





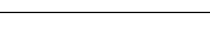


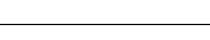
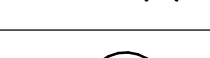
| DATE | ISSUED FOR | REV |
|------------|-----------------|-----|
| 2025-01-28 | PERMIT - QA LAB | A |
| 2025-04-24 | TENDER - QA LAB | 0 |

| ABBREVIATIONS | |
|------------------|----------------------------|
| AIR CONDITIONING | |
| DESIGNATION | DESCRIPTION |
| AC | AIR CONDITIONING UNIT |
| AD | ACCESS DOOR |
| AFS | AIRFLOW MONITORING STATION |
| AHU | AIR HANDLING UNIT |
| AI | ANALOG INPUT |
| AO | ANALOG OUTPUT |
| AP | ACCESS PANEL |
| BD | BALANCING DAMPER |
| BDD | BACK DRAFT DAMPER |
| CVB | CONSTANT VOLUME BOX |
| CC | COOLING COIL |
| DG | DOOR GRILLE |
| DI | DISCRETE OR DIGITAL INPUT |
| DO | DISCRETE OR DIGITAL OUTPUT |
| EA | EXHAUST AIR |
| EF | EXHAUST AIR FAN |
| EG | EXHAUST AIR GRILLE |
| ER | EXHAUST AIR REGISTER |
| FCU | FAN COIL UNIT |
| FD | FIRE DAMPER |
| FMS | AIR FLOW MEASURING STATION |
| FPB | FAN POWERED BOX |
| FSD | FIRE & SMOKE DAMPER |
| FSF | FIRE STOP FLAP |
| GC | GLYCOL COIL |
| HE | HEAT EXCHANGER |
| MAU | MAKEUP AIR UNIT |
| NC | NORMALLY CLOSED |
| NO | NORMALLY OPEN |
| OA | OUTSIDE AIR |
| RA | RETURN AIR |
| RF | RETURN AIR FAN |
| RG | RETURN AIR GRILLE |
| RH | REHEAT COIL |
| RR | RETURN AIR REGISTER |
| SA | SUPPLY AIR |
| SD | SPLITTER DAMPER |
| SF | SUPPLY AIR FAN |
| SMD | SMOKE DAMPER |
| SR | SUPPLY AIR REGISTER |
| VAV | VARIABLE VOLUME BOX |
| VD | VOLUME DAMPER |
| WMS | WIRESHESH SCREEN |

| ABBREVIATIONS | |
|--------------------------|-----------------------------------|
| PLUMBING/FIRE PROTECTION | |
| DESIGNATION | DESCRIPTION |
| AD | AREA DRAIN |
| ABV | AUTOMATIC BALANCING VALVE |
| EW/SH | EMERGENCY SHOWER/EYE WASH STATION |
| BFP | BACKFLOW PREVENTER |
| BMS | BUILDING MANAGEMENT SYSTEM |
| BOP | BOTTOM OF PIPE |
| CB | CATCH BASIN |
| CFRD | CONTROL FLOW ROOF DRAIN |
| CO | CLEAN OUT |
| CS | CUP SINK |
| CTE | CONNECT TO EXISTING |
| C/W | COMPLETE WITH |
| DCW | DOMESTIC COLD WATER |
| DF | DRINKING FOUNTAIN |
| DHW | DOMESTIC HOT WATER |
| DHWR | DOMESTIC HOT WATER RECIRCULATION |
| DN | DOWN |
| ELEV. | ELEVATION |
| FA | FROM ABOVE |
| FB | FROM BELOW |
| FD | FLOOR DRAIN |
| FFD | FUNNEL FLOOR DRAIN |
| HB | HOSE BIBB |
| HD | HUB DRAIN |
| INV. | INVERT |
| JS | JANITOR SINK |
| L | LAVATORY |
| NFWH | NON FREEZE WALL HYDRANT |
| NIC | NOT IN CONTRACT |
| RCP | RECIRCULATION PUMP |
| RD | ROOF DRAIN |
| RWL | RAIN WATER LEADER |
| S | SINK |
| SAN | SANITARY |
| SD | SCUPPER DRAIN |
| SH | SHOWER |
| SS | SERVICE SINK |
| SST | SOIL STACK |
| STV | STACK VENT |
| TA | TO ABOVE |
| TB | TO BELOW |
| T.O.P. | TOP OF PIPE |
| TSP | TRAP SEAL PRIMER |
| U | URINAL |
| U/C | UNDER CUT |
| U/G | UNDER GROUND |
| V | VENT PIPE |
| VPTR | VENT PIPE THROUGH ROOF |
| VST | VENT STACK |
| WC | WATER CLOSET |
| WFS | WATER FLOW SWITCH |
| WM | WATER METER |
| WST | WASTE STACK |

| DUCTWORK SYMBOLS | |
|------------------|--|
| SYMBOL | DESCRIPTION |
| | FLEXIBLE DUCT CONNECTION |
| | RISE IN DUCT |
| | DROP IN DUCT |
| | ACOUSTICAL DUCT LINING |
| | DUCT SILENCER |
| | TURNING VANES |
| | DUCT CAPPED CONNECTION |
| | OPEN ENDED DUCT WITH WIRE MESH SCREEN |
| | FLEXIBLE PIPE/DUCT |
| | REHEAT COIL IN DUCT |
| | REMOVE EXISTING DUCT |
| | SUPPLY DUCT UP |
| | SUPPLY DUCT DOWN |
| | RETURN OR EXHAUST DUCT UP |
| | RETURN OR EXHAUST DUCT DOWN |
| | BACKDRAFT DAMPER |
| | FIRE DAMPER |
| | MOTORIZED CONTROL DAMPER |
| | VOLUME DAMPER |
| | BALANCING DAMPER |
| | SMOKE DAMPER |
| | COMBINATION FIRE AND SMOKE DAMPER |
| | LIGHT TROFFER DIFFUSER |
| | SUPPLY AIR LINEAR SLOT PLENUM AND DIFFUSER |
| | SUPPLY AIR DIFFUSERS |
| | RETURN OR EXHAUST AIR GRILLE OR REGISTER |
| | RELOCATED DIFFUSER, GRILLE |
| | REMOVE EXIST. GRILLE/DIFFUSER |
| | FAN |
| | WALL PROPELLER FAN |
| | UNIT HEATER HORIZONTAL |
| | UNIT HEATER DOWNBLAST |
| | APPARATUS HUNG FROM STRUCTURE ABOVE |
| | HEATING OR COOLING COIL |
| | AIR SAMPLING SENSOR |
| | HUMIDISTAT OR HUMIDITY SENSOR |
| | THERMISTAT OR TEMPERATURE SENSOR |
| | THERMOSTAT ON INSULATED PAD |
| | EQUIPMENT SWITCH |
| | CONTROL TRANSFORMER AND LOW V WIRE |
| | RELOCATED THERMOSTAT OR SENSOR |
| | VAV BOX |
| | VAV BOX C/W SILENCER |
| | VAV BOX C/W RE-HEAT COIL AND SILENCER |
| | FAN POWERED BOX C/W SILENCER AND RETURN AIR ATTENUATOR |
| | VAV BYPASS |
| | CONSTANT VOLUME BOX |
| | RELOCATED VAV BOX |
| | CO ₂ DETECTOR |
| | GAS DETECTOR |
| | T, CO ₂ SENSORS |
| | T, H, CO ₂ SENSORS |
| | T, H, CO ₂ , GD SENSORS |

| EQPM TAGS/SYMBOLS | |
|-------------------|---|
| SYMBOL | DESCRIPTION |
| | DIFFUSER/REGISTER TYPE NECK SIZE AIRFLOW |
| | EQUIPMENT TAG (REFER TO SCHEDULES) EQUIPMENT NUMBER |
| | POINT TYPE CONTROLLED PARAMETER |
| | WALL FIN ZONE HEATING CAPACITY (W) WALL FIN LENGTH (mm) |
| | WALL FIN |

| PIPING SYMBOLS | |
|---|--|
| SYMBOL | DESCRIPTION |
|  | HOSE END DRAIN VALVE |
|  | TEST COCK |
|  | CLEANOUT TURNED UP THROUGH FLOOR |
|  | CLEANOUT ABOVE GRADE OR FLOOR |
|  | RUNNING TRAP |
|  | BACKFLOW PREVENTOR (REDUCED PRESSURE TYPE) |
|  | HOSE BIBB |
|  | NON FREEZE WALL HYDRANT |
|  | PUMP |

| PIPING SYMBOLS | |
|----------------|---|
| SYMBOL | DESCRIPTION |
| | GATE VALVE |
| | BALL VALVE |
| | GLOBE VALVE |
| | BUTTERFLY VALVE |
| | BUTTERFLY VALVE |
| | LOCKSHIELD VALVE |
| | PLUG VALVE |
| | 2-WAY CONTROL VALVE |
| | CHECK VALVE |
| | PRESSURE REDUCING VALVE |
| | BACK WATER VALVE (FOR SEWAGE) |
| | 3-WAY CONTROL VALVE |
| | CIRCUIT BALANCING VALVE |
| | SOLENOID VALVE |
| | RELIEF VALVE |
| | FLOAT LEVEL CONTROL VALVE |
| | AUTOMATIC AIR VENT |
| | VACUUM BREAKER |
| | VALVE ACTUATOR (PNEUMATIC OR ELECTRIC) |
| | ELECTRIC VALVE OR DAMPER ACTUATOR |
| | UNION |
| | CAPPED CONNECTION |
| | EXPANSION JOINT |
| | ANCHOR POINT |
| | PIPE SLEEVED THROUGH BEAM |
| | PRESSURE GAUGE WITH GAUGE COCK |
| | THERMOMETER |
| | WATER HAMMER ARRESTOR |
| | STRAINER |
| | FLOAT LEVEL SWITCH |
| | PIPE DN |
| | PIPE UP |
| | ROOF DRAIN OR PLUMBING FIXTURE ON LEVEL ABOVE |
| | FLOOR DRAIN |
| | ROOF DRAIN |
| | AUTOMATIC BALANCING VALVE |
| | |
| | |
| | |

[illegible]

| HEATING / COOLING | |
|-------------------|-------------------------------|
| DESIGNATION | DESCRIPTION |
| BBH | BASEBOARD HEATER |
| CBV | CIRCUIT BALANCING VALVE |
| CH | CABINET HEATER |
| CHW | CHILLED WATER RETURN |
| CHWS | CHILLED WATER SUPPLY |
| CHW/GR | CHILLED WATER / GLYCOL RETURN |
| CHW/GS | CHILLED WATER / GLYCOL SUPPLY |
| COND. | CONDENSATE |
| CR | CONDENSER WATER RETURN |
| CS | CONDENSER WATER SUPPLY |
| FC | FAN COIL UNIT |
| GLR | GLYCOL RETURN |
| GLS | GLYCOL SUPPLY |
| HC | HEATING COIL |
| HW/GR | GLYCOL HEATING WATER RETURN |
| HW/GS | GLYCOL HEATING WATER SUPPLY |
| HWR | HEATING WATER RETURN |
| HWS | HEATING WATER SUPPLY |
| P | PUMP |
| PH | PREHEAT COIL |
| PRV | PRESSURE REDUCING VALVE |
| UH | UNIT HEATER |
| VB | VACUUM BREAKER |
| WF | WALL FIN |
| WH | WATER HEATER |
| ROW | REVERSE OSMOSIS WATER |
| | |
| | |

1 Legends & Symbols
M01-00L SCALE: N.T.S

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Project Component

DESIGN DEVELOPMENT

Key Plan

A key plan map showing the site location within a larger urban context. The site is highlighted in grey, and a small black square indicates its position relative to surrounding streets and landmarks. The map includes labels for 'M1', 'M2', 'M3', 'M4', 'M5', 'M6', 'M7', 'M8', 'M9', 'M10', 'M11', 'M12', 'M13', 'M14', 'M15', 'M16', 'M17', 'M18', 'M19', 'M20', 'M21', 'M22', 'M23', 'M24', 'M25', 'M26', 'M27', 'M28', 'M29', 'M30', 'M31', 'M32', 'M33', 'M34', 'M35', 'M36', 'M37', 'M38', 'M39', 'M40', 'M41', 'M42', 'M43', 'M44', 'M45', 'M46', 'M47', 'M48', 'M49', 'M50', 'M51', 'M52', 'M53', 'M54', 'M55', 'M56', 'M57', 'M58', 'M59', 'M60', 'M61', 'M62', 'M63', 'M64', 'M65', 'M66', 'M67', 'M68', 'M69', 'M70', 'M71', 'M72', 'M73', 'M74', 'M75', 'M76', 'M77', 'M78', 'M79', 'M80', 'M81', 'M82', 'M83', 'M84', 'M85', 'M86', 'M87', 'M88', 'M89', 'M90', 'M91', 'M92', 'M93', 'M94', 'M95', 'M96', 'M97', 'M98', 'M99', 'M100'.

| | |
|--------------------|-------------------------------------|
| Consultants | |
| Architecture: | NORR ARCHITECTS & ENGINEERS LIMITED |
| Structural: | NORR ARCHITECTS & ENGINEERS LIMITED |
| Mechanical: | NORR ARCHITECTS & ENGINEERS LIMITED |
| Electrical: | NORR ARCHITECTS & ENGINEERS LIMITED |

Seal(s)

NORR

NORR Architects & Engineers Limited

175 Bloor Street East
North Tower, 15th Floor
Toronto, ON, Canada M4W 3R8
norr.com

| | |
|-------------------------------|---------------------|
| Project Manager P. RANCHAL | Drawn F. PAN |
| Project Leader G. ALLAN | Checked G. ALLAN |

Client

CYCLIC MATERIALS

**Cyclic
Materials**

320 BAY ST., TORONTO, ON M5H 4A6 CANADA

Project

**CYCLIC MATERIALS HUB
CENTER**

| | |
|--|----------------|
| 650 Cataraqui Woods DR, Kingston, ON K7P 2Y4 Drawing Title DRAWING LIST, LEGENDS & SYMBOLS - Q/A LAB | |
| Scale | N.T.S |
| Project No. | IN1024-0349 |
| Drawing No. | M01-00L |

4/24/2025 5:13:00 PM

| ELECTRIC HEATING FRESH AIR UNIT SCHEDULE | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--------------|--------------------|----------|-------|-----------|-------|-------|-------|------|------|------------|------|-----------|-------|-------|------------|-------|------|------|------------------|----|--------------------|
| TAG | AREA SERVED | MANUFACTURER | TYPE | MAX FLOW | | MIN. FLOW | | EAT | | LAT | | FAN E.S.P. | | DIMENSION | | | ELECTRICAL | | | | OPERATING WEIGHT | | REMARKS |
| | | | | (CFM) | (L/s) | (CFM) | (L/s) | (°F) | (°C) | (°F) | (°C) | (in.H2O) | (Pa) | MM | MM | MM | PHASE | VOLTS | KW | FLA | LBS | KG | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| EAH-01 | MINI MAKE-UP AIR UNIT TO ANALYTICAL LAB | THERMOLEC | SLIP IN, OPEN COIL | 200 | 94 | 130 | 61 | -11.2 | -24.0 | 72.0 | 22.2 | 0.2 | 49.8 | 762.0 | 248.0 | 381.0 | 3 | 208 | 3.00 | 9.00 | - | - | REFER TO NOTES 1-4 |
| <div>NOTES: 1. PROVIDED WITH MERV 8 WASHABLE FILTER AT INLET.</div> <div>2. PROVIDE SCR CONTROLLER.</div> <div>3. PROVIDE AIR FLOW SENSOR, THERMAL CUT-OFF, DISCONNECT SWITCH, 24V TRANSFORMER, TERMINAL BLOCK.</div> <div>4. INTERLOCK WITH EXHAUST FAN EF-02 BY DIV.23.</div> | | | | | | | | | | | | | | | | | | | | | | | |

| EMERGENCY SHOWER HOT WATER HEATER SCHEDULE | | | | | | | | | | | | | | | | | | | | | |
|---|----------------|--------------|---|---------------|---------------|----------------|---------------|----------------------------|----------------|-----------------|---------------|------------|---------|-----|----------|------------|----------|---------|----------|---------------------|-------|
| UNIT TAG | LOCATION | MANUFACTURER | MODEL | FLUID | CAPACITY | | | | NO. OF ELEMENT | DIM. (D x H) mm | WEIGHT (Lbs.) | ELECTRICAL | | | | DISCONNECT | | | CONTROLS | | NOTES |
| | | | | | STORAGE (GAL) | INPUT (kW/MBH) | EFFECENCY (%) | RECOVERY (GPH @ 60oF RISE) | | | | k(W) | MCA (A) | FLA | V/Ph/Hz | INSTALLED | SUPPLIED | WIRED | WIRED | TYPE | |
| HWT-01 | HUB 100, P-103 | A.O.SMITH | DURA-POWER ELECTRIC WATER HEATER, DEN-120 | POTABLE WATER | 113 | 6/20.5 | 99% | 41 | 2 | 1,586 x 746 | 326 | 3 + 3 | -- | 25 | 208/3/60 | DIV. 26 | DIV. 26 | DIV. 26 | DIV. 25 | TEMPERATURE CONTROL | 1-7 |
| NOTES: 1 DUAL ELECTRIC HEATING ELEMENT, 2 X 3 KW. 2 EQUIPPED WITH AQUASTAT. 3 C/W DRAIN VALVE. 4 SET EMERGENCY SHOWER WATER TEMPERATURE AT OUTLET OF WATER MIXING VALVE TO BE 70°F. 5 MAXIMUM HYDROSTATIC WORKING PRESSURE OF 150 PSI. 6 REFER TO DRAWINGS FOR PIPE CONNECTION SIZES. 7 THE WATER HEATER SHALL MEET STANDBY LOSS REQUIRMENTS OF NRCan & CURRENT VERSION OF ASHRAE STANDARD 90.1. | | | | | | | | | | | | | | | | | | | | | |

| EXPANSION TANK SCHEDULE | | | | | | | | | | | |
|---|----------------|--------------|-------------------------|------------------------------|---------------|-----------------------------|---------------------------------|----------------------------------|---------------------------|------------------------|---------|
| UNIT TAG | LOCATION | MANUFACTURER | MODEL # | LOOP SERVED | VOLUME (L) | ACCEPTANCE VOLUME (L) | PRE-CHARGE PRESSURE (kPa) | MAX. DESIGN PRESSURE (kPa) | TANK SIZE D x H - (mm) | TANK WEIGHT (KG) | NOTES |
| ET-01 | HUB 100, P-103 | AMTROL | THERM-X-TROL, ST-12C-DD | DOMESTIC WATER HEATER DHW-01 | 24 | 12 | 379 | 1035 | 305 x457 | 12 | 1,2,3,4 |
| NOTES: 1 TANKS SHALL BE ASME RATED, PRE-CHARGE DIAPHRAGM TYPE SUITABLE FOR POTABLE WATER SYSTEMS. 2 BUTYL DIAPHRAGM, POLYPROPYLENE LINER. 3 COMPLY WITH NSF/ANSI STANDARD 61. 4 PRECHARGE TO 40 PSI, MAX. ALLOWED WORKING PRESSURE: 125 PSI. 4 WEIGHT SHOWN IS SHIPPING. | | | | | | | | | | | |

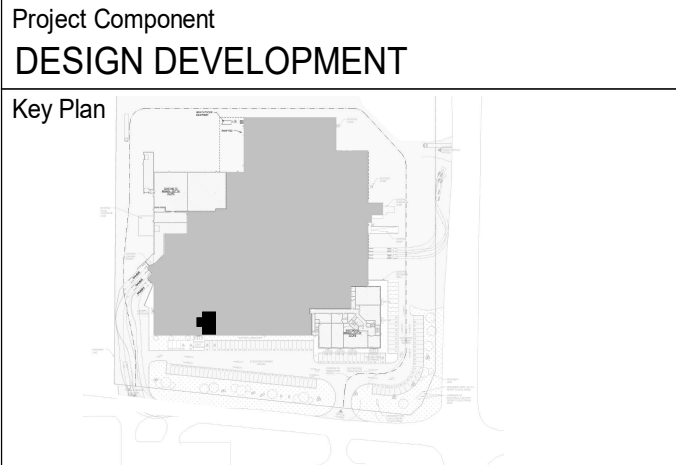
| GRILLES, REGISTERS & DIFFUSERS | | | | | | | | |
|---|----------------|--------------|-------|-------------------|--------|---------|------------------------------|-------|
| TAG | FACE SIZE (IN) | MANUFACTURER | MODEL | NECK SIZE (IN.) | MAX NC | SERVICE | DESCRIPTION | NOTES |
| SD-1 | 600 x 600 | E.H. PRICE | SCD | REFER TO DRAWINGS | <35 | SUPPLY | SQUARE CONE DIFFUSER | 1 |
| SG-1 | AS INDICATED | E.H. PRICE | 500 | REFER TO DRAWINGS | <35 | SUPPLY | LOUVERED STEEL SUPPLY GRILLE | 2 |
| NOTES: 1 T-BAR/LAY IN, WHITE FINISH. 2 DOUBLE DEFLECTION, FINISH TO MATCH THE WALL. | | | | | | | | |

| PLUMBING FIXTURE SCHEDULE | | | | | | | | | | |
|--|--|---|----------------|------|------|-----|------|--------------|------------------------|--|
| TAG | DESCRIPTION | TRIM AND ACCESSORIES | ADA COMPLIANCE | CW | HW | SAN | VENT | MANUFACTURER | MODEL | |
| CO | CLEAN OUT | ADJUSTABLE FLOOR CLEANOUT, DURA-COATED CAST IRON BODY WITH GAS AND WATER TIGHT ABS TAPERED THREAD PLUG AND ROUND SCORRIATED CAST IRON SECURED TOP | | | | 4" | | ZURN | Z1400-NH4 | |
| FD - 1 | FLOOR DRAIN | 8" DIAMETER TOP DRAIN, DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, SEEPAGE PAN AND COMBINATION MEMBRANE FLASHING CLAMP AND FRAME FOR ADJUSTABLE EXTENSION WITH HEAVY-DUTY SLOTTED NICKEL BRONZE GRATE. | | | | 4" | | ZURN | Z566-4NH | |
| FFD - 1 | FLOOR DRAIN WITH OVAL FUNNEL | 6 1/4" DIAMETER TOP DRAIN, DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, SEEPAGE SLOTS AND TYPE BZ LEVELING STRAINER AND OVAL FUNNEL. | | | | 2" | | ZURN | ZN415BZ-OF | |
| TMV-1 | THERMOSTATIC MIXING VALVE - POINT OF USE | THERMOSTATIC MIXING VALVE WITH 0.5 GPM MIN FLOW RATE, COLOR CODED DIAL, HOT-COLD WITH DIRECTIONAL INDICATORS, BALL VALVE WITH DIAL THERMOMETER, LEAD FREE INTERNAL PARTS, RECESSED STAINLESS STEEL CABINET, ROUGH BRONZE FINISH, ASSE 1017 CERTIFIED. | | 1/2" | 1/2" | | | LEONARD | 370-LF-STSTL REC-BV-DT | |
| PLUMBING FIXTURE SCHEDULE NOTES | | | | | | | | | | |
| 1. PROVIDE CHECK VALVES IN HW & CW SUPPLY TO LAB SINK FAUCETS. INSTALL IN A VISIBLE AND ACCESSIBLE LOCATION AFTER THE SHUT OFF VALVE. 2. PROVIDE SURESEAL INLINE FLOOR DRAIN TRAP SEALER IN FLOOR DRAINS. | | | | | | | | | | |

| DATE | ISSUED FOR | REV |
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| 2025-01-28 | PERMIT - QA LAB | A |
| 2025-04-24 | TENDER - QA LAB | 0 |

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Consultants
Architecture: NORR ARCHITECTS & ENGINEERS LIMITED
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Mechanical: NORR ARCHITECTS & ENGINEERS LIMITED
Electrical: NORR ARCHITECTS & ENGINEERS LIMITED

Seal(s)

2

NORR

NORR Architects & Engineers Limited

175 Bloor Street East
North Tower, 15th Floor
Toronto, ON, Canada M4W 3R8
norr.com

| | |
|-------------------------------|---------------------|
| Project Manager P. RANCHAL | Drawn P. PAN |
| Project Leader G. ALLAN | Checked G. ALLAN |

