

GENERAL ABBREVIATIONS	
°C	DEGREES CELSIUS
Ø	DIAMETER
AFF	ABOVE FINISHED FLOOR
ARCH	ARCHITECT
BHP	BRAKE HORSEPOWER
CONC	CONCRETE
DB	DRY BULB TEMPERATURE
DHWT	DOMESTIC HOT WATER STORAGE TANK
DN	DOWN
DP	DIFFERENTIAL PRESSURE
DWG	DRAWING
DHWH	DOMESTIC HOT WATER HEATER
EFF	EFFICIENCY
ELEC	ELECTRICAL
ELEV	ELEVATION
EQUIP	EQUIPMENT
EXH	EXHAUST
FLR	FLOOR
GA	GAUGE
HP	HORSEPOWER
HZ	HERTZ
KVA	KILOVOLT AMPERE
L	LITER
LVG	LEAVING
MIN.	MINIMUM
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMPS
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MOCP	MAXIMUM OVER CURRENT PROTECTION
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED OR NOISE CRITERIA
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN OR NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
PD	PRESSURE DROP
(k) Pa	(KILO) PASCAL
(k) W	(KILO) WATT
P	PUMP
RIA	RETURN
REQD	REQUIRED
RH	RELATIVE HUMIDITY
RTU	ROOF TOP UNIT
RPM	REVOLUTIONS PER MINUTE
SC	SENSIBLE COOLING
SCH	SCHEDULE
SH	SENSIBLE HEAT
SPEC	SPECIFICATION
SS	STAINLESS STEEL
STD	STANDARD
SUP	SUPPLY
TAV	THERMOSTATIC AIR VENT
TEMP	TEMPERATURE
TON	TONS OF REFRIGERATION
UNO	UNLESS NOTED OTHERWISE
V	VENT
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
VTR	VENT THROUGH ROOF
CW	COMPLETE WITH
W/O	WITHOUT
WB	WET BULB TEMPERATURE

AIR SIDE SYSTEM ABBREVIATIONS			
AC	AIR CONDITIONING	M/A	MIXED AIR
ACC	AIR CURTAIN	MAT	MIXED AIR TEMPERATURE
APD	AIR PRESSURE DROP	MAU	MAKE UP AIR
AT	AIR TERMINAL	O/A	OUTSIDE AIR
AS	AIR SEPARATOR	OAI	OUTSIDE AIR INTAKE
B	BOILER	OED	OPEN END DUCT
BDD	BACKDRAFT DAMPER	RIA	RETURN AIR
L/S	LITER PER SECOND	RAT	RETURN AIR TEMPERATURE
CH	CHILLER	RLF	RELIEF
E/A	EXHAUST AIR	RV	ROOF-VENT
EAT	ENTERING AIR OR EXHAUST AIR TEMP.	S/A	SUPPLY AIR
ET	EXPANSION TANK	SAT	SUPPLY AIR TEMPERATURE
ESP	EXTERNAL STATIC PRESSURE	SF	SUPPLY FAN
FA	FREE AREA	SP	STATIC PRESSURE
G/E	GENERAL EXHAUST	SS	STAINLESS STEEL DUCT
HEPA	HIGH EFFICIENCY PARTICULATE AIR FILTER	TG	TRANSFER AIR GRILLE
FCU	FAN COIL UNIT	TSP	TOTAL STATIC PRESSURE
EF	EXHAUST FAN	UH	UNIT HEATER
HX	HEAT EXCHANGER	VAV	VARIABLE AIR VOLUME
LAT	LEAVING AIR TEMPERATURE	FD	FIRE DAMPER

AIR SYSTEM LEGEND			
	RECTANGULAR SUPPLY/ OUTSIDE AIR DUCT UP	L/S	SPACE PRESSURIZATION ARROW
	RECTANGULAR SUPPLY/ OUTSIDE AIR DUCT DOWN	DU UC	DOOR LOUVER / UNDERCUT DOOR
	RECTANGULAR RETURN/ RELIEF AIR DUCT UP		AIRFLOW DIRECTION
	RECTANGULAR RETURN/ RELIEF AIR DUCT DOWN		AIR VOLUME TRAVERSE STATION
	RECTANGULAR EXHAUST AIR DUCT UP		EXHAUST AIR GRILLE OR REGISTER
	RECTANGULAR EXHAUST AIR DUCT DOWN		DIFFUSER WITH FLOW DIRECTION. NO FLOW ARROWS INDICATES STANDARD 4-WAY PATTERN.
	ROUND SUPPLY/ OUTSIDE AIR DUCT UP		
	ROUND SUPPLY/ OUTSIDE AIR DUCT DOWN		SIDE WALL GRILLE
	ROUND RETURN/ RELIEF AIR DUCT UP		RETURN AIR GRILLE OR REGISTER
	ROUND RETURN/ RELIEF AIR DUCT DOWN		FLEXIBLE CONNECTION
	ROUND EXHAUST AIR DUCT UP		MANUAL VOLUME DAMPER FOR ROUND AND RECTANGULAR DUCT
	ROUND EXHAUST AIR DUCT DOWN		SLIDE GATE DAMPER FOR ROUND AND RECTANGULAR DUCT
	AUTOMATIC CONTROL DAMPER FOR ROUND AND RECTANGULAR DUCT		COMBINATION SMOKE/FIRE DAMPER FOR ROUND AND RECTANGULAR DUCT
	BACKDRAFT DAMPER FOR ROUND AND RECTANGULAR DUCT		SMOKE DAMPER FOR ROUND AND RECTANGULAR DUCT
	FIRE DAMPER FOR ROUND AND RECTANGULAR DUCT		CARBON DIOXIDE MONITOR

PIPING SYSTEM ABBREVIATIONS			
AV	AUTOMATIC AIR VENT	LWT	LEAVING WATER TEMPERATURE
BF	BOILER FEEDWATER	MAV	MANUAL AIR VENT
CO	CLEAN OUT	PRV	PRESSURE REDUCING VALVE
EWT	ENTERING WATER TEMPERATURE	WPD	WATER PRESSURE DROP
HD	HEAD		

TAGS AND CALL OUT SYMBOLS			
	BUILDING NAME		REVISION CALLOUT
	EQUIPMENT NUMBER		KEYNOTE CALLOUT
	EQUIPMENT DESIGNATION		DETAIL CALLOUT
	SECTION CALLOUT		DETAIL DESIGNATION
	SECTION NUMBER		SHEET NUMBER
	VAV BOX TAG		DIFFUSER / GRILLE TYPE
	MAX. AIR FLOW (L/s) / HEATING CAPACITY (w)		NECK SIZE / GRILLE SIZE
	MAX. HEATING CAPACITY (W)		AIR QUANTITY (L/s)
	RADIANT CEILING PANEL TAG		

	CHILLED WATER SUPPLY		CIRCUIT BALANCING VALVE
	CHILLED WATER RETURN		PIPE ANCHOR
	CRITICAL 24/7 CHILLED WATER SUPPLY		PIPE GUIDE
	CRITICAL 24/7 CHILLED WATER RETURN		EXPANSION JOINT
	CENTRAL CHILLED WATER SUPPLY	% SLOPE symbol"/>	PIPE SLOPE (REFER TO PLANS FOR SLOPE)
	CENTRAL CHILLED WATER RETURN		AUTOMATIC AIR VENT
	GLYCOL SUPPLY		BALL VALVE
	GLYCOL RETURN		BUTTERFLY VALVE
	HEATING WATER SUPPLY		PRESSURE INDEPENDENT CONTROL VALVE
	HEATING WATER RETURN		CONTROL VALVE - 2 WAY
	DOMESTIC REHEAT HEATING WATER SUPPLY		CONTROL VALVE - 3 WAY
	DOMESTIC REHEAT HEATING WATER SUPPLY		CHECK VALVE
	COOLING TOWER SUPPLY		FLOW CONTROL VALVE
	COOLING TOWER RETURN		FLOW METER
	MAKE UP WATER		FLOW SWITCH
	HIGH PRESSURE STEAM		GATE VALVE
	HIGH PRESSURE CONDENSATE		GLOBE VALVE
	LOW PRESSURE STEAM		ISOLATION VALVE
	PUMPED CONDENSATE		MANUAL AIR VENT
	STEAM RELIEF		PRESSURE REDUCING VALVE (PRV)
	SINGLE LINE PIPE RISE		PRESSURE SUSTAINING VALVE
	SINGLE LINE PIPE DROP		PRESSURE GAUGE
	PIPE TEE OFF THE TOP		PUMP (TRIANGLE INDICATES FLOW DIRECTION)
	PIPE TEE OFF THE BOTTOM		SAFETY RELIEF VALVE
	PIPE TEE OFF THE SIDE		SOLENOID VALVE
	BLIND FLANGE		STRAINER
	END CAP		STRAINER W/ DRAIN VALVE, HOSE BIBB, & CAP (USE GATE VALVE FOR STEAM)
	PIPE BREAK		THERMOMETER
	DIRT LEG		UNION
	FLEXIBLE CONNECTION		VACUUM BREAKER
	NEEDLE VALVE		BALANCING VALVE
			PRESSURE SWITCH
			VALVE ON PIPING RISE OR DROP
			FLOW REGULATOR VALVE
			REDUCER - CONCENTRIC
			REDUCER - ECCENTRIC

PLUMBING LEGEND			
	DOMESTIC COLD WATER		TRENCH DRAIN (LETTER DENOTES TYPE)
	DOMESTIC HOT WATER		HEAT TRACING
	DOMESTIC HOT WATER RECIRC.		WATER HAMMER ARRESTOR
	TEMPERED WATER		P-TRAP
	NON POTABLE WATER		RUNNING TRAP WITH CLEAN OUT
	SANITARY SEWER ABOVE FLOOR		FLOOR CLEAN OUT
	SANITARY PUMPED		WALL CLEAN OUT
	SANITARY SEWER BELOW FLOOR		CAPPED PIPE
	SANITARY SEWER VENT		WALL HYDRANT
	STORM DRAIN ABOVE FLOOR/GROUND		BACKFLOW PREVENTER
	STORM DRAIN PUMPED		TRAP PRIMER
	STORM DRAIN BELOW FLOOR		SCUPPER DRAIN
	FOAM DRAIN MAIN		DENTAL AIR
	CONDENSATE DRAIN		VACUUM
	TRAP PRIMER		
	FUEL OIL RETURN		
	FUEL OIL SUPPLY		
	TEMPERED WATER RETURN		
	NATURAL GAS		
	DOMESTIC SOFTENED WATER		
	FLOOR DRAIN (LETTER DENOTES TYPE)		
	FUNNEL FLOOR DRAIN (LETTER DENOTES TYPE)		
	HUB DRAIN (LETTER DENOTES TYPE)		
	AREA DRAIN (LETTER DENOTES TYPE)		
	ROOF DRAIN (LETTER DENOTES TYPE)		
	HOSE BIB (LETTER DENOTES TYPE)		
	NON FREEZE HOSE BIB (LETTER DENOTES TYPE)		

FIRE PROTECTION LEGEND	
	CONCEALED SPRINKLER HEAD
	SIDE WALL SPRINKLER HEAD
	SEMI-RECESSED SPRINKLER HEAD
	UPRIGHT SPRINKLER HEAD
	WINDOW SPRINKLER HEAD
	WALL MOUNTED FIRE DEPARTMENT CONNECTION
	FIRE HOSE CABINET, FIRE HOSE VALVE
	FIRE HOSE CABINET, FIRE HOSE VALVE
	FIRE EXTINGUISHER RECESSED
	FIRE EXTINGUISHER WALL MOUNT
	DRY-PIPE VALVE ASSEMBLY
	WET-PIPE VALVE ASSEMBLY
	SPRINKLER MAIN
	DRY PIPE MAIN
	FIRE PROTECTION PIPE
	SPRINKLER ZONE PIPE
	SUPERVISORY VALVE
	FLOW SWITCH

GENERAL NOTES:

- THESE DRAWINGS ARE FOR ILLUSTRATIVE PURPOSE WITH REPRESENTATIVE AREAS OR LAYOUTS ONLY.
- PROJECT CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE SITE PRIOR TO COMMENCEMENT OF WORK AND INCLUDING FOR COSTS ASSOCIATED WITH ACCESSING AND PROTECTING WORK AREAS, REFER TO ARCHITECTURAL DRAWINGS FOR IDENTIFICATION OF WORK AREAS, CONSTRAINTS AND PROTECTION.
- COORDINATE LOCATIONS OF REQUIRED OPENINGS IN WALLS AND ROOF FOR MECHANICAL SYSTEMS, LOCATIONS AND SIZES SHOWN ARE APPROXIMATE. REFER TO REVIEWED SHOP DRAWINGS AND PRODUCT DATA FOR ACTUAL DIMENSIONS. REFER TO ARCHITECTURAL, STRUCTURAL AND ELECTRICAL DRAWINGS FOR EQUIPMENT SUPPORTS AND FRAMED OPENINGS.
- FOR INFORMATION OF ASBESTOS AND OTHER DESIGNATED SUBSTANCES AND ABATEMENT SCOPE OF WORK PLEASE. REFER TO THE DOCUMENTS ISSUED WITH THE TENDER PACKAGE.

SHEET LIST	
SHEET NUMBER	SHEET NAME
M-000	DRAWING LIST, KEY PLAN, LEGEND, AND SYMBOLS
M-101	LEVEL 1 DEMOLITION PLUMBING AND DRAINAGE
M-102D	PATIENT LOBBY & LEVEL 2 DEMOLITION PLUMBING AND DRAINAGE
M-103D	LEVEL 3 DEMOLITION PLUMBING AND DRAINAGE
M-200D	LEVEL 1 DEMOLITION HVAC
M-201D	PATIENT LOBBY & LEVEL 2 DEMOLITION HVAC
M-202D	LEVEL 3 DEMOLITION HVAC
M-203D	LEVEL 4 DEMOLITION HVAC
M-200	BASEMENT & LEVEL 1 PLUMBING AND DRAINAGE
M-201	PATIENT LOBBY & LEVEL 2 PLUMBING AND DRAINAGE
M-202	LEVEL 3 PLUMBING AND DRAINAGE
M-300	BASEMENT & LEVEL 1 FIRE PROTECTION
M-301	PATIENT LOBBY & LEVEL 2 FIRE PROTECTION
M-302	LEVEL 3 FIRE PROTECTION
M-400	ZONING PLAN HVAC
M-401	BASEMENT & LEVEL 1 HVAC
M-402	PATIENT LOBBY & LEVEL 2 HVAC
M-403	LEVEL 3 HVAC
M-404	LEVEL 4 HVAC
M-500	ENLARGED SECTIONS
M-600	PLUMBING & DRAINAGE SCHEMATIC
M-601	FIRE PROTECTION SCHEMATIC
M-602	HVAC SCHEMATIC
M-603	CONTROLS SCHEMATICS #1
M-604	MECHANICAL DETAILS #1
M-605	MECHANICAL DETAILS #2
M-606	MECHANICAL DETAILS #3
M-700	SCHEDULES#1

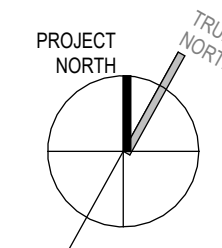
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12	2025-05-29	ISSUED FOR TENDER	EXP
11	2025-01-09	ISSUED FOR 100% CD	EXP
10	2025-12-19	ISSUED FOR 100% CD DRAFT	EXP
9	2025-12-05	ISSUED FOR PERMIT	EXP
8	2025-11-05	RE-ISSUED FOR RAS REVIEW	EXP
7	2025-09-26	ISSUED FOR RAS/CD	EXP
6	2025-08-12	ISSUED FOR CLINIC 1 CEILING 100% SD	EXP
5	2025-08-15	ISSUED FOR CLINIC 1 CEILING 100% SD	EXP
4	2025-05-20	ISSUED FOR 100%CD	EXP
3	2025-05-02	ISSUED FOR SHEDD PROGRESS	EXP
2	2025-03-14	REISSUED FOR 100% SCHEMATIC DESIGN	EXP
1	2025-03-08	ISSUED FOR 100% SCHEMATIC DESIGN	EXP
#	DATE:	REVISION:	BY:
REVISIONS			



UNIVERSITY OF TORONTO
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CLINIC 2 RENOVATION
24082

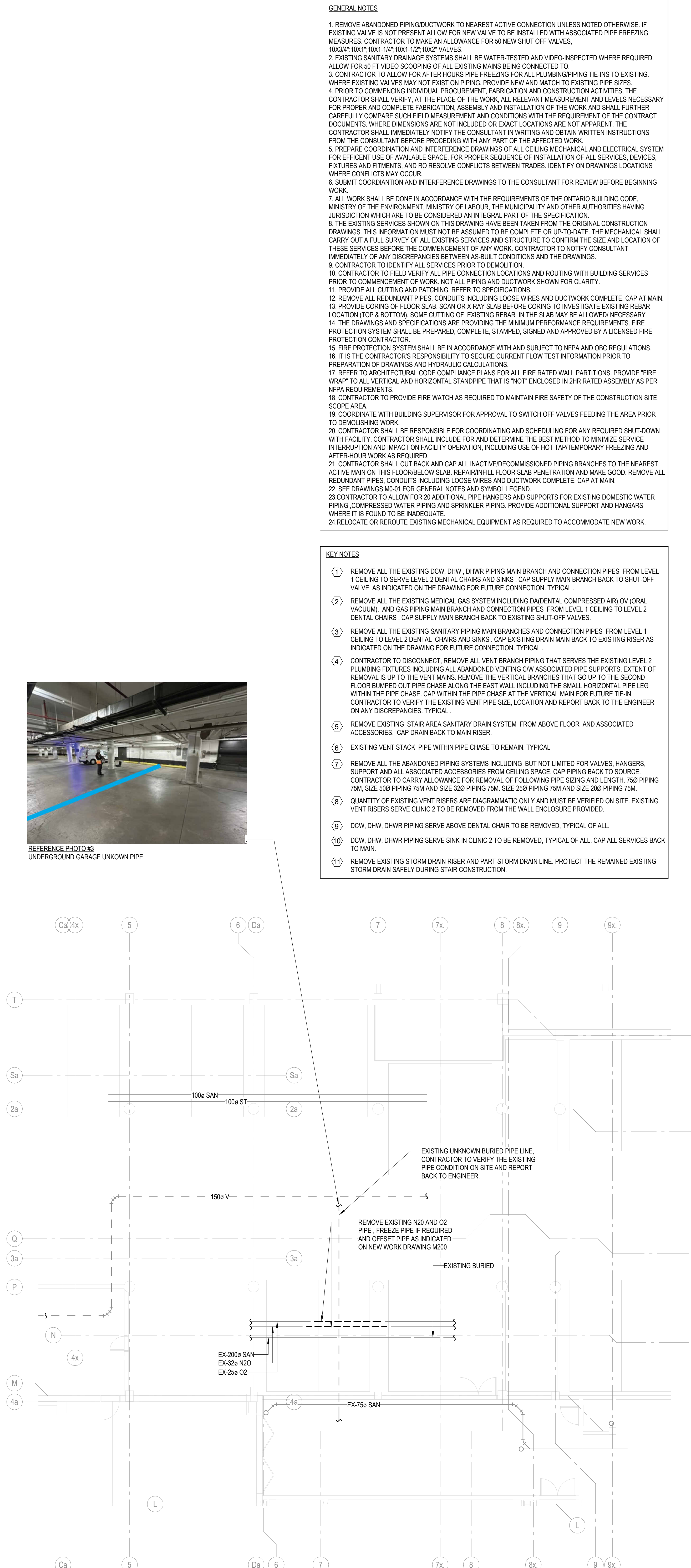
124 EDWARD STREET
TORONTO, ON M5G 1G8

DRAWING LIST, KEY PLAN,
LEGEND, AND SYMBOLS

SCALE:	1 : 1
DRAWN BY:	Author
REVIEWED BY:	Checker
JOB NUMBER:	24082
PLOT DATE:	02/04/25

DRAWING NUMBER:

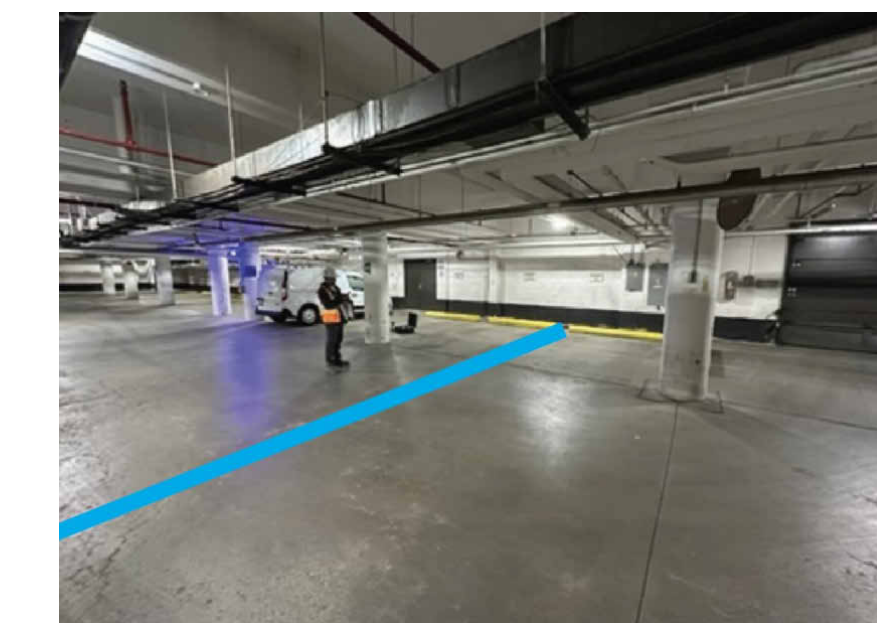
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- [illegible]

KEY NOTES

- ① REMOVE ALL THE EXISTING DOW, CHWV, DHWR PIPING MAIN BRANCH AND CONNECTION PIECES FROM LEVEL 1 CEILING TO SERVICE LEVEL 2, DENTAL CHAIRS AND SINKS. CAP SUPPLY MAIN BRANCH BACK TO SHUT-OFF VALVE LOCATED ON THE DRAWING FOR FUTURE CONNECTION. TYPICAL OF ALL.
 - ② REMOVE ALL THE EXISTING MEDICAL GAS SYSTEM INCLUDING DUCTILEL, COMPRESSED AIR/DRY ORAL VACUUM, AND GASES MAIN BRANCH AND CONNECTION PIECES FROM LEVEL 1 CEILING TO LEVEL 2 CEILING. CAP SUPPLY MAIN BRANCH BACK TO SHUT-OFF VALVE LOCATED ON THE DRAWING FOR FUTURE CONNECTION. TYPICAL OF ALL.
 - ③ REMOVE ALL THE EXISTING SANITARY PIPING MAIN BRANCHES AND CONNECTION PIECES FROM LEVEL 1 CEILING TO LEVEL 2, DENTAL CHAIRS AND SINKS. CAP EXISTING DRAN MAIN BACK TO EXISTING RISERS AS INDICATED ON THE DRAWING FOR FUTURE CONNECTION. TYPICAL OF ALL.
 - ④ DISCONNECT AND DISMANTLE ALL EXISTING VERTICAL PIPES THAT SERVES THE EXISTING LEVEL 2 PLUMBING FIXTURES INCLUDING ALL ABANDONED VENT/CAP ASSOCIATED PIPE SUPPORTS. EXTENT OF REMOVALS UP TO THE VENT MANS. REMOVE THE VERTICAL BRANCHES THAT GO UP TO THE SECOND FLOOR AND CAPPING OUT PIPE TO THE ROOF. REMOVE ALL HORIZONTAL PIPES WITHIN THE PIPE CHASE. CAP WITHIN THE PIPE CHASE AT THE VERTICAL MAN FOR FUTURE LINE IN. CHECK WITH THE OWNER TO VERIFY THE EXISTING PIPE SIZE, LOCATION AND REPORT BACK TO THE ENGINEER ON ANY DISCREPANCIES. TYPICAL.
 - ⑤ REMOVE EXISTING STAR AREA SANITARY DRAIN PIPING FROM ABOVE FLOOR, AND ASSOCIATED ACCESSORIES. CRACK BACK TO MAIN RISER.
- EXISTING VENT STACK PIPE WITHIN PIPE CHASE TO REMAIN. TYPICAL.
- ⑦ REMOVE ALL THE ABANDONED PIPING SYSTEMS INCLUDING BUT NOT LIMITED FOR VALVES, HANDGAS, SUBMITTERS AND AL. ALLOWED OPENING SPACE. CAP PIPING BACK TO SOURCE CONTRACTOR TO CARRY ALLOWANCE FOR REMOVAL OF FOLLOWING PIPE SIZING AND LENGTH: 750 PIPING CONDUIT APPROX 750' LONG. APPROX 150' LONG. APPROX 150' LONG. APPROX 150' LONG. APPROX 150' LONG.
 - ⑧ QUANTITY OF EXISTING VENTS RISERS ARE DIAGRAMATIC ONLY AND MUST BE VERIFIED ON SITE. EXISTING VENTS RISERS SERVICE CLINTC TO BE REMOVED FROM THE WALL ENCLOSURE PROVIDED.
- DOW, CHWV, DHWR PIPING SERVE NEEDED DENTAL CHAIR TO BE REMOVED, TYPICAL OF ALL. CAP ALL.
- DOW, CHWV, DHWR PIPING SERVE SINK IN CLINTC TO BE REMOVED, TYPICAL OF ALL. CAP ALL SERVICES BACK TO MAIN.
- REMOVE EXISTING STORM DRAIN SERVICE AND PART STORM DRAIN LINE. PROTECT THE REMAINED EXISTING STORM DRAIN SERVICE. TYPICAL OF ALL.



