

PLUMBING SPECIFICATIONS

- GENERAL
- A. ALL WORK CONFORM TO THE REQUIREMENTS OF ALL CODES, ORDINANCES AND STANDARDS OF THE LOCAL JURISDICTION. IN CASE OF A CONFLICT BETWEEN DRAWINGS OR SPECIFICATIONS AND THE REQUIREMENTS OF THE LOCAL JURISDICTION, THE MORE STRINGENT REQUIREMENTS SHALL APPLY.
- B. ALL WORK SHALL BE GUARANTEED AGAINST DEFECTS, LEAKS LACK OF PROPER SYSTEM PERFORMANCE OR NON-OPERATION FOR A PERIOD OF ONE YEAR AFTER DATE OF ACCEPTANCE.
- C. ALL WORK SHALL BE COORDINATED WITH ALL TRADES, PRIOR TO INSTALLATION.
- D. IN GENERAL, DRAWINGS FOR THE WORK ARE DIAGRAMMATIC AND SHOW THE LOCATION, TYPE AND SIZE OF PIPING, EQUIPMENT, AND ACCESSORY EQUIPMENT. THE CONTRACTOR SHALL FURNISH ALL ITEMS NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE WORK, WHETHER CALLED FOR OR NOT. THE CONTRACTOR SHALL VERIFY ALL NECESSARY DIMENSIONS BEFORE INSTALLING ANY OF THE WORK AND SHALL CHECK HIS LAYOUTS TO ALLOW CLEARANCE REQUIRED FOR OTHER WORK. THE SCOPE OF WORK CONSISTS GENERALLY OF PROVIDING AND INSTALLING COMPLETE PLUMBING AND GAS SYSTEMS AND FINAL TESTING OF ALL SYSTEMS AND EQUIPMENT AS REQUIRED.

- PRODUCTS
- A. PLUMBING FIXTURES: ALL FIXTURES SHALL BE SELECTED BY OWNER. PROVIDE ALL FIXTURES WITH TRIM, CARRIER SUPPLIES, AND TRAPS AS REQUIRED FOR COMPLETE INSTALLATION.
- B. PIPING AND FITTING:
1. DOMESTIC WATER:
ABOVE GRADE SHALL BE "L" HARD DRAWN COPPER TUBING WITH 125 PSI WROUGHT COPPER SWEAT FITTINGS, AND ALL JOINT SOLDERED WITH 90% OR SILVER SOLDER. BELOW GRADE SHALL BE TYPE "K" SOFT DRAWN COPPER TUBING WITH 125 PSI WROUGHT COPPER SWEAT FITTINGS SOLDERED WITH SILVER SOLDER.
2. SOIL, WASTE AND VENT:
ABOVE GRADE SHALL BE: SERVICE WEIGHT CAST IRON BELL AND SPIGOT. SCHEDULE 40 GALVANIZED STEEL PIPE WITH SWEAT. CAST IRON DRAINAGE PATTERN FITTINGS. CAST IRON NO-HUB PIPING AND FITTINGS. DWV COPPER TUBING AND COPPER DRAINAGE PATTERN FITTINGS. SCHEDULE 40 PVC PLASTIC PIPE AND PVC-DWV FITTING (SHALL NOT BE USED IN PLENUM SPACES).
- C. INSULATION:
1. DOMESTIC WATER PIPING: COVER ALL WITH 1/2" FIBERGLASS INSULATION SECURED WITH ALL PURPOSE JACKET. PIPING IN EXTERIOR WALLS AND PLUMBING CHASES SHALL BE COVERED WITH 1" THICK INSULATION.
2. STORM WATER PIPING: THE HORIZONTAL SECTION OF THE RAIN LEADERS, RISER TO AND INCLUDING THE INTERIOR PART OF THE ROOF DRAIN SHALL BE COVERED WITH 1" THICK INSULATION.
- D. VALVES:
1. DOMESTIC WATER : ALL VALVES SHALL BE SWEATED BRONZE GATE VALVE WITH SCREW-IN BONNET, RISING STEM MINIMUM RATING OF 125 PSI. TWO PIECES BALL VALVES WITH EXTENDED HANDLE MAY BE USED IN LIEU OF THE GATE VALVES.
2. GAS VALVES: SHALL BE OF THE APPROVED TYPE PER AGA LABEL AND SHALL BE INSTALLED AS REQUIRED. GAS VALVES SHALL NOT BE LOCATED IN PLENUM SPACES.
- E. HANGERS:
1. SHALL BE ADJUSTABLE CLEVIS HANGERS, PROPERLY SIZED AND SPACED FOR PIPING, INCLUDING INSULATION.

- EXECUTION
- A. INSTALL FIXTURES LEVEL, PLUMB AND PARALLEL TO THE WALLS. ALL EXPOSED METAL PARTS SHALL BE CHROME PLATED AND SHOW NO TOOL MARKS. GROUT BETWEEN WALL HUNG FIXTURES AND WALL. PROVIDE ACCESS PANELS TO ALL CONCEALED SUPPLY STOPS, TRAP, PRIMERS AND VALVES.
- B. FIXTURE DESIGNATED FOR USE BY PHYSICALLY HANDICAPPED PEOPLE SHALL BE IN ACCORDANCE WITH ANSI A 117.1.
- C. INSTALL DIELECTRIC CONNECTION BETWEEN DISSIMILAR METALS, PIPE TO PIPE, PIPE TO EQUIPMENT, PIPE TO SUPPORT.
- D. FURNISH AND INSTALL JOSAM 75000 SERIES SHOCK ARRESTERS AT THE ENDS OF ALL HOT AND COLD WATER BRANCHES TO FIXTURES. SIZES SHALL BE IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.1.

