

# WHITE PAPER

GREAT CLIPS

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THE INTELLECTUAL PROPERTY  
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# OVERVIEW OF CHALLENGE IN THE PROJECT

Great clips was in plan to open a new salon at North Carolina in a commercial building which was recently renovated. The salon was getting designed in a white box space with basic utilities such as electrical, water and gas were provided by the base building.

The owner wanted a low cost design and suggested us to utilize existing utility services along with exiting rooftop unit provided by the base building.

## **The four main challenges for us were :**

- 1.To design MEP for Great Clips by keeping existing stores in the same building operational
- 2.Utilize the rooftop space efficiently to place equipment
- 3.Design electrical and plumbing without affecting the electrical and fire safety of other adjacent stores
- 4.Design as per Great Clips standard in a shared building space

YOUR ONE STOP  
SHOP FOR ALL  
MEP DESIGN  
NEEDS

DESIGNED &  
CONCEPTUALIZED BY  
NY-ENGINEERS

# OUR CUSTOM SOLUTION

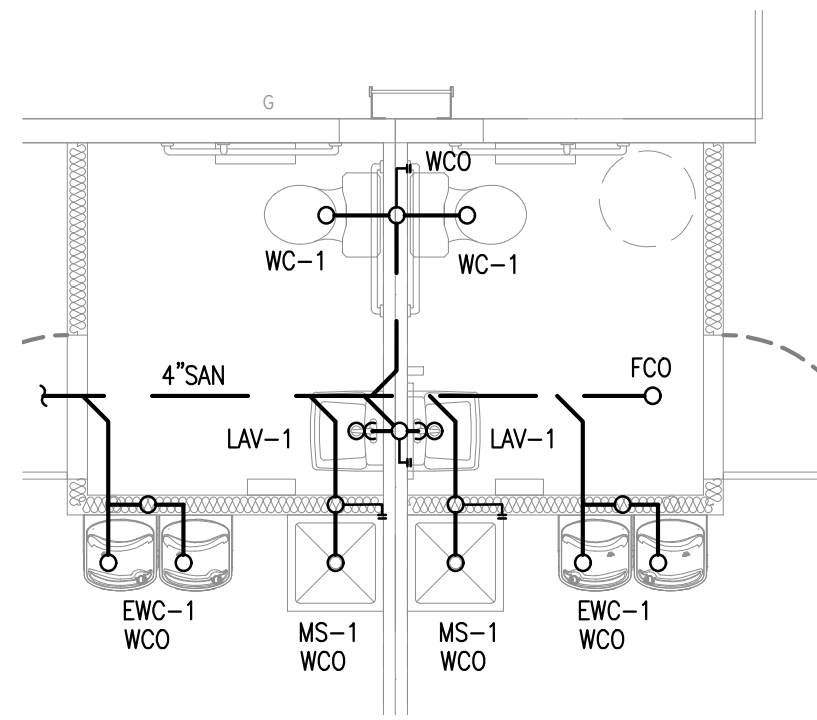
Our team of engineers calculated the new electrical power and water requirements to accommodate in the existing services to meet all local and franchise standards.

To overcome the impact of design on other stores, the team used the best possible routing for gas and water lines by coordinating with all new and existing systems. The power loads for MEP systems was recalculated to save energy cost for Great Clips.

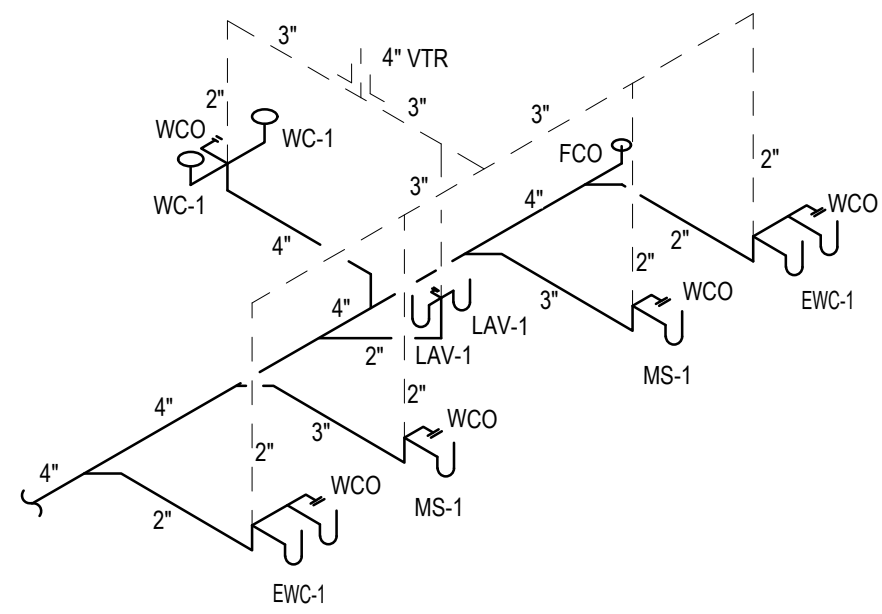
By successfully designing this complicated project, we managed to utilize existing base building services to save the cost for an owner. The entire franchise was designed within 2 weeks in an affordable cost.

