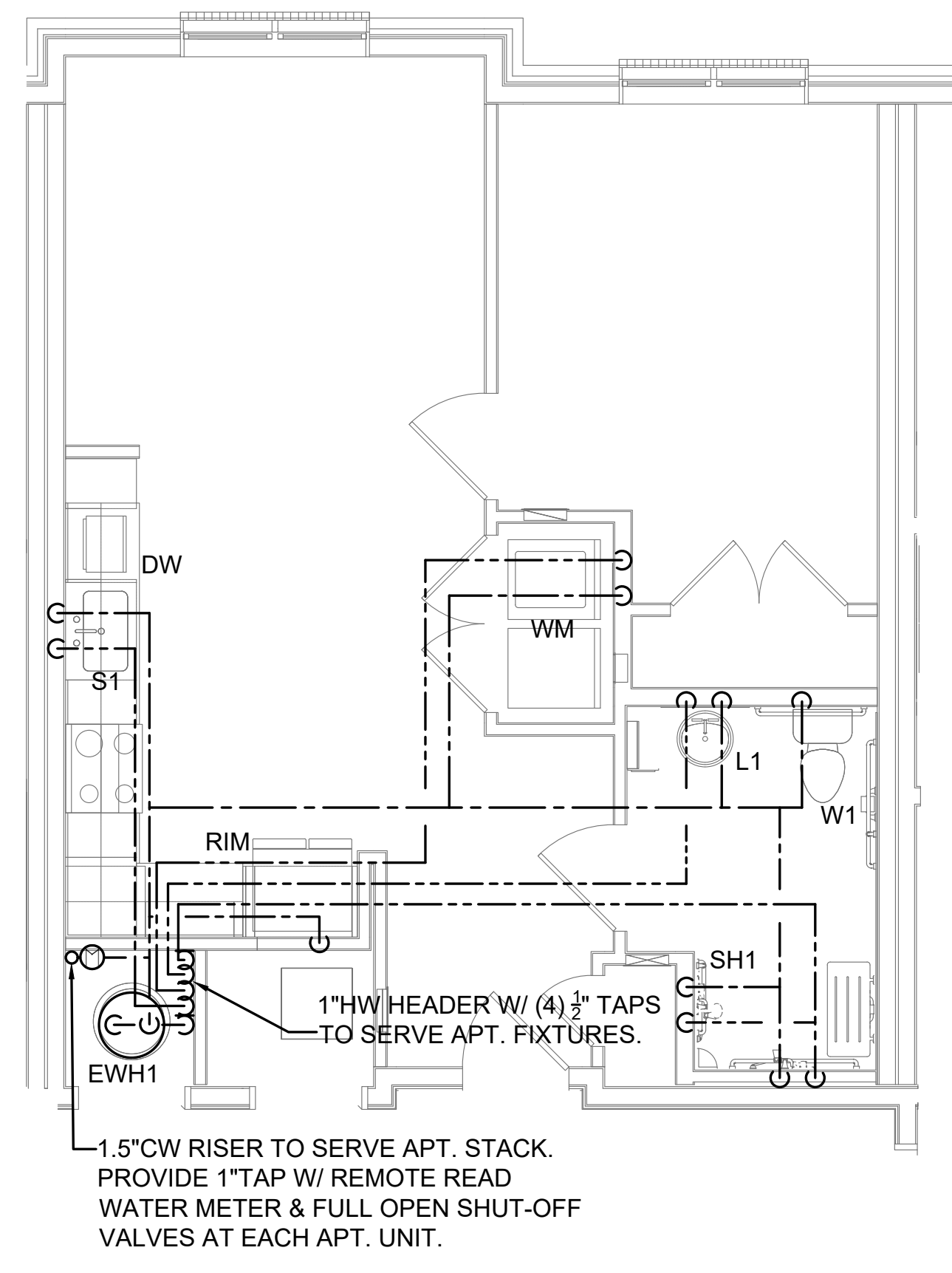
UNIT IC SANITARY/VENT PLAN
SCALE: 1/4" = 1'-0"