PLUMBING NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STATE BUILDING CODE, LOCAL REQUIREMENTS AND THE PROJECT SPECIFICATIONS.
2. ALL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES.
3. ALL DRAINAGE PIPING SHALL BE RUN AT A SLOPE OF 1/4" PER FOOT UNLESS SPECIFICALLY SHOWN OTHERWISE ON DRAWINGS.
4. CONTRACTOR SHALL VISIT SITE PRIOR TO SUBMISSION OF BID TO BECOME FAMILIAR WITH EXISTING CONDITIONS.
5. ALL HOT AND COLD WATER SUPPLY PIPING SHALL BE INSULATED.
6. PROVIDE AND INSTALL CLEAN-OUTS IN DRAINAGE PIPING AT EACH CHANGE IN DIRECTION OF PIPING GREATER THAN 45 DEGREES, EVERY 50 FEET, AND AS SHOWN.
7. EXPOSED UTILITY SERVICE LINES AND PIPES SHALL BE INSTALLED SO THAT THEY DO NOT OBSTRUCT OR PREVENT CLEANING OF THE FLOORS, WALLS, OR CEILINGS. EXPOSED HORIZONTAL UTILITY SERVICE LINES AND PIPES SHALL NOT BE INSTALLED ON THE FLOOR.
8. CONTRACTOR SHALL FIELD SURVEY EXISTING CONDITIONS AND PLUMBING SERVICE LOCATIONS PRIOR TO BID AND/OR START WORK ON THIS JOB.

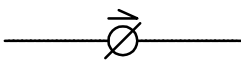









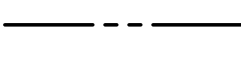




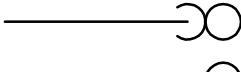
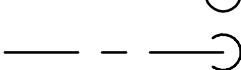

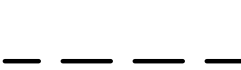
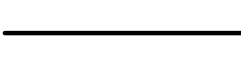

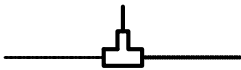
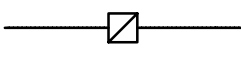







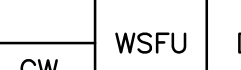
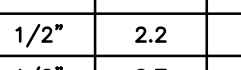
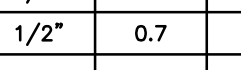
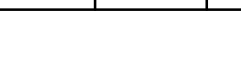




PLUMBING NOTES

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2. ALL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES.
3. CONTRACTOR SHALL FIELD SURVEY EXISTING CONDITIONS AND PLUMBING SERVICE LOCATIONS PRIOR TO BID AND/OR START WORK ON THIS JOB.

EXISTING PLUMBING FIXTURES

WH(E):
RUUD MODEL ES50-6-G
208V - 3PH - 6.0KW
STOR.TANK= 50 GAL

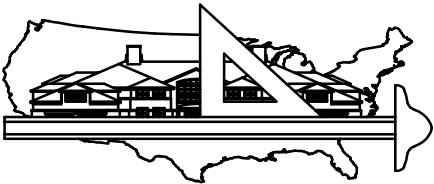
PLUMBING SYMBOLS AND ABBREVIATIONS

	BFP	BACKFLOW PREVENTER (ASSE 1024)
	CO	WALL CLEANOUT, FLOOR CLEANOUT
	CW	COLD WATER PIPE
	D	DRAIN PIPE
	DFU	DRAINAGE FIXTURE UNIT
	DN	DOWN
	E	EXISTING TO REMAIN
	ER	EXISTING TO BE RELOCATED
	FD	FLOOR DRAIN
	GAL	GALLONS
	GD	GARBAGE DISPOSER
	GPH	GALLONS PER HOUR
	GPM	GALLONS PER MINUTE
	HB	HOSE BIBB
	HW	HOT WATER PIPE (140°F)
	KS	KITCHEN SINK
	LAV	LAVATORY
	MS	MOP SINK
	N	NEW
	OSD	OPEN SITE DRAIN
	P-__	PLUMBING FIXTURE IDENTIFICATION
	P-TRAP	P-TRAP
	PIPE UP	PIPE UP
	PIPE DOWN	PIPE DOWN
	PSI	POUNDS PER SQUARE INCHES
	RE	SHALL BE REMOVED
	S	EXISTING SANITARY PIPE
	S	NEW SANITARY PIPE
	SS	SERVICE SINK
	TMV	SHUT-OFF GATE VALVE, VALVE IN VERTICAL
	TP	TEMPERING MIXING VALVE (ASSE 1070)
	TP	TRAP PRIMER (ASSE 1018 OR ASSE 1044)
	TW	TEMPERED WATER PIPE (105°F)
	TYP	TYPICAL
	UR	URINAL
	V	VENT PIPE
	VTR	VENT THRU ROOF
	WC	WATER CLOSET
	WH	STORAGE TANK WATER HEATER
	WSFU	WATER SUPPLY FIXTURE UNIT