Client
CYCLIC MATERIALS

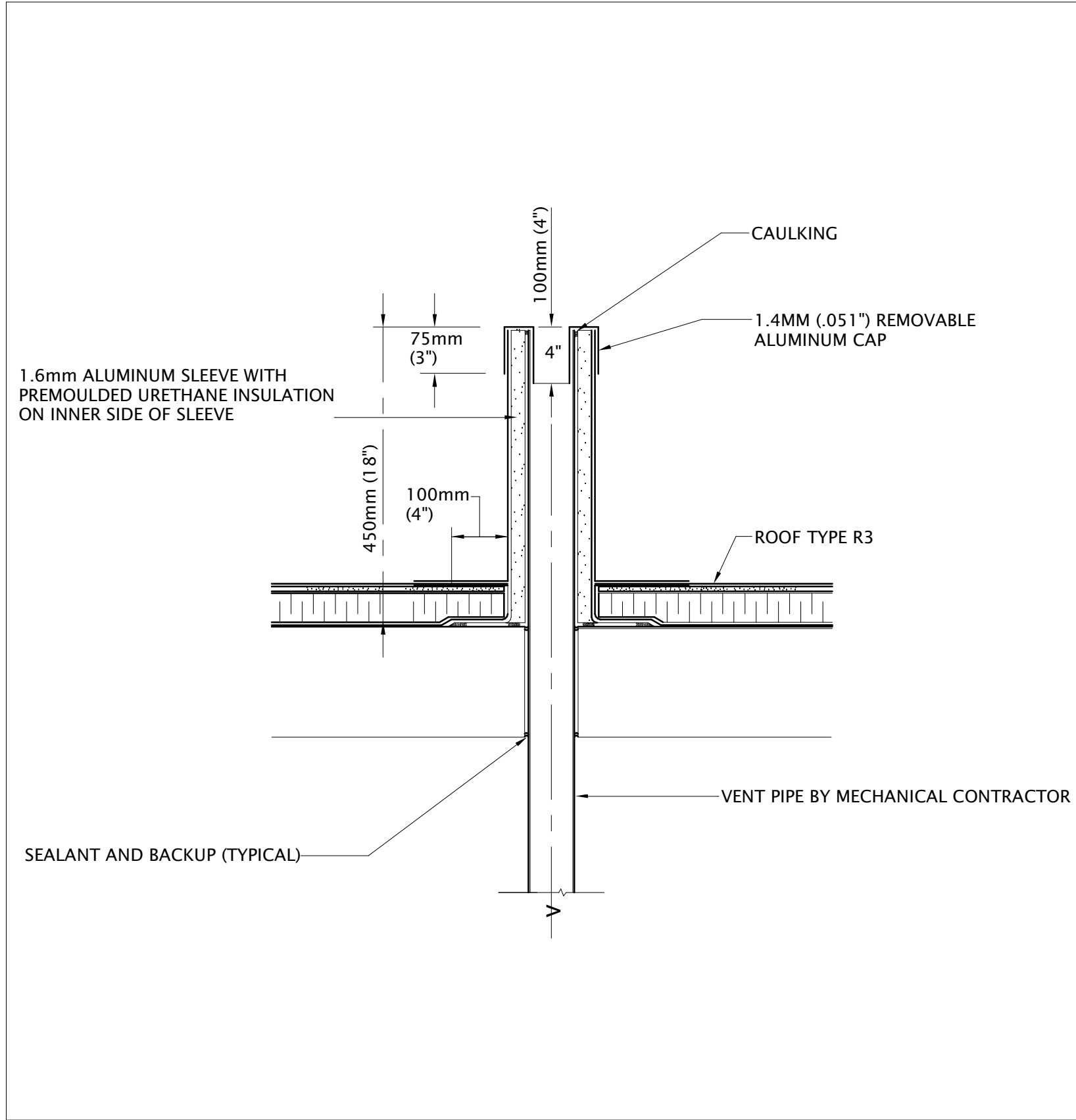
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Project
CYCLIC MATERIALS HUB CENTER

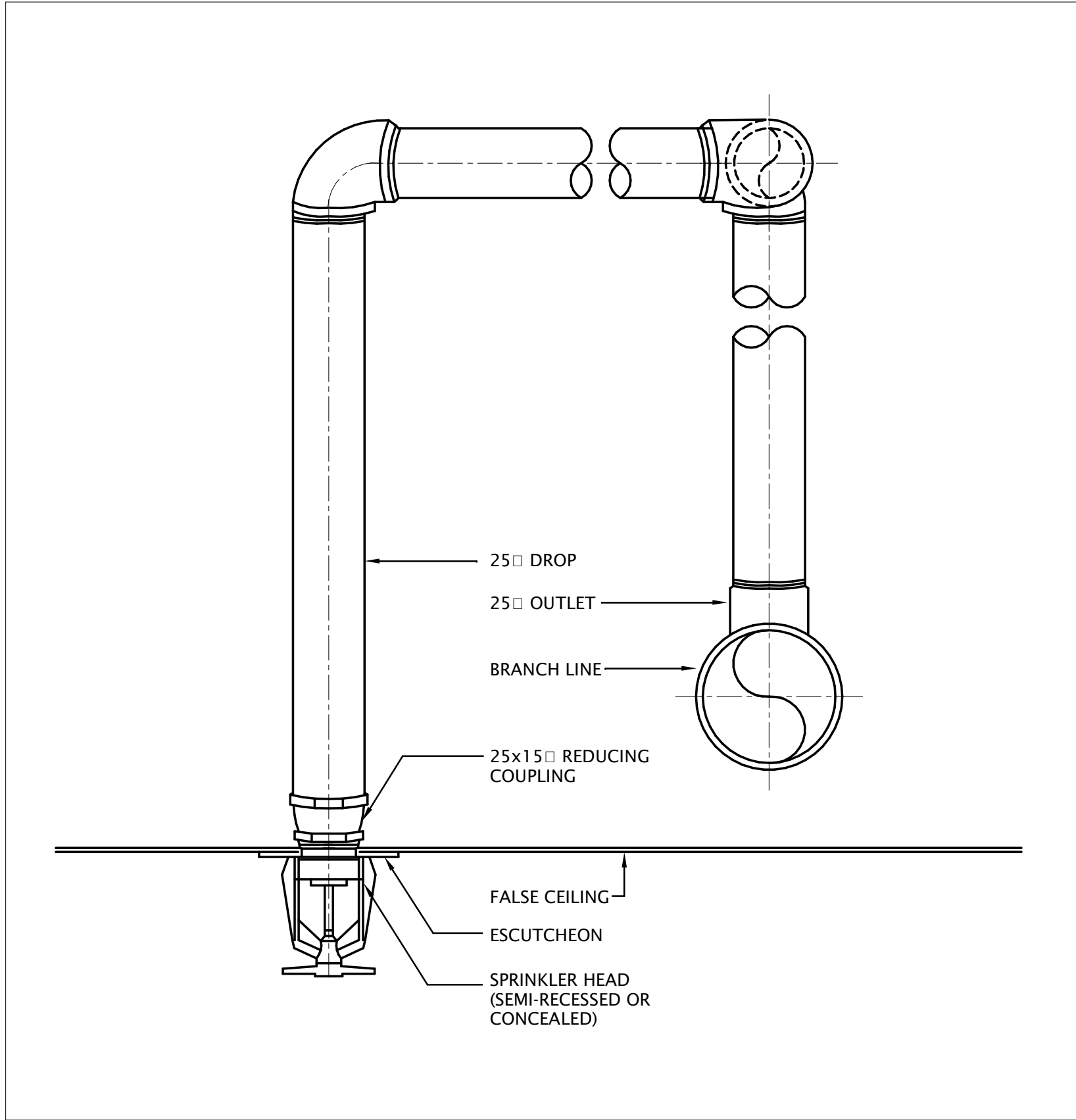
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Drawing Title
MECHANICAL SCHEDULES (2) - Q/A LAB

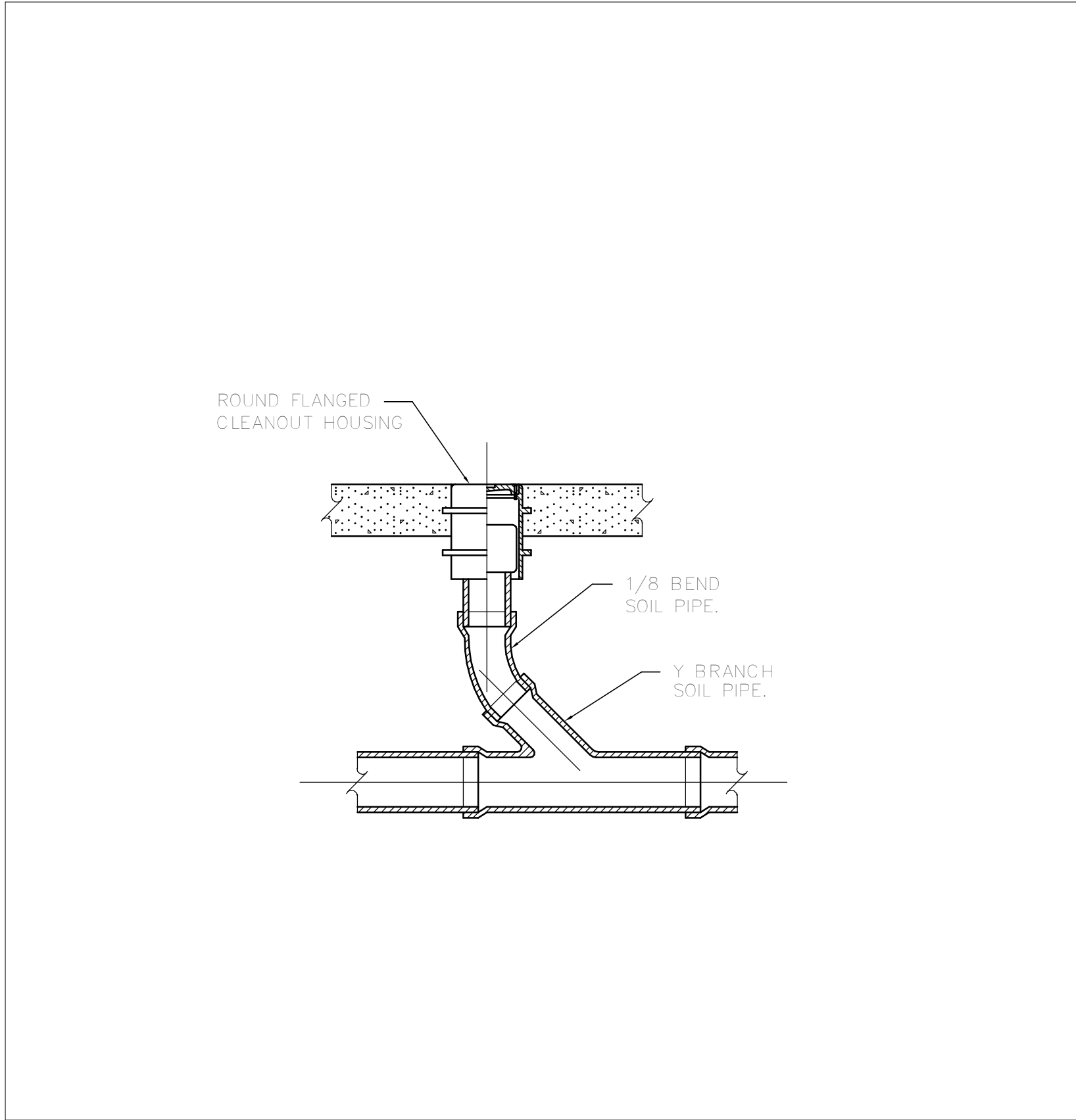
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| Scale | N.T.S. |
| Project No. | IN1024-0349 |
| Drawing No. | M01-02L |



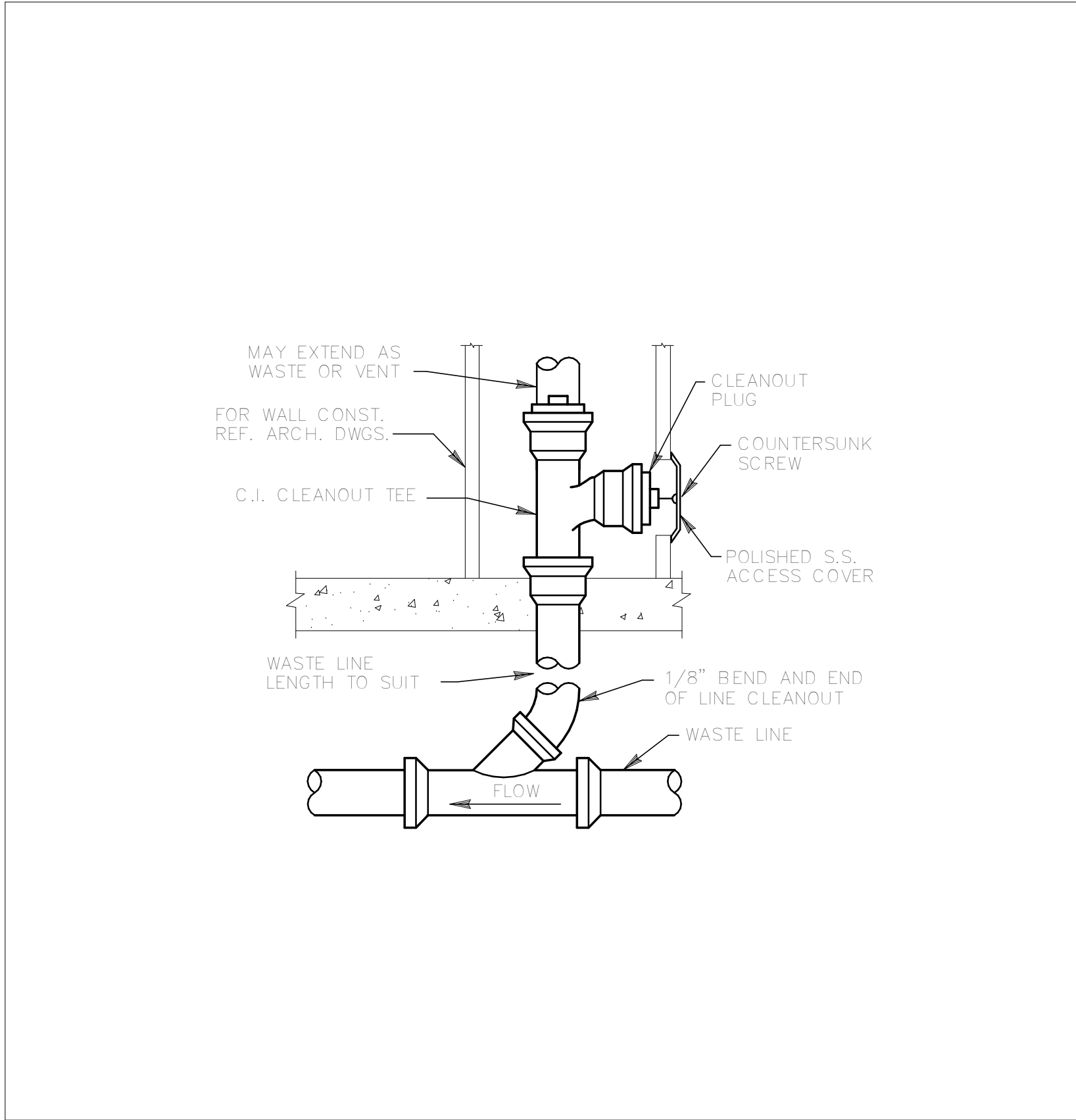
1
M01-03L
DETAIL - PLUMBING VENT THROUGH ROOF
N.T.S.



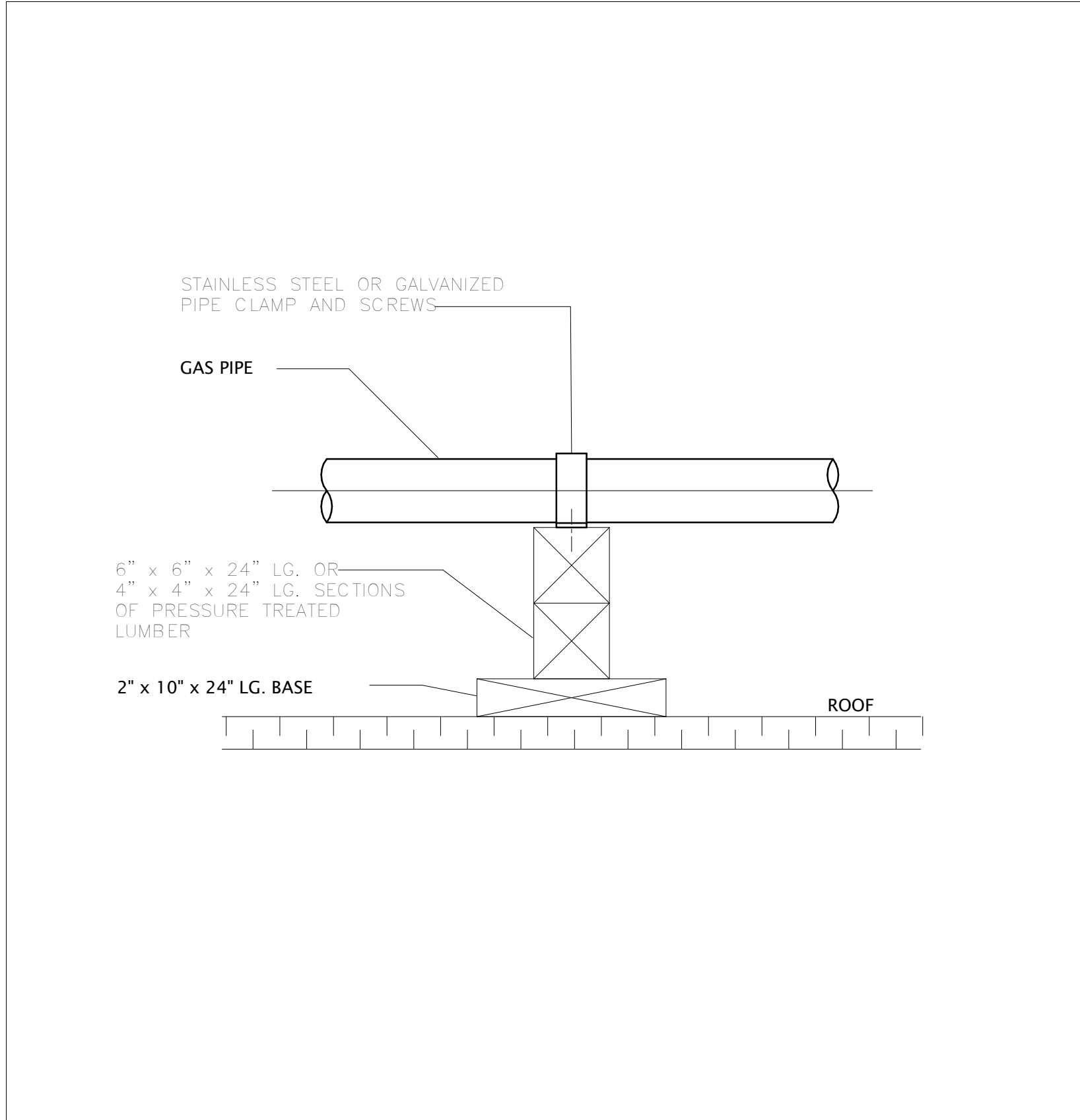
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M01-03L
DETAIL - TYPICAL SPRINKLER DROP
N.T.S.



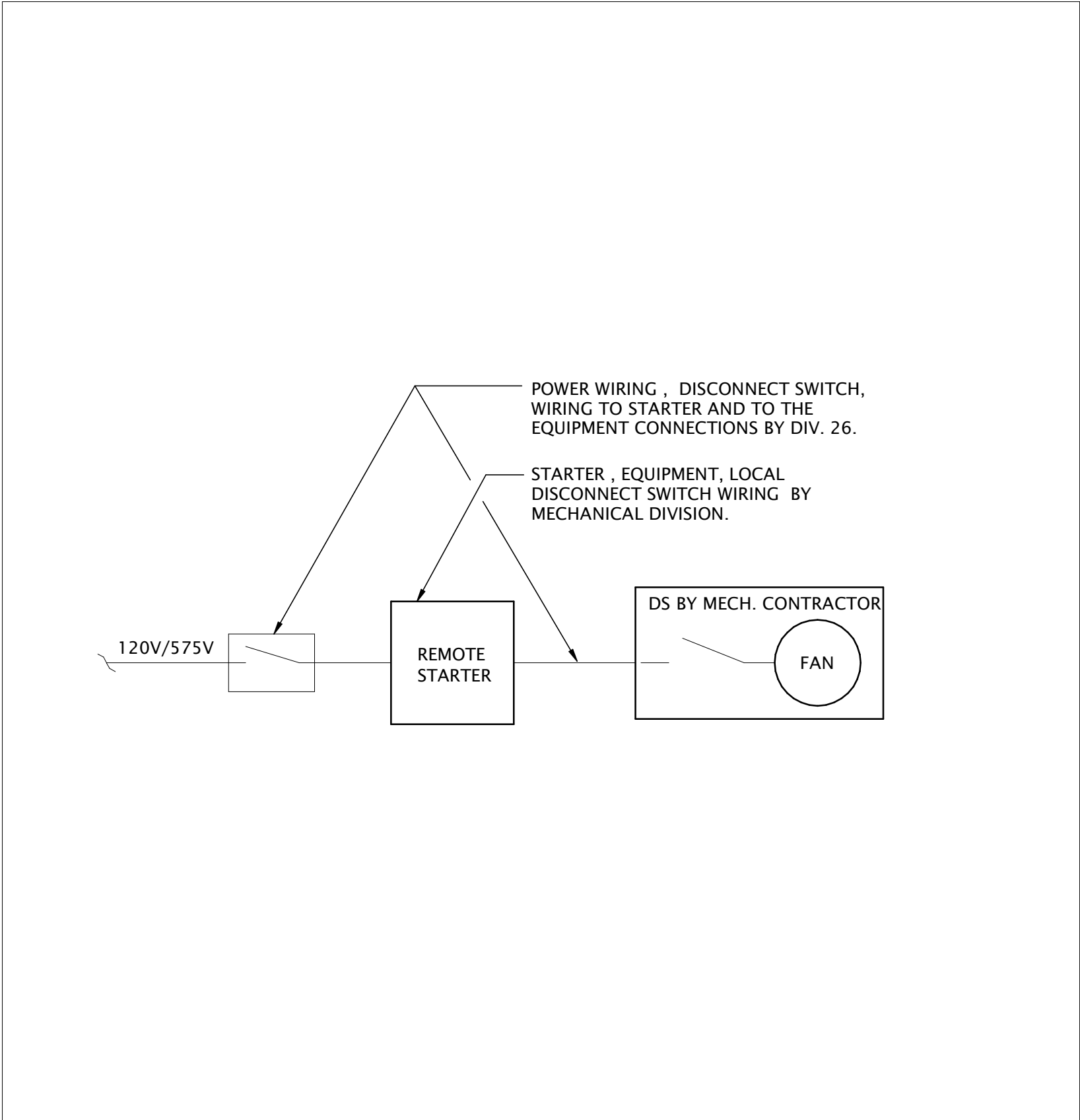
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M01-03L
DETAIL - SANITARY CLEANOUT FLOOR SLAB
N.T.S.



