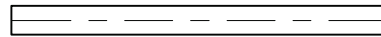
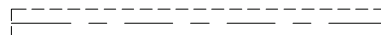
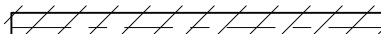
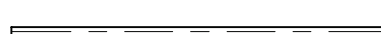







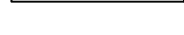
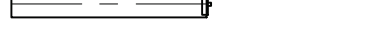





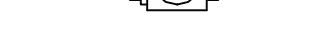














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|   |  |  |              |   |  |               |
|---|--|--|--------------|---|--|---------------|
|   | 1  | 2  | 3            | 4   | 5  | 6             |
| E | SYMBOLS  |  |              | ABBREVIATIONS                                       |  | GENERAL NOTES |
|   | SYMBOL   | DESCRIPTION  | ABBREVIATION | DESCRIPTION   |  |               |
|   |                                 | MAIN PIPING (TYPE OF SERVICE AS SPECIFIED OR NOTED)            | AFF          | ABOVE FINISHED FLOOR                                | <div>1. THE SYMBOLS AND ABBREVIATIONS LIST ON THIS SHEET IS A COMPREHENSIVE STANDARD GUIDE INTENDED FOR GENERAL USE ON ALL PROJECTS. THEREFORE NOT ALL THE SYMBOLS AND ABBREVIATIONS CONTAINED IN THIS LIST ARE NECESSARILY USED ON THIS PARTICULAR PROJECT AND SHOULD BE USED FOR CLARIFICATION ONLY.</div> <div>2. ALL FLOOR DRAINS ARE AT LOW POINTS OF FLOORS AND SHALL BE INSTALLED FLUSH WITH THE FINISHED FLOOR.</div> <div>3. ALL FLOOR DRAINS FOR EQUIPMENT SHALL BE FIELD COORDINATED AND LOCATED ADJACENT TO THE EQUIPMENT PADS IN THE APPROXIMATE LOCATIONS SHOWN ON THE DRAWINGS.</div> <div>4. ALL BRANCH PIPING TO EQUIPMENT OR FIXTURES SHALL BE PROVIDED WITH SHUT-OFF VALVES, WHETHER SHOWN, OR NOT SHOWN ON DRAWINGS.</div> <div>5. ALL PIPING SHALL BE CONCEALED WITHIN WALLS, PIPE SPACES AND HUNG CEILINGS EXCEPT IN MECHANICAL SPACES OR WHERE NOTED.</div> <div>6. CHANGES IN DIRECTION IN DRAINAGE PIPING SHALL BE MADE BY THE USE OF 45 DEGREE ELLS, LONG SWEEPS, 90 DEGREE WYES W/CO'S OR BY A COMBINATION OF EQUIVALENT FITTINGS. THERE SHALL BE NO DOUBLE WYES IN THE HORIZONTAL PLANE.</div> <div>7. SANITARY TEES AND QUARTER BENDS MAY BE USED IN DRAINAGE LINES ONLY WHERE DIRECTION OF FLOW IS FROM HORIZONTAL TO THE VERTICAL.</div> <div>8. ALL VENT RISERS RUN STRAIGHT THROUGH ROOF SHALL HAVE AN APPROVED EXPANSION JOINT SYSTEM INSTALLED BELOW ROOF.</div> <div>9. ALL CONTROL WIRING SHALL BE 120 VOLTS UNLESS OTHERWISE SPECIFIED. TRANSFORMERS SHALL BE PROVIDED WHERE REQUIRED.</div> <div>10. ALL EQUIPMENT AND CONTROL MECHANISMS SHALL BE PIPED THROUGH UNION CONNECTIONS.</div> <div>11. ALL WYE TYPE STRAINERS SHALL HAVE A 3-INCH LONG THREADED NIPPLE, THREADED END BALL VALVE AND PLUG ON BLOWDOWN SIDE.</div> <div>12. ALL DRAINAGE PIPING TO SLOPE AT A MIN. OF 1/8" PER FT UNLESS OTHERWISE NOTED</div> <div>13. AN ACCESSIBLE CLEANOUT SHALL BE PROVIDED AT THE BASE OF EACH SOIL STACK, WASTE STACK AND ROOF LEADER</div> <div>14. ALL HORIZONTAL STORM DRAINAGE PIPING, HOT, COLD AND TEPID WATER PIPING SHALL BE INSULATED.</div> <div>15. TRAPS SHALL BE PROVIDED AT ALL FLOOR DRAINS EXCEPT WHERE NOTED.</div> <div>16. VENT LINES SERVING FLOOR DRAIN HEADERS SHALL BE TAKEN OFF ABOVE THE CENTERLINE OF THE SOIL PIPE, AND THE VENT PIPE SHALL RISE AT AN ANGLE NOT MORE THAN 45°</div> <div>17. ALL EXPOSED PIPING, FITTINGS AND VALVES IN FINISHED WASHROOMS SHALL BE CHROME PLATED</div> <div>18. STORAGE TEMPERATURE OF DOMESTIC HOT WATER SHALL BE 140°F</div> <div>19. ALL FLOOR DRAIN P-TRAPS SHALL BE PROVIDED WITH 1/2" TRAP PRIMER CONN. RUN 1/2" COPPER TUBING FROM TRAP PRIMER VALVE TO ALL FLOOR DRAINS (EXCEPT WHERE NOTED). FIELD ROUTE PIPING IN &amp; BELOW SLAB AS REQ'D. CONTRACTOR SHALL PROVIDE ALL PIPE, FITTING, SUPPORTS AND APPURTENANCES TO COMPLETE THE WORK</div> <div>20. VENT LINES SERVING FLOOR DRAIN HEADERS SHALL BE TAKEN OFF ABOVE THE CENTERLINE OF THE SOIL PIPE AND THE VENT PIPE SHALL RISE AT AN ANGLE NOT MORE THAN 45°</div> <div>21. HOT AND TEPID WATER PIPING SHALL BE ELECTRICALLY HEAT TRACED TO MAINTAIN REQUIRED SPECIFIED WATER TEMPERATURE.</div> <div>22. ALL VENT PIPES SHALL TRANSITION TO 4" PRIOR TO PENETRATING THE ROOF. TRANSITION COUPLINGS SHALL BE NO LESS THAN 12" FROM INSIDE THE BUILDING'S THERMAL ENVELOPE.</div> <div>23. PROVIDE PIPE SLEEVES W/ MECHANICAL LINK SEALS FOR ALL FLOOR, ROOF AND WALL PENETRATIONS.</div> <div>24. REFER TO CODE COMPLIANCE CATEGORY ON ARCHITECTURAL DRAWINGS FOR ADDITIONAL DESIGN INFORMATION REQUIRED UNDER THIS CONTRACT.</div> <div>25. CONTRACTOR SHALL FILE AND OBTAIN ALL PERMITS REQUIRED FOR THE WORK. REFER TO NOTE 7 ON SHEET G-02.</div> |               |
|   |                                 | BELOW SLAB MAIN PIPING (TYPE OF SERVICE AS SPECIFIED OR NOTED) | AN           | ACID NEUTRALIZER                                    |  |               |
|   |                                 | EXISTING PIPING TO BE DEMOLISHED                               | ARCH         | ARCHITECTURAL                                       |  |               |
|   |                                 | BRANCH PIPING (TYPE OF SERVICE AS SPECIFIED OR NOTED)          | AVB          | AUTOMATIC VACUUM BREAKER                            |  |               |
|   |                                 | PIPE RISE, UNLESS OTHERWISE NOTED                              | BFP - DCDA   | BACKFLOW PREVENTER - DOUBLE CHECK DETECTOR ASSEMBLY |  |               |
|   |                                 | PIPE DROP, UNLESS OTHERWISE NOTED                              | BFP - RPZ    | BACKFLOW PREVENTER - REDUCED PRESSURE ZONE ASSEMBLY |  |               |
|   |                                 | BRANCH - TOP OR BOTTOM CONNECTION                              | BOP          | BOTTOM OF PIPE                                      |  |               |