PLUMBING FIXTURE SCHEDULE

MARK	ADA COMPL.	PLUMBING FIXTURE	PLUMBING CONNECTIONS						WSFU	DFU	MANUF.	MODEL	REMARKS
			TRAP	S	V	HW	TW	CW					
MWC	YES	MACERATING WATER CLOSET	-	1"	1-1/2"	-	-	1/2"	2.2	3	LIBERTY PUMPS	ASCENTII-ESW	115V. 1/2HP.
LAV	YES	LAVATORY	1-1/2"	1-1/2"	1-1/2"	-	1/2"	1/2"	0.7	1	TBD	TBD	PROVIDED WITH ASSE 1070 TMV.
HS	YES	HAND SINK	1-1/2"	1-1/2"	1-1/2"	-	1/2"	1/2"	0.7	1	TBD	TBD	PROVIDED WITH ASSE 1070 TMV.

NOTE: PLUMBING FIXTURE SPECIFICATIONS TO BE APPROVED BY ARCHITECT OR OWNER.
PLUMBING FIXTURES SHALL BE ADA COMPLIANT.
CONTRACTOR SHALL PROVIDE FIXTURE CARRIER AS REQUIRED.



Design America Engineering, Inc.

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FE Project Number: 18-012

ITEM	DESCRIPTION	DATE
	FOR PERMIT	10-26-18

Project/Location:

PROPOSED
DOCTOR'S OFFICE
208 Main Street
Gaithersburg MD

Owner:

DR. RUPINDER SINGH

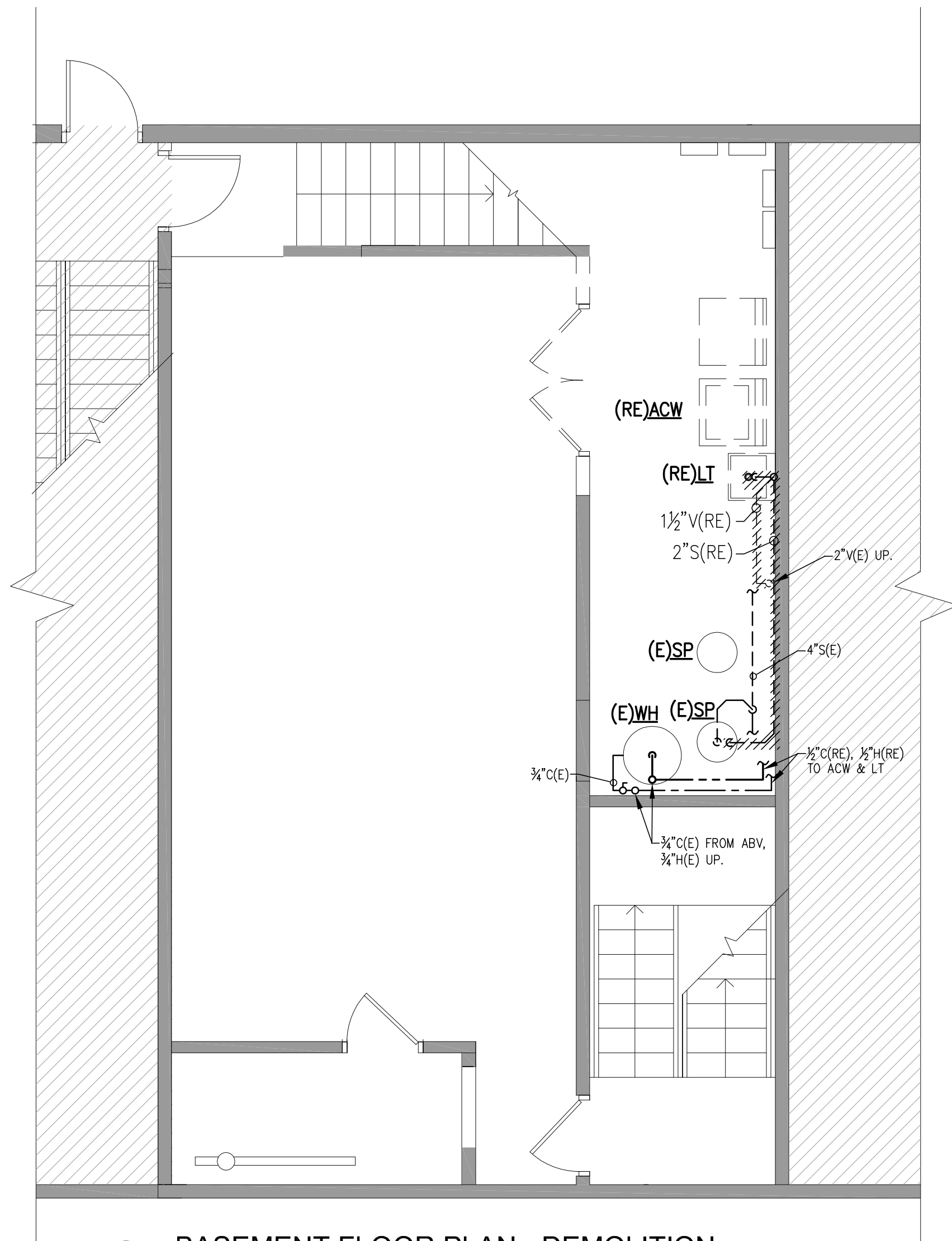


PROFESSIONAL CERTIFICATION:
I, **RAFAEL COELHO**, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE # **44287**
EXPIRATION DATE: **AUGUST 08, 2019**