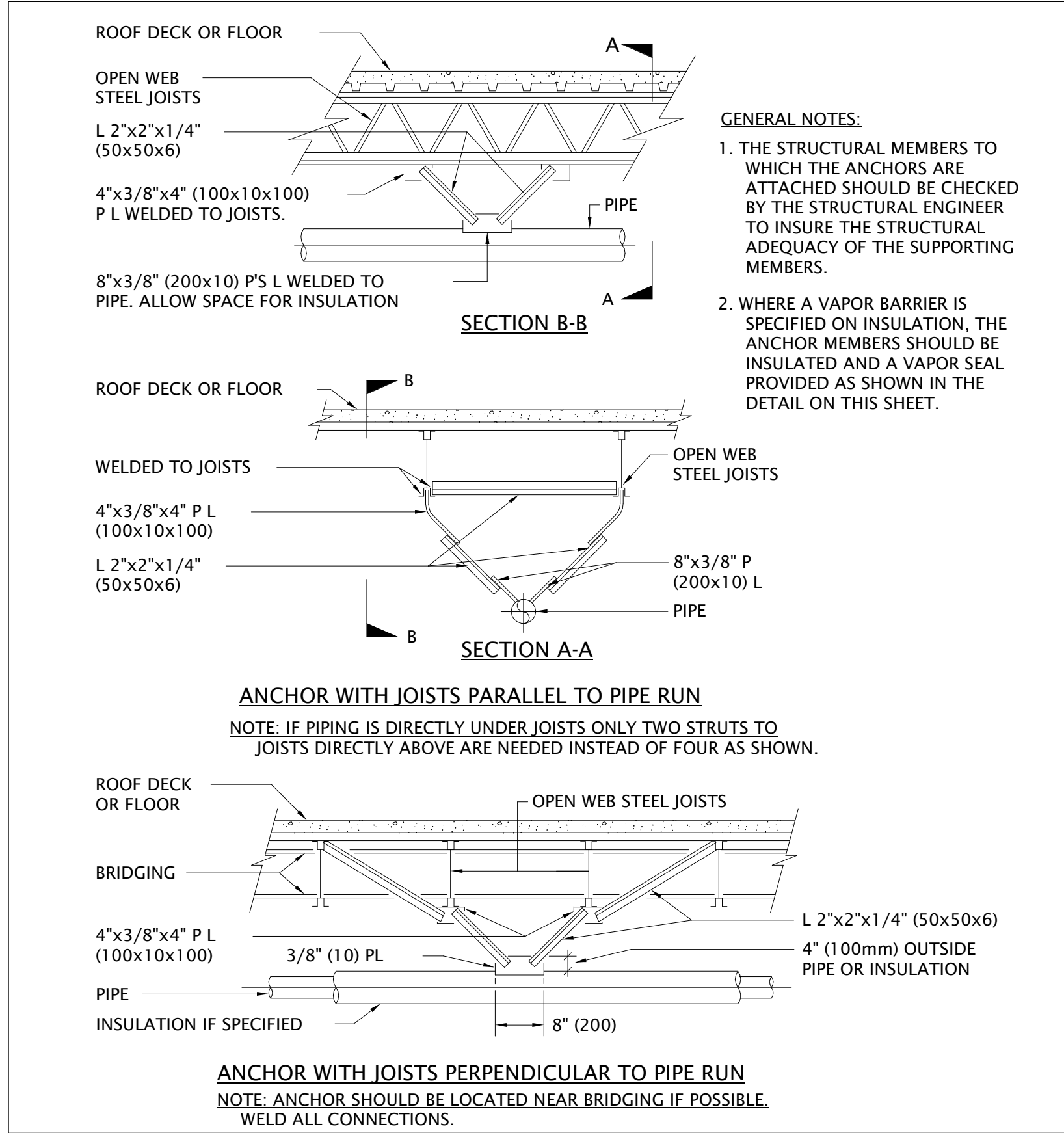
4
M01-03L
DETAIL - WALL CLEANOUT-FINISHED ROOMS
N.T.S.



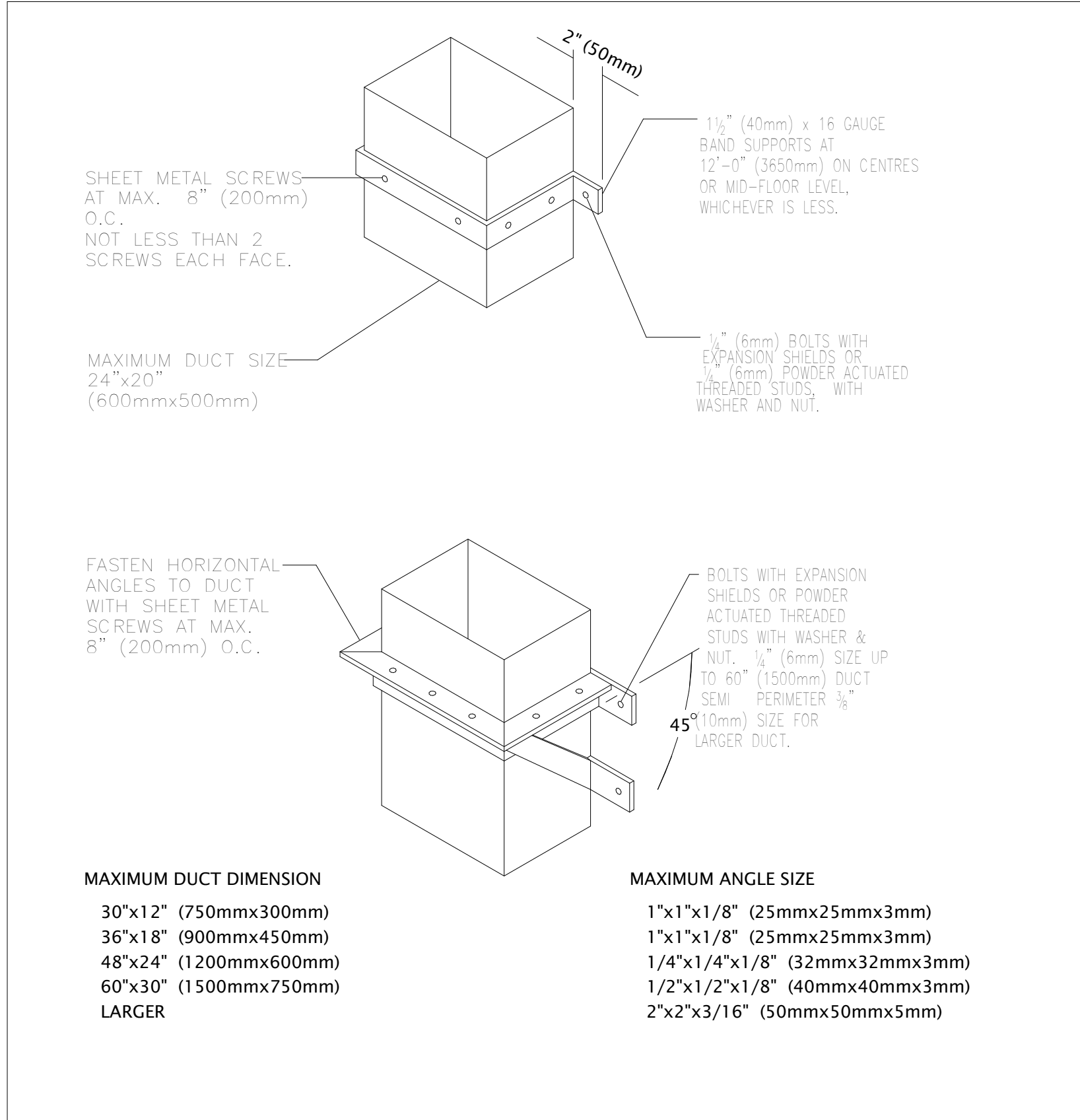
5
M01-03L
DETAIL - GAS PIPING SUPPORT
N.T.S.



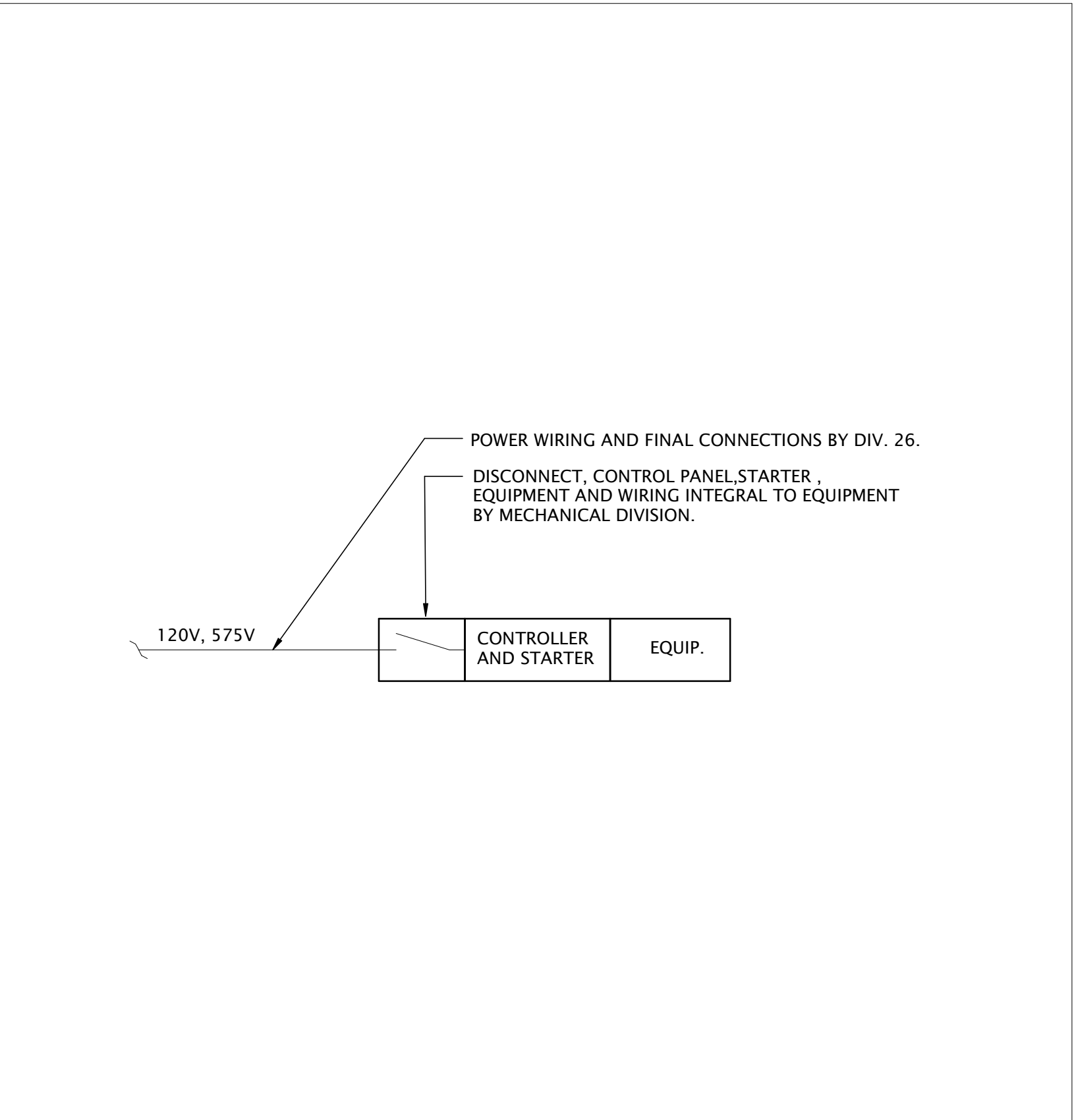
6
M01-03L
DETAIL - EHAUST FANS
N.T.S.



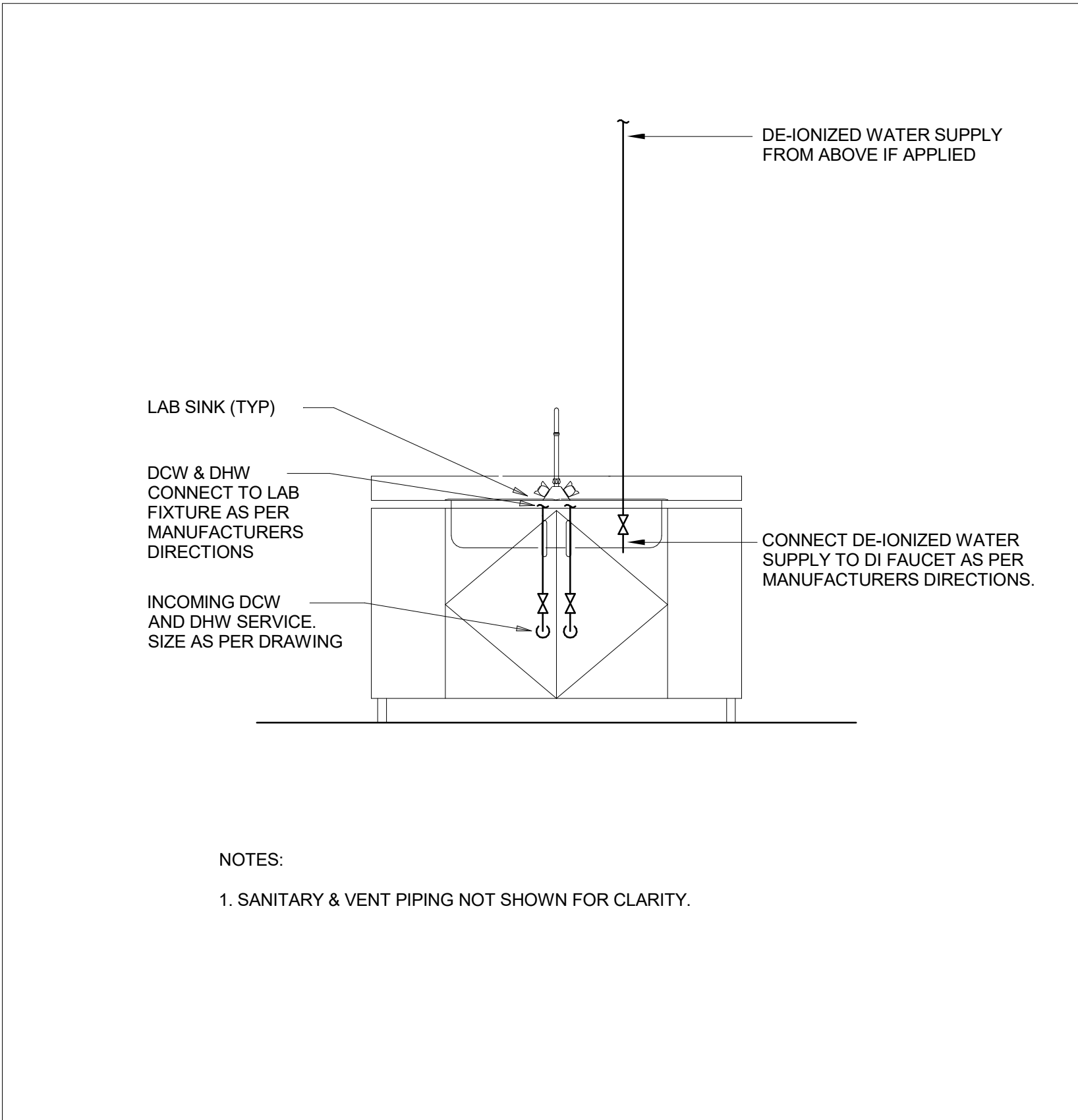
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M01-03L
DETAIL - PIPE ANCHOR SUPPORT
N.T.S.



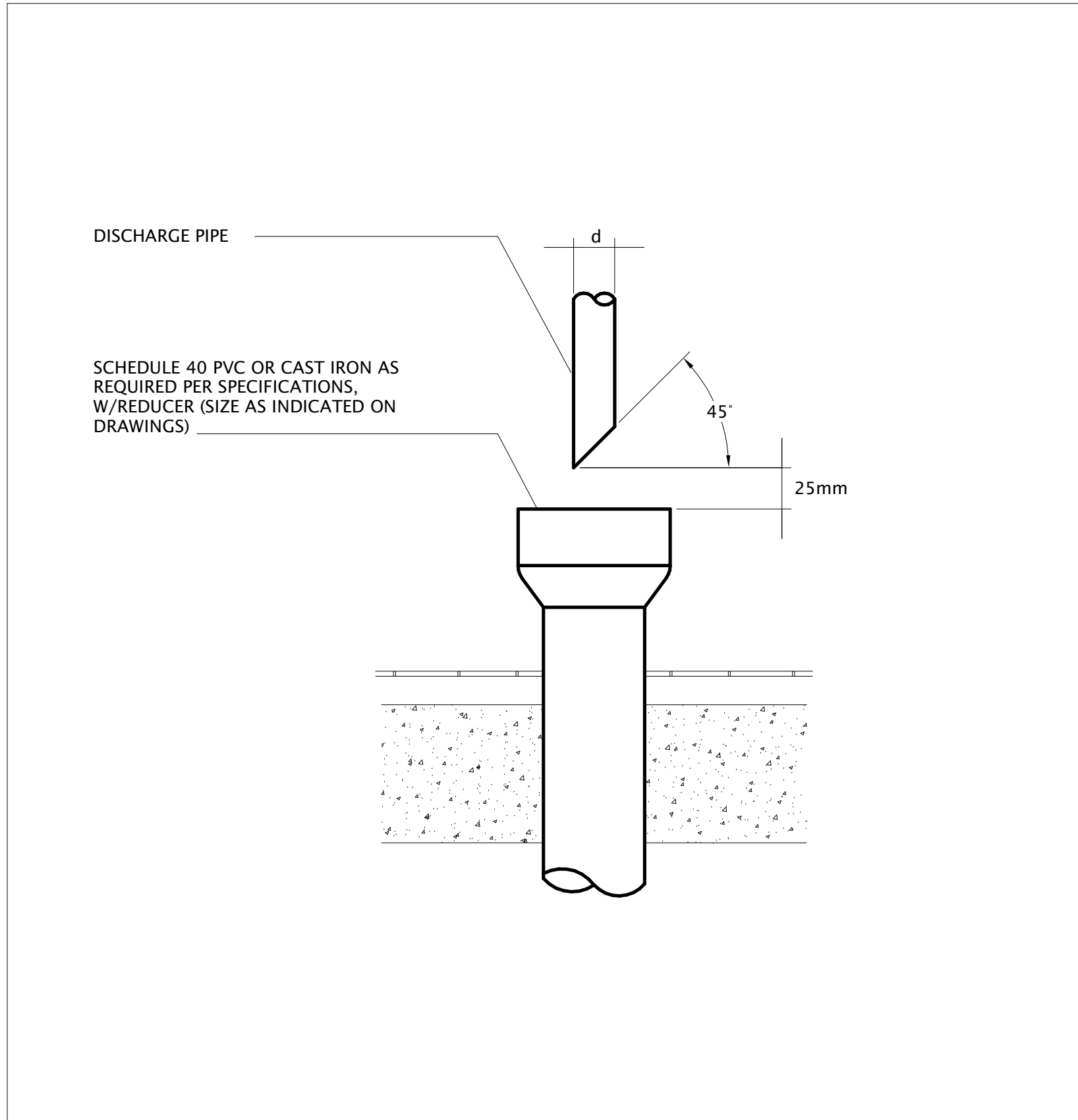
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M01-03L
DETAIL - SUPPORT FOR VERTICAL DUCT AT WALL
N.T.S.



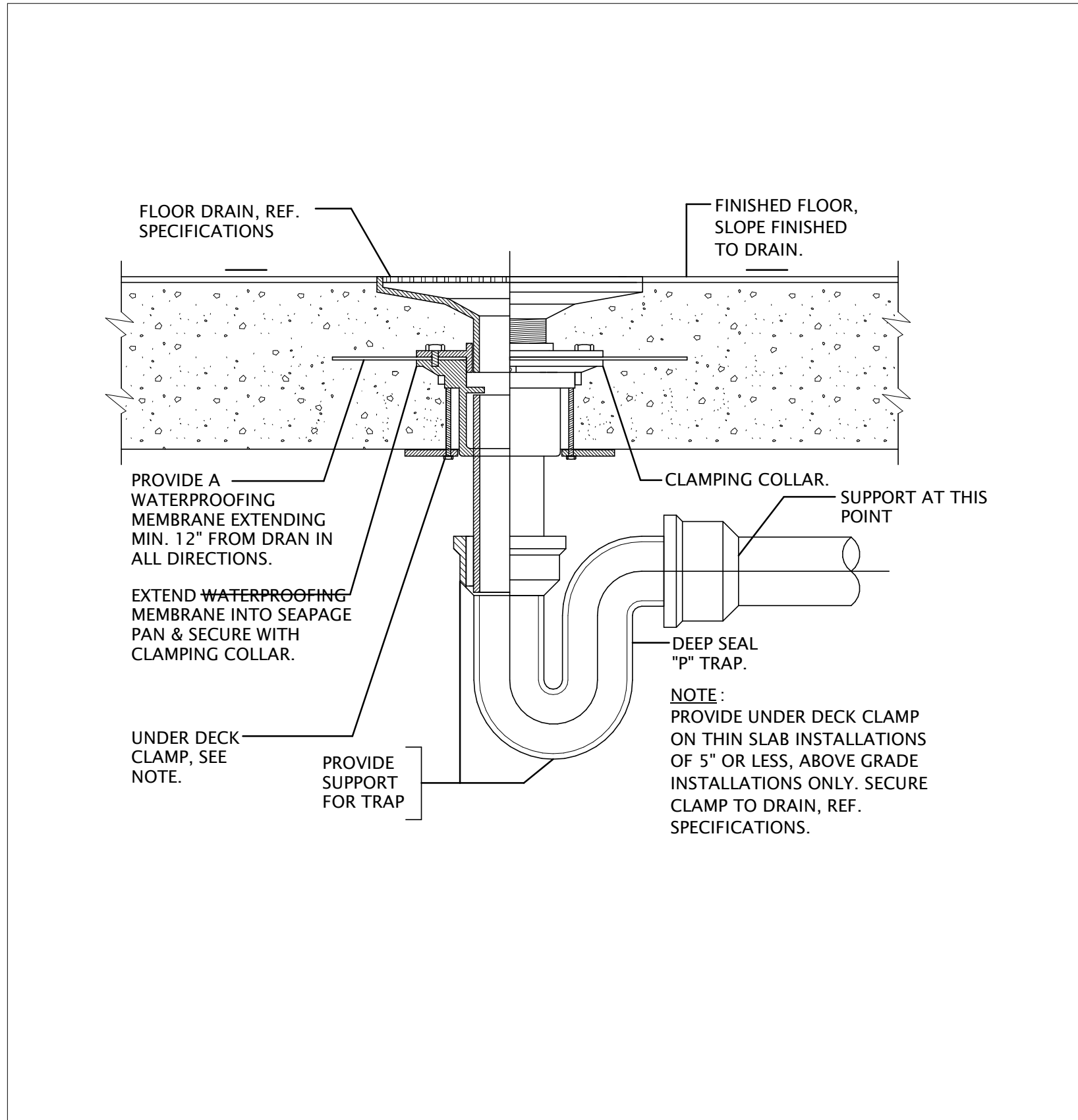
9
M01-03L
DETAIL - PACKAGED EQUIPMENT
N.T.S.