|   |                                 | RISE OR DROP IN RUN OF PIPE                                    | CL           | CENTERLINE  |  |               |
|   |                                 | BRANCH CONNECTION - SIDE                                       | CLG          | CEILING   |  |               |
|   |                                 | CAP ON END OF PIPE   | CO           | CLEANOUT  |  |               |
|   |                                 | VALVE IN VERTICAL  | CONN         | CONNECT/CONNECTION                                  |  |               |
|   |                                 | CLEANOUT PLUG  | CONT         | CONTINUATION  |  |               |
|   |                                 | CONCENTRIC REDUCER   | CW           | COLD WATER  |  |               |
|   |                                 | GATE VALVE (OS&Y)  | DIA          | DIAMETER  |  |               |
|   |                                 | CHECK VALVE  | DN           | DOWN (PENETRATES FLOOR SLAB)                        |  |               |
|   |                                 | BACKWATER VALVE  | DR           | DRAIN   |  |               |
|   |                                 | BALL VALVE   | EL           | ELEVATION   |  |               |
|   |  | WATER METER - 2" & SMALLER                                     | EES          | EMERGENCY EYEWASH AND SHOWER                        |  |               |
|   |                                 | REDUCED PRESSURE ZONE BACKFLOW PREVENTER (BFP-RPZ)             | EWH          | ELECTRIC WATER HEATER                               |  |               |
|   |                                 | FLOOR DRAIN (FD)   | EXIST        | EXISTING  |  |               |
|   |                               | FLOOR CLEANOUT (FCO)   | FCO          | FLOOR CLEANOUT                                      |  |               |
|   |                               | EMERGENCY EYEWASH & SHOWER (EES)                               | FD           | FLOOR DRAIN   |  |               |
|   |                               | CONNECT TO EXISTING  | FIN FL       | FINISHED FLOOR                                      |  |               |
|   |                               | PRESSURE REGULATING VALVE (PRV)                                | GAL          | GALLONS   |  |               |
|   |                               | HOSE BIBB (HB)   | GPH          | GALLONS PER HOUR                                    |  |               |
|   |                               | NON-FREEZE WALL HYDRANT (NFWH)                                 | GPM          | GALLONS PER MINUTE                                  |  |               |
|   |                               | HOSE STATION (HS)  | HB           | HOSE BIBB   |  |               |
|   |                               | THERMOSTATIC MIXING VALVE (TMV)                                | HW           | HOT WATER   |  |               |
|   |                               | TEPID WATER MIXING VALVE (TWMV)                                | HP           | HIGH POINT  |  |               |
|   |                               | VACUUM BREAKER   | HS           | HOSE STATION  |  |               |
|   |  |  | IE           | INVERT ELEVATION                                    |  |               |
|   |  |  | LAV          | LAVATORY  |  |               |
|   |  |  | MAX          | MAXIMUM   |  |               |
|   |  |  | MS           | MOP SINK  |  |               |
|   |  |  | NPW          | NON-POTABLE WATER                                   |  |               |
|   |  |  | NFWH         | NON-FREEZE WALL HYDRANT                             |  |               |
|   |  |  | NTS          | NOT TO SCALE  |  |               |
|   |  |  | SPD          | SUMP PUMP DISCHARGE                                 |  |               |
|   |  |  | PRV          | PRESSURE REGULATING VALVE                           |  |               |
|   |  |  | PH           | POST HYDRANT  |  |               |
|   |  |  | PW           | POTABLE WATER                                       |  |               |
|   |  |  | S            | SOIL  |  |               |
|   |  |  | SAN          | SANITARY  |  |               |
|   |  |  | SD           | SECONDARY STORM DRAIN                               |  |               |
|   |  |  | SH           | SHOWER  |  |               |
|   |  |  | SK           | SINK  |  |               |
|   |  |  | ST           | STORM DRAIN   |  |               |
|   |  |  | TMV          | THERMOSTATIC MIXING VALVE                           |  |               |
|   |  |  | TPV          | TRAP PRIMER VALVE                                   |  |               |
|   |  |  | TW           | TEPID WATER   |  |               |
|   |  |  | TWMV         | TEPID WATER MIXING VALVE                            |  |               |
|   |  |  | TYP          | TYPICAL   |  |               |
|   |  |  | UG           | UNDERGROUND   |  |               |
|   |  |  | UP           | UP (PENETRATES FLOOR SLAB)                          |  |               |
|   |  |  | V            | VENT  |  |               |
|   |  |  | VB           | VACUUM BREAKER                                      |  |               |
|   |  |  | W            | WASTE   |  |               |
|   |  |  | WC           | WATER CLOSET  |  |               |
|   |  |  | WCO          | WALL CLEAN OUT                                      |  |               |
|   |  |  | WHA          | WATER HAMMER ARRESTER                               |  |               |
|   |  |  | W/           | WITH  |  |               |
| A |  |  |              |   |  |               |