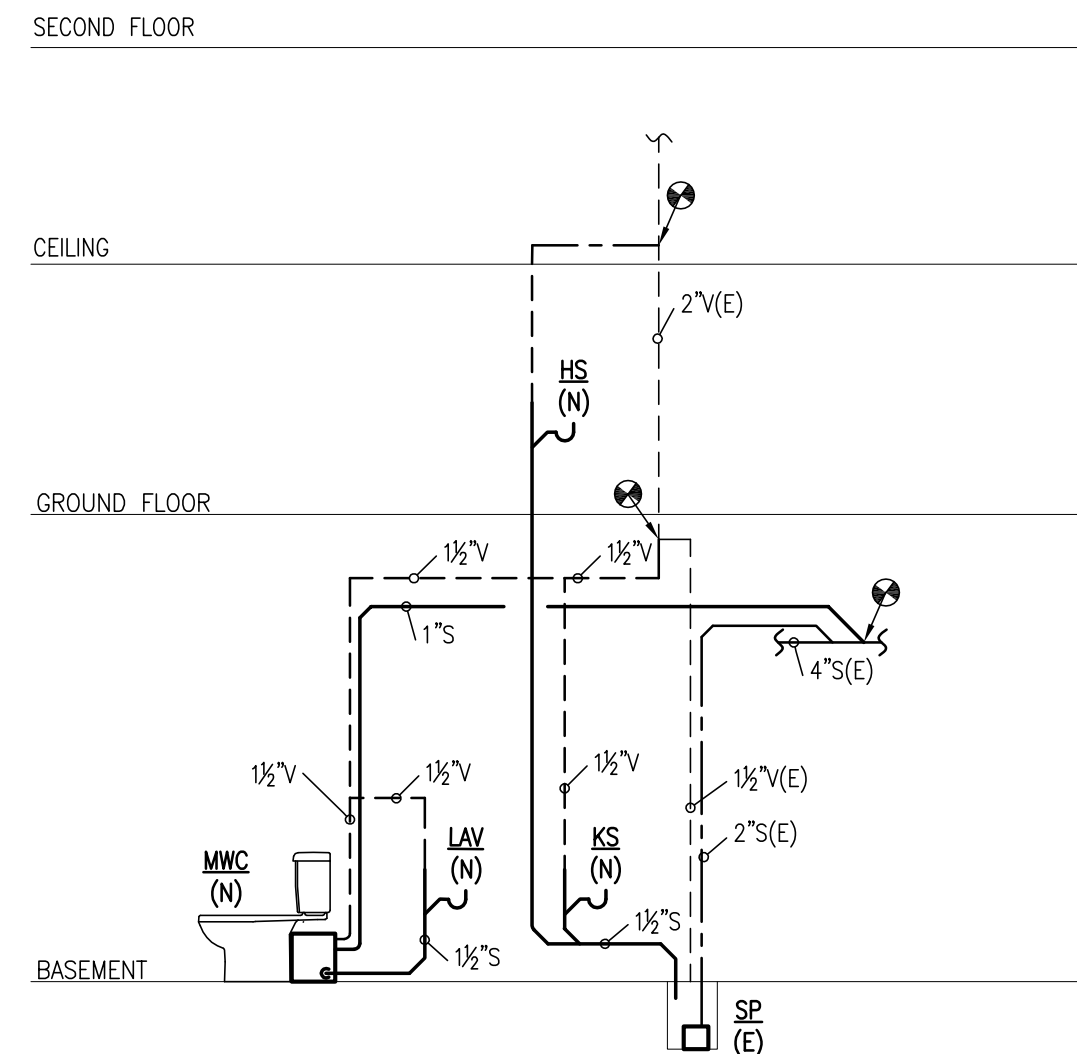
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PLUMBING NOTES
AND SYMBOLS

