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KEY TO SYMBOLS	
SYMBOL	DESCRIPTION
	EQUIPMENT IDENTITY (SEE EQUIPMENT ABBREVIATION LIST AND SCHEDULES)
	EQUIPMENT DESIGNATION
	SYSTEM NUMBER (IF APPLICABLE)
	RISER TYPE. REFER TO ABBREVIATIONS
	RISER DESIGNATION
	RISER NUMBER. REFER TO PLANS AND/OR RISER DIAGRAMS
	SECTION NUMBER
	SECTION DESIGNATION
	SECTION DRAWING NUMBER
	REVISION NUMBER
	SHEET NOTE NUMBER
	CONNECT NEW TO EXISTING

PIPING SYMBOLS	
SYMBOL	DESCRIPTION
	COLD WATER PIPING
	TEMPERED WATER PIPING
	HOT WATER PIPING
	FILTERED COLD WATER
	NATURAL GAS PIPING
	SANITARY, SOIL, WASTE PIPING
	STORM PIPING
	VENT PIPING
	EXISTING PIPING
	EXSITING PIPING TO BE REMOVED
	PUMP DISCHARGE
	CONDENSATE PIPING

ABBREVIATIONS	
ABV	ABOVE
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
BFP	BACK FLOW PREVENTOR
BLDG	BUILDING
BLW	BELOW
BSMT	BASEMENT
CB	CATCH BASIN
CI	CAST IRON
CL	CENTER LINE
CLG	CEILING
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CSST	CORRUGATED STAINLESS STEEL TUBING
CW	COLD WATER
DIA	DIAMETER
DIAG	DIAGRAM
DISCH	DISCHARGE
DN	DOWN
DWG	DRAWING
(E)	EXISTING
EA	EACH
ELEV	ELEVATION
ENT	ENTERING
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
EW	ELECTRIC WATER COOLER
EXT	EXTERNAL
°F	DEGREES FAHRENHEIT
FD	FLOOR DRAIN
FL	FLANGE
FLEX	FLEXIBLE
FLR	FLOOR
FFM	FEET PER MINUTE
FFS	FEET PER SECOND
FT	FEET
G	GAS
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GW	GREASE WASTE
HB	HOSE BIBB
HD	HEAD
HDR	HUB DRAIN
HR	HOUR
HTR	HEATER
HW	HOT WATER
ID	INTERNAL DIAMETER
INCL	INCLUDING
INV	INVERT
INWC	INCHES OF WATER COLUMN
LAV	LAVATORY
MAX	MAXIMUM
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
(F)	NEW
NIC	NOT IN CONTRACT
NH	NO HUB
No	NUMBER
NPW	NON-POTABLE WATER
NOM	NOMINAL
NTS	NOT TO SCALE
OPG	OPENING
OZ	OUNCE
PART	PARTIAL
PERF	PERFORATED
PEX	CROSS LINKED POLYETHYLENE TUBING
PH	PHASE
POS	POSITIVE
PRESS	PRESSURE
PS	PRESSURE SWITCH
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
RD	ROOF DRAIN
REQD	REQUIRED
RM	ROOM
RPZ	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
SAN	SANITARY
SCH	SCHEDULE
SHO	SHOWER
SPEC	SPECIFICATION
S/S	SERVICE SINK
ST	STORM
SUP	SUPPLY
SYS	SYSTEM
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPERATURE
TYP	TYPICAL
URN	URINAL
V	VENT
VTR	VENT THRU ROOF
W	WASTE
WC	WATER CLOSET
WM	WATER METER

MATERIAL SCHEDULE																						
SYSTEMS		PIPE						FITTINGS						JOINTS								
		REQUIRED	C.I. SOIL PIPE (NO-HUB)	P.V.C. SCH. 40 DRAINAGE PIPE	BLACK IRON	GALVANIZED STEEL	COPPER TUBING TYPE 'L'	COPPER TUBING TYPE DWV	DUCTILE IRON PIPE	C.I. SOIL (NO-HUB)	P.V.C. SCH. 40 DRAINAGE PIPE	BLACK IRON	GALVANIZED STEEL	COPPER SOLDER FITTINGS	FLANGED DUCTILE IRON PIPE	BRASS ASTM F1960 LISTED	ELASTOMERIC GASKET	PVC SOLVENT CEMENT	THREADED	SOLDERED 95-5	FLANGED DUCTILE IRON PIPE	COLD EXPANSION RING
SANITARY BUILDING DRAIN		●	●							●							●					
SANITARY STACKS		●	●							●							●					
SANITARY BRANCHES		●	●							●							●					
VENT STACKS		●	●		A					●		A					●		A			
VENT BRANCHES		●	●	A						●		A					●		A			
STORM BUILDING DRAIN		●	●							●							●					
STORM STACKS		●	●							●							●					
STORM BRANCHES		●	●							●							●					
C.W. (SERVICE)		●						●														●
C.W. (DISTRIBUTION)		●					●							●							●	
H.W. (DISTRIBUTION)		●					●							●							●	
GAS (DISTRIBUTION)		●			●								●						●			
C.W. (UNITS)		●					●							●							●	
H.W. (UNITS)		●					●							●							●	
GAS (UNITS)		●			●							●							●			
INDIRECT WASTE		●					●							●							●	
SUMP DISCHARGE		●					●							●							●	

- NOTES:
- ALL MATERIALS INSTALLED WITHIN A PLENUM ARE TO HAVE A 25 FLAME SPREAD & 50 SMOKE DEVELOPED WHEN TESTED ACCORDING TO ASTM E84 OR BE INSULATED WITH 3M FIRE BARRIER PLENUM WRAP SA+, OR APPROVED EQUAL, SO AS TO COMPLY WITH THE ABOVE REQUIREMENTS.
 - 'A' - PROVIDE DEDUCT ALTERNATE PRICE TO INSTALL ALTERNATE MATERIAL

KEY TO SYMBOLS	
SYMBOL	DESCRIPTION
	PIPE UP
	PIPE DOWN
	SHUT OFF VALVE
	THREE WAY VALVE
	GAS COCK
	WATER METER
	REDUCED PRESSURE ZONE ASSEMBLY
	CHECK VALVE
	STRAINER
	UNION
	CAPPED LINE
	THERMOMETER
	THERMOSTATIC MIXING VALVE
	FLOOR DRAIN
	FLOOR SINK
	FLOOR CLEAN OUT
	CLEAN OUT
	POINT OF CONNECTION
	ROOF DRAIN
	HOSE BIB
	PUMP
	VACUUM RELIEF VALVE
	PRESSURE REDUCING VALVE
	BALANCING VALVE

GENERAL DRAWING NOTE	
1. PLUMBING DRAWINGS ARE DIAGRAMMATIC. 2. ALL PIPE ROUTING IS DIAGRAMMATIC. 3. DO NOT SCALE THE DRAWINGS. 4. PROVIDE SHOP DRAWINGS FOR APPROVAL.	

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2	Issued For Bid	04-12-2021
1	Issued For Bid	04-05-2021
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PROPOSED MIXED USE BUILDING:

WESTMORELAND LOFTS

136-158 WESTMORELAND AVE.

WHITE PLAINS, NY 10606

Owner/Developer:

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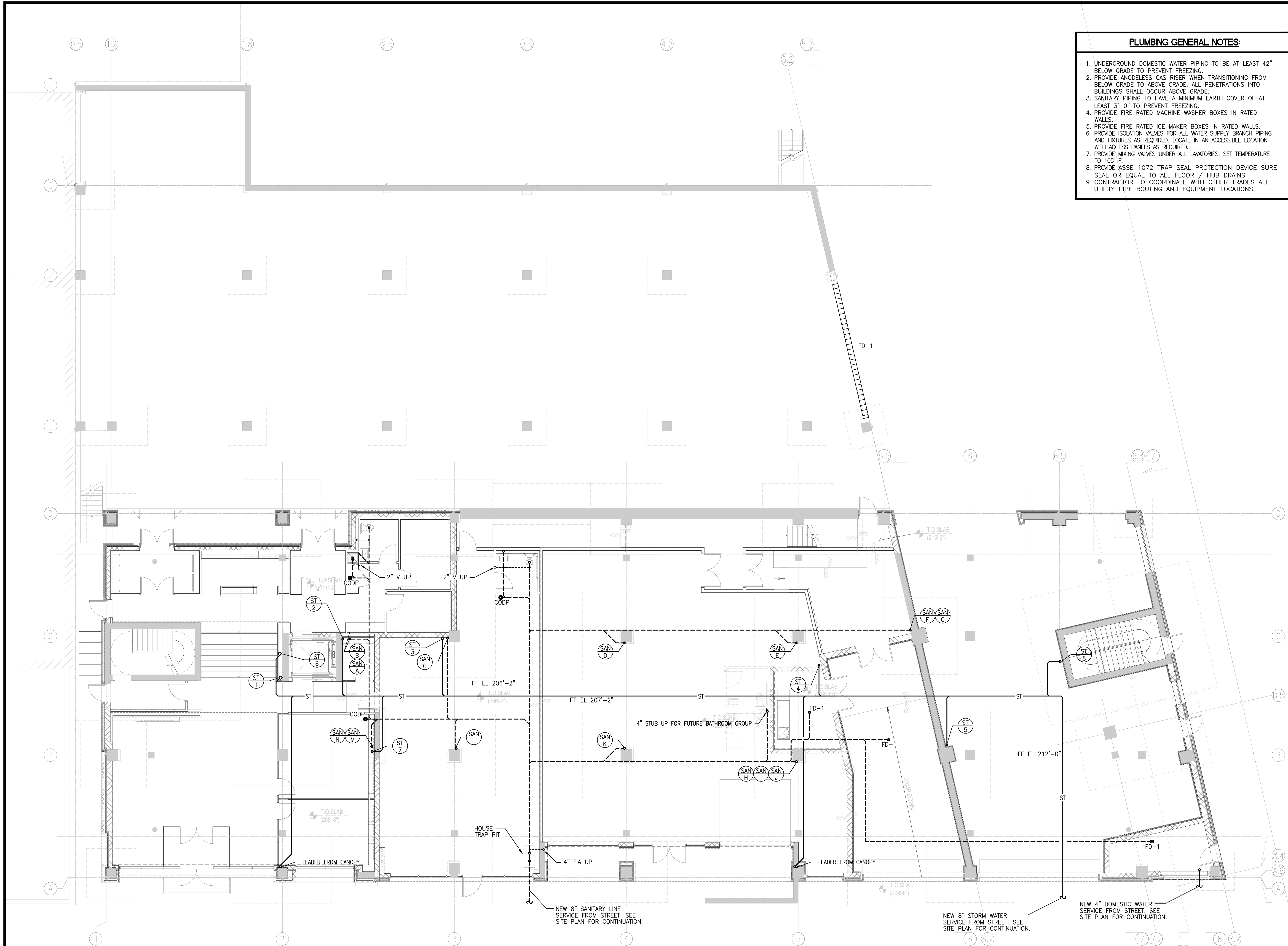
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Sheet Title:

PLUMBING COVER SHEET

Seal & Signature	Date:	07-18-2016
	Scale:	AS NOTED
	Job#:	2011
	Sheet Title:	P-0.01
JAMES KHACHATURIAN, P.E. - NY LICENSE #002841-1 NY CERTIFICATE OF AUTHORIZATION #0017124		Sheet: of



- PLUMBING GENERAL NOTES:**
1. UNDERGROUND DOMESTIC WATER PIPING TO BE AT LEAST 42" BELOW GRADE TO PREVENT FREEZING.
 2. PROVIDE ANODELESS GAS RISER WHEN TRANSITIONING FROM BELOW GRADE TO ABOVE GRADE. ALL PENETRATIONS INTO BUILDINGS SHALL OCCUR ABOVE GRADE.
 3. SANITARY PIPING TO HAVE A MINIMUM EARTH COVER OF AT LEAST 3'-0" TO PREVENT FREEZING.
 4. PROVIDE FIRE RATED MACHINE WASHER BOXES IN RATED WALLS.
 5. PROVIDE FIRE RATED ICE MAKER BOXES IN RATED WALLS.
 6. PROVIDE ISOLATION VALVES FOR ALL WATER SUPPLY BRANCH PIPING AND FIXTURES AS REQUIRED. LOCATE IN AN ACCESSIBLE LOCATION WITH ACCESS PANELS AS REQUIRED.
 7. PROVIDE MIXING VALVES UNDER ALL LAVATORIES. SET TEMPERATURE TO 105° F.
 8. PROVIDE ASSE 1072 TRAP SEAL PROTECTION DEVICE SURE SEAL OR EQUAL TO ALL FLOOR / HUB DRAINS.
 9. CONTRACTOR TO COORDINATE WITH OTHER TRADES ALL UTILITY PIPE ROUTING AND EQUIPMENT LOCATIONS.

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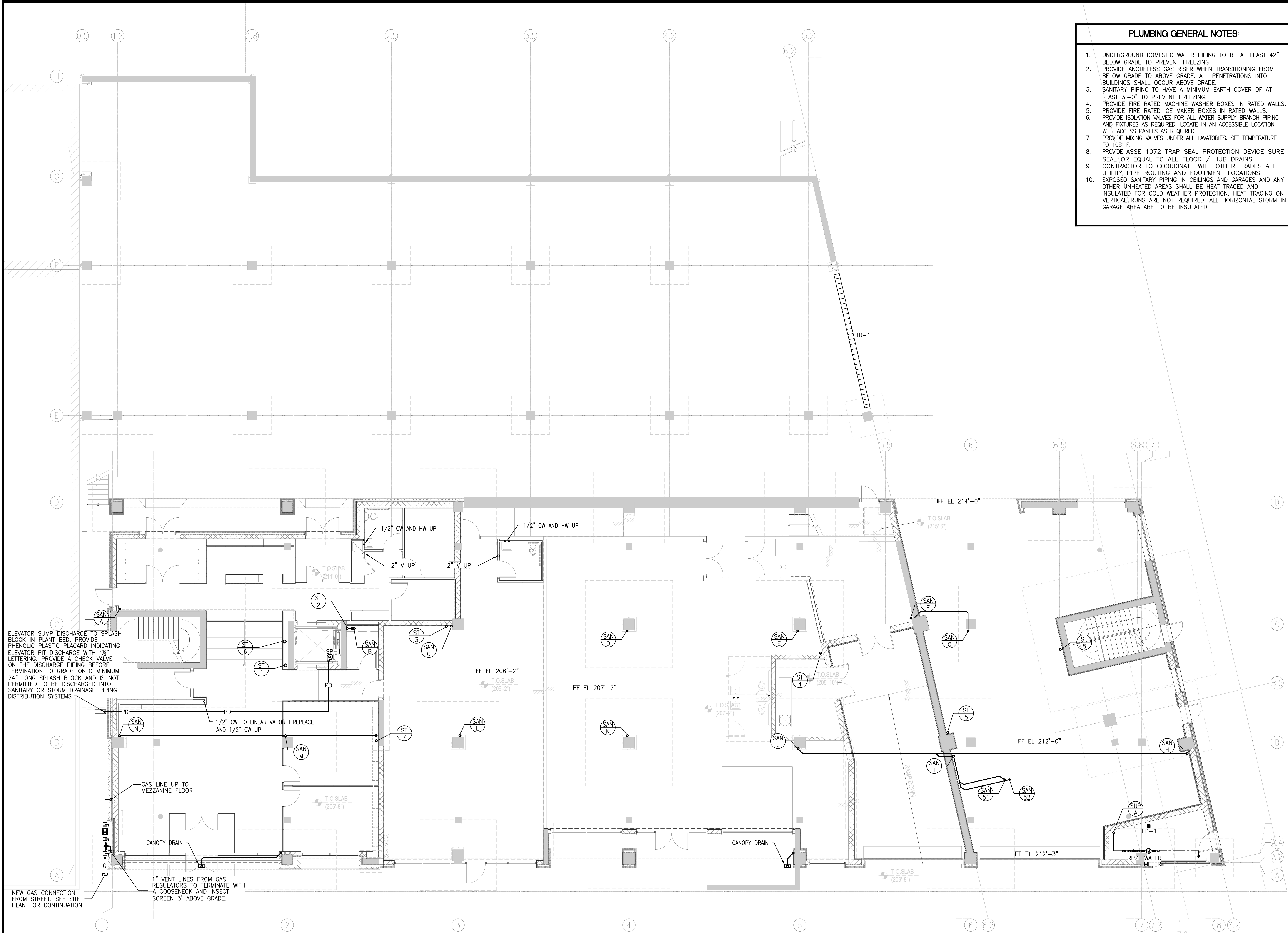
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Sheet Title:
**PLUMBING UNDERGROUND
FLOOR PLAN**

Seal & Signature	Date:	07-18-2016
	Scale:	AS NOTED
	Job#:	2011
	Sheet Title:	P-100
JAMES KHACHATURIAN, P.E. - NY LICENSE #00261-1 NY CERTIFICATE OF AUTHORIZATION #001224		Sheet: of



- PLUMBING GENERAL NOTES:**
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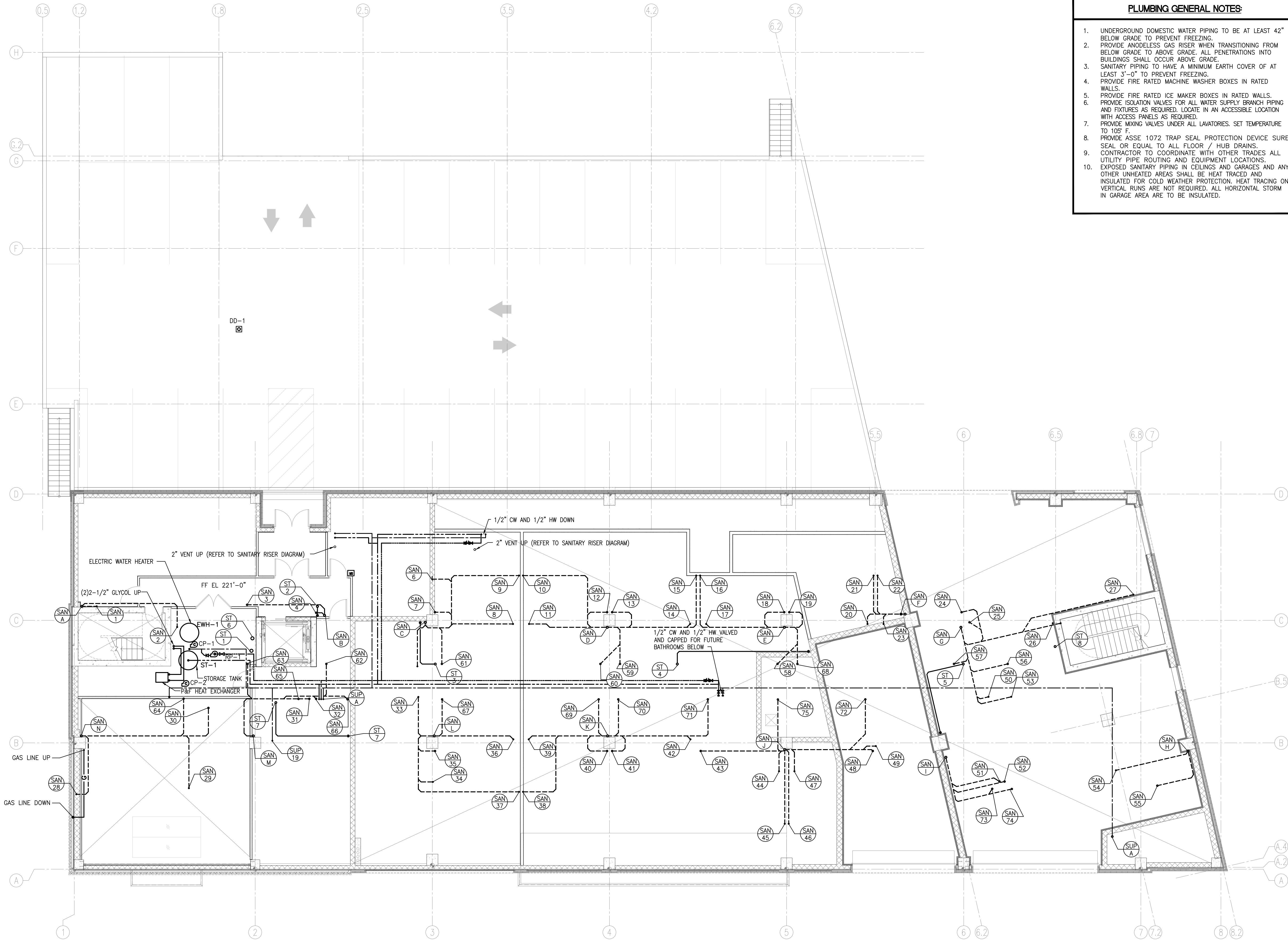
Sheet Title:
PLUMBING FIRST FLOOR PLAN

Seal & Signature	Date:	07-18-2016
	Scale:	AS NOTED
	Job#:	2011
	Sheet Title:	P-101

JARON KHACHATURIAN, P.E. - NY LICENSE #00286-1
NY CERTIFICATE OF AUTHORIZATION #001224

Sheet: of

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



PLUMBING GENERAL NOTES:

1. UNDERGROUND DOMESTIC WATER PIPING TO BE AT LEAST 42" BELOW GRADE TO PREVENT FREEZING.
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8. PROVIDE ASSE 1072 TRAP SEAL PROTECTION DEVICE SURE SEAL OR EQUAL TO ALL FLOOR / HUB DRAINS.
9. CONTRACTOR TO COORDINATE WITH OTHER TRADES ALL UTILITY PIPE ROUTING AND EQUIPMENT LOCATIONS.
10. EXPOSED SANITARY PIPING IN CEILINGS AND GARAGES AND ANY OTHER UNHEATED AREAS SHALL BE HEAT TRACED AND INSULATED FOR COLD WEATHER PROTECTION. HEAT TRACING ON VERTICAL RUNS ARE NOT REQUIRED. ALL HORIZONTAL STORM IN GARAGE AREA ARE TO BE INSULATED.



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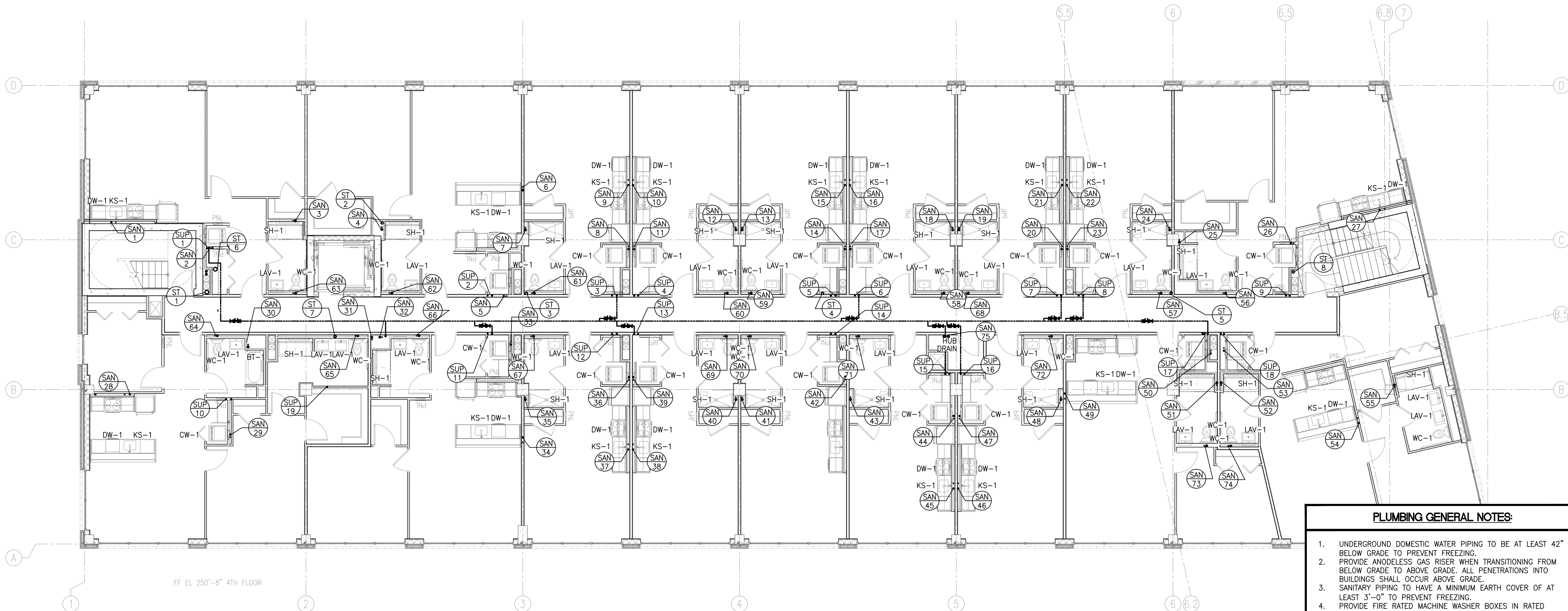
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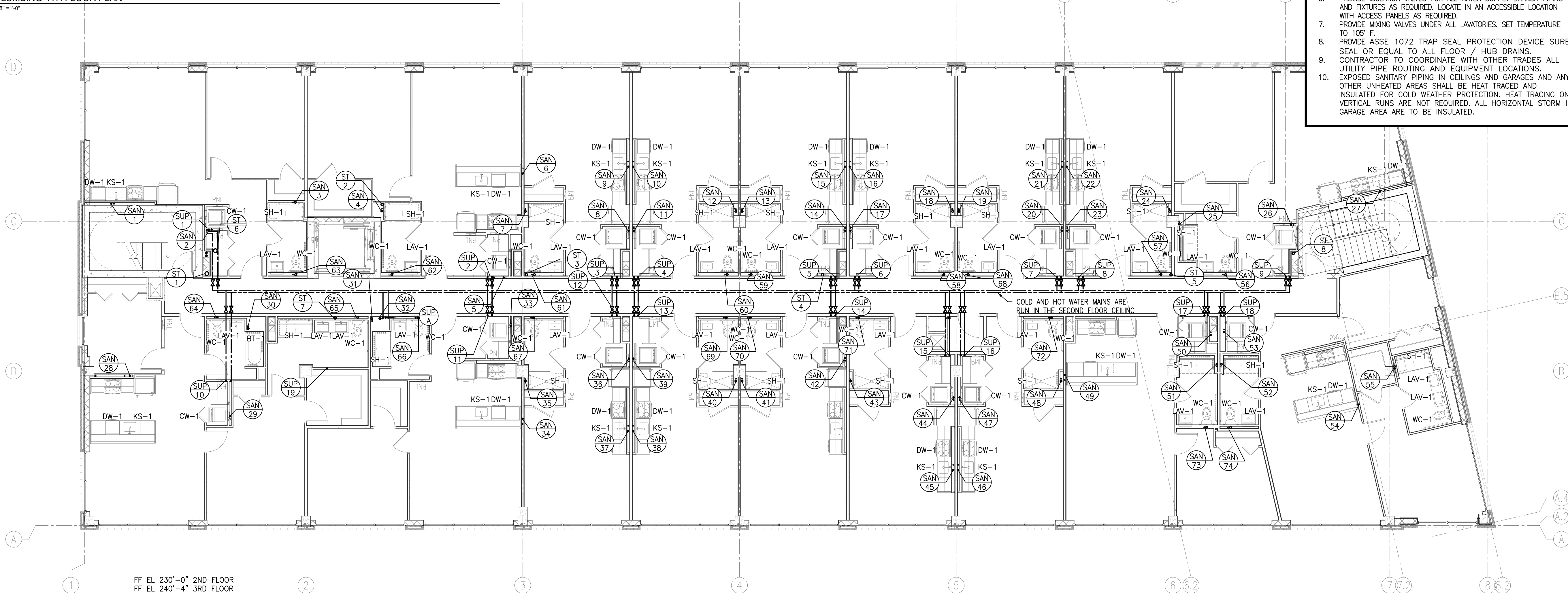
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Sheet Title:
**PLUMBING MEZZANINE FLOOR
PLAN**

Seal & Signature	Date:	07-18-2016
	Scale:	AS NOTED
	Job#:	2011
	Sheet Title:	P-102
JAMES KHACHATURIAN, P.E. - NY LICENSE #002081-1 NY CERTIFICATE OF AUTHORIZATION #001124		Sheet: of



1 PLUMBING-4TH FLOOR PLAN
1/8" = 1'-0"



1 PLUMBING-2ND, 3RD FLOOR PLAN
1/8" = 1'-0"

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Sheet Title: PLUMBING 2ND, 3RD & 4TH FLOOR PLAN	
Seal & Signature	Date: 07-18-2016
	Scale: AS NOTED
	Job#: 2011
	Sheet Title: P-103
JAMES KHACHATURIAN, P.E. - NY LICENSE #00261-1 NY CERTIFICATE OF AUTHORIZATION #0017124	
Sheet:	of