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8/30/2024

ORANGE COUNTY, NEW YORK  
CITY OF NEWBURGH

WASTEWATER TREATMENT PLANT (WWTP) ADMIN BUILDING RENOVATION

BID NUMBER 7.24  
ARCADIS PROJ. NO. 30183827

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DATE: SEPTEMBER 2024

PROJECT NO.: 30183827

FILE NAME:

DESIGNED BY: S. SLIM

DRAWN BY: S. BURTE

CHECKED BY: F. ANDRADE

SHEET TITLE

PLUMBING

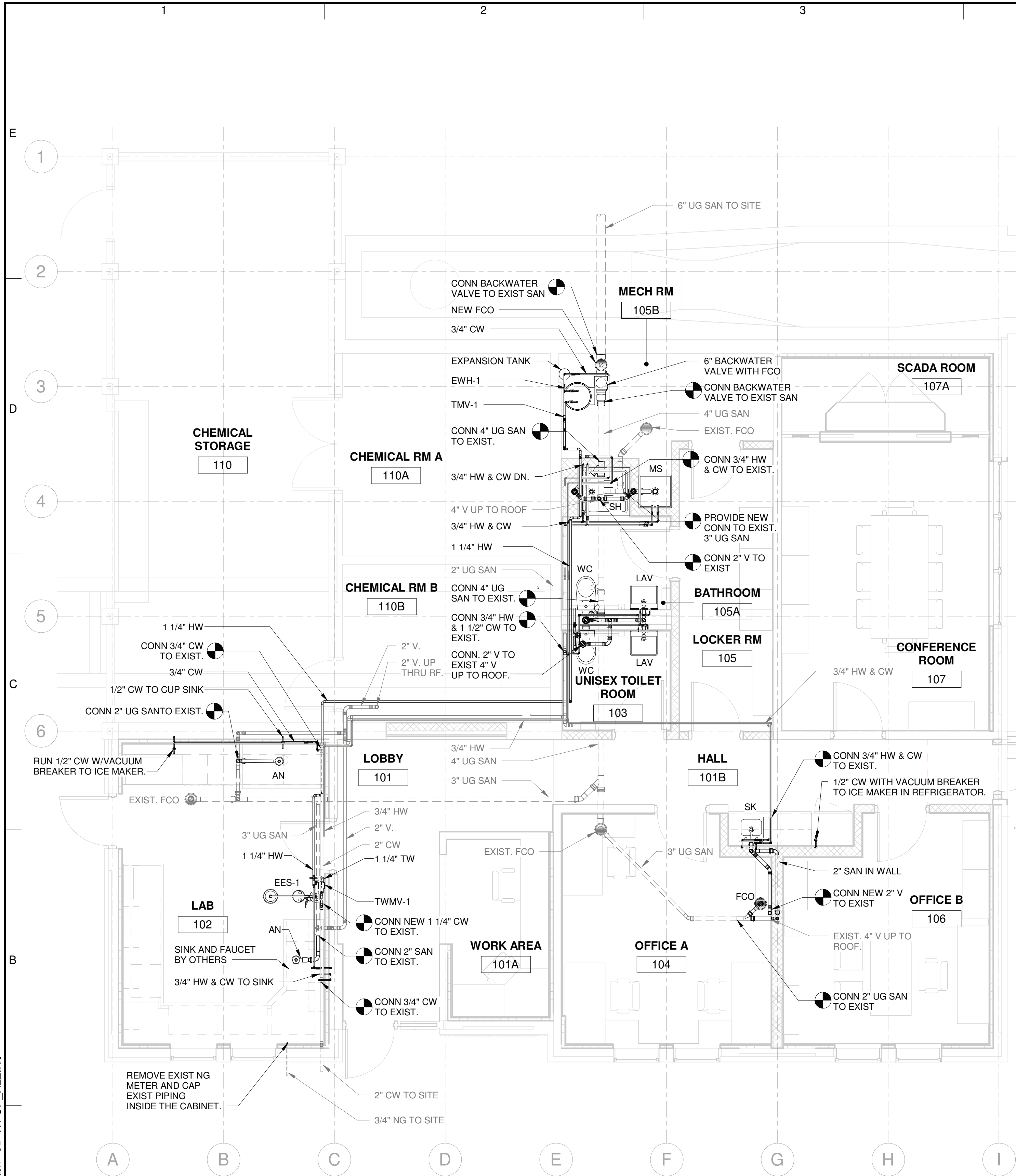
NOTES AND ABBREVIATIONS

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P-01

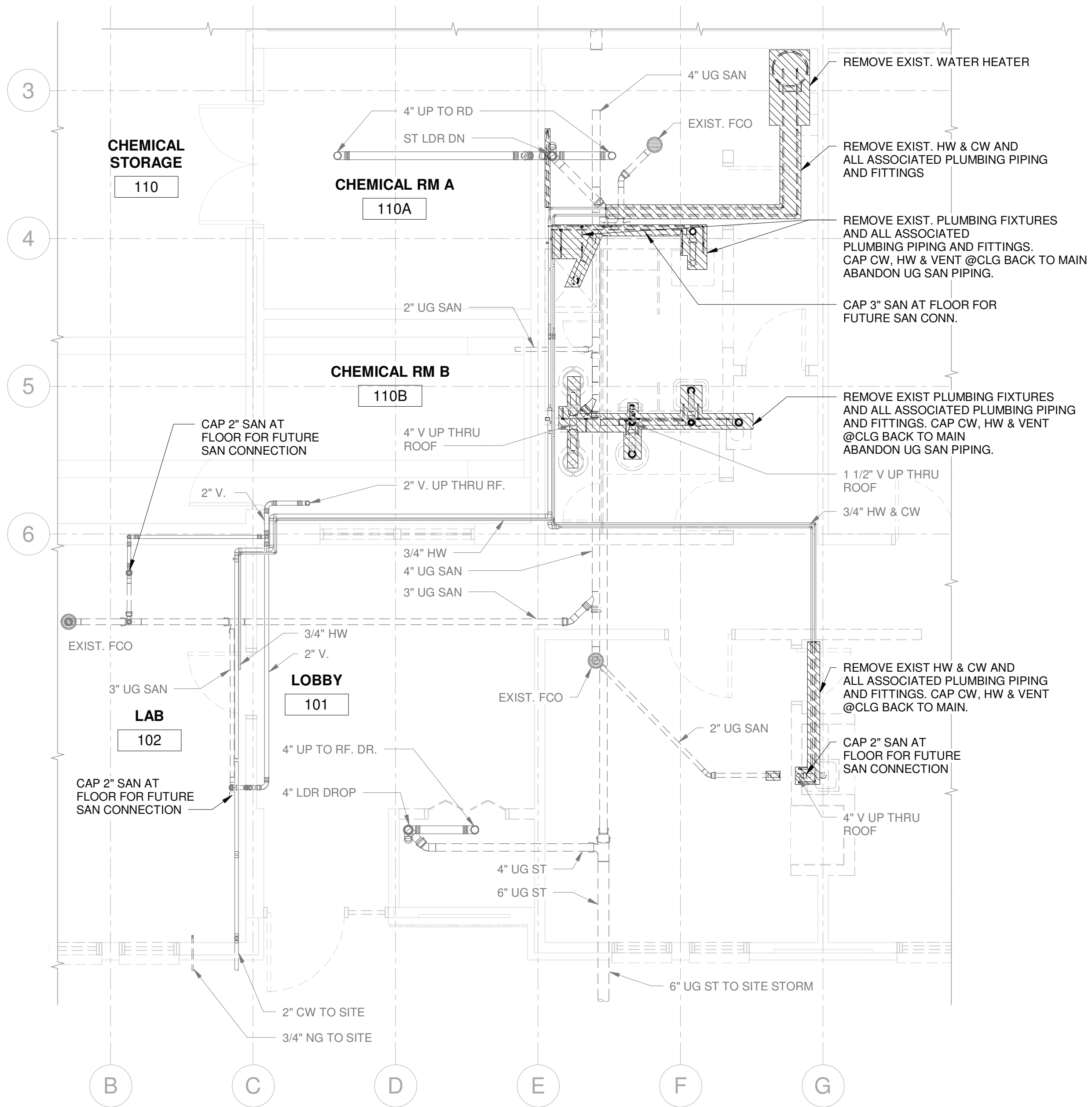
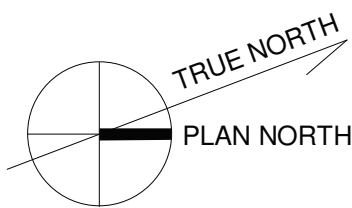
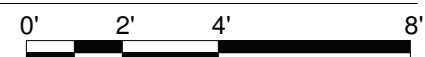
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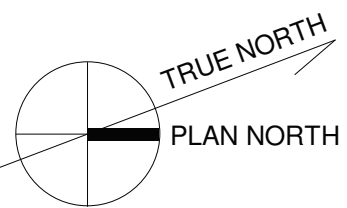
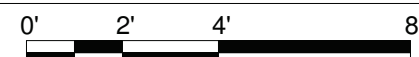
FIRST FLOOR PLAN