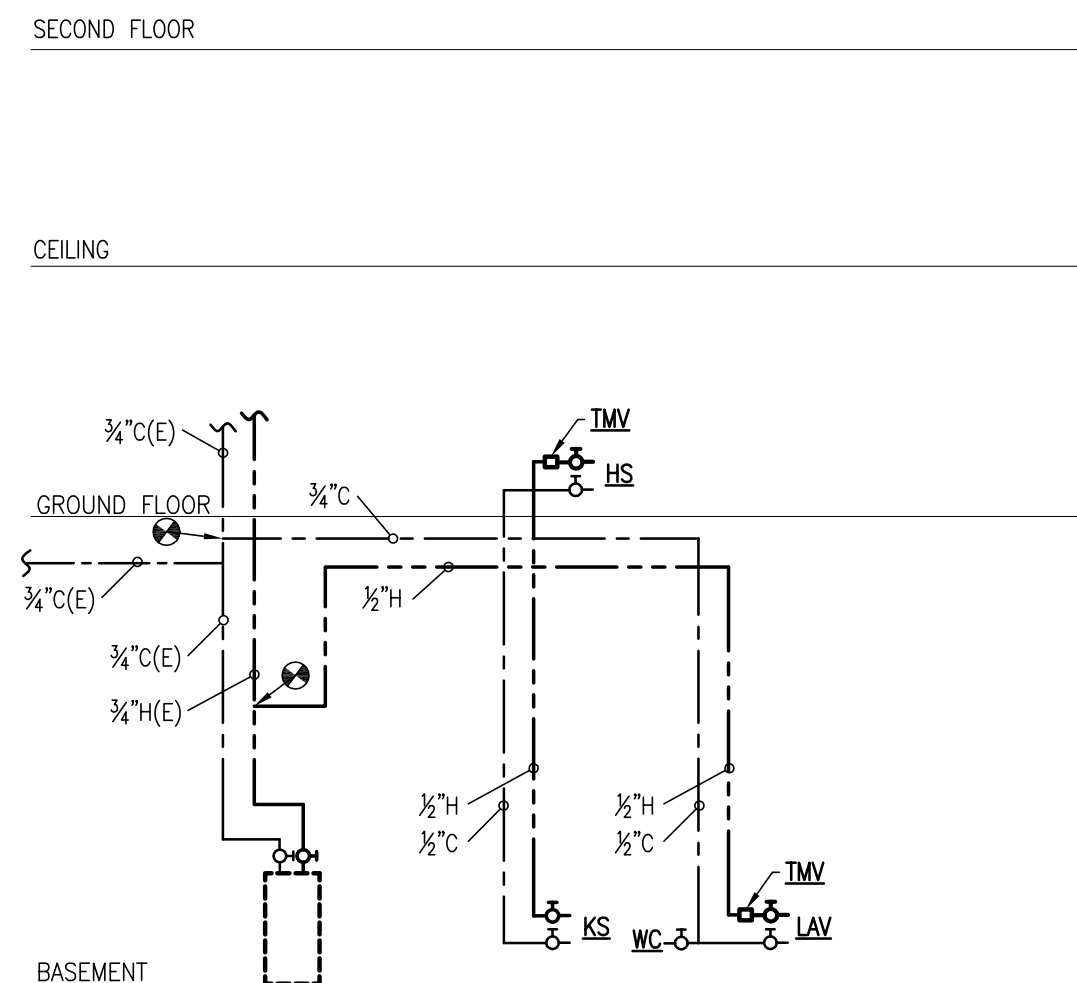
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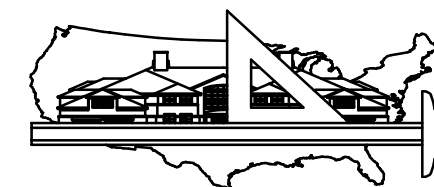
1 BASEMENT FLOOR PLAN - DEMOLITION
SCALE: 1/4" = 1'-0"