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10. VENTS CAN BE COMBINED AS NEEDED AS PER TABLE 2015 NSFC 12.16.4.
11. ANY VENTS WITHIN 10' OF THE AIR INTAKE DAMPER TO BE EITHER OFFSET OR EXTENDED 3' ABOVE THE AIR INTAKE DAMPER
12. ANY VENTS WITHIN 4' OF FIRE RATED ROOF/CEILING ASSEMBLY ARE TO BE OFFSET.
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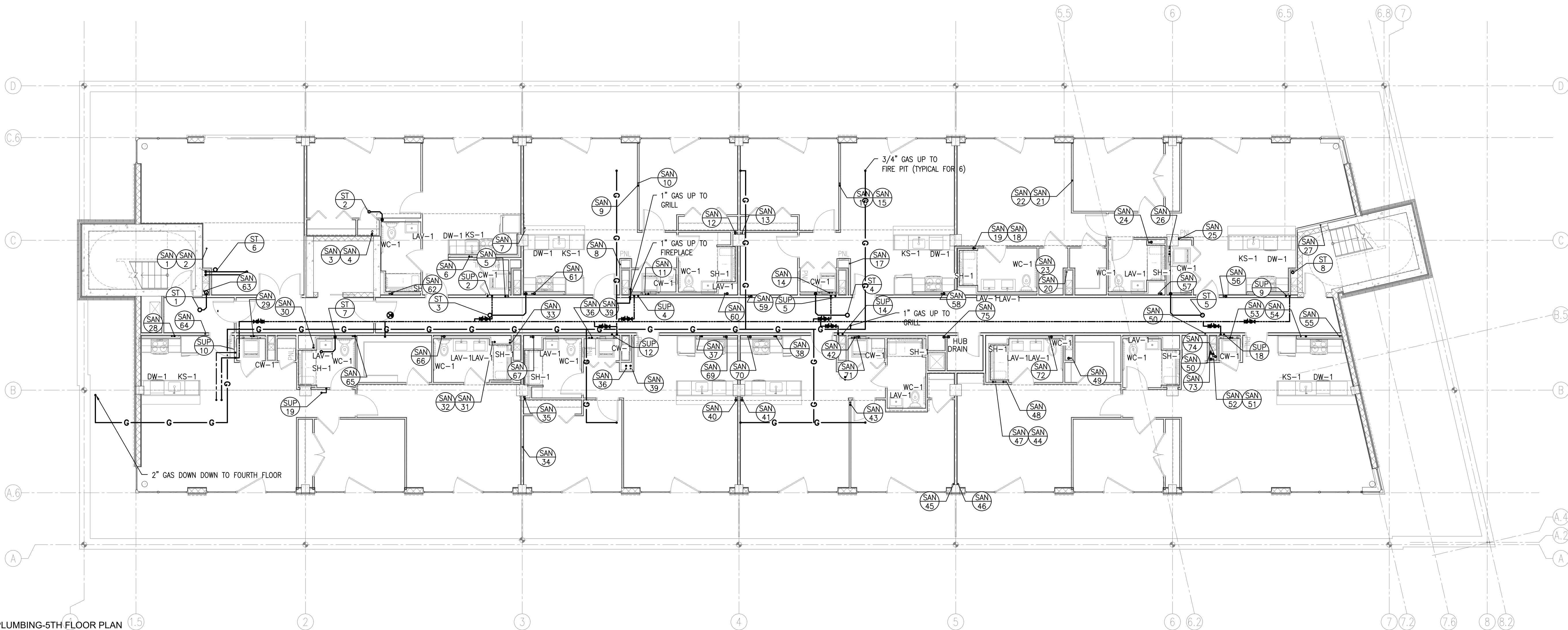
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Sheet Title:
PLUMBING FIFTH FLOOR PLAN

Seal & Signature	Date:	07-18-2016
	Scale:	AS NOTED
	Job#:	2011
	Sheet Title:	P-104
JAMES KHACHATURIAN, P.E. - NY LICENSE #002611-1 NY CERTIFICATE OF AUTHORIZATION #0012124		Sheet: of



PLUMBING GENERAL NOTES:

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2	Issued For Bid	04-12-2021
1	Issued For Bid	04-05-2021
Rev. #	Revision Description	Date:

Project Description:
PROPOSED MIXED USE BUILDING:
WESTMORELAND LOFTS
136-158 WESTMORELAND AVE.
WHITE PLAINS, NY 10606

Owner/Developer:
136-158 WESTMORELAND, LLC
1485 5TH AVENUE, 24F
NEW YORK, NY 10035

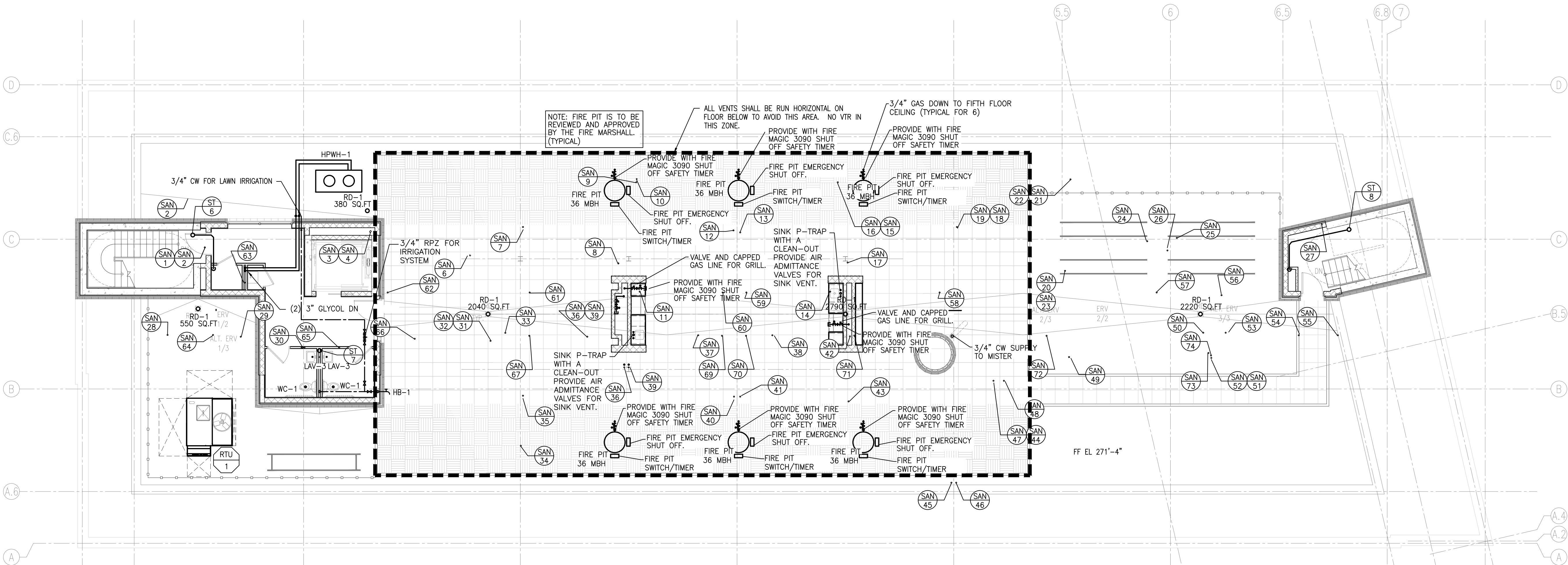
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Sheet Title: PLUMBING ROOF DECK PLAN	
Seal & Signature	Date: 07-18-2016
	Scale: AS NOTED
	Job#: 2011
	Sheet Title: P-105
JARON KHACHATURIAN, P.E. - NY LICENSE #00281-1 NY CERTIFICATE OF AUTHORIZATION #001224	Sheet: of



1 PLUMBING-ROOF DECK PLAN
1/8" = 1'-0"

PLUMBING GENERAL NOTES:

1. CONTRACTOR TO COORDINATE WITH OTHER TRADES ALL UTILITY PIPE ROUTING AND EQUIPMENT LOCATIONS.
2. VENTS CAN BE COMBINED AS NEEDED AS PER TABLE 2015 NSPC 12.16.4.
3. ANY VENTS WITHIN 10' OF THE AIR INTAKE DAMPER TO BE EITHER OFFSET OR EXTENDED 3' ABOVE THE AIR INTAKE DAMPER.
4. ANY VENTS WITHIN 4' OF FIRE RATED ROOF/CEILING ASSEMBLY ARE TO BE OFFSET.

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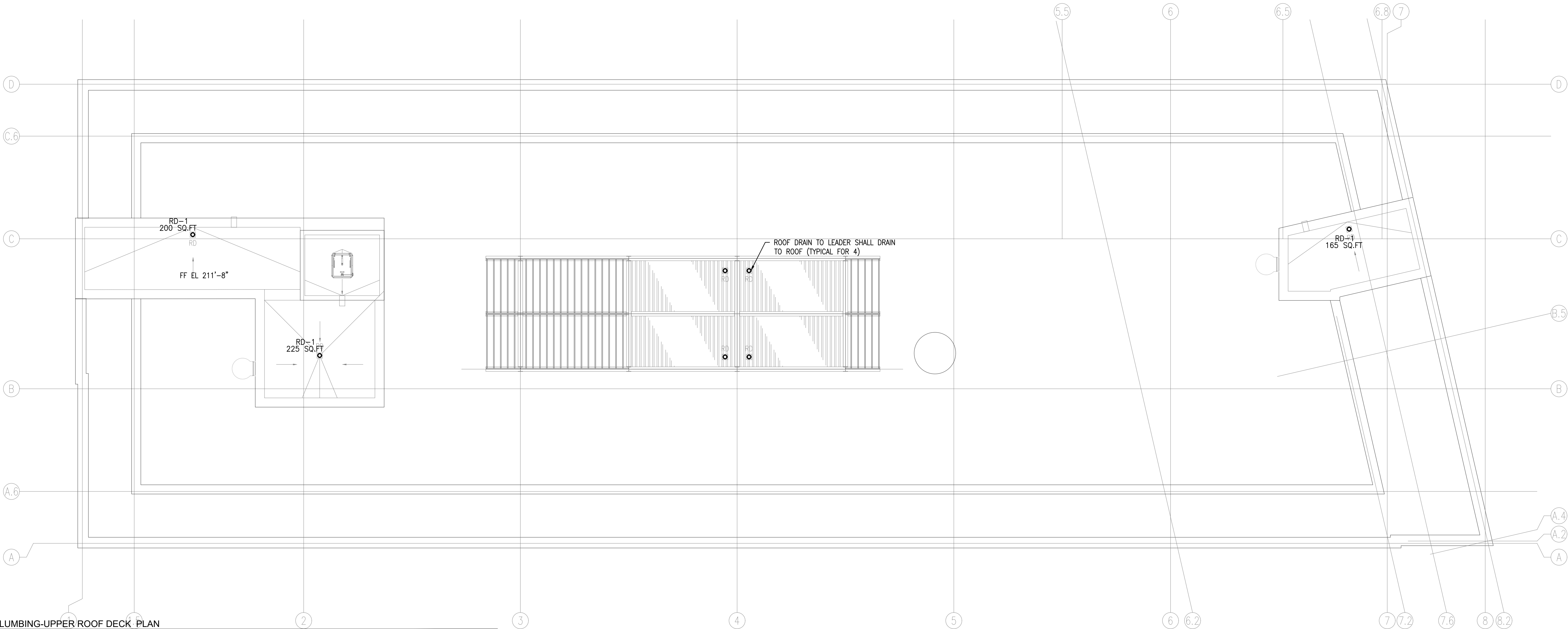
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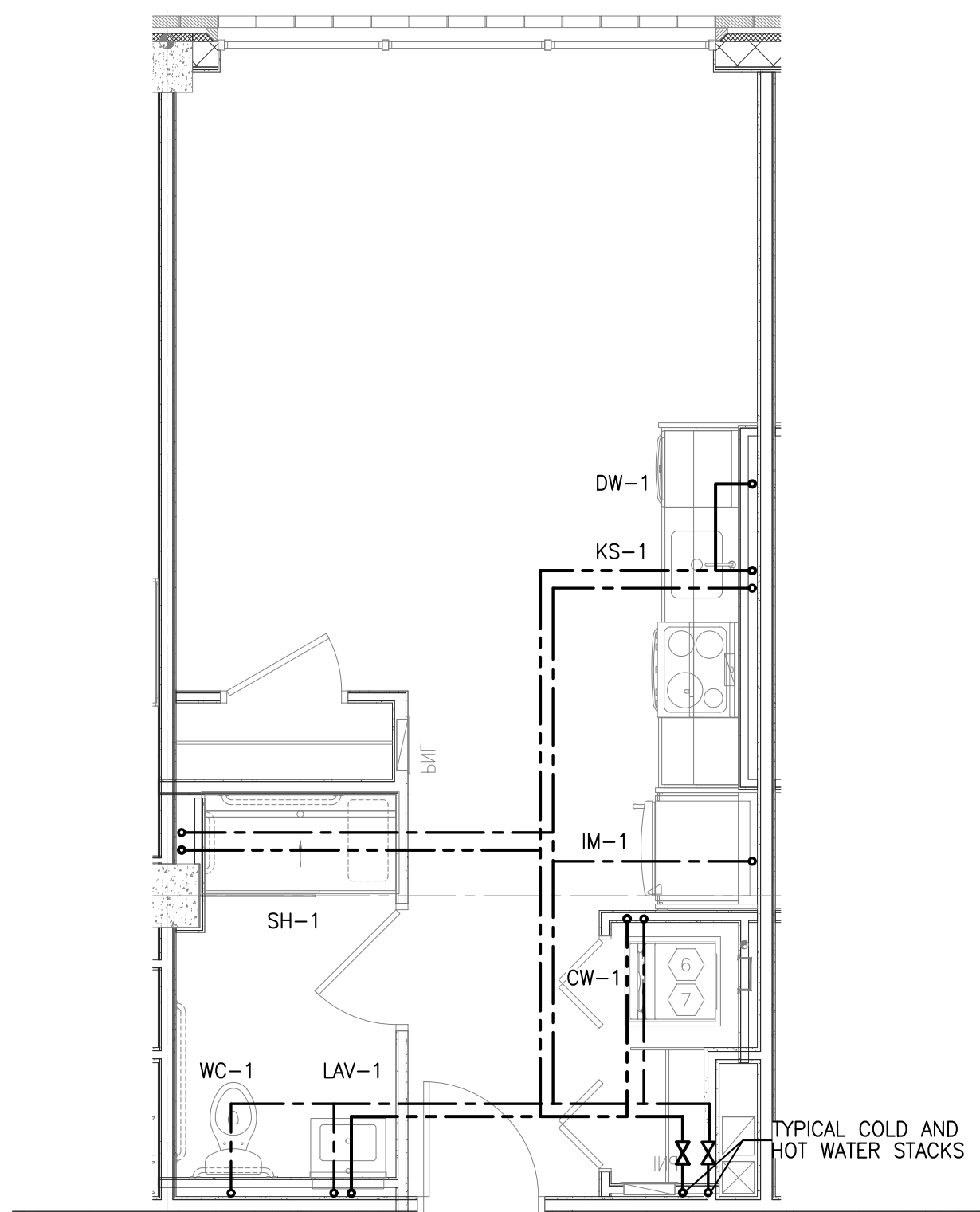
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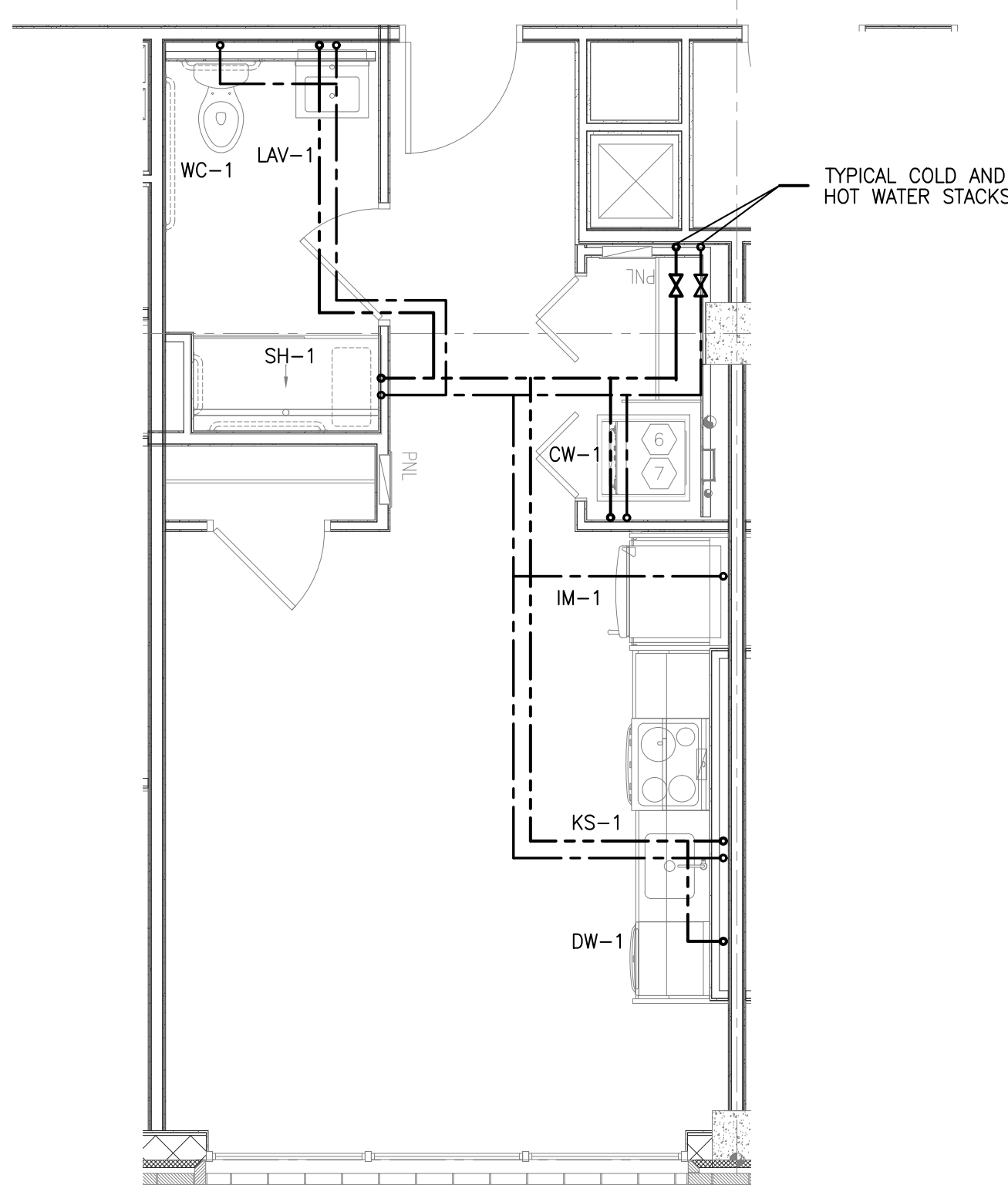
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Sheet Title: PLUMBING UPPER ROOF DECK PLAN	
Seal & Signature	Date: 07-18-2016
	Scale: AS NOTED
	Job#: 2011
	Sheet Title: P-106
ARNO KHACHATURIAN, P.E. - NY LICENSE #002861-1 NY CERTIFICATE OF AUTHORIZATION #001724	Sheet: of

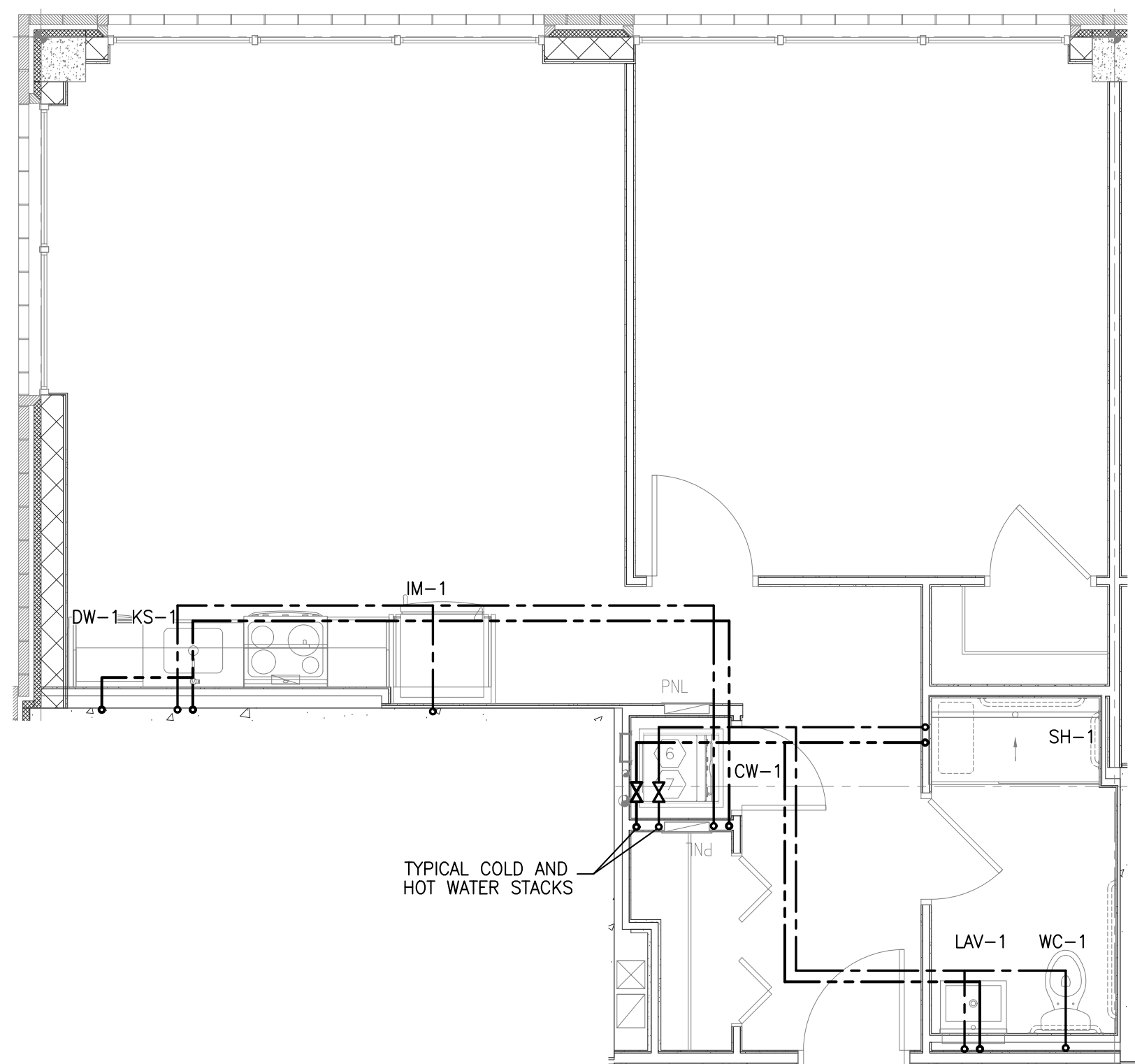




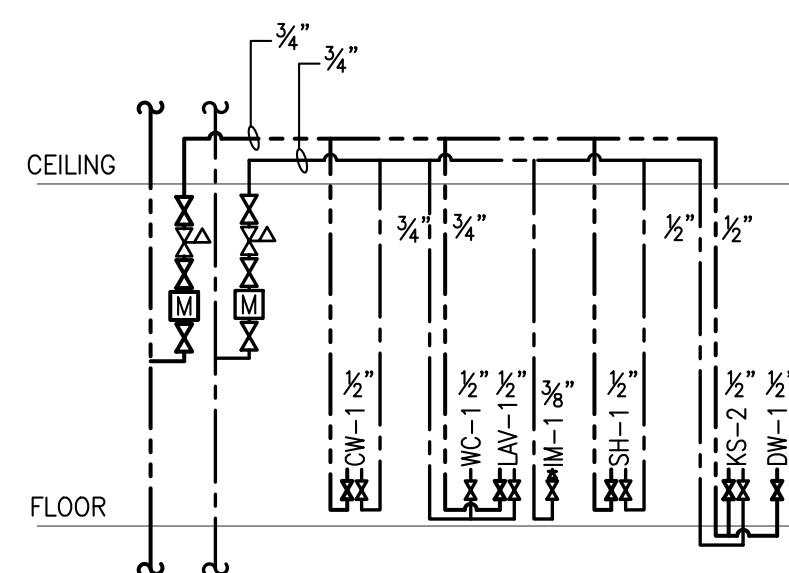
1 UNIT 205 - ENLARGED PLAN
1/4" = 1'-0"



4 UNIT 212 - ENLARGED PLAN
1/4" = 1'-0"

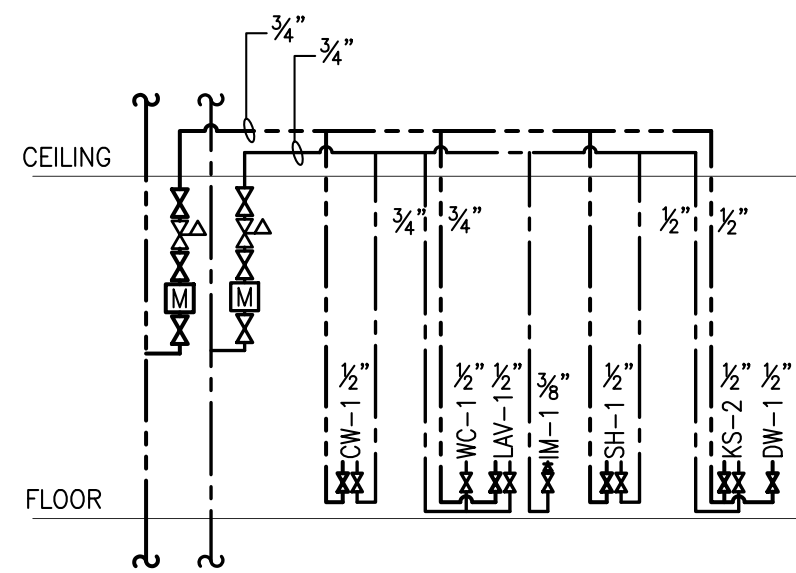


1 UNIT 201 - ENLARGED PLAN
1/4" = 1'-0"



TYPICAL ONE BEDROOM PLUMBING PLAN

NTS



TYPICAL STUDIO PLUMBING PLAN

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Rev. #	Revision Description	Date:
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Project Description:
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136-158 WESTMORELAND AVE.
WHITE PLAINS, NY 10606