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



FIRST FLOOR DEMO PART PLAN

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



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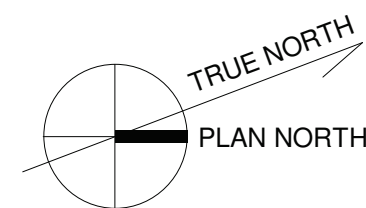
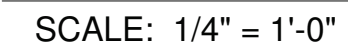
PLUMBING

FIRST FLOOR PLAN

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

P-10

SHEET 39 OF 51



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DESIGNED BY:

DRAWN BY

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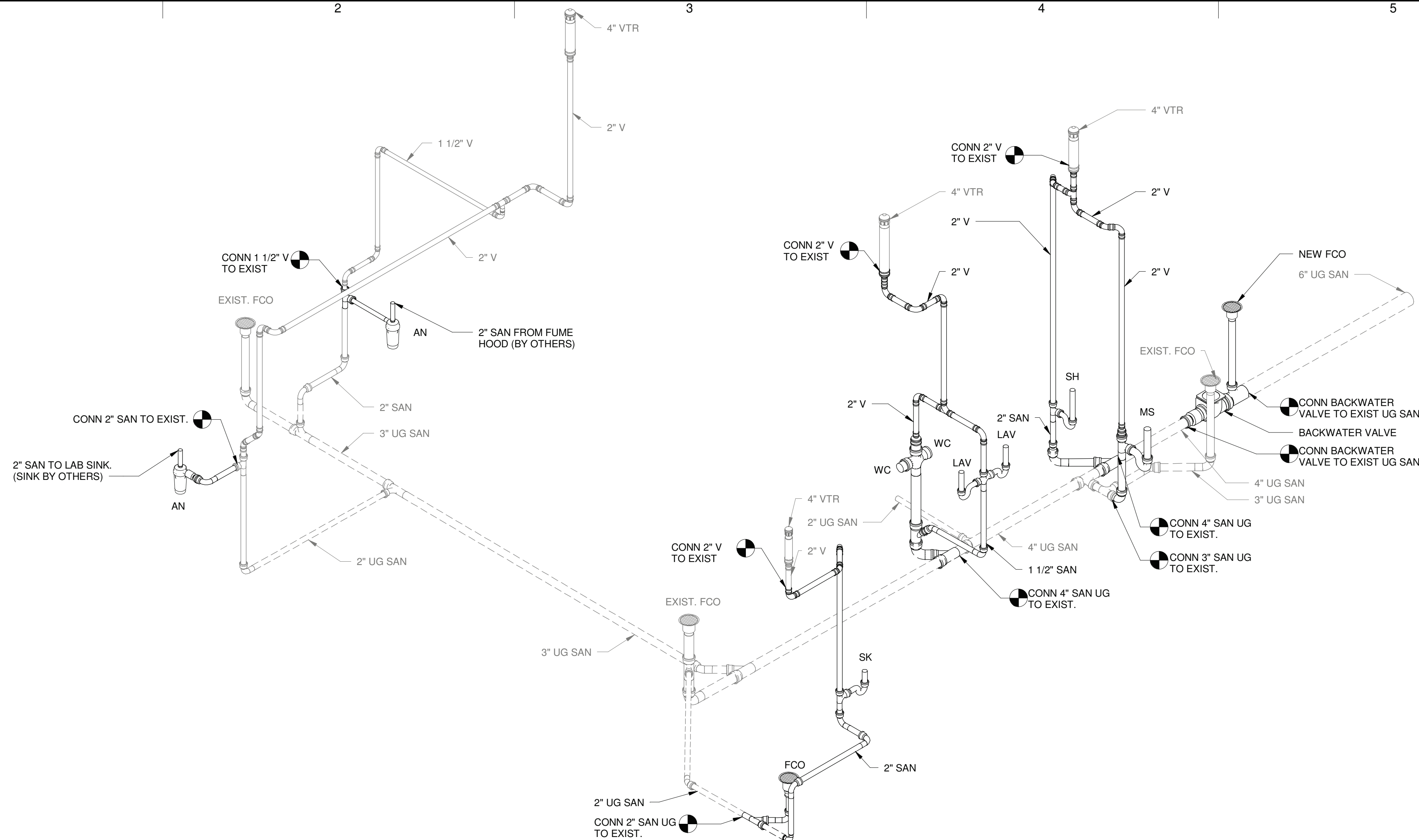
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## RISER DIAGRAM

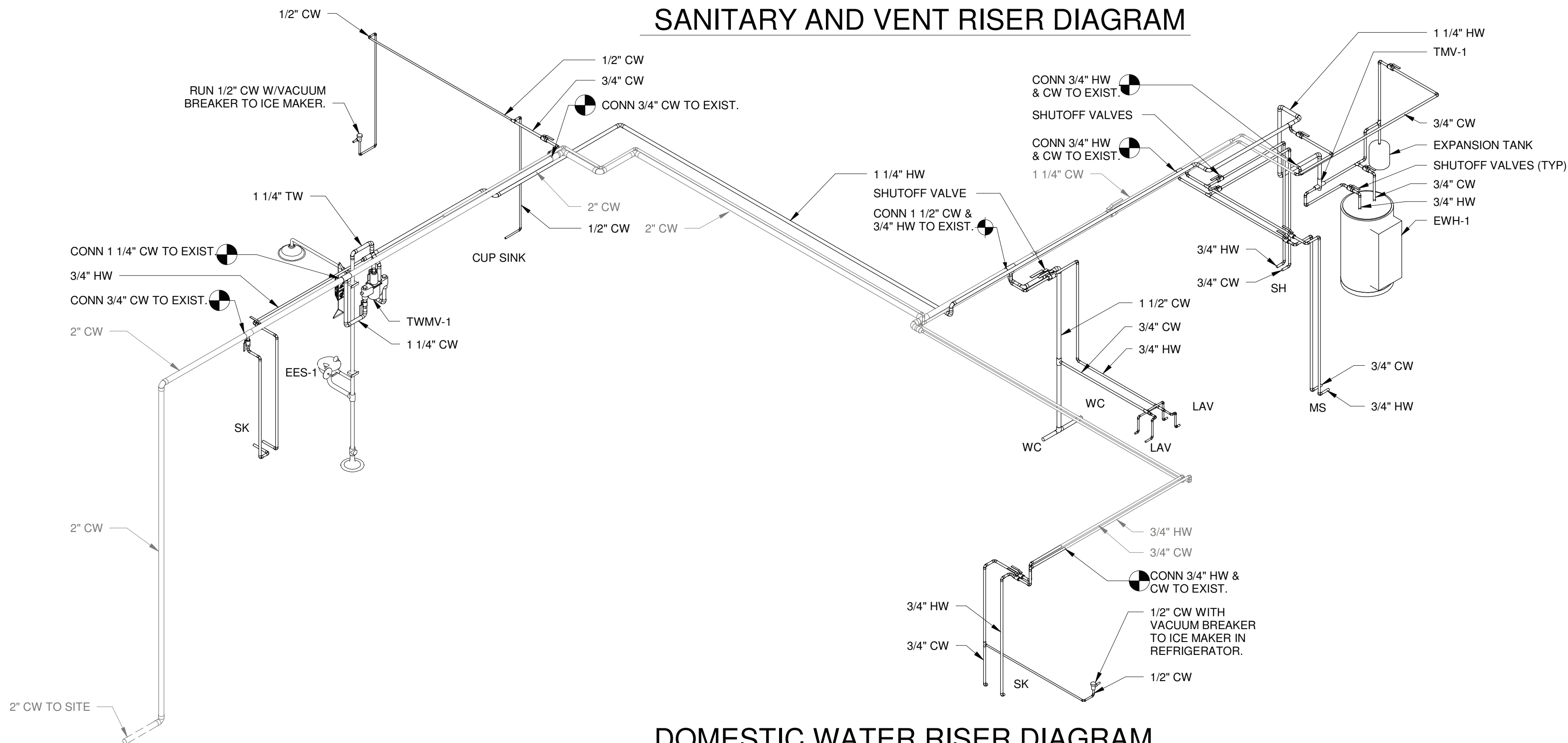
SCALE:

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SHEET 41 OF 51



## SANITARY AND VENT RISER DIAGRAM



## DOMESTIC WATER RISER DIAGRAM

E

D

C

B

A

| PLUMBING FIXTURE SCHEDULE |                          |          |        |        |        |      |        |         |
|---------------------------|--------------------------|----------|--------|--------|--------|------|--------|---------|
| FIXTURE NO                | DESCRIPTION              | SERVICES |        |        |        |      |        | REMARKS |
|                           |                          | TRAP     | S/W    | VENT   | CW     | HW   | TW     |         |
| LAV                       | LAVATORY                 | 2"       | 2"     | 1 1/2" | 3/4"   | 3/4" | -      |         |
| WC                        | WATER CLOSET             | -        | 4"     | 2"     | 1-1/4" | -    | -      |         |
| SK                        | PANTRY SINK              | 2"       | 2"     | 2"     | 3/4"   | 3/4" | -      |         |
| MS                        | MOP SINK                 | 2"       | 2"     | 2"     | 3/4"   | 3/4" | -      |         |
| SH                        | SHOWER                   | 2"       | 2"     | 2"     | 3/4"   | 3/4" | -      |         |
| EES                       | EMERGENCY EYEWASH SHOWER | -        | -      | -      | -      | -    | 1 1/4" |         |
| AN                        | ACID NEUTRALIZER         | -        | 1 1/2" | -      | -      | -    | -      |         |

| WATER HEATER SCHEDULE  |                 |                    |               |                       |                      |                        |                                  |                           |                         |            |       |                |        |         |
|--|-----------------|--------------------|---------------|-----------------------|----------------------|------------------------|----------------------------------|---------------------------|-------------------------|------------|-------|----------------|--------|---------|
| TYPE   | LOCATION        | SERVICE            | STYLE         | CAPACITY              | INPUT                |                        | PERFORMANCE                      |                           |                         | ELECTRICAL |       | WATER CONN NPT |        | REMARKS |
|  |                 |                    |               | NOMINAL STORAGE (GAL) | HEATING ELEMENT (KW) | SUPPLY GAS MBH/IN (WG) | RECOVERY RATE @100 °F RISE (GPH) | TEMP RISE (°F)/FLOW (GPM) | OUTLET TEMPERATURE (°F) | VOLTAGE    | PHASE | CW             | HW     |         |
| EWH-1  | MECHANICAL ROOM | DOMESTIC HOT WATER | ELECTRIC TANK | 119                   | 24                   | -                      | 98.4                             | -                         | 140                     | 480        | 3     | 1 1/4"         | 1 1/4" | 1,2     |
| NOTES:<br>1. PROVIDE 100 MICRON Y-STRAINER ON COLD WATER INLET.<br>2. PROVIDE THERMOSTATIC MIXING VALVE ASSE APPROVED. |                 |                    |               |                       |                      |                        |                                  |                           |                         |            |       |                |        |         |