10
M01-03L
DETAIL - LABORATORY SINK
N.T.S.



11
M01-03L
DETAIL - DRAIN TO FUNNEL
N.T.S.



12
M01-03L
DETAIL - FLOOR DRAIN INSTALLATION
N.T.S.

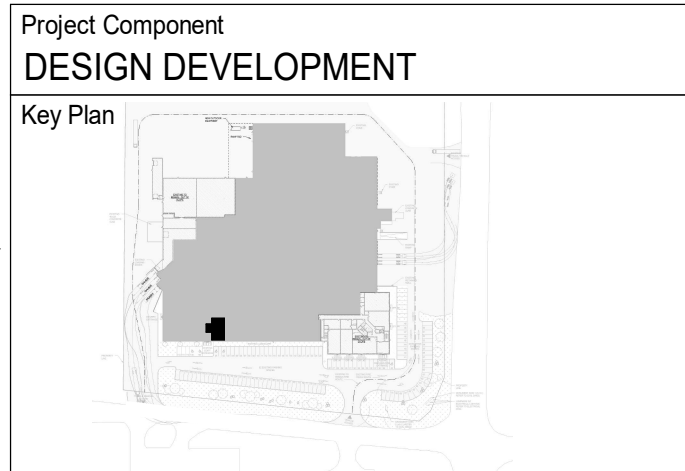
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Seal(s)

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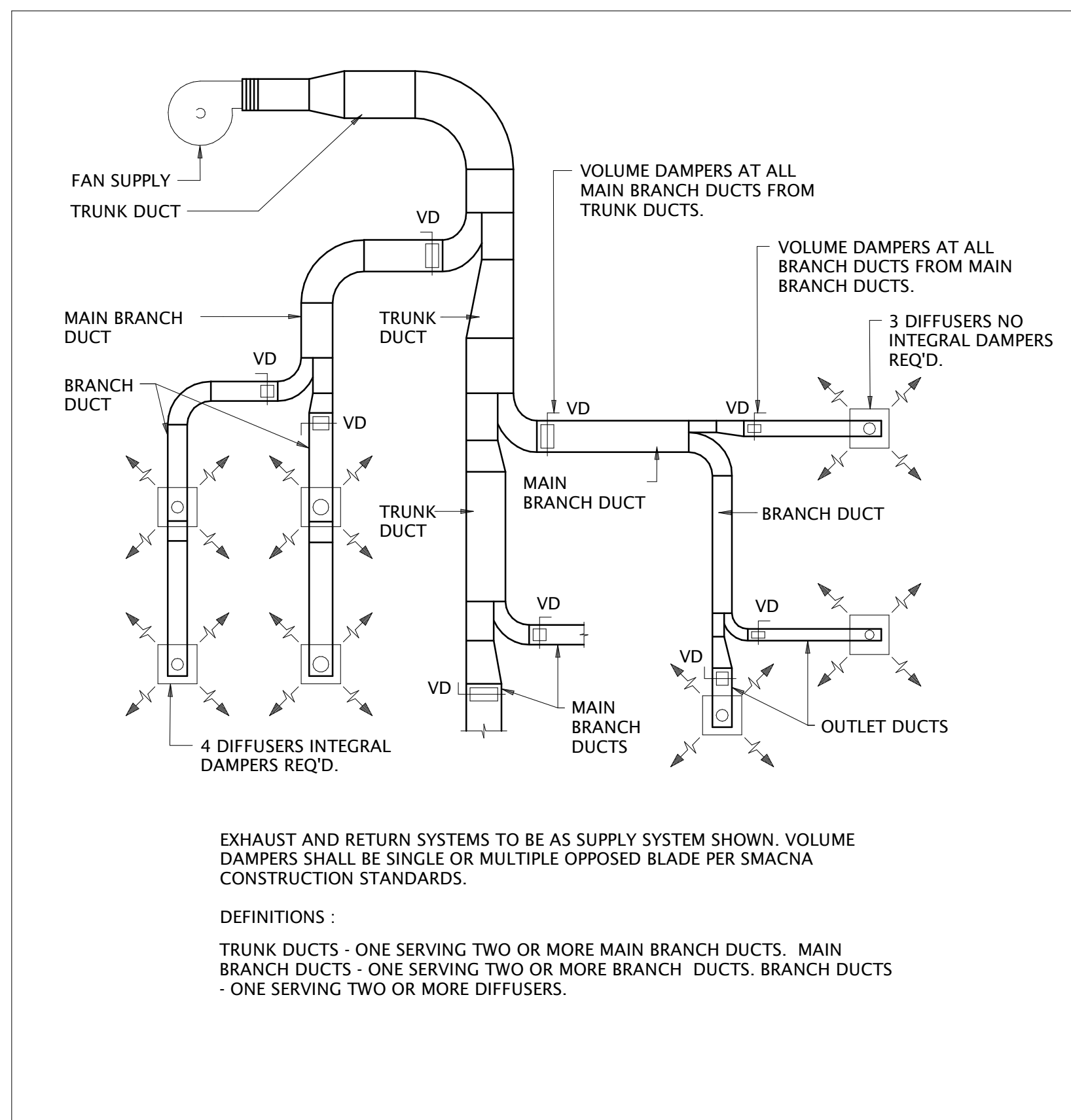
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175 Bloor Street East
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Project Manager: P. RANCHAL
Project Leader: G. ALLAN
Drawn: P. PAN
Checked: G. ALLAN

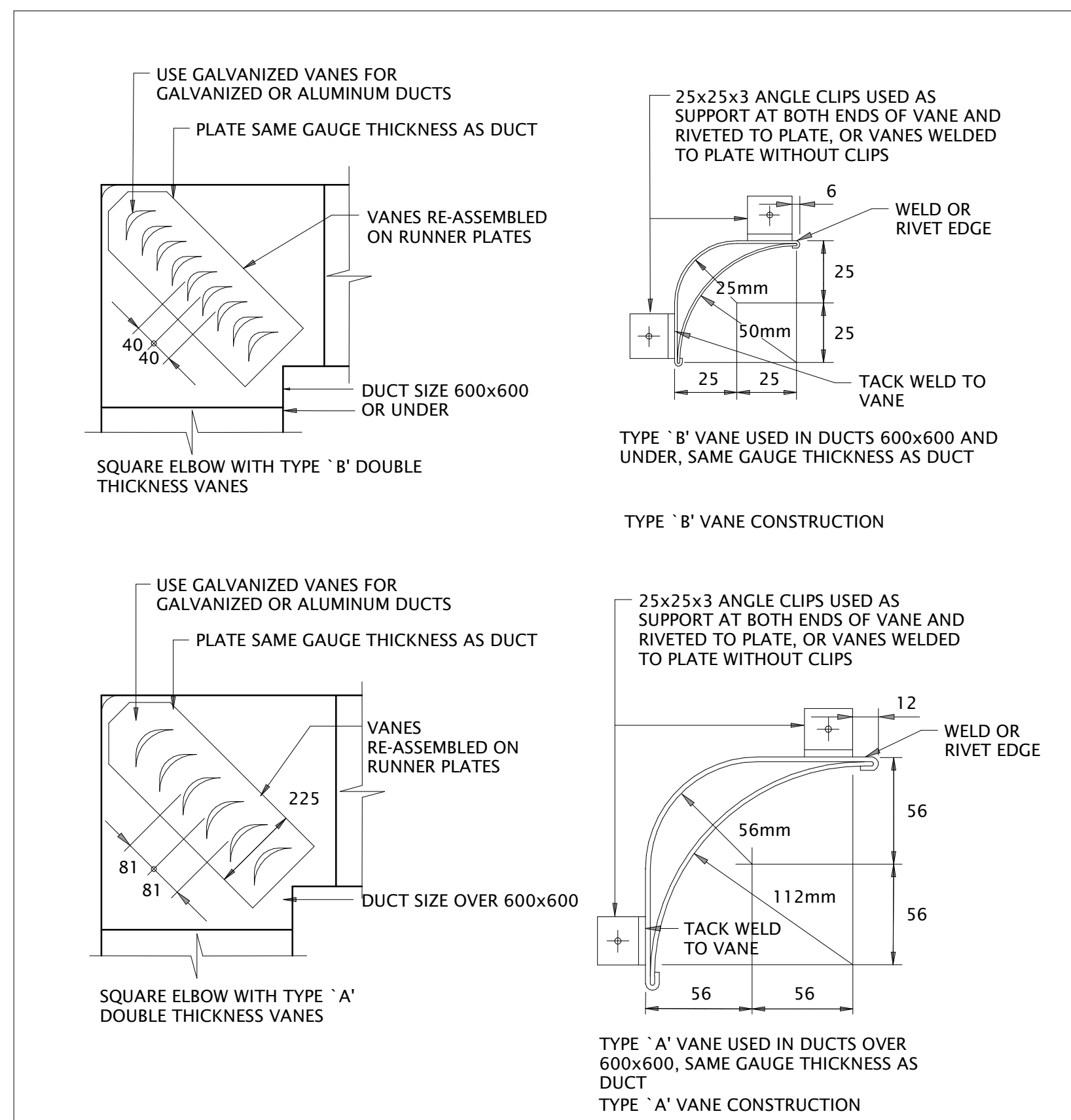
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Cyclic Materials
320 BAY ST., TORONTO, ON M5H 4A6 CANADA
Project: **CYCLIC MATERIALS HUB CENTER**

650 Cataragui Woods DR. Kingston, ON K7P 2Y4
Drawing Title: **MECHANICAL DETAILS (1) - Q/A LAB**

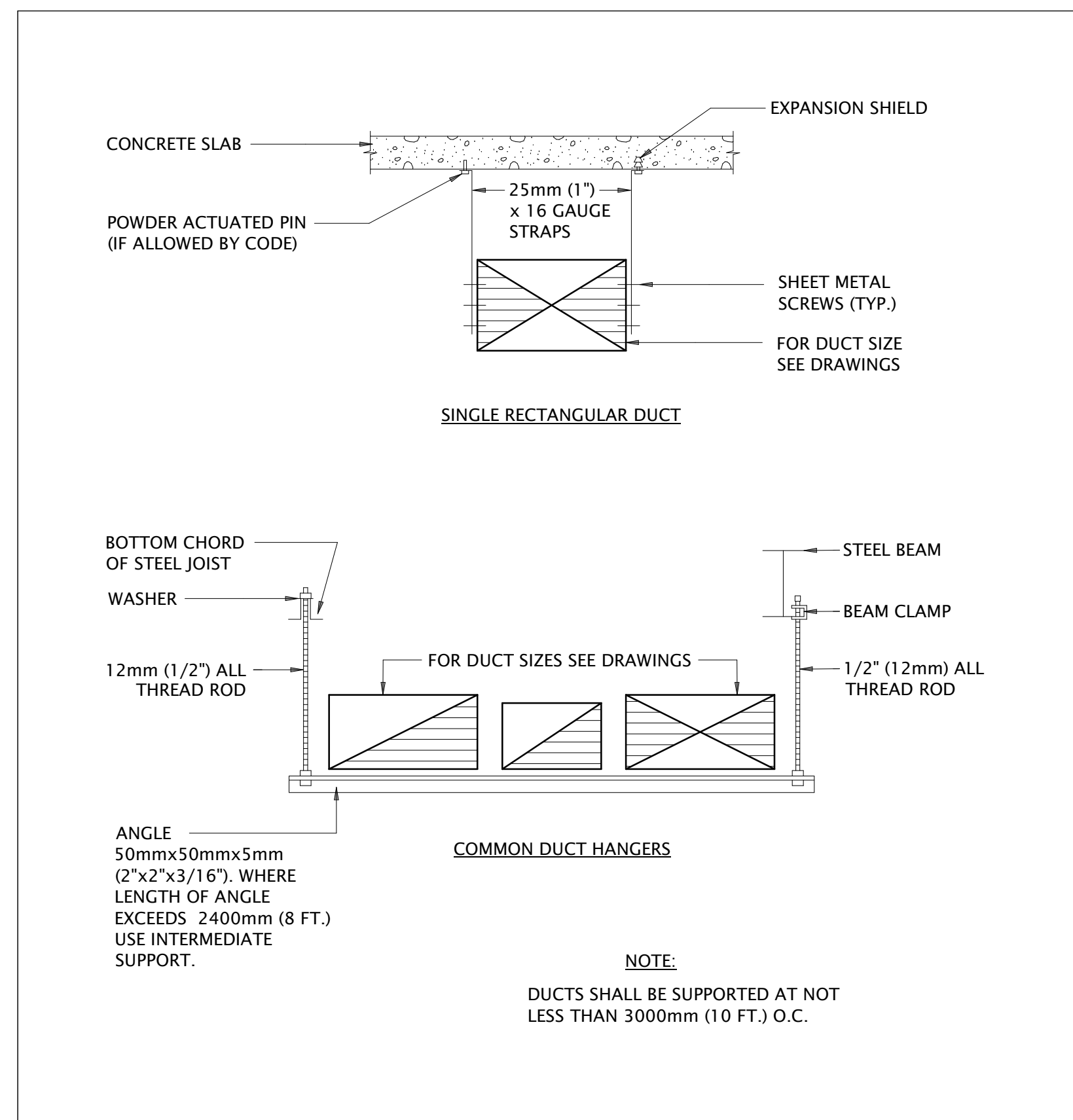
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Project No.: IN1024-0349
Drawing No.: **M01-03L**



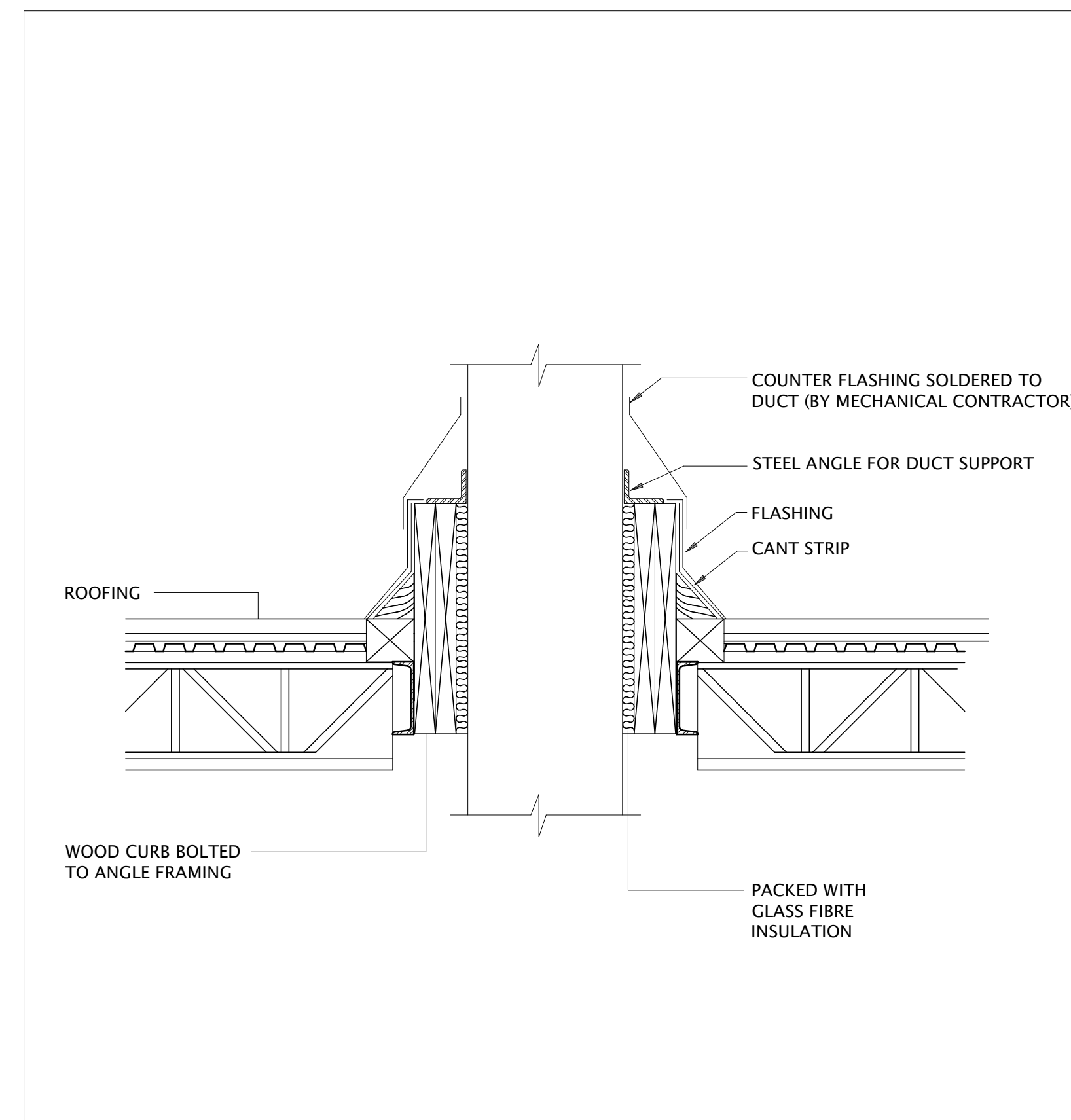
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M01-04L
DETAIL - VOLUME CONTROL DAMPER
N.T.S.



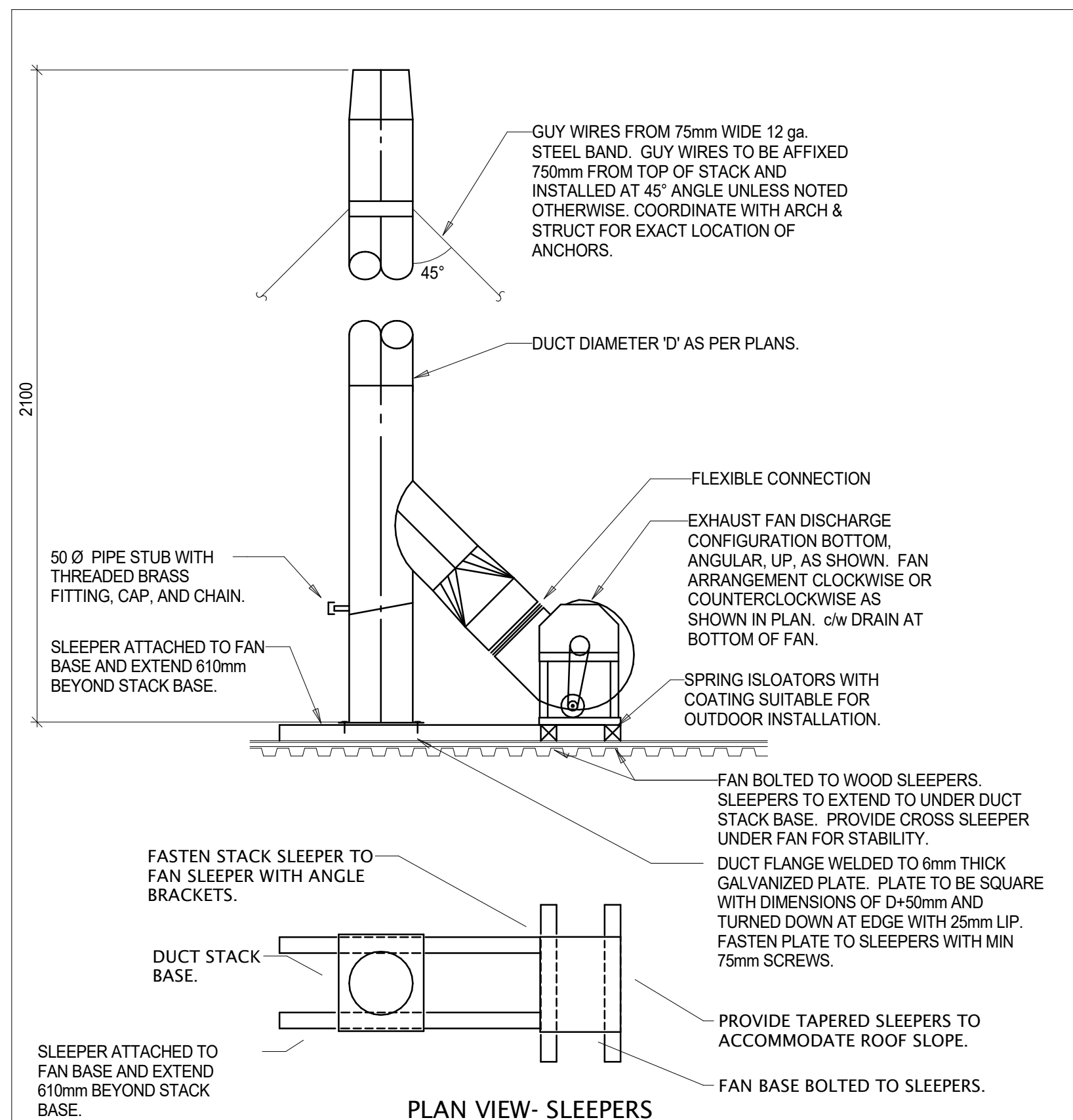
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DETAIL - TURNING VANES IN SQUARE ELBOWS
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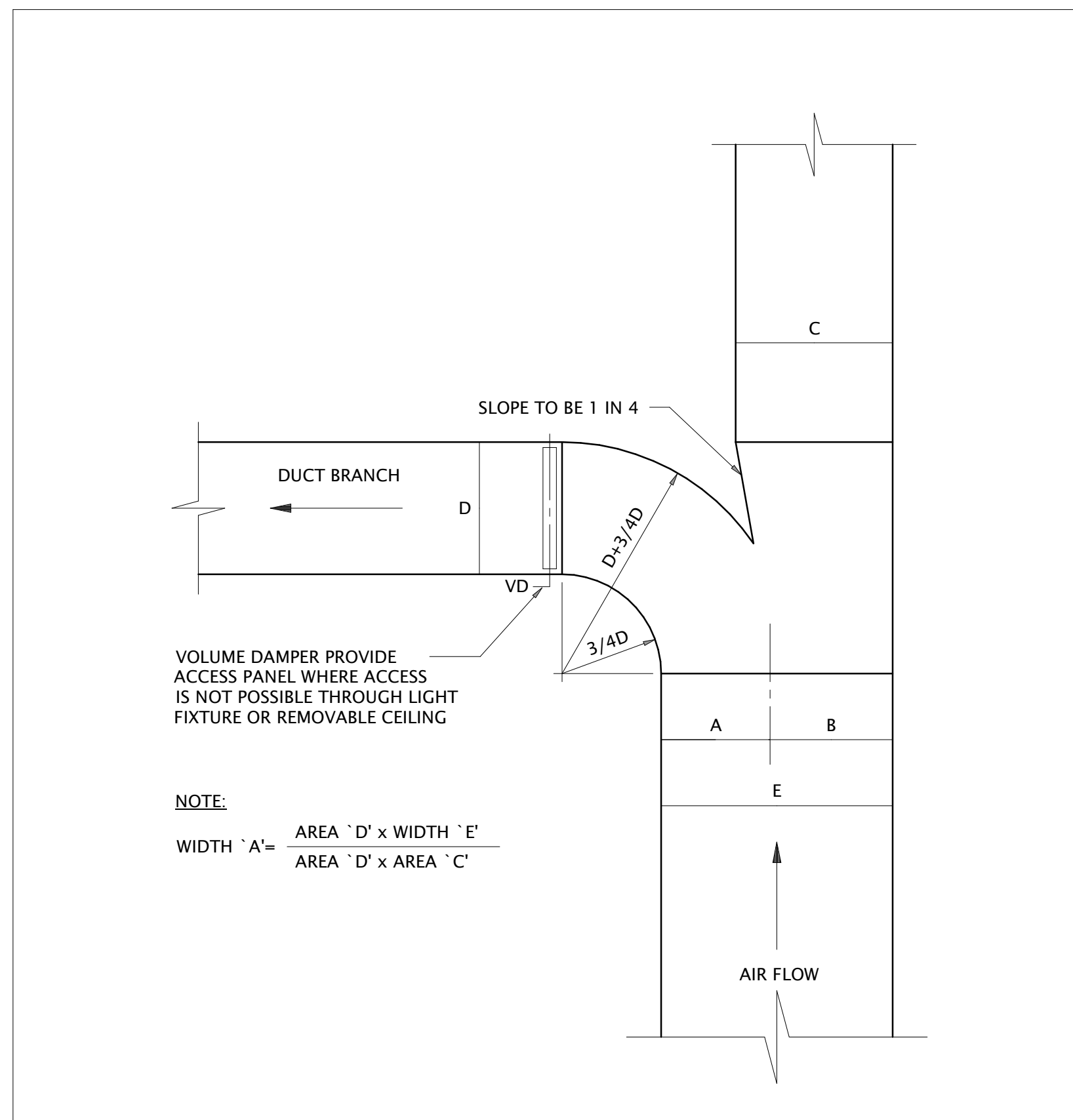
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DETAIL - INSTALLATION AND SUPPORT FOR DUCTWORK
N.T.S.