REFERENCE PHOTO #3
UNDERGROUND GARAGE UN

EXISTING UNKNOWN BURIED PIPE LINE
CONTRACTOR TO VERIFY THE EXISTING
PIPE CONDITION ON SITE AND REPORT
BACK TO ENGINEER.

12	2026-06-29	ISSUED FOR TENDER	EXP
11	2026-01-09	ISSUED FOR 100% CD	EXP
10	2025-12-19	ISSUED FOR 100% CD DRAFT	EXP
9	2025-12-06	ISSUED FOR PERMIT	EXP
8	2025-11-26	RE-ISSUED FOR FAS REVIEW	EXP
7	2025-06-26	ISSUED FOR 80% CD	EXP
6	2025-06-12	ISSUED FOR CLINIC 1 CEILING 100% DO	EXP
5	2025-06-15	ISSUED FOR CLINIC 1 CEILING 100% SO	EXP
4	2025-06-30	ISSUED FOR 100% DO	EXP
3	2025-06-02	ISSUED FOR 50% DO PROGRESS	EXP
2	2025-03-14	REISSUED FOR 100% SCHEMATIC DESIGN	EXP
1	2025-02-28	ISSUED FOR 100% SCHEMATIC DESIGN	EXP
#	DATE:	REVISION:	BY:
REVISIONS			



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DENTISTRY BUILDING
CLINIC 2 RENOVATION
24082

124 EDWARD STREET
TORONTO, ON, M5G 1G8

LEVEL 1 DEMOLITION PLUMBING AND DRAINAGE

SCALE: As indicated

DRAWN BY: Author

JOB NUMBER: 24082

PLOT DATE: 02/04/25

DRAWING NUMBER:

M-101D

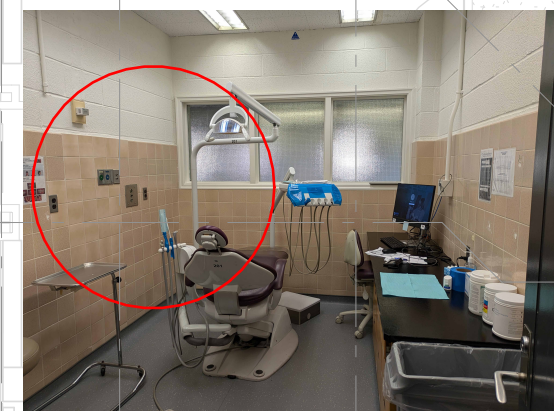
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CONTRACTOR TO TEMPORARILY DISCONNECT EXISTING
HOOKUPS FOR COMPRESSED AIR, VACUUM AND GAS
AND ANY OTHER ASSOCIATED SERVICES ON THIS WALL.
VERIFY IF SERVICES ARE STILL ACTIVE. IF SERVICES ARE
ABANDONED CONTRACTOR TO CAP DISCONNECT AND
REMOVE ANY HOOKUPS. IF SERVICES ARE ACTIVE
CONTRACTOR TO REINSTALL AT SAME LOCATION.

GENERAL NOTES

[illegible]

KEY NOTE

- 1 REMOVE AND RELOCATED EXISTING 1000 STORM RISER AS INDICATED ON LEVEL 3 NEW WORK DRAWING

10	2026-06-29	ISSUED FOR TENDER	EXP
9	2026-01-01	ISSUED FOR 100% CD	EXP
8	2025-12-19	ISSUED FOR 100% CD DRAFT	EXP
7	2025-12-05	ISSUED FOR PERMIT	EXP
6	2025-11-26	RE-ISSUED FOR F&S REVIEW	EXP
5	2025-08-26	ISSUED FOR 80% CD	EXP
4	2025-06-30	ISSUED FOR 100% CD	EXP
3	2025-06-02	ISSUED FOR 50% CD PROGRESS	EXP
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REVISIONS			



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24082

124 EDWARD STREET
TORONTO, ON, M5G 1G6

LEVEL 3 DEMOLITION PLUMBING AND DRAINAGE

SCALE: As indicated

DRAWN BY: Author

REVIEWED BY: Checker

JOB NUMBER: 24082

DRAWING NUMBER:

M-103D

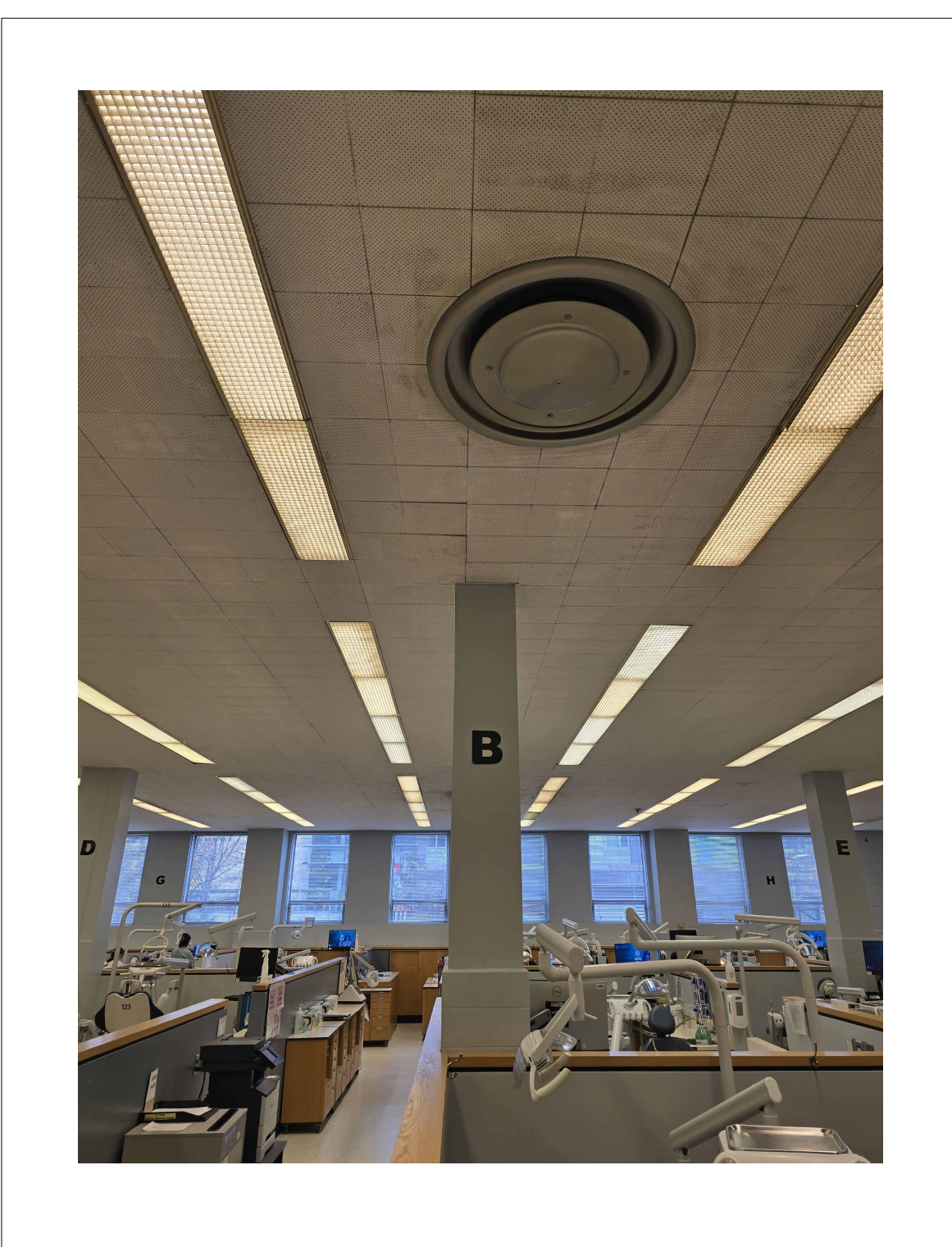


- HVAC GENERAL DEMOLITION NOTES:

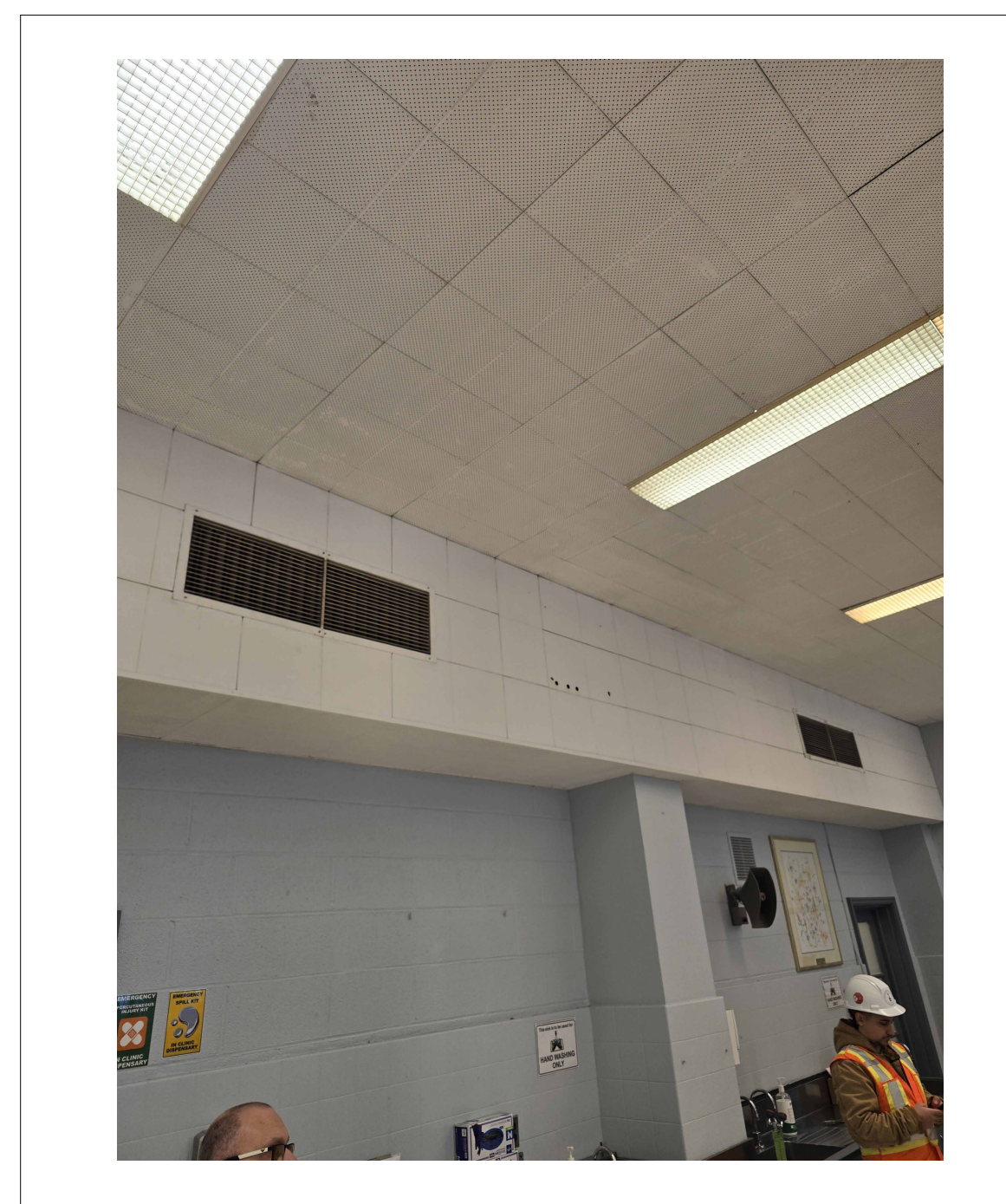
4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, MINISTRY OF THE ENVIRONMENT, MINISTRY OF LABOR, MUNICIPAL REQUIREMENTS AND OTHER APPLICABLE JURISDICTION WHICH ARE TO BE CONSIDERED AN INTEGRAL PART OF THE SPECIFICATION.
5. THE EXISTING SERVICES SHOWN ON THIS DRAWING HAVE BEEN TAKEN FROM THE ORIGINAL CONSTRUCTION DRAWINGS. THIS INFORMATION MUST NOT BE ASSUMED TO BE COMPLETE OR UP-TO-DATE. THE MECHANICAL SHALL CARRY OUT A FULL SURVEY OF ALL EXISTING SERVICES AND STRUTTING TO CONFIRM THE SIZE AND LOCATION OF THESE SERVICES BEFORE THE COMMENCEMENT OF ANY WORK.
6. CONTRACTOR TO FIELD VERIFY ALL PIPE CONNECTION LOCATIONS AND ROUTING WITH BUILDING SERVICES PRIOR TO COMMENCEMENT OF WORK. NOT ALL PIPING AND DUCTWORK SHOWN FOR CLARITY.
7. CONTRACTOR TO IDENTIFY ALL SERVICES PRIOR TO DEMOLITION
8. FOR DUST CONTROL, CAP EXISTING DUCTS IN THE CONSTRUCTION AREA. CONNECTION TO EXISTING AIR DUCTS IS TO BE DONE AFTER COMPLETION OF ALL DUST PRODUCING TASKS.
9. RELOCATE OR REDUCITE EXISTING MECHANICAL EQUIPMENT AS REQUIRED TO ACCOMMODATE NEW WORK.
10. PROVIDE ALL CUTTINGS AND PATCHING. REFER TO SPECIFICATIONS.
11. REMOVE ALL REDUNDANT PIPES. CONDUITS INCLUDING LOOSE WIRES AND DUCTWORK COMPLETE CAP AT MAN.
12. PROVIDE CORING OF FLOOR SLAB, SCOM OR RAY SLAB BEFORE CARGO TO INVESTIGATE EXISTING REBAR LOCATION (TOP / BOTTOM). CUTTING EXISTING DEBARS IN THE SLAB IS NOT PERMITTED.
13. THE VENTILATION LAYOUT HAS BEEN TAKEN FROM ALL AVAILABLE INFORMATION BUT SHALL BE ACCURATELY CHECKED ON THE SITE AND AN DISCREPANCY REPORTED BEFORE WORK IS COMMENCED.
14. EXISTING PIPES SERVING AREAS REMAINING IN SERVICE AT THIS TIME SHALL NOT BE INTERRUPTED UNLESS A TEMPORARY INTERRUPTION IS COORDINATED WITH THE OWNER.
15. DEMOLITION WORK SHALL INCLUDE ALL MATERIALS, LABOR, EXTENSIONS, CONNECTIONS, CUTTING, REPAIRING, ADAPTING AND OTHER FIRE PROTECTION WORK REQUIRED TO MAINTAIN SERVICE PENDING THE COMPLETION OF THE PERMANENT WORK. COORDINATE THE EXTENT OF DEMOLITION WORK WITH THE ARCHITECTURAL DRAWINGS.
16. THE CONTRACTOR SHALL COORDINATE THE DEMOLITION WORK WITH PROJECTS PHASING SCHEDULE PRIOR TO THE COMMENCEMENT OF THE WORK.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING FOR ANY REQUIRED SHUT-DOWN WITH LANDLORD. CONTRACTOR SHALL INCLUDE FOR AND DETERMINE THE BEST METHOD TO MINIMIZE SERVICE INTERRUPTION AND IMPACT ON SCHOOL OPERATION, INCLUDING USE OF HOT TAPS AND STAGING OF WORK TO MINIMIZE FOUR-HOUR WORK AS REQUIRED.
18. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH LANDLORD TO MINIMIZE SERVICE INTERRUPTION FOR RUMMING SYSTEM, INCLUDING CAP PIPING, PROVIDING TEMPORARY PIPE CONNECTION, PROVIDE NECESSARY METHOD TO AVOID PIPE FREEZING WHEN SYSTEM IS OFF.
19. NOT ALL FIRE DAMPERS SHOWN TYPICAL ON ALL LEVELS.

KEY NOTES

- 1 REMOVE SUPPLY DIFFUSER AS SHOWN. DISCONNECT EXISTING CONNECTIONS FROM DIFFUSERS TO BRANCH DUCTS. CAP DUCT WORK TO MAKE READY FOR NEW WORK.
- 2 SIDE WALL RETURN GRILLES TO REMAIN.



4 REMOVAL OF SUPPLY DIFUSSER



5 RETURN TO REMAIN

12	2026-06-29	ISSUED FOR TENDER	EXP
11	2026-01-09	ISSUED FOR 100% CD	EXP
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9	2025-12-06	ISSUED FOR PERMIT	EXP
8	2025-11-26	RE-ISSUED FOR FAS REVIEW	EXP
7	2025-09-26	ISSUED FOR 80%CD	EXP
6	2025-09-12	ISSUED FOR CLINIC 1 CEILING 100% DD	EXP
5	2025-08-16	ISSUED FOR CLINIC 1 CEILING 100% SD	EXP
4	2025-06-30	ISSUED FOR 100%DD	EXP
3	2025-05-02	ISSUED FOR 50%DD PROGRESS	EXP
2	2025-03-14	REISSUED FOR 100% SCHEMATIC DESIGN	EXP
1	2025-02-28	ISSUED FOR 100% SCHEMATIC DESIGN	EXP
#	DATE:	REVISION:	BY:
REVISIONS			



UNIVERSITY OF TORONTO
DENTISTRY BUILDING
CLINIC 2 RENOVATION
24082

124 EDWARD STREET
TORONTO, ON, M5G 1G8

LEVEL 1 DEMOLITION HVAC

SCALE: 1 : 100

DRAWN BY: Author

REVIEWED BY: _____ Checker: _____

JOB NUMBER: 24082
PLOT DATE: 02/04/02

DRAWING NUMBER

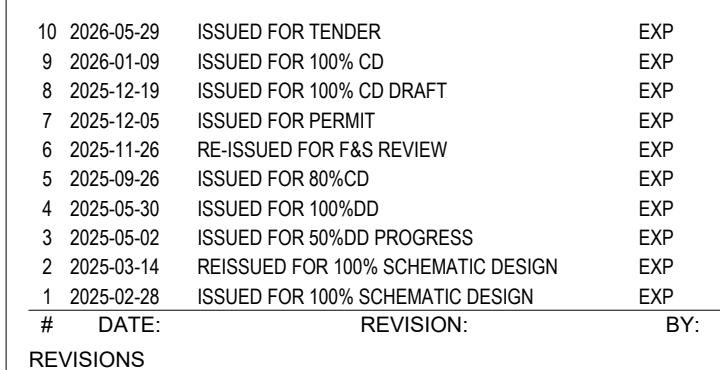
M-200D



1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, MINISTRY OF THE ENVIRONMENT, MINISTRY OF LABOR, MUNICIPAL REQUIREMENTS AND OTHER AUTHORITIES HAVING JURISDICTION WHICH ARE TO BE CONSIDERED AN INTEGRAL PART OF THE SPECIFICATION.
2. THE EXISTING SERVICES SHOWN ON THIS DRAWING HAVE BEEN TAKEN FROM THE ORIGINAL CONSTRUCTION DRAWINGS. THIS INFORMATION MUST NOT BE ASSUMED TO BE COMPLETE OR UP-TO-DATE. THE MECHANICAL SHALL CARRY OUT A FULL SURVEY OF ALL EXISTING SERVICES AND LOCATIONS TO CONFIRM THE SIZE AND LOCATION OF THESE SERVICES BEFORE THE COMMENCEMENT OF ANY WORK.
3. CONTRACTOR TO FIELD VERIFY ALL PIPE CONNECTION LOCATIONS AND ROLLING WITH BUILDING SERVICES PRIOR TO COMMENCEMENT OF WORK. NOT ALL PIPING AND DUCTWORK SHOWN FOR CLARITY.
4. CONTRACTOR TO IDENTIFY ALL SERVICES PRIOR TO DEMOLITION.
5. FOR DUST CONTROL, CAP EXISTING DUCTS IN THE CONSTRUCTION AREA. CONNECTION TO EXISTING AIR DUCTS IS TO BE DONE AFTER COMPLETION OF ALL DUST PROOOFING TASKS.
6. RELOCATE OR REDUCITE EXISTING MECHANICAL EQUIPMENT AS REQUIRED TO ACCOMMODATE NEW WORK.
7. PROVIDE ALL CUTTINGS AND PATCHING. REFER TO SPECIFICATIONS.
8. REMOVE ALL REDUNDANT PIPES. CONDUITS INCLUDING LOOSE WIRES AND DUCTWORK COMPLETE CAP AT MAIN.
9. PROVIDE CORING OF FLOOR SLAB, SCAM OR X-RAY SLAB BEFORE CORKING TO INVESTIGATE EXISTING REBAR LOCATION (TOP, BOTTOM, CUTTING EXISTING DEBARS IN THE SLAB IS NOT PERMITTED).
10. THE VENTILATION LAYOUT HAS BEEN TAKEN FROM ALL AVAILABLE INFORMATION BUT SHALL BE ACCURATELY CHECKED ON THE SITE AND AN DISCREPANCY REPORTED BEFORE WORK IS COMMENCED.
11. EXISTING PIPES SERVING AREAS REMAINING IN SERVICE AT THIS TIME SHALL NOT BE INTERRUPTED UNLESS A TEMPORARY INTERRUPTION IS COORDINATED WITH THE OWNER.
12. DEMOLITION WORK SHALL INCLUDE ALL MATERIALS, LABOR EXTENSIONS, CONNECTIONS, CUTTING REPAIRING, ADAPTING AND OTHER FIRE PROTECTION WORK REQUIRED TO MAINTAIN SERVICE PENDING THE COMPLETION OF THE PERMANENT WORK. COORDINATE THE EXTENT OF DEMOLITION WORK WITH THE ARCHITECTURE DRAWINGS.
13. THE CONTRACTOR SHALL COORDINATE THE DEMOLITION WORK WITH PROJECTS PHASING SCHEDULE PRIOR TO THE COMMENCEMENT OF THE WORK.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING FOR ANY REQUIRED SHUT-DOWN WITH LANDLORD. CONTRACTOR SHALL INCLUDE FOR AND DETERMINE THE BEST METHOD TO MINIMIZE SERVICE INTERRUPTION AND IMPACT ON SCHOOL OPERATION, INCLUDING USE OF HOT TAPS, BYPASSING AND AFTER-HOURS WORK AS REQUIRED.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH LANDLORD TO MINIMIZE SERVICE INTERRUPTION FOR RUNNING SYSTEM, INCLUDING CAP PIPE OPENING, PROVIDING TEMPORARY PIPE CONNECTION, PROVIDE NECESSARY METHOD TO AVOID PIPE FREEZING WHEN SYSTEM IS OFF.
16. NOT ALL FIRE DRAWERS SHOWN TYPICAL ON ALL LEVELS.