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PLUMBING

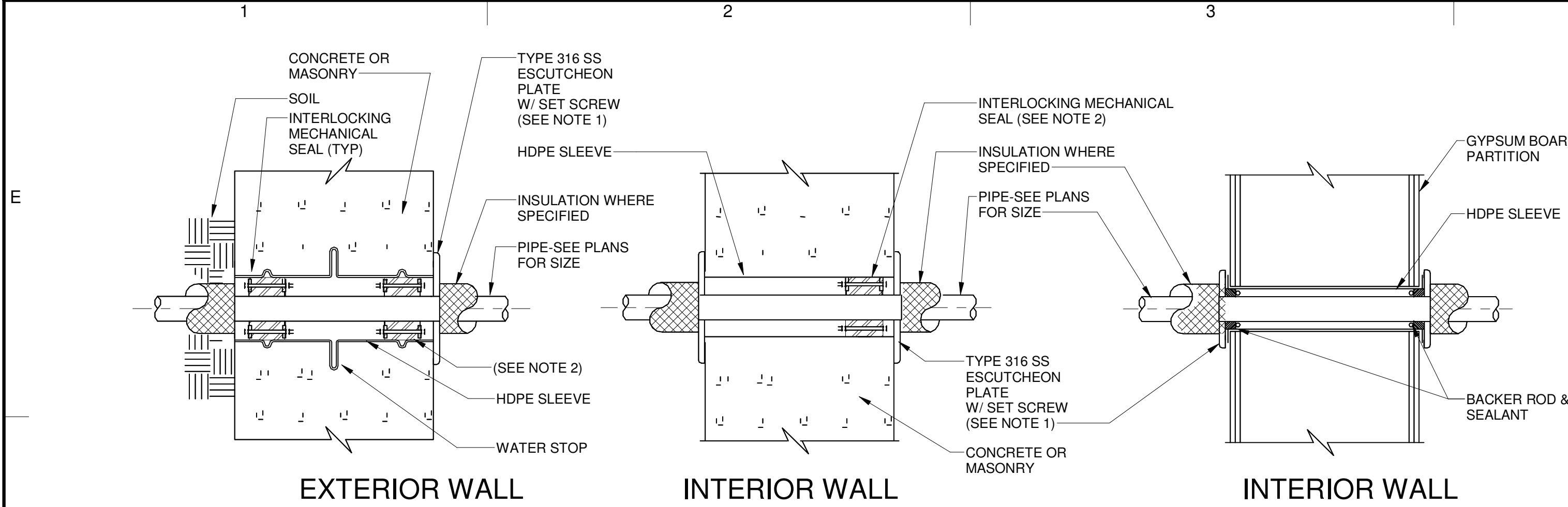
SCHEDULES

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P-50

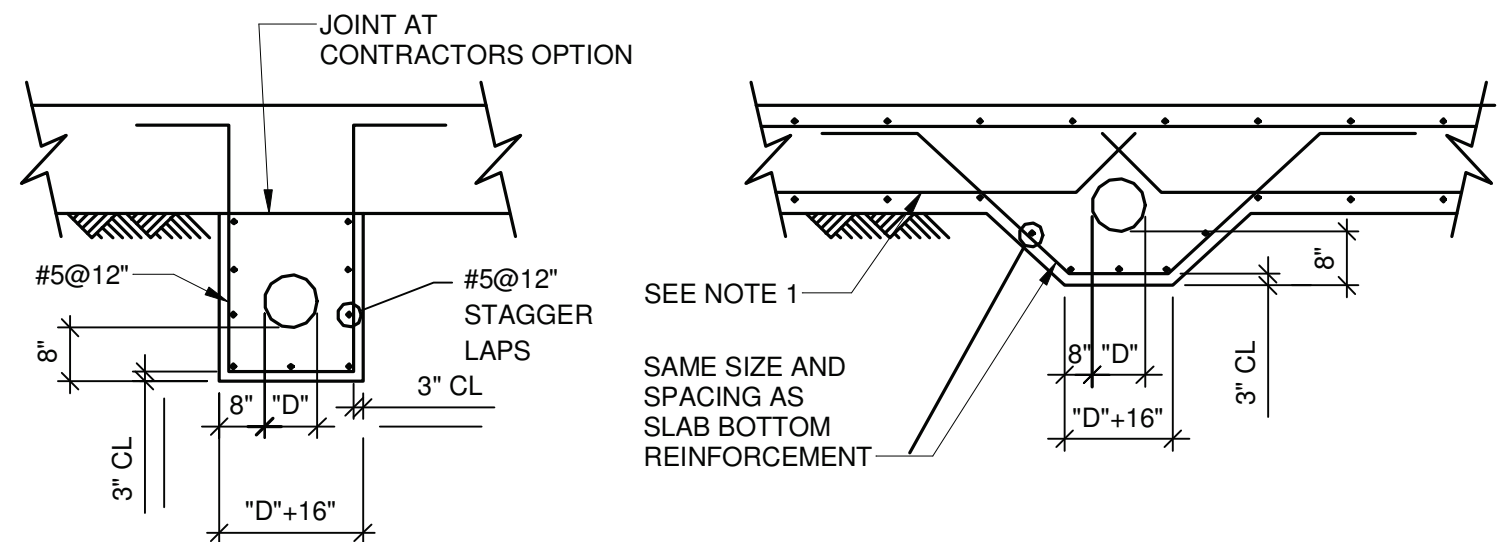
SHEET 42 OF 51

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### PIPE SLEEVES THRU WALL DETAIL

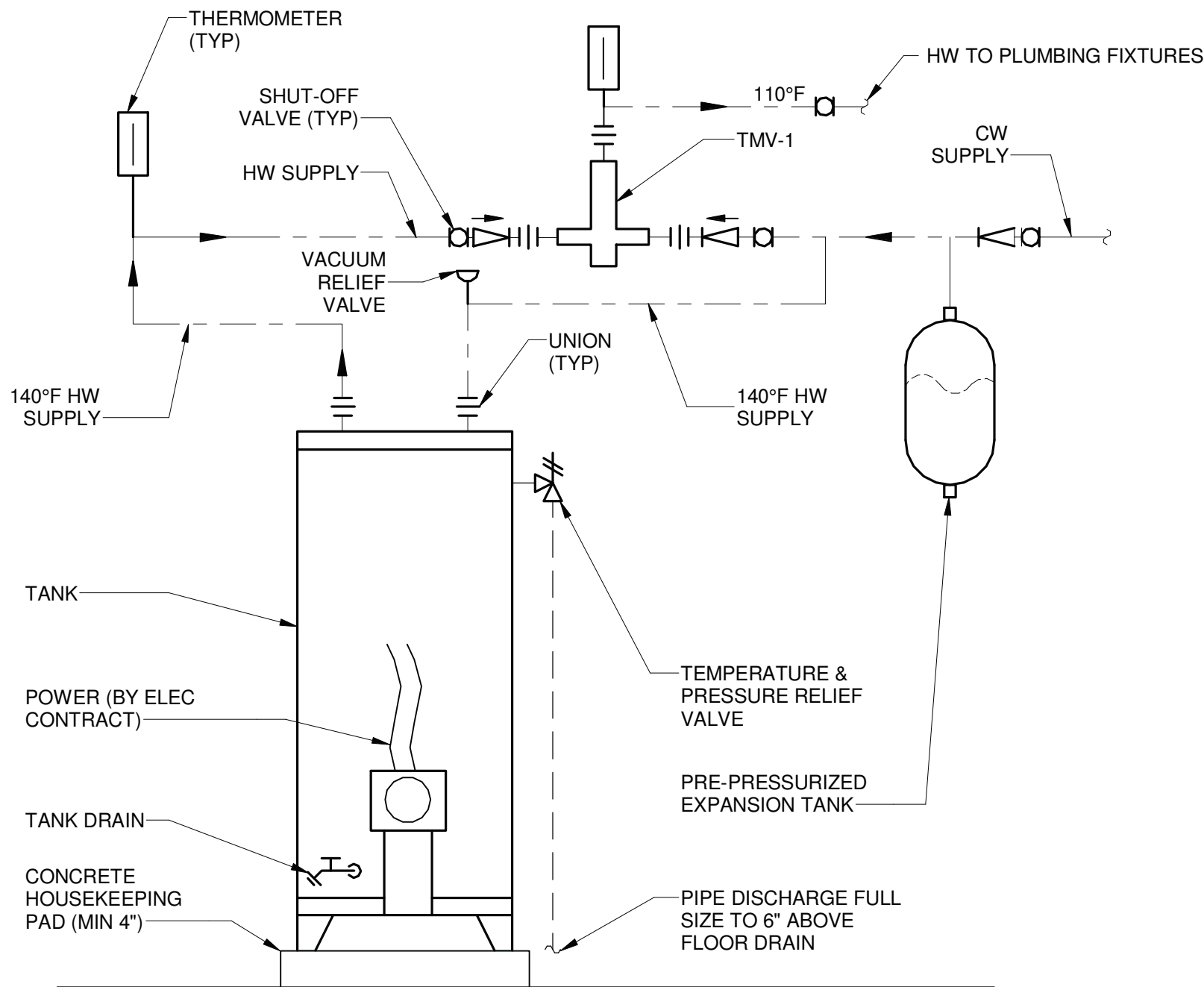
SCALE: NTS



- NOTES:
1. BOTTOM REINFORCEMENT TO BE CONTINUOUS WHERE POSSIBLE.
  2. FOR PIPE SIZE "D" AND ELEVATION, SEE PLUMBING DRAWINGS.
  3. ALL PIPES LOCATED BENEATH BASE SLABS SHALL BE ENCASED IN CONCRETE UNLESS OTHERWISE NOTED.