**Area** - 1137 Sq. Ft.

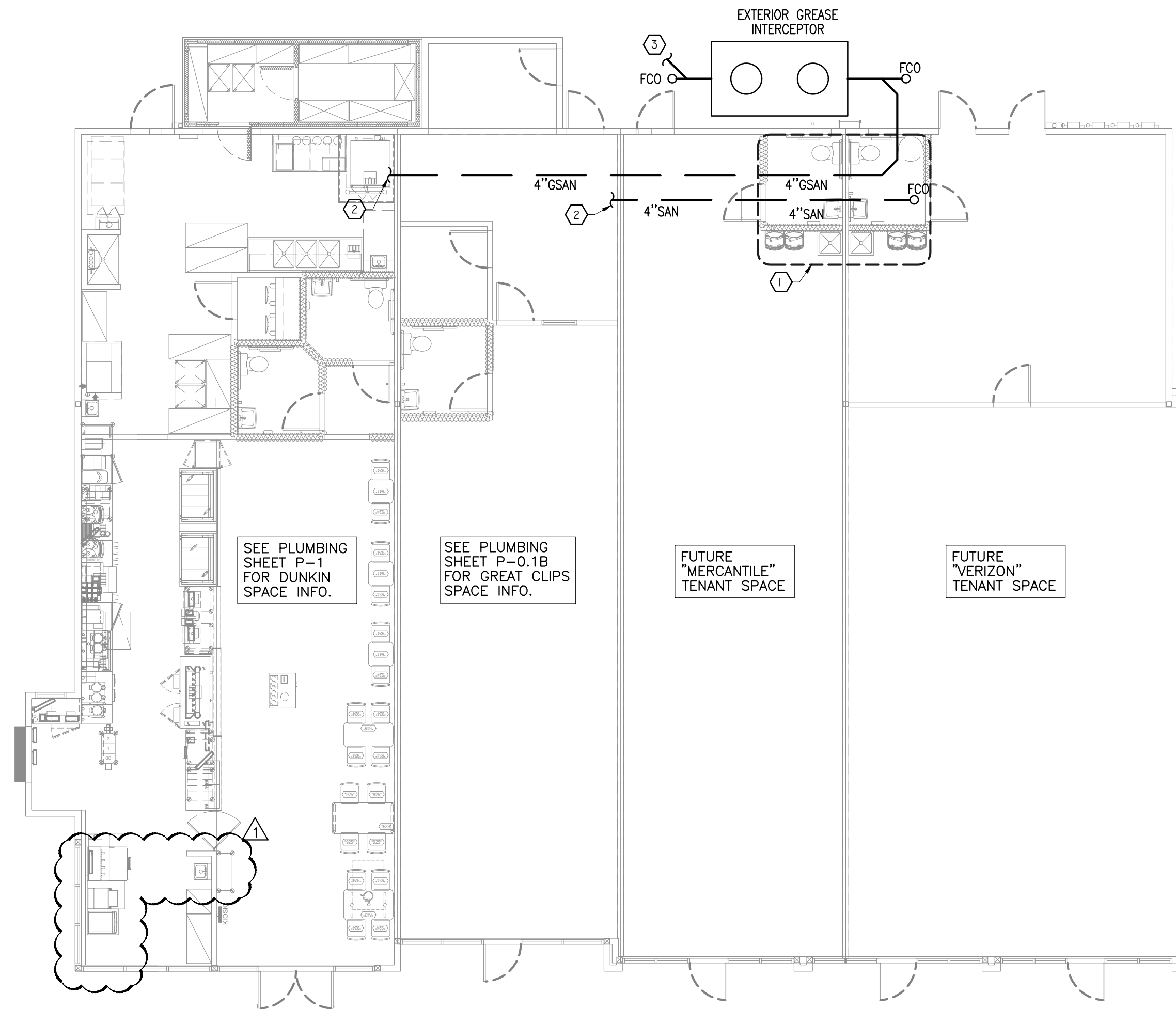
**Services Used** - Electrical & Plumbing