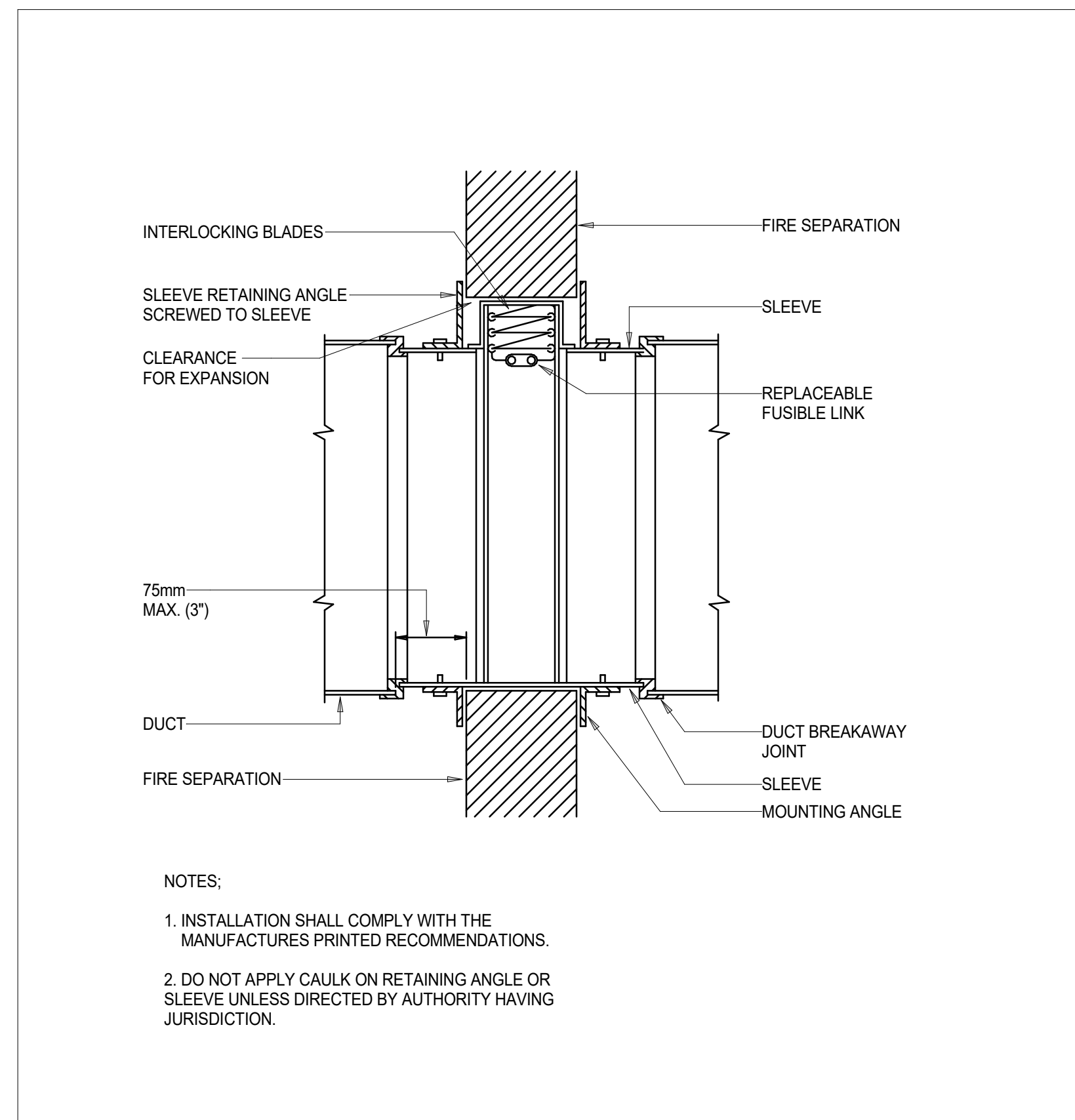
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M01-04L
DETAIL - DUCT PENETRATION THROUGH ROOF
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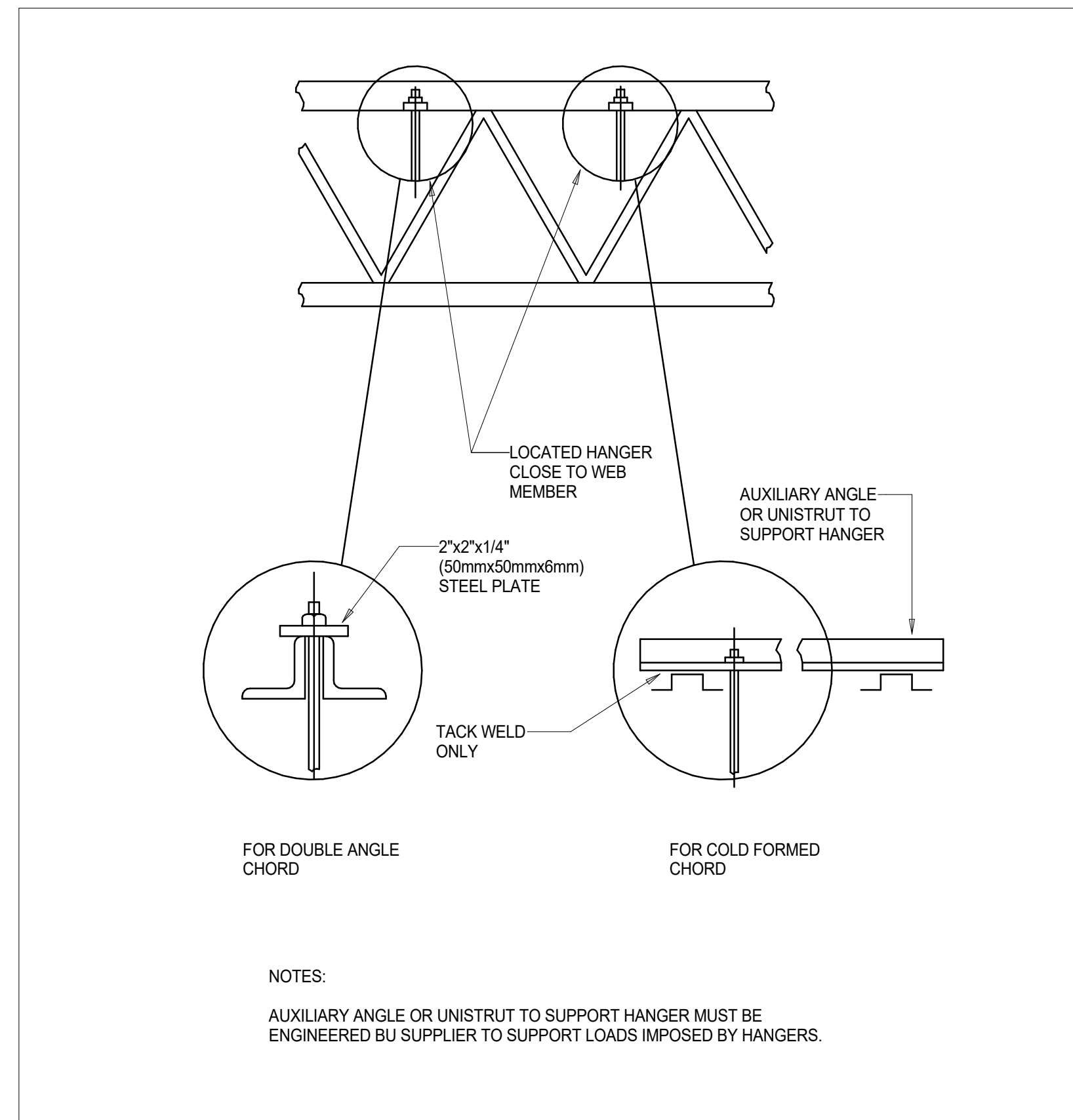
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M01-04L
DETAIL - SINGLE INLET EXHAUST FAN
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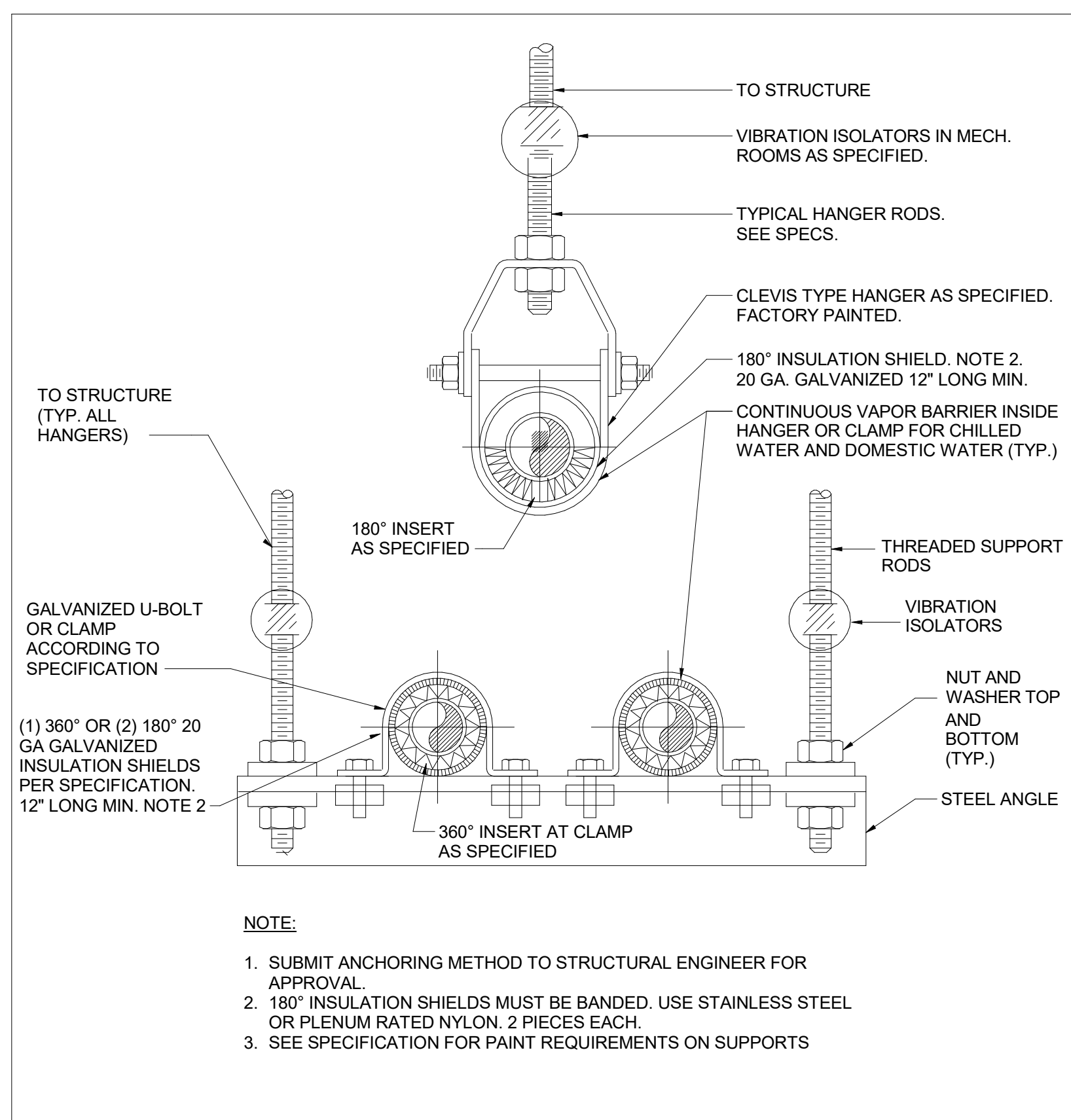
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M01-04L
DETAIL - DUCT BRANCH CONNECTION FROM MAIN DUCT
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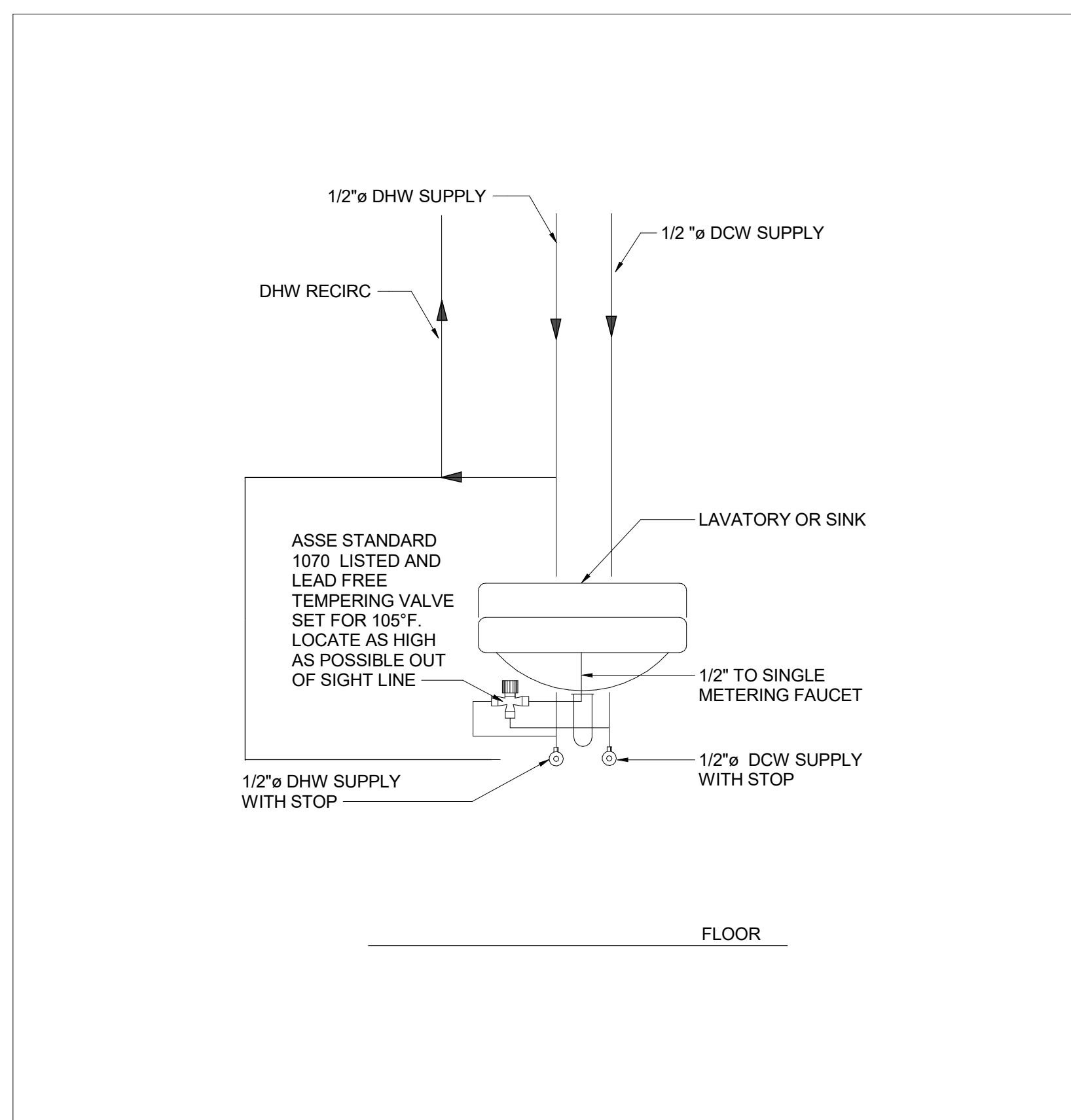
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M01-04L
DETAIL - FIRE DAMPER INSTALLATION
N.T.S.



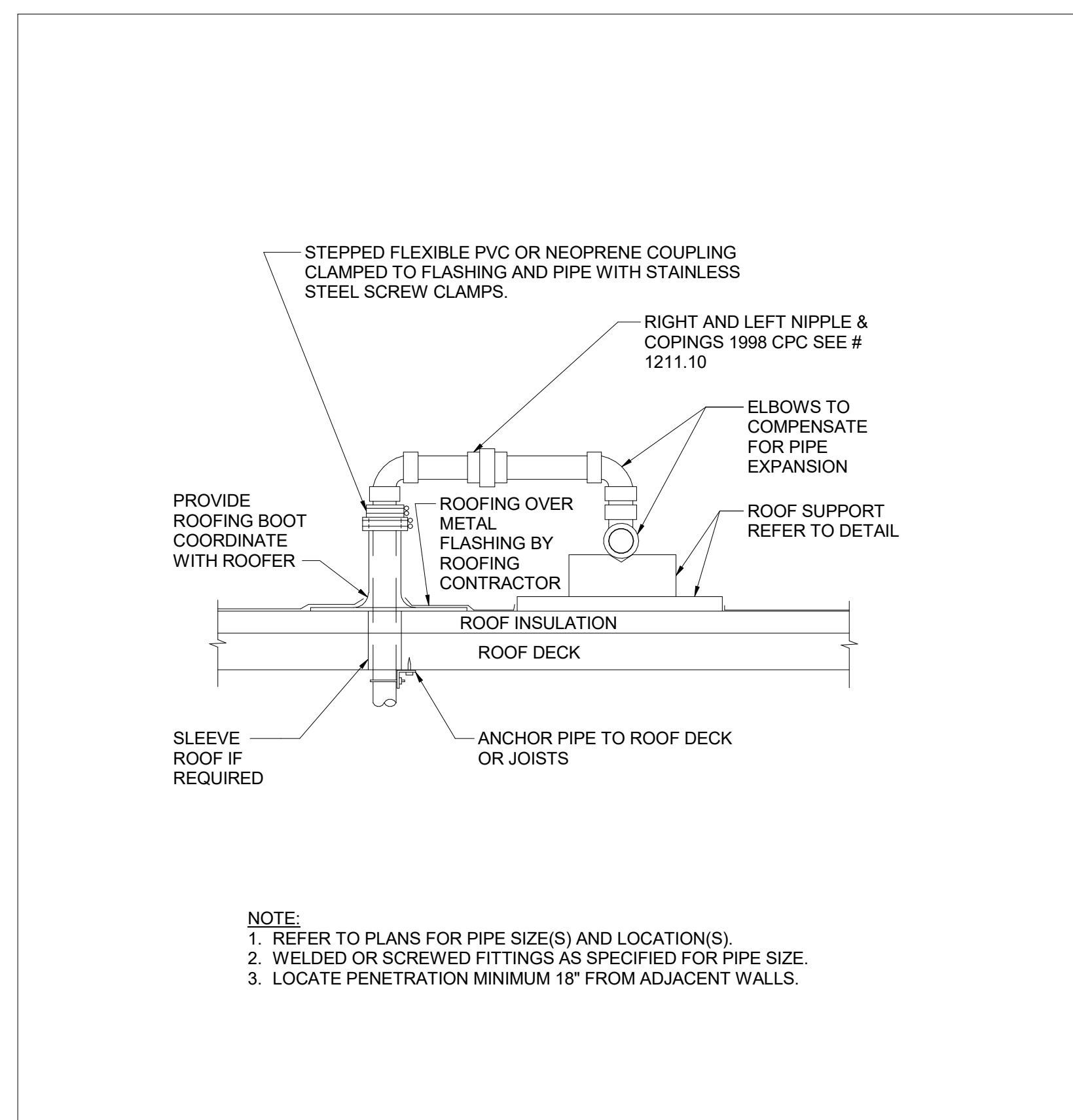
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DETAIL - HANGING FROM JOISTS
N.T.S.



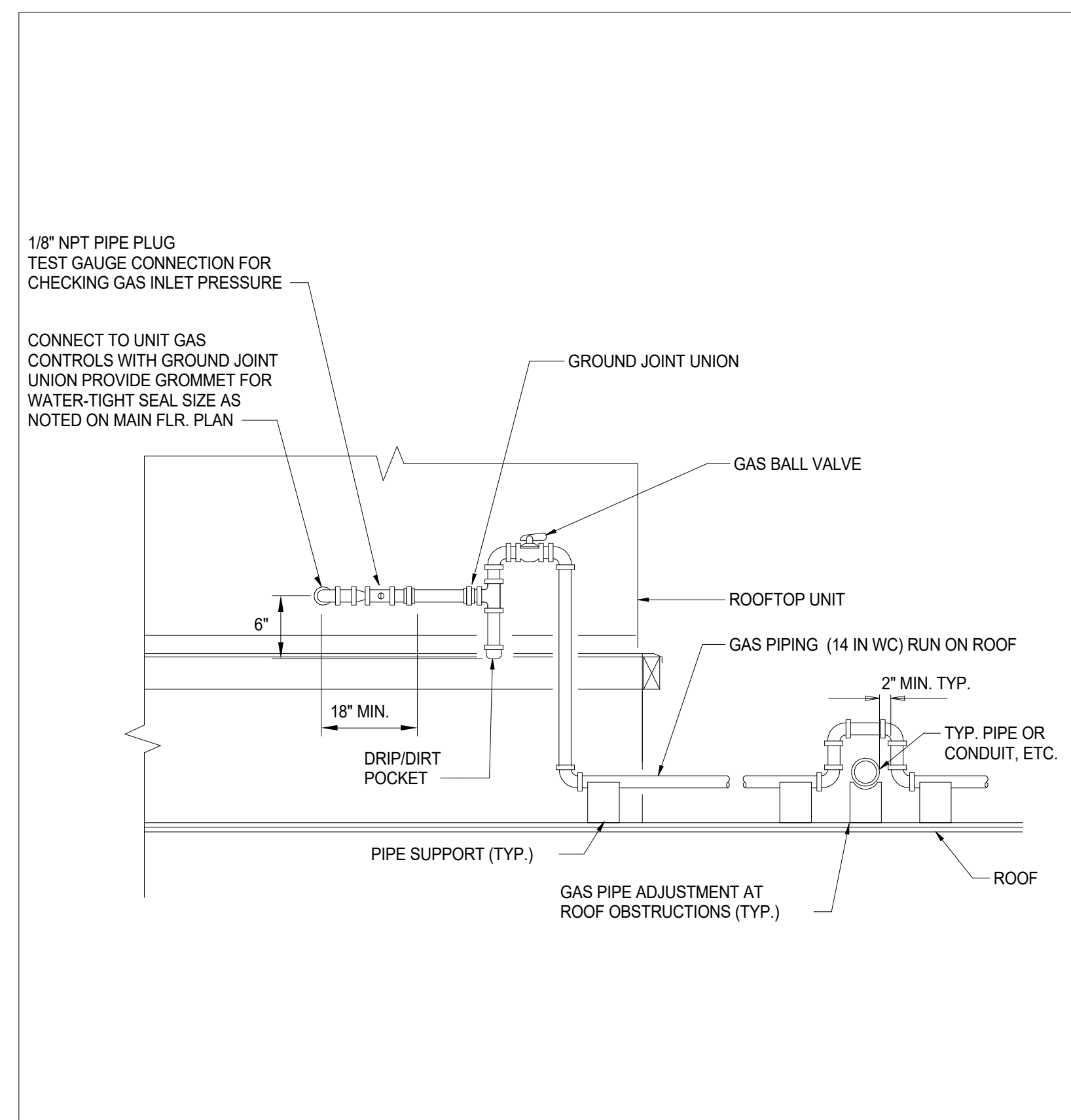
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M01-04L
DETAIL - TYPICAL WATER PIPE HANGER
N.T.S.