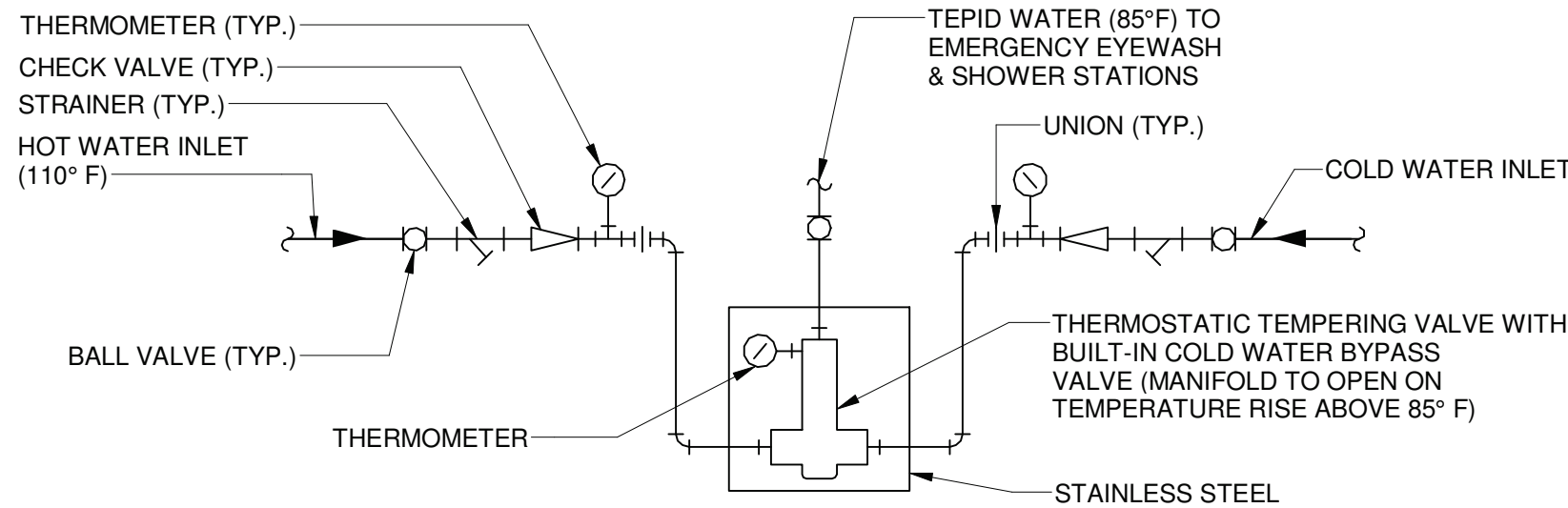
### PIPE ENCASEMENT DETAIL

SCALE: NTS



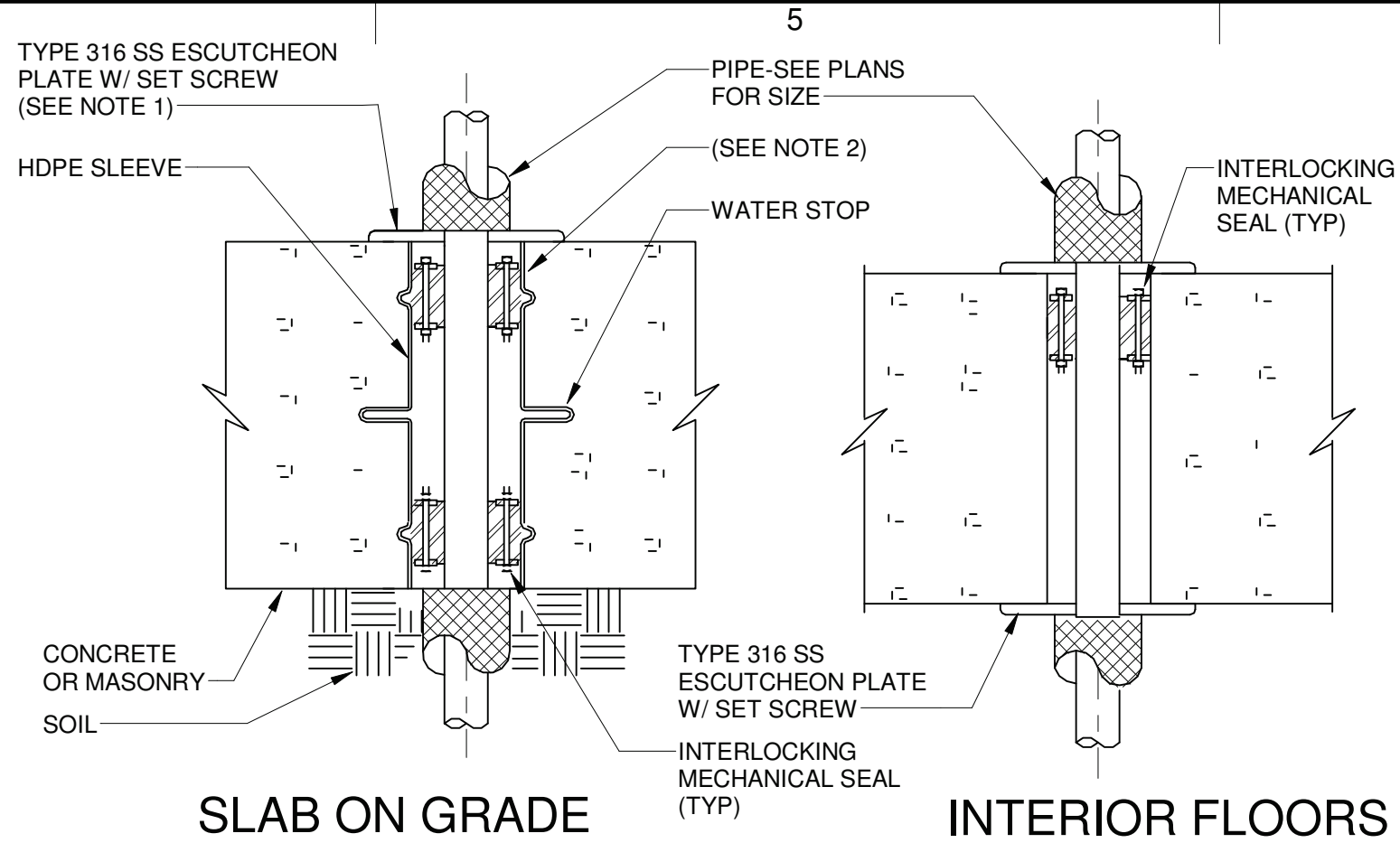
### ELECTRIC WATER HEATER (EWH-1) DETAIL