Owner/Developer:
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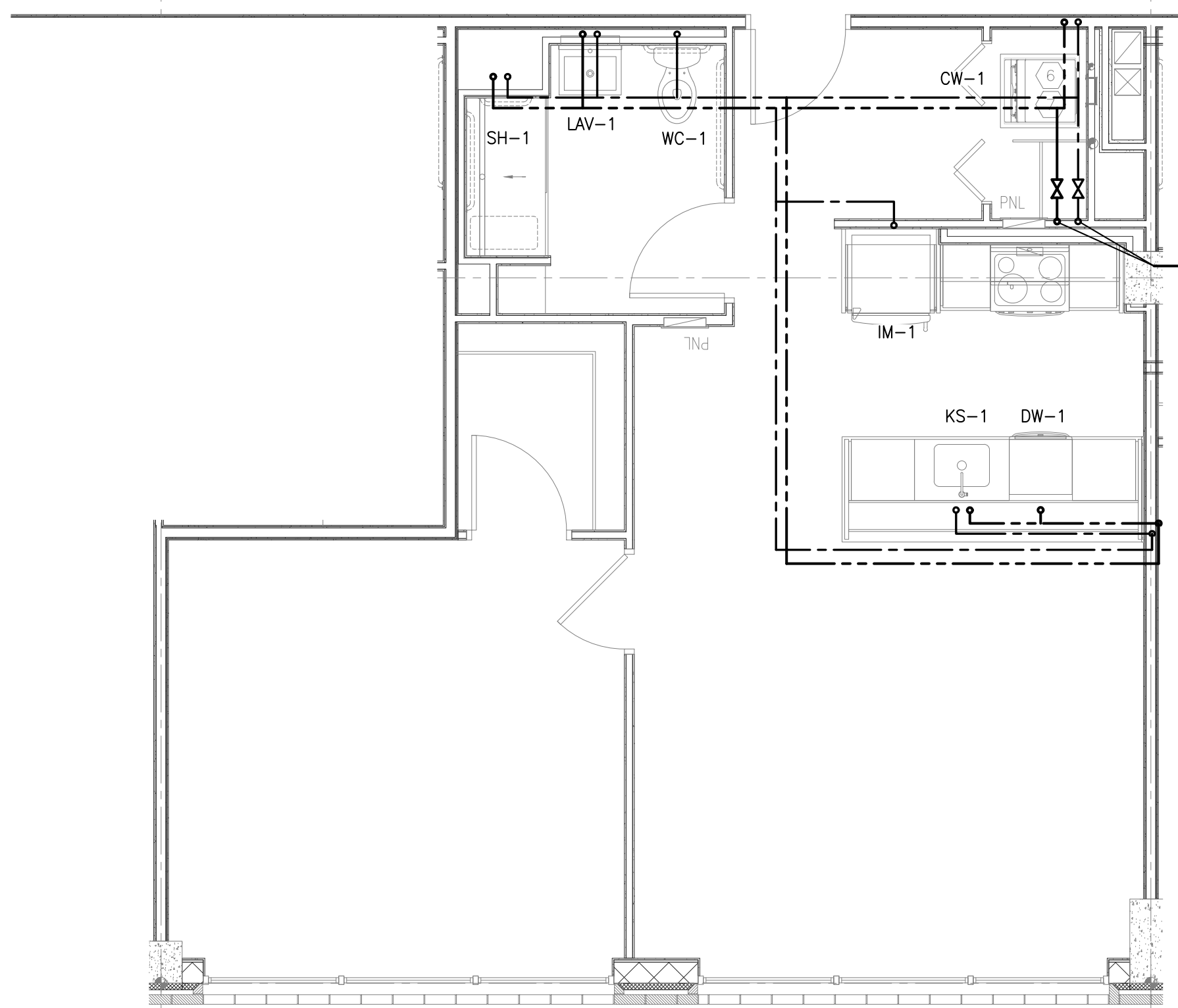
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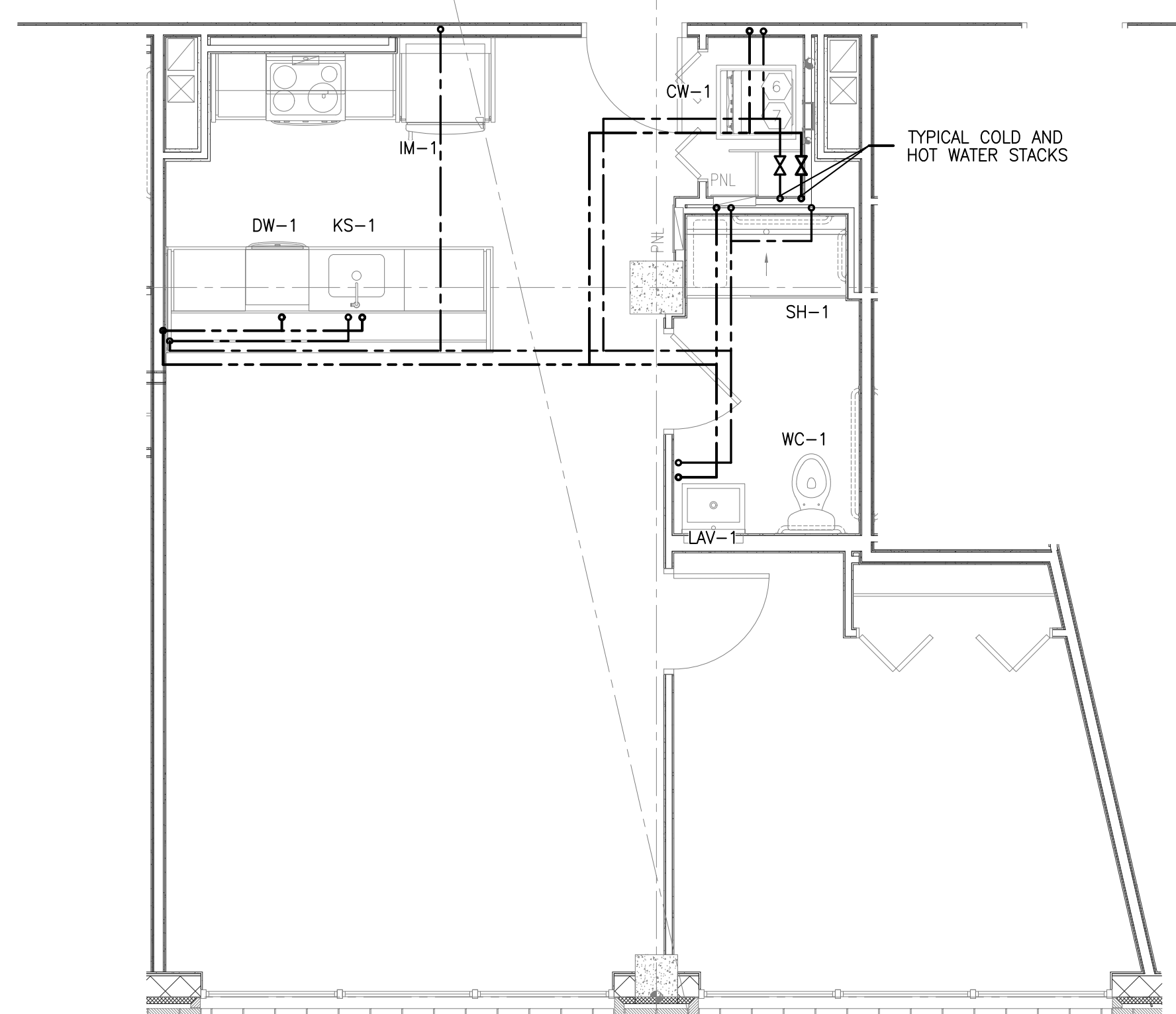
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Sheet Title:
PLUMBING UNIT PLANS

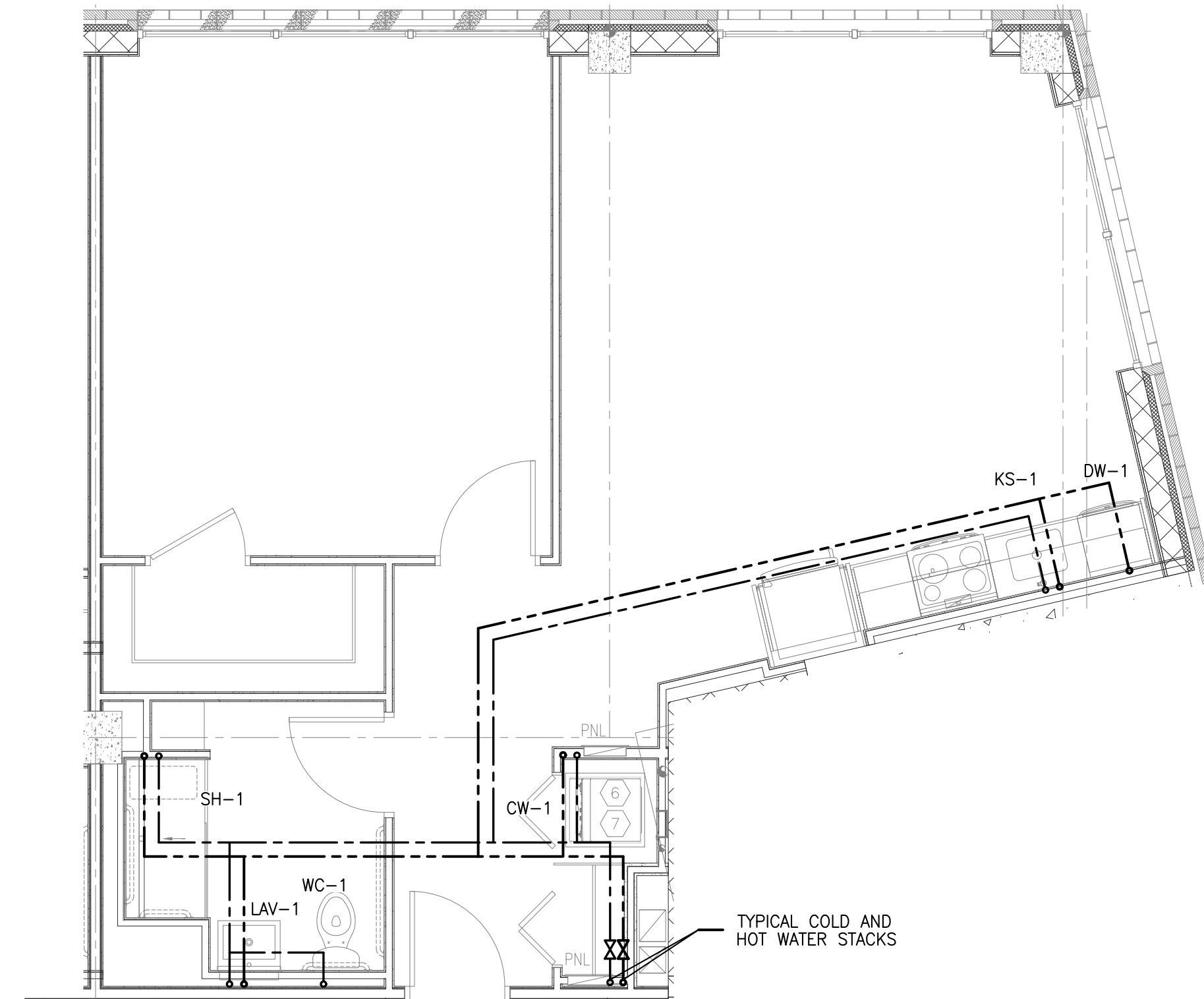
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	Job#:	2011
	Sheet Title:	P-201



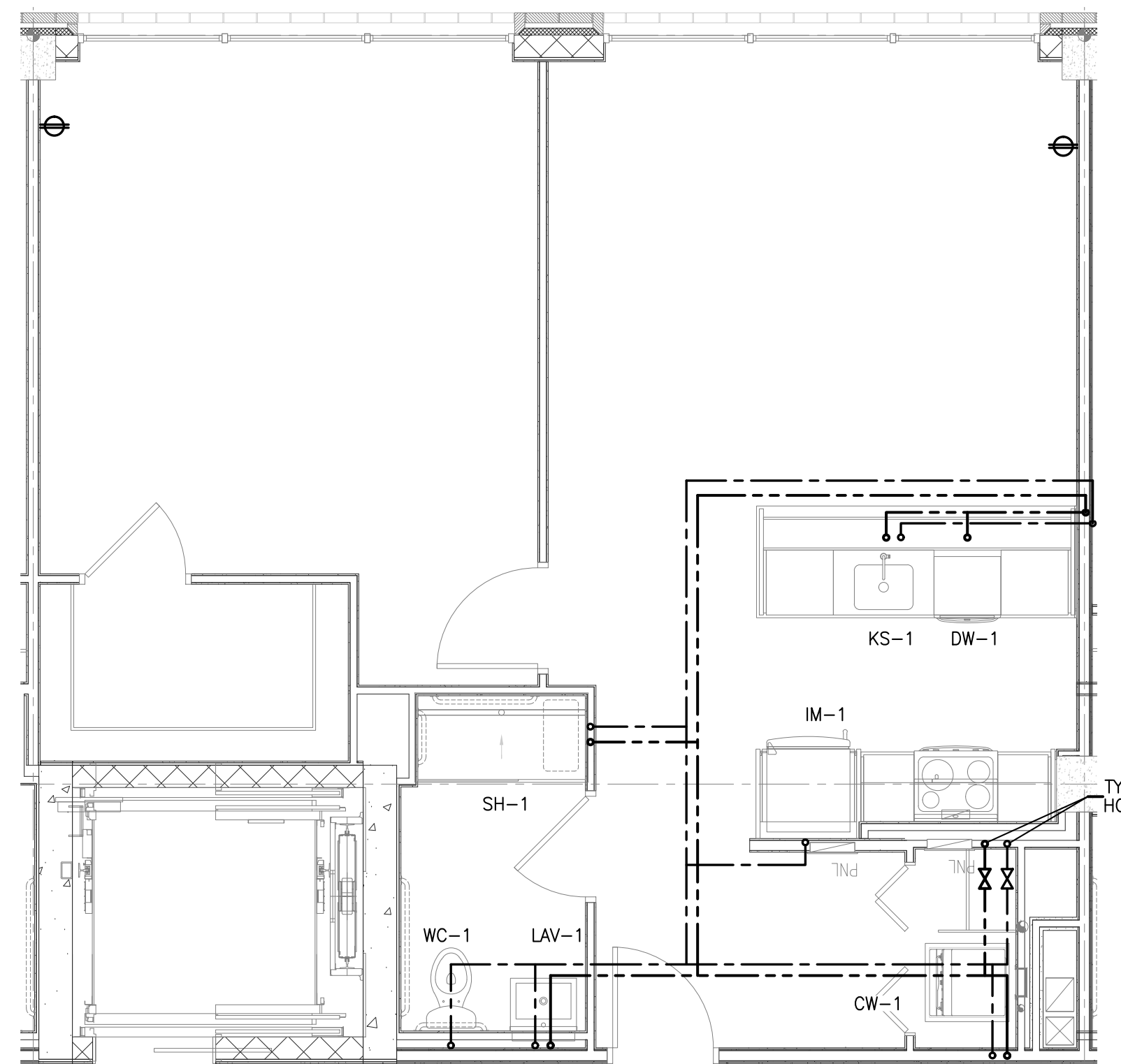
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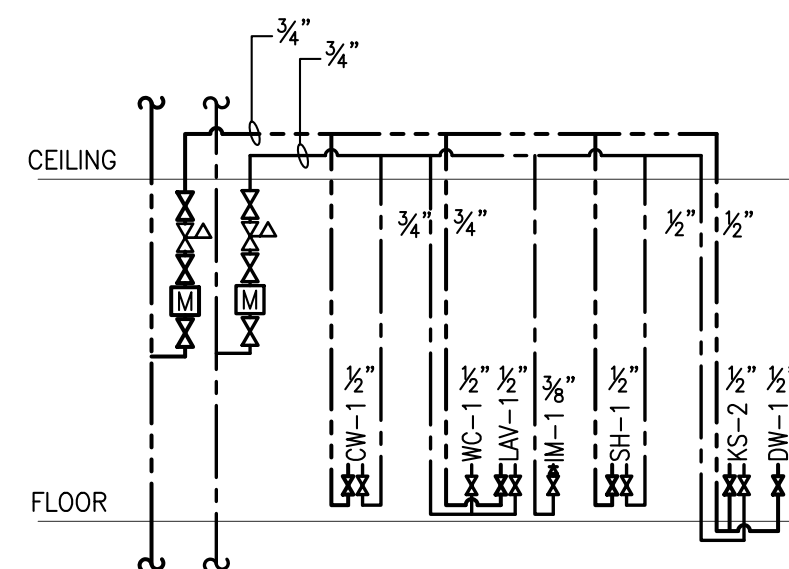
4 UNIT 216 - ENLARGED PLAN
1/4" = 1'-0"



1 UNIT 217 - ENLARGED PLAN
1/4" = 1'-0"



4 UNIT 203 - ENLARGED PLAN
1/4" = 1'-0"



TYPICAL ONE BEDROOM PLUMBING PLAN
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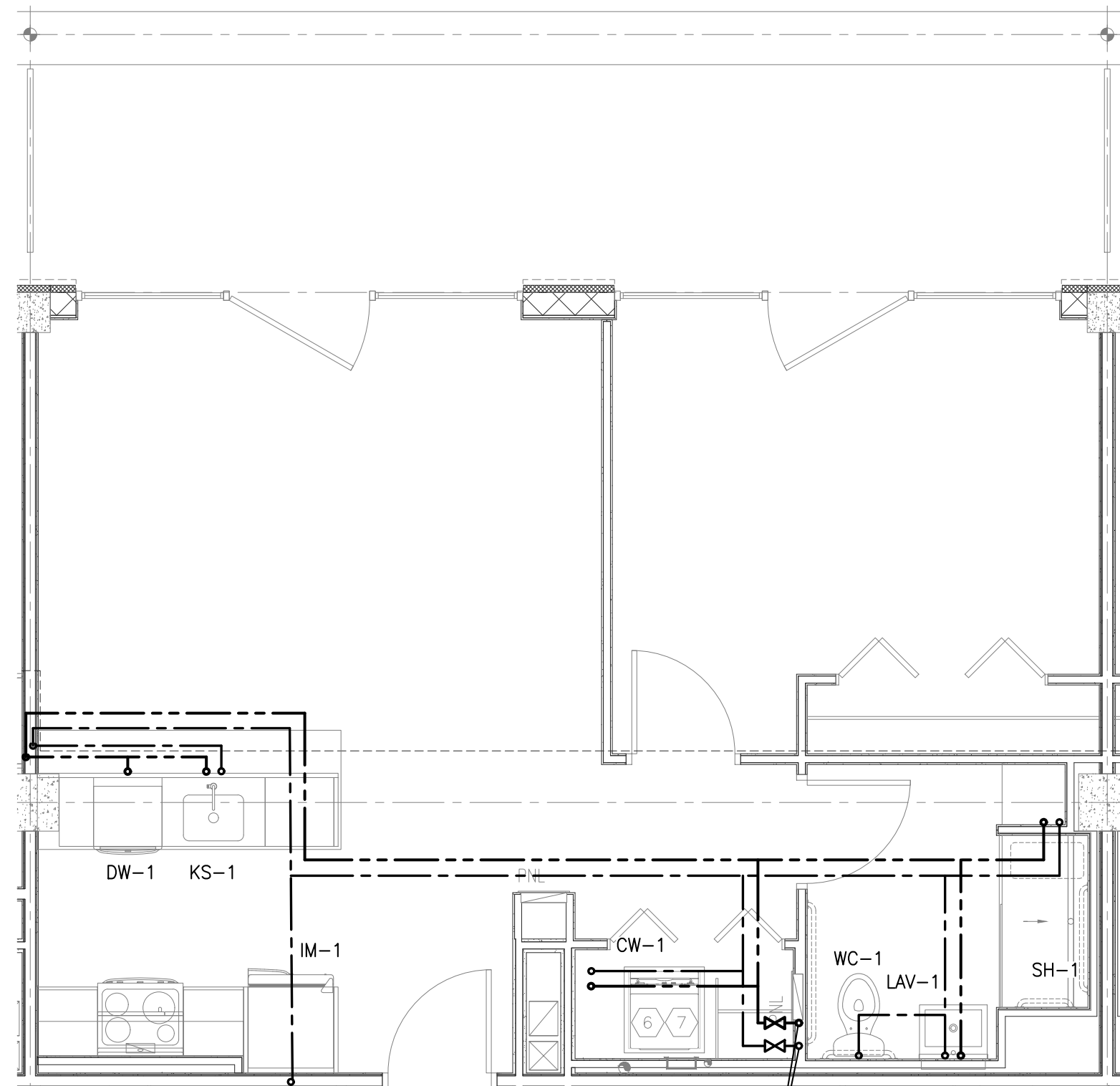
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4th Floor
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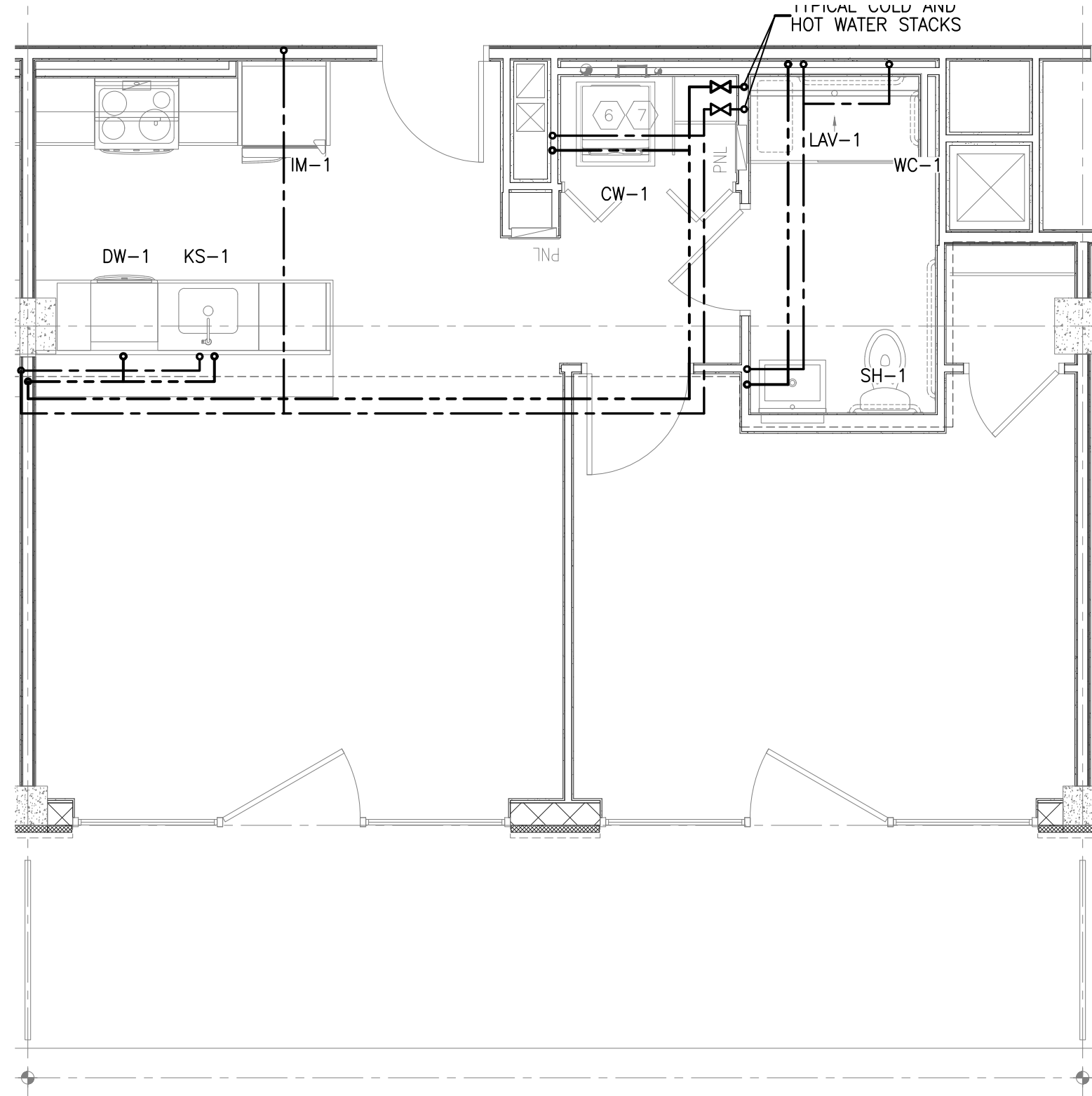
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Sheet Title:
PLUMBING UNIT PLANS

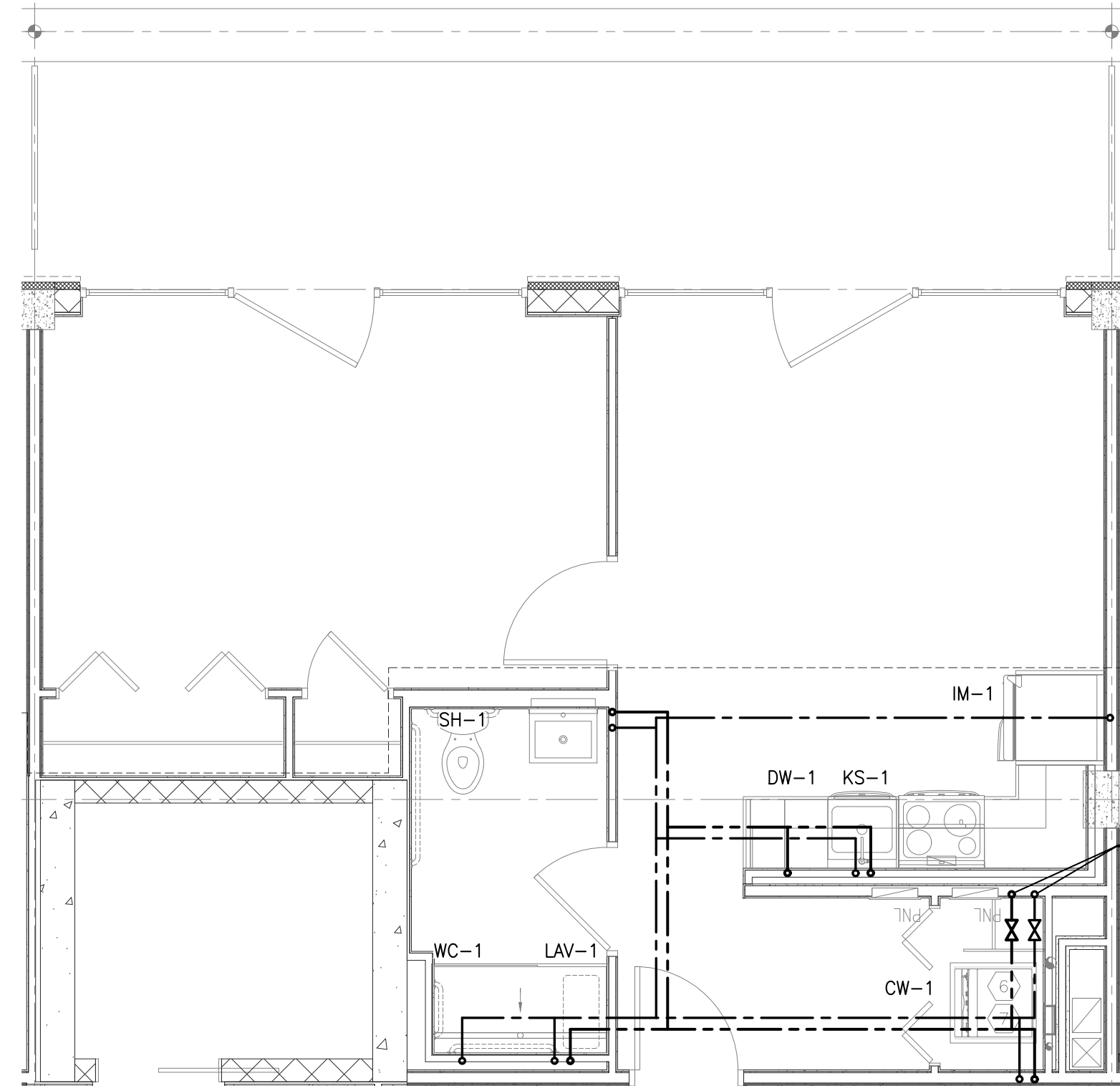
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	Job#:	2011
	Sheet Title:	P-202



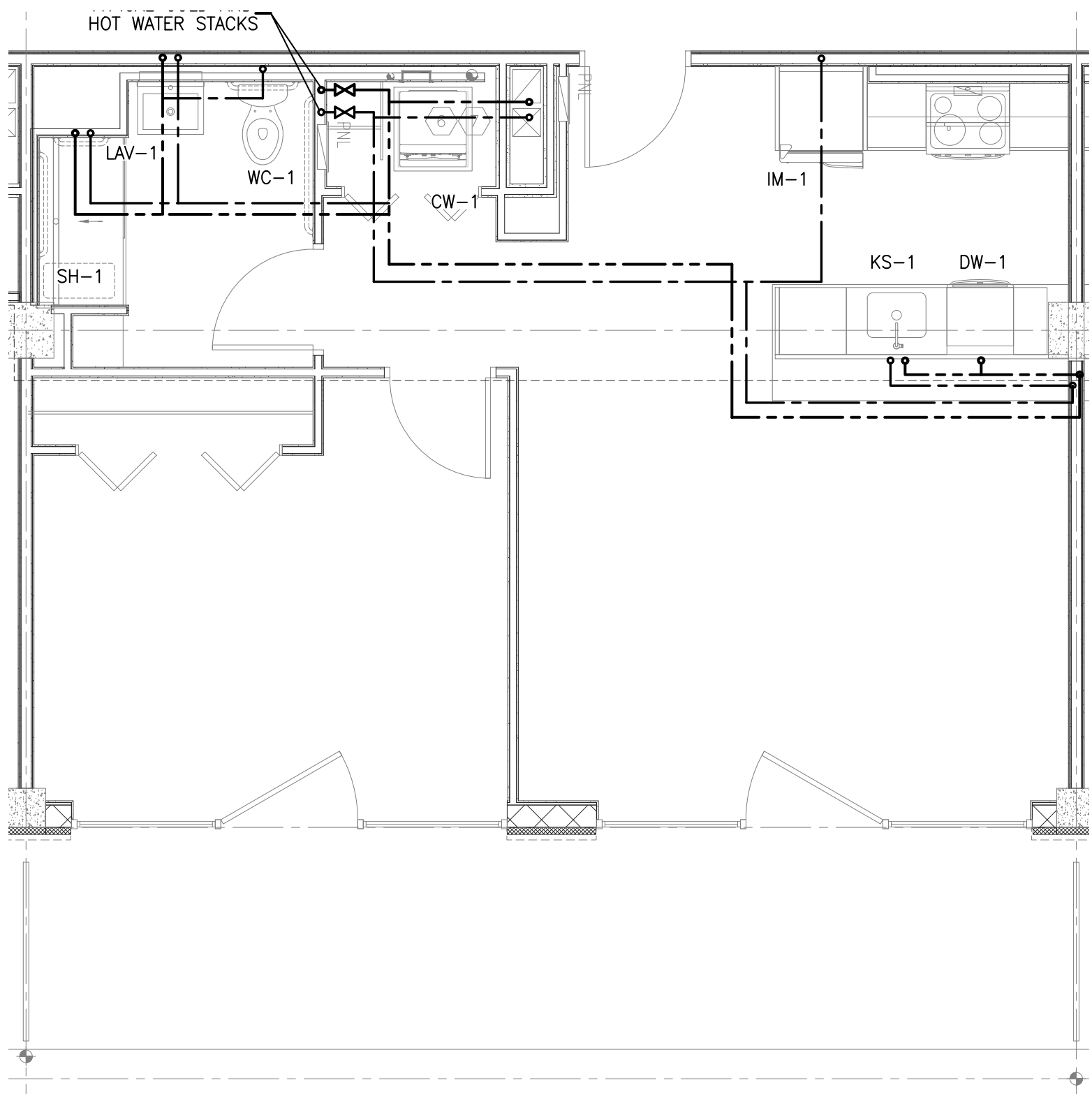
1 UNIT 505 - ENLARGED PLAN
1/4" = 1'-0"