KEY NOTES

- ① REMOVE SUPPLY DUCT, VRIIO AND ALL THE SUPPLY DIFFUSERS AS SHOWN. CAP AND SEAL SUPPLY DUCT BACK TO MAIN.
- ② REMOVE RETURN DUCT AND RETURN GRILLES AS SHOWN. CAP AND SEAL RETURN DUCT BACK TO MAIN.
- ③ REMOVE EXHAUST DUCT AND GRILLES AS SHOWN. CAP AND SEAL EXHAUST DUCT BACK TO MAIN.
- ④ REMOVE EXISTING HYDRONIC RADIATORS, SHUT-OFF VALVES, BALANCING & CONTROL VALVES AND RELATIVE ACCESSORIES. CAP AND CUT BACK PIPE CLOSE TO MAIN.



124 EDWARD STREET
TORONTO, ON, M5G 1G8

SCALE: As indicated

DRAWN BY: Author

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JOB NUMBER: 24062
PLOT DATE: 02/04/25

DRAWING NUMBER-

M-201D

2 REMOVE RETURN DUCT AS SHOWN. CAP AND SEAL RETURN DUCT BACK TO MAIN.

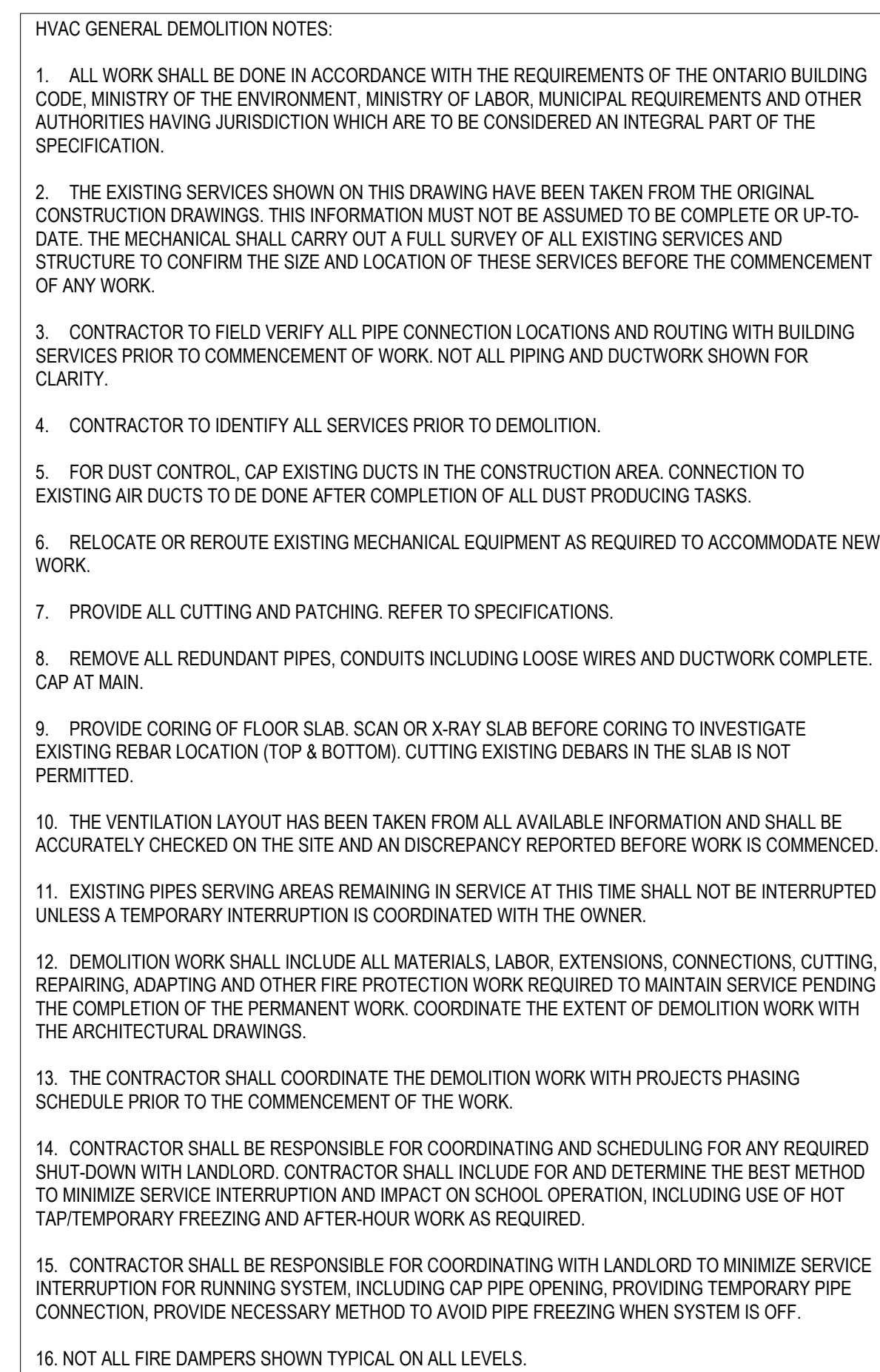
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7	2025-12-05	ISSUED FOR PERMIT	EXP
6	2025-11-26	RE ISSUED FOR F&S REVIEW	EXP
5	2025-09-26	ISSUED FOR 80%CD	EXP
4	2025-06-30	ISSUED FOR 100%CD	EXP
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1	2025-02-28	ISSUED FOR 100% SCHEMATIC DESIGN	EXP
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124 EDWARD STREET
TORONTO, ON, M5G 1G6

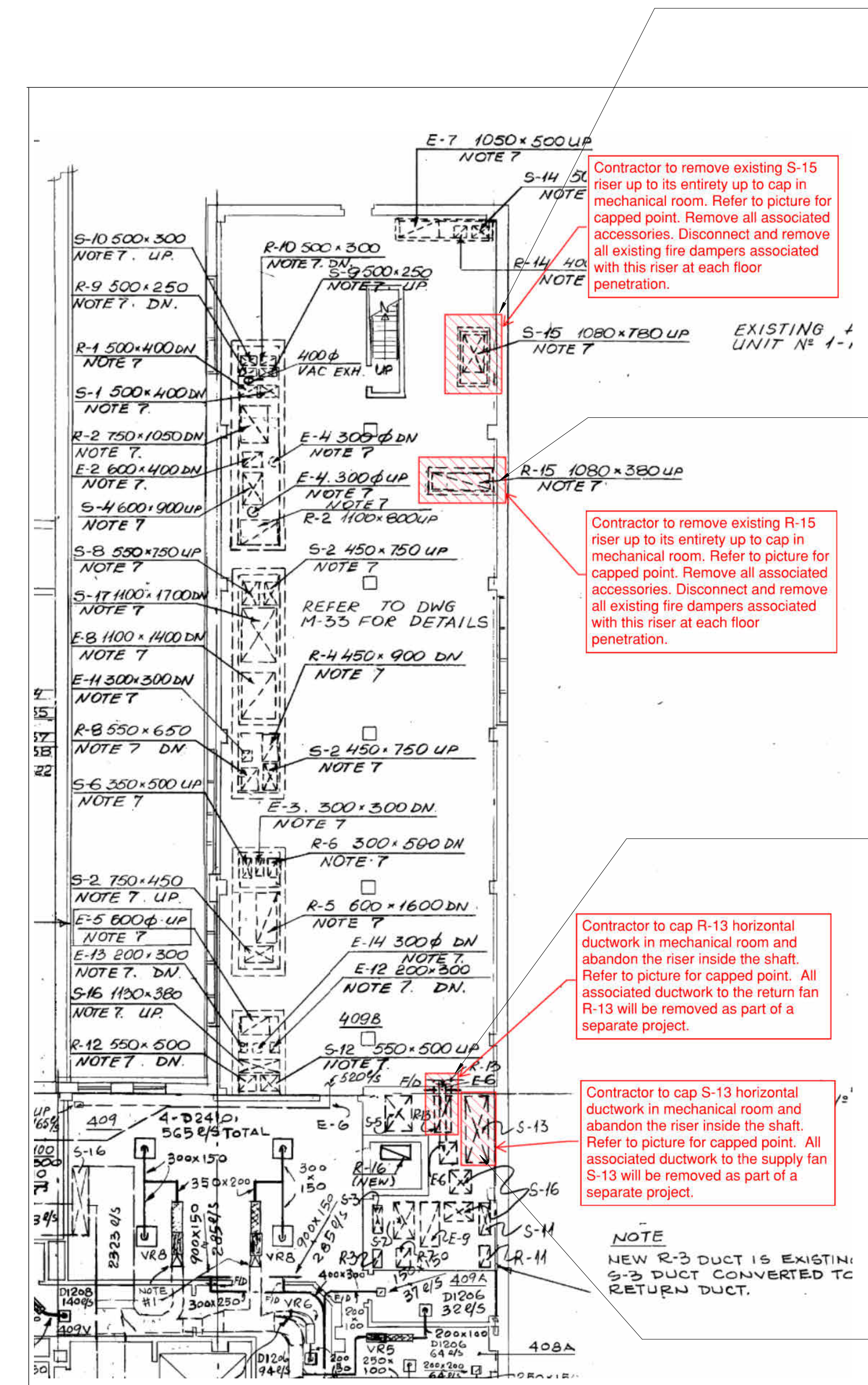
PLOT DATE: 02/04/25

M-202D

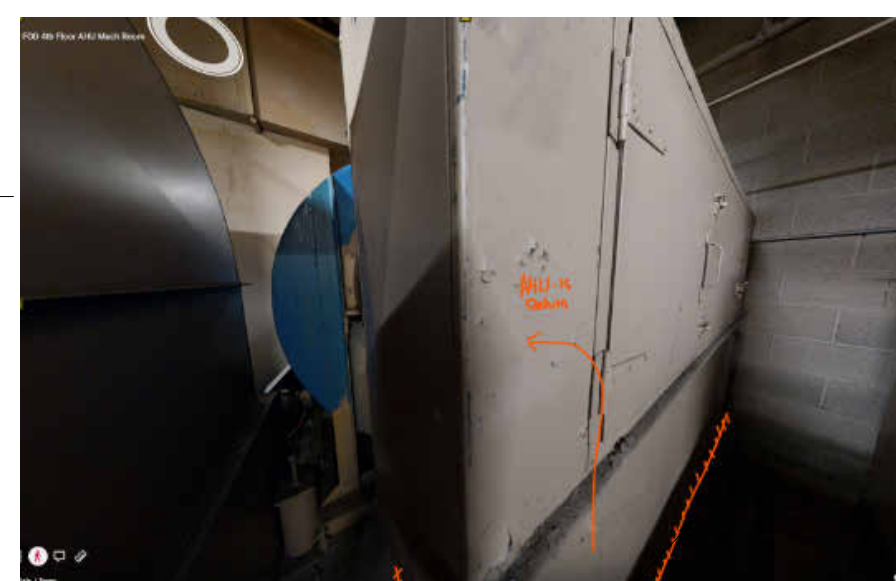


KEY NOTES

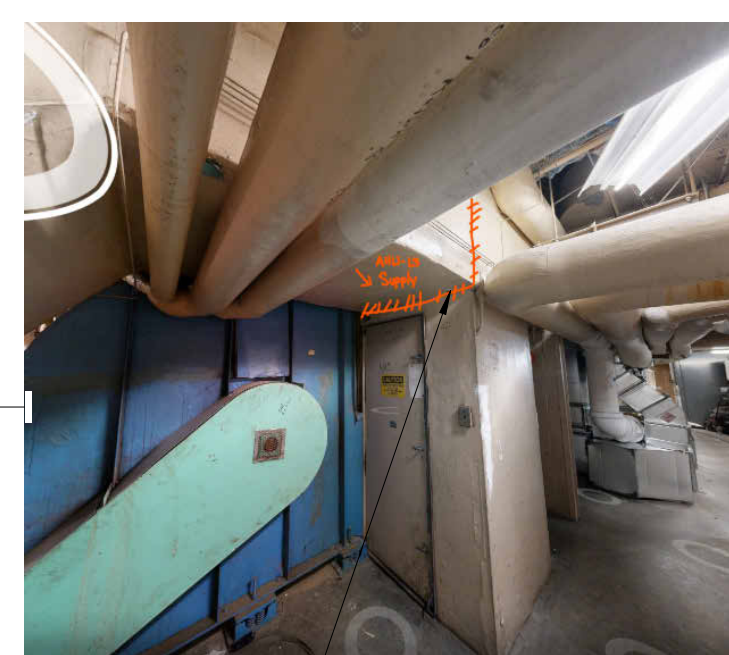
- 1 REMOVE EXISTING HVAC EQUIPMENT ON ROOF, REPAIR AND PATCH THE ROOF OPENINGS
SITE VERIFY EXACT LOCATIONS.



CAP LOCATION

CAP
LOCATION:

CAP LOCATION



CAP LOCATION



GENERAL NOTES

- [illegible]

KEY NOTES

- ⑦ PROVIDE NEW SANITARY DRAIN WITH CEILING SLAB TO SERVICE LEVEL 2 DENTAL WALL SINK, DENTAL LAVATORY AND PLUMBING FIXTURES. THE SANITARY MAIN BRANCH BACK TO EXISTING SANITARY DRAIN AS INDICATED ON THE PLAN. TYPICAL.
- ⑧ PROVIDE NEW DRAIN VACUUM (D) WITHIN CEILING SLAB TO SERVICE LEVEL 2 DENTAL WALL SINK AND DENTAL LAVATORY. THE DRAIN SHALL BE 1/2" DIA. WITH 1/2" DIA. HOLE IN CEILING. TYPICAL.
- ⑨ PROVIDE NEW DENTAL COMPRESSED AIR (DA) WITHIN CEILING SLAB TO SERVICE LEVEL 2 DENTAL WALL SINK, DENTAL CHAIRS AND THE DA MAIN BRANCH BACK TO EXISTING DA AT SHUT OFF VALVE AS INDICATED ON THE PLAN. TYPICAL.
- ⑩ PROVIDE NEW DCH/DV DRAIN PIPING WITHIN CEILING SLAB TO SERVICE LEVEL 2 DENTAL WALL SINK, DENTAL CHAIRS AND THE DRAIN MAIN BRANCH BACK TO EXISTING PLUMBING SYSTEM AT SHUT OFF VALVE AS INDICATED ON THE PLAN. PROVIDE NEW SHUT OFF VALVE AT NEW BRANCH. TYPICAL.
- ⑪ QUANTITY OF EXISTING VENT PIPES ARE DIAGRAMATIC ONLY AND MUST BE VERIFIED ON SITE. EXISTING VENT PIPES SHALL BE REMOVED FROM THE MAIN BRANCH BACK TO EXISTING VENT MAIN PIPE FROM NEW VENT PIPE FROM NEW PLUMBING FIXTURE PER OBC PART 7 AND THE BACK TO THE REMAIND VENT PIPER AT WALL ENCLOSURE.
- ⑫ CONTRACTOR TO VERIFY ALL THE EXISTING SHUT OFF VALVES CONDITION ON SITE. ALLOW FOR THE REMOVAL AND REPLACEMENT OF VALVES NOT HOLDING PER THE FOLLOWING: 200# & VALVES, 250 & VALVES, 250 & VALVES, 500 & VALVES. ALLOW FOR PIPE FREEZING FOR THE INSTALLATION OF THE NEW VALVES.
- ⑬ CONTRACTOR TO VERIFY THE EXISTING VACUUM PIPER LOCATION ON SITE AND REPORT BACK TO ENGINEER. THE NEW VACUUM PIPING BACK TO EXISTING. CONTRACTOR SHOULD CARRY THE ALLOWANCE TO COVER THE ROUTE TO THE EXISTING VACUUM PIPING TO CONNECT TO THE EXISTING AVAILABLE VACUUM SYSTEM AS FOLLOWS: 1000' 200', 1000' 200', 750' 200'.
- ⑭ CONTRACTOR TO PROVIDE NEW PIPE FOR PLUMBING FIXTURE PER OBC PART 7. NEW VENT PIPE TO RUN WITHIN LEVEL 1, CEILING SLAB AND THE BACK TO TAPPED EXISTING VENT PIPER AT PERIMETER COLUMN AND/OR THROUGH ROOF. TYPICAL.
- ⑮ REFER TO DRAWING M600 FOR PIPING DETAIL AND SIZING.
- ⑯ PROVIDE NEW VENT PIPE MAIN BRANCHES FROM THE LEVEL 1, CEILING LEVEL AND CONNECT TO MAIN VENT COLLECTOR LINE WITHIN LEVEL 1, CEILING SLAB AND ROUTE UP WITHIN EXISTING PORE CHASE IN LEVEL 2, ROUTE AS CLOSE AS POSSIBLE TO THE EXTERIOR WALL WITHIN THE CHASE TO ALLOW FOR THE ARCHITECTURAL REVIEW. RECOMMEND THIS NEW VENT MAIN PIPE TO THE EXISTING VERTICAL MAIN PIPE TO THE EXISTING VENT COLLECTOR LINE WITHIN LEVEL 1, CEILING SLAB. CONTRACTOR SHALL VERIFY THE EXISTING VENT PIPING FOR THE NETWORK. ROUTING OF EXISTING SERVICES INCLUDING; WIRING, CONDENS, JUNCTION BOXES ETC. CONTRACTOR TO REPORT TO THE ENGINEER IF THERE ARE ANY DISCREPANCIES ON SITE. ALLOW AND INCLUDE FOR PIPE SUPPORT.



13	2006-06-29	ISSUED FOR TENDER	EXP
12	2006-01-15	Revision 12	EXP
11	2006-01-09	ISSUED FOR 100% CD	EXP
10	2006-12-19	ISSUED FOR 100% CD DRAFT	EXP
9	2006-12-06	ISSUED FOR PERMIT	EXP
8	2006-11-26	RE-ISSUED FOR FAS REVIEW	EXP
7	2006-06-26	ISSUED FOR 80% CD	EXP
6	2006-06-12	ISSUED FOR CLINIC 1 CEILING 100% DD	EXP
5	2006-06-15	ISSUED FOR CLINIC 1 CEILING 100% SD	EXP
4	2006-06-30	ISSUED FOR 100% DD	EXP
3	2006-04-02	ISSUED FOR 100% PROGRESS	EXP
2	2006-03-14	REISSUED FOR 100% SCHEMATIC DESIGN	EXP
1	2006-02-28	ISSUED FOR 100% SCHEMATIC DESIGN	EXP
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UNIVERSITY OF TORONTO
DENTISTRY BUILDING
CLINIC 2 RENOVATION
24082

124 EDWARD STREET
TORONTO, ON, M5G 1G8

BASEMENT & LEVEL 1 PLUMBING AND DRAINAGE

SCALE: As indicated

SCALE: As indicated

DRAWN BY: Author

REVIEWED BY: Checker

REVIEWED BY: C116061
JOB NUMBER: 04600

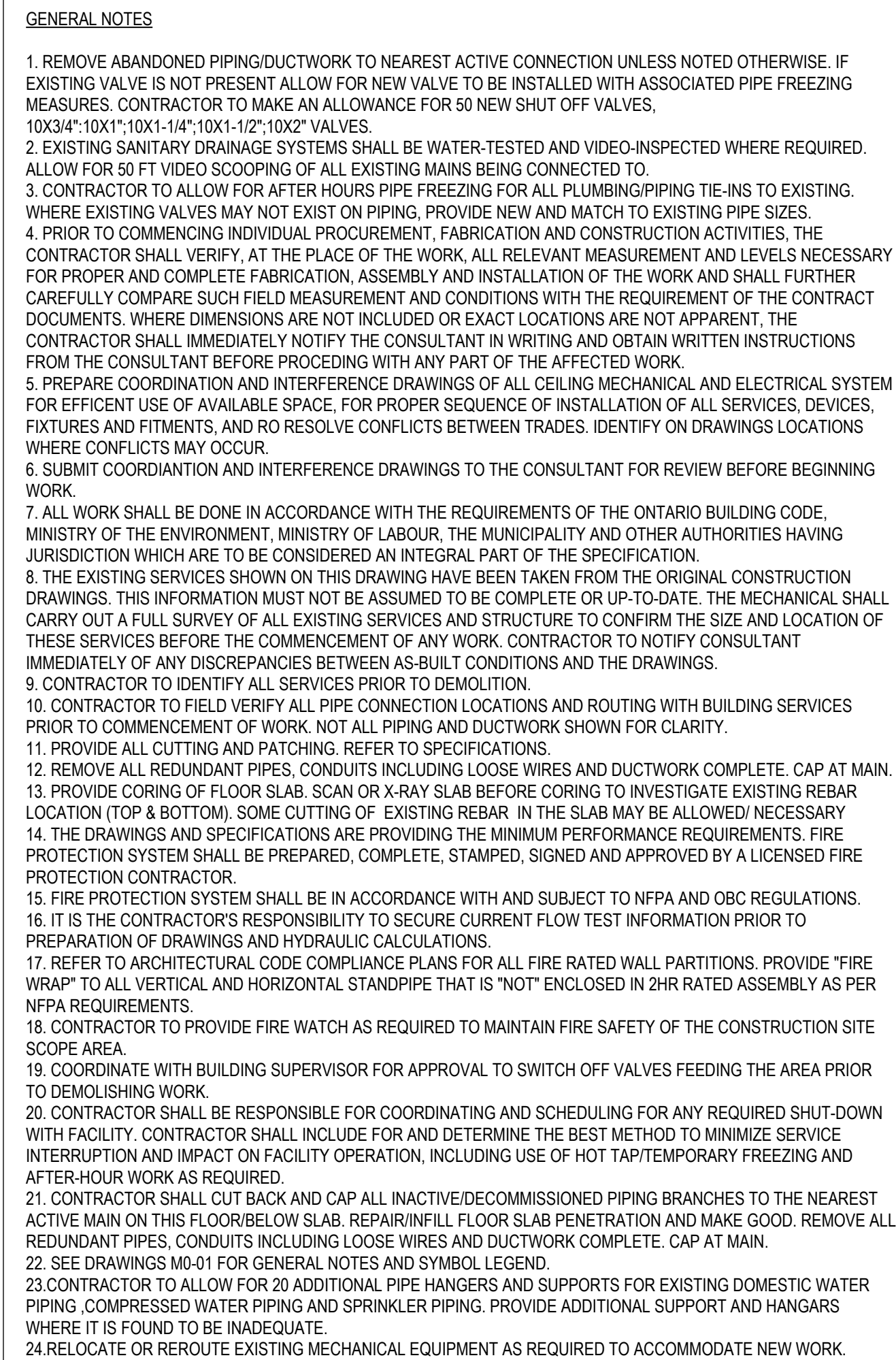
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PLOT DATE: 02/04/25

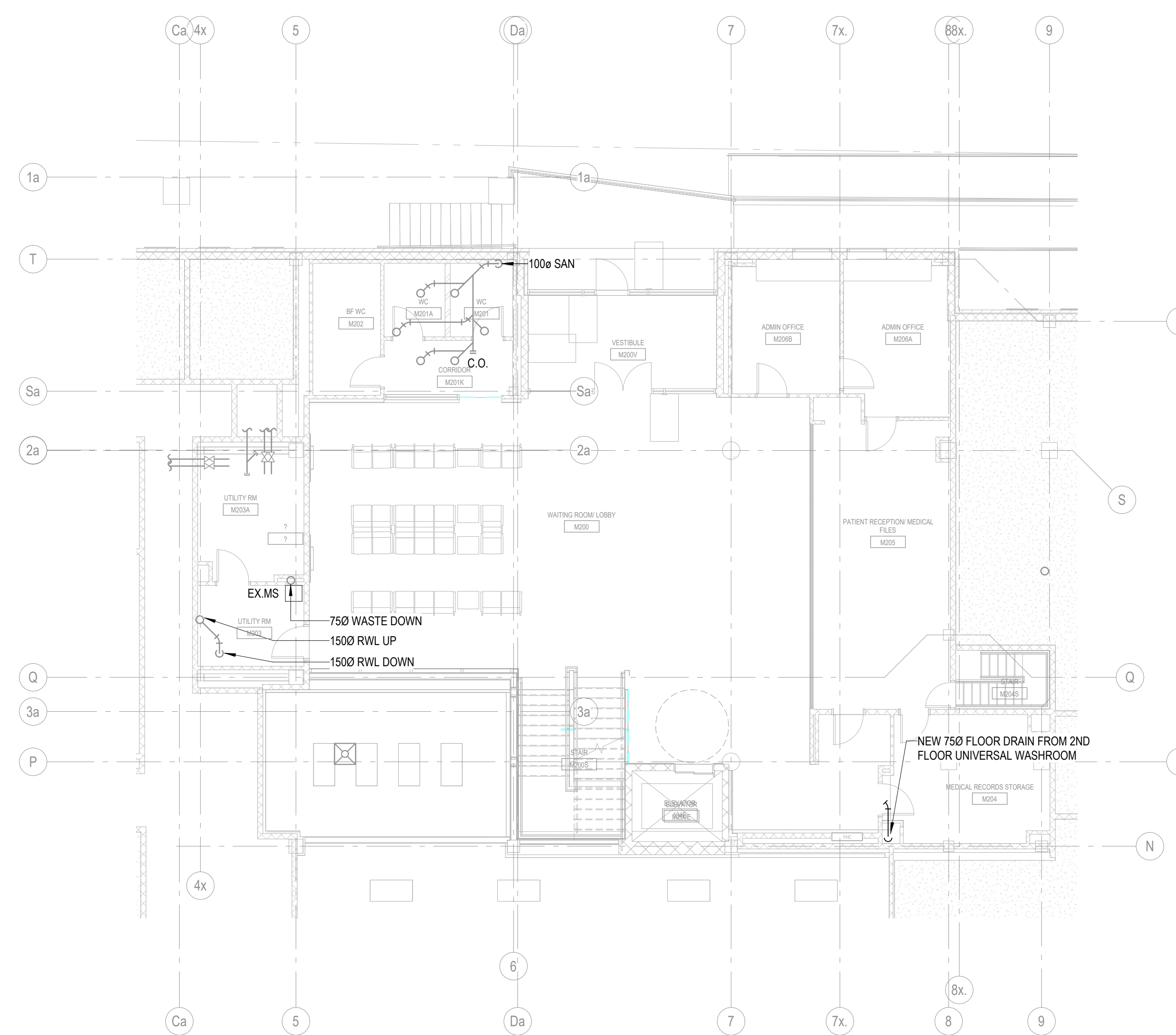
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124 EDWARD STREET
TORONTO, ON, M5G 1G8

SCALE: As indicated

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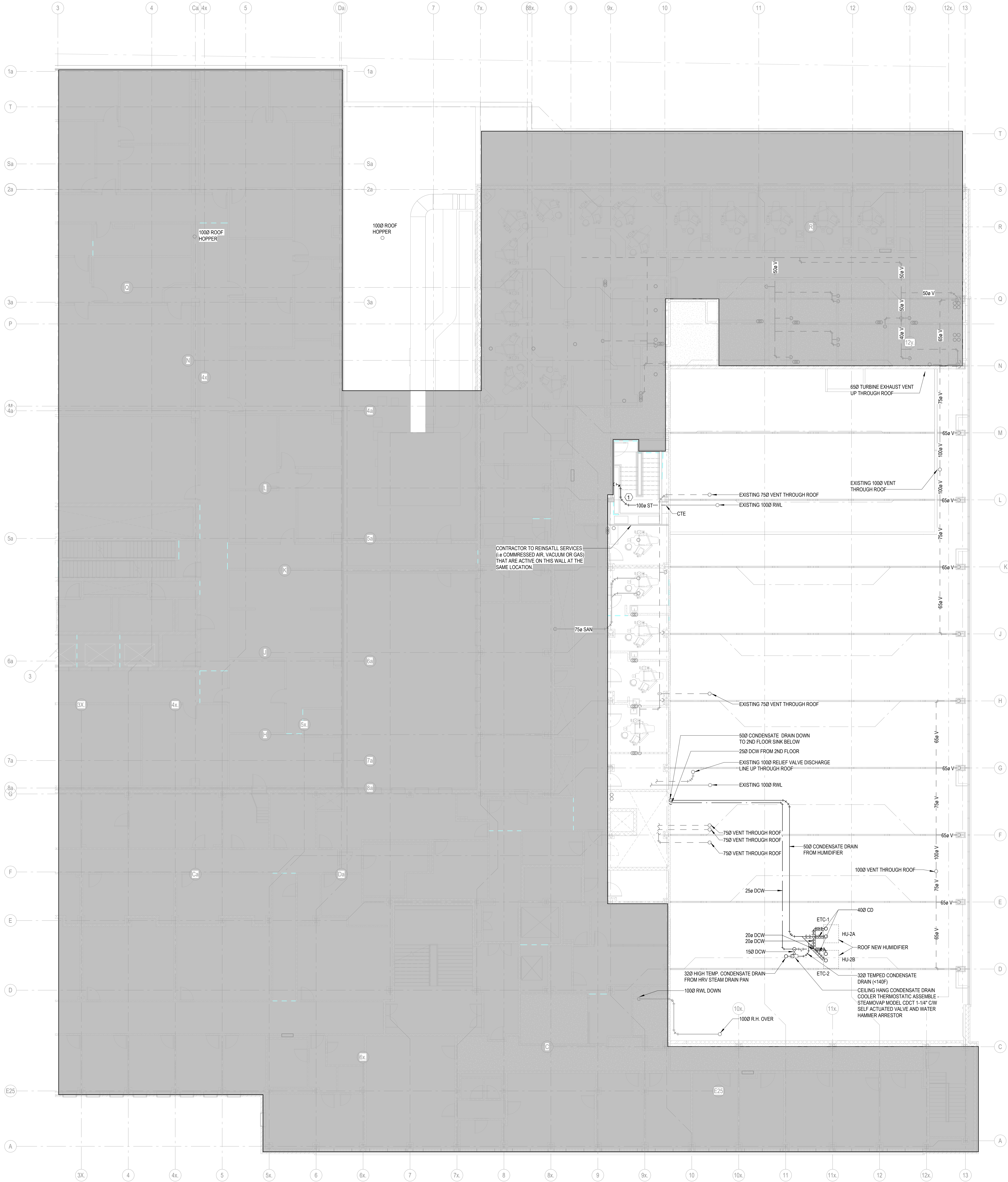
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PLOT DATE: 02/04/25

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GENERAL NOTES

1. REMOVE ABANDONED PIPING/DUCTWORK TO NEAREST ACTIVE CONNECTION UNLESS NOTED OTHERWISE. IF EXISTING VALVE IS NOT PRESENT ALLOW FOR NEW VALVE TO BE INSTALLED WITH ASSOCIATED PIPE FREEZING MEASURES. CONTRACTOR TO MAKE AN ALLOWANCE FOR 50 NEW SHUT OFF VALVES.
2. EXISTING SANITARY DRAINAGE SYSTEMS SHALL BE WATER-TESTED AND VIDEO-INSPECTED WHERE REQUIRED. ALLOW FOR 50 FT VIDEO SCOPING OF ALL EXISTING MAINS BEING CONNECTED TO.
3. CONTRACTOR TO ALLOW FOR AFTER HOURS PIPE FREEZING FOR ALL PLUMBING/PIPING TIE-INS TO EXISTING. WHERE EXISTING VALVES MAY NOT EXIST ON PIPING, PROVIDE NEW AND MATCH TO EXISTING PIPE SIZES.
4. PRIOR TO COMMENCING INDIVIDUAL PROCUREMENT, FABRICATION AND CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL VERIFY, AT THE PLACE OF THE WORK, ALL RELEVANT MEASUREMENT AND LEVELS NECESSARY FOR PROPER AND COMPLETE FABRICATION, ASSEMBLY AND INSTALLATION OF THE WORK AND SHALL FURTHER CAREFULLY COMPARE SUCH FIELD MEASUREMENT AND CONDITIONS WITH THE REQUIREMENT OF THE CONTRACT DOCUMENTS. WHERE DIMENSIONS ARE NOT INCLUDED OR EXACT LOCATIONS ARE NOT APPARENT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONSULTANT IN WRITING AND OBTAIN WRITTEN INSTRUCTIONS FROM THE CONSULTANT BEFORE PROCEEDING WITH ANY PART OF THE AFFECTED WORK.
5. PREPARE COORDINATION AND INTERFERENCE DRAWINGS OF ALL CEILING MECHANICAL AND ELECTRICAL SYSTEM FOR EFFICIENT USE OF AVAILABLE SPACE. FOR PROPER SEQUENCE OF INSTALLATION OF ALL SERVICES, DEVICES, FIXTURES AND FITMENTS, AND TO RESOLVE CONFLICTS BETWEEN TRADES. IDENTIFY ON DRAWINGS LOCATIONS WHERE CONFLICTS MAY OCCUR.
6. SUBMIT COORDINATION AND INTERFERENCE DRAWINGS TO THE CONSULTANT FOR REVIEW BEFORE BEGINNING WORK.
7. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, MINISTRY OF THE ENVIRONMENT, MINISTRY OF LABOUR, THE MUNICIPALITY AND OTHER AUTHORITIES HAVING JURISDICTION WHICH ARE TO BE CONSIDERED AN INTEGRAL PART OF THE SPECIFICATION.
8. THE EXISTING SERVICES SHOWN ON THIS DRAWING HAVE BEEN TAKEN FROM THE ORIGINAL CONSTRUCTION DRAWINGS. THIS INFORMATION MUST NOT BE ASSUMED TO BE COMPLETE OR UP-TO-DATE. THE MECHANICAL SHALL CARRY OUT A FULL SURVEY OF ALL EXISTING SERVICES AND STRUCTURE TO CONFIRM THE SIZE AND LOCATION OF THESE SERVICES BEFORE THE COMMENCEMENT OF ANY WORK. CONTRACTOR TO NOTIFY CONSULTANT IMMEDIATELY OF ANY DISCREPANCIES BETWEEN AS-BUILT CONDITIONS AND THE DRAWINGS.
9. CONTRACTOR TO IDENTIFY ALL SERVICES PRIOR TO DEMOLITION.
10. CONTRACTOR TO FIELD VERIFY ALL PIPE CONNECTION LOCATIONS AND ROUTING WITH BUILDING SERVICES PRIOR TO COMMENCEMENT OF WORK. NOT ALL PIPING AND DUCTWORK SHOWN FOR CLARITY.
11. PROVIDE ALL CUTTING AND PATCHING. REFER TO SPECIFICATIONS.
12. REMOVE ALL REDUNDANT PIPES, CONDUITS INCLUDING LOOSE WIRES AND DUCTWORK COMPLETE. CAP AT MAIN.
13. PROVIDE CORING OF FLOOR SLAB, SCAN OR X-RAY SLAB BEFORE CORING TO INVESTIGATE EXISTING REBAR LOCATION (TOP & BOTTOM). SOME CUTTING OF EXISTING REBAR IN THE SLAB MAY BE ALLOWED NECESSARY.
14. THE DRAWINGS AND SPECIFICATIONS ARE PROVIDING THE MINIMUM PERFORMANCE REQUIREMENTS. FIRE PROTECTION SYSTEM SHALL BE PREPARED, COMPLETE, STAMPED, SIGNED AND APPROVED BY A LICENSED FIRE PROTECTION CONTRACTOR.
15. FIRE PROTECTION SYSTEM SHALL BE IN ACCORDANCE WITH AND SUBJECT TO NFPA AND CBC REGULATIONS.
16. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE CURRENT FLOW TEST INFORMATION PRIOR TO PREPARATION OF DRAWINGS AND HYDRAULIC CALCULATIONS.
17. REFER TO ARCHITECTURAL CODE COMPLIANCE PLANS FOR ALL FIRE RATED WALL PARTITIONS. PROVIDE "FIRE WRAP" TO ALL VERTICAL AND HORIZONTAL STANDPIPE THAT IS "NOT" ENCLOSED IN 2HR RATED ASSEMBLY AS PER NFPA REQUIREMENTS.
18. CONTRACTOR TO PROVIDE FIRE WATCH AS REQUIRED TO MAINTAIN FIRE SAFETY OF THE CONSTRUCTION SITE SCOPE AREA.
19. COORDINATE WITH BUILDING SUPERVISOR FOR APPROVAL TO SWITCH OFF VALVES FEEDING THE AREA PRIOR TO DEMOLISHING WORK.
20. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING FOR ANY REQUIRED SHUT-DOWN WITH FACILITY. CONTRACTOR SHALL INCLUDE FOR AND DETERMINE THE BEST METHOD TO MINIMIZE SERVICE INTERRUPTION AND IMPACT ON FACILITY OPERATION, INCLUDING USE OF HOT TAP/TEMPORARY FREEZING AND AFTER-HOURS WORK AS REQUIRED.
21. CONTRACTOR SHALL CUT BACK AND CAP ALL INACTIVE/DECOMMISSIONED PIPING BRANCHES TO THE NEAREST ACTIVE MAIN ON THIS FLOOR/BELOW SLAB. REPAIR/FILL FLOOR SLAB PENETRATION AND MAKE GOOD. REMOVE ALL REDUNDANT PIPES, CONDUITS INCLUDING LOOSE WIRES AND DUCTWORK COMPLETE. CAP AT MAIN.
22. SEE DRAWINGS M041 FOR GENERAL NOTES AND SYMBOL LEGEND.
23. CONTRACTOR TO ALLOW FOR 20 ADDITIONAL PIPE HANGERS AND SUPPORTS FOR EXISTING DOMESTIC WATER PIPING, COMPRESSED WATER PIPING AND SPRINKLER PIPING. PROVIDE ADDITIONAL SUPPORT AND HANGARS WHERE IT IS FOUND TO BE INADEQUATE.
24. RELOCATE OR REROUTE EXISTING MECHANICAL EQUIPMENT AS REQUIRED TO ACCOMMODATE NEW WORK.

KEY NOTES

1. RUN NEW 1000 STORM PIPE AT HIGH LEVEL TO OFFSET THE EXISTING R/WL TO NEW STAIR PIPE CHASE. CONTRACTOR TO VERIFY THE OFFSET FINAL LOCATION AND COORDINATE WITH GC ON SITE. ALLOW FOR PIPING FREEZING.

Montgomery Sisam Architects Inc.

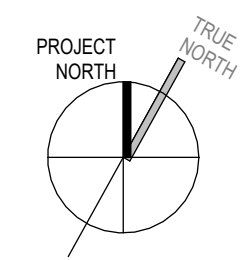
197 Spadina Avenue, Toronto, Ontario M5T 2C8 montgomerysisam.com
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1	2025-03-08	ISSUED FOR 100% SCHEMATIC DESIGN	EXP

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UNIVERSITY OF TORONTO
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CLINIC 2 RENOVATION
24082

124 EDWARD STREET
TORONTO, ON M5G 1G8

LEVEL 3 PLUMBING AND
DRAINAGE

SCALE: As indicated

DRAWN BY: Author

REVIEWED BY: Checker

JOB NUMBER: 24082

PLOT DATE: 02/04/25

DRAWING NUMBER:

M-202

GENERAL NOTES:

1.DO NOT SCALE DRAWINGS. LOCATIONS OF ITEMS ARE APPROXIMATE AND ARE INTENDED TO BE USED FOR COORDINATION. EXACT LOCATIONS ARE DEPENDANT UPON SITE CONDITIONS. REVIEW ANY REVISIONS WITH CONSULTANT.

2. HEAD LOCATION, HEAD QUANTITY, AND LAYOUT OF SPRINKLER SYSTEMS SHOWN ON DRAWINGS ARE TO ASSIST TENDER COORDINATION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ADEQUATE HEAD COVERAGE, HEAD QUANTITIES, PIPE SIZING, ZONING, AND VALVING FOR THE SYSTEM AS PER NFPA 13 HAZARD OCCUPANCIES, OWNER'S INSURERS' STANDARDS, AND AUTHORITIES HAVING JURISDICTION. INSTALL ADDITIONAL HEADS, VALVES, AND RESIZE PIPING AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.

3. UPON COMPLETION, DIVISION 15 SHALL SUBMIT FIRE PROTECTION ENGINEER-STAMPED LETTER CERTIFYING THAT ALL FIRE SPRINKLER WORKS WITHIN THE EXTENT OF THIS PROJECT COMPLIES WITH NFPA 13 AND OBC.

4.SIZE REDUCTION OF SPRINKLER MAIN SHALL NOT BE ACCEPTED UNLESS APPROVED BY THE CONSULTANT. RE-ROUTING OF SPRINKLER MAIN SHALL BE APPROVED IN ADVANCE BY THE CONSULTANT

5. EXACT PIPE ROUTES, DROPS, AND FINAL CONNECTIONS SHALL BE DETERMINED ON SITE WITH PROJECT MANAGER. REFER TO INTERIOR DESIGNER DRAWINGS AND SHOP DRAWINGS FOR ALL EQUIPMENT AND FIXTURE LOCATIONS AND CONNECTIONS.

6. PROVIDE ALL REQUIRED CUTTING AND PATCHING OF EXISTING FLOORING TO FACILITATE THE INSTALLATION OF THE MECHANICAL SERVICES OUTLINED FOR THIS SCOPE OF WORK

7. SPRINKLER SHOP DRAWINGS INCLUDING HYDRAULIC CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE FIRE DEPARTMENT.

8. PROVIDE NEW POTABLE FIRE EXTINGUISHERS FOR SPACE PER OFC REQUIREMENTS.

13	2006-06-29	ISSUED FOR TENDER	EXP
12	2006-01-15	Revision 12	EXP
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UNIVERSITY OF TORONTO
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24082

124 EDWARD STREET
TORONTO, ON, M5G 1G8

BASEMENT & LEVEL 1 FIRE PROTECTION

SCALE: 1 : 100

DRAWN BY: Author

REVIEWED BY: _____ Checked _____

JOB NUMBER: 24062

DRAWING NUMBER:

M-30C



GENERAL DRAWING NOTES

1. THIS SPRINKLER DRAWING IS PREPARED TO GIVE THE CONTRACTOR THE DESIGN INTENT. THE SCOPE OF WORK AND TO ASSIST IN PRICING THE SPRINKLER WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF SPRINKLER HEADS TO SUFFICIENT RESISTANCE AS SPECIFIED, LOCATIONS SHALL CONFORM TO ARCHITECTURAL REFLECTED CEILING PLANS AND SHALL MEET MINIMUM 18" CLEARANCE TO NFPA 13A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE WINDING AND HYDRAULIC CALCULATIONS AND SUBMIT TO THE CITY FIRE DEPARTMENT AND TO THE CONSULTING ENGINEER FOR APPROVAL.
2. SPRINKLER HEADS ARE NOT SHOWN ON DRAWINGS. THE SPRINKLER CONTRACTOR IS FULLY RESPONSIBLE FOR REVIEWING THE ARCHITECTURAL AND INTERIOR DESIGN DRAWINGS TO DETERMINE ALL LOCATIONS OF SPRINKLER HEADS. ALL SPRINKLER LINES SHALL BE CONCEALED IN THE BUILDINGS AND CEILING INDICATED ON DRAWINGS UNLESS SPECIFICALLY NOTED OTHERWISE. BUILDINGS ARE REQUIRED TO RETURN TO THE CONTRACTOR FOR THE LOCATION OF SPRINKLER HEADS.
3. UPON COMPLETION OF SPRINKLER WORKS, CONTRACTOR SHALL TEST REVEISED SPRINKLER HEADS TO THE LATEST REVISION OF NFPA 1201 INSTALLATION OF SPRINKLER SYSTEM.
4. ALL NEW SPRINKLER HEADS SHALL BE QUICK RESPONSE TYPE.
5. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR FOR SPRINKLER, MEDICAL GAS AND ELECTRICAL DIVISIONS FOR FINAL LOCATION OF SPRINKLER HEADS. CONTRACTOR SHALL ORDER MATERIALS AND LABOR FOR SPRINKLER BRANCHES.
6. CONTRACTOR SHALL INSTALL, WHEREVER POSSIBLE, SPRINKLER PIPING AND HEADS WITHIN CEILING, BUILDINGS ETC. WHERE SPRINKLER HEADS ARE REQUIRED TO BE INSTALLED, CONTRACTOR SHALL PROVIDE SPRINKLER PIPING AND HEADS WITHIN CEILING. CONTRACTOR SHALL ALLOW FOR PAINTING EXPOSED PIPING. COLOR TO MATCH EXISTING SPRINKLER PIPING. CONTRACTOR SHALL COORDINATE WITH ARCHITECT FOR SELECTED CEILING PLANT. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWING FOR EXTENDED PIPING AND NEW EXISTING CEILING.
7. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR FOR ALL MECHANICAL AND ELECTRICAL EQUIPMENT ROOMS TO SUFFICIENT EQUIPMENT AND DUCTWORK LAYOUT AS PER REQUIREMENTS OF NFPA 13.
8. CONTRACTOR SHALL COORDINATE SPRINKLER HEAD LOCATIONS IN AREAS WITH SUSPENDED CEILING WITH THE LOCATION OF LIGHTING, GRILLS, DIFFUSERS AND OTHERS ARE EXPRESSED IN ARCHITECTURAL DRAWINGS. CONTRACTOR SHALL COORDINATE WITH LAINE, CENTER THE SPRINKLER HEAD BOTH VIEWS IN THE LAINE IN PLATE.
9. WHERE SPRINKLER HEADS ARE USED FOR THE INSTALLATION OF SIDEWALL SPRINKLER HEADS, CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL DRAWINGS FOR ADDITIONAL SPRINKLER HEADS SHALL BE INSTALLED BELOW THE BUILDINGS. CONTRACTOR SHALL THROUGHOUT THE PROJECT TO THE CONTRACTOR SHALL BE IN ACCORDANCE WITH O.B.C. 318.8.15.9 AND ARCHITECTURAL PLANS AND SPECIFICATIONS.
10. CONTRACTOR SHALL PROVIDE AND COORDINATE THE LOCATION OF ALL ACCESS PANELS ON SITE TO ENSURE SUFFICIENT ACCESS TO ALL VALVES AND OTHER COMPONENTS OF THE SPRINKLER SYSTEM.
11. READ IN CONJUNCTION WITH SPECIFICATIONS AND DETAILS.

FIRE WRAP ALL NEW STANDPIPES AND ALL EXISTING STANDPIPES THAT ARE EXPOSED DURING CONSTRUCTION.

650 FP FROM BELOW
500 TO EHC

RELOCATE THE EXISTING FHC TO THE NEW LOCATION, CAP EXISTING PIPING BACK TO MAIN. EXTEND THE CEILING FIRE LINE TO SERVE THE RELOCATED FHC. ARCHITECT TO PROVIDE FURRED OUT WALL ENCLOSURE FOR FHC LOCATION.

— PROVIDE PENDANT CEILING SPRINKLER HEADS AT EACH DENTAL ROOM. COORDINATE THE FINAL LOCATION WITH CEILING DEVICES. TYPICAL OF ALL.



11	2025-06-29	ISSUED FOR TENDER	EXP
10	2025-01-01	Revision 12	EXP
9	2025-01-06	ISSUED FOR 100% CD	EXP
8	2025-12-19	ISSUED FOR 100% CD DRAFT	EXP
7	2025-10-26	ISSUED FOR PERMIT	EXP
6	2025-11-26	RE ISSUED FOR FAS REVIEW	EXP
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4	2025-05-30	ISSUED FOR 100%0D	EXP
3	2025-06-06	ISSUED FOR S&M PROGRESS	EXP
2	2025-03-14	RE ISSUED FOR 100% SCHEMATIC DESIGN	EXP
1	2025-02-28	ISSUED FOR 100% SCHEMATIC DESIGN	EXP
#	DATE:	REVISION:	BY:
REVISIONS			



UNIVERSITY OF TORONTO
DENTISTRY BUILDING
CLINIC 2 RENOVATION
24082

124 EDWARD STREET
TORONTO, ON, M5G 1G8

PATIENT LOBBY & LEVEL 2 FIRE PROTECTION

SCALE: As indicated

DRAWN BY: Author

REVIEWED BY: Checker

JOB NUMBER: 24082

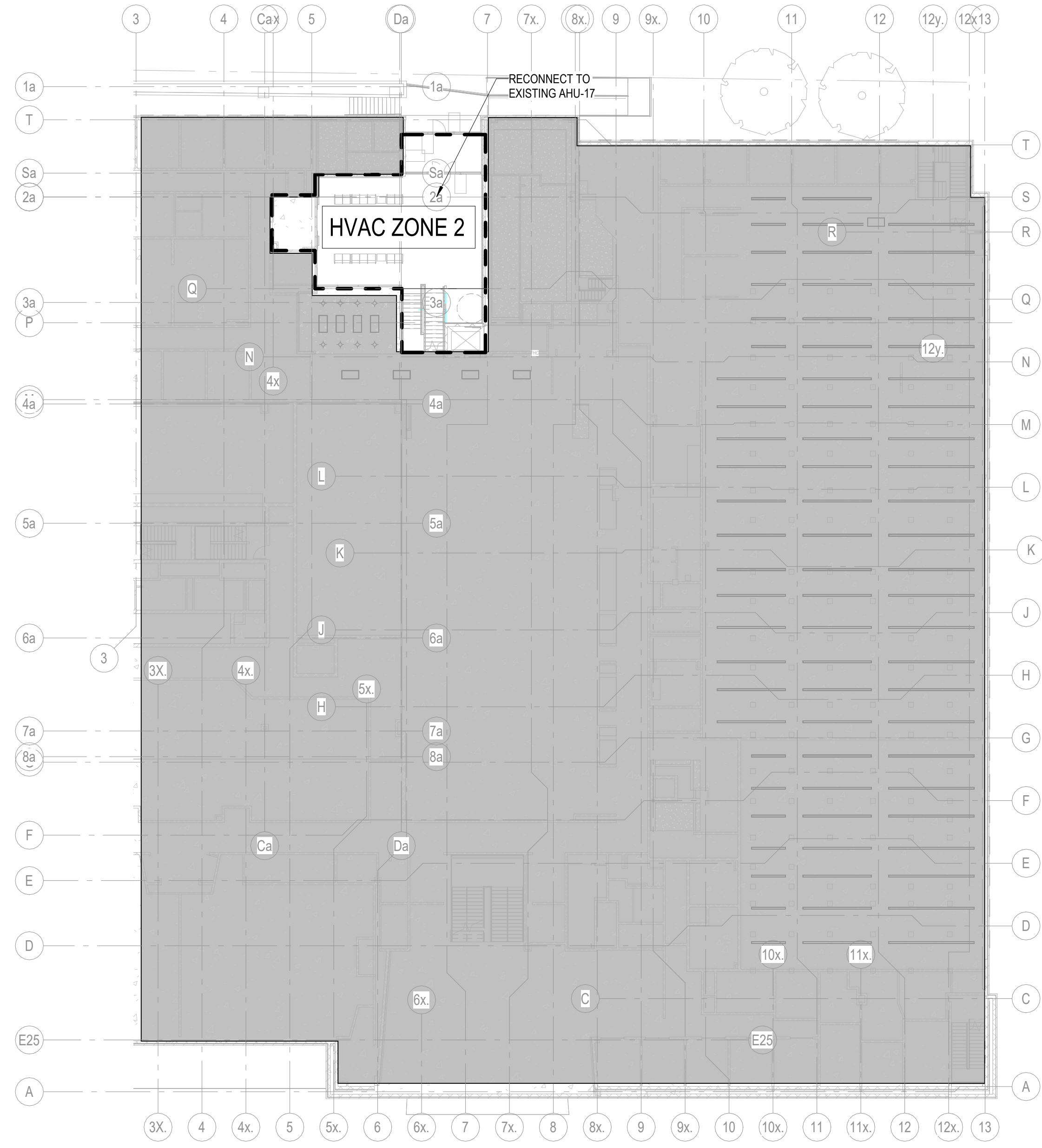
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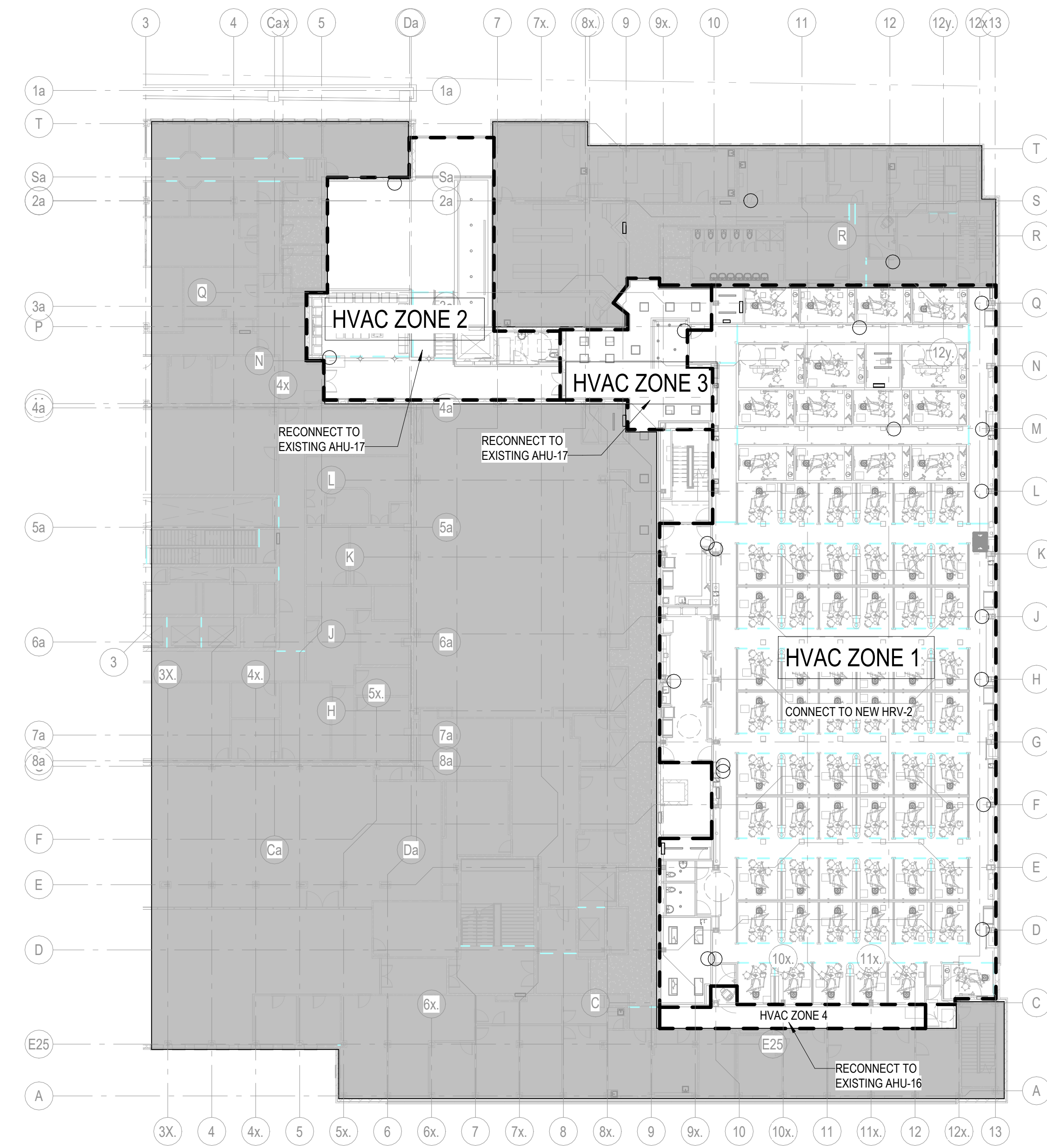
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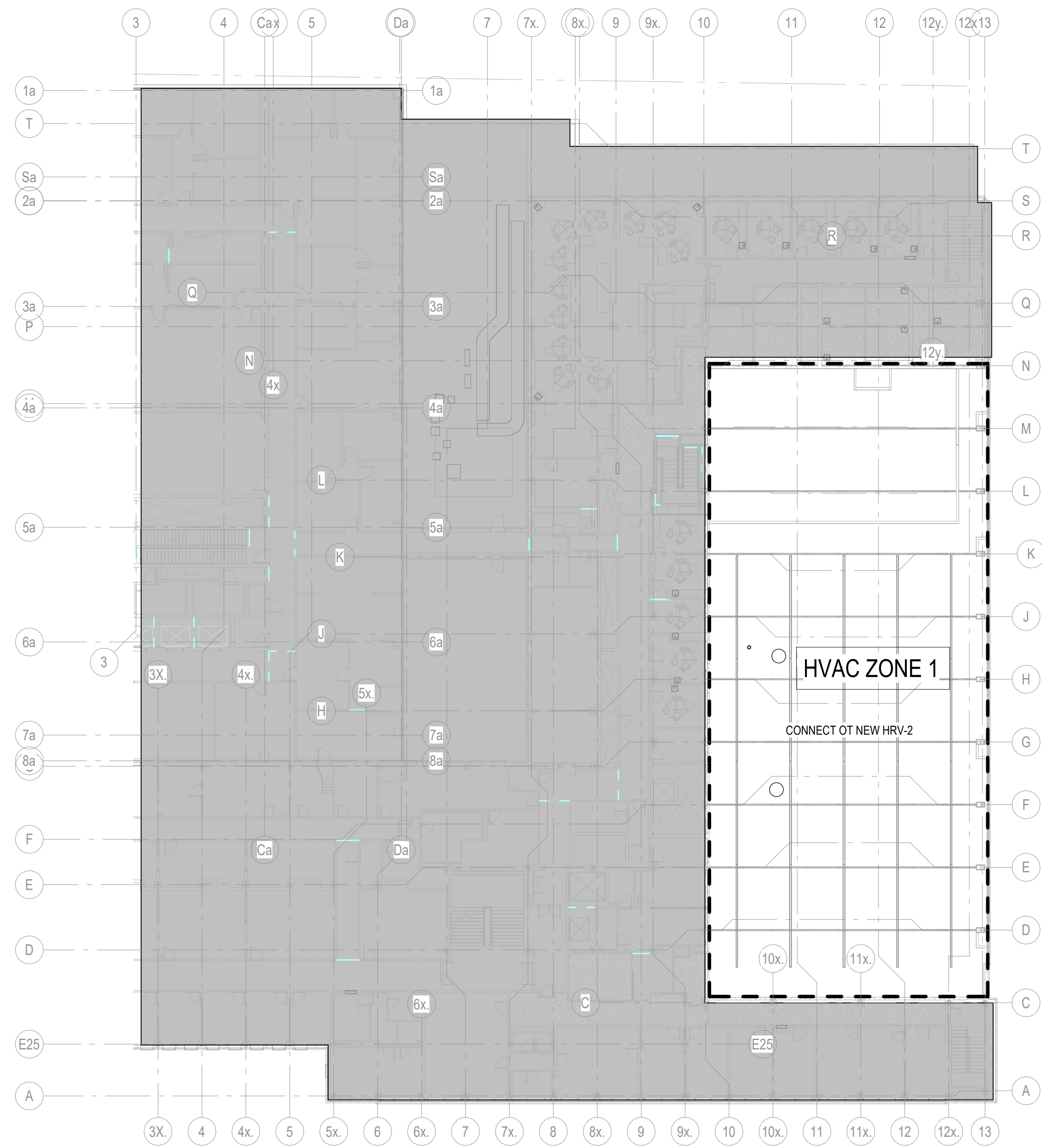
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1:250



2 PATIENT LOBBY HVAC ZONING
1:250



3 2ND FLOOR-HVAC ZONING
1:250



4 3RD FLOOR-HVAC ZONING
1:250

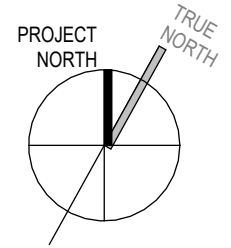
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7	2025-12-05	ISSUED FOR PERMIT	EXP
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5	2025-05-26	ISSUED FOR BRIDGE	EXP
4	2025-05-20	ISSUED FOR 100% CD	EXP
3	2025-04-02	ISSUED FOR 100% CD PROGRESS	EXP
2	2025-03-14	REISSUED FOR 100% SCHEMATIC DESIGN	EXP
1	2025-03-08	ISSUED FOR 100% SCHEMATIC DESIGN	EXP
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24082

124 EDWARD STREET
TORONTO, ON M5G 1G8

ZONING PLAN HVAC

SCALE: 1:250

DRAWN BY: Author

REVIEWED BY: Checker

JOB NUMBER: 24082

PLOT DATE: 02/04/25

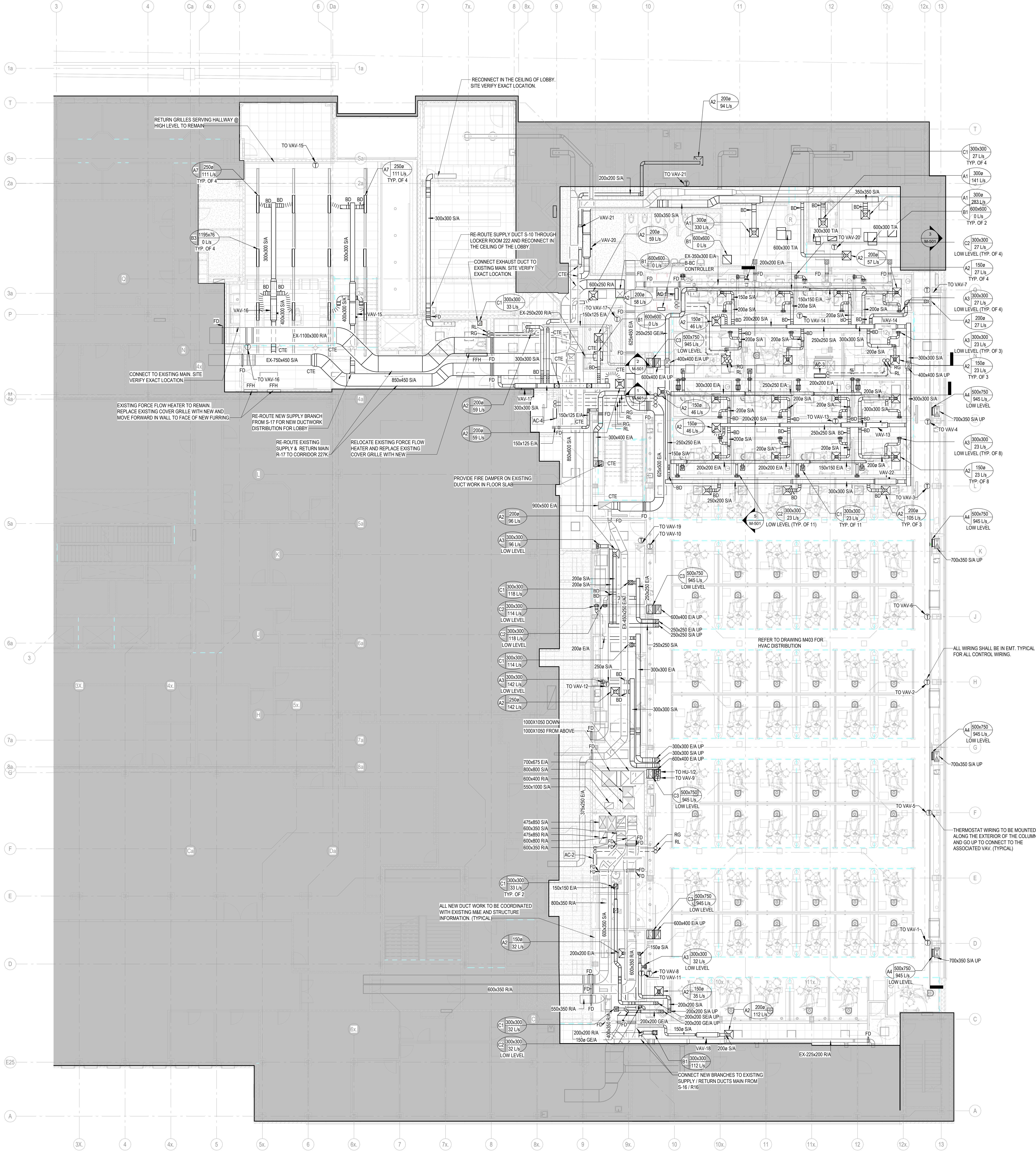
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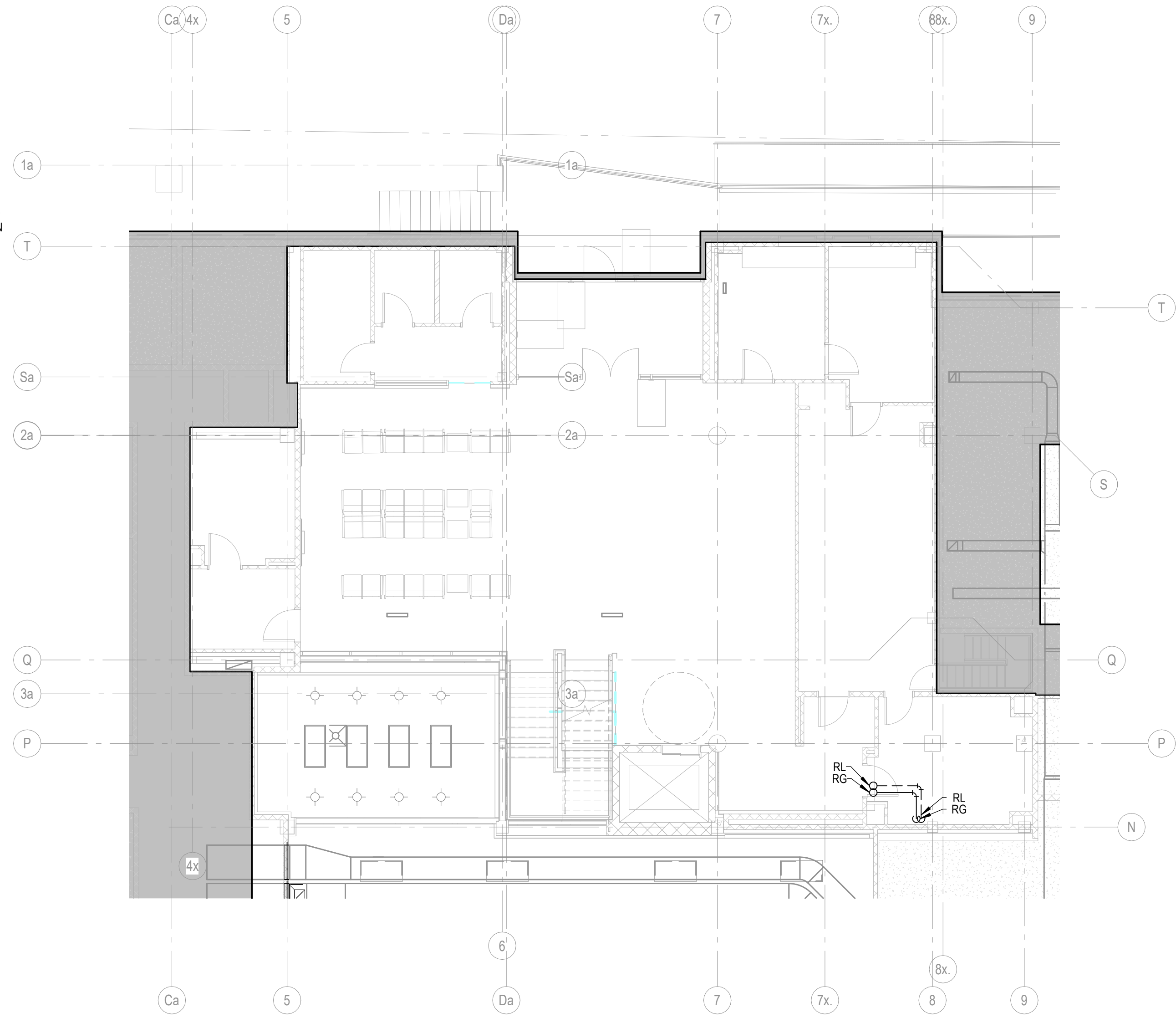
DIFFUSER & GRILLE SCHEDULE							
REFERENCE TAG	MANUFACTURER	MODEL	DESCRIPTION	FACE SIZE	NECK SIZE	DAMPER	REMARKS
A1	E.H. PRICE	RCD	ROUND SUPPLY AIR DIFFUSER	AS PER DRAWING	AS PER DRAWING	Y	

NOTES:
 1. GRILLE / DIFFUSER AND LOUVER TO BE PAINTED AS PER ARCHITECTURAL REQUIREMENT. FINISH TO BE CLARIFIED PRIOR TO ORDERING
 2. PROVIDE VOLUME DAMPER FOR RETURN GRILLE DUCTED BACK TO THE UNIT.

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3 2ND FLOOR-HVAC
1:100



2 PATIENT LOBBY HVAC
1:100

- GENERAL NOTES**
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 3. CONTRACTOR TO IDENTIFY ALL SERVICES PRIOR TO DEMOLITION.
 4. CONTRACTOR TO FIELD VERIFY ALL PIPE CONNECTION LOCATIONS AND ROUTING WITH BUILDING SERVICES PRIOR TO COMMENCEMENT OF WORK. NOT ALL PIPING AND DUCTWORK SHOWN FOR CLARITY.
 5. FOR DUST CONTROL, CAP EXISTING DUCTS IN THE CONSTRUCTION AREA, CONNECTION TO EXISTING AIR DUCTS TO BE DONE AFTER COMPLETION OF ALL DUST PRODUCING TASKS.
 6. PROVIDE ALL CUTTING AND PATCHING. REFER TO SPECIFICATIONS.
 7. REMOVE ALL REDUNDANT PIPES, CONDUITS INCLUDING LOOSE WIRES AND DUCTWORK COMPLETE. CAP AT MAIN.
 8. PROVIDE CORING OF FLOOR SLAB, SCAN OR X-RAY SLAB BEFORE CORING TO INVESTIGATE EXISTING REBAR LOCATION (TOP & BOTTOM), CUTTING EXISTING REBARS IN THE SLAB IS NOT PERMITTED.
 9. THE DRAWINGS AND SPECIFICATIONS ARE PROVIDING THE MINIMUM PERFORMANCE REQUIREMENTS. FIRE PROTECTION SYSTEM SHALL BE PREPARED, COMPLETE, STAMPED, SIGNED AND APPROVED BY A LICENSED FIRE PROTECTION CONTRACTOR.
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 17. NOT ALL FIRE DAMPERS SHOWN. TYPICAL ON ALL LEVELS.

Montgomery Sisam Architects Inc.

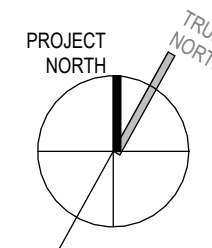
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UNIVERSITY OF TORONTO
DENTISTRY BUILDING
CLINIC 2 RENOVATION
24082

124 EDWARD STREET
TORONTO, ON M5G 1G6

PATIENT LOBBY & LEVEL 2 HVAC

SCALE: As Indicated
DRAWN BY: Author
REVIEWED BY: Checker
JOB NUMBER: 24082
PLOT DATE: 02/04/25

DRAWING NUMBER:

M-402

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2	2025-03-14	REISSUED FOR 100% SCHEMATIC DESIGN	EXP
1	2025-03-08	ISSUED FOR 100% SCHEMATIC DESIGN	EXP

DATE REVISION: BY:

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PROFESSIONAL ENGINEER
B. AHUJA
191612134
2025-05-29
PROVINCE OF ONTARIO

UNIVERSITY OF TORONTO
DENTISTRY BUILDING
CLINIC 2 RENOVATION
24082

124 EDWARD STREET
TORONTO, ON M5G 1G6

LEVEL 3 HVAC

SCALE: As indicated

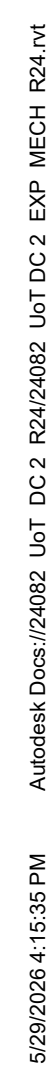
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REVIEWED BY: Checker

JOB NUMBER: 24082

PLOT DATE: 02/04/25

DRAWING NUMBER:
M-403



- GENERAL NOTES

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REVISIONS:			



UNIVERSITY OF TORONTO
DENTISTRY BUILDING
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24082

124 EDWARD STREET
TORONTO, ON, M5G 1G8

LEVEL 4 HVAC

SCALE: As indicated

DRAWN BY: Author

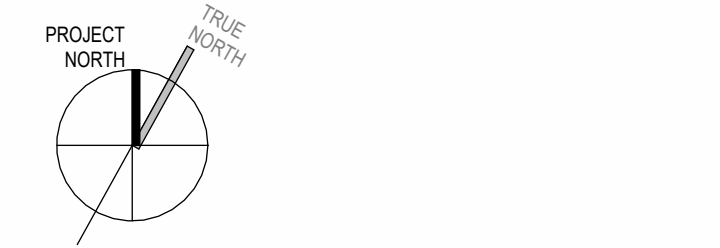
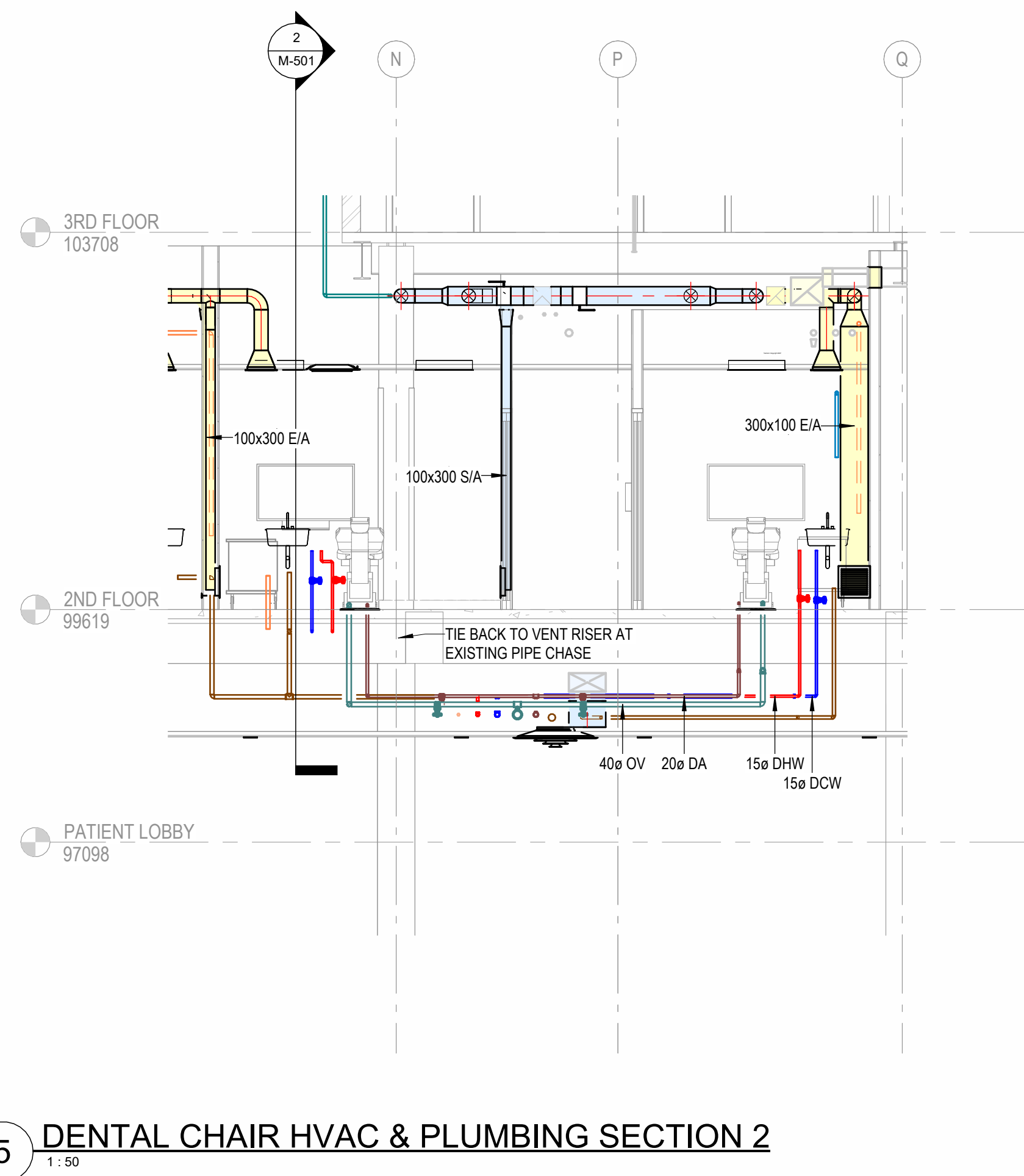
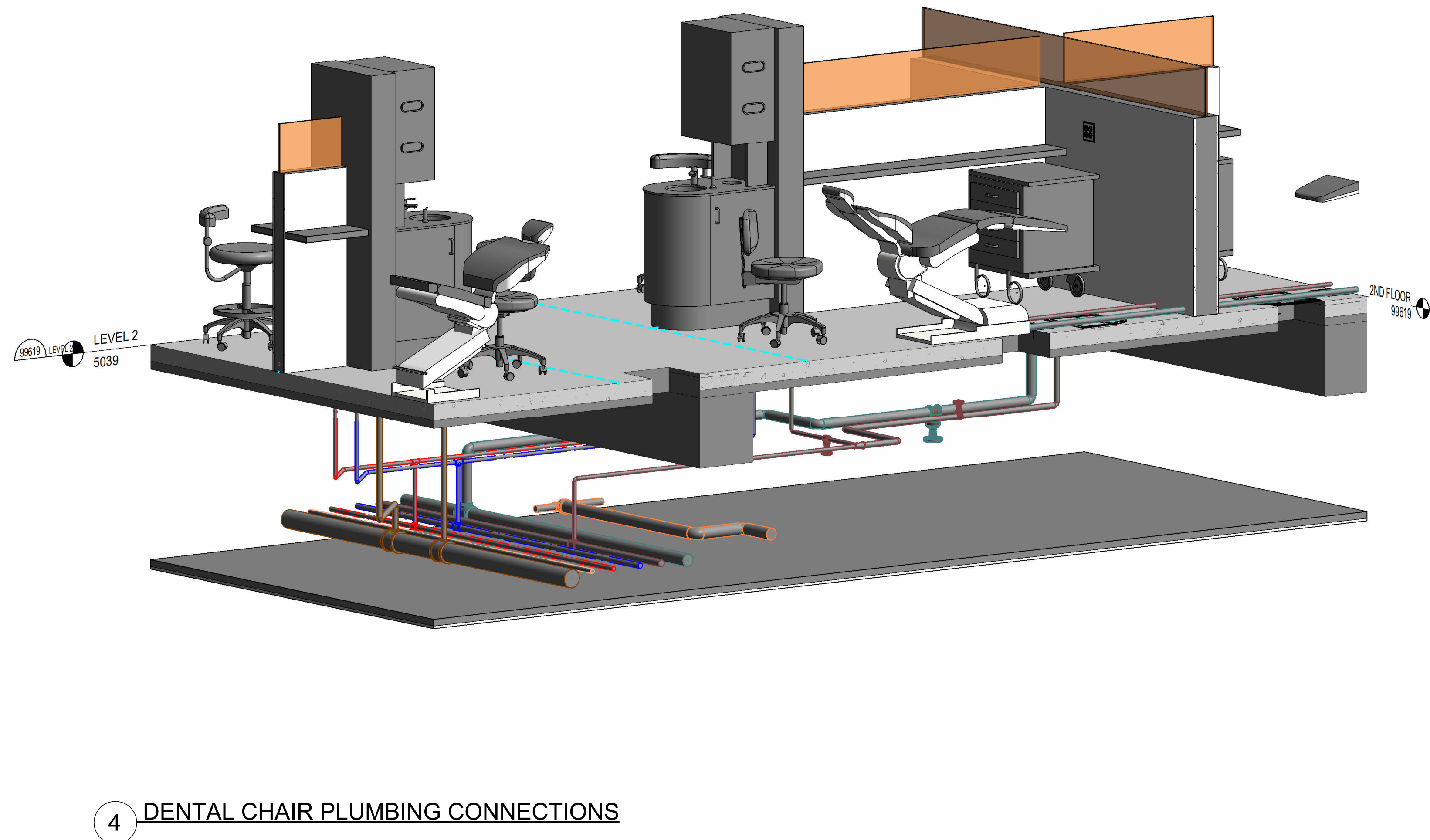
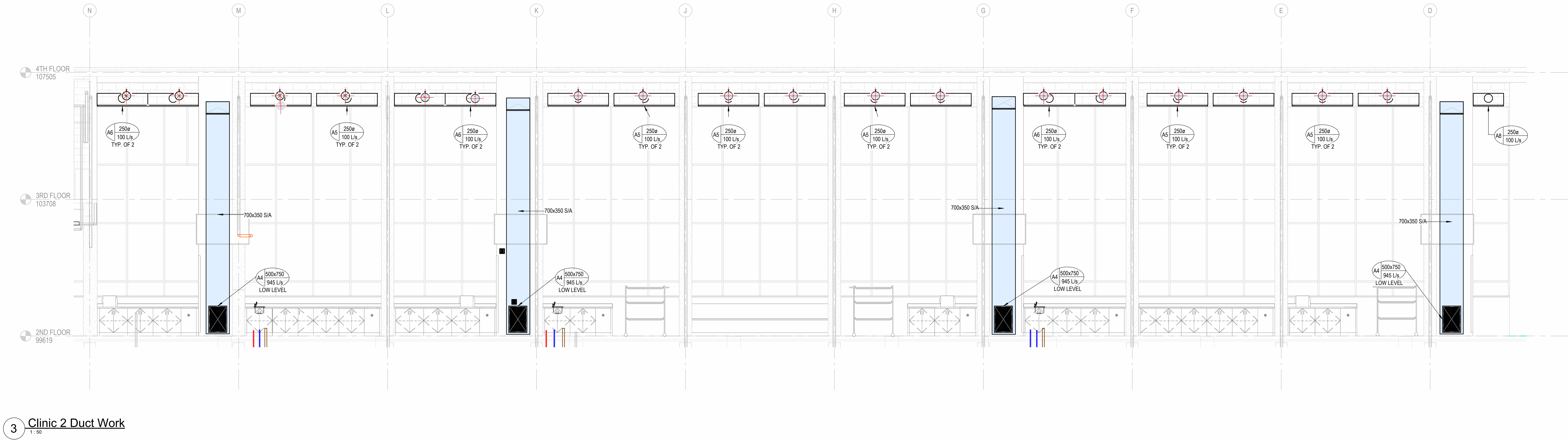
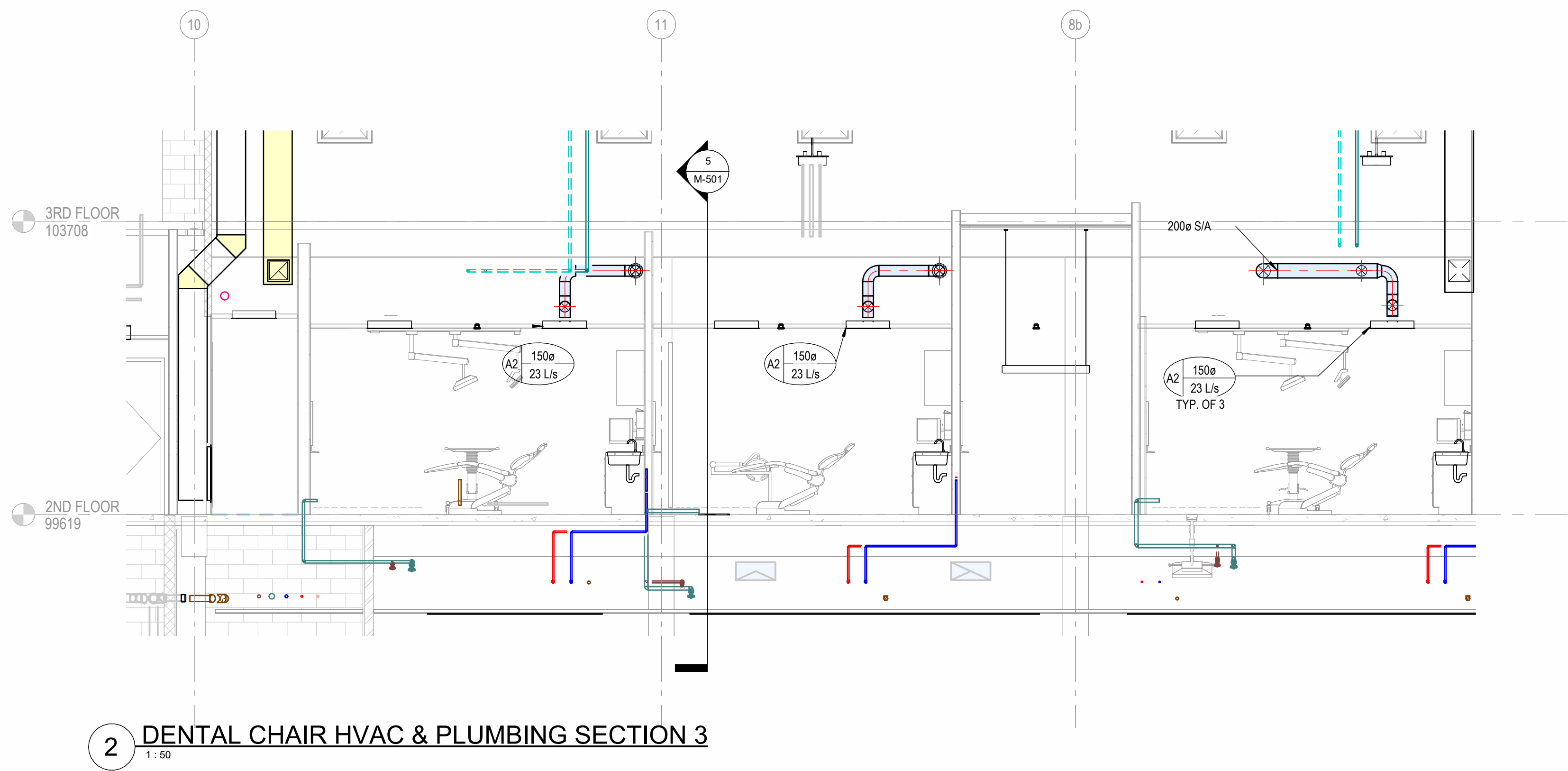
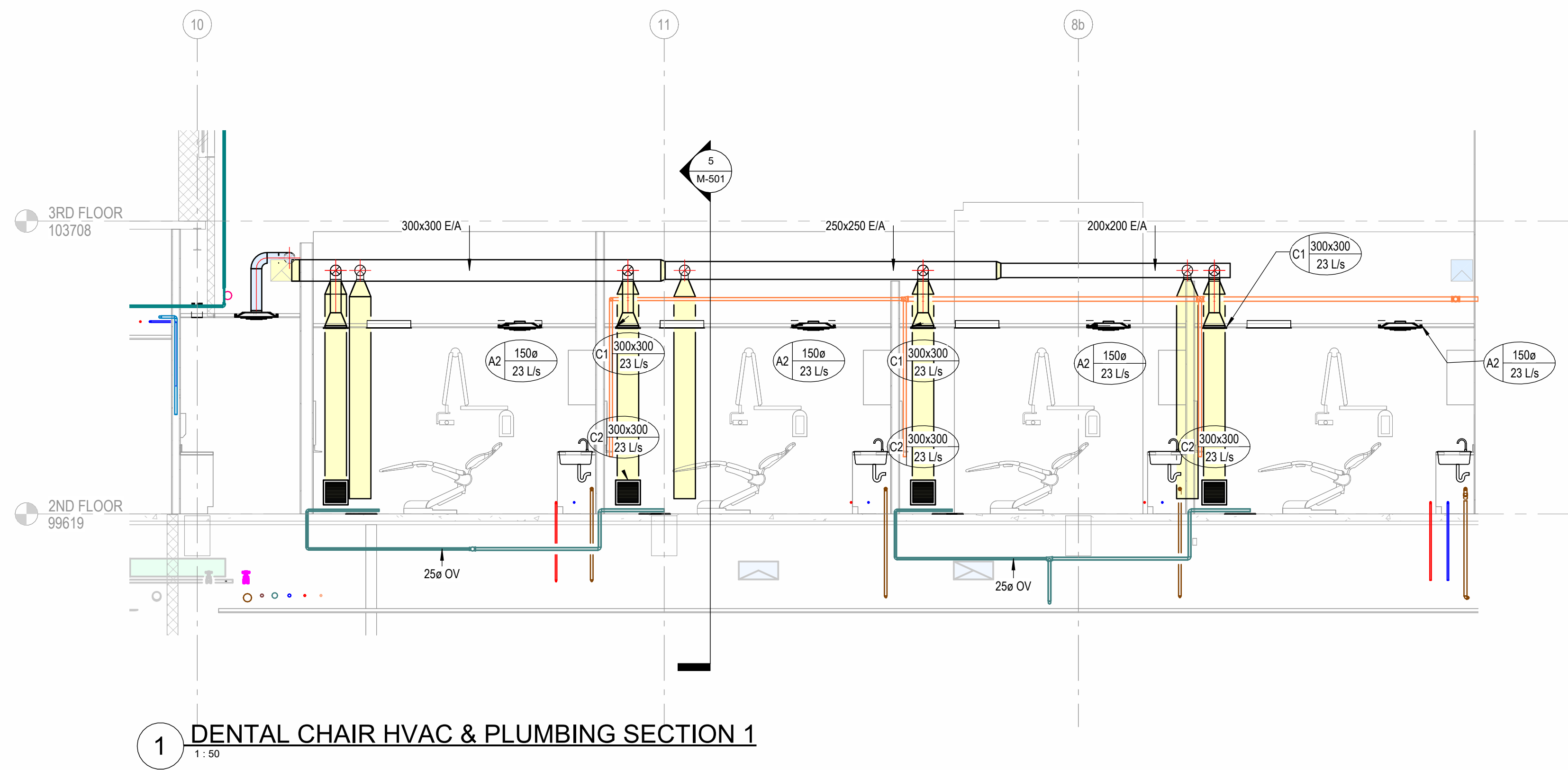
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JOB NUMBER: 24082

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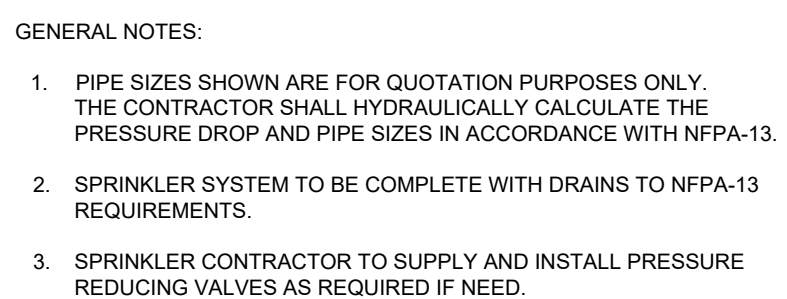
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REVISIONS			







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124 EDWARD STREET
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FIRE PROTECTION SCHEMATIC

SCALE:	1 : 100
DRAWN BY:	Author
REVIEWED BY:	Checker
JOB NUMBER:	24082
PLOT DATE:	02/04/25

DRAWING NUMBER

M-601

M-60



10	2025-05-29	ISSUED FOR TENDER	EXP
9	2025-01-06	ISSUED FOR 100% CD	EXP
8	2025-12-19	ISSUED FOR 100% CD DRAFT	EXP
7	2025-12-06	ISSUED FOR PERMIT	EXP
6	2025-11-26	RE ISSUED FOR FAS REVIEW	EXP
5	2025-09-26	ISSUED FOR 80%CD	EXP
4	2025-06-30	ISSUED FOR 100%CD	EXP
3	2025-06-02	ISSUED FOR 50%DD PROGRESS	EXP
2	2025-03-14	RE ISSUED FOR 100% SCHEMATIC DESIGN	EXP
1	2025-02-28	ISSUED FOR 100% SCHEMATIC DESIGN	EXP
#	DATE:	REVISION:	BY:
REVISIONS:			



UNIVERSITY OF TORONTO
DENTISTRY BUILDING
CLINIC 2 RENOVATION
24082

124 EDWARD STREET
TORONTO, ON, M5G 1G6

HVAC SCHEMATIC

SCALE: 1 : 1

DRAWN BY: Author

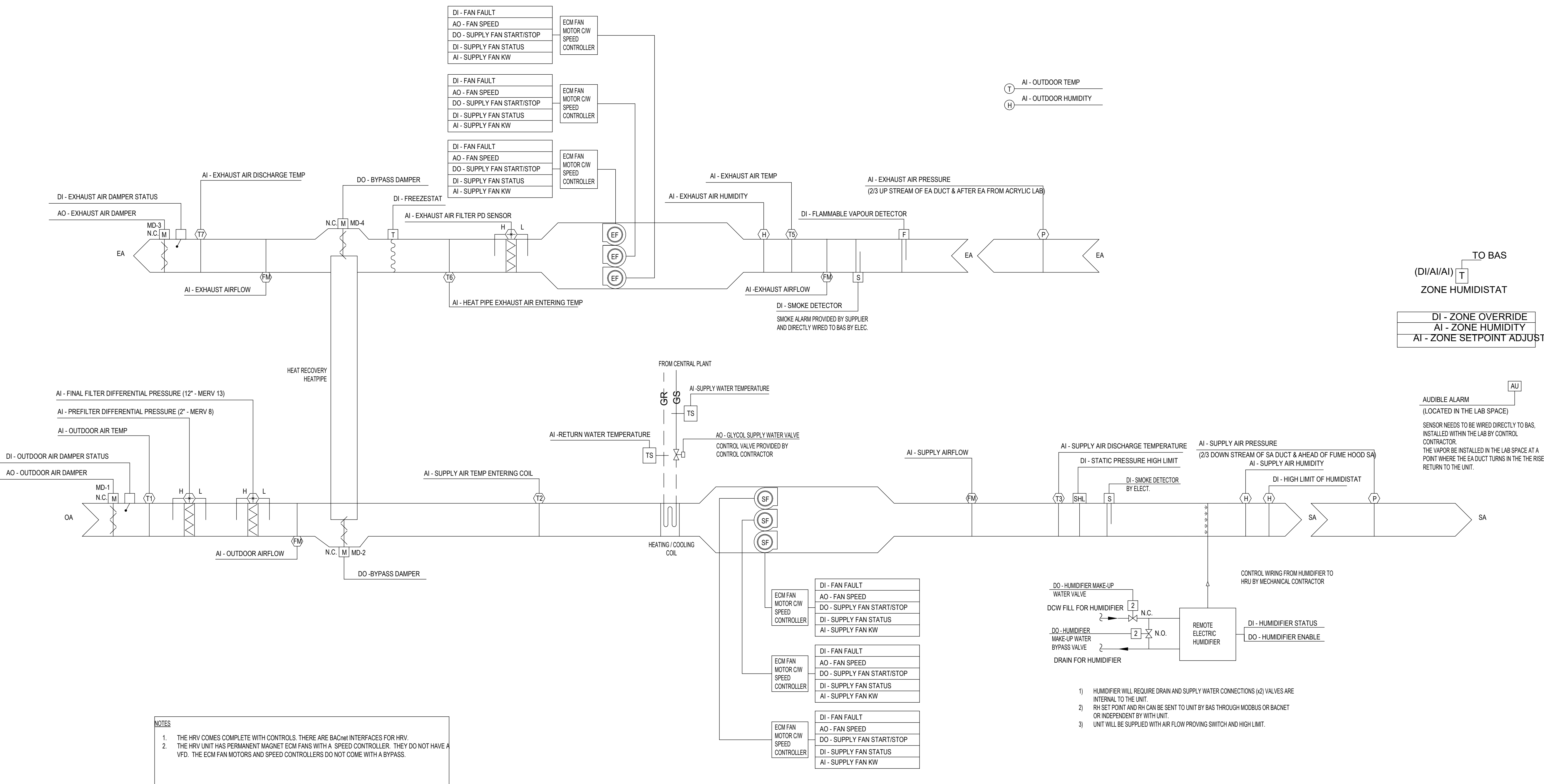
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JOB NUMBER: 24082
PLOT DATE: 02/04/20

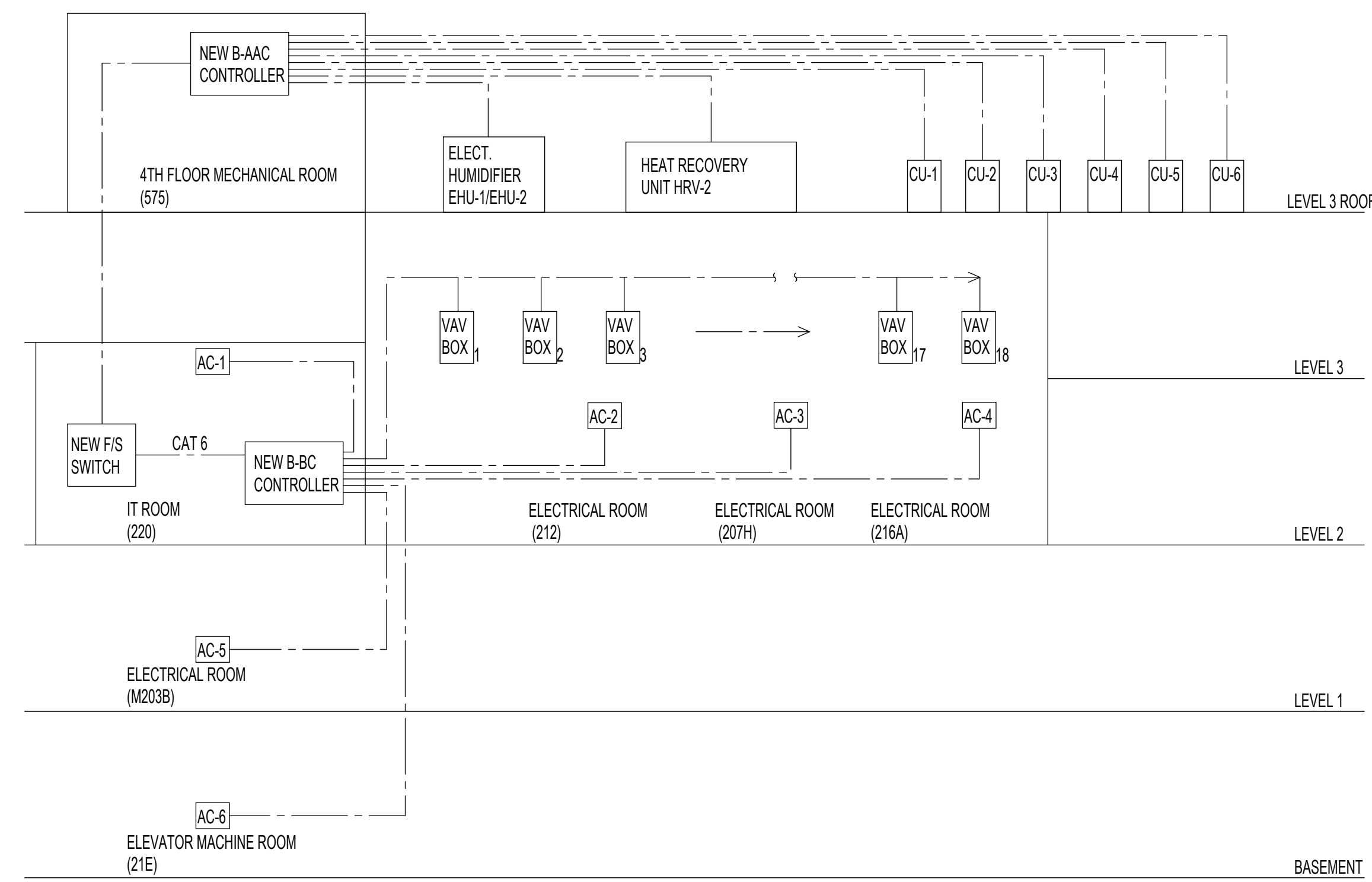
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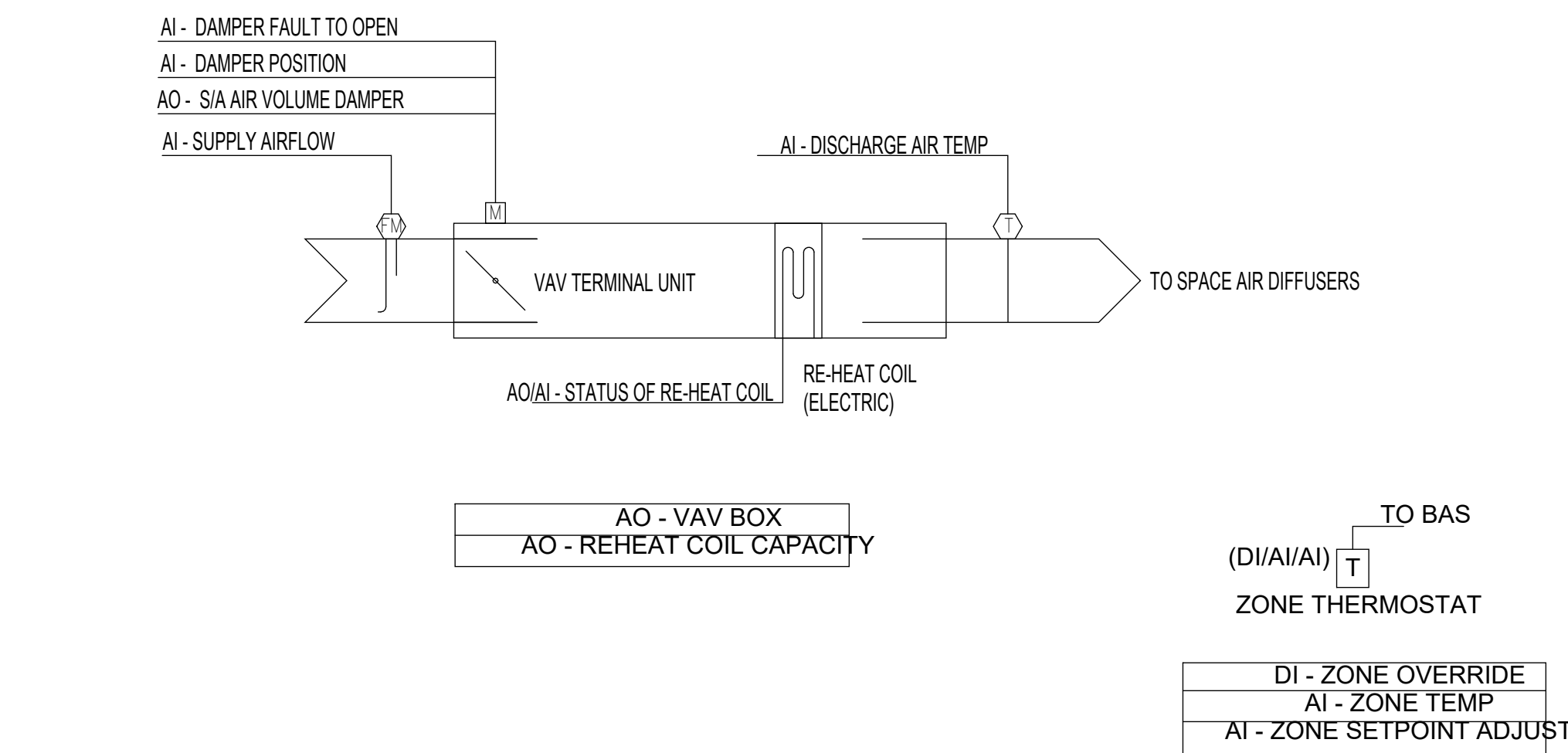
CONTROL SCHEMATIC - HEAT RECOVERY UNIT



NOTES:

1. NEW BAS SHOULD BE JOHNSON CONTROLS / SIEMENS OR HONEYWELL.
2. AUTOMATED LOGIC AND SCHNEIDER ARE APPROVED VENDORS AS WELL.
3. ALL DEVICES NEED TO BE CHECKED AND CALIBRATED.
4. VERIFY & CONFIRM THE EXISTING EMRS REQUIREMENT FOR NEW BAS CONTROLLER TO BE ABLE TO CONNECT TO EXISTING NETWORK.
5. CONTRACTOR TO SUBMIT THE IP ADDRESS FORM NAMED "F&S NETWORK - IP ADDRESS REQUEST" AS A RFI AFTER THE BAS SHOP DRAWING IS REVIEWED BY CONSULTANTS. C&A AND U of T. FORM WILL BE PROVIDED BY U of T FOR THE DEVICES THAT ARE PLANNED TO PLUG INTO F&S NETWORK SWITCH IN ELECTRICAL ROOM. THIS WILL ALLOW U of T TO BE ABLE TO ASSIGN PORTS ON THE SWITCH.
6. CAT6 CABLE SHALL NOT EXCEED 100 METERS. PERFORM AND PROVIDE FLUKE TEST RESULTS FOR ALL CAT6 CABLES. ALL CABLES SHALL BE PROPERLY LABELED IN ACCORDANCE WITH THE UNIVERSITY OF TORONTO BAS STANDARD. INCLUDE AND SPECIFY ALL REQUIREMENTS NECESSARY FOR SYSTEM ACCEPTANCE.
7. THE B-BC SHALL BE INSTALLED IN A NEMA 4 - RATED ENCLOSURE AND POWERED THROUGH AN UNINTERRUPTIBLE POWER SUPPLY (UPS). "LOW BATTERY" AND "OPERATING ON BATTERY" ALARMS SHALL BE PROVIDED AND INTEGRATED INTO THE BAS.

CONTROL SCHEMATIC - BAS NETWORK ARCHITECTURE



SEQUENCE OF OPERATION:

1. DURING COOLING SEASON
 - 1.1. THE ZONE THERMOSTAT SHALL MODULATE AIR VOLUME DAMPER IN TERMINAL BOX BETWEEN MINIMUM SETTING OF 30% TO 100% TO MAINTAIN ROOM TEMPERATURE SETTING 24°C (75°F) (ADJUSTABLE).
 - 1.2. THE ZONE THERMOSTAT SHALL ENABLE REHEAT COIL IN TERMINAL BOX WHEN AIR VOLUME DAMPER IS MODULATED AT MINIMUM SETTING POSITION AND THE ROOM TEMPERATURE IS STILL BELOW SET POINT.
 - 1.3. THE ZONE THERMOSTAT SHALL MODULATE REHEAT COIL IN TERMINAL BOX TO MAINTAIN ROOM TEMPERATURE SETTING AT 24°C (75°F) (ADJUSTABLE).
 - 1.4. THE ZONE THERMOSTAT SHALL MODULATE REHEAT COIL IN TERMINAL BOX TO MAINTAIN ROOM TEMPERATURE SETTING AT 26°C (78.8°F) (ADJUSTABLE) IN NIGHT UNOCCUPIED MODE.
2. DURING HEATING SEASON
 - 2.1. THE ZONE THERMOSTAT SHALL MODULATE RE-HEAT COIL & VARIABLE AIR VOLUME DAMPER IN TERMINAL BOX IN SEQUENCE TO MAINTAIN ROOM TEMPERATURE SETTING 22°C (72°F), (ADJUSTABLE). THE AIR VOLUME DAMPER SHALL BE MODULATED BETWEEN MINIMUM SETTING OF 30% TO 100%.
 - 2.2. HIGHEST TO GOVERN ZONE THERMOSTAT TO RESET DISCHARGE AIR TEMPERATURE.
 - 2.3. THE NIGHT SETBACK TEMPERATURE SHALL BE 18°C (65°F) IN HEATING SEASON.
 - 2.4. BAS TO PROVIDE TEMPERATURE SENSORS FOR EACH ZONE AND GENERATE TEMPERATURE ALARM AT BAS FOR VAV BOX IF THE ROOM TEMPERATURE EXCEED THE HIGH LIMIT (26°C) OR BELOW THE LOW LIMIT (16°C).

CONTROL SCHEMATIC - VAV BOX WITH RE-HEAT

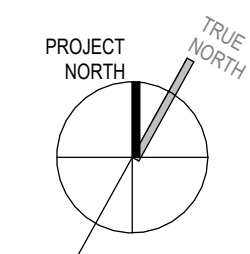
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ACTIVATION OF SYSTEM:

ACTIVATION / DEACTIVATION OF THE FOLLOWING SEQUENCE SHALL BE BASED ON THE PRE-PROGRAMMED TIME SCHEDULE AT BAS. DURING THE OFF PERIOD, WHEN SPACE TEMPERATURE SENSOR DETECTS SPACE TEMPERATURE DIFFERS 45°C (45°F) FROM SETPOINT (HIGHEST TO GOVERN), THE SYSTEM SHALL START AND OVERRIDE THE PRE-PROGRAMED SCHEDULE UNTIL THE SETPOINT IS SATISFIED AND MAINTAINED FOR 30 MINUTES.

SEQUENCE OF OPERATION:

1. SUPPLY AIR TEMPERATURE SENSOR TO MODULATE CONTROL GLYCOL WATER VALVE TO MAINTAIN DISCHARGE AIR TEMPERATURE T4 SETTING AT 13°C (55°F) (ADJUSTABLE) OR AS IDENTIFIED ON EQUIPMENT SCHEDULE.
2. EXHAUST AIR HUMIDIFICATION SENSOR TO MODULATE HUMIDIFIER TO MAINTAIN DISCHARGE AIR R.H. AT 30% (ADJUSTABLE).
3. SYSTEM PRESSURE SENSORS TO MODULATE FAN SPEED TO MAINTAIN CONSTANT PRESSURE IN SUPPLY & EXHAUST AIR DUCT SYSTEM, LOCATED 2/3 OF THE WAY DOWN THE AIR MAIN DUCT FROM THE AIR HANDLING UNIT.
4. HIGH LIMIT PRESSURE SENSOR TO ENSURE S.P. SET POINT AT FAN DISCHARGE IS NOT EXCEEDED.
5. WHEN SYSTEM IS ON, THE SUPPLY AIR FAN(S) START, THE EXHAUST AIR FAN(S) START AND ASSOCIATED EXHAUST AIR DAMPERS TO OPEN ACCORDINGLY . THE SYSTEM IS UNDER AUTOMATIC CONTROL.
6. THE HEAT RECOVERY HEAT PIPE WILL BE MAINTAINED IN OPERATION WHEN OUTDOOR AIR TEMPERATURE IS ABOVE SPACE TEMPERATURE SET POINT 75°F (24°C) IN COOLING AND BELOW SET POINT 72°F (22°C) IN HEATING MODES.
7. FACE AND BYPASS OUTDOOR AIR DAMPER "MD-2" AT THE HEAT PIPE TO BE ACTIVATED FOR FROST CONTROL TO MAINTAIN SET POINT AT 2.22°C (36°F) OF EXHAUST AIR DISCHARGE TEMPERATURE T7 LEAVING HEAT PIPE.
8. EXCEPT UNIT IN FREE COOLING MODE, GLYCOL SUPPLY LOOP (PUMPS LOCATED IN MECHANICAL ROOM) SHALL WORK ALL YEAR ROUND TO PROVIDE COOLING IN SUMMER AND HEATING IN WINTER AS REQUIRED.
9. PROVIDE READINGS AND ALARMS AT ALL FILTER DIFFERENTIAL PRESSURE SENSORS.
10. AN ALARM SHALL BE GENERATED AT BAS IF THE SYSTEM MALFUNCTIONS. ADDITIONALLY, AN AUDIBLE ALARM LOCATED IN THE SPACE WILL SOUND IF THE SYSTEM IS SHUT DOWN ON EMERGENCY CONDITION.

IN EVENT OF FLAMMABLE VAPOUR REMOVAL

1. ACTIVATE ADDITIONAL SUPPLY & EXHAUST FAN TO RUN AT HIGH SPEED ACCORDINGLY IN THE EVENT OF FLAMMABLE VAPOR CONCENTRATIONS REACHING 25% ABOVE THE LOWER EXPLOSIVE LIMIT (LEL 5%), RUN FANS FOR 30 MINUTES. IF THE CONCENTRATIONS CONTINUE TO RISE AFTER 30 MIN, ACTIVATE ALL FANS TO RUN AT HIGHEST SPEED.
2. GENERATE ALARM AT BAS WHEN FLAMMABLE VAPOUR CONCENTRATIONS EXCEED LOWER EXPLOSIVE LIMIT (LEL 5%).

SEQUENCE OF OPERATION AT FREE COOLING

1. WHEN OUTDOOR AIR TEMPERATURE IS REACHING INDOOR SPACE TEMPERATURE, OUTDOOR AIR TEMPERATURE SENSOR TO FULLY OPEN BY-PASS MOTORIZED DAMPERS AT SUPPLY & EXHAUST AIR OF HEAT RECOVERY HEATPIPE.
2. HEAT RECOVERY HEAT PIPE SHALL BE OFF, GLYCOL WATER VALVE SHALL BE CLOSED.

IN EVENT OF FIRE:

1. THE SYSTEM SHALL BE SHUTDOWN BY FIRE ALARM SYSTEM IN A EVENT OF FIRE.

ALARM

- SUPPLY FAN FAILURE
- EXHAUST FAN FAILURE
- DISCHARGE AIR TEMPERATURE EXCEED HIGH LIMIT OR BELOW LOW LIMIT
- HUMIDITY EXCEED HIGH LIMIT OR BELOW LOW LIMIT
- FREEZESTAT FAILURE
- ANY MOTORIZED DAMPER FAILURE TO OPEN OR CLOSE
- DIRTY FILTER ALARM

10	2025-05-29	ISSUED FOR TENDER	EXP
9	2025-01-09	ISSUED FOR 100% CD	EXP
8	2025-11-19	ISSUED FOR 100% CD DRAFT	EXP
7	2025-10-06	ISSUED FOR PERMIT	EXP
6	2025-11-06	RE-ISSUED FOR BAS REVIEW	EXP
5	2025-05-26	ISSUED FOR BRIDGE	EXP
4	2025-05-20	ISSUED FOR 100% CD	EXP
3	2025-04-01	ISSUED FOR BRIDGE PROGRESS	EXP
2	2025-03-14	REISSUED FOR 100% SCHEMATIC DESIGN	EXP
1	2025-03-08	ISSUED FOR 100% SCHEMATIC DESIGN	EXP
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UNIVERSITY OF TORONTO
DENTISTRY BUILDING
CLINIC 2 RENOVATION
24082

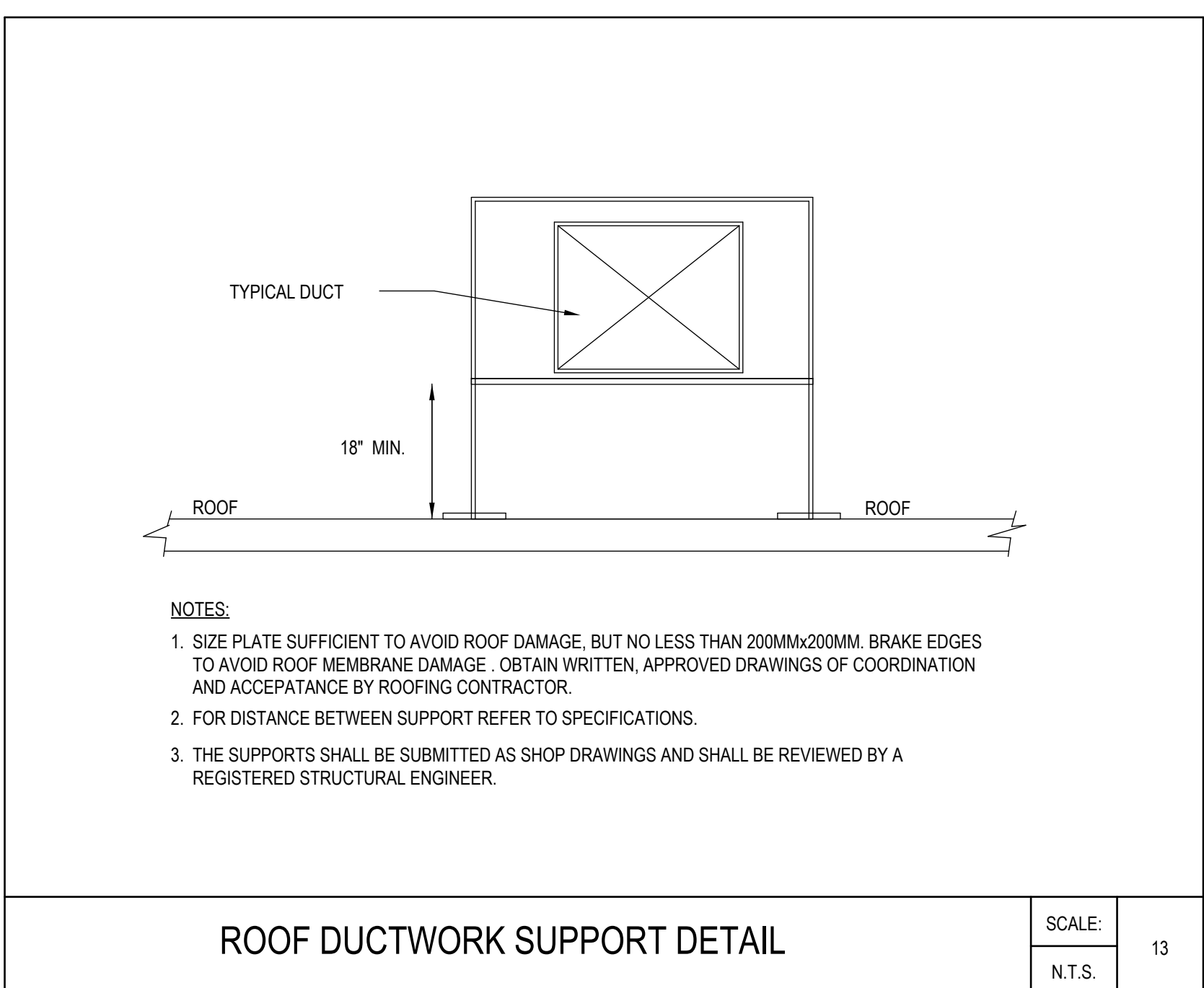
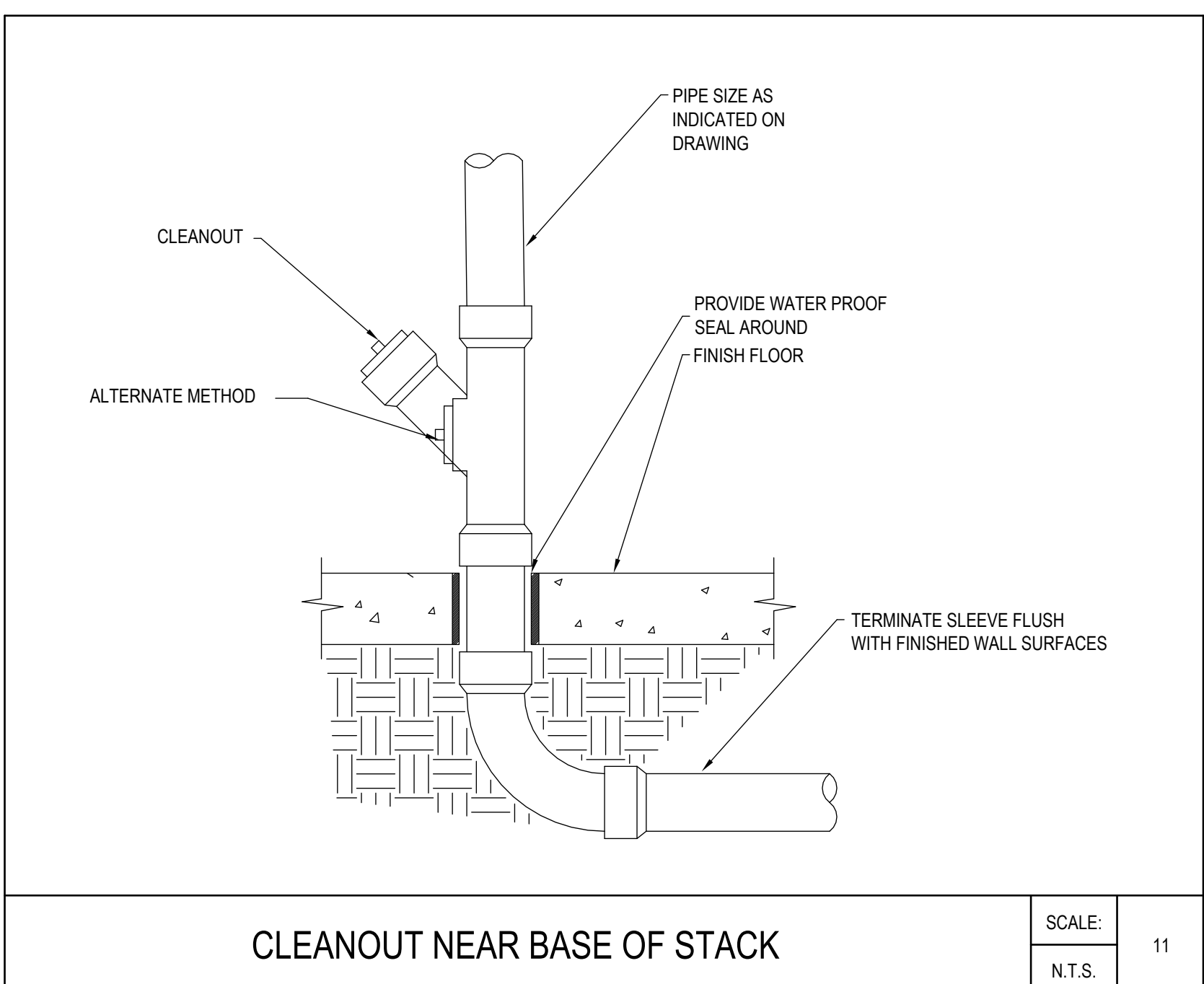
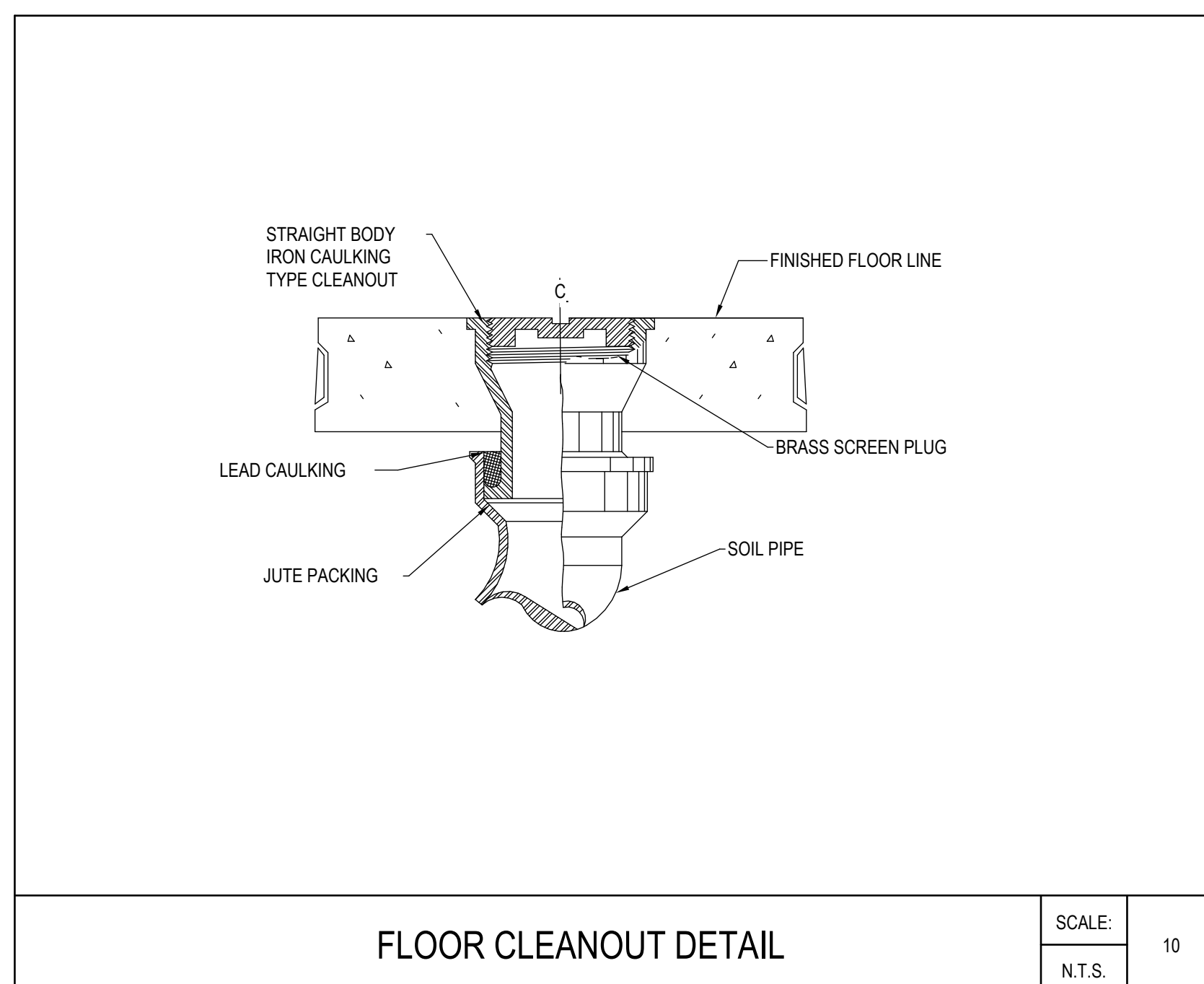
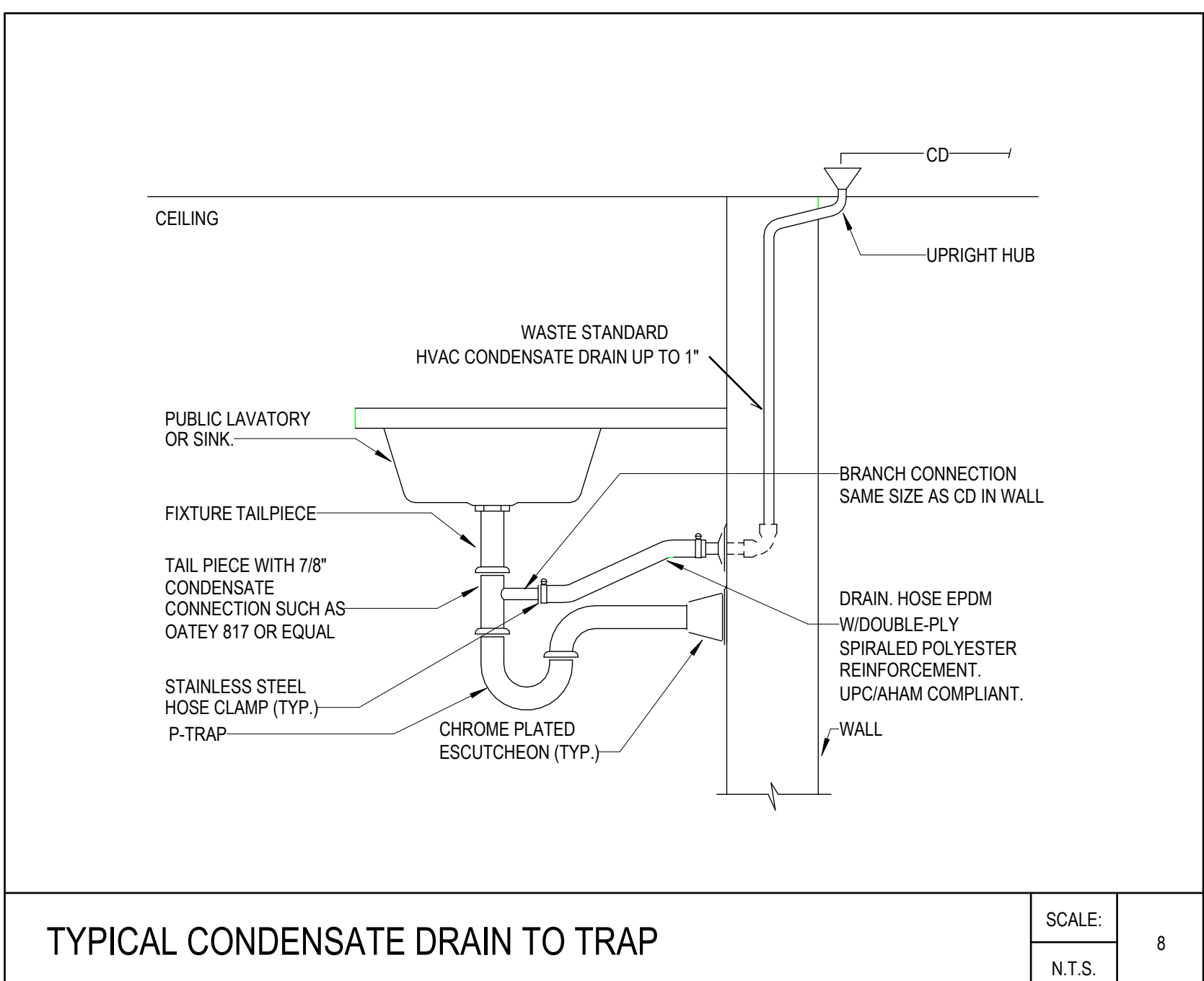
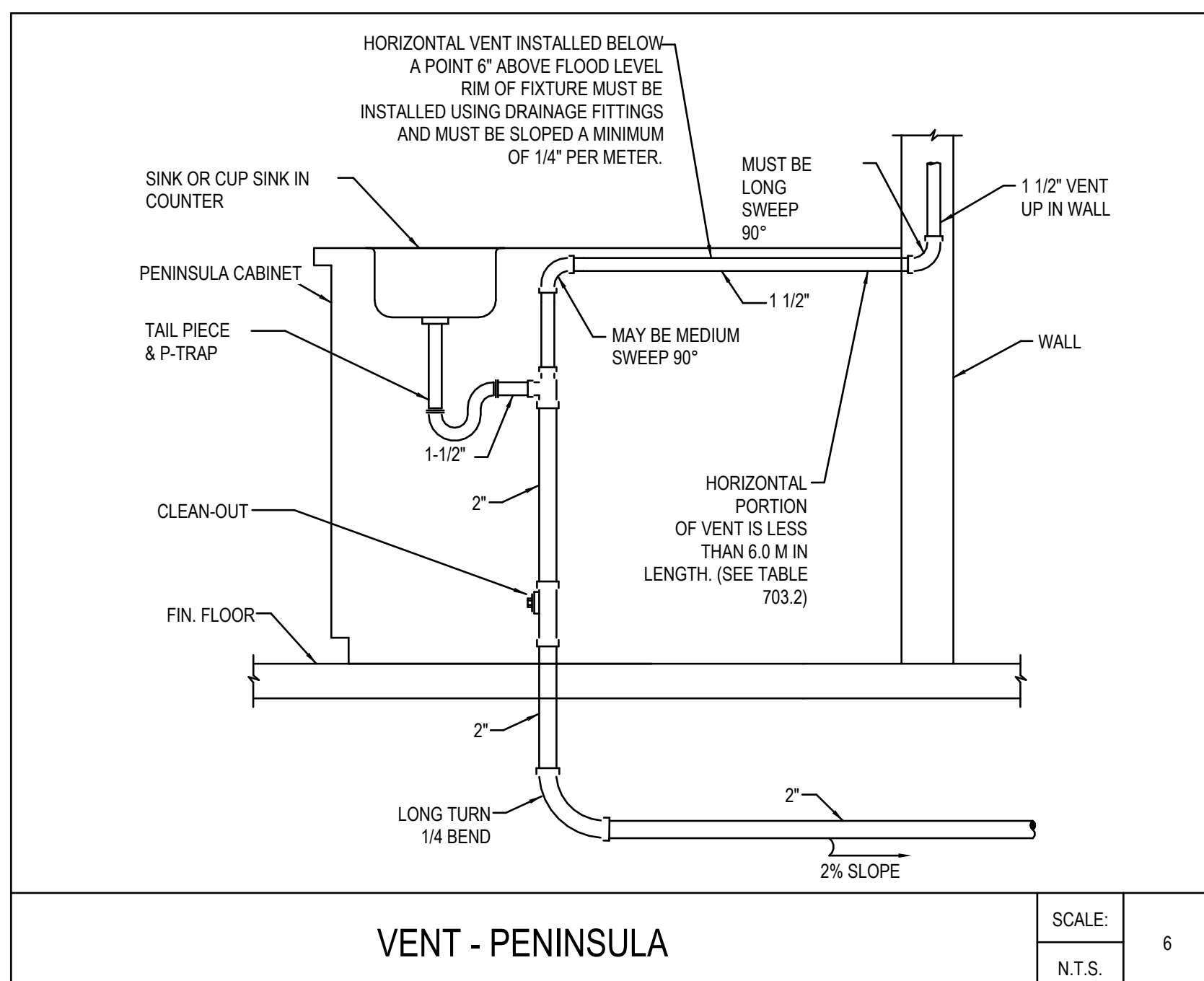
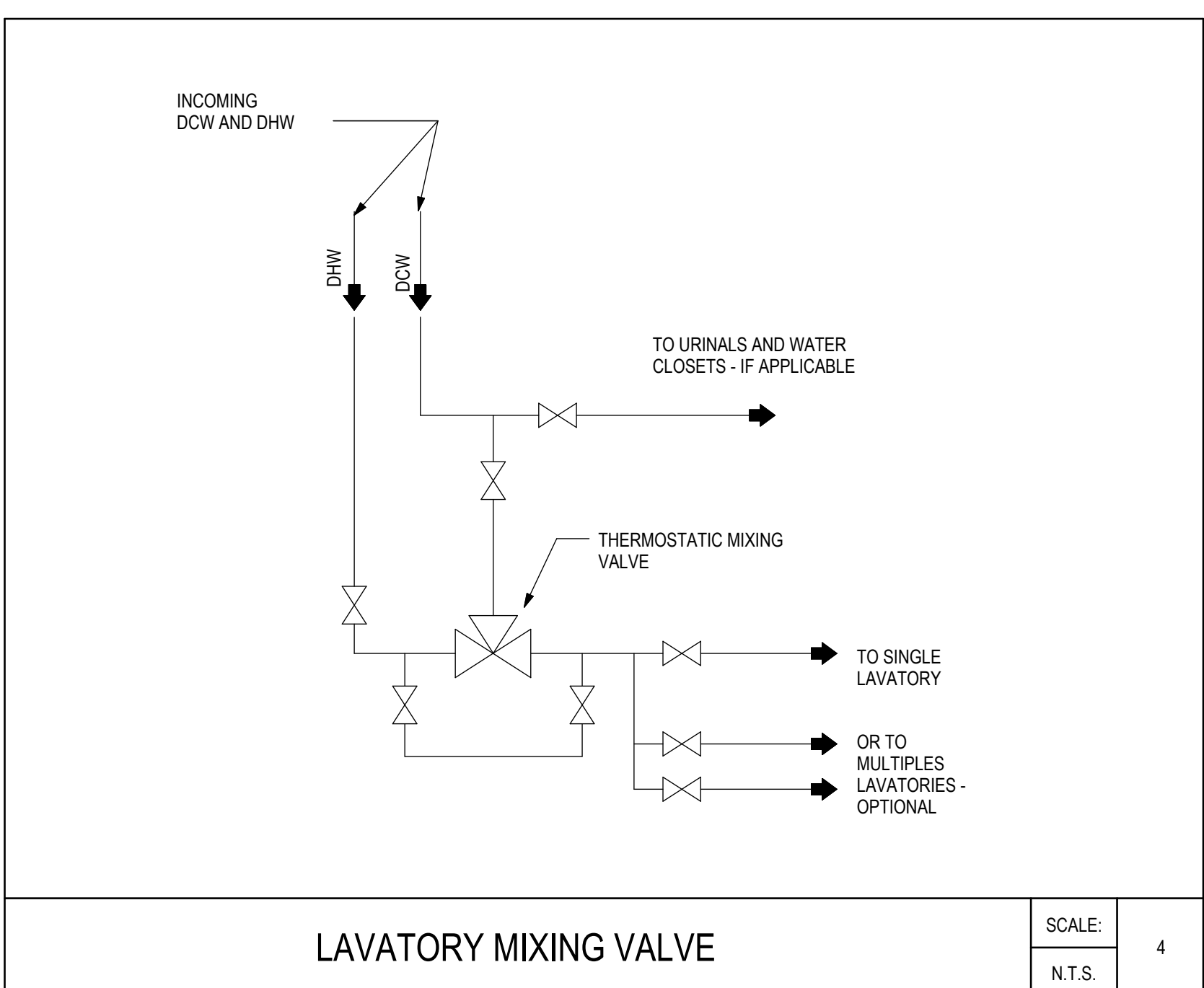
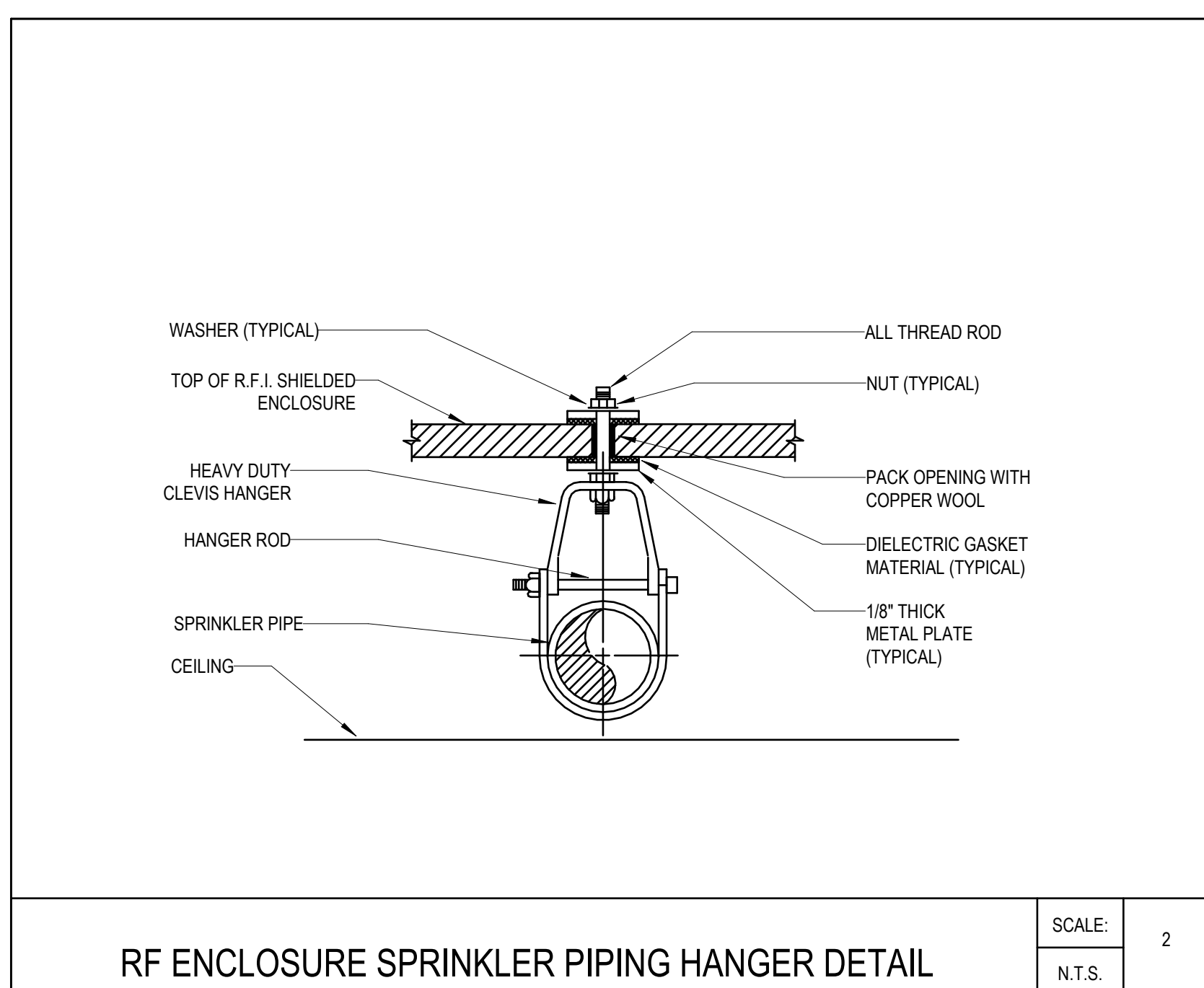
124 EDWARD STREET
TORONTO, ON M5G 1G8

CONTROLS SCHEMATICS #1

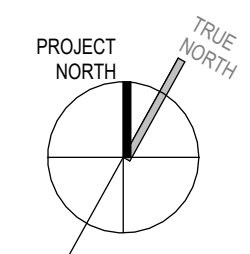