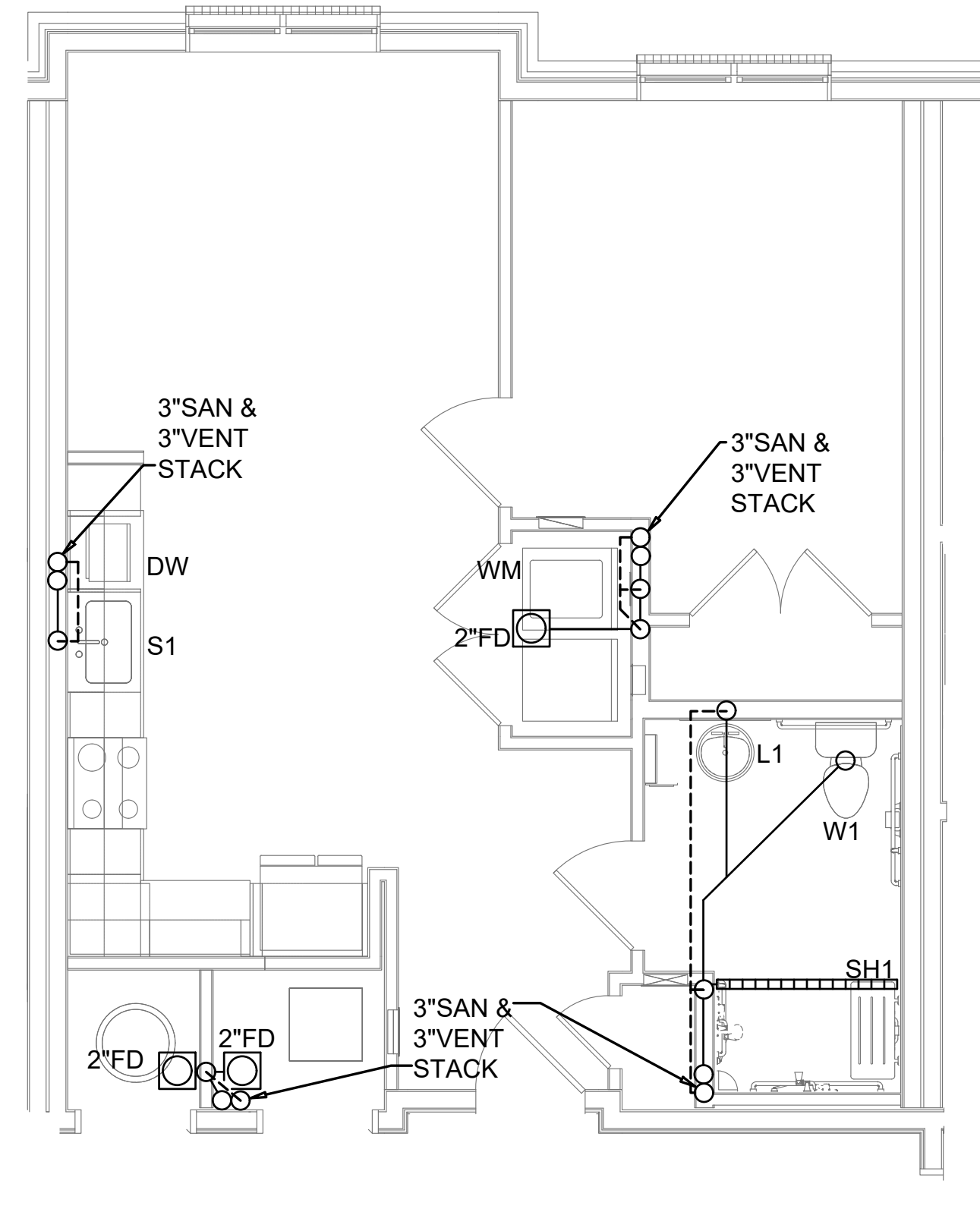
UNIT IA WATER PLAN
SCALE: 1/4" = 1'-0"