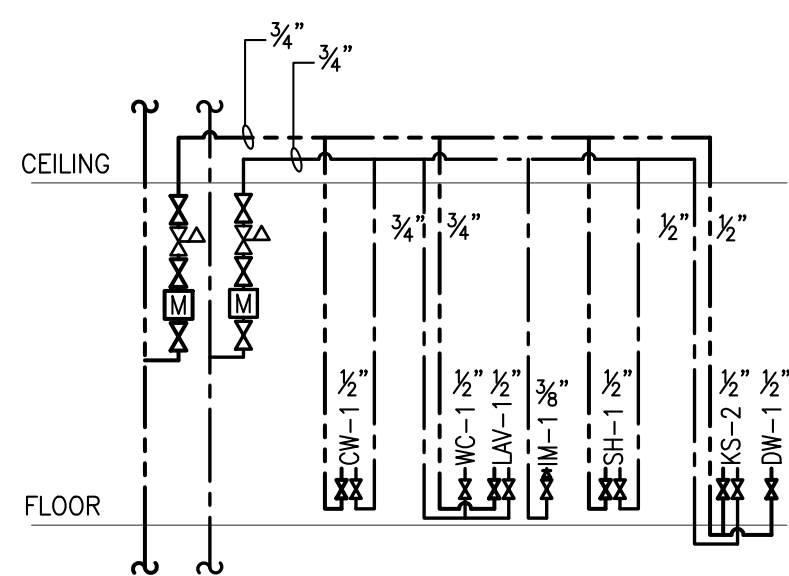
4 UNIT 506 - ENLARGED PLAN
1/4" = 1'-0"



4 UNIT 503 - ENLARGED PLAN
1/4" = 1'-0"



1 UNIT 504 - ENLARGED PLAN
1/4" = 1'-0"



TYPICAL ONE BEDROOM PLUMBING PLAN

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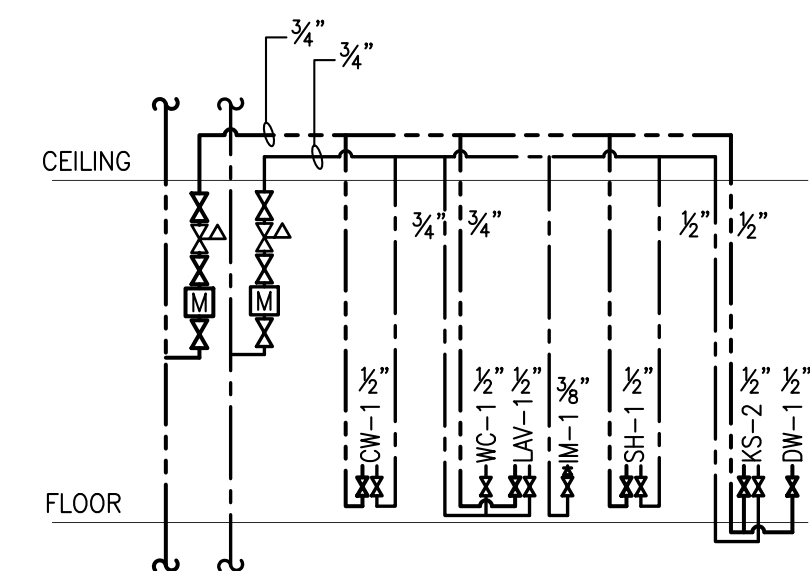
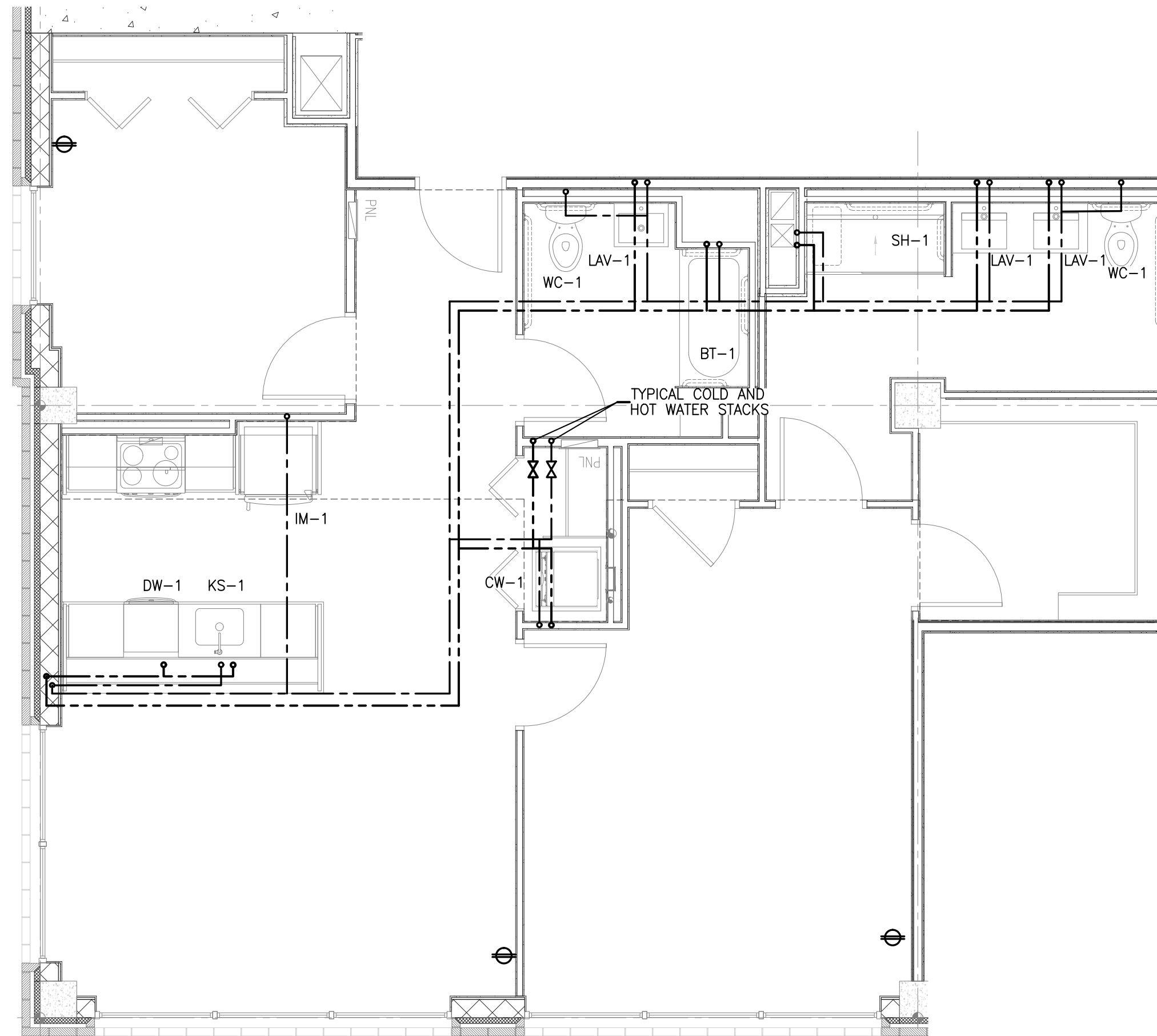
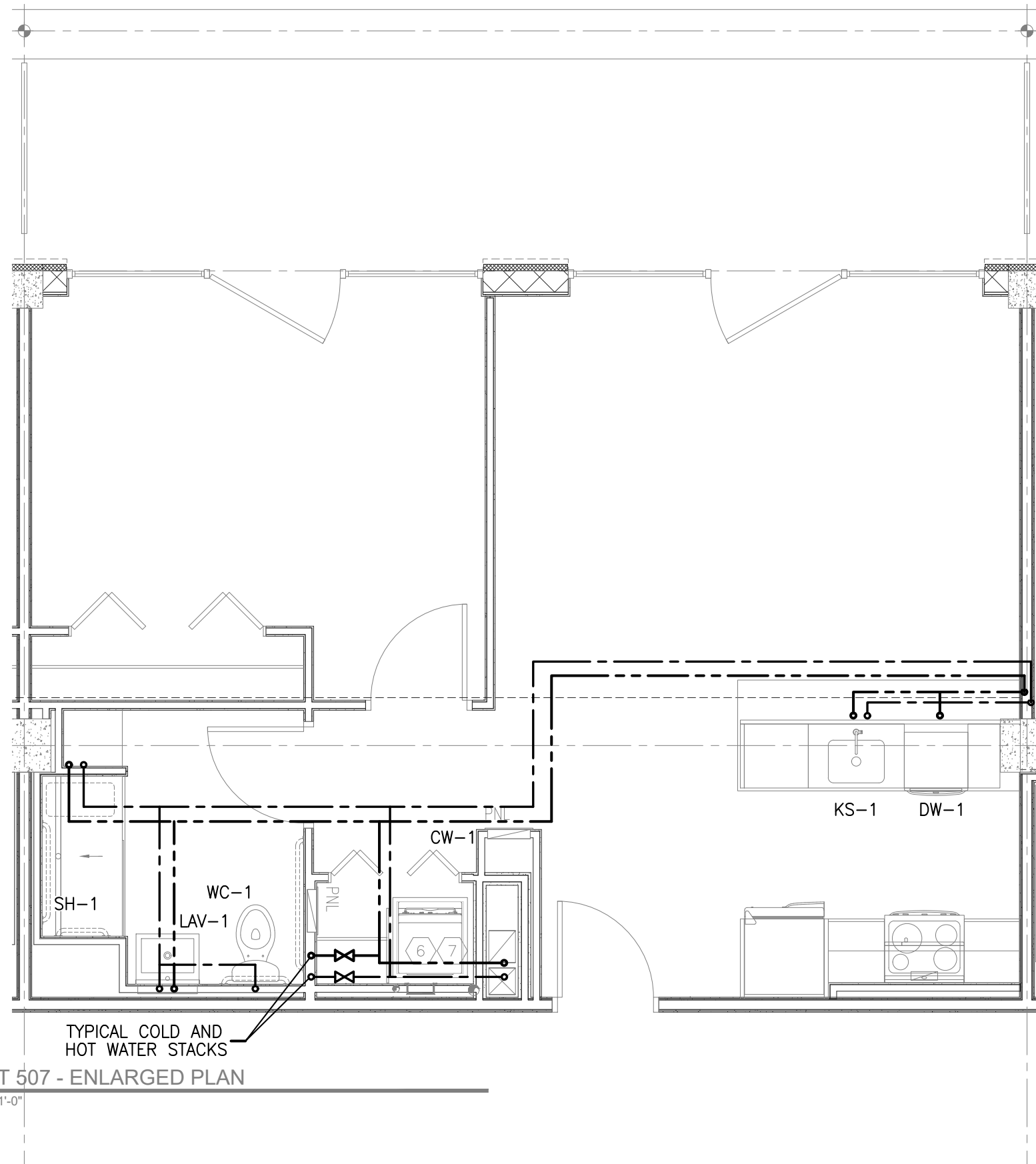
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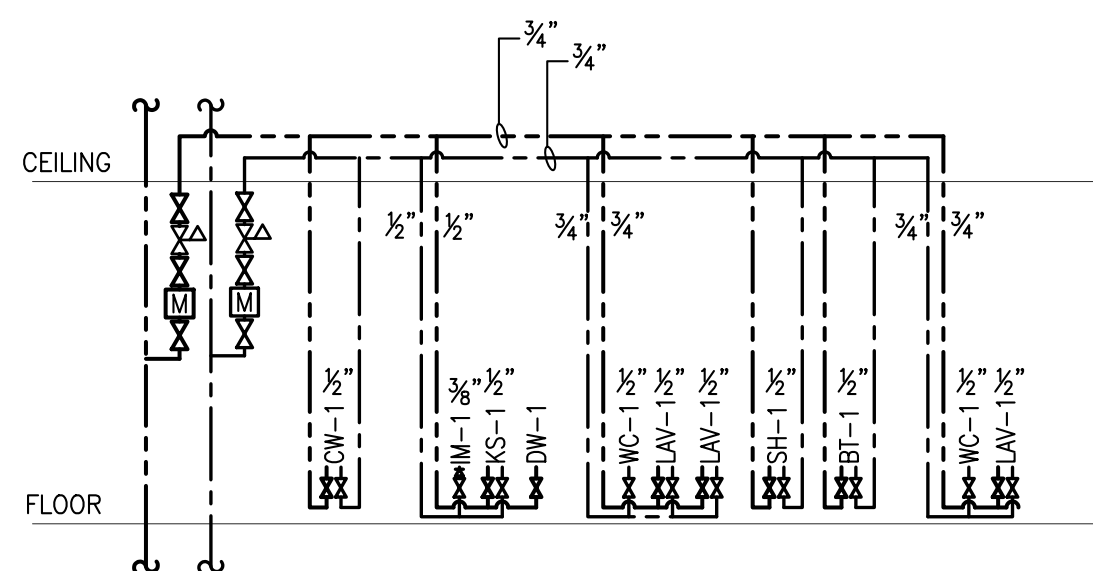
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Sheet Title:
PLUMBING UNIT PLANS

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	Job#:	2011
	Sheet Title:	P-203



TYPICAL ONE BEDROOM PLUMBING PLAN
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TYPICAL TWO BEDROOM PLUMBING PLAN
NTS

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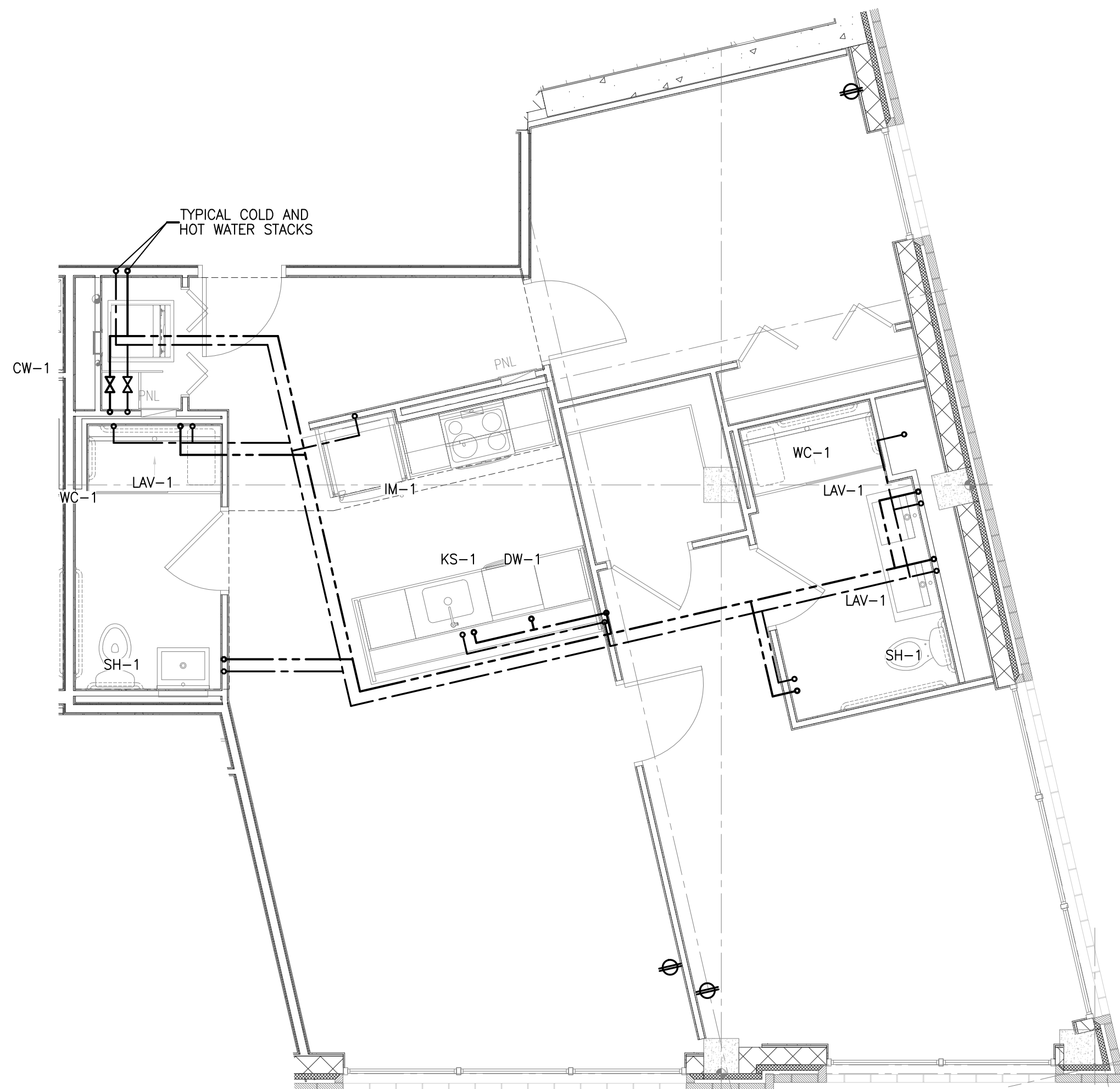
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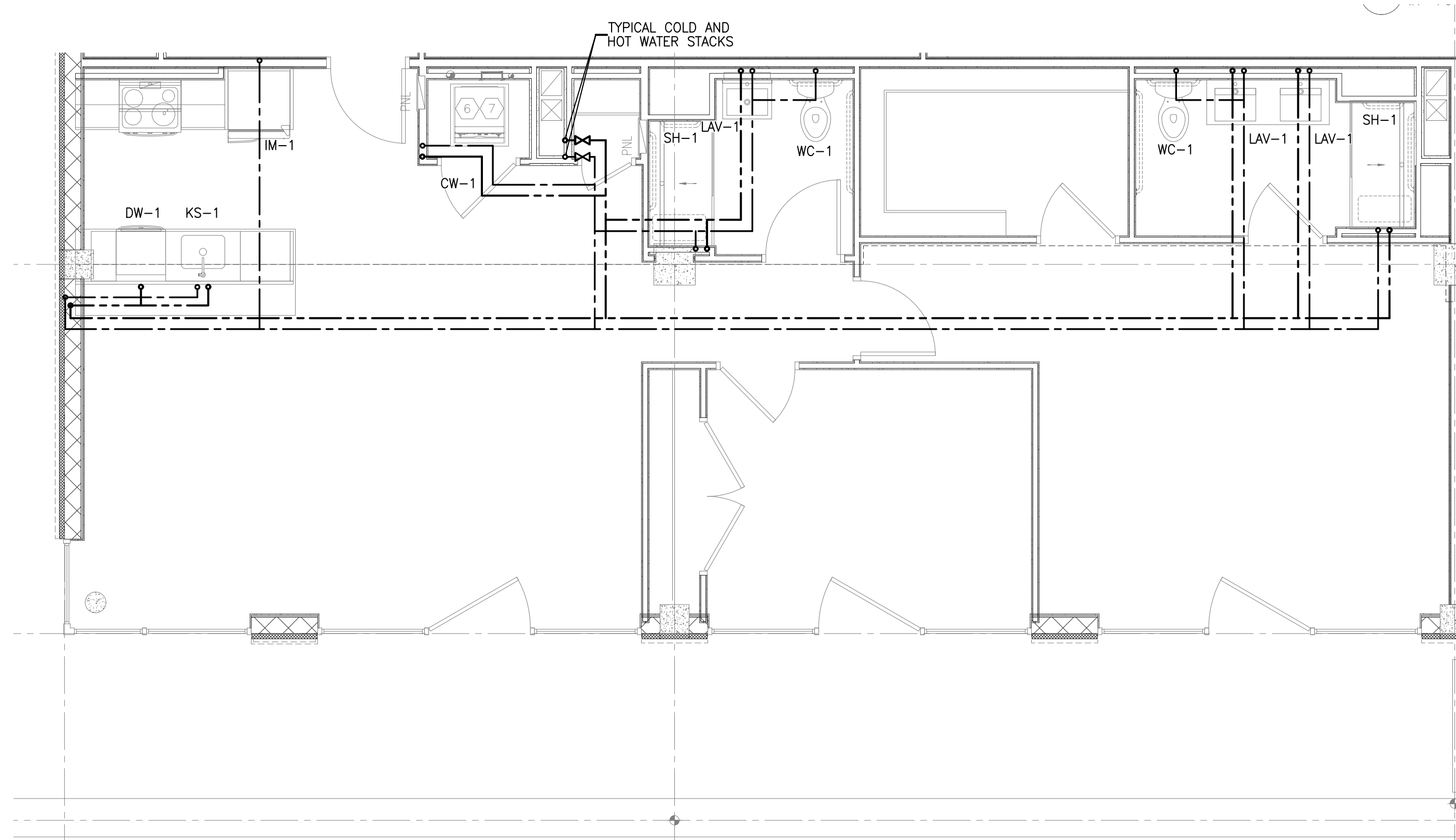
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Sheet Title:
PLUMBING UNIT PLANS

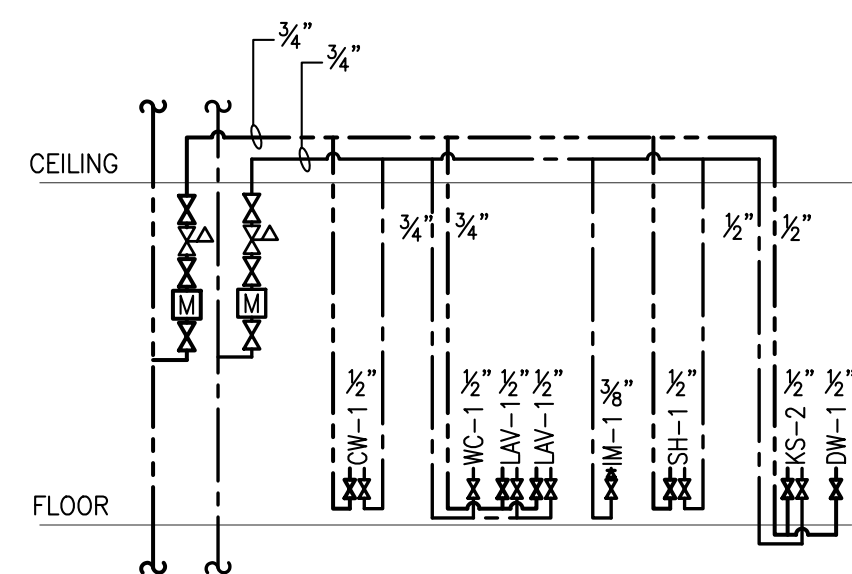
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	Scale:	AS NOTED
	Job#:	2011
	Sheet Title:	P-204
JAMES KHACHATURIAN, P.E. - NY LICENSE #002261-1 NY CERTIFICATE OF AUTHORIZATION #001724		Sheet: of



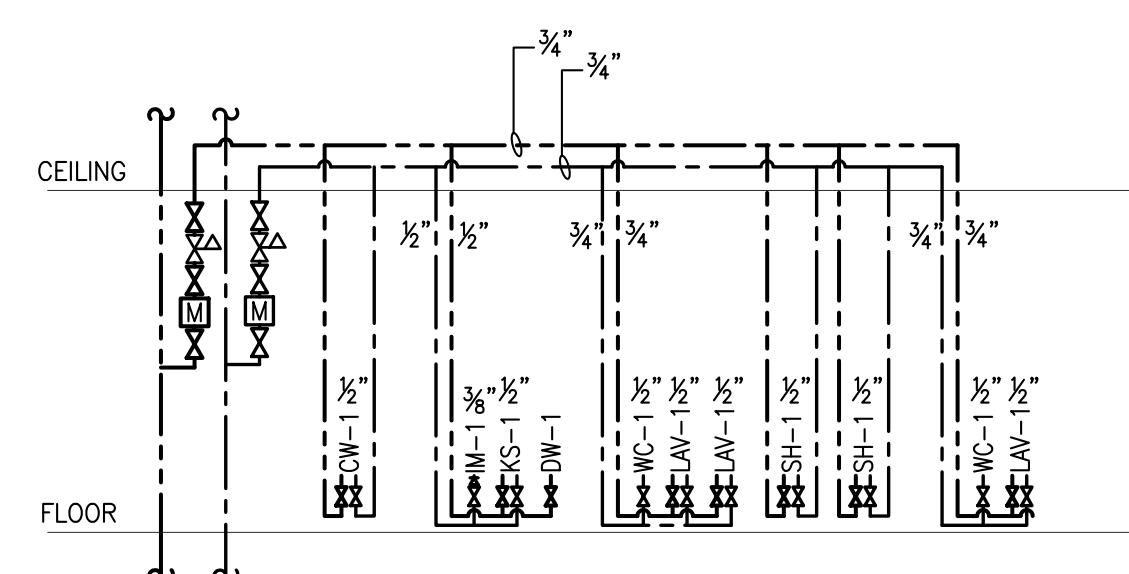
5 UNIT 218 - ENLARGED PLAN
1/4" = 1'-0"



1 UNIT 502 - ENLARGED PLAN
1/4" = 1'-0"



TYPICAL ONE BEDROOM PLUMBING PLAN
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TYPICAL TWO BEDROOM PLUMBING PLAN
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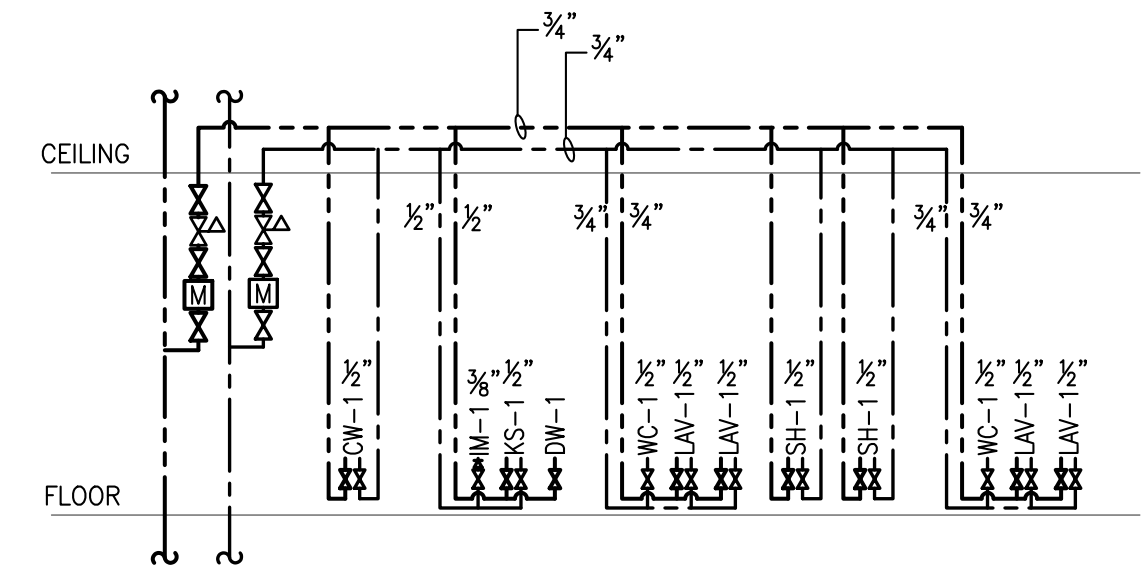
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Seal & Signature	Date:	07-18-2016
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	Job#:	2011
	Sheet Title:	P-205
LARRY KHACHATURIAN, P.E. - NY LICENSE #00281-1 NY CERTIFICATE OF AUTHORIZATION #001224		Sheet:

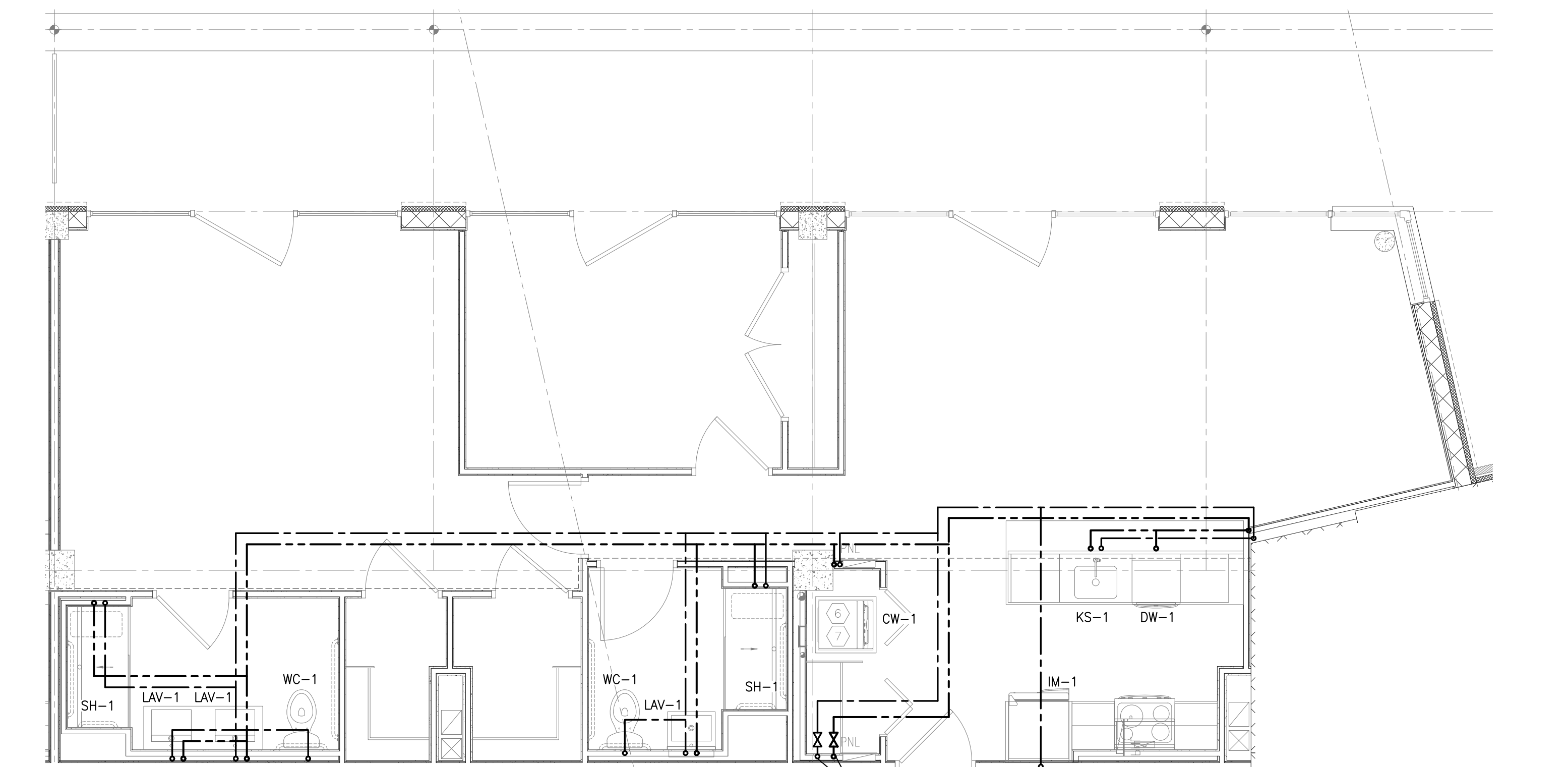
TYPICAL TWO BEDROOM PLUMBING PLAN

SCALE: 1/8" = 1'-0"

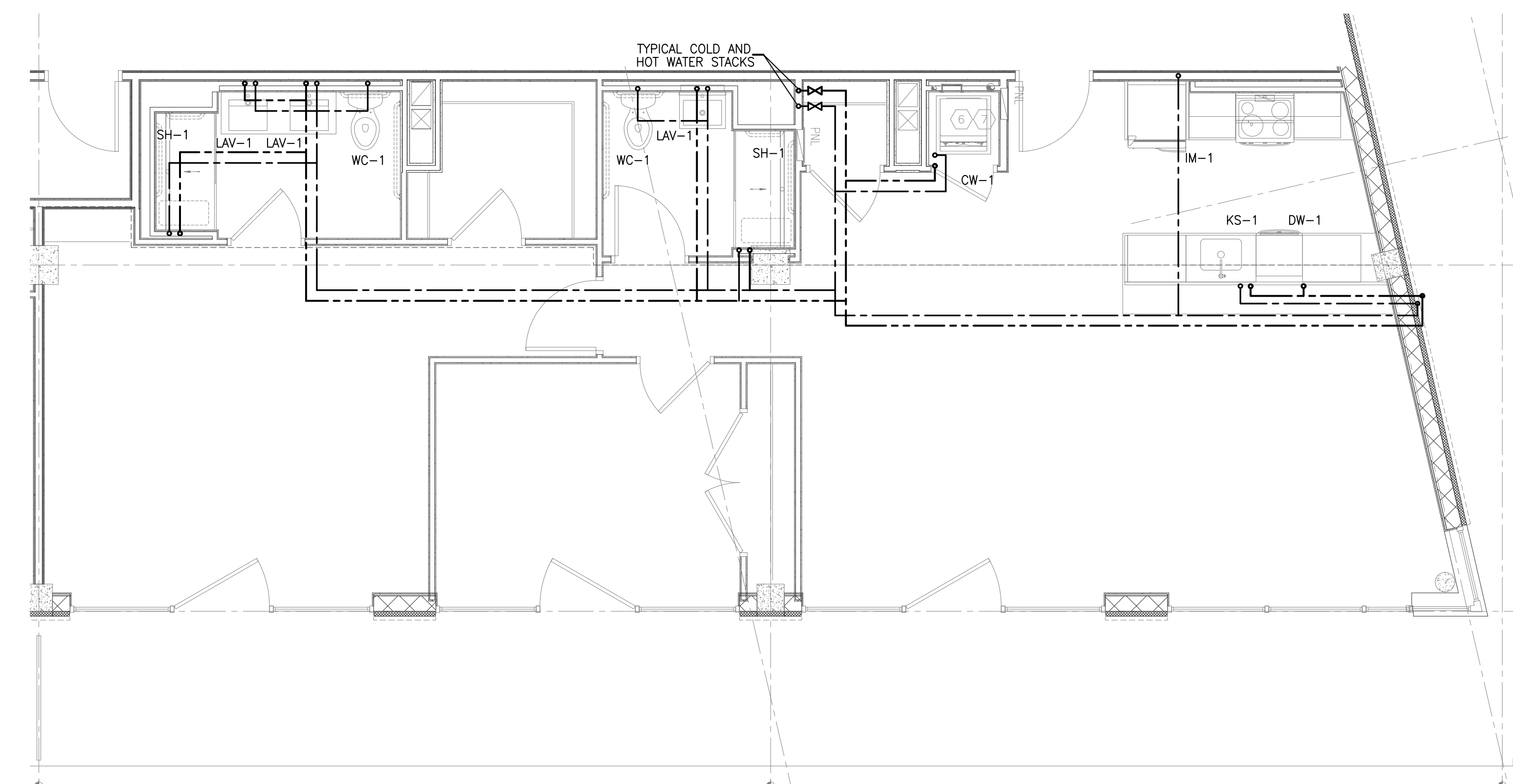


TYPICAL TWO BEDROOM PLUMBING PLAN

NTS



1 UNIT 509 - ENLARGED PLAN
1/4" = 1'-0"



1 UNIT 508 - ENLARGED PLAN
1/4" = 1'-0"

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Sheet Title:
PLUMBING UNIT PLANS

Seal & Signature	Date:	07-18-2016
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	Job#:	2011
	Sheet Title:	P-206

1. SCOPE OF WORK:

- 1.1. ALL WORK INDICATED ON THE DRAWINGS AND SPECIFICATIONS SHALL BE INCLUDED UNDER THE BASE BID, EXCEPT WHERE THERE IS SPECIFIC REFERENCE TO EXCLUSION AND INCORPORATION IN OTHER QUOTATIONS.

2. GENERAL:

- 2.1. EXISTING PIPING WHERE INDICATED FOR EXISTING SYSTEMS IS DIAGRAMMATIC ONLY.
- 2.2. BECOME THOROUGHLY FAMILIAR WITH ACTUAL BUILDING SYSTEMS, WHICH ARE TO BE CHANGED, ALTERED, OR TO WHICH NEW CONNECTIONS ARE TO BE MADE. VERIFY ALL EXISTING CONDITIONS INCLUDING PIPE SIZE, LOCATION, AND ELEVATION.
- 2.3. THE INTENT OF THE WORK IS INDICATED ON THE DRAWINGS AND DESCRIBED HEREINAFTER. NO CONSIDERATION WILL BE GRANTED FOR REASON OF LACK OF FAMILIARITY ON THE PART OF THE CONTRACTOR REGARDING ACTUAL PHYSICAL CONDITIONS AT THE SITE.
- 2.4. COORDINATE WORK WITH ALL TRADES AND EXISTING CONDITIONS OF THE JOB SITE AND MAINTAIN REQUIRED CEILING HEIGHTS AND SPACE CONDITIONS.
- 2.5. ALL EQUIPMENT SHALL BE ASBESTOS FREE AND INDICATED AS SUCH.
- 2.6. PROVIDE APPROVED BACKFLOW PREVENTION FOR CONNECTION TO NON – POTABLE FIXTURES AND EQUIPMENT AS REQUIRED BY CODE.
- 2.7. ALL PIPING AND EQUIPMENT SHALL BE SUBSTANTIALLY SUPPORTED FROM THE BUILDING STRUCTURE. HANGERS AND SUPPORTS SHALL BE SPECIFICALLY APPROVED FOR USE IN EACH APPLICATION. WHERE OVERHEAD CONDITIONS DOES NOT PERMIT THE FASTENING OF HANGER RODS IN REQUIRED LOCATIONS; PROVIDE ADDITIONAL STEEL FRAMING AS REQUIRED AND APPROVED. DO NOT USE EXPANSION SHIELDS.
- 2.8. NO PLUMBING WORK SHALL BE HUNG FROM DUCTWORK OR THE HANGERS OF OTHER TRADES.
- 2.9. DUE TO THE NATURE OF ALTERATION WORK WHICH REQUIRES THE BUILDING OR FACILITY TO BE KEPT OPERABLE AT ALL TIMES, IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO COORDINATE ALL ACTIVITIES, CONNECTIONS, SHUT DOWNS AND THE LIKE WITH THE GENERAL CONTRACTOR, TENANT, AND BUILDING OWNER, ANY INTERRUPTIONS OF BUILDING SERVICES INCLUDING PHYSICAL ACCESS TO ADJACENT SPACES MUST BE COORDINATED WITH THE BUILDING OWNER. ALL TEMPORARY CONNECTIONS OR AFTER-HOUR WORK SHALL BE SO ARRANGED WITH ALL PARTIES INVOLVED.
- 2.10. IF THIS TRADE MUST PERFORM WORK IN OCCUPIED AREAS, IT SHALL MAKE ARRANGEMENTS WITH THE GENERAL CONTRACTOR AND THE OWNER AS TO THE TIME AND METHOD IN WHICH THIS WORK SHALL BE PERFORMED. ARRANGE FOR ALL ADJACENT AREAS TO BE PROPERLY PROTECTED AGAINST DAMAGE, DEBRIS, DIRT AND DUST.

2.11. PROVIDE AS PART OF NEW WORK:

- 2.11.1. HANGERS AND SUPPORTS FOR PIPING
- 2.11.2. SCAFFOLDING, RIGGING, AND HOISTING
- 2.11.3. RUBBISH REMOVAL AND CLEANING
- 2.11.4. CUTTING AND PATCHING
- 2.11.5. SLEEVES, OPENINGS AND THE CORE DRILLING OF EXISTING SLABS
- 2.11.6. CAULKING, FIREPROOFING, AND THE PACKING AND FILLING OF SLEEVES AND OPENINGS
- 2.11.7. SHOP DRAWINGS AND "AS BUILT" DRAWINGS
- 2.11.8. OBTAINING ALL REQUIRED PERMITS, APPROVALS, ACCEPTANCE, FILING AND INSPECTION CERTIFICATES
- 2.11.9. GUARANTEE ALL WORK, LABOR AND MATERIALS FOR ONE YEAR FOLLOWING DATE OF ACCEPTANCE
- 2.11.10. VERIFYING EXISTING CONDITIONS AT THE PROJECT SITE
- 2.11.11. TESTS: OPERATION, PERFORMANCE AND CODE-REQUIRED TESTS
- 2.11.12. PROTECTION OF WORK AND ADJACENT SPACES DURING CONSTRUCTION
- 2.11.13. COORDINATION WITH OTHER TRADES
- 2.11.14. IDENTIFICATION: VALVE TAGS, VALVE TAG SCHEDULES, AND PIPING IDENTIFICATION
- 2.12. DRAWINGS ARE DIAGRAMMATIC AND THEREFORE DO NOT RELIEVE THIS CONTRACTOR FROM PROVIDING ALL WORK AND EQUIPMENT NECESSARY TO COMPLETE THE INSTALLATION ACCORDING TO THE REQUIREMENTS.
- 2.13. THE ARRANGEMENT, POSITION, AND CONNECTION OF PIPES, DRAINS, VALVES, ETC., INDICATED ON THE DRAWINGS SHALL BE TAKEN AS A CLOSE APPROXIMATION, AND WHILE THEY SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE, THE RIGHT IS RESERVED BY THE OWNER TO CHANGE THE LOCATIONS TO ACCOMMODATE ANY CONDITIONS WHICH MAY ARISE DURING THE PROGRESS OF THE WORK, WITHOUT ADDITIONAL COMPENSATION TO THIS CONTRACTOR FOR SUCH CHANGES, PROVIDED THAT THE CHANGES ARE REQUESTED PRIOR TO THE INSTALLATION OF THIS CONTRACTOR'S WORK.
- 2.14. THE RESPONSIBILITY FOR ACCURATELY LAYING OUT THE WORK RESTS WITH THIS CONTRACTOR. SHOULD IT BE FOUND THAT ANY OF HIS WORK IS SO LAID OUT THAT INTERFERENCE WILL OCCUR, HE SHALL SO REPORT THAT TO THE GENERAL CONTRACTOR.
- 2.15. ALL MATERIALS AND FIXTURES USED FOR THE ENTIRE PLUMBING PROJECT SHALL BE NEW AND VOID OF ANY DEFECTS. ALL MATERIALS AND FIXTURES SHALL CARRY STANDARD MANUFACTURERS WARRANTY AGAINST ANY DEFECTS AND / OR DEFICIENCIES.
- 2.16. ALL COMPONENTS AND MATERIALS USE AS A PORTION OF THE DOMESTIC WATER SYSTEM ARE TO BE NSF 61 LISTED FOR USE IN POTABLE WATER SYSTEMS AND NSF-372 LISTED AS 'LEAD FREE'.

3. CODES, PERMITS, AND INSPECTIONS:

- 3.1. INSTALL ALL WORK IN FULL ACCORDANCE WITH THE REQUIREMENTS OF ALL LOCAL AND GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION OVER THESE MATTERS, AS WELL AS WITH ANY REQUIREMENTS OF NFPA, UL, FM, ETC, AND OTHER APPLICABLE CODES.
- 3.2. SECURE AND PAY FOR ALL NECESSARY APPROVALS, PERMITS, INSPECTIONS, CARTING, LEGAL DUMPING, ETC., AND DELIVER THE OFFICIAL RECORDS OF THE GRANTING OF PERMITS TO THE ARCHITECT AND OWNER WITHOUT ANY ADDITIONAL COST TO THE OWNER.
- 3.3. PAY ALL FILING FEES TO OBTAIN RELEASE OF APPROVED PLANS.
- 3.4. PAY ROYALTIES OR FEES REQUIRED IN CONNECTION WITH THE USE OF PATENTED DEVICES OR SYSTEMS, AND SAVE THE OWNER, THE ARCHITECT, THE CONSULTING ENGINEER, AND THE TENANT HARMLESS FROM ANY CLAIMS OR LAWSUITS ARISING FROM SUCH USE, AND INDEMNIFY EACH THEREOF AGAINST ATTORNEYS' FEES IN CONNECTION THEREWITH.
- 3.5. PROVIDE ALL SIGNS REQUIRED BY THE MUNICIPAL AUTHORITIES.

4. GUARANTEES AND CERTIFICATIONS:

- 4.1. ALL WORK SHALL BE GUARANTEED TO BE FREE FROM LEAKS OR DEFECTS. ANY DEFECTIVE MATERIALS OR WORKMANSHIP AS WELL AS DAMAGE TO THE WORK OF OTHER TRADES RESULTING FROM SAME SHALL BE REPLACED OR REPAIRED AS DIRECTED FOR THE DURATION OF STIPULATED GUARANTEE PERIODS. THE DURATION OF GUARANTEE PERIODS SHALL BE ONE YEAR FROM THE DATE OF THE FINAL ACCEPTANCE OF THE INSTALLATION BY THE OWNER, UNLESS A MORE STRINGENT PERIOD IS STIPULATED ELSEWHERE.

5. ENGINEER'S REVIEW, SHOP DRAWINGS, AND CERTIFICATIONS:

- 5.1. PREPARE AND SUBMIT DETAILED SHOP DRAWINGS. THE ENGINEER WILL REVIEW SHOP DRAWINGS AND SAMPLES FOR CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND THE INFORMATION CONTAINED IN THE CONTRACT DOCUMENTS. THE ENGINEER'S REVIEW OF SHOP DRAWINGS AND SAMPLES IS ONLY FOR THE CONVENIENCE OF THE OWNER IN FOLLOWING THE WORK AND DOES NOT RELIEVE THIS TRADE OF RESPONSIBILITY FOR DEVIATIONS FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE ENGINEER'S REVIEW SHALL NOT BE CONSTRUED AS A COMPLETE OR DETAILED CHECK OF THE WORK SUBMITTED, NOR SHALL IT RELIEVE THIS TRADE OF RESPONSIBILITY FOR ERRORS OF ANY SORT IN THE SHOP DRAWINGS AND SAMPLES, OR FROM THE NECESSITY OF FURNISHING ANY WORK REQUIRED BY THE CONTRACT DOCUMENTS WHICH HAVE BEEN OMITTED FROM THE SHOP DRAWING SUBMITTALS.
- 5.2. NO PART OF THE WORK SHALL BE STARTED IN THE SHOP OR IN THE FIELD UNTIL THE ENGINEER HAS REVIEWED THE SHOP DRAWINGS AND SAMPLES FOR THAT PORTION OF THE WORK. THEREAFTER, THE WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE INDICATED STATUS OF THE REVIEWED SHOP DRAWINGS. PRIOR TO ASSEMBLING THE WORK, THE FOLLOWING SHALL BE SUBMITTED: SCALED FLOOR PLAN AND CEILING DRAWINGS WITH DIMENSIONED LOCATIONS OF ALL PIPING AND EQUIPMENT INCLUDING SIZES, ELEVATIONS, AND APPROPRIATE INDICATION OF COORDINATION BETWEEN STRUCTURAL AND MECHANICAL ELEMENTS. MANUFACTURER'S CATALOGUE CUTS OF ALL EQUIPMENT TO BE USED, SAMPLES OF ALL DEVICES, WHICH WILL BE CLEARLY VISIBLE TO VIEW. ALL SUBMITTALS SHALL BE PROPERLY IDENTIFIED WITH PROJECT NAME, ARCHITECT, ENGINEER, AND SUBCONTRACTOR'S NAME, ADDRESS, AND TELEPHONE NUMBER. PROVIDE CLEAR DETAILED REPRODUCIBLE "AS-BUILT" DRAWINGS UPON COMPLETION OF WORK AND PROVIDE SETS OF THE SAME TO LANDLORD AS DIRECTED.
- 5.3. THE ARCHITECT AND/OR ENGINEER WILL REVIEW SHOP DRAWINGS AND SAMPLES WITH REASONABLE PROMPTNESS AND WILL RETURN THEM TO THE CONTRACTOR STAMPED TO INDICATE THE APPROPRIATE ACTION AS FOLLOWS:
- 5.3.1. "NO EXCEPTIONS TAKEN" MEANS THAT FABRICATION, MANUFACTURE OR CONSTRUCTION MAY PROCEED PROVIDING THE SUBMITTAL COMPLIES WITH THE CONTRACT DOCUMENTS.
- 5.3.2. "MAKE CORRECTIONS NOTED" MEANS THAT FABRICATION, MANUFACTURE OR CONSTRUCTION MAY PROCEED PROVIDING THE SUBMITTAL COMPLIES WITH THE ARCHITECT'S AND/OR ENGINEER'S NOTATIONS AND THE CONTRACT DOCUMENTS. A COPY OF THE CORRECTED SUBMITTAL SHALL BE RETURNED TO THE ARCHITECT AND/OR ENGINEER FOR RECORD. IF, FOR ANY REASON, THE CONTRACTOR CANNOT COMPLY WITH THE NOTATIONS, THE CONTRACTOR SHALL RESUBMIT AS DESCRIBED FOR SUBMITTALS STAMPED "REVISE AND RESUBMIT".
- 5.3.3. "REVISE AND RESUBMIT" MEANS THAT THE CONTRACTOR MUST COMPLY WITH THE ARCHITECT'S AND/OR ENGINEER'S NOTATIONS AND RESUBMIT BEFORE FABRICATION, MANUFACTURE OR CONSTRUCTION MAY PROCEED. SUBMITTALS STAMPED IN THIS MANNER ARE NOT PERMITTED ON THE JOB SITE.
- 5.3.4. "REJECTED" MEANS THAT THE SUBMITTAL DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS AND THAT FABRICATION, MANUFACTURE CONSTRUCTION SHALL NOT PROCEED. SUBMITTALS STAMPED IN THIS MANNER ARE NOT PERMITTED ON THE JOB SITE.

6. DEMOLITION, CONNECTIONS TO EXISTING WORK, AND ALTERATION:

- 6.1. REFER TO THE CONTRACT DOCUMENTS FOR THE EXTENT OF SYSTEMS TO BE REMOVED. THE CONTRACTOR SHALL FIELD VERIFY AND INCLUDE IN THE BID ALL REMOVALS REQUIRED FOR THE COMPLETION OF WORK.
- 6.2. PLAN INSTALLATION OF NEW WORK AND CONNECTIONS TO EXISTING SYSTEMS TO INSURE MINIMUM INTERFERENCE WITH REGULAR OPERATION OF EXISTING FACILITIES. SUBMIT TO OWNER AND ARCHITECT FOR APPROVAL. DATE AND SCHEDULE OF ALL NECESSARY TEMPORARY SHUTDOWNS OF EXISTING SERVICES. ALL SHUTDOWNS SHALL BE MADE AT SUCH TIMES AS THEY WILL NOT INTERFERE WITH REGULAR OPERATION OF EXISTING FACILITIES AND ONLY AFTER WRITTEN APPROVAL OF THE SAME HAS BEEN OBTAINED FROM OWNER.
- 6.3. MAKE TEMPORARY CONNECTIONS AS REQUIRED BETWEEN NEW AND EXISTING WORK TO INSURE CONTINUOUS OPERATION OF THE FACILITY. ALL COSTS ASSOCIATED WITH AND RESULTING FROM TEMPORARY CONNECTIONS SHALL BE BORNE BY THIS CONTRACTOR.
- 6.4. CONNECT NEW WORK TO EXISTING WORK IN A NEAT AND APPROVED MANNER. RESTORE ANY DISTURBED EXISTING WORK TO ITS ORIGINAL CONDITION.
- 6.5. PROVIDE CAPS, PLUGS, AND OUTLETS AS REQUIRED ON EXISTING PIPING.
- 6.6. REMOVE AND /OR RELOCATE EXISTING PIPING AND OTHER WORK AS REQUIRED TO COMPLETE FINAL INSTALLATION OF NEW PIPING WORK.
- 6.7. ANY PIPING RENDERED DEFUNCT BY THIS ALTERATION WORK SHALL BE REMOVED. ALERT THE ARCHITECT AND GENERAL CONTRACTOR OF ANY "DISCOVERED" ABANDONED PIPING. IN GENERAL, ALL ABANDONED, INACTIVE, OR SUPERFLUOUS PIPING, INCLUDING HANGERS AND CLAMPS SHALL BE REMOVED.
- 6.8. ALL NEW AND EXISTING SYSTEMS SHALL BE LEFT IN PERFECT WORKING ORDER UPON COMPLETION OF ALL NEW WORK.

7. CUTTING AND PATCHING:

- 7.1. DO ANY CUTTING REQUIRED FOR THE PASSAGE OR INSTALLATION OF PIPES, SUPPORTS, AND THE LIKE. IN GENERAL, OTHERS WILL DO DEMOLITION OF EXISTING WALLS AND CEILINGS.
- 7.2. OTHERS WILL DO ALL PATCHING. THE EXPENSE OF CUTTING AND RESTORING SURFACES TO THEIR ORIGINAL CONDITION WHEN CAUSED BY THIS TRADE'S FAILURE TO PERFORM ITS PRELIMINARY WORK SHALL BE BORNE BY THIS TRADE.

8. SLEEVES:

- 8.1. PROVIDE 18 GAUGE GALVANIZED SHEET METAL SLEEVES FOR ALL PIPES PASSING THROUGH WALLS OR FLOORS. PROVIDE SLEEVES WITH AN I.D. OF AT LEAST 1/2" GREATER THAN THE OUTSIDE OF THE PIPE, INCLUDING INSULATION WHICH MUST BE CONTINUOUS THROUGH THE SLEEVE. PACK SPACE BETWEEN PIPES AND SLEEVES WITH AN APPROVED FIRESTOP MATERIAL. WHERE SLEEVES PASS THROUGH RATED CONSTRUCTION, FIT ESCUTCHEONS ON BOTH SIDES OF CONSTRUCTION.

9. GENERAL INSTALLATION OF PIPE:

- 9.1. MAINTAIN A MINIMUM OF 1/8" PITCH PER FOOT IN THE DIRECTION OF FLOW ON ALL DRAINAGE LINES.
- 9.2. USE REDUCING FITTINGS, UNLESS OTHERWISE APPROVED IN SPECIAL CASES, IN MAKING REDUCTION IN SIZE OF PIPE. BUSHINGS WILL NOT BE ALLOWED UNLESS SPECIFICALLY APPROVED.
- 9.3. WHERE CHROME PLATED PIPING IS INSTALLED, CUT AND THREAD PIPE SO THAT NO UN-PLATED PIPE THREADS ARE VISIBLE UPON COMPLETING OF WORK.
- 9.4. CONNECTION TO GAS APPLIANCES SHALL INCLUDE AN EQUIPMENT SHUTOFF, A DIRT LEG AND FINAL CONNECTION SHALL BE MADE WITH A ANSI Z21.24 LISTED FLEXILE CONNECTOR SIZED PER EQUIPMENT CONNECTION SIZE WITH A MAXIMUM LENGTH OF 3' EXCEPT FOR RANGE AND DOMESTIC CLOTHES WASHER WHICH SHALL HAVE A MAX LENGTH OF 6'. CONNECTORS TO BE USED OUTDOORS SHALL ALSO BE ANSI Z21.75 LISTED. CONNECTORS FOR MOVABLE AND COMMERCIAL COOKING EQUIPMENT SHALL BE LISTED AS COMPLYING WITH ANSI Z21.69.

10. MATERIALS OF PIPING SYSTEMS:

- 10.1. HUBLESS CAST IRON PIPE AND FITTINGS SHALL BE MANUFACTURED FROM GRAY CAST IRON AND SHALL CONFORM TO ASTM A-888 AND CISPI STANDARD 301. ALL PIPE AND FITTINGS SHALL BE MARKED WITH THE COLLECTIVE TRADEMARK OF THE CAST IRON SOIL PIPE INSTITUTE . HUBLESS COUPLINGS SHALL CONFORM TO CISPI STANDARD 310 FOR STANDARD COUPLINGS OR ASTM C-1540 FOR HEAVY DUTY COUPLINGS WHERE INDICATED. GASKETS SHALL CONFORM TO ASTM C-564. ALL PIPE AND FITTINGS TO BE PRODUCED BY A SINGLE MANUFACTURER AND ARE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND LOCAL CODE REQUIREMENTS. COUPLINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S BAND TIGHTENING SEQUENCE AND TORQUE. TIGHTEN BANDS WITH A PROPERLY CALIBRATED TORQUE LIMITING DEVICE. TEST THE SYSTEM HYDROSTATICALLY AFTER INSTALLATION TO 10 FT. OF HEAD (4.3 PSI MAXIMUM).
- 10.2. COPPER WATER PIPING SHALL BE SEAMLESS DRAWN OR EXTRUDED TYPE "L" COPPER TUBING, HARD TEMPER IN ACCORDANCE WITH ASTM B-88. FITTINGS SHALL BE WROUGHT OR CAST BRASS SOLDERED FITTINGS CONFORMING WITH ASME B16.18 OR ASME B16.22. SOLDER JOINTS SHALL BE MADE IN ACCORDANCE WITH ASTM B 828 USING ASTM B-32 LEAD FREE SOLDER AND ASTM B-813 FLUX.
- 10.3. COPPER INDIRECT WASTE PIPING SHALL BE SEAMLESS DRAWN COPPER TUBING, MANUFACTURED IN ACCORDANCE WITH ASTM B-306. FITTINGS SHALL BE WROUGHT OR CAST BRASS SOLDERED FITTINGS CONFORMING WITH ASME B16.23 OR ASME B16.29. SOLDER JOINTS SHALL BE MADE IN ACCORDANCE WITH ASTM B 828 USING ASTM B-32 LEAD FREE SOLDER AND ASTM B-813 FLUX.
- 10.4. BLACK IRON PIPE SHALL BE SCHEDULE 40 WELDED PIPE CONFORMING TO ASTM A-53 OR SEAMLESS DRAWN PIPE CONFORMING TO ASTM A-53 AND A-106. PIPE SHALL BE INSTALL WITH TAPERED THREADED OR WELDED JOINTS. A SOFT SETTING THREAD SEALANT SHALL BE USED ON ALL THREADED JOINTS. FITTINGS SHALL BE BLACK MALLEABLE IRON FITTINGS.
- 10.5. CORRUGATED STAINLESS STEEL TUBING SHALL BE MANUFACTURED TO COMPLY WITH ANSI LC 1-97 WITH ALL ADDENDA AND BE LISTED BY CSA. TUBING SHALL BE MANUFACTURED FROM 300 SERIES STAINLESS STEEL STRIP CONFORMING TO ASTM A240. TUBING SHALL HAVE A UV RESISTANT, FIRE RATED POLYETHYLENE JACKET DESIGNED TO COMPLY WITH ASTM E-84 FOR FLAME SPREAD AND SMOKE DEVELOPMENT. TUBING SHALL BE RATED FOR OPERATION UP TO 5 PSI. FITTINGS SHALL BE BRASS FLARE FITTING AS LISTED BY CSA.
- 10.6. PROVIDE APPROVED TYPE VACUUM BREAKERS AND/OR CHECK VALVES, OR BACKFLOW PREVENTORS AS HEREIN SPECIFIED ON ALL EQUIPMENT AND FIXTURE CONNECTIONS REQUIRED BY CODE, INDICATED ON THE DRAWINGS, AS SPECIFIED, OR AS REQUIRED FOR THE PROPER FUNCTIONING OF THE EQUIPMENT.
- 10.7. ALL PIPING EXPOSED TO VIEW SHALL BE CHROME PLATED. THE TERM EXPOSED TO VIEW SHALL APPLY TO ALL PIPING FROM THE POINT WHERE IT LEAVES THE WALL, CEILING, OR FLOOR CONSTRUCTION, TO THE POINT OF FINAL CONNECTION TO THE FIXTURE. PIPING BUILT INTO FIXED BENCHWORK WITH ACCESS DOORS OR PANELS SHALL NOT BE CONSIDERED "EXPOSED TO VIEW."