2 SANITARY AND VENT NEW RISER DIAGRAM
SCALE: NOT TO SCALE



3 DOMESTIC WATER NEW RISER DIAGRAM
SCALE: NOT TO SCALE



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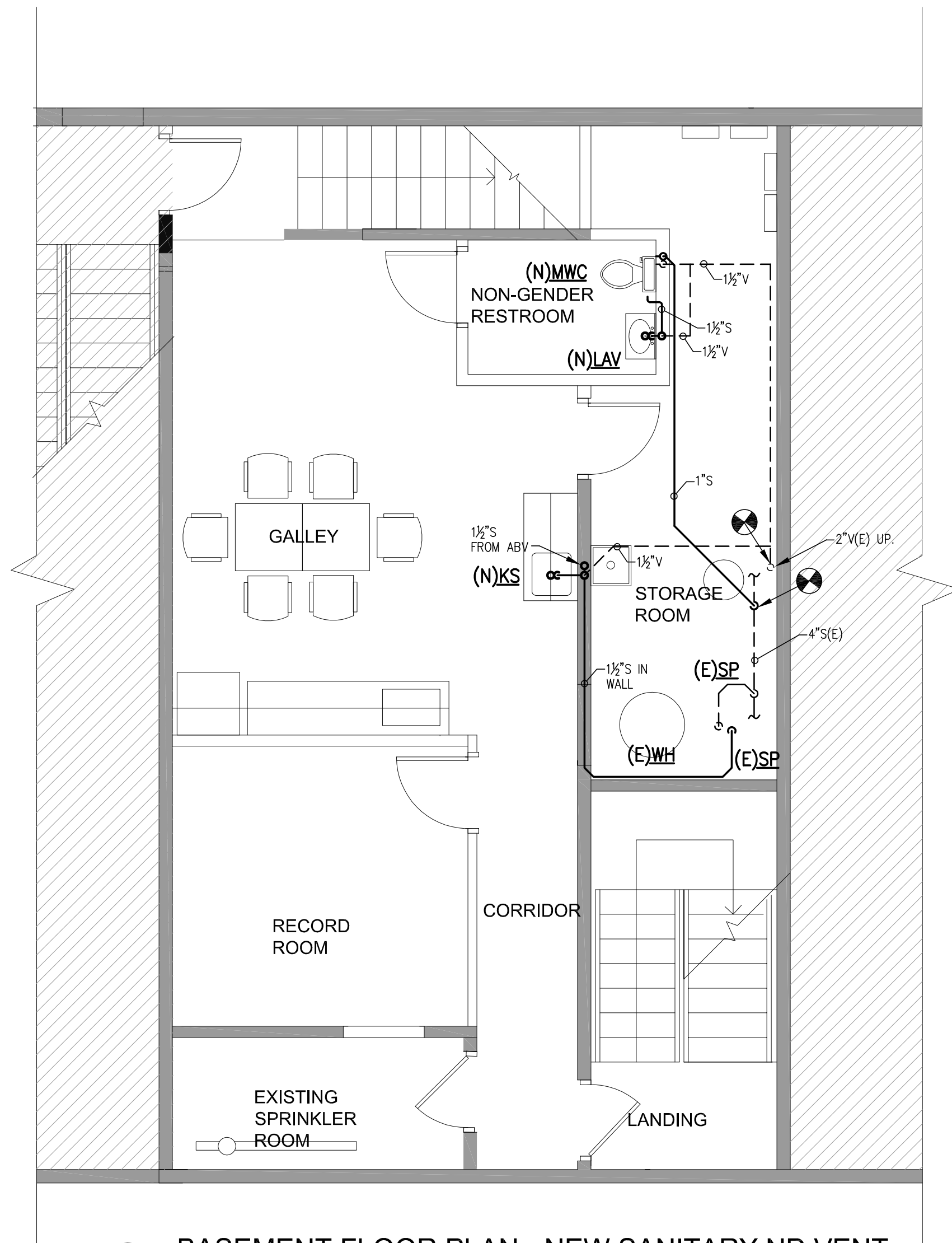


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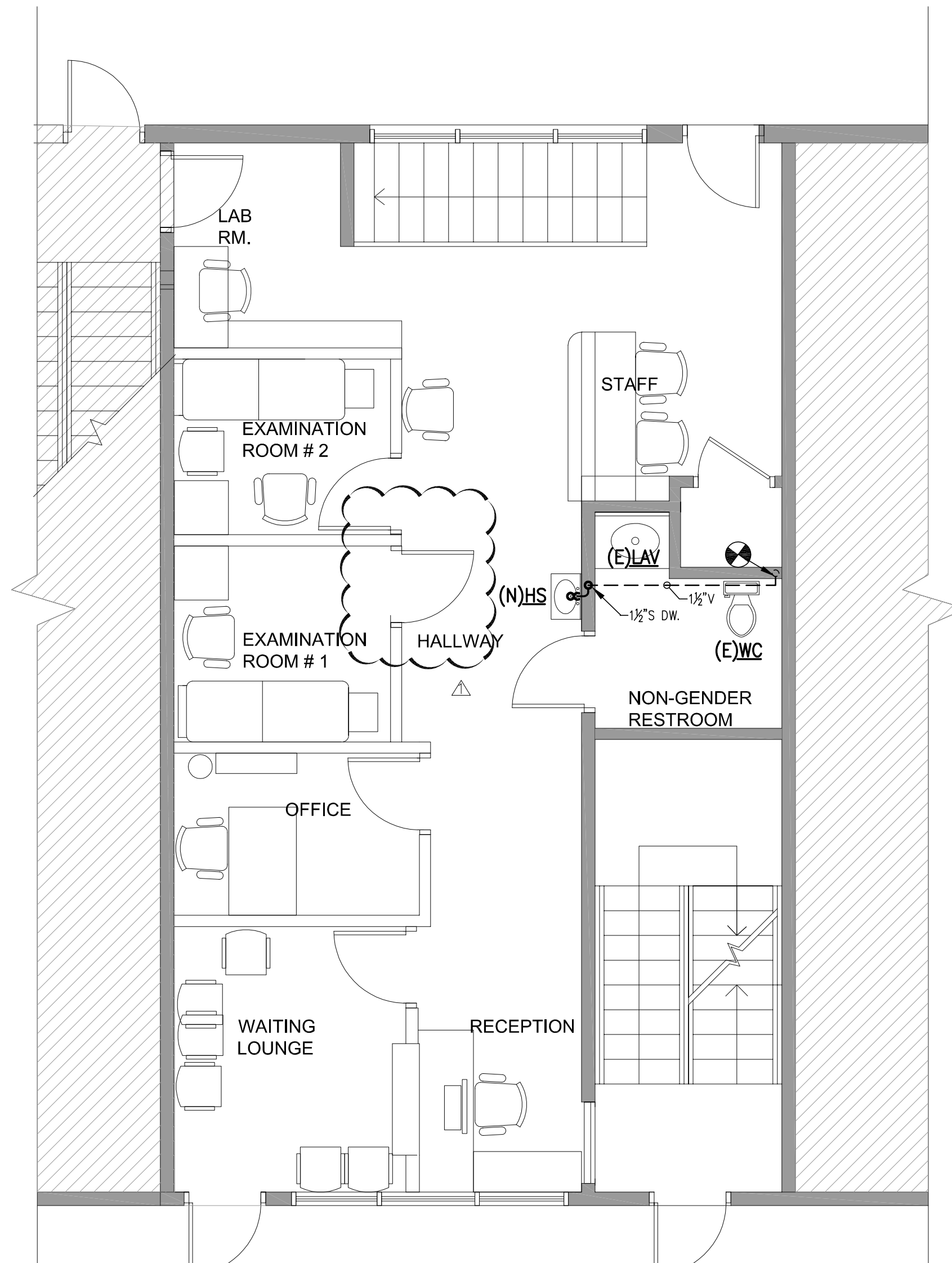
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**PLUMBING
DEMOLITION PLANS
AND NEW RISER
DIAGRAMS**