1 ENLARGED FLOOR PLAN - SANITARY  
SCALE: 1/4" = 1'-0"



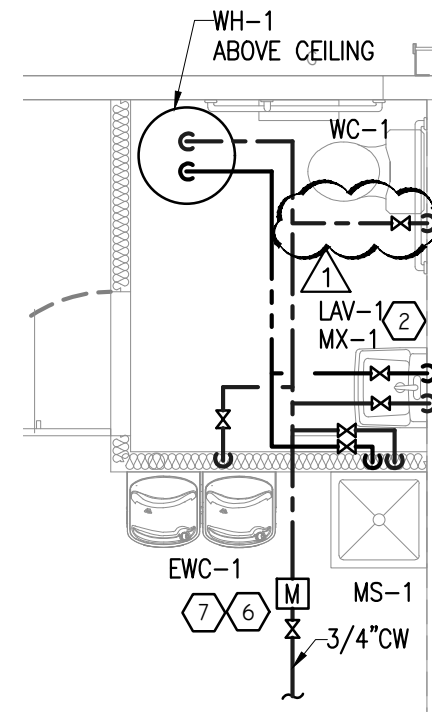
2 SANITARY RISER DIAGRAM  
NTS



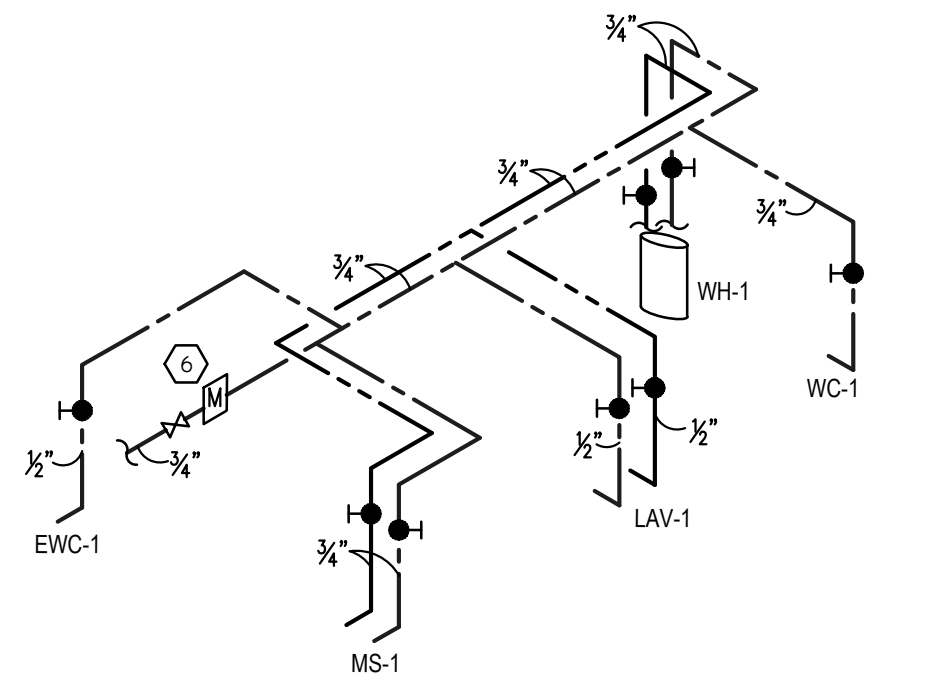
- PLUMBING KEYED NOTES:
- ① SEE ENLARGED SANITARY FLOOR PLAN FOR WORK IN THIS AREA.
  - ② SEE SHEET P-1 AND P-0.1B FOR CONTINUATION.
  - ③ CONNECT TO EXSITING SANITARY LINE.

E1 SANITARY FLOOR PLAN

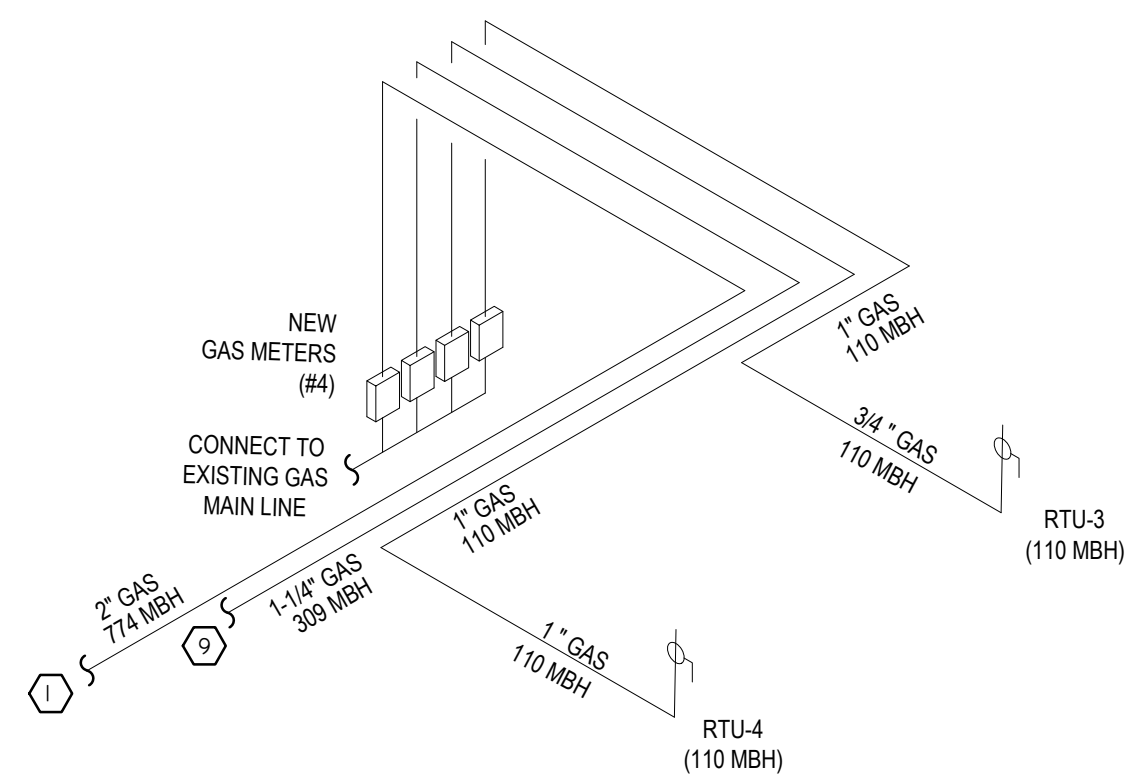
SCALE: 1/8" = 1'-0"