10
M01-04L
DETAIL - TYPICAL SINGLE SINK/LAV POINT OF USE TEMPERING VALVE
N.T.S.



11
M01-04L
DETAIL - GAS PIPE ROOF PENETRATION
N.T.S.



12
M01-04L
DETAIL - ROOF MOUNTED MAU GAS PIPE CONNECTION
N.T.S.

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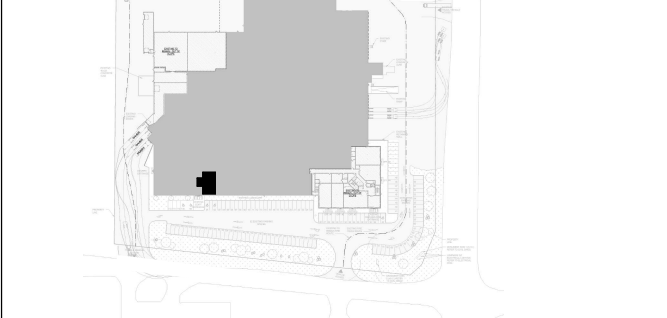
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Project Component DESIGN DEVELOPMENT Key Plan



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North Tower, 15th Floor
Toronto, ON, Canada M4W 3R8
norr.com

| | |
|-----------------|----------|
| Project Manager | Drawn |
| P. RANCHAL | F. PAN |
| Project Leader | Checked |
| G. ALLAN | G. ALLAN |

Client

CYCLIC MATERIALS

Cyclic Materials

320 BAY ST., TORONTO, ON M5H 4A6 CANADA

Project

CYCLIC MATERIALS HUB CENTER

650 Cataragui Woods DR. Kingston, ON K7P 2Y4

Drawing Title

MECHANICAL DETAILS (2)

- Q/A LAB

Scale

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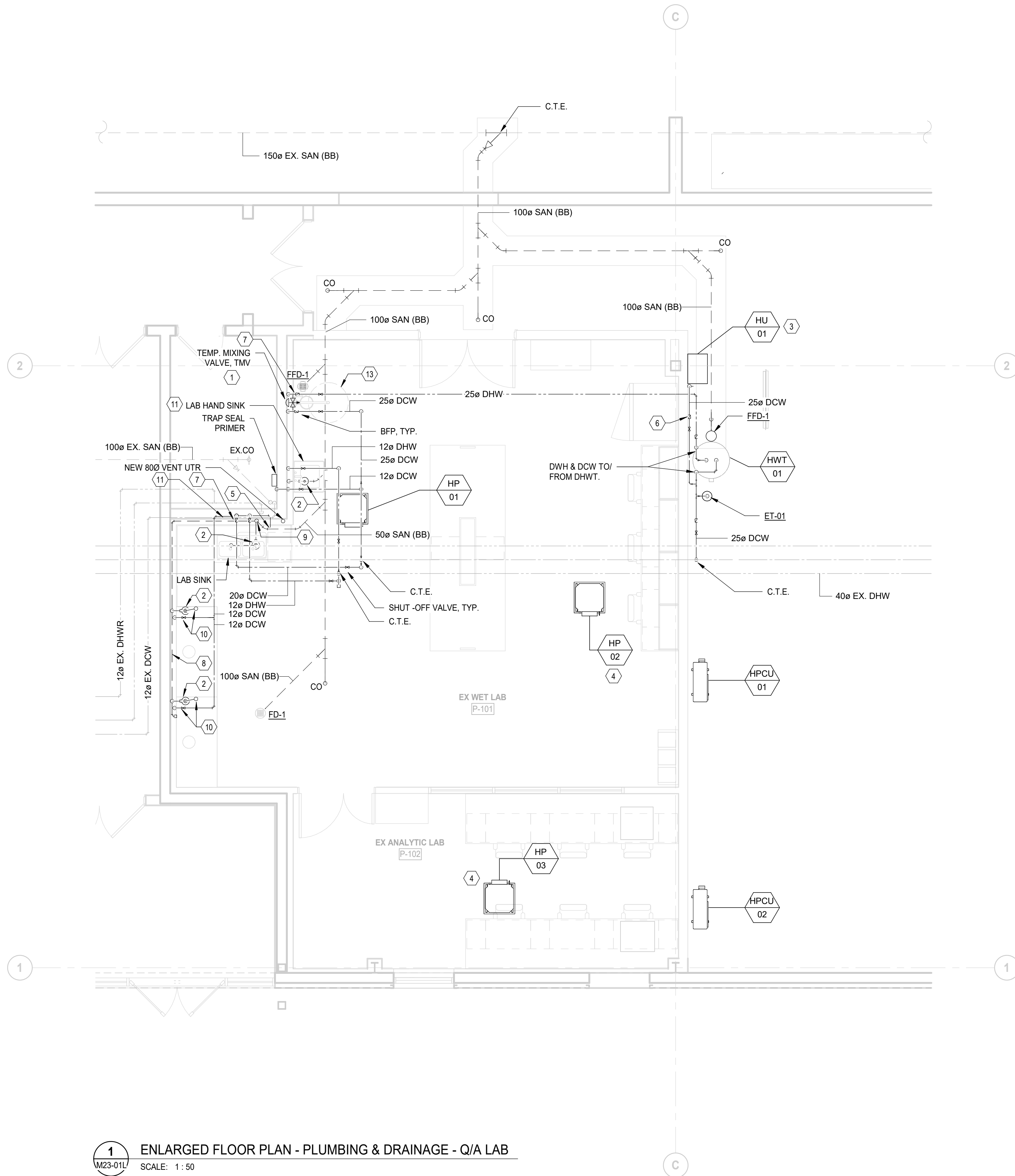
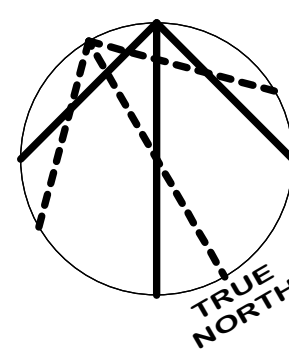
Project No.

IN1024-0349

Drawing No.

M01-04L

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1 ENLARGED FLOOR PLAN - PLUMBING & DRAINAGE - Q/A LAB
SCALE: 1:50

GENERAL NOTES FOR NEW PLUMBING & DRAINAGE WORK

- THIS DRAWING IS DIAGRAMMATIC & INDICATED THE GENERAL EXTENT OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION AND PROPER INSTALLATION OF PLUMBING & DRAINAGE. CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS, WHICH ARE REQUIRED DUE TO SPACE CONSTRAINTS.
- SHALL PROVIDE ALL MISCELLANEOUS SUPPORTING MATERIALS, ETC. FOR THE PROPER INSTALLATION OF ALL PLUMBING SYSTEMS.
- COORDINATE FLOOR, WALL AND ROOF PENETRATIONS, ETC. WITH ARCHITECTURAL TRADES IF ANY.
- COORDINATE THE INSTALLATION OF PLUMBING PIPING AND PLUMBING FIXTURES & EQUIPMENT WITH ALL OTHER TRADES.
- DO NOT SCALE DRAWINGS. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALE. ALL DIMENSIONS TO BE CHECKED AND VERIFIED ON SITE. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH PROJECT MANUAL AND ENGINEER'S DRAWINGS. REFER TO PROJECT MANUAL FOR ALL GENERAL REQUIREMENTS AND TRADE SPECIFICATIONS. REFER TO ENGINEER'S DRAWINGS FOR HVAC, PLUMBING, FIRE PROTECTION FOR ALL ADDITIONAL INFORMATION PERTAINING TO THIS SCOPE OF WORK.
- COORDINATE CONSTRUCTION ACTIVITIES AND USE OF PREMISES WITH OWNER AND BUILDING MANAGEMENT. MAINTAIN OPERATIONS OF BUILDING SERVICES AS REQUIRED.
- PERFORM WORK IN ACCORDANCE WITH THE LATEST EDITIONS, REVISIONS, AMENDMENTS OR SUPPLEMENTS OF APPLICABLE CODES, STANDARDS OR REGULATIONS OF FEDERAL, PROVINCIAL AND LOCAL AUTHORITIES HAVING JURISDICTIONS IN EFFECT ON THE DATE BIDS ARE RECEIVED.
- ALL EXISTING SERVICES SHOWN ARE APPROXIMATE. VERIFY ALL LOCATIONS ON SITE.
- COORDINATE INSTALLATION WITH ALL OTHER TRADES INVOLVED ON SITE.
- ENSURE NOT TO DISTURB SERVICES COVERING AREAS NOT INCLUDED IN THE SCOPE. ALL WORK MUST BE COORDINATED WITH OWNER.
- VISIT SITE TO EXAMINE EXISTING CONDITIONS PRIOR TO SUBMITTING BID.
- PROPOSE SOLUTION TO THE CONSULTANT FOR REVIEW IF ANY INTERFERENCES OCCUR DUE TO SITE CONDITIONS.
- ALL MATERIAL USED IN THE CEILING SPACE (RETURN AIR PLENUM) SHALL MEET OR EXCEED THE O.B.C. REQUIREMENTS FLAME AND SMOKE SPREAD/DEVELOPMENT RATINGS.
- EXISTING PLUMBING SERVICES NOT IMPACTED BY ANY NEW WORK SHOWN ON THE DRAWINGS SHALL REMAIN AS THEY ARE.
- ANY VENTING SHOWN IS DIAGRAMMATIC TO SHOW INTENT. PROVIDE VENTING TO THE REQUIREMENTS OF OBC PART 7.
- ALL PLUMBING AND DRAINAGE PIPING SHOWN ON THE DRAWINGS IS DIAGRAMMATIC TO SHOW INTENT AND CONTRACTOR MUST INSTALL TO MEET THE CODE.
- PLUMBING CONTRACTOR TO X-RAY SCAN SLAB PRIOR TO CORING (IF APPLICABLE).
- PIPING INSULATION SHALL BE 1" FIBERGLASS ON UP TO 2" PIPES, AND 1-1/2" FIBERGLASS ON PIPES >2".
- SANITARY DRAINAGE PIPING ≥ 1000 IS AT 1% SLOPE AND <1000 IS AT 2% SLOPE UNLESS NOTED OTHERWISE.
- LOCATE CO EVERY 15m ALONG UNDERGROUND PIPING.
- FLOOR DRAINS ARE C/W P-TRAP & TRAP SEAL PRIMERS.
- LAB DOUBLE AND SINGLE SINKS TO BE SUPPLIED BY THE CLIENT.

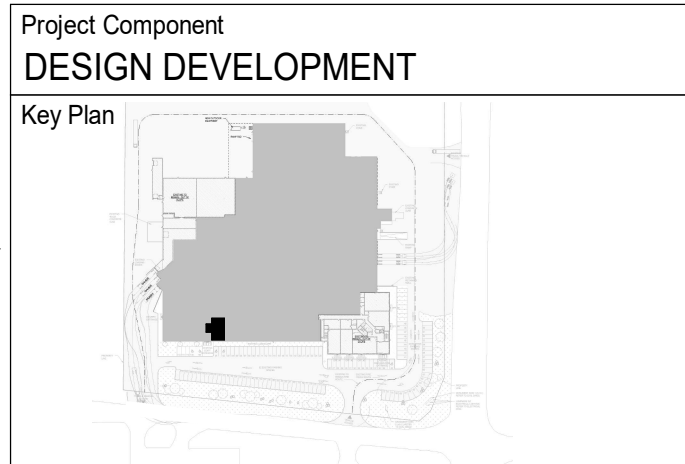
DRAWING SHEET NOTES:

- WATERSAVER, LEAD-FREE THERMOSTATIC MIXING VALVE AS REQUIRED BY THE CLIENT. TMR40, 50 GALLON/181 LITER CAPACITY. VALVE IS ASSE CERTIFIED UNDER ANSI/ASSE 1071. 2 x 25mm INLET / 1 x 32mm OUTLET. SET OUTLET WATER TEMPERATURE AT 70°F. REFER TO 03/M70-01L FOR PIPING CONFIGURATION DETAIL.
- ZURN, Z9A-PHX, POINT OF USE PHX ACID NEUTRALIZATION CARTRIDGE. INSTALLED UNDER COUNT TOP/SINK, 40mm INLET/OUTLET, PROVIDED WITH FLOOR SUPPORT BRACKET.
- STEAM TO BE PIPED TO DUCT-MOUNTED STEAM INJECTION MANIFOLD AND CONDENSATE DRAIN TO BE CONNECTED TO THE FUNNEL FLOOR DRAIN NEARBY.
- CONDENSATE DRAIN FROM INDOOR CASSETTE UNIT TO BE PIPED TO THE FUNNEL FLOOR DRAIN NEAR THE WATER HEATER.
- 12mm DCW DROP TO BE PROVIDED WITH VALVED HOSE BIBB FOR BANTOM DEIONIZER.
- BACKFLOW VALVE TO BE MOUNTED ON THE WALL.
- BFPs ON DCW & DCW SERVING LAB SINKS TO BE MOUNTED IN EX. JANITOR ROOM.
- 400 DRAIN LINE TO RUN WITHIN THE WALL.
- 500 DRAIN DROP DOWN AND TIE INTO UNGROUND DRAINAGE LINE.
- PROVIDE 12mm DCW & 40mm DRAIN CONNECTION TO CUP SINK IN FUME HOOD.
- PROVIDE POINT OF USE TEMPERATURE MIXING VALVE, "TMV-01", FOR LAB HANDSINK.
- 12mm DCW TO BE TAKEN FROM THE POINT DOWNSTREAM OF NEW BFP IN EX. JANITOR.
- EMERGENCY SHOWER / EYE WASH WATER SAVER, S8950, AS REQUIRED BY THE CLIENT. REFER TO 03/M70-01L FOR PIPING CONFIGURATION DETAIL.

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| Project Manager P. RANCHAL | Drawn P. PAN |
| Project Leader G. ALLAN | Checked G. ALLAN |

Client

CYCLIC MATERIALS
Cyclic Materials
320 BAY ST., TORONTO, ON M5H 4A6 CANADA

Project
CYCLIC MATERIALS HUB CENTER

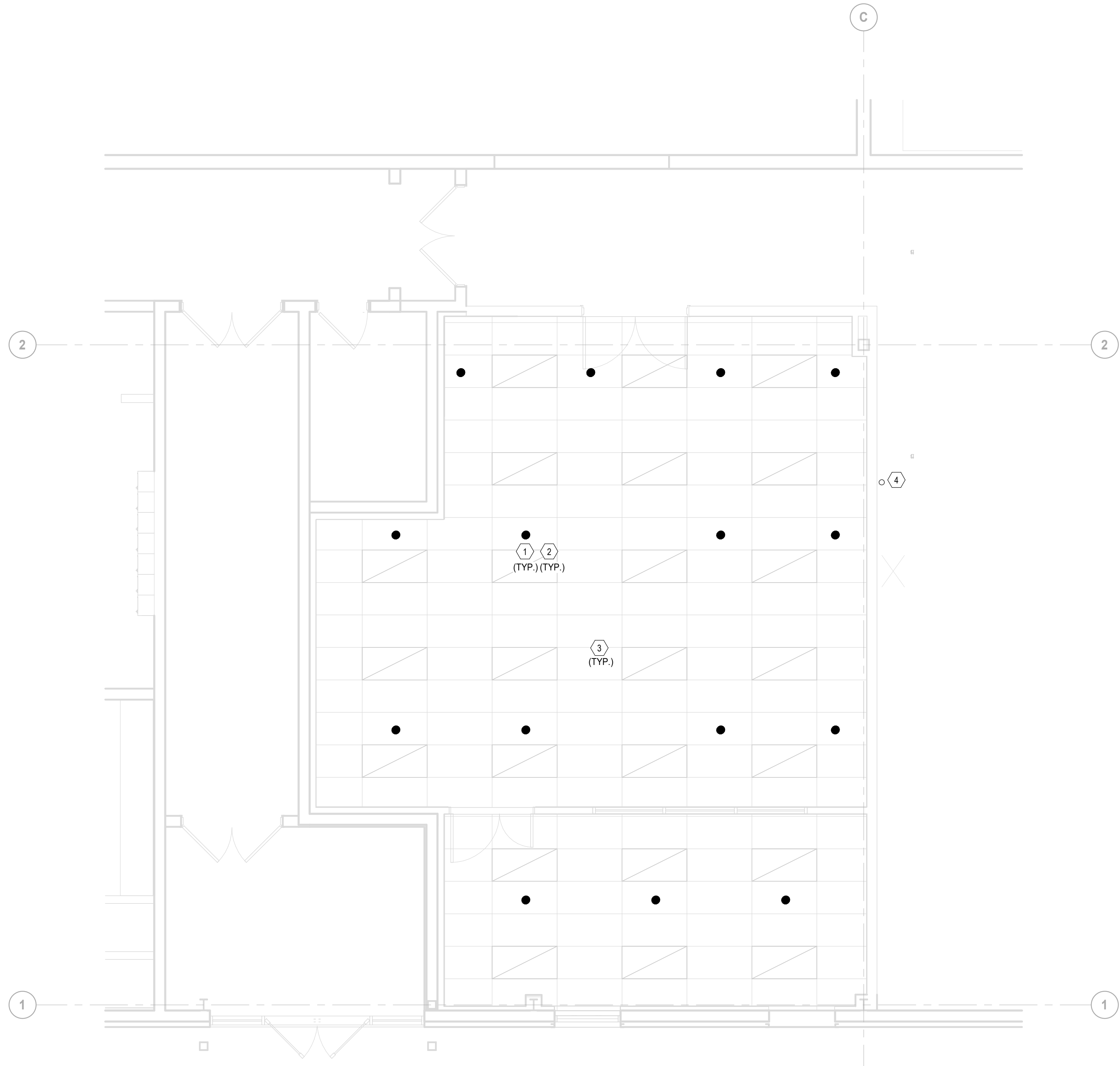
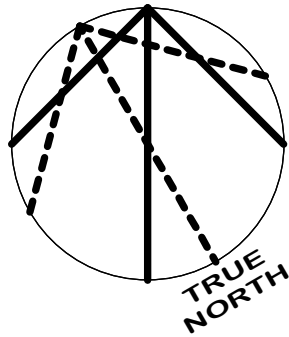
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Drawing Title
ENLARGED FLOOR PLAN - PLUMBING & DRAINAGE - Q/A LAB

Scale
1 : 50

Project No.
IN1024-0349

Drawing No.
M23-01L



1 ENLARGED FLOOR PLAN - FIRE PROTECTION - Q/A LAB
SCALE: 1 : 50

GENERAL NOTES FOR FIRE PROTECTION WORK

- SPRINKLER PIPING WITHIN THE AREA OF WORK SHALL BE HYDRAULICALLY DESIGNED TO MATCH THE BASE BUILDING ALLOWANCES IN ACCORDANCE WITH NFPA 13. AREAS DESIGNED AS LABORATORY ROOM SHALL BE DESIGNED ORDINARY HAZARD GROUP 2, WITH A DENSITY OF 0.20 GPM/SQ.FT FOR THE MOST REMOTE 1,500 SQ.FT. PROVIDED WITH THE QUICK-RESPONSE SPRINKLER TYPE HEADS.
- PREPARE ALL WORKING PLANS AND HYDRAULIC CALCULATIONS SEALED BY A PROFESSIONAL ENGINEER, AND SUBMIT TO THE OWNER'S INSURANCE UNDERWRITER AND TO THE MUNICIPAL BUILDING DEPARTMENT FOR APPROVAL PRIOR TO CONSTRUCTION.
- ALL COMPONENTS SHALL BE ULC LISTED.
- NEW SPRINKLER HEADS SHALL MATCH THE BASE BUILDING STANDARD, AND BE THE TYPE AS INDICATED ON THE DRAWINGS. COLOR/FINISH SELECTION OF SPRINKLER HEADS AND OF SPRINKLER COVERS TO BE APPROVED BY THE INTERIOR/ARCHITECTURAL DESIGNER.
- COORDINATE SPRINKLER HEAD LOCATIONS WITH FINAL REFLECTED CEILING PLANS AND OTHER CEILING MOUNTED COMPONENTS. ALIGN HEADS IN CEILING TILES IN BOTH DIRECTIONS.
- CONTRACTOR SHALL CORODINATE FIRE PROTECTION PIPING WITH THE WORK WITH ALL OTHER TRADES. FIRE PROTECTION PIPING SHALL NOT BE LOCATED BELOW AIR TERMINAL UNITS, AIR TERMINAL UNIT HEATING COILS, FILTERS, ETC.
- KEEP EXISTING FIRE PROTECTION AND LIFE SAFETY SYSTEMS IN OPERATION AT ALL TIMES. ARRANGE FOR A FIRE WATCH IF A SHUT-DOWN OF THESE SYSTEMS IS REQUIRED. ALL WORK AND SHUTDOWNS MUST BE COORDINATED WITH LANDLORD.
- FIRE PROTECTION PIPING SHALL BE CARBON STEEL SCHEDULE 40, COMPLETE WITH THREADED COUPLING AND FITTINGS UP TO 30MM DIA. AND WELDED FOR 65MM AND UP. GROOVED COUPLINGS AND FITTINGS OR SCHEDULE 10 SPRINKLER PIPING MAY BE USED WHEN ACCEPTABLE FOR THE AUTHORITIES HAVING JURISDICTION AND FOR THE OWNER.
- DRAWINGS ARE SCHEMATIC IN NATURE. CONTRACTOR SHALL PROVIDE ADDITIONAL PIPING, OFFSETS, FITTINGS, DRAINS, VALVES, SPRINKLER HEADS, ETC. AS REQUIRED FOR A COMPLETE OPERABLE SYSTEM IN ACCORDANCE WITH NFPA AND ONTARIO FIRE CODE.
- DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL FLOOR PLANS AND SPECIFICATIONS.
- ALL EXISTING SERVICES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY ALL LOCATIONS ON SITE.
- COORDINATE INSTALLATION WITH ALL OTHER TRADES INVOLVED ON SITE.
- PROPOSE SOLUTION TO THE CONSULTANT FOR REVIEW IF ANY INTERFERENCES OCCUR DUE TO SITE CONDITIONS.
- INSTALL AND TEST FIRE EXTINGUISHER AS PER NFPA 10 REQUIREMENTS.

DRAWING SHEET NOTES:

- QUICK RESPONSE CONCEALED PENDENT SPRINKLER HEAD, COVER PLATE FINISH TO MATCH RCP, WITH ELECTROLESS NICKEL CORROSION RESISTANCE COATING, TEMPERATURE RATING 157°F, NOMINAL K-FACTOR 5.6 U.S.
- TAKE DEDICATED BRANCH SPRINKLER WATER PIPING FROM EXISTING IN CURRENT SPRINKLER ZONE 2A TO SERVE ALL SPRINKER HEADS IN WET/ANALYTICAL LABS. CONTRACTOR TO VERIFY ON SITE.
- REMOVE AND CAP ALL SPRINKLER HEADS AT HIGH LEVEL WITHIN NEW CEILING VOID ABOVE THE NEW LAB AREAS.
- DRAIN LAB SPRINKLER SYSTEM TO FFD IN THIS LOCATION.

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| Project Leader G. ALLAN | Checked G. ALLAN |