11. INSULATION:

- 11.1. ON HOT AND COLD WATER PIPING, AND PIPING FROM WATER COOLERS, PROVIDE OWENS-CORNING ½" FIBERGLAS INSULATION WITH FACTORY APPLIED SELFSEALING VAPOR BARRIER JACKETS. FOR RECIRCULATED HOT WATER INSULATION SHALL BE 1" THICK. FOR COLD WATER SERVICE, ALL VAPOR BARRIERS SHALL BE SEALED AND CONTINUOUS. INSULATION CONDUCTIVITY NOT TO EXCEED 0.27 BTU PER INCH/HOUR-FT²-F.
- 11.2. ALL INSULATION AND VAPOR BARRIERS SHALL BE SEALED AND CONTINUOUS THROUGH HANGERS, SLEEVES, FITTINGS, VALVES, ETC.
- 11.3. ON RAIN CONDUCTORS WHICH PASS THROUGH OCCUPIED AREAS PROVIDE 1½" THICK FIBERGLASS INSULATION WITH FACTORY APPLIED SELFSEALING VAPOR BARRIER JACKET.
- 11.4. ALL EXPOSED SUPPLY AND WASTE PIPING UNDER PUBLIC LAVATORIES AND SINKS SHALL BE INSULATED TO PROTECT AGAINST CONTACT IN ACCORDANCE WITH ANSI A117.1 SECTION 606.6.

12. VALVES:

- 12.1. ALL WATER VALVES SHALL BE TWO PIECE, FULL PORT BALL VALVES WITH THREADED CONNECTIONS, APOLLO AS STANDARD. NOTE: SOLDERED OR BRAISED CONNECTIONS WILL NOT BE ACCEPTED.
- 12.2. GAS VALVES SHALL BE LOCKABLE PLUG VALVE-WALLWORTH NO.2911 OR AS APPROVED.
- 12.3. THERMOSTATIC MIXING VALVES SHALL BE INSTALLED TO PROVIDE TEMPERED WATER (MAX. TEMP. 110°F) TO PUBLIC USE HAND WASHING FACILITIES AND SHALL BE LISTED IN ACCORDANCE WITH ASSE 1070.
- 12.4. ALL CHECK VALVES ARE TO BE ASSE 1024 DUAL CHECK VALVES UNLESS OTHERWISE NOTED.
- 12.5. PRESSURE VACUUM BREAKERS SHALL BE INSTALLED 12" ABOVE THE HIGHEST OUTLET THEY ARE PROTECTING. THE VACUUM BREAKER SHALL RENDER POSITIVE PROTECTION AGAINST BACK-SIPHONAGE AND INCORPORATE A CHECK VALVE AND INLET SHUT-OFF.
- 12.6. VACUUM BREAKERS SHALL BE RATED TO 150 PSI WORKING PRESSURE AND SHALL WITHSTAND TEMPERATURES TO 170 F. THE VACUUM RELIEF VALVE MUST BE OF BRASS CONSTRUCTION WITH A SPRING LOADED DIAPHRAGM MEMBER TO ASSURE POSITIVE OPENING OF AIR INLET WHEN BACK-SIPHONAGE OCCURS. PRESSURE VACUUM BREAKERS SHALL BE WATTS # 800 OR AS APPROVED.

13. HANGERS:

- 13.1. PROVIDE SUITABLE AND SUBSTANTIAL HANGERS AND SUPPORTS FOR ALL PIPING. SUPPORT HORIZONTAL PIPING IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:
- | MATERIAL | PIPE SIZE | MAX. HANGER |
|----------------|---------------|-------------|
| COPPER TUBE | 1¼" & SMALLER | 6'-0" |
| COPPER TUBE | 1½" & LARGER | 10'-0" |
| THREADED STEEL | 1" & SMALLER | 6'-0" |
| THREADED STEEL | 1¼" & LARGER | 10'-0" |
| PEX | ALL | 32" |
| PVC | ALL | 4'-0" |
| NO-HUB C.I. | ALL | 5'-0" |
- 13.2. THREADED ROD FOR HANGERS SUPPORTING PIPING UP TO 2" SHALL BE ¾". FROM PIPING FROM 2½"-4" SHALL BE ½".
- 13.3. NO-HUB PIPING SHALL HAVE A MINIMUM OF TWO HANGERS PER LENGTH OF PIPE. PIPE HANGERS TO BE INSTALLED ON EACH SIDE OF THE JOINT.

14. PLUMBING FIXTURES:

- 14.1. ALL PLUMBING FIXTURES FINISHES AND TRIM SHALL BE SPECIFIED BY THE ARCHITECT.
- 14.2. ALL PIPING ESCUTCHEONS, FIXTURE TAILPIECES, TRAPS, ETC., EXPOSED TO VIEW TO BE CHROME PLATED.
- 14.3. PROVIDE FIXTURE SUPPORTS, I.E. CHAIR CARRIERS, LAVATORY SUPPORTS.

15. CLEANING:

- 15.1. PRIOR TO UTILIZATION THE POTABLE WATER SYSTEM SHALL BE FLUSHED WITH CLEAN WATER UNTIL WATER RUNS CLEAR AND FREE OF DEBRIS OR PARTICLES. FLUSHING SHALL BE PERFORMED WITH ANY STRAINERS OR AERATORS REMOVED.
- 15.2. AFTER FLUSHING, THE POTABLE WATER SYSTEM SHALL BE DISINFECTED BY FILLING THE SYSTEM WITH A WATER/ CHLORINE SOLUTION CONTAINING AT LEAST 50 PARTS PER MILLION OF CHLORINE; THE SOLUTION SHALL BE ALOUD TO STAND FOR AT LEAST 24 HOURS. ALTERNATELY A WATER/ CHLORINE SOLUTION CONTAINING AT LEAST 200 PARTS PER MILLION CAN BE USED FOR A DURATION OF AT LEAST 3 HOURS BUT NO MORE THAN 6 HOURS.
- 15.3. AFTER DISINFECTION THE SYSTEM SHALL BE FLUSHED WITH POTABLE WATER UNTIL THE CHLORINE LEVELS AT ALL OUTLETS ARE EQUAL TO THAT OF THE INCOMING WATER SUPPLY.
- 15.4. A CERTIFICATION OF PERFORMANCE AND LABORATORY TEST REPORT SHOWING THE ABSENCE OF COLIFORM ORGANISMS IN THE POTABLE WATER SYSTEM SHALL BE SUBMITTED TO THE AUTHORITY HAVING JURISDICTION.

16. TESTS:

- 16.1. PRIOR TO SUBMITTING AN APPLICATION FOR FINAL ACCEPTANCE OF THE WORK, ALL TESTS DEEMED NECESSARY TO SHOW PROPER EXECUTION OF THE WORK SHALL HAVE BEEN PERFORMED AND COMPLETED IN THE PRESENCE OF AN ARCHITECT'S / OWNER'S REPRESENTATIVE. SCHEDULING OF ALL TESTING PROCEDURES SHALL BE ARRANGED TO SUIT THE CONVENIENCE OF THE ARCHITECT AND/OR OWNER'S REPRESENTATIVE.
- 16.2. SUBJECT THE DRAINS, WASTE AND VENT PIPING TO A WATER TEST IN ACCORDANCE WITH ALL LOCAL REQUIREMENTS. THE SYSTEM SHALL BE TESTED TO A HYDROSTATIC PRESSURE EQUIVALENT TO AT LEAST A TEN FOOT OF HEAD OF WATER. AFTER FILLING, DISCONNECT WATER SUPPLY AND LET IT STAND FOR FIFTEEN (15) MINUTES UNDER TEST, DURING WHICH TIME THERE SHALL BE NO LOSS OR LEAKAGE.
- 16.3. TEST ALL INTERIOR WATER DISTRIBUTION SYSTEMS TO A PRESSURE OF AT LEAST 50 PSI HIGHER THAN THEIR NORMAL OPERATING STATIC PRESSURE. MINIMUM TEST SHALL BE GAUGE SET AT 150 PSI, WHICH SHALL STAND FOR TWO HOURS WITH NO LOSS IN PRESSURE.
- 16.4. FURNISH AND PAY FOR ALL DEVICES, MATERIALS, SUPPLIES AND LABOR REQUIRED IN CONNECTION WITH TESTS. MAKE ALL TESTS IN THE PRESENCE, AND TO THE SATISFACTION OF THE OWNER, ENGINEER, PLUMBING AND OTHER INSPECTORS OF THE AGENCIES HAVING JURISDICTION, AND ANY APPLICABLE INSURANCE ASSOCIATIONS AND PUBLIC UTILITIES. REPAIR, OR IF REQUIRED BY THE ENGINEER, REPLACE DEFECTIVE WORK WITH NEW WORK WITHOUT EXTRA CHARGE TO THE OWNER. REPEAT TESTS AS DIRECTED UNTIL ALL WORK IS PROVEN SATISFACTORY. RESTORE TO ITS ORIGINAL CONDITION ANY WORK DAMAGED OR DISTURBED BY TESTS, ENGAGING THE ORIGINAL TRADES TO DO THE RESTORATION WORK. NOTIFY THE OWNER, ENGINEER, AND INSPECTORS HAVING JURISDICTION AT LEAST 48 HOURS IN ADVANCE OF MAKING THE REQUIRED TESTS SO THAT ARRANGEMENTS MAY BE MADE FOR THEIR PRESENCE TO WITNESS THE SAME.
- 16.5. TEST GAS DISTRIBUTION SYSTEM AT AN AIR PRESSURE OF 1.5 TIMES THE PROPOSED MAXIMUM WORKING PRESSURE BUT NOT LESS THAN 3 PSIG. THE TEST DURATION SHALL BE 30 MINUTES FOR EACH 500 CUBIC FEET OF PIPE OR FRACTION THERE OF WITH NO DROP IN PRESSURES.
- 16.6. ALL TESTABLE BACKFLOW PREVENTION DEVICES SHALL BE FIELD TESTED IN ACCORDANCE WITH ASSE 5010, BY ASSE 5000 CERTIFIED INDIVIDUAL, PRIOR TO FINAL INSPECTION. COPIES OF TEST RESULTS SHALL BE SENT TO THE AHJ AND WATER SUPPLIER.



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2	Issued For Bid	04-12-2021
1	Issued For Bid	04-05-2021
Rev. #	Revision Description	Date:

Project Description:
PROPOSED MIXED USE BUILDING:
WESTMORELAND LOFTS
136-158 WESTMORELAND AVE.
WHITE PLAINS, NY 10606

Owner/Developer:
136-158 WESTMORELAND, LLC
1485 5TH AVENUE, 24F
NEW YORK, NY 10035

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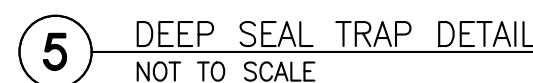
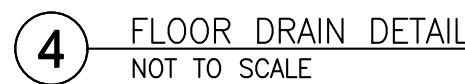
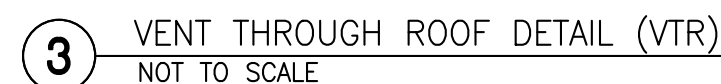
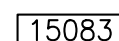
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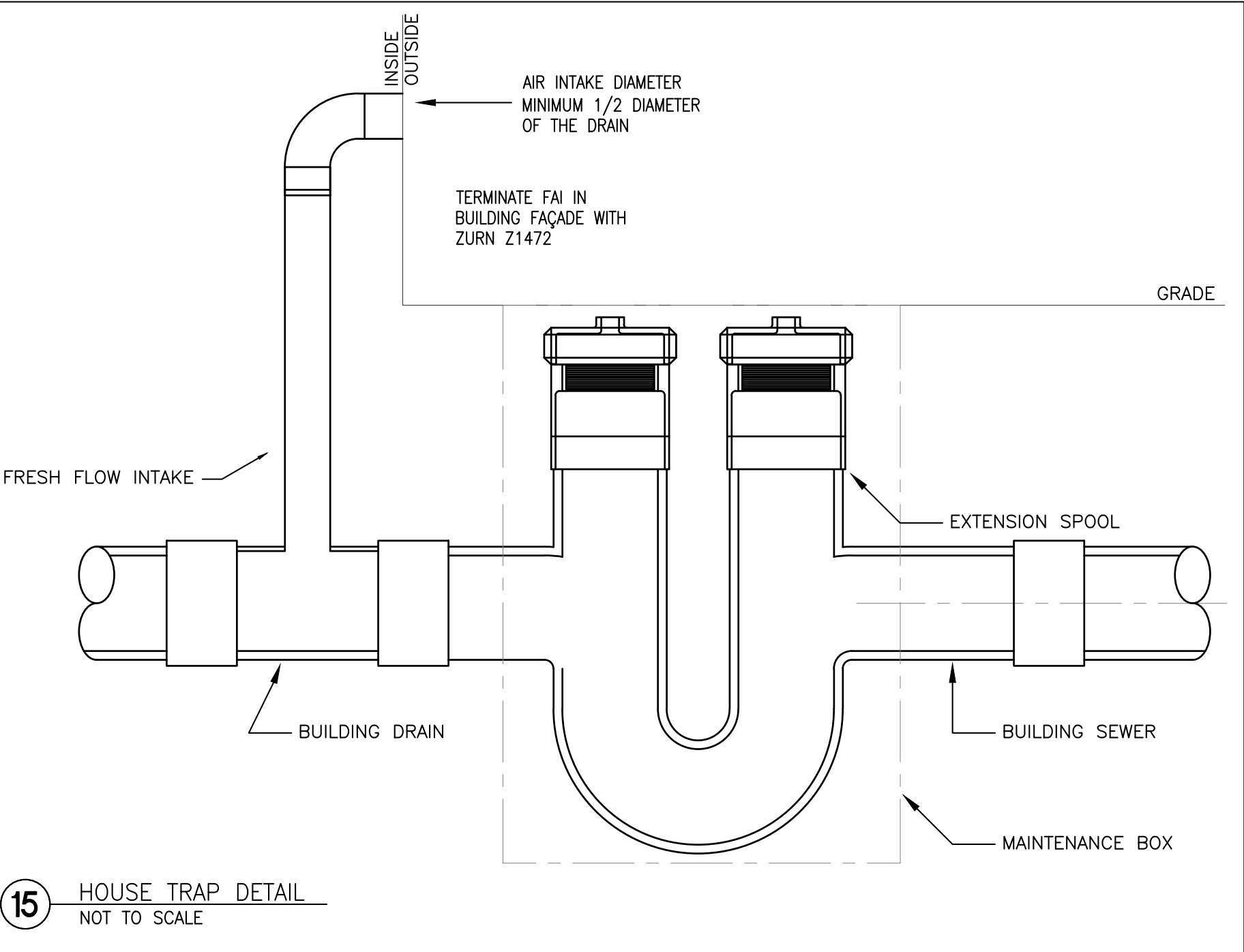
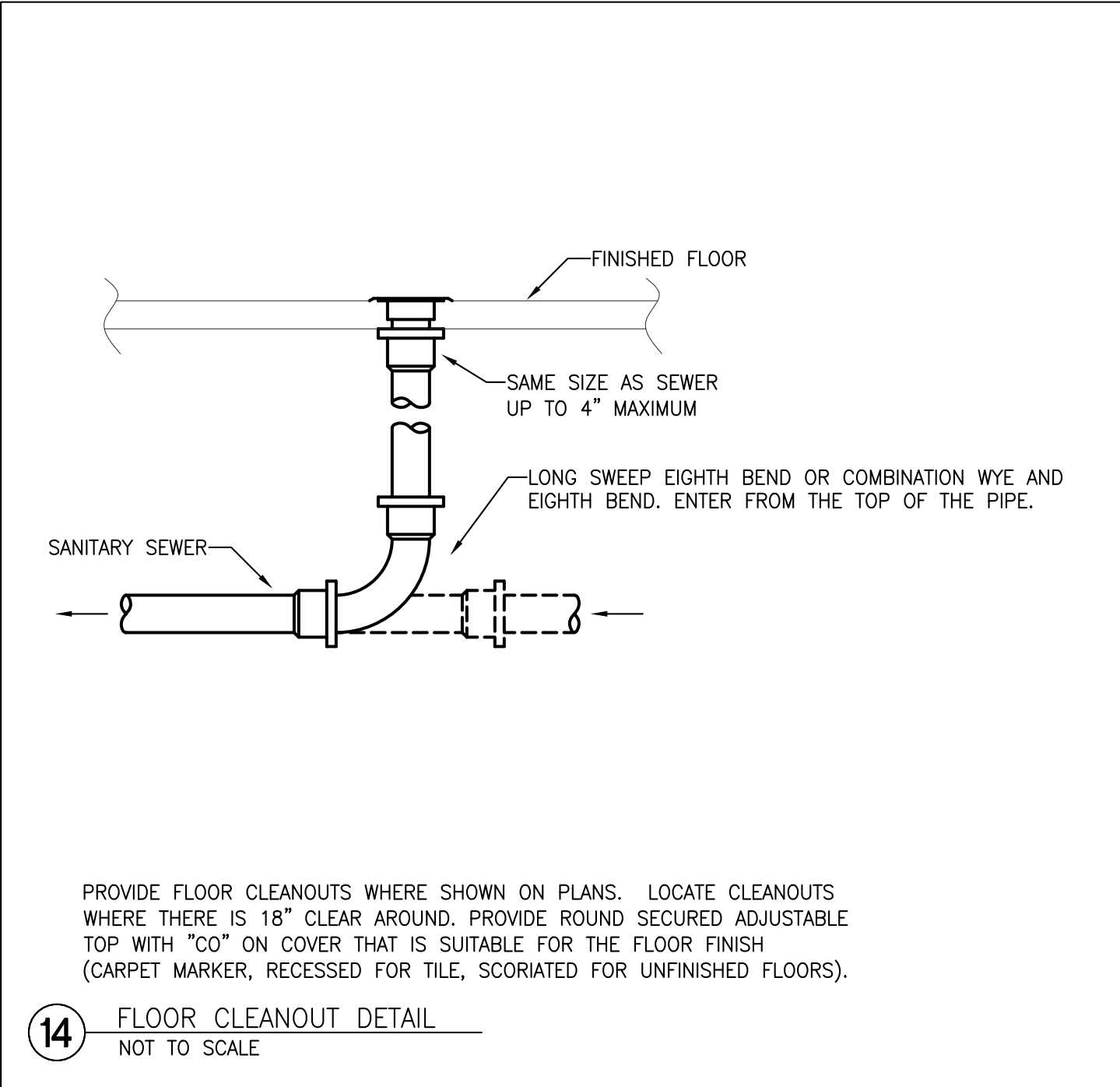
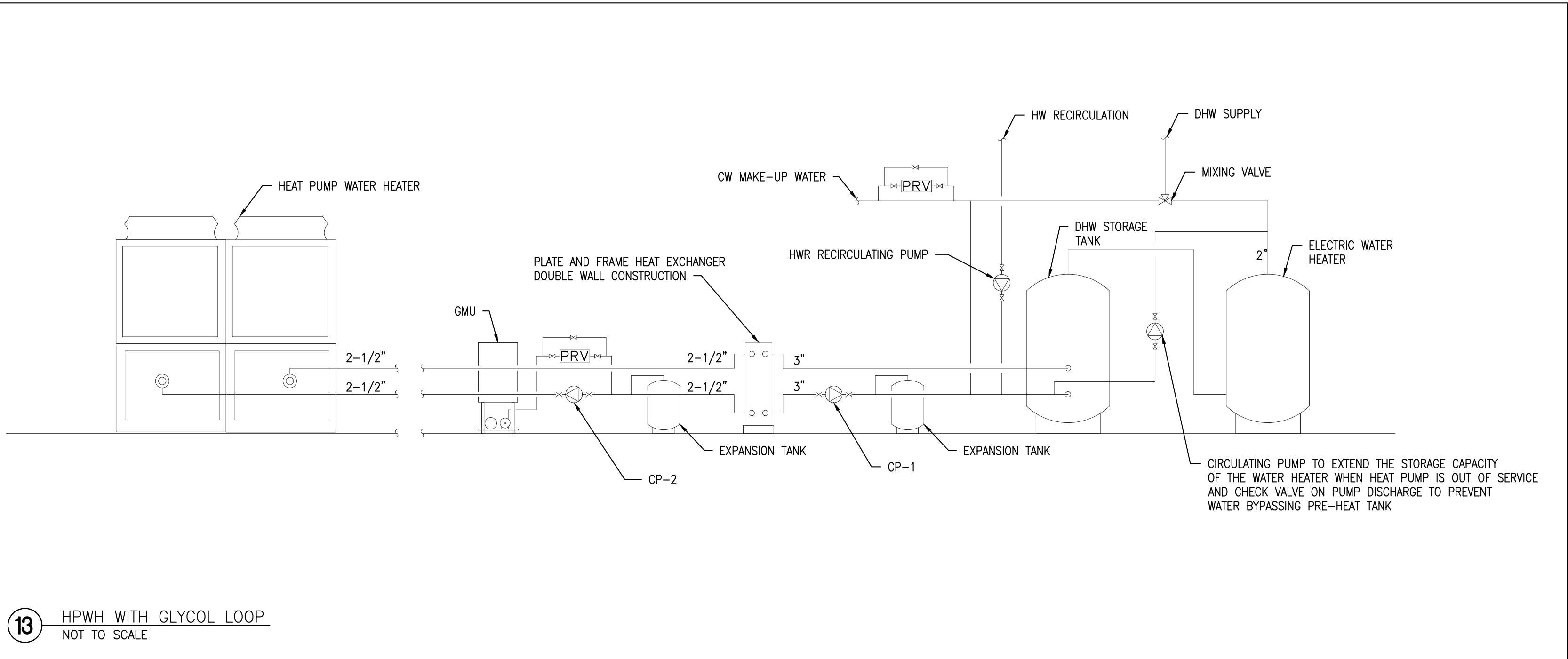
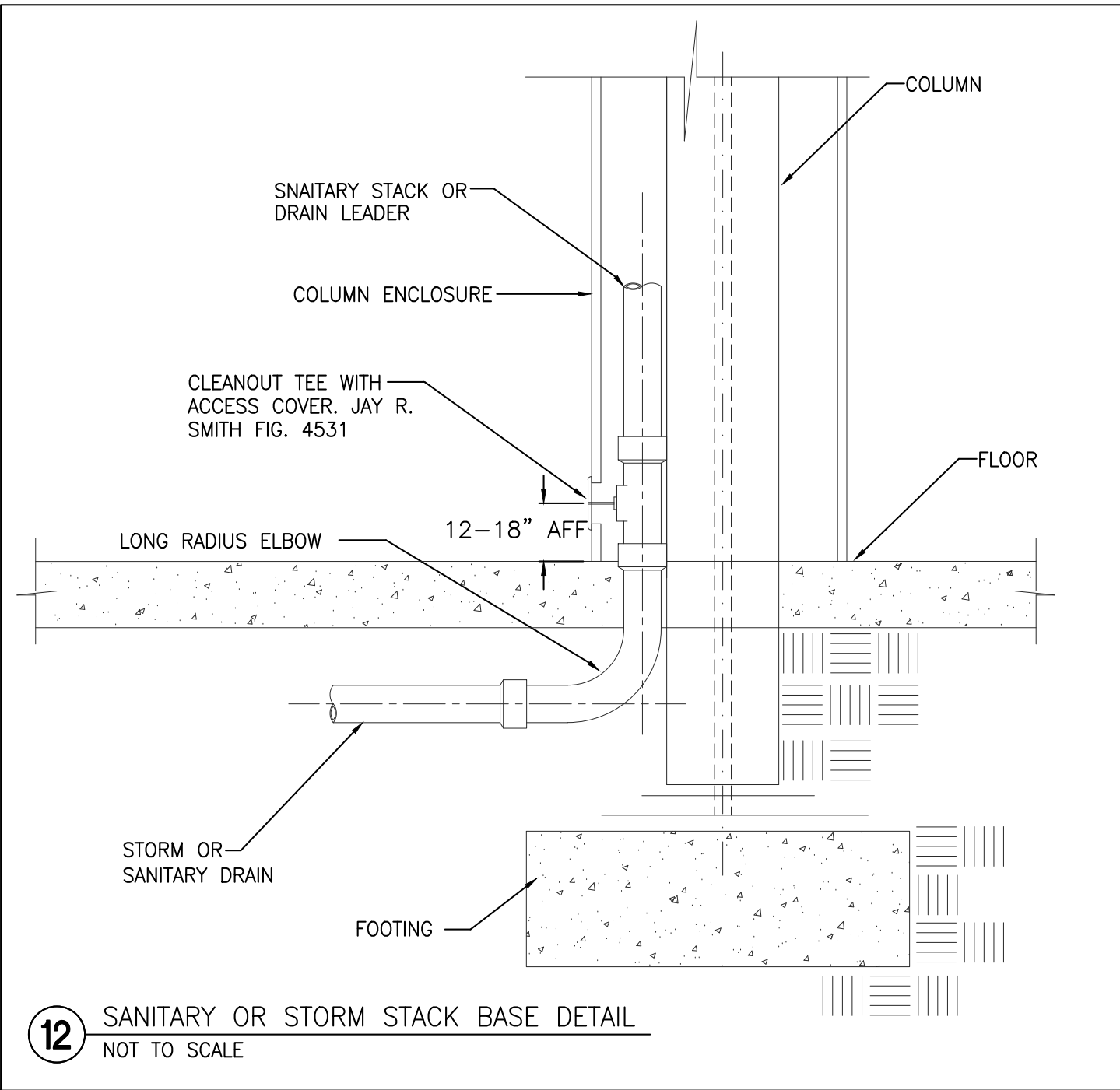
Sheet Title:
**PLUMBING SPECIFICATION
SHEET**

Seal & Signature	Date:	07-18-2016
	Scale:	AS NOTED
	Job#:	2011
	Sheet Title:	P-301

JAMES KHACHATURIAN, P.E. - NY LICENSE #002861-1
NY CERTIFICATE OF AUTHORIZATION #0017124

Sheet: of





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2	Issued For Bid	04-12-2021
1	Issued For Bid	04-05-2021
Rev. #	Revision Description	Date:

Project Description:
PROPOSED MIXED USE BUILDING:
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WHITE PLAINS, NY 10606
Owner/Developer:
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Sheet Title:
PLUMBING DETAILS

Seal & Signature	Date:	07-18-2016
	Scale:	AS NOTED
	Job#:	2011
	Sheet Title:	P-402
JARED KHACHATURIAN, P.E. - NY LICENSE #002861-1 NY CERTIFICATE OF AUTHORIZATION #001224		Sheet: of

PLUMBING FIXTURE SCHEDULE									
TAG	DESCRIPTION	MAKE	MODEL	FAUCET	PIPING CONNECTIONS				COMMENTS
					COLD	HOT	TRAP	VENT	
KS-1	STAINLESS STEEL, UNDERMOUNT, SINGLE COMPARTMENT SINK. FURNISH WITH TOP MOUNT ONE HANDLE ADA FAUCET.	STERLING	MCALLISTER 11600	MOEN GENTA 7882BL	1/2"	1/2"	1½"	1½"	PROVIDE WITH OFFSET TRAP. COORDINATE WITH DISHWASHER INSTALLATION
KS-2	STAINLESS STEEL, UNDERMOUNT, SINGLE COMPARTMENT SINK. FURNISH WITH TOP MOUNT ONE HANDLE ADA FAUCET.	MOEN	G18195	MOEN GENTA 7882BL	1/2"	1/2"	1½"	1½"	PROVIDE WITH OFFSET TRAP. COORDINATE WITH DISHWASHER INSTALLATION
DW-1	DISHWASHER	GENERAL ELECTRIC	GDT225SSLSS		NA	1/2"	VIA KS-1 TAILPIECE	NA	
IM-1	ICE MAKER OUTLET BOX FOR REFRIGERATOR OR COFFEE MAKER. WITH ¼ TURN BALL VALVE OUTLET	IPS	FRIB-12		3/8"	NA	NA	NA	
CWB-1	RECESSED CLOTHES WASHER SUPPLY BOX WITH ¼ TURN BALL VALVES AND 2" STANDPIPE CONNECTION.	IPS	FR-12 WMOB	INCLUDED	1/2"	1/2"	2"	1½"	
LAV-1	WALL MOUNT SELF-RIMMING DROP-IN PORCELAIN SINK WITH AN OVERFLOW, 1.2 GPM MAX FAUCET. ADA COMPLIANT	LACAVA	AQUAQUOTTRO 5211	MOEN RINZA 84629 BL	1/2"	1/2"	1½"	1½"	1.2 GPM AERATOR. PROVIDE CHROME PLATED "P" TRAP CONTRACTOR TO COORDINATE COLOR AND FINISH WITH ARCHITECT DRAWINGS.
LAV-2	WALL MOUNT SELF-RIMMING DROP-IN PORCELAIN SINK WITH AN OVERFLOW, 1.2 GPM MAX FAUCET. ADA COMPLIANT	LACAVA	AQUAQUOTTRO 5214	MOEN RINZA 84629 BL	1/2"	1/2"	1½"	1½"	1.2 GPM AERATOR. PROVIDE CHROME PLATED "P" TRAP CONTRACTOR TO COORDINATE COLOR AND FINISH WITH ARCHITECT DRAWINGS.
LAV-3	WALL MOUNT PORCELAIN SINK WITH AN OVERFLOW 1.2 GPM MAX. ADA COMPLIANT	KOHLER	SOHO K-2084	SLOAN EFX-250-BAT-ISM-CP-0.5GPM-MLM-IR-FCT	1/2"	1/2"	1½"	1½"	BATTERY POWERED, INTEGRATED SIDE MIXER, POLISHED CHROME FINISH, 0.5 GPM, MULTI-LAMINAR SPRAY, INFRARED SENSOR, BASYS BATTERY-POWERED DECK-MOUNTED FAUCET. PROVIDE ASSE 1070 MIXING VALVE
WC-1	ADA COMPLIANT ELONGATED, WATER CLOSET WITH 1.6 GPF FLUSH. FLOOR OUTLET	KOHLER	PERSUADE CURV K-75790-0		1/2"	NA	INTEGRAL	2"	COORDINATE FLUSH CONTROL LOCATION WITH OPEN SIDE OF WATER CLOSET.
MS-1	DURASTONE FIBERGLASS, CHROME PLATED SERVICE FAUCET WITH WALL BRACE HOSE THREAD ON SPOUT & INTEGRAL VACUUM BREAKER.	MUSTEE	63M	63.600A	1/2"	1/2"	2"	1½"	PROVIDE WITH AMERICAN STANDARD 7798.030 3" TRAP.
BT-1	ADA ADAPTABLE 5' BATHTUB WITH INTEGRAL APRON & ABOVE FLOOR ROUGH IN.	KOHLER	VILLAGER 7-16-0	MOEN RINZA 82628BL	1/2"	1/2"	2"	1½"	
SH-1	36X42 SHOWER RECEPTOR WITH PRESSURE BALANCING VALVE, 2.5 GPM HEAD SHOWER	SWANSTONE	SS- 3642.010	MOEN RINZA 82628BL	1/2"	1/2"	1½"	1½"	COORDINATED DRAIN WITH SHOWER BASE
HB-1	ANIT-SIPHON, AUTOMATIC DRAINING NON FREEZE WALL HYDRANT WITH INTEGRAL BACKFLOW PREVENTER WITH LOCKBOX	COMMON AREA	ZURN	Z1320-EZ	1/2"	NA	NA	NA	COORDINATED DRAIN WITH SHOWER BASE

- NOTES:
- ADA COMPLIANT DESIGNATED FIXTURES SHALL BE INSTALLED TO MEET ICC/ANSI 117.1.
 - PROVIDE ASSE 1070 APPROVED TEMPERATURE LIMITING DEVICE ON ALL NEW HAND WASH AND (LAV) SINKS.
 - FIXTURES ARE BY OWNER/ARCHITECT. CONTRACTOR TO COORDINATE FIXTURE SCHEDULE WITH OWNER/ARCHITECT.