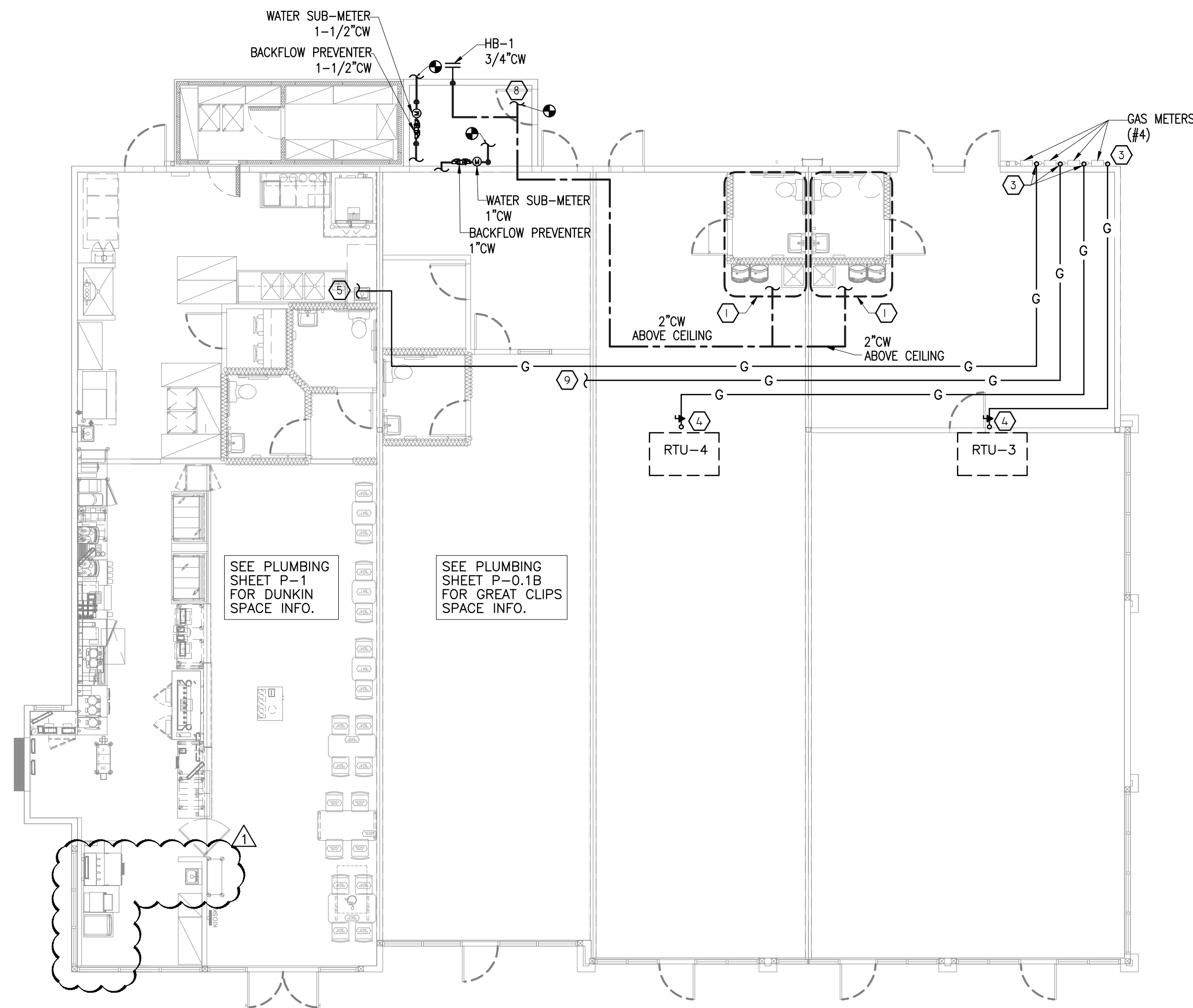
1 ENLARGED FLOOR PLAN - WATER  
SCALE: 1/4" = 1'-0"