UNIT IA SANITARY/VENT PLAN
SCALE: 1/4" = 1'-0"



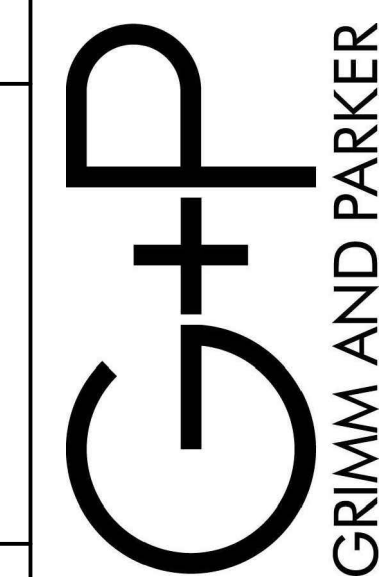
UNIT IA-HC WATER PLAN
SCALE: 1/4" = 1'-0"



UNIT IA-HC SANITARY/VENT PLAN
SCALE: 1/4" = 1'-0"

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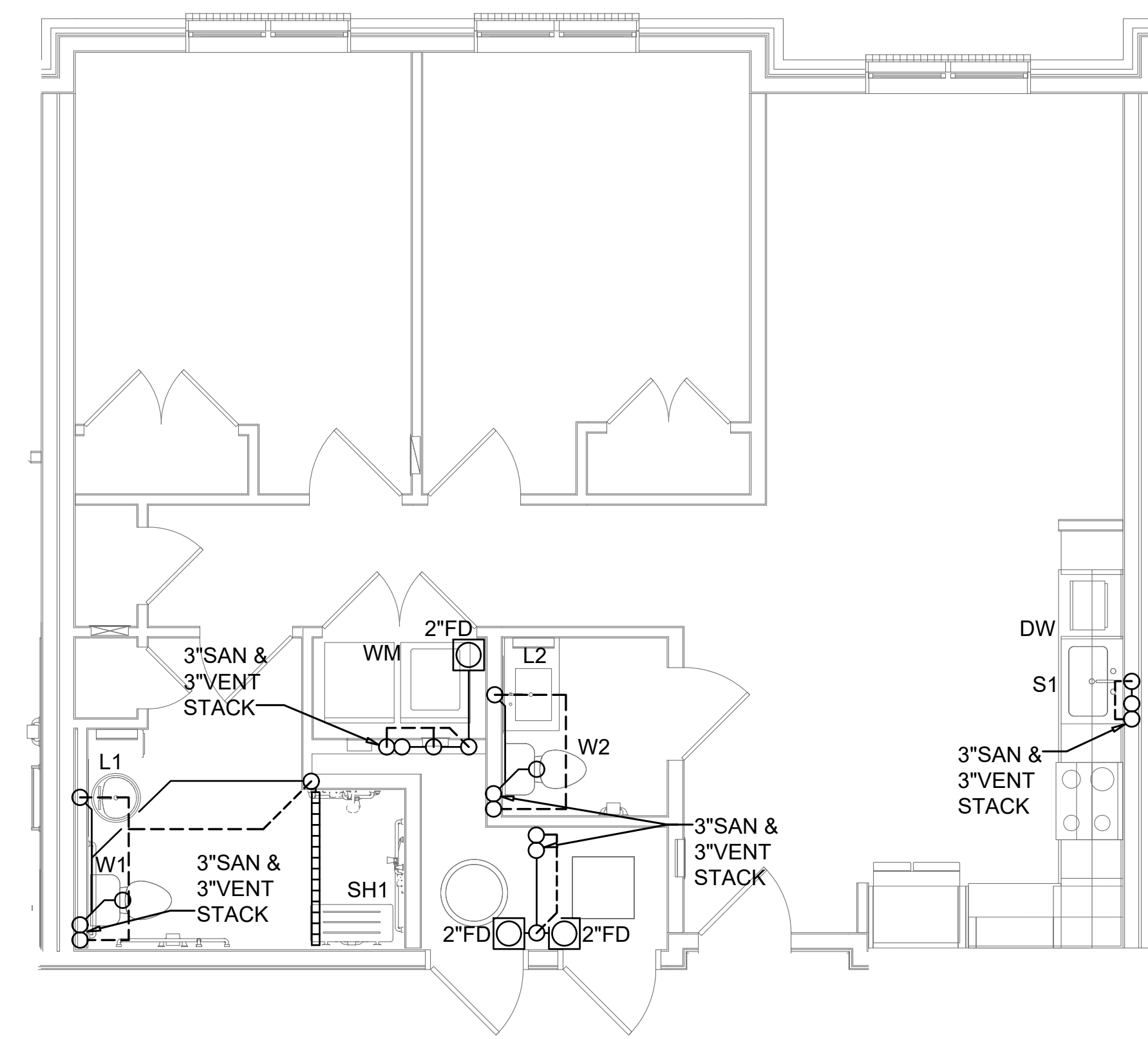
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UNIT PLUMBING PLANS
ROANOKE GATEWAY
624 BULLITT AVE SE ROANOKE, VA 24022