SCALE: NTS



### TEPID WATER MIXING VALVE (TWMV-1) DETAIL

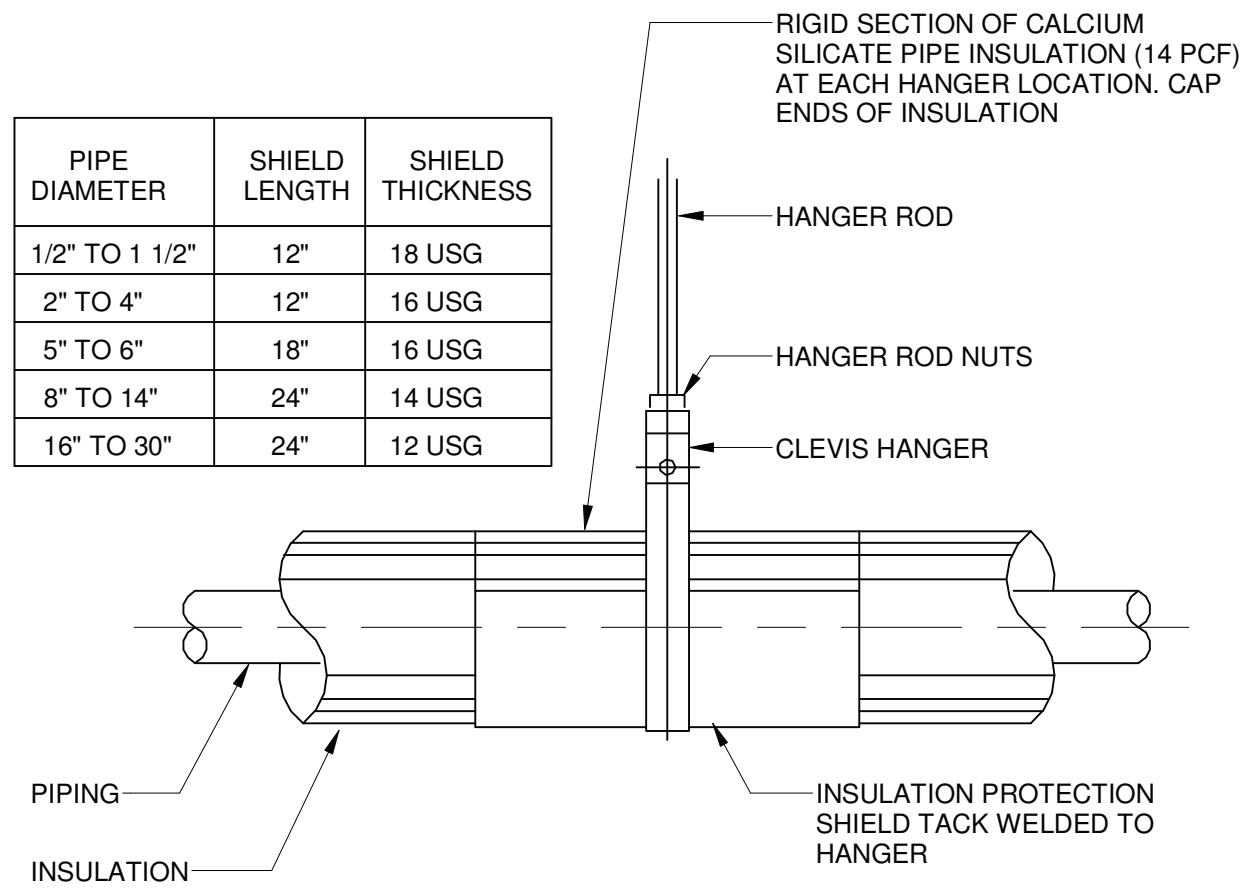
SCALE: NTS



- NOTES:
1. WHERE PIPE IS IN CONTACT WITH SOIL, ELIMINATE ESCUTCHEON PLATE.
  2. FOR ONE HOUR FIRE RATED PENETRATION PROVIDE ONE FIRE RATED MECHANICAL SEAL. FOR TWO HOUR FIRE RATED PENETRATION PROVIDE TWO FIRE RATED MECHANICAL SEALS.
  3. WHERE PIPES PASS THRU EXISTING CONSTRUCTION, CORE DRILL OPENING AND INSTALL MECHANICAL SEALS WITHOUT THE USE OF SLEEVES.

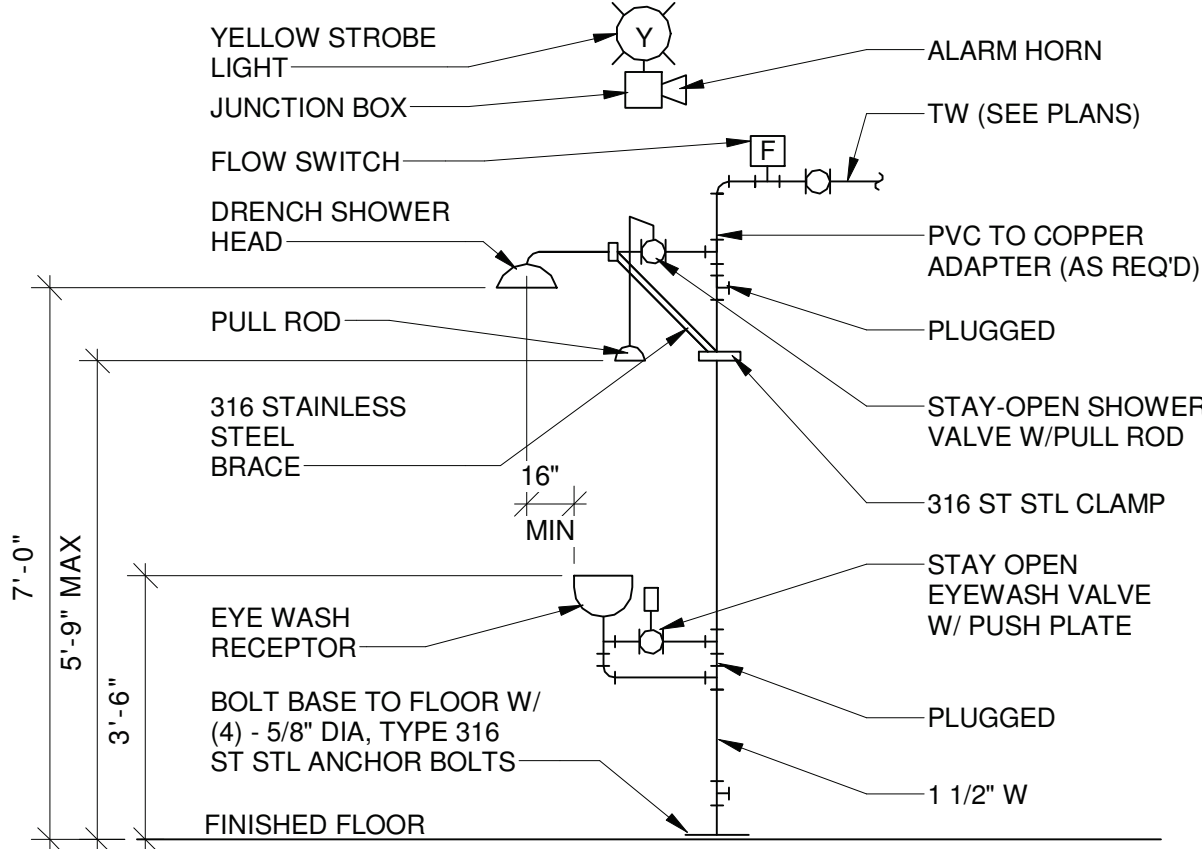
### PIPE SLEEVES THRU FLOOR DETAIL

SCALE: NTS



### TYPICAL HANGER ARRANGEMENT OF INSULATED PIPE DETAIL

SCALE: NTS



### INTERIOR EMERGENCY EYEWASH AND SHOWER (EES-1) DETAIL

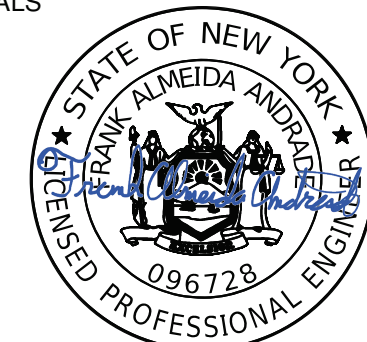
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ARCADIS PROJ. NO. 30183827

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SHEET TITLE

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P-51

SHEET 43 OF 51