Client

CYCLIC MATERIALS

Cyclic Materials

320 BAY ST., TORONTO, ON M5H 4A6 CANADA

Project

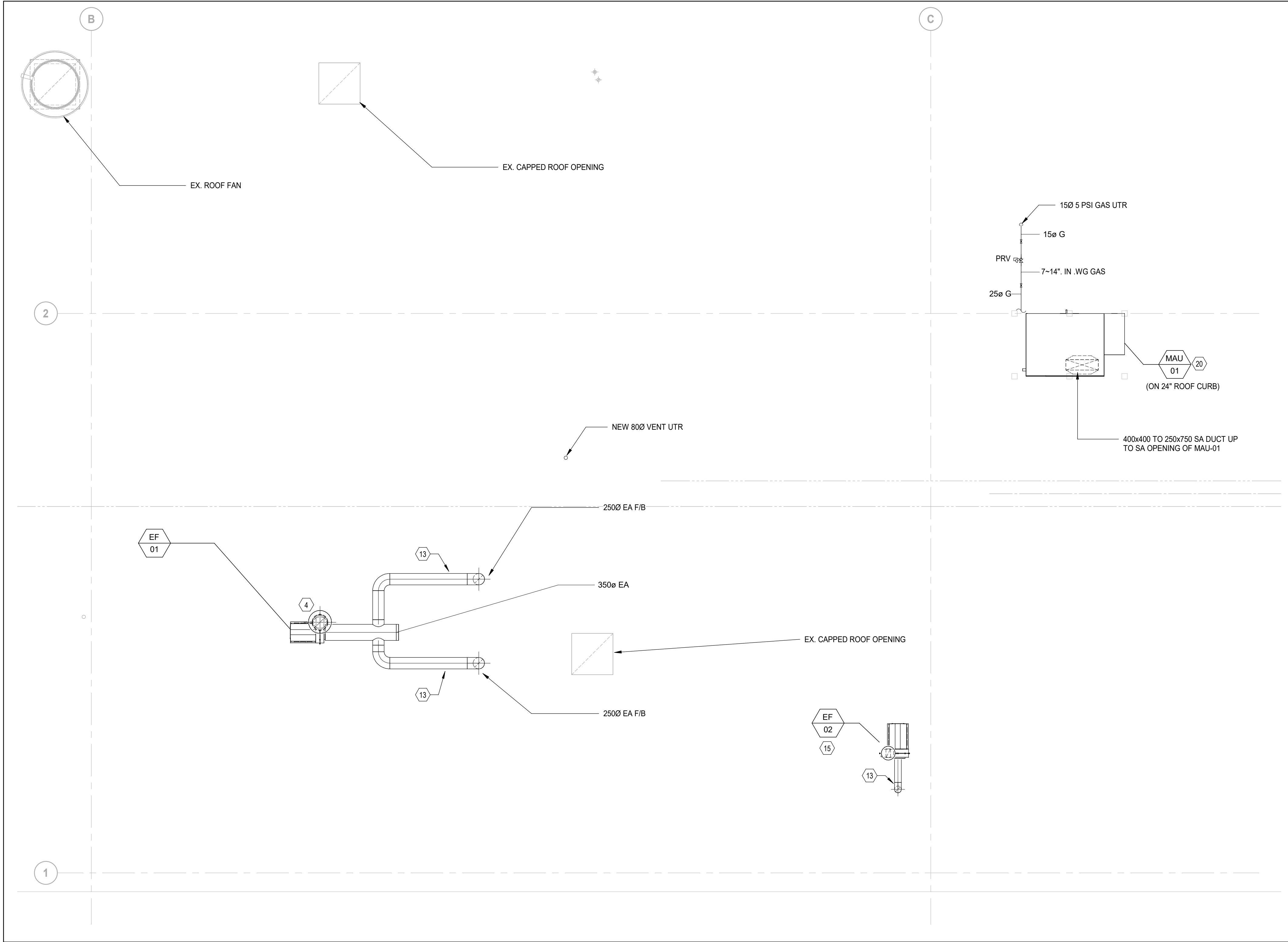
CYCLIC MATERIALS HUB CENTER

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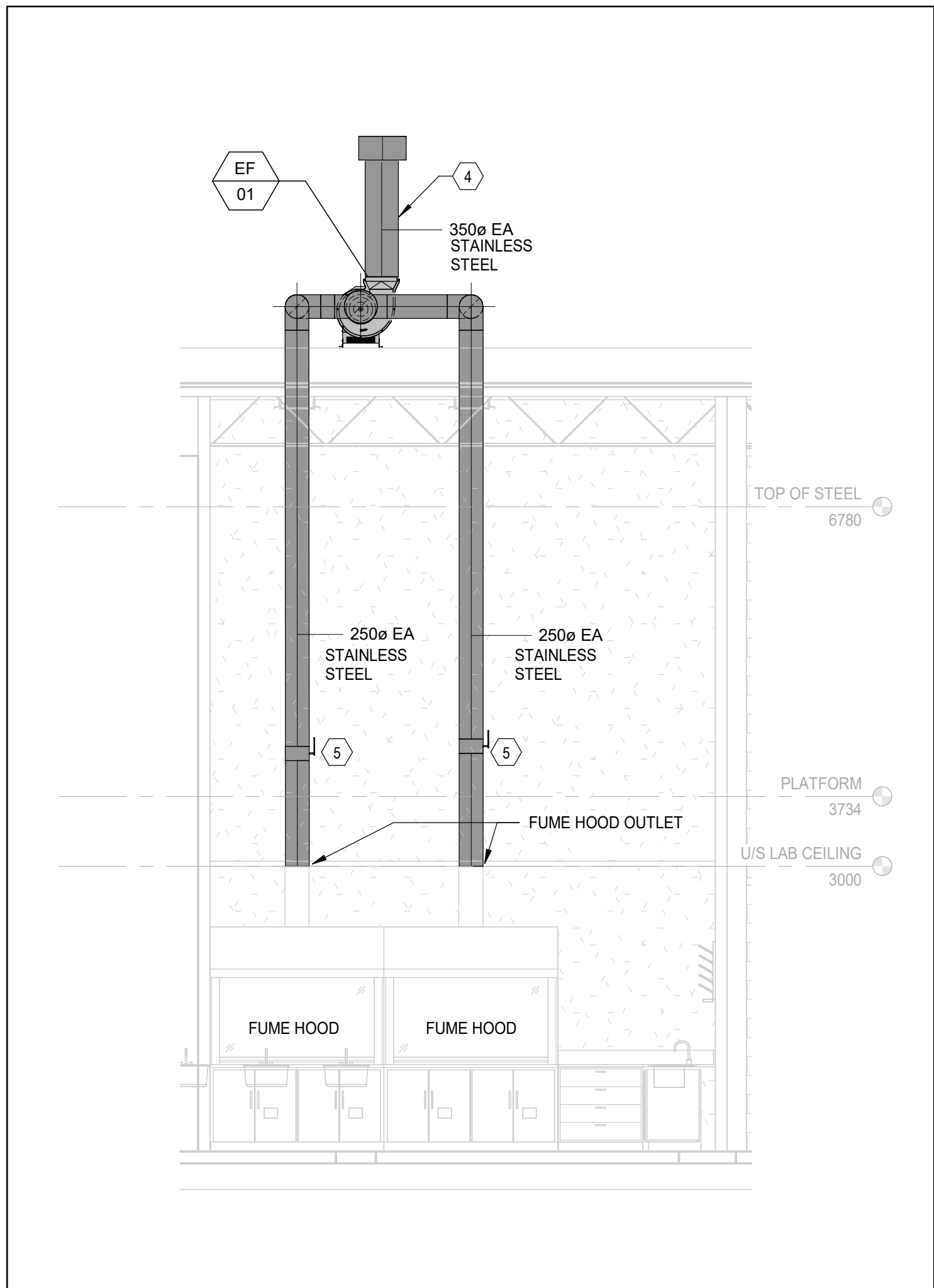
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ENLARGED FLOOR PLAN - FIRE PROTECTION - Q/A LAB

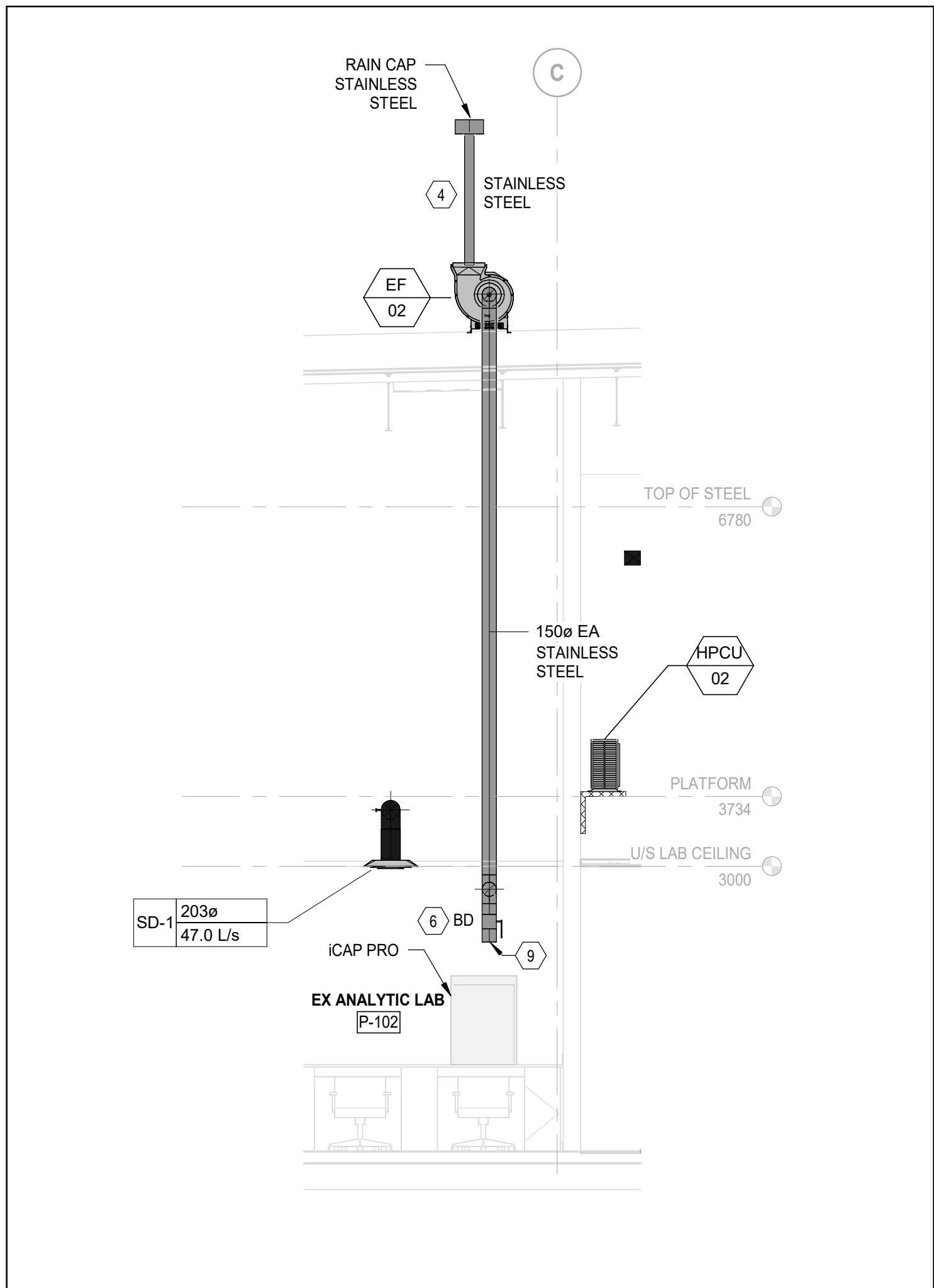
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| Drawing No. | M43-01L |



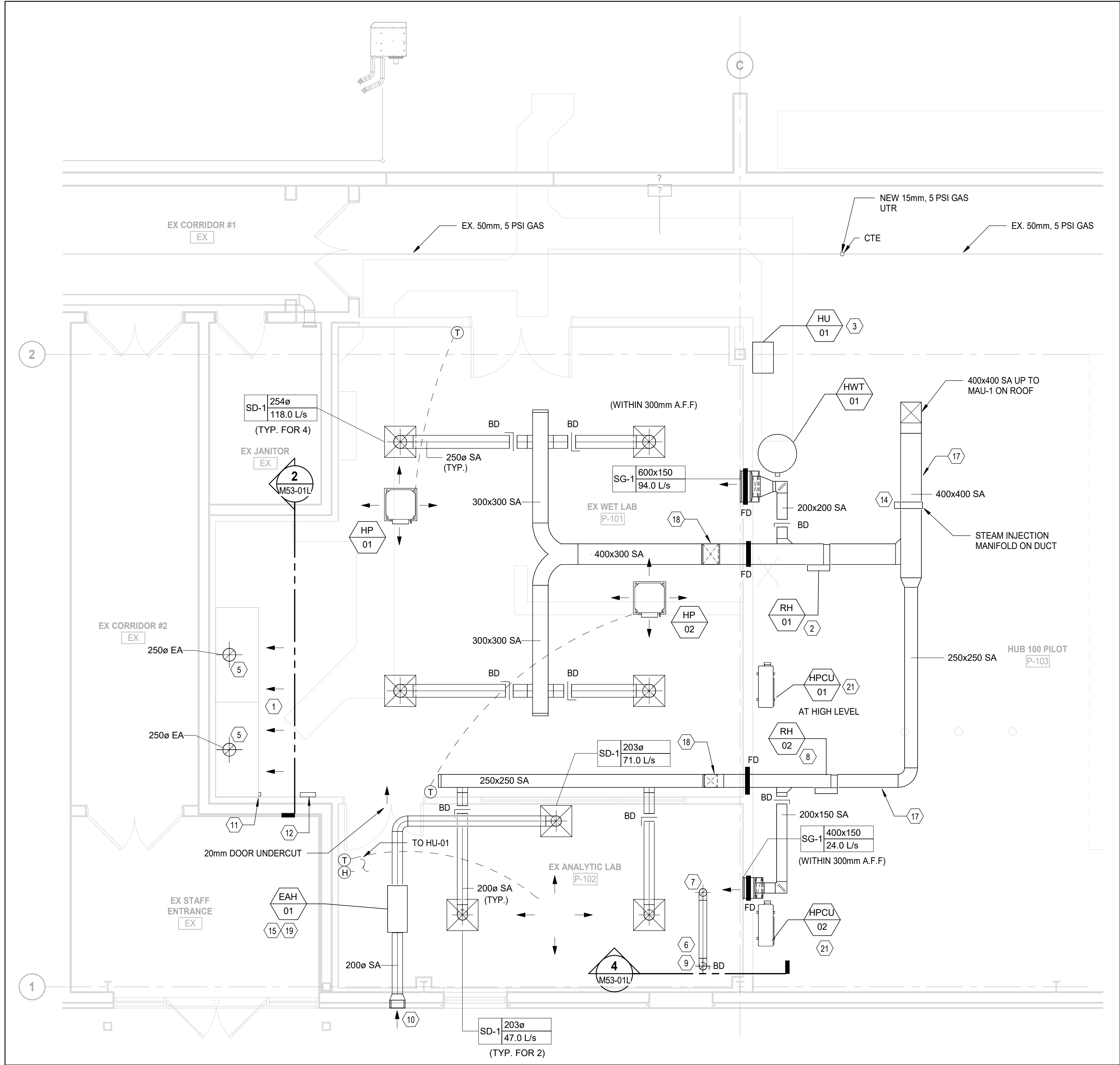
3 ENLARGED ROOF PLAN - HVAC - Q/A LAB
MS3-01L SCALE: 1:50



2 SECTION - LAB FUME HOOD EXHAUST
MS3-01L SCALE: 1:50



4 SECTION - ANALYTICAL LAB EXHAUST FAN
MS3-01L SCALE: 1:50



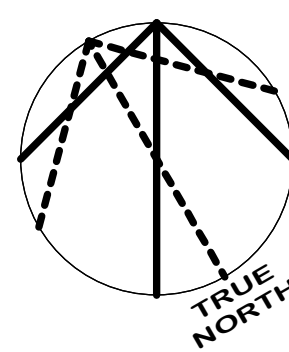
1 ENLARGED FLOOR PLAN - HVAC - Q/A LAB
MS3-01L SCALE: 1:50

DRAWING SHEET NOTES:

1. EXHAUST AIR INTO THE FUME HOODS.
2. 14.0 KW ELECTRIC DUCT HEATER RH-1 IN LINE.
3. ELECTRIC STEAM HUMIDIFIER HU-1 TO BE WALL MOUNTED.
4. 3500 STAINLESS STEEL EXHAUST STACK W/ RAIN CAP, EXTENDED UP 7 FEET ABOVE THE ROOF. EA DUCT TO BE SUPPORTED BY GUY-WIRES FROM 3 SIDES AND ADDITIONAL STRUCTURAL CONNECTED TO C-CLAMP AROUND THE DUCT. REFER TO SM-04L FOR DETAIL.
5. CONTRACTOR TO SUPPLY AND INSTALL AISI 316 STAINLESS STEEL BALANCING DAMPER.
6. CONTRACTOR TO SUPPLY AND INSTALL AISI 316 STAINLESS STEEL BALANCING DAMPER IN VERTICAL SECTION OF 1500 STAINLESS STEEL EXHAUST DUCT.
7. 1500 STAINLESS STEEL EXHAUST DUCT UP THROUGH ROOF (UTR).
8. 3.0 KW ELECTRIC DUCT HEATER RH-2 IN LINE.
9. DOWN TO CONNECT TO FLEXIBLE EA DUCT CONNECTION TO LAB EQUIPMENT.
10. 300x300 STATIONARY DRAINABLE INTAKE LOUVER CW MIN. 50% FREE AREA TO BE SUPPLIED & INSTALLED BY DIV.23.
11. REMOTE BLOWER ON/OFF SWITCH TO BE WIRED TO EF-01 ON ROOF. INTERLOCK MAU-01 WITH EF-01.
12. WALL MOUNTED SPECTRUM EXHAUST BLOWER CONTROL PANEL. CONTROL WIRING TO BE CONNECTED TO EF-01 ON ROOF. BLOWER FAIL ALARM TO BE CONTINUOUS AUDIBLE ALARM UNTIL ISSUE IS RESOLVED.
13. INSULATE EXTERIOR EXHAUST DUCTWORK FROM BUILDING PENETRATION TO THE EXHAUST FAN.
14. STEAM HUMIDIFIER MANIFOLD MOUNTED IN SS DUCTWORK SECTION WITH DRAIN. RUN DRAIN LINE TO FFD NEAR HWT-01.
15. INTERLOCK EAH-01 WITH EF-02 BY DIV. 23.
16. EXHAUST FAN TO BE MOUNTED ON WOOD SLEEPERS WHICH NEEDS TO BE TAPERED TO MATCH ROOF STRUCTURE SLOPE.
17. MOUNT DUCTWORK IN OPEN AREAS AT HIGH LEVEL TIGHT TO U/S OF JOISTS.
18. DROP DOWN TO TWO FEET ABOVE CEILING LEVEL.
19. INSTALL UNIT ABOVE CEILING LEVEL IN ACCESSIBLE LOCATION.
20. INTERLOCK MAU-01 WITH EF-01 BY DIV. 23.
21. WALL MOUNTED OUTDOOR CONDENSER AT HIGH LEVEL, MIN. 600mm ABOVE THE TOP OF FUTURE IT ROOM.

GENERAL NOTES FOR NEW HVAC WORK

1. THIS DRAWING IS DIAGNOSTIC AND INDICATED THE GENERAL EXTENT OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION AND PROPER INSTALLATION OF ALL MECHANICAL SYSTEMS. CONTRACTOR SHALL PROVIDE ALL NECESSARY OFFSETS, FITTINGS, WHICH ARE REQUIRED DUE TO SPACE CONSTRAINTS.
2. PROVIDE ALL MISCELLANEOUS SUPPORTING STEEL, ETC. FOR THE PROPER INSTALLATION OF ALL MECHANICAL SYSTEMS.
3. COORDINATE FLOOR, WALL, AND ROOF PENETRATIONS, ETC. WITH ARCHITECTURAL TRADES IF ANY.
4. COORDINATE THE INSTALLATION OF DUCTWORK AND EQUIPMENT WITH ALL OTHER TRADES.
5. BRANCH DUCTWORK TO DIFFUSER/GRILLE SHALL BE THEIR INLET SIZE AS NOTED IN RELEVANT MECHANICAL SCHEDULE OR DRAWINGS.
6. MOUNT ANY THERMOSTATS/DIGITAL TEMPERATURE SENSORS 48" A.F.F.
7. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLANS FOR GRILLE, REGISTER AND DIFFUSERS LOCATIONS.
8. COORDINATE WITH ARCHITECTURAL AND PROVIDE ACCESS DOORS IN GYMNASIUM BOARD CEILING AREAS IF ANY FOR ACCESS TO TERMINAL UNITS, BALANCING DAMPERS, SMOKE DETECTORS, ETC.
9. DO NOT SCALE DRAWINGS. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALE. ALL DIMENSIONS TO BE CHECKED AND VERIFIED ON SITE. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
10. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH PROJECT MANUAL AND ENGINEERS DRAWINGS. REFER TO PROJECT MANUAL FOR ALL GENERAL REQUIREMENTS AND TRADE SPECIFICATIONS. REFER TO ENGINEERS DRAWINGS FOR HVAC, PLUMBING, FIRE PROTECTION FOR ALL ADDITIONAL INFORMATION PERTAINING TO THIS SCOPE OF WORK.
11. CO-ORDINATE CONSTRUCTION ACTIVITIES AND USE OF PREMISES WITH OWNER AND BUILDING MANAGEMENT. MAINTAIN OPERATIONS OF BUILDING SERVICES AS REQUIRED.
12. ALL EXISTING SERVICES SHOWN ARE APPROXIMATE. VERIFY ALL LOCATIONS ON SITE.
13. COORDINATE INSTALLATION WITH ALL OTHER TRADES INVOLVED ON SITE.
14. ENSURE NOT TO DISTURB SERVICES COVERING AREAS NOT INCLUDED IN THE SCOPE. ALL WORK MUST BE COORDINATED WITH THE LANDLORD.
15. VISIT SITE TO EXAMINE EXISTING CONDITIONS PRIOR TO SUBMITTING BID.
16. PROPOSE SOLUTION TO THE CONSULTANT FOR REVIEW IF ANY INTERFERENCES OCCUR DUE TO SITE CONDITIONS.
17. EXISTING MECHANICAL SERVICES NOT IMPACTED BY ANY NEW WORK SHOWN ON THE DRAWINGS SHALL REMAIN AS THEY ARE.
18. PROVIDE 25mm THICK ACOUSTIC LINER OF FIRST 3000mm LENGTH OF SUPPLY AIR DUCT FROM ALL AIR HANDLING UNITS WHERE DISCHARGE ATTENUATOR IS NOT SPECIFIED.
19. PROVIDE BALNCING DAMPERS AS REQUIRED FOR COMPLETE BALANCING OF THE SYSTEM.



| DATE | ISSUED FOR | REV |
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| 2025-01-28 | PERMIT - QA LAB | A |
| 2025-04-24 | TENDER - QA LAB | 0 |

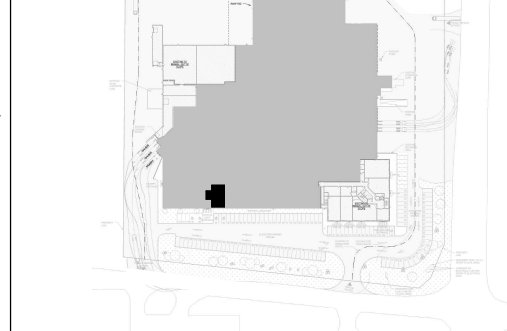
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3

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Project Component
DESIGN DEVELOPMENT
Key Plan



Consultants:
Architecture: NORR ARCHITECTS & ENGINEERS LIMITED
Structural: NORR ARCHITECTS & ENGINEERS LIMITED
Mechanical: NORR ARCHITECTS & ENGINEERS LIMITED
Electrical: NORR ARCHITECTS & ENGINEERS LIMITED

Seal(s)