2 WATER RISER DIAGRAM  
NTS



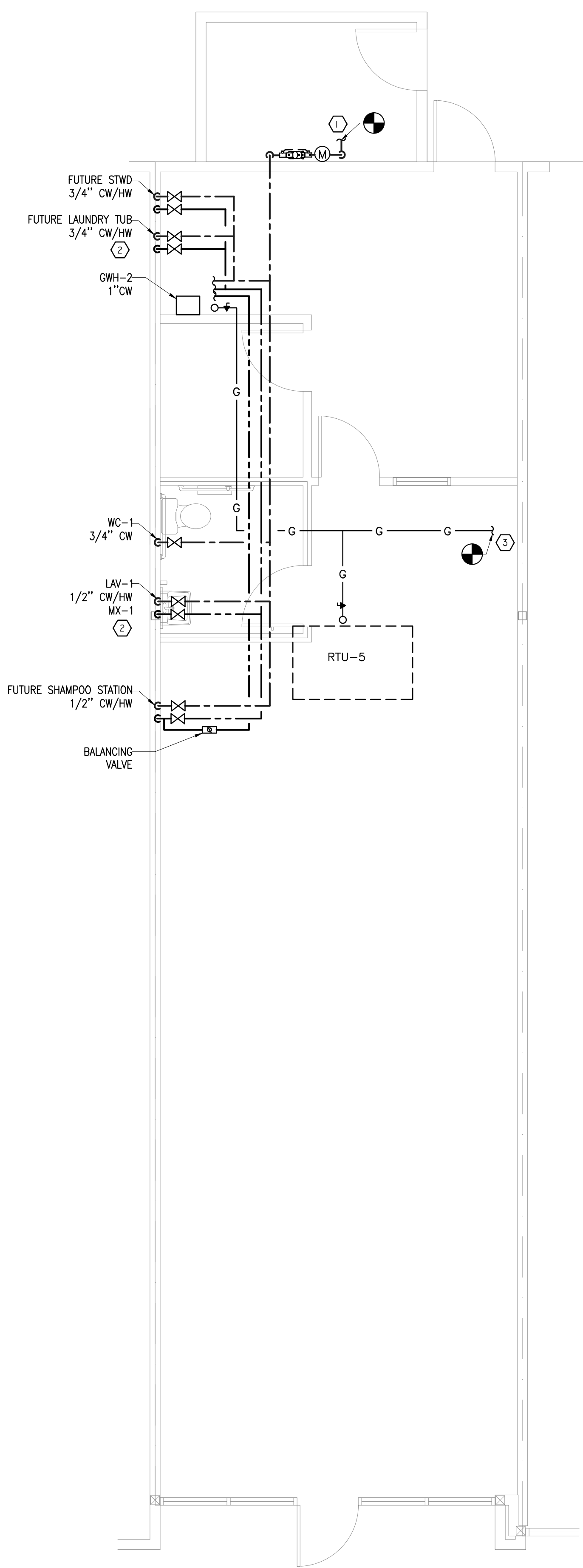
3 GAS RISER DIAGRAM  
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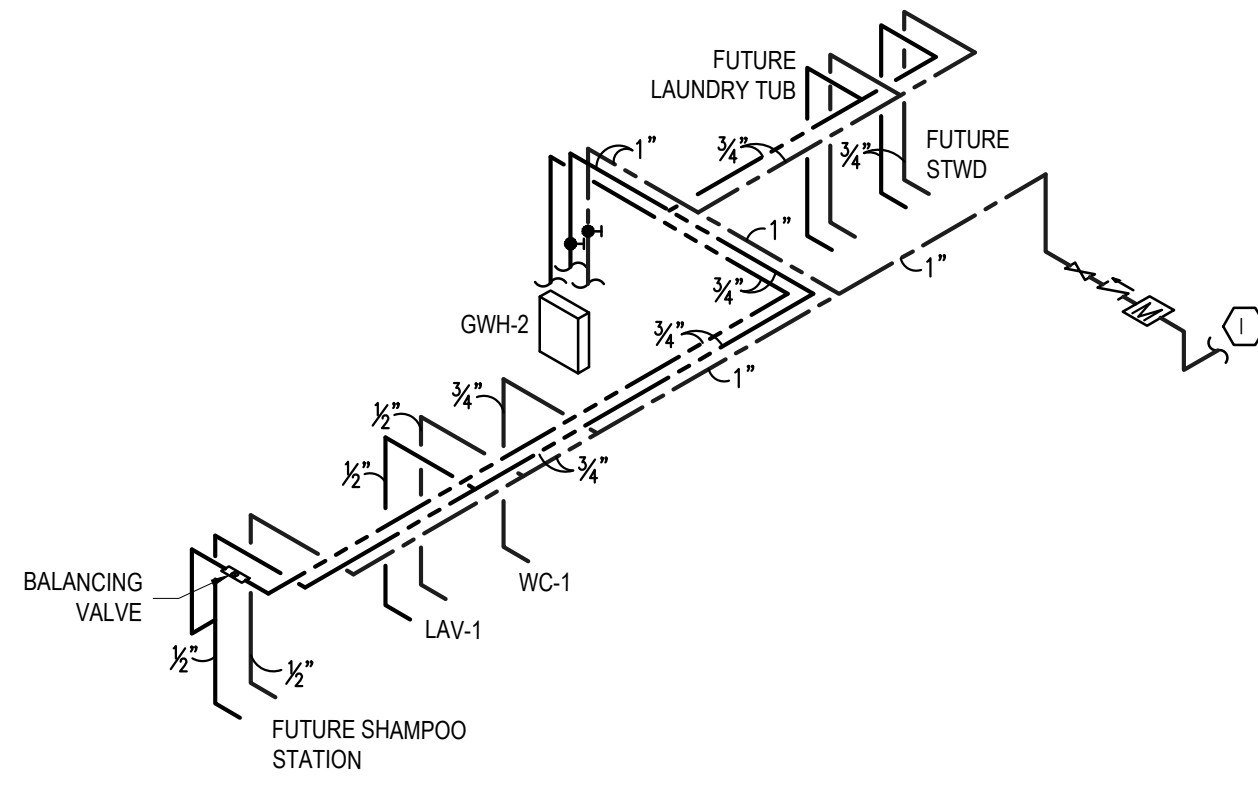
- PLUMBING KEYED NOTES:
- ① SEE ENLARGED FLOOR PLAN FOR WORK IN THIS AREA.
  - ② PROVIDE THERMOSTATIC MIXING VALVES AT ALL LAVATORIES, RACK WASH AND HAND SINKS. SET AT 110° F MAX.
  - ③ ROUTE GAS PIPING UP AND THRU WALL TO ABOVE CEILING. TYPICAL OF 4. CONTRACTOR SHALL VERIFY EXACT LOCATION.
  - ④ ROUTE GAS PIPING UP AND THRU ROOF CURB TO ROOF TOP UNIT. CONTRACTOR SHALL VERIFY EXACT LOCATION.
  - ⑤ 2" GAS PIPING, SEE SHEET P-1A FOR CONTINUATION.
  - ⑥ WATER SUB-METER.
  - ⑦ SUB-METER READER LOCATED ON WALL MOUNTED AT 5'-0" AFF. (TYP OF 3).
  - ⑧ EXTEND AND CONNECT NEW 2" CW PIPING TO EXISTING CW WATER LINE. CONTRACTOR SHALL VERIFY EXACT LOCATION AND SIZE. PROVIDE BFP AS PER LOCAL REGULATIONS.
  - ⑨ 1-1/4" GAS PIPING, SEE SHEET P-0.1B FOR CONTINUATION.