SUMP PUMP SCHEDULE																				
TAG	LOCATION	DISCRPTION	PUMP							SUMP							CONTROLS		COMMENTS	
			MFR.	MODEL	DISCHARGE	HEAD	GPM	HP	VOLTAGE	MFR.	MODEL	MATERIAL	DIA.	DEPTH	INLET	DISCHARGE	VENT	MFR.		MODEL
SP-1	ELEVATOR PIT	SUMP PUMP WITH OIL GUARD SYSTEM	ZOELLER	N153	1½"	20 FT	52	1/2	115	N/A	N/A	N/A	N/A	24"	N/A	N/A	N/A	ZOELLER	10-1526 OIL SMART ALARM PANEL 10-1528 & PUMP SWITCH	PUMP, ALARM PANEL & PUMP SWITCH CAN BE ORDERED AS 940-0013

HEAT PUMP WATER HEATER															
TAG	HEATING CAPACITY AT 68°F (MBTU/KW)	HEATING CAPACITY AT 45°F (MBTU/KW)	HEATING CAPACITY AT 10°F (MBTU/KW)	POWER REQ. (V/PH)	AMP (FLA)	MCA (AMPS)	LENGTH (IN.)	WIDTH (IN.)	HEIGHT (IN.)	WEIGHT (LBS)	WATER CONN. (IN.)	GPM	REFRIGERANT	MANUFACTURER MAKE AND MODEL	COMMENTS
HPWH-1	532/37.3	470/44.8	490/43.2	208/3	194	300	95	51	89	2950	3	122	410A	ICE AIR ccHPWH550-D	-

HOT WATER STORAGE TANK SCHEDULE									
EQUIPMENT NO.	LOCATION	SERVICE	GALLON CAPACITY	TYPE	LININGS	SHIPPING WEIGHT	DIAXH (")	MANUFACTURER MAKE MODEL NUMBER	REMARKS
STO-1	MECHANICAL ROOM	DW HEATING	318	VERTICAL JACKETED	GLASS	987	40X80	LOCHINVAR LOCH-TEMP RJA0318	NOTES 1-2

- NOTES:
- PROVIDE 150 PSI TEMPERATURE AND PRESSURE RELIEF VALVE.
 - SYSTEMS SHALL BE TESTED ACCORDINGLY IN COMPLIANCE WITH ASME PRESSURE VESSEL CODE.

RECIRCULATION PUMP SCHEDULE								
ITEM NO.	DESCRIPTION	MANUFACTURER	MODEL	VOLTAGE	HP	RPM	GPM	FT. HD.
RP-1	DOMESTIC HWR	TACO	IL132B	115/1/60	1/2	1725	20	22

- NOTES:
- RECIRCULATION PUMP IS TO BE PROVIDED WITH AN AQUASTAT TO BE COORDINATED WITH THE LINE TEMPERATURE TO CONTROL PUMP.

CIRCULATION PUMP SCHEDULE									
ITEM NO.	DESCRIPTION	MANUFACTURER	MODEL	VOLTAGE	HP	WEIGHT	RPM	GPM	FT. HD.
CP-1	HPWH-1	BELL & GOSSETT	E-90-2AAC	208/3/60	2	75 LBS	3450	62	45
CP-2	HPWH-1	BELL & GOSSETT	E-90-1.25AAB	208/3/60	3	75 LBS	3600	66	65

- NOTES:
- RECIRCULATION PUMP IS TO BE PROVIDED WITH AN AQUASTAT TO BE COORDINATED WITH THE LINE TEMPERATURE TO CONTROL PUMP.

BACKFLOW PREVENTERS / VACUUM BREAKERS SCHEDULE			
APPLICATION	MFR.	MODEL #	DISCRPTION
WATER SERVICE	ZURN	WILKINS FCIS	REDUCED PRESSURE ZONE ASSEMBLY
DISHWASHER	WATTS	LF288A	ANIT-SIPHON VACUUM BREAKER
WATER HEATER	WATTS	LF7	DUAL CHECK
ICE MAKER	WATTS	LFN9C	DUAL CHECK WITH ATMOSPHERIC VENT
SERVICE SINK	WATTS	8	HOSE CONNECTION VACUUM BREAKER
COFFEE BREWER	WATTS	SD-2	DUAL CHECK ASSE 1022

- NOTES:
- ADDITIONAL BACKFLOW PREVENTER OR VACUUM BREAKERS ARE NOT REQUIRED WHERE SUCH DEVICES ARE INSTALLED INTEGRAL TO THE EQUIPMENT.
 - COORDINATE LOCATION OF 120V CONTROL CIRCUIT FOR WATER SERVICE RPZ.

ELECTRIC HOT WATER HEATER											
TAG	CAPACITY (GAL.)	RECOVERY @ 100°F RISE (GPH)	POWER (kW)	POWER REQ. (V/PH)	AMP (FLA)	DIAMETER (IN.)	HEIGHT (IN.)	WEIGHT (LBS)	WATER CONN. (IN.)	MANUFACTURER MAKE AND MODEL	COMMENTS
EWH-1	300	295	75	208/3	200	40	80	1350	2	LOCHINVAR CHHKkW-300	NOTE 1

- NOTES:
- PROVIDE ALL PIPING ACCESSORIES AND APPURTENANCES AS PER THE HOT WATER HEATER INSTALLATION DETAIL.

EXPANSION TANKS											
SYSTEM TAG	LOCATION	DIAMETER (IN)	HEIGHT (IN)	VOLUME (GAL)	WORKING PRESSURE (PSIG)	ACCEPTANCE VOLUME (GAL)	SYSTEM CONNECTION (IN)	PRESET CHARGE	MANUFACTURER MODEL No.	REMARKS	
ET-1	EWH-1 AREA	22	29 ½	34	125	34	1 ¼	38	AMTROL WELL-X-TROL WX-205P		
ET-2	EWH-1 AREA	22	29 ½	34	125	34	1 ¼	38	AMTROL WELL-X-TROL WX-205P		

GLYCOL MAKE UP UNIT									
ITEM NO.	DESCRIPTION	MANUFACTURER	MODEL	TANK SIZE	DIM.		WEIGHT	PRESSURE RANGE(PSI)	SYSTEM CONNECTION
GMU-1	GLYCOL MAKE UP	BELL & GOSSETT	GMU-30	55 GAL.	58"Hx30"W		160 LBS	3-30	3/4" NPT

- NOTES:
- THE GMU AUTOMATICALLY MAINTAINS MINIMUM SYSTEM PRESSURE.
 - GLYCOL ADDITION IS CONTROLLED BY A PRESSURE SWITCH.
 - LOW LEVEL ALARM CONTACT.

PLATE AND FRAME HEAT EXCHANGER SCHEDULE															
TAG	MANUFACTURER	MODEL	LOCATION	SERVICE	CAPACITY MBH	COLD SIDE				HOT SIDE				OPERATING WEIGHT	REMARKS
						GPM	EWI	LWT	WPD	GPM	EWI	LWT	WPD		
HX-1	BELL & GOSSETT	AP19DW	MECHANICAL ROOM	HPHW-1	618	62	115	135.13	10.0	100	140	127	10.0	519	30% PROPYLENE GLYCOL

- NOTES:
- ASME CERTIFIED SECT VII DIV 1 W/U STAMP.
 - HEAT EXCHANGER IS CERTIFIED BY THE AHRI LIQUID TO LIQUID HEAT EXCHANGERS CERTIFICATION PROGRAM BASED ON AHRI STANDARD 400. AHRI CERTIFIED UNITS ARE SUBJECT TO RIGOROUS AND CONTINUOUS TESTING, HAVE PERFORMANCE RATINGS INDEPENDENTLY MEASURED AND ARE THIRD PARTY VERIFIED.

FLOOR DRAIN SCHEDULE								
TAG	DESCRIPTION	LOCATION	MAKE	MODEL	REMARK	OUTLET SIZE	TRAP SEAL	TRAP PRIMER
FD-1	FLOOR DRAIN	MECHANICAL ROOMS	ZURN	Z415BF	ROUND STRAINER CI	2"	4"	NO
FD-2	FLOOR DRAIN	CLOTHES WASHER PAN	ZURN	FD2210	ROUND	2"	-	NO
DD-1	DECK DRAIN	PARKING AREAS	ZURN	Z534	12" HEAVY-DUTY PARKING DECK DRAIN	6"	N/A	N/A
RD-1	ROOF DRAIN	ROOF/OVERFLOW DRAIN	ZURN	Z164	12"Ø ROOF DRAIN W/ OVERFLOW	4" / 6"	N/A	N/A

- NOTES:
- ALL TRAPPED FLOOR DRAINS SHALL BE INSTALLED WITH AN ASSE 1072 TRAP SEAL PROTECTION DEVICE.

WATER HAMMER/SHOCK ARRESTOR SCHEDULE				
TAG	FIGURE NO.	SFU RATING	SIZE	HEIGHT
SA-1	5005	1-11	3/4"	4"
SA-2	5010	12-32	1"	5"

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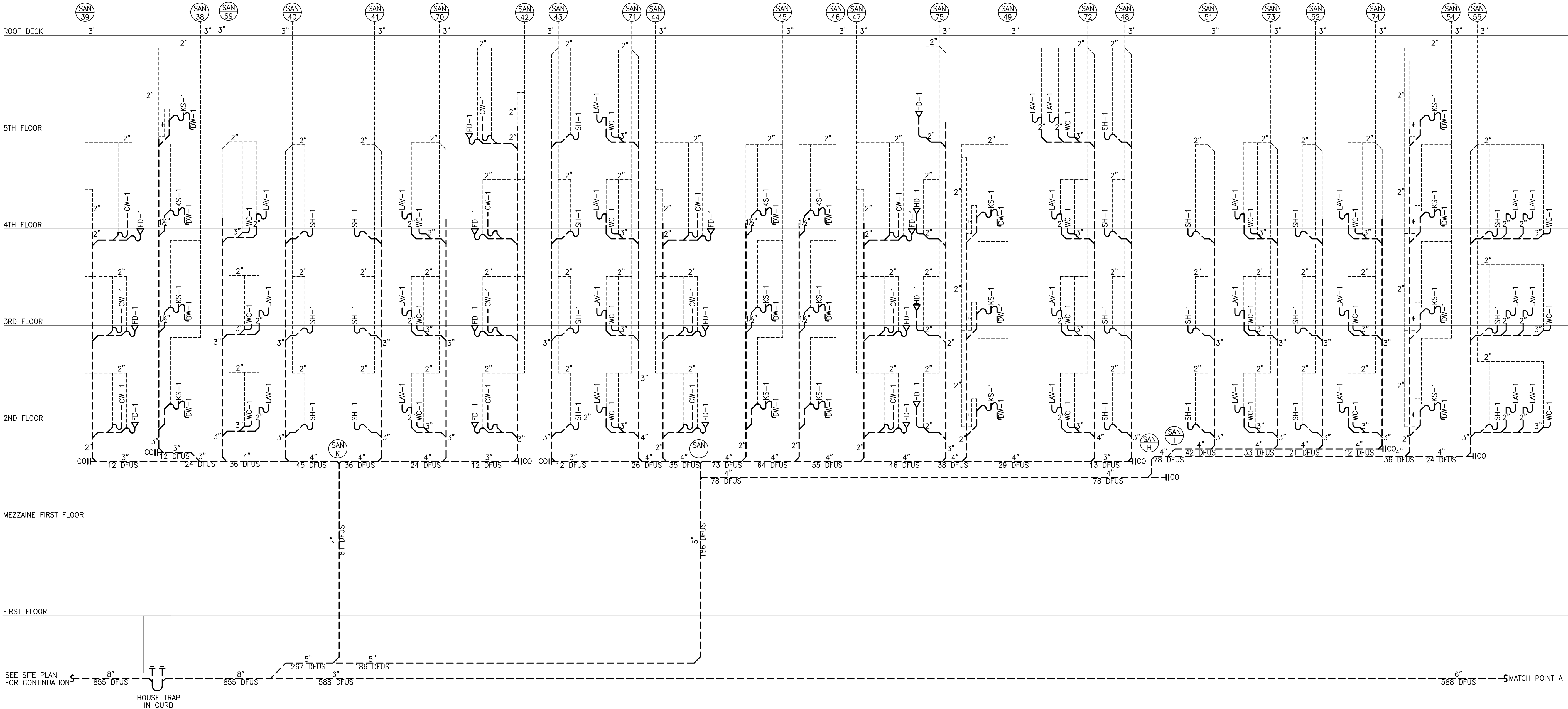
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PLUMBING SANITARY RISER 1

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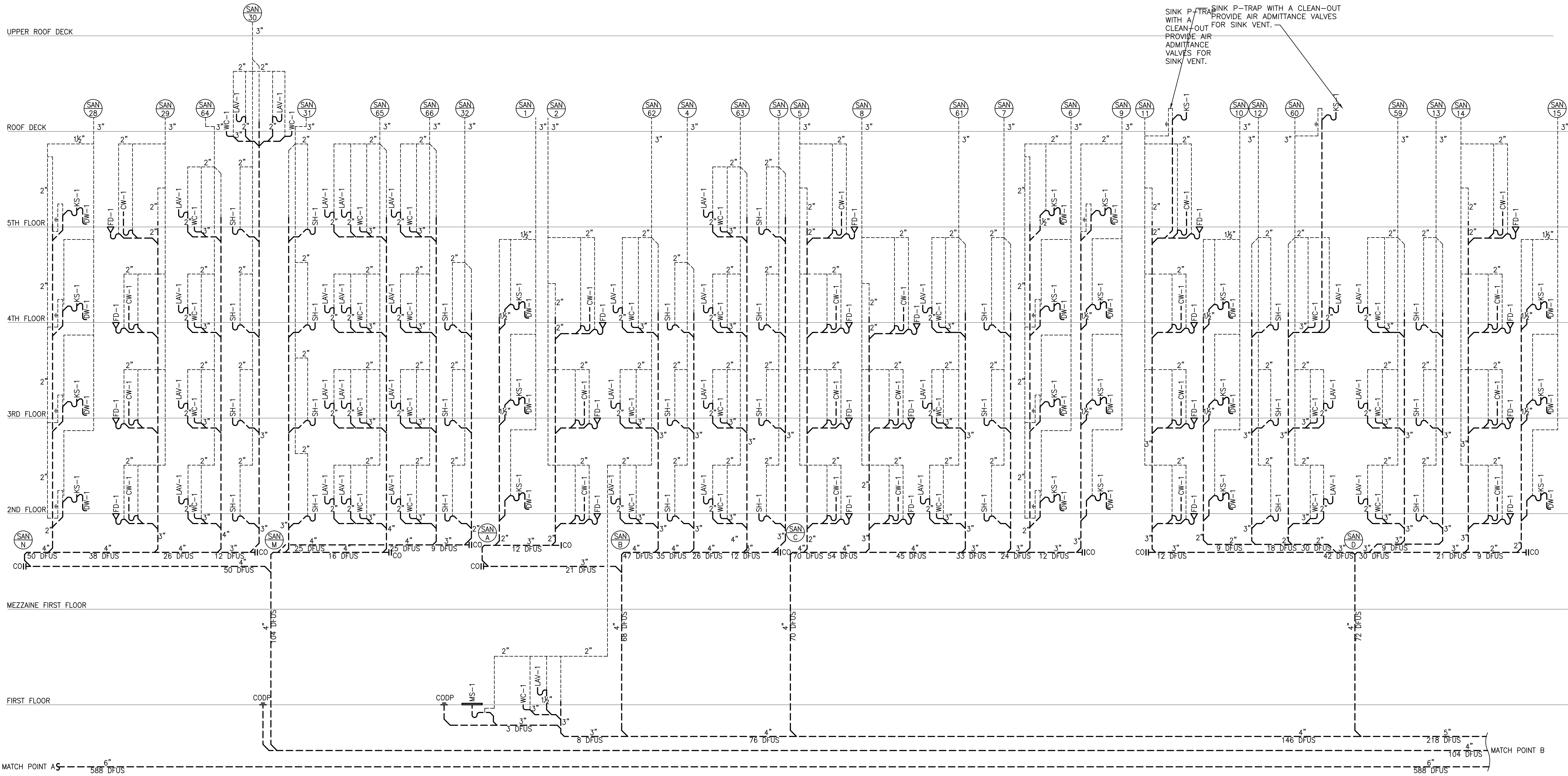
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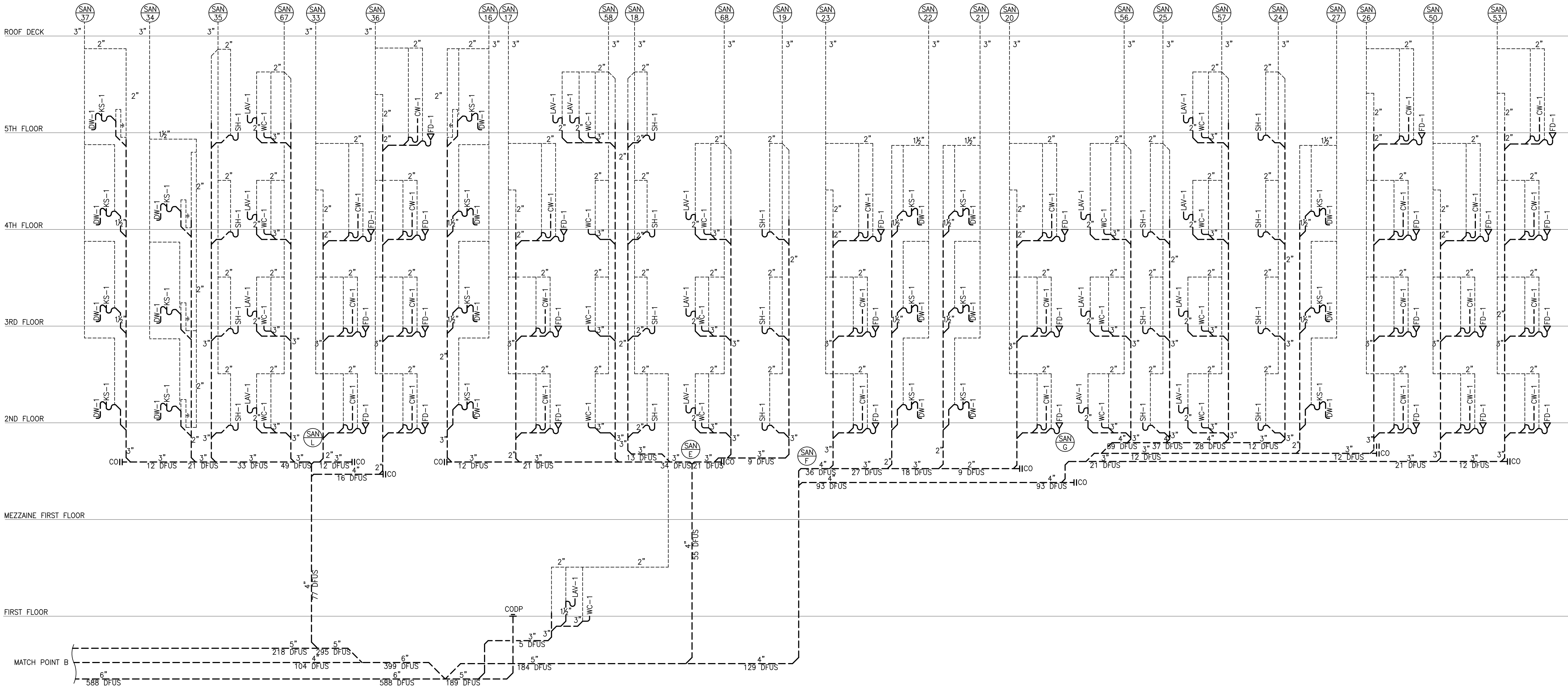
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PLUMBING SANITARY RISER 3

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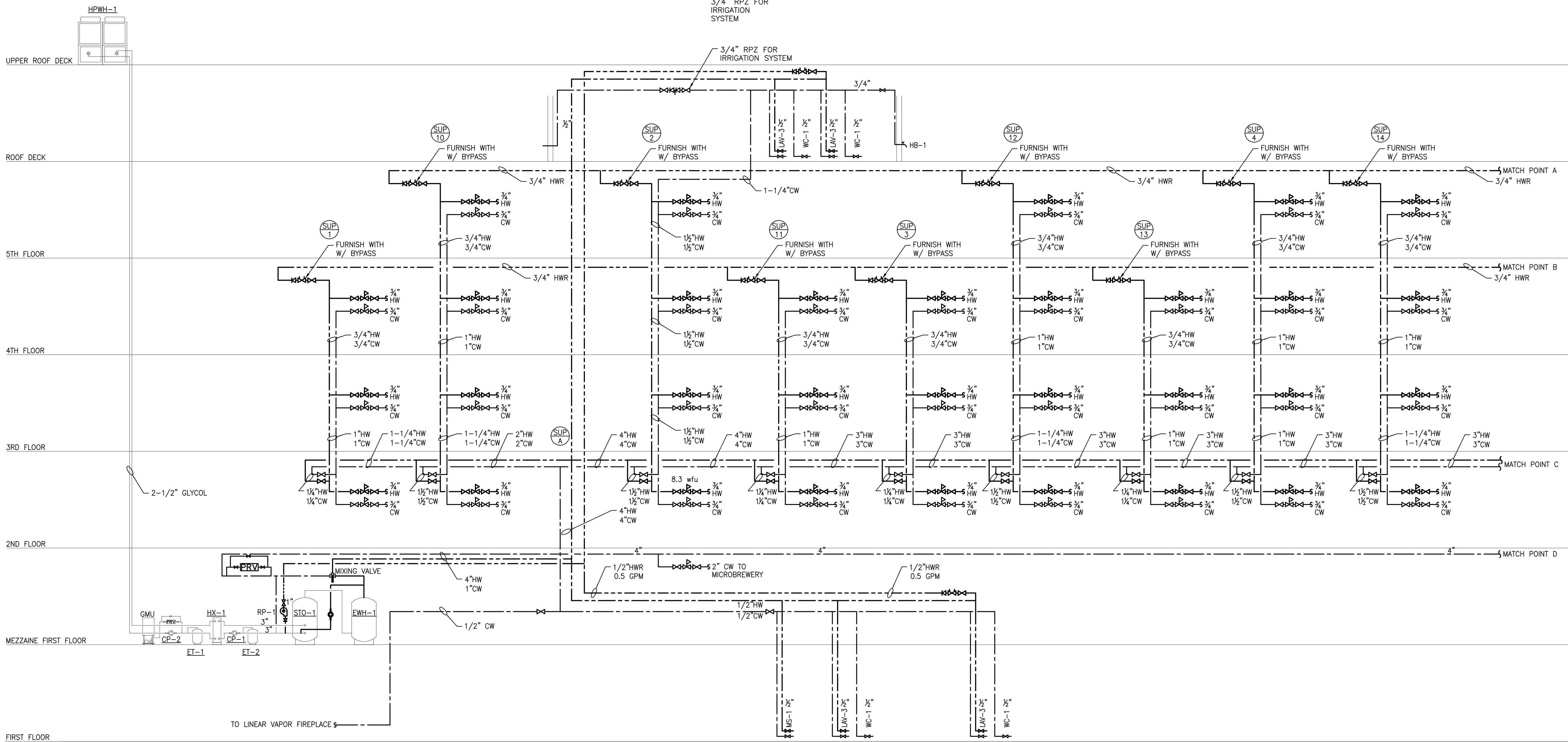
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PLUMBING DOMESTIC WATER RISER 1

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DOMESTIC WATER PRESSURE REQUIREMENTS	
MIN PRESS TOP FLOOR	30 PSI
VERTICAL PRESS LOSS (74' ELEV)	32 PSI
PIPE FRICTION	
(3.0 PSI/100')(350' LIN. EQ.)	10.5 PSI
METER & RPZ LOSS	15 PSI
	87.5 PSI
SERVICE RESIDUAL PRESSURE	-90 PSI
NO PRESSURE BOOST NEEDED	-2.5 PSI

THE INFORMATION ABOVE IS BASED ON A 2015 FLOW TEST.