2

NORR

NORR Architects & Engineers Limited

175 Bloor Street East
North Tower, 15th Floor
Toronto, ON, Canada M4W 3R8
norr.com

Project Manager
P. RANCHAL
Project Leader
G. ALLAN

Drawn
F. PAN
Checked
G. ALLAN

Client

CYCLIC MATERIALS

Cyclic Materials

320 BAY ST., TORONTO, ON M5H 4A6 CANADA

Project

CYCLIC MATERIALS HUB CENTER

650 Cataragui Woods Dr. Kingston, ON K7P 2Y4

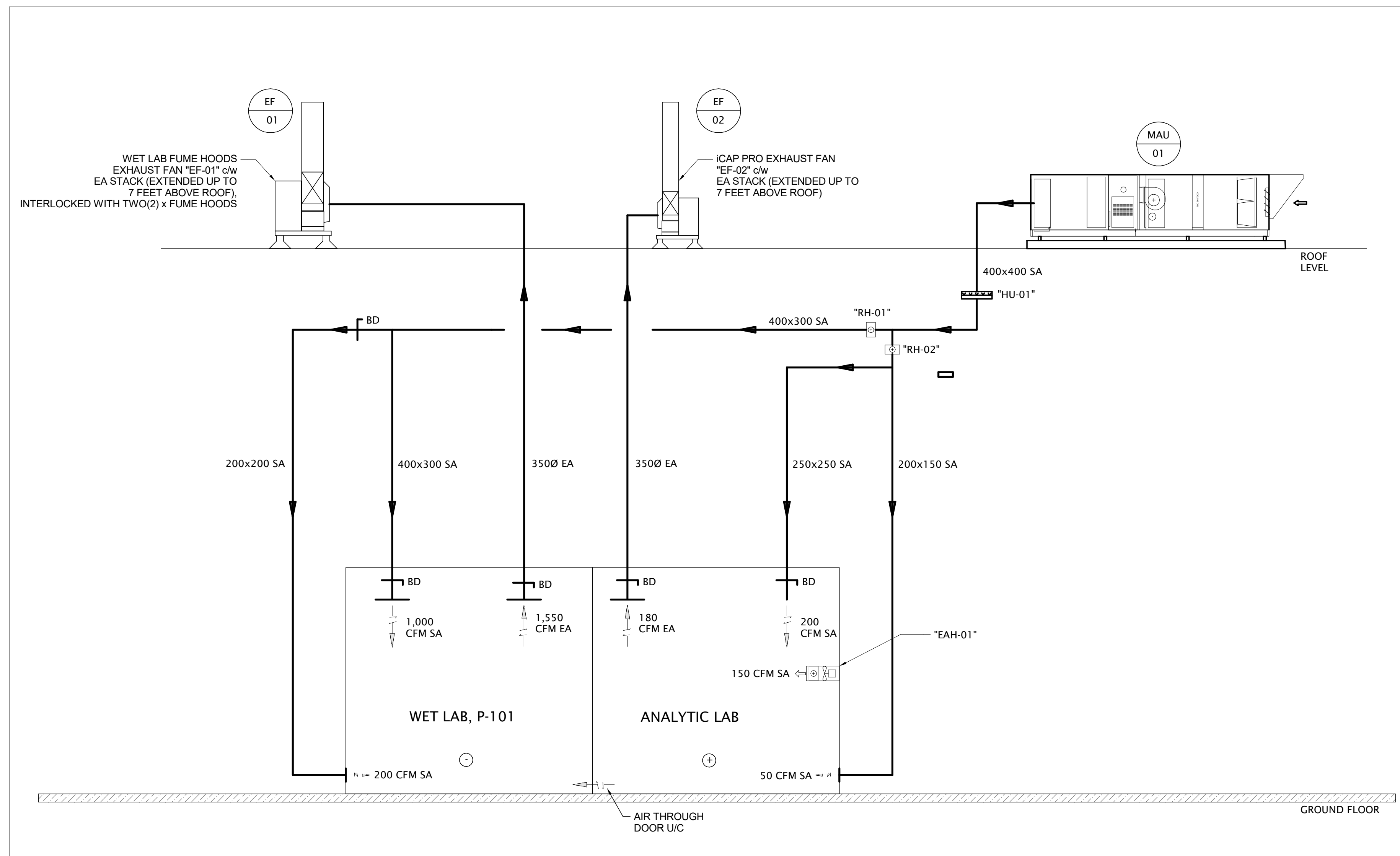
Drawing Title

ENLARGED FLOOR PLAN - HVAC - Q/A LAB

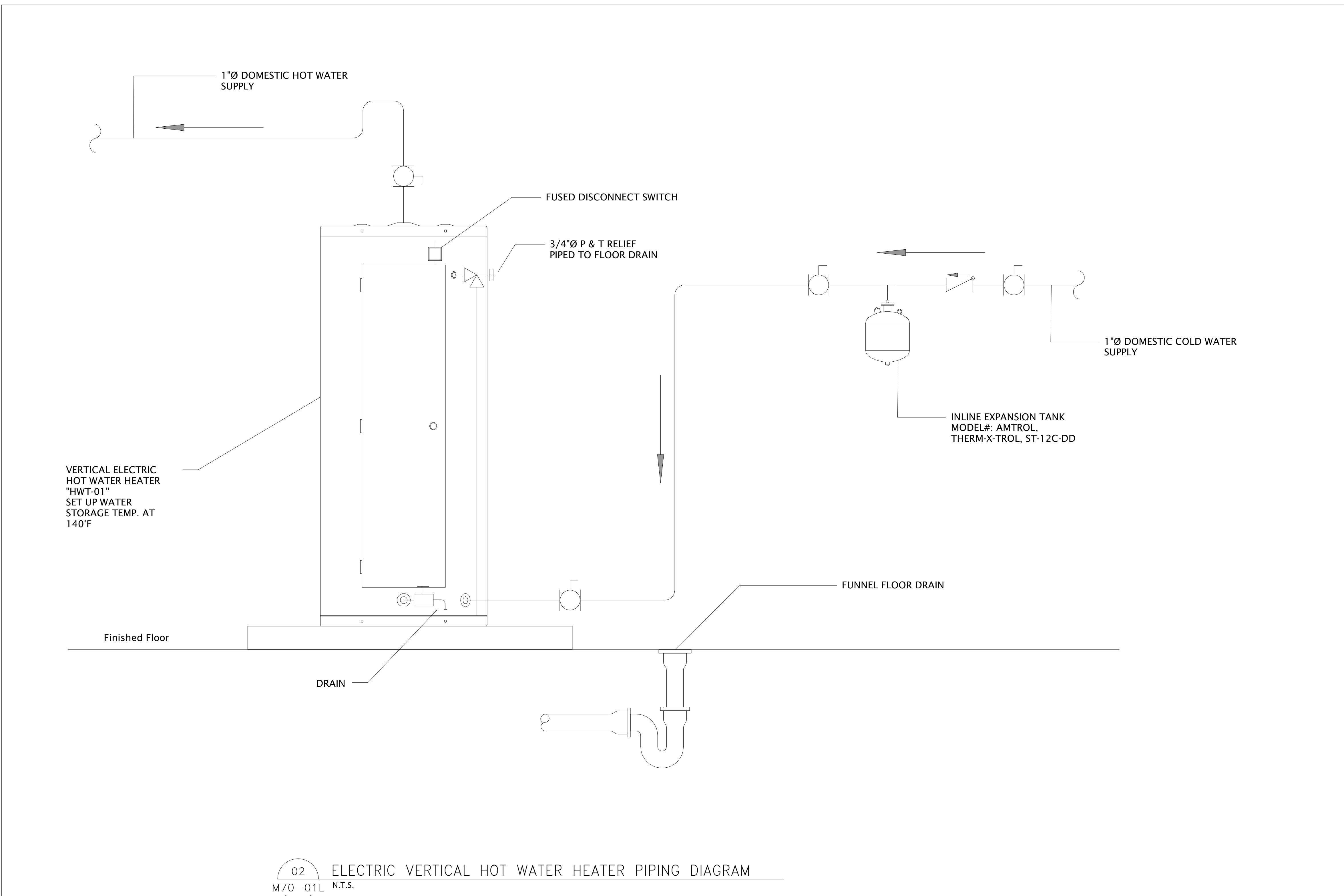
Scale
1:50

Project No.
IN1024-0349

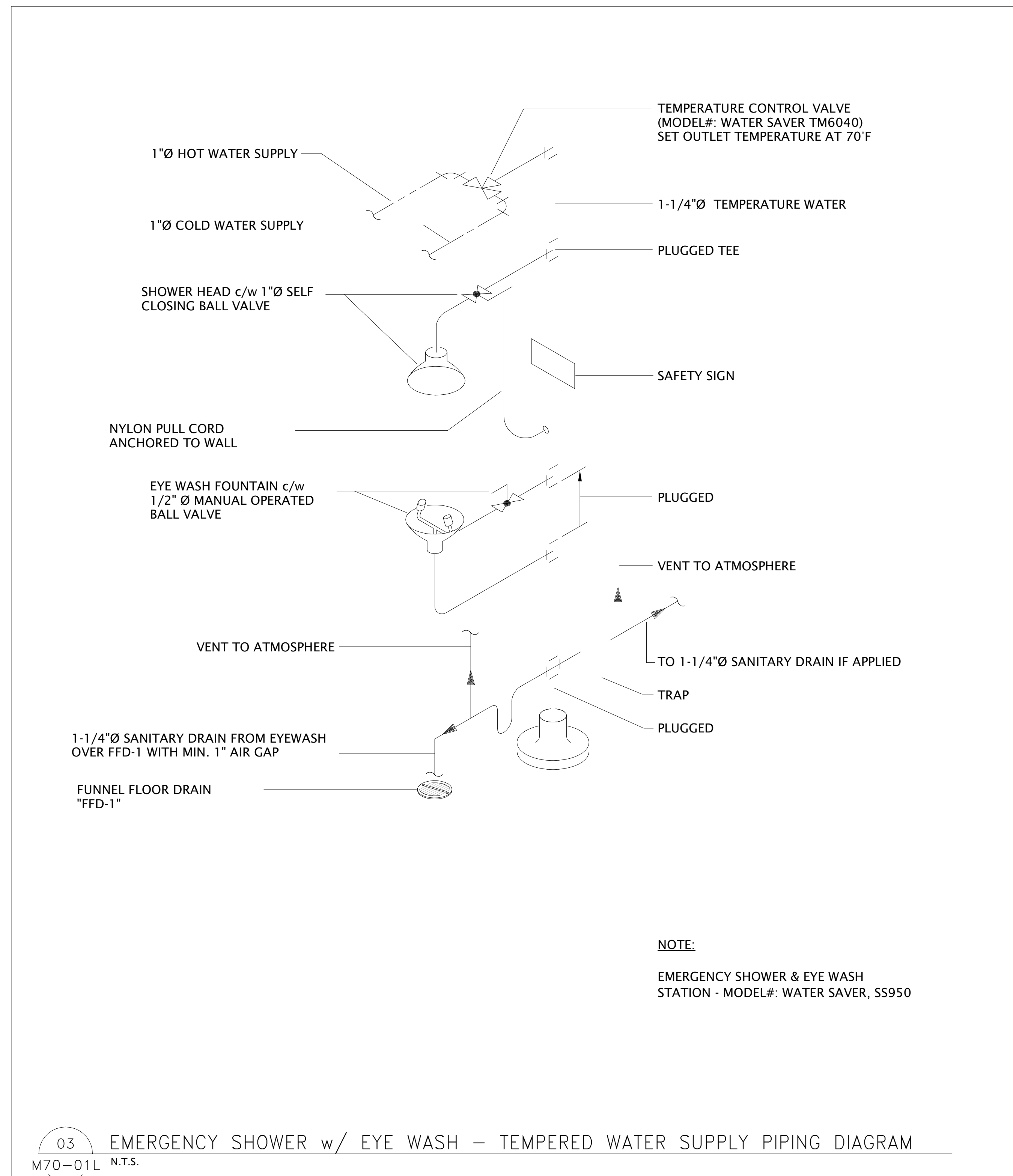
Drawing No.
MS3-01L



1 HUB CENTER Q/A LAB - VENTILATION SCHEMATIC
M70-01L SCALE: N.T.S



02 ELECTRIC VERTICAL HOT WATER HEATER PIPING DIAGRAM
M70-011 N.T.S.



03 EMERGENCY SHOWER w/ EYE WASH - TEMPERED WATER SUPPLY PIPING DIAGRAM
M70-011 N.T.S.

| DATE | ISSUED FOR | REV |
|------------|-----------------|-----|
| 2025-04-24 | TENDER - QA LAB | 0 |

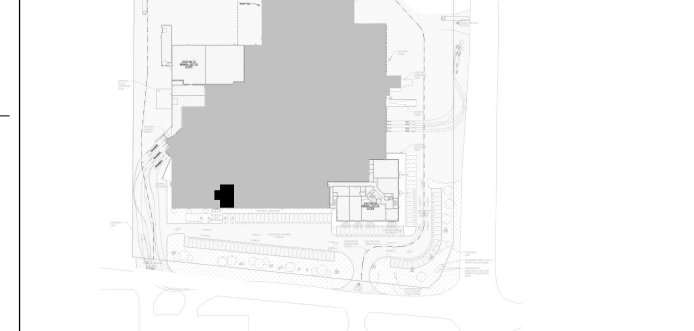
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| Project Component | DESIGN DEVELOPMENT |
| Key Plan | |



| | |
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| Consultants | |
| Architecture: | NORR ARCHITECTS & ENGINEERS LIMITED |
| Structural: | NORR ARCHITECTS & ENGINEERS LIMITED |
| Mechanical: | NORR ARCHITECTS & ENGINEERS LIMITED |
| Electrical: | NORR ARCHITECTS & ENGINEERS LIMITED |

Seal(s)

2

NORR

NORR Architects & Engineers Limited

175 Bloor Street East
North Tower, 15th Floor
Toronto, ON, Canada M4W 3R
norr.com

| | |
|-------------------------------|---------------------|
| Project Manager P. RANCHAL | Drawn F. PAN |
| Project Leader G. ALLAN | Checked G. ALLAN |

CYCLIC MATERIALS

Cyclic
Materials

**CYCLIC MATERIALS HUB
CENTER**

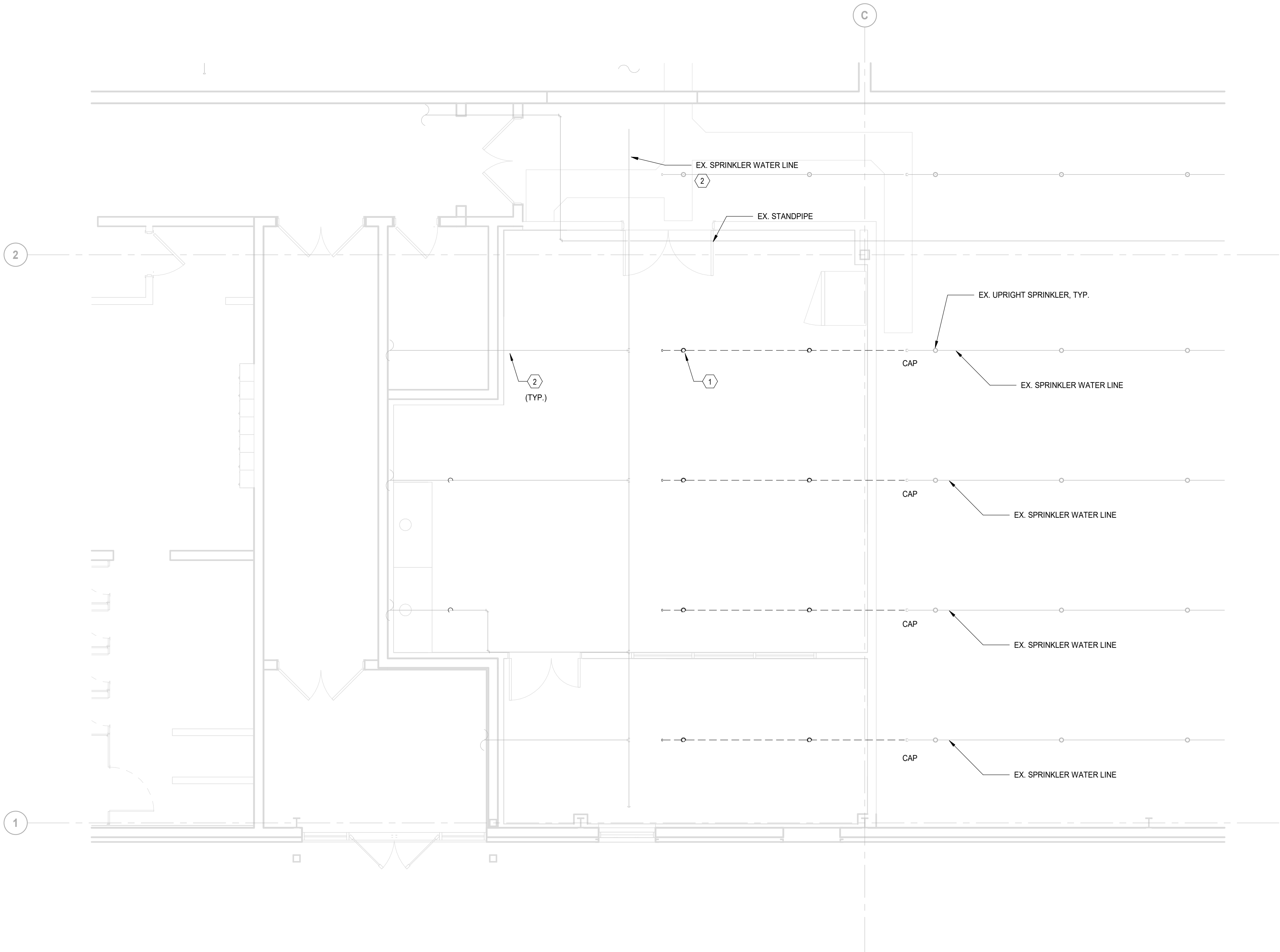
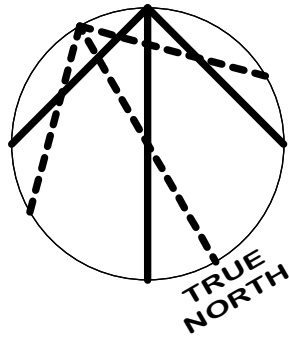
650 Cataraqui Woods DR, Kingston, ON K7P 2Y4

Drawing Title
**MECHANICAL
SCHEMATICS - Q/A LAB**

| | |
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| Scale | As indicated |
|-------|--------------|

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| Project No. | IN1024-0349 |
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Drawing No. **M70-01L**



1 ENLARGED FLOOR PLAN - FIRE PROTECTION - Q/A LAB
SCALE: 1 : 50

GENERAL NOTES FOR FIRE PROTECTION DEMO WORK

- EXISTING CONDITIONS SHOWN ARE REPRESENTATIVE OF EXISTING DRAWINGS AND BEST AVAILABLE INFORMATION TO THE ENGINEER AND MAY NOT REFLECT ACTUAL EXISTING CONDITIONS. CONTRACTOR SHOULD VERIFY IN FIELD THE LOCATION OF EXISTING CONDITIONS PRIOR TO BEGINNING WORK. AND NOTIFY THE ENGINEER OF RECORD OF ANY DISCREPANCIES BETWEEN DRAWINGS AND EXISTING CONDITIONS.
- SITE VERIFY ALL REMAINING FIRE SPRINKLER & STANDPIPE SYSTEM AND ASSOCIATED PIPING, VALVES, ETC. AND CONFIRM IF THEY COULD FUNCTION PROPERLY. REPORT TO THE ENGINEER/THE CLIENT IF ANYONE WOULD BE DAMAGED OR NOT FUNCTION WELL.
- DISCONNECT DEMOLISHED FIRE SPRINKLER SYSTEM PIPING AND CAP ASSOCIATED PIPING IF APPLICABLE.
- COORDINATE WITH ARCHITECTURAL FOR ALL ROOF, WALL AND FLOOR PATCHING REQUIREMENTS IF ANY.
- BREAK LINES/CROSS LINES TO INDICATE FIRE PROTECTION CONTENT TO BE DEMOLISHED.
- SOLID LINES TO INDICATE FIRE PROTECTION CONTENT TO REMAIN IN PLACE INTACT.
- PROTECT EXISTING FROM DAMAG FOR THE DURATION OF WORK. ALL DAMAGE DUE TO IMPROPER PROTECTION SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE CLIENT.
- REMOVE ALL MATERIAL AND DEBRIS FROM THE SITE AS QUICKLY AS POSSIBLE AND DISPOSE OF LEGALLY. BURNING OF DEBRIS OR SELLING OF MATERIALS ON THE SITE WILL NOT BE PERMITTED.
- CO-ORDINATE CONSTRUCTION ACTIVITIES AND USE OF PREMISES WITH OWNER AND BUILDING MANAGEMENT. MAINTAIN OPERATIONS OF BUILDING SERVICES AS REQUIRED.
- SHALL COORDINATE THE DEMOLITION WORK OF FIRE PROTECTION SYSTEM AND EQUIPMENT WITH ALL OTHER TRADES.
- DO NOT SCALE DRAWINGS. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALE. ALL DIMENSIONS TO BE CHECKED AND VERIFIED ON SITE, ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH PROJECT MANUAL AND ENGINEER'S DRAWINGS. REFER TO PROJECT MANUAL FOR ALL GENERAL REQUIREMENTS AND TRADE SPECIFICATIONS. REFER TO ENGINEER'S DRAWINGS FOR HVAC, PLUMBING, FIRE PROTECTION FOR ALL ADDITIONAL INFORMATION PERTAINING TO THIS SCOPE OF WORK.
- ALL EXISTING SERVICES SHOWN ARE APPROXIMATE. VERIFY ALL LOCATIONS ON SITE AND REPORT TO THE ENGINEER FOR ANY DEFICIENCY OF EXISTING FIRE PROTECTION SYSTEM.
- IF APPLICABLE. ENSURE NOT TO DISTURB SERVICES COVERING AREAS NOT INCLUDED IN THE SCOPE. ALL WORKS MUST BE COORDINATED WITH OWNER.
- VISIT SITE TO EXAMINE EXISTING CONDITIONS PRIOR TO SUBMITTING BID.
- EXISTING FIRE PROTECTION SERVICES NOT IMPACTED BY ANY NEW WORK SHOWN ON THE DRAWINGS SHALL REMAIN AS THEY ARE.
- KEEP EXISTING FIRE PROTECTION AND LIFE SAFETY SYSTEMS IN OPERATION AT ALL TIMES. ARRANGE FOR A FIRE WATCH IF A SHUT-DOWN OF THESE SYSTEMS IS REQUIRED. ALL WORK AND SHUTDOWNS MUST BE COORDINATED WITH LANDLORD.
- FIRE STANDPIPE & ASSOCIATED FIRE HOSE CABINET TO REMAIN UNLESS NOTED OTHERWISE.
- UPON COMPLETION OF DEMO WORK, SUBMIT AS-BUILT CAD FILES FOR FIRE PROTECTION SYSTEM, INDICATING LOCATION OF SPRINKLER HEADS, SPRINKLER WATER PIPING & STANDPIPE ROUTING, AND SPRINKLER/STANDPIPE SYSTEM SCHEMATIC.

DRAWING SHEET NOTES:

- REMOVE EXISTING UPRIGHT SPRINKLER & ASSOCIATED PIPING AS INDICATED TO FACILITATE THE CONSTRUCTION OF FUTURE R & D LABS, AND CAP REMAINING PIPING, TYPICAL.
- EXISTING SPRINKLER WATER PIPING AT HIGH LEVEL TO REMAIN IN PLACE. CONTRACTOR TO VERIFY ON SITE.

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| 2025-04-24 | TENDER - QA LAB | 0 |

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Project Component
DESIGN DEVELOPMENT
Key Plan

| | |
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| Consultants | |
| Architecture: | NORR ARCHITECTS & ENGINEERS LIMITED |
| Structural: | NORR ARCHITECTS & ENGINEERS LIMITED |
| Mechanical: | NORR ARCHITECTS & ENGINEERS LIMITED |
| Electrical: | NORR ARCHITECTS & ENGINEERS LIMITED |

Seal(s)

NORR

NORR Architects & Engineers Limited

175 Bloor Street East
North Tower, 15th Floor
Toronto, ON, Canada M4W 3R8
norr.com

| | |
|-------------------------------|---------------------|
| Project Manager P. RANCHAL | Drawn J. HIGGS |
| Project Leader G. ALLAN | Checked G. ALLAN |

Client

CYCLIC MATERIALS
Cyclic
Materials
320 BAY ST., TORONTO, ON M5H 4A6 CANADA

Project

CYCLIC MATERIALS HUB CENTER

650 Cataragui Woods DR. Kingston, ON K7P 2Y4

Drawing Title

ENLARGED DEMOLITION PLAN - FIRE PROTECTION - Q/A LAB

Scale

1 : 50

Project No.

IN1024-0349

Drawing No.

M84-03L



EXISTING CONDITIONS SHOWN ARE REPRESENTATIVE OF EXISTING DRAWINGS AND BEST AVAILABLE INFORMATION TO THE ENGINEER AND MAY NOT BE COMPLETE. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD OF LOCATION OF EXISTING CONDITIONS PRIOR TO BEGINNING WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DISCREPANCIES BETWEEN THE DRAWINGS AND EXISTING CONDITIONS.

CONTRACTOR TO SITE VERIFY ALL REMAINING MECHANICAL EQUIPMENT ASSOCIATED DUCTWORK, VENTING AND CONTROLS. ETC. AND CONFIRM IF EQUIPMENT IS NOT FUNCTIONING. CONTRACTOR SHALL ADVISE THE ENGINEER THE CLIENT IF ANY EQUIPMENT IS NOT FUNCTIONING. CONTRACTOR SHALL ADVISE THE CLIENT IF ANYONE WOULD BE DAMAGED OR NOT FUNCTION WELL.

CONTRACTOR TO DISCONNECT DEMOLISHED MECHANICAL EQUIPMENT SHALL FROM POWER SUPPLY & BUILDING CONTROLS.

COORDINATE WITH ARCHITECTURAL FOR ALL ROOF, WALL AND FLOOR PATCHING REQUIREMENTS IF ANY.

BREAK LINES TO INDICATE MECHANICAL EQUIPMENT TO BE DEMOLISHED. CONTRACTOR TO CLEAN & CHECK REMOVED MECHANICAL EQUIPMENT AND RETURN THEM BACK TO THE LANDLORD IF THEY ARE IN FAIR/CORRECT WORKING CONDITION.

SOLID LINED TO INDICATE MECHANICAL CONTROL TO REMAIN IN PLACE DURING. TO BE RE-USED FOR NEW WORK.

PROTECT EXISTING FROM DAMAGING FOR THE DURATION OF WORK. ALL DAMAGE DURING TO IMPROPER PROTECTION SHALL BE REPAIRED AT AN ADDITIONAL COST TO THE CLIENT.

REMOVE ALL MATERIAL AND DEBRIS FROM THE SITE AS QUICKLY AS POSSIBLE AND DISPOSE OF LEGALLY. BURNING OF DEBRIS OR SELLING OF MATERIALS ON THE SITE WILL NOT BE PERMITTED.

PROVIDE DUST SHIELD SCREENS OR PARTITIONS TO LOCALIZE DUST GENERATED FROM CONSTRUCTION ACTIVITIES. PROVIDE DUST SHIELD SCREENS OF WORK AND PUBLIC. MAINTAIN AND RELOCATE PROTECTION UNTIL SUCH WORK IS COMPLETE.

CONTRACTOR TO CO-ORDINATE CONSTRUCTION ACTIVITIES AND USE OF EQUIPMENT WITH OWNER'S BUILDING MANAGEMENT. MAINTAIN OPERATIONS OF BUILDING AS REQUIRED.

- 1 REMOVE EXISTING DUCTWORK & ASSOCIATED DIFFUSERS AND ACCESSORIES DOWNSTREAM OF THIS POINT AS INDICATED AND CAP.
- 2 CUT EXISTING VERTICAL DUCT AT APPROXIMATE LOCATION, CONNECTING TO COVERED ROOF OPENING, AND CAP THE BOTTOM OF DUCT TO THE LEVEL AS HIGH AS POSSIBLE.
- 3 EXISTING DUCTWORK & ASSOCIATED DIFFUSERS TO REMAIN IN PLACE, TYPICAL.

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| Scale | 1 : 50 |
| Project No. | IN1024-0349 |
| Drawing No. | M85-03L |