E1 WATER & GAS FLOOR PLAN

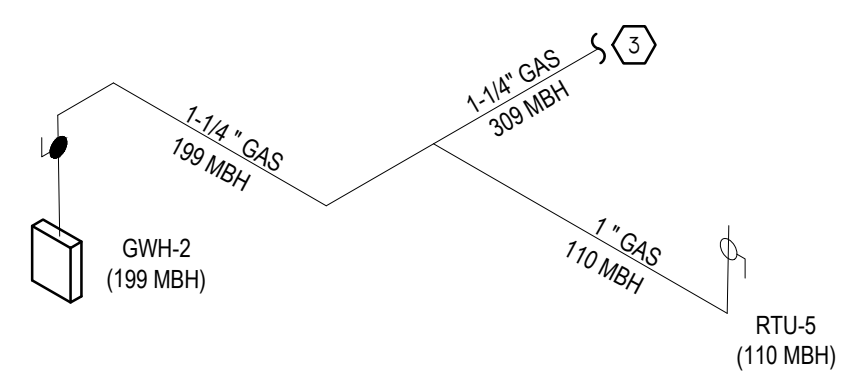
SCALE: 1/8" = 1'-0"



**B1** WATER & GAS FLOOR PLAN  
SCALE: 1/4" = 1'-0"



**1** WATER RISER DIAGRAM  
NTS



**2** GAS RISER DIAGRAM  
NTS

GAS LOAD SUMMARY	
EQUIPMENT	MBH LOAD
WATER HEATER(GWH-2)	199
RTU-5	110
TOTAL LOAD	309

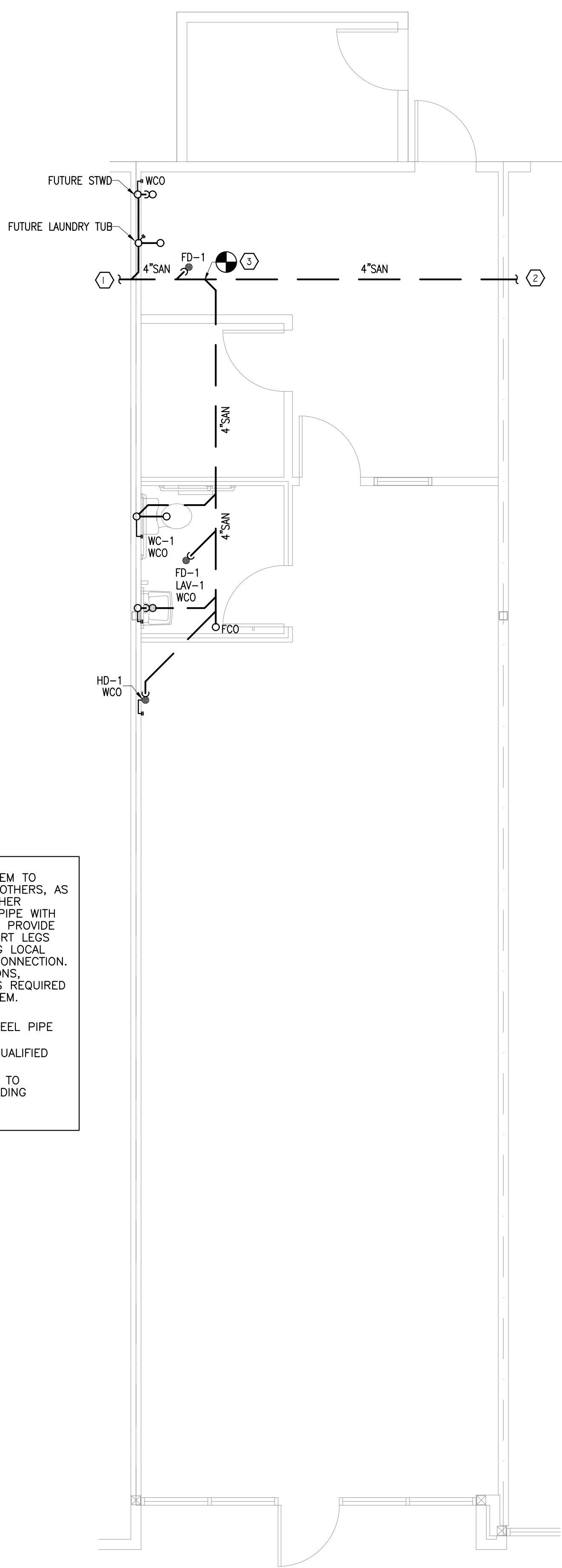
GAS PIPE SIZING PER TABLE 402.4(2)  
—INTERNATIONAL FUEL GAS CODE 2018

GAS INLET PRESSURE— LESS THAN 2 PSI.  
PRESSURE DROP— 0.5"WC  
SPECIFIC GRAVITY— 0.60  
EQUIVALENT LENGTH OF PIPE = 133 FT

**NATURAL GAS PIPING SYSTEM**  
PROVIDE A COMPLETE GAS PIPING SYSTEM TO SERVE GAS EQUIPMENT FURNISHED BY OTHERS, AS NOTED ON THE DRAWINGS. PROVIDE EITHER THREADED STEEL OR MALLEABLE IRON PIPE WITH MALLEABLE FITTINGS OR WELDED STEEL. PROVIDE ALL UNIONS, SHUT-OFF VALVES AND DIRT LEGS REQUIRED BY NFPA-54 AND GOVERNING LOCAL CODES AND AT EACH GAS APPLIANCE CONNECTION. PROVIDE ALL TESTS, METERS, INSPECTIONS, HANGERS AND EQUIPMENT CONNECTIONS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM.