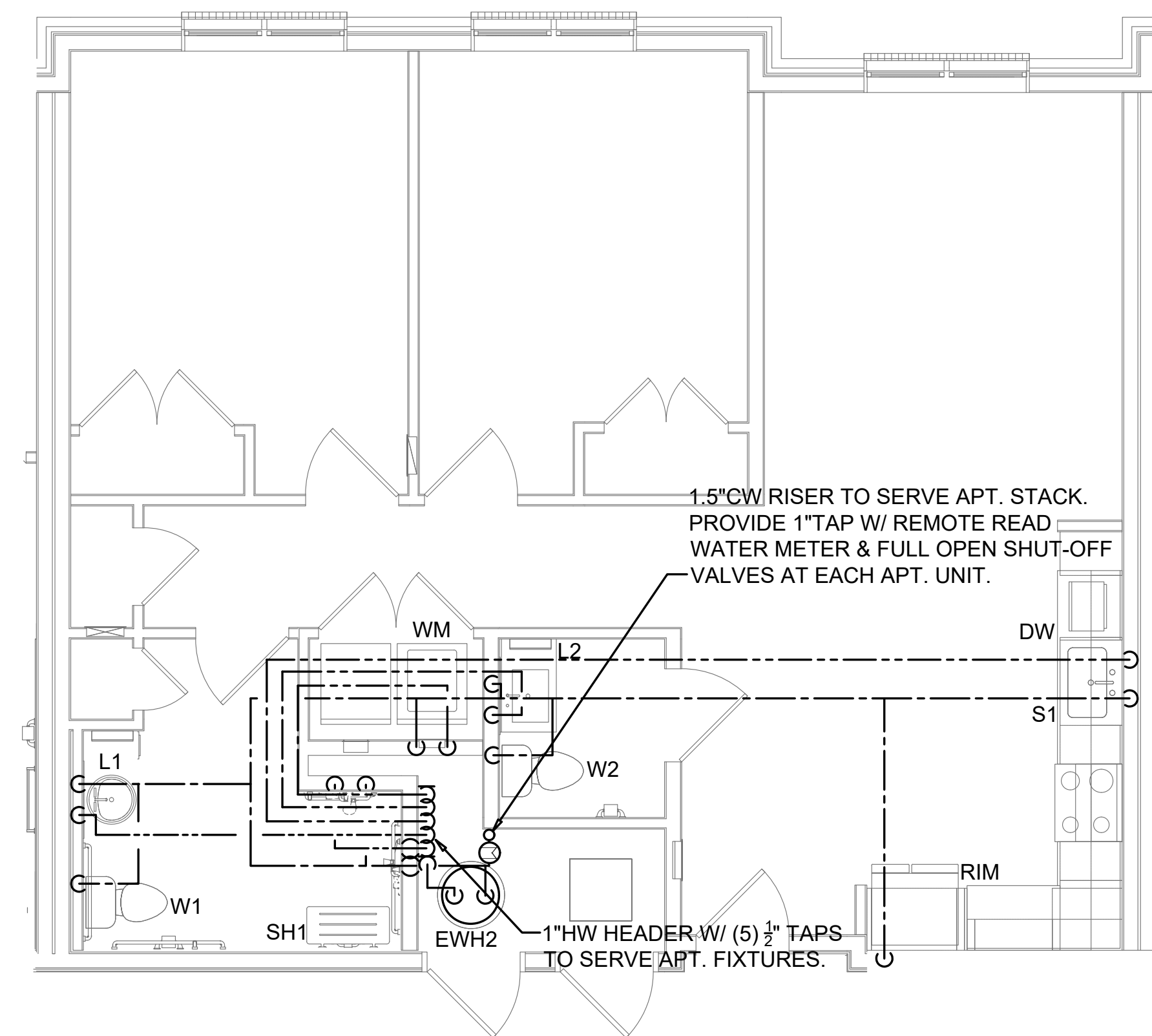
DATE	SUBMISSION / REVISION
05/14/2028	VH 4% APPLICATION
06/30/2028	CONSTRUCTABILITY REVIEW