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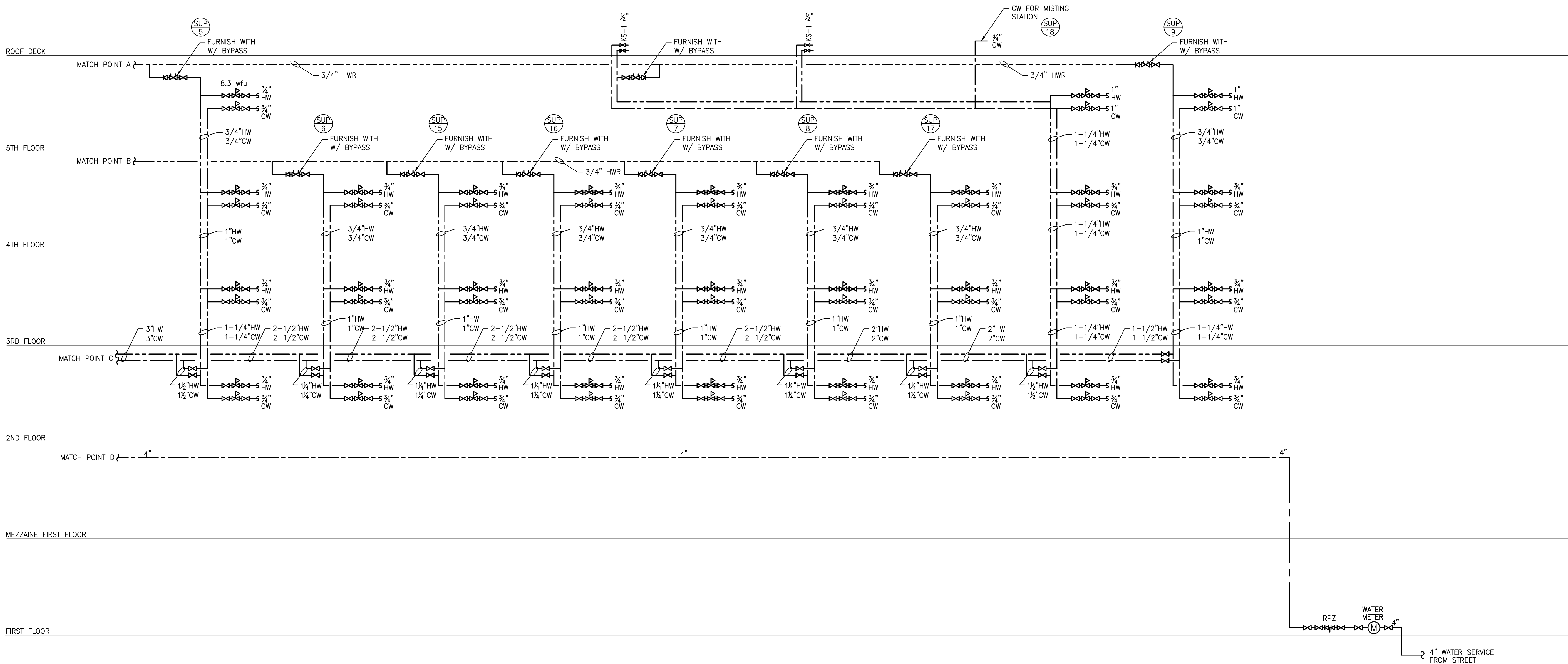
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**PLUMBING DOMESTIC
WATER RISER**

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PLUMBING DOMESTIC WATER RISER

2
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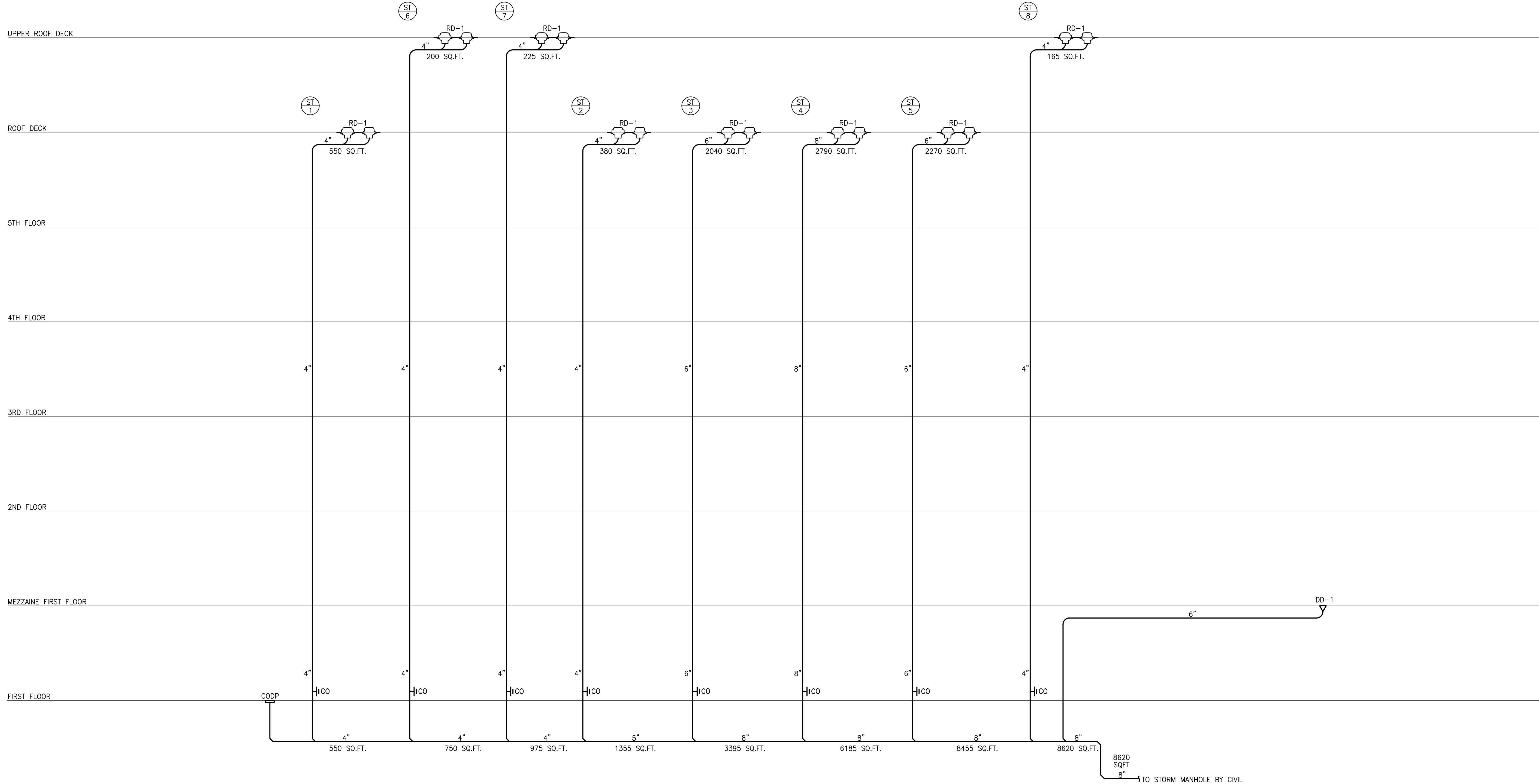
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PLUMBING STORM RISER 1
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UPPER ROOF DECK

ROOF DECK

5TH FLOOR

4TH FLOOR

3RD FLOOR

2ND FLOOR

MEZZAINE FIRST FLOOR

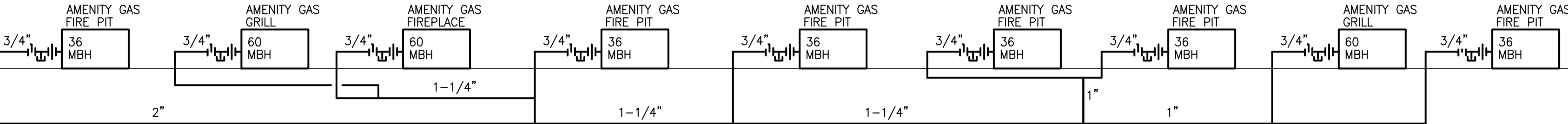
FIRST FLOOR

1" VENT LINE FROM GAS
REGULATOR TO TERMINATE WITH A
GOOSENECK AND INSECT SCREEN
MIN. 3'-0" ABOVE GRADE.

COORDINATE NEW
GAS SERVICE WITH
UTILITY COMPANY

GAS PIPING AND METERS TO BE
MARKED WITH AN APPROVED
PERMANENT IDENTIFICATION.

PROVIDE AND INSTALL 1 HOUSE METER
CAPABLE OF SUPPLYING 396 MBH @
7" WATER COLUMN.



PLUMBING GAS RISER

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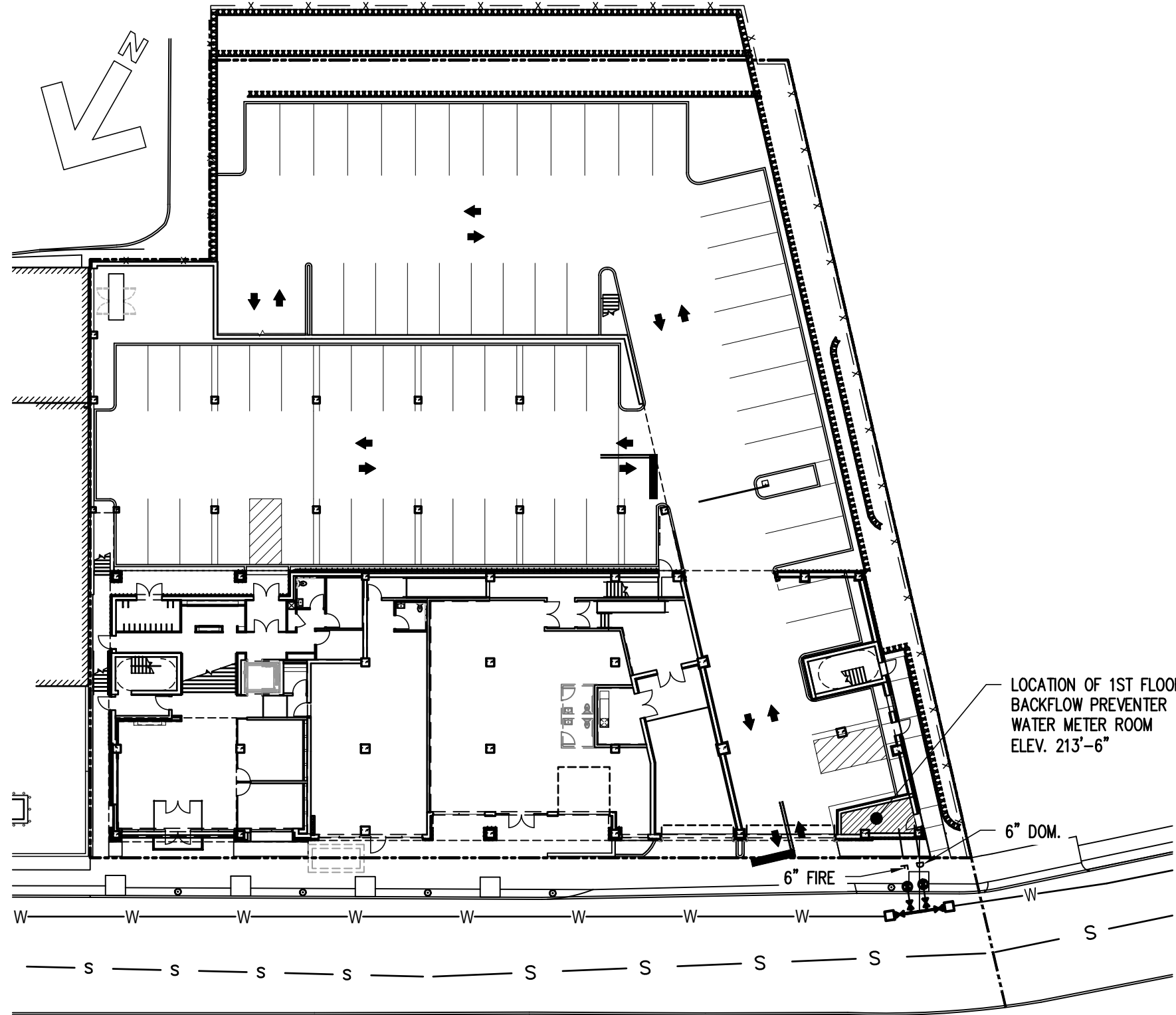
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SITE & UTILITY PLAN
SCALE: N.T.S.

GENERAL NOTES:

1. The Contractor shall inspect the site and verify all existing conditions. Any discrepancies from what is shown on the plans shall be reported to the engineer/architect **immediately**.
2. Installation of backflow prevention assemblies **shall not** commence until owner receives Westchester Co DOH approval. The approved backflow preventers cannot be altered without prior approval from the engineer/architect and WCDOH.
3. The contractor shall obtain all required permits and licenses, related to the backflow device installation. The property owner shall comply with all municipal requirements ie: connection permits etc. No water service connection will be permitted until WCDOH approval is received.
4. The contractor shall furnish and install all materials necessary to complete the work in accordance with the plans and specification and the requirements of the municipality, WCDOH and NYSDOH. Any unforeseen conditions shall be reported to the engineer **immediately**.
5. The drawings are DIAGRAMMATIC and indicate the general location of devices and conditions. Dimensions shown on these plans must be followed as specified.
6. The contractor shall furnish all labor, materials and equipment to install all piping, valves, fittings and specials for the installation of the backflow prevention assemblies as shown on the plans. The pipe (Class 52) and fittings (C110) shall be ductile iron and cement lined or as indicated on the plans.
7. All work shall be performed by a licensed plumber in a workmanship-like manner and comply with all applicable requirements and codes of the municipality.
8. All areas where the devices are located shall be accessible, have adequate light and will not be subjected to freezing or flooding.
9. The contractor shall furnish and install all pipe hanger and supports required to suitably brace piping. All work is to conform to all codes.
10. All valves will be full port ball valves and/or UL/FM resilient seated epoxy gate valves as shown.
11. Once the complete working system has been installed, flushed, and pressure tested, the contractor shall disinfect the system as required by the municipality.
12. The backflow prevention assembly shall be tested after the initial installation by a certified tester (completing Part A of the report) and inspected by the engineer/architect (completing Part B of the report). Thereafter the backflow prevention assembly shall be tested annually by a certified tester. All results shall be reported to the owner, water purveyor and WCDOH by the Engineer. The municipality/water purveyor requires that before the water lines is put into service, the completed "Report on Test and Maintenance of Backflow Prevention Device (Form DOH 1013) must be provided to the Inspector on site. Backflow prevention devices shall be rebuilt every 5 years.
13. No by-pass around backflow preventer is permitted unless the service is protected with an additional approved backflow preventer.
14. If it's necessary to install the backflow prevention assemblies at a height greater than 5'0", then a fixed platform or portable safety ladder meeting the latest OSHA standards shall be provided and stored on the site at all times for testing and maintenance.
15. All exposed piping from the water meter to the backflow device must be marked "FEED LINE TO BACKFLOW PREVENTER--DO NOT TAP" at 5 foot intervals.
16. Water meters are furnished by the city where taps are 2" and less and furnished by the property owner where taps are greater than 2".

SPECIAL NOTES:

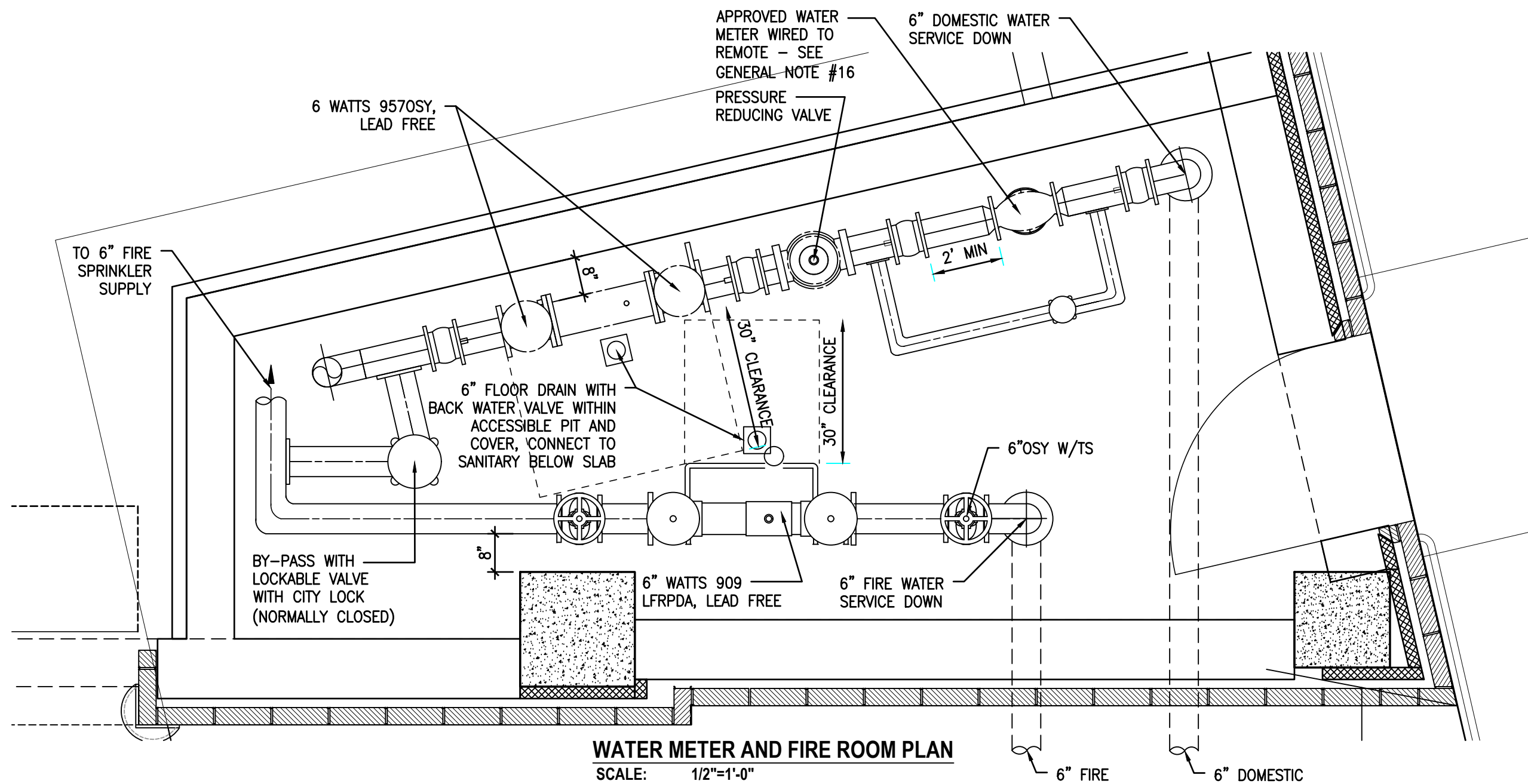
1. The Contractor shall connect an approved drain line with funnel, "P" trap and backwater valve when connecting to a sanitary sewer system or an approved drain line with funnel, backwater valve and rodent screen when discharging to the exterior or into a drainage system as per plan. To handle a catastrophic discharge event, a 6" drain pipe shall flow into a proposed 6" floor drain.
2. The "air gap" shown on the plans shall be from the bottom of the relief port on the backflow preventer to the rim of the funnel. Manufactured "air gap" fitting **shall not** be permitted. The proposed funnel adopted shall be centered under the relief port of the backflow preventer.
3. The backflow prevented shall be installed as shown on the plan or as follows:
 - a. 24" min clearance above device to any closest obstruction for servicing
 - b. 8" min clearance behind device to any closest obstruction
 - c. 30" min clearance in front of device to any closest obstruction
 - d. 30 min to 60 max from finish floor to center line of BPD (refer to Gen. Note#14)
 - e. 24" min clearance above device to ceiling
 - f. 18" min clearance from the bottom of the relief port and the finish floor
 - g. The size of the relief port is 2" for the proposed 6" Watts 957 OSY
 - h. The air gap = 2 x the relief port (2" min or as shown on the plan.)
 - i. The air gap for the proposed 6" Watts 957 OSY shall be 4"

CONSTRUCTION NOTE:

1. The Contractor shall install a 6" Watts Series 97FB-CI strainer where shown on the plan.
2. The Contractor shall mark on all piping "FEED LINE TO BACKFLOW PREVENTOR--DO NOT TAP" at 5-foot intervals. Heat trace and insulate any piping susceptible to freezing.

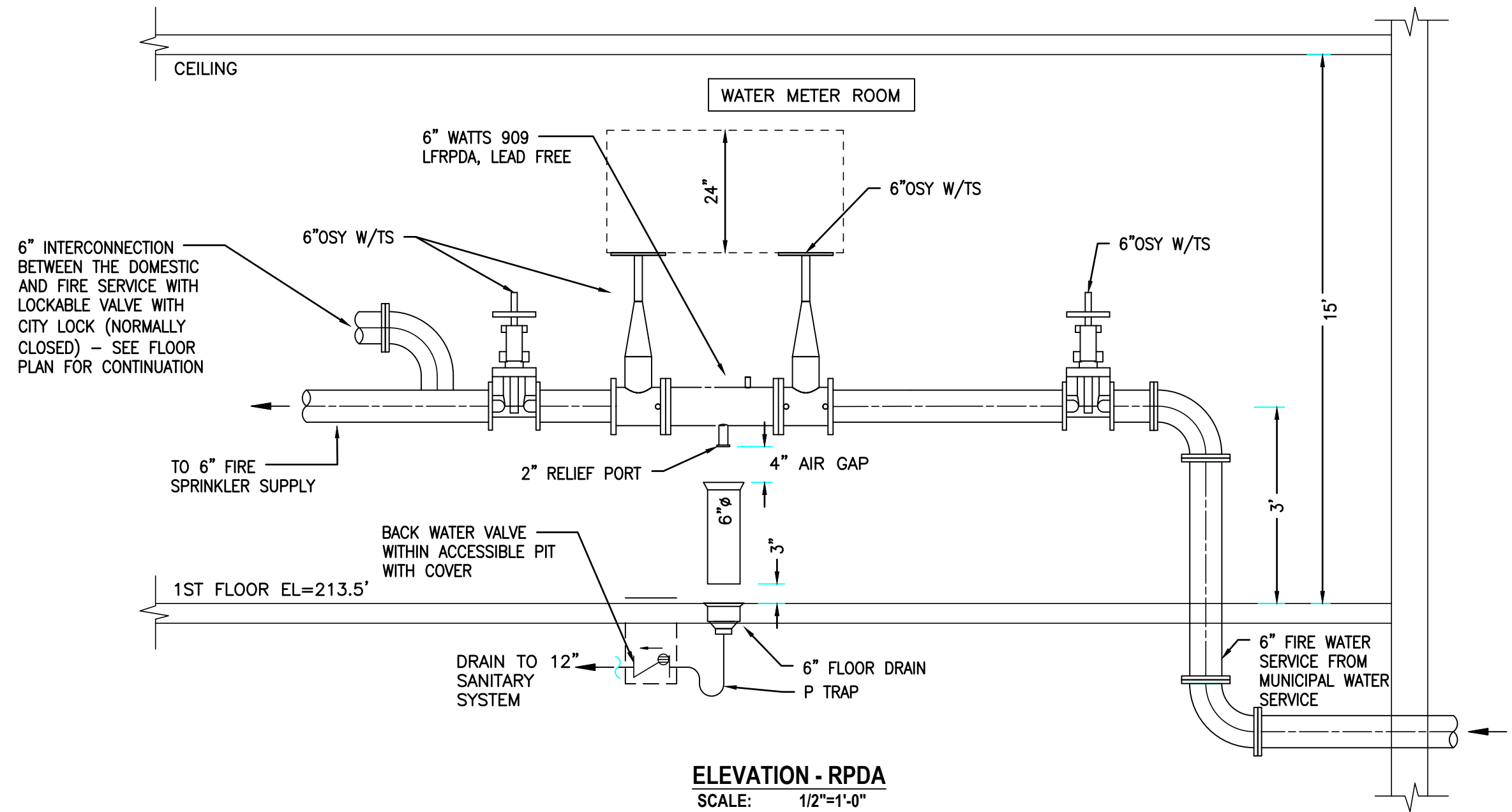
LEGEND

1. Ex./Prop	Existing/Proposed	17. Str	Strainer
2. WS	Domestic Water Service	18. DS	Drain Pipe Service
3. FS	Fire Service Line	19. PT	P-Trap
4. WM	Water Main	20. IP/VICT	Iron Pipe/Victaulic
5. RPZ	Reduced Pressure Zone Assembly	21. SS	Sanitary Service
6. DCV	Double Check Valve Assembly	22. CO	Clean Out
7. DCD	Double Check Detector Assembly	23. CV	Check Valve
8. RPD	Reduced Press Detector Assembly	24. OSY	Outside Stern & Yoke Valve
9. AG	Air Gap	25. GV/BV	Gate Valve/Ball Valve
10. FF	Finish Floor	26. CIP/DIP	Cast Iron/Ductile Iron Pipe
11. TS	Tamper Switch	27. C/L	Cement Lined
12. BPD	Backflow Prevention Device	28. FV	Flap Valve w/ rodent screen
13. BWV	Backwater Valve	29. FD	Floor Drain
14. PRV	Pressure Reducing Valve	30. BV w/ts	Ball Valve w/ tamper switch
15. Cop	Copper	31. LF	LEAD FREE
16. WM	Water Meter		



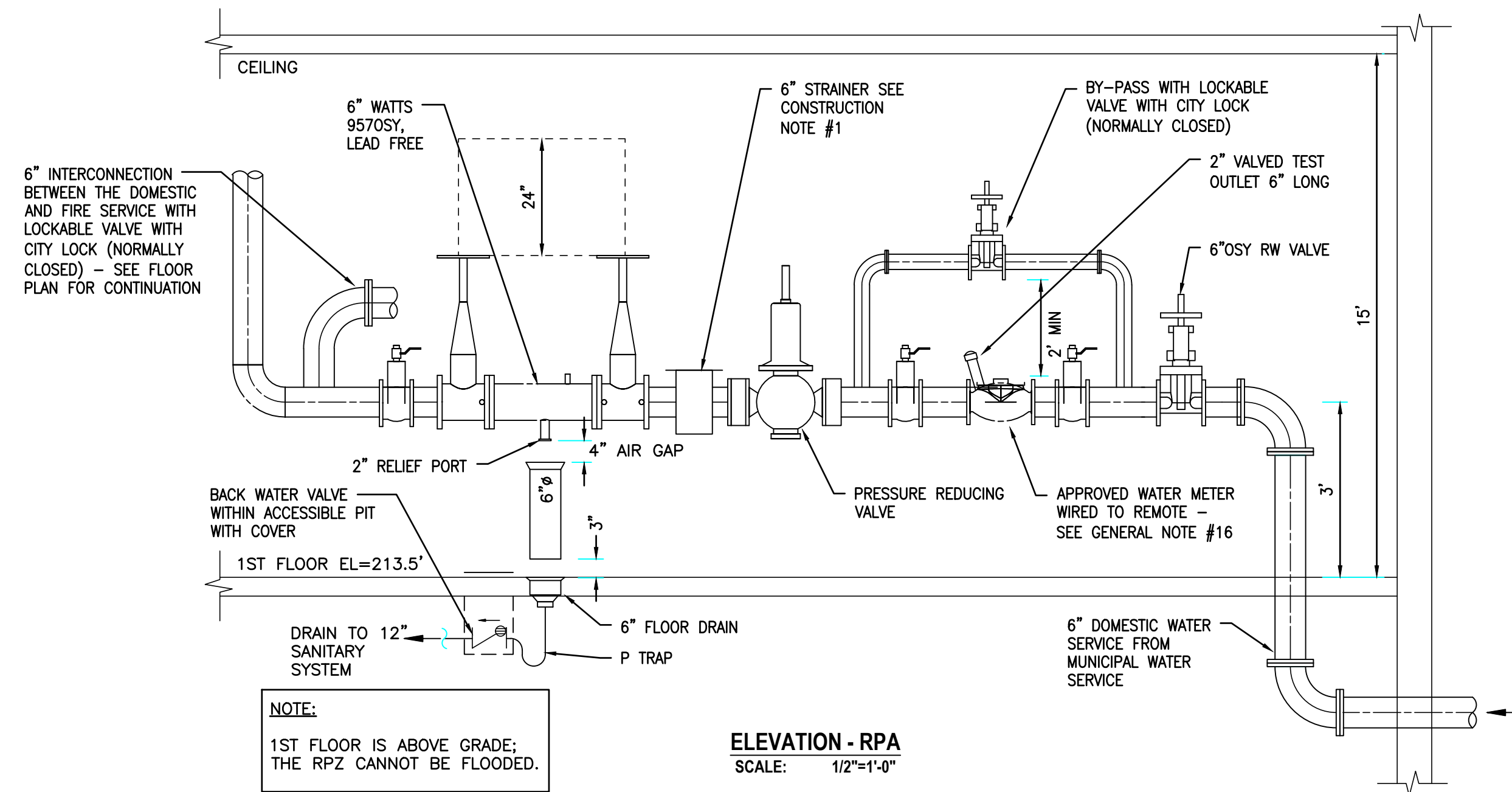
WATER METER AND FIRE ROOM PLAN

SCALE: 1/2"=1'-0"



ELEVATION - RPDA

SCALE: 1/2"=1'-0"



ELEVATION - RPA

SCALE: 1/2"=1'-0"

NOTE:

1ST FLOOR IS ABOVE GRADE:
THE RPZ CANNOT BE FLOODED.

Rev.	Description	Date
1	ISSUED FOR RE-BID	03/22/2022

Project Description:
PROPOSED MIXED USE BUILDING:
WESTMORELAND LOFTS
136-158 WESTMORELAND AVE.
WHITE PLAINS, NY 10606

Owner/Developer:
136-158 WESTMORELAND, LLC
1485 5TH AVENUE, 24F
NEW YORK, NY 10035

Papp Architects
architecture | planning | interiors
188 East Post Road, White Plains, NY 10601
914 949-1851 | www.papparchitects.com

Khachaturian Engineering Associates
Mechanical/Electrical/Plumbing Engineers
186 Wood Avenue South, First Floor
Iselin, NJ 08830
732 635-0044

Sheet Title:
BACKFLOW PREVENTER

Seal & Signature	Date:
	07-18-2016
	Scale:
	AS NOTED
	Job#:
	2011
	Sheet Title:
	BFP-1
	Sheet: — of —