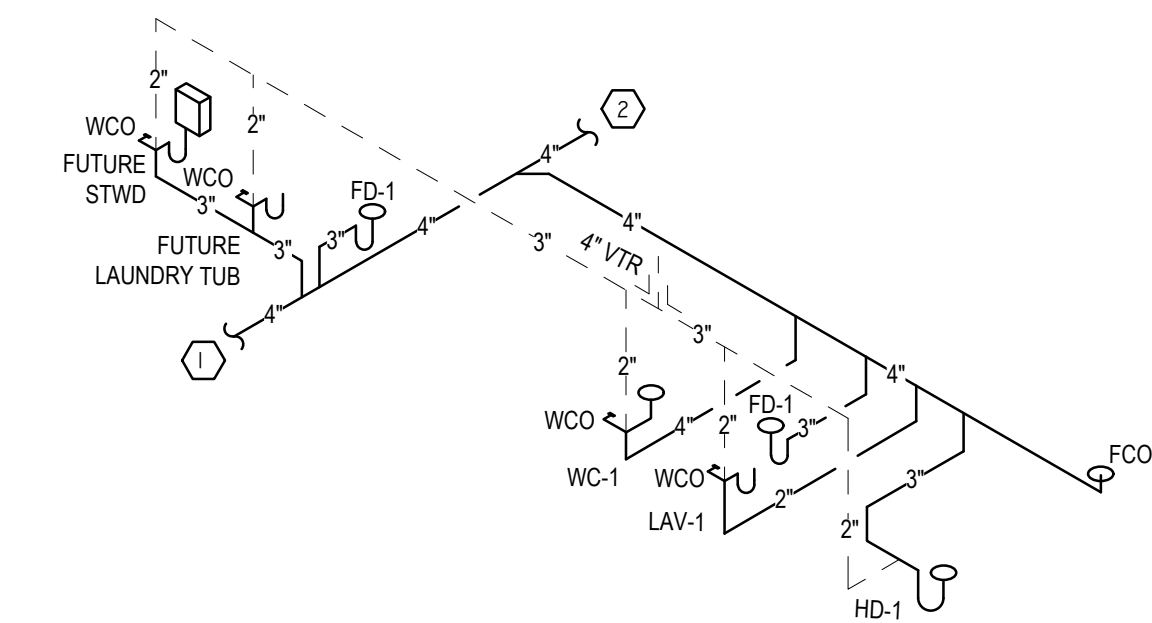
**NOTES:**  
1. GAS PIPING TO BE SCHEDULE 40 STEEL PIPE W/125 CAST IRON SCREW FITTINGS  
2. GAS SYSTEM TO BE INSTALLED BY QUALIFIED LICENSED CONTRACTOR.  
3. VERIFY ALL EQUIPMENT BTU'S PRIOR TO INSTALLATION. ADJUST PIPE SIZE ACCORDING INTERNATIONAL FUEL GAS CODE-2018, TABLE 402.4(2).

- PLUMBING KEYED NOTES:**
- ① EXTEND AND CONNECT NEW 1" CW PIPING TO EXISTING CW WATER LINE. CONTRACTOR SHALL VERIFY EXACT LOCATION AND SIZE. PROVIDE BFP AS PER LOCAL REGULATIONS.
  - ② PROVIDE THERMOSTATIC MIXING VALVES AT LAVATORY AND FUTURE LAUNDRY TUB. SET AT 110° F MAX.
  - ③ CONNECT NEW 1-1/4" GAS PIPING TO EXISTING GAS METER. CONTRACTOR SHALL VERIFY EXACT LOCATION AND CAPACITY OF EXISTING GAS METER, IF REQUIRED.



**K1** SANITARY FLOOR PLAN  
SCALE: 1/4" = 1'-0"

- PLUMBING FIXTURE SCHEDULE:**
- GWH-2: TANKLESS GAS WATER HEATER — WALL MOUNTED TANKLESS GAS FIRED WATER HEATER, NORITZ MODEL NC1991 DVC, INPUT: 199000 BTUH CAPACITY PROVIDE 4.2 GPM @ 80°F TEMPERATURE RISE. THERMAL EFFICIENCY 84%. GAS TYPE—NATURAL GAS. PROVIDE DIRECT VENT FOR INTERIOR MOUNTING AS PER MANUFACTURE'S RECOMMENDATION. CONDENSATE TO BE NEUTRALIZED AND DRAINED AS PER LOCAL CODES.
- SA: SHOCK ABSORBER— SHALL BE J.R.SMITH 5005 THRU 5050 AND SIZED AS RECOMMENDED BY MANUFACTURER.
- MX-1: MIXING VALVE — WATTS USG-B-M2, ASSE 1070.
- TPP: TRAP PRIMER SHALL BE MIFAB MI-300 ELECTRONIC TRAP SEAL PRIMER WITH AIR GAP. DISTRIBUTION UNIT WITH CONTROL PANEL. 120 VAC.
- WCO: WALL CLEAN OUT — ZURN #Z-144, SMOOTH STAINLESS STEEL ACCESS COVER, DURA-COATED CAST IRON BODY. MATCH TO PIPE SIZE.
- HD-1: HUB DRAIN — ZURN, #Z1870, SMOOTH STAINLESS STEEL AND CORROSION RESISTANT. MATCH TO PIPE SIZE.
- FD-1: FLOOR DRAIN — ZURN Z-415-P WITH "TYPE B" ADJUSTABLE STRAINER TOP WITH SQUARE HEELPROOF OPENING AND SECURED GRATE. DURA COATED IRON BODY WITH TRAP PRIMER CONNECTION. MATCH TO PIPE SIZE.



**3** SANITARY RISER DIAGRAM  
NTS

- PLUMBING KEYED NOTES:**
- ① SEE SHEET P-1 FOR CONTINUATION.
  - ② SEE SHEET P-0.1 FOR CONTINUATION.
  - ③ EXTEND AND CONNECT NEW 4" SANITARY PIPING TO SHELL BUILDING SANITARY LINE. CONTRACTOR SHALL VERIFY EXACT SIZE AND LOCATION.