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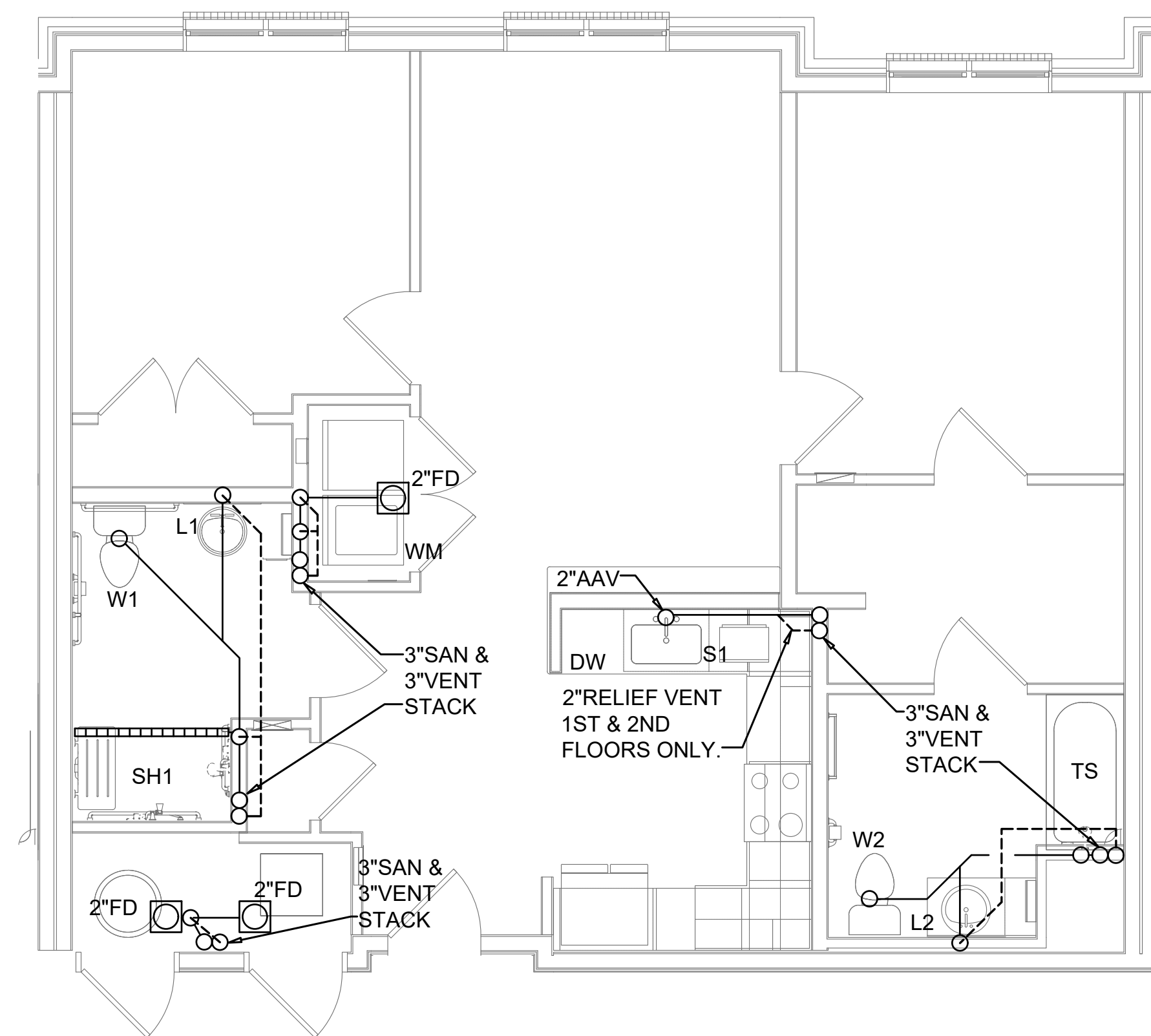
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UNIT 2B-HC SANITARY/VENT PLAN
SCALE: 1/4" = 1'-0"