Sheet Number:
P101



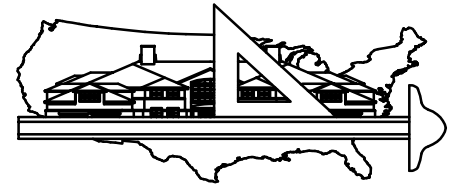
1 BASEMENT FLOOR PLAN - NEW SANITARY ND VENT
SCALE: 1/4" = 1'-0"



2 GROUND FLOOR PLAN - NEW SANITARY AND VENT
SCALE: 1/4" = 1'-0"

NEW CONSTRUCTION NOTES

1. FIELD VERIFY EXISTING DUCT ROUTING CLEARANCE ABOVE CEILING.
2. PROVIDE FIRESTOP ON CEILING PENETRATIONS WHERE REQUIRED.
3. PROVIDE RADIATION DAMPERS ON CEILING AS REQUIRED.



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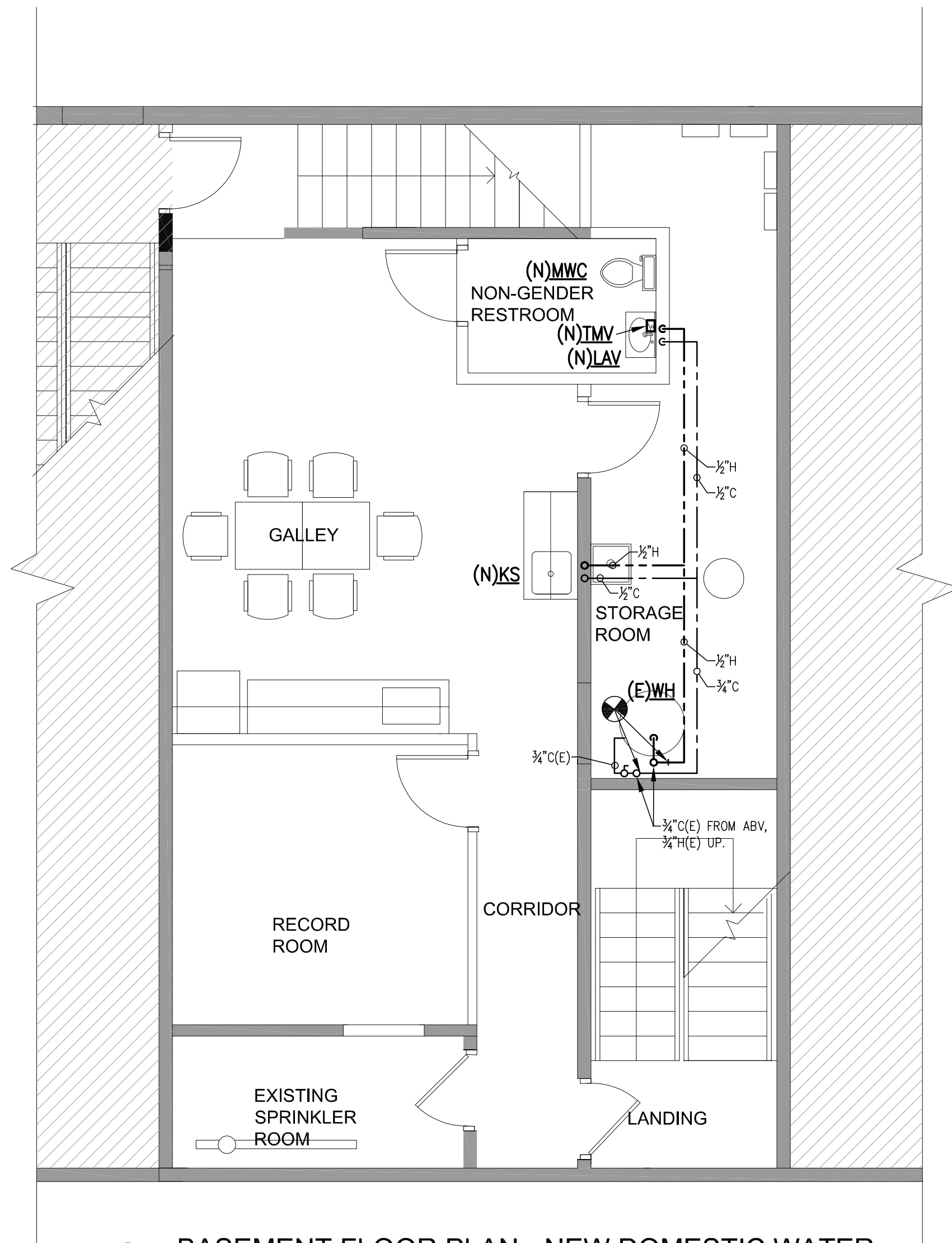