UNIT 2B-HC WATER PLAN
SCALE: 1/4" = 1'-0"



UNIT 2A-HC SANITARY/VENT PLAN
SCALE: 1/4" = 1'-0"

UNIT 2D SANITARY/VENT PLAN
SCALE: 1/4" = 1'-0"

UNIT 2D WATER PLAN
SCALE: 1/4" = 1'-0"

UNIT 2F SANITARY/VENT PLAN
SCALE: 1/4" = 1'-0"

UNIT 2F WATER PLAN
SCALE: 1/4" = 1'-0"

UNIT 2E SANITARY/VENT PLAN
SCALE: 1/4" = 1'-0"

UNIT 2E WATER PLAN
SCALE: 1/4" = 1'-0"

UNIT 2C WATER PLAN
SCALE: 1/4" = 1'-0"

UNIT 2C SANITARY/VENT PLAN
SCALE: 1/4" = 1'-0"



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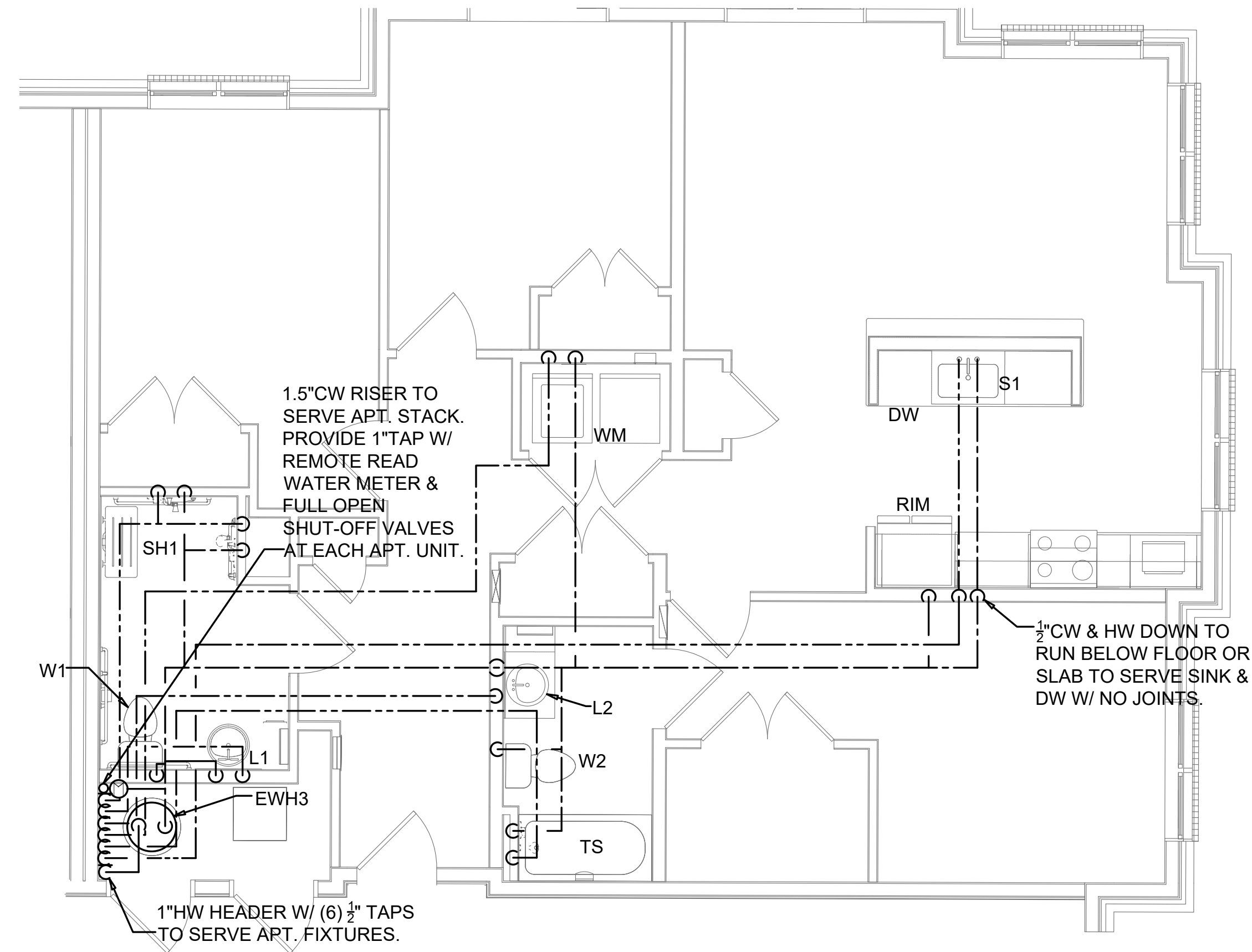
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UNIT SANITARY/VENT PLANS
ROANOKE GATEWAY
624 BULLITT AVE SE ROANOKE, VA 24022

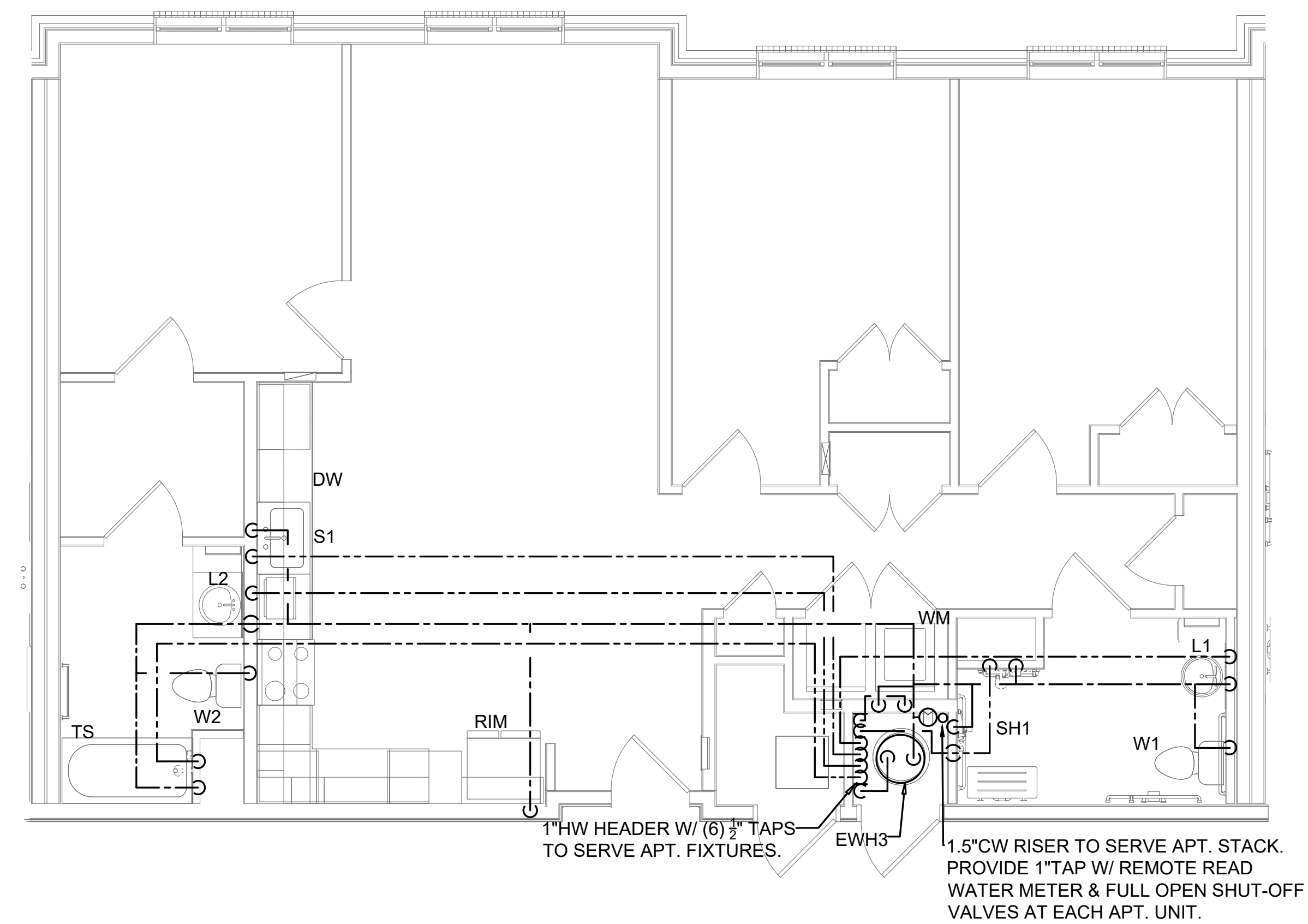
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UNIT 3B-HC WATER PLAN
SCALE: 1/4" = 1'-0"



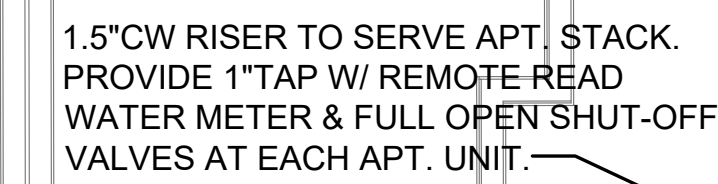
UNIT 3A-HC WATER PLAN
SCALE: 1/4" = 1'-0"

UNIT 3C SANITARY/VENT PLAN
SCALE: 1/4" = 1'-0"

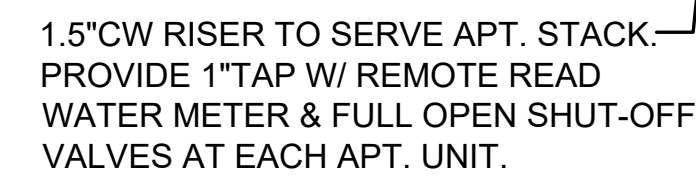


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SCALE: 1/4" = 1'-0"



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



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

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UNIT WATER PLANS
ROANOKE GATEWAY
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