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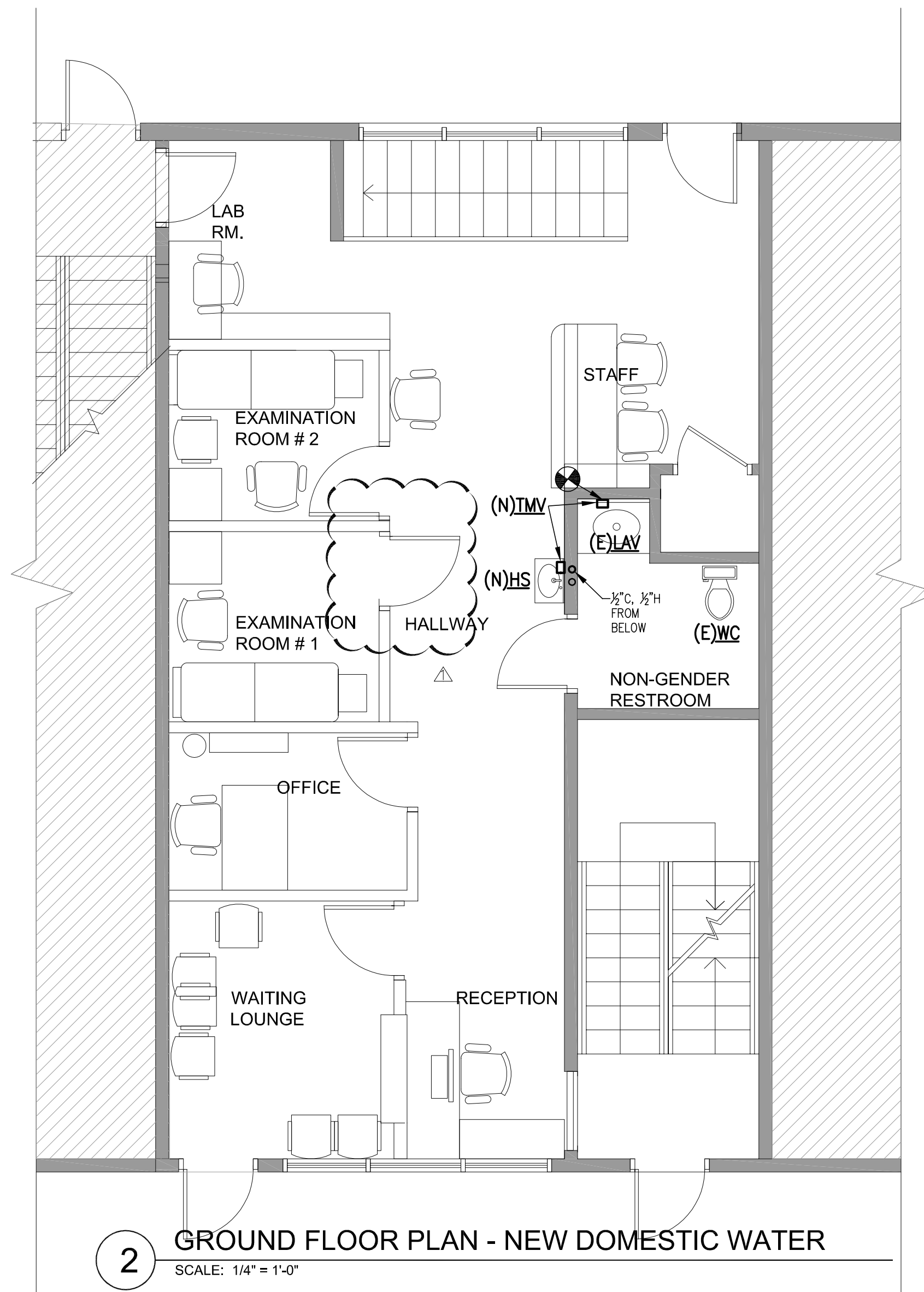
**NEW SANITARY AND
VENT PLANS**

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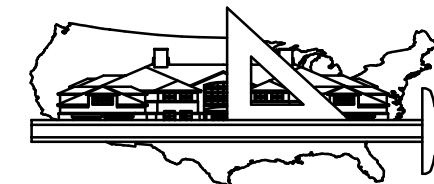
P102



1 BASEMENT FLOOR PLAN - NEW DOMESTIC WATER
SCALE: 1/4" = 1'-0"



2 GROUND FLOOR PLAN - NEW DOMESTIC WATER
SCALE: 1/4" = 1'-0"



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Sheet Title:

**NEW DOMESTIC
WATER PLANS**

Sheet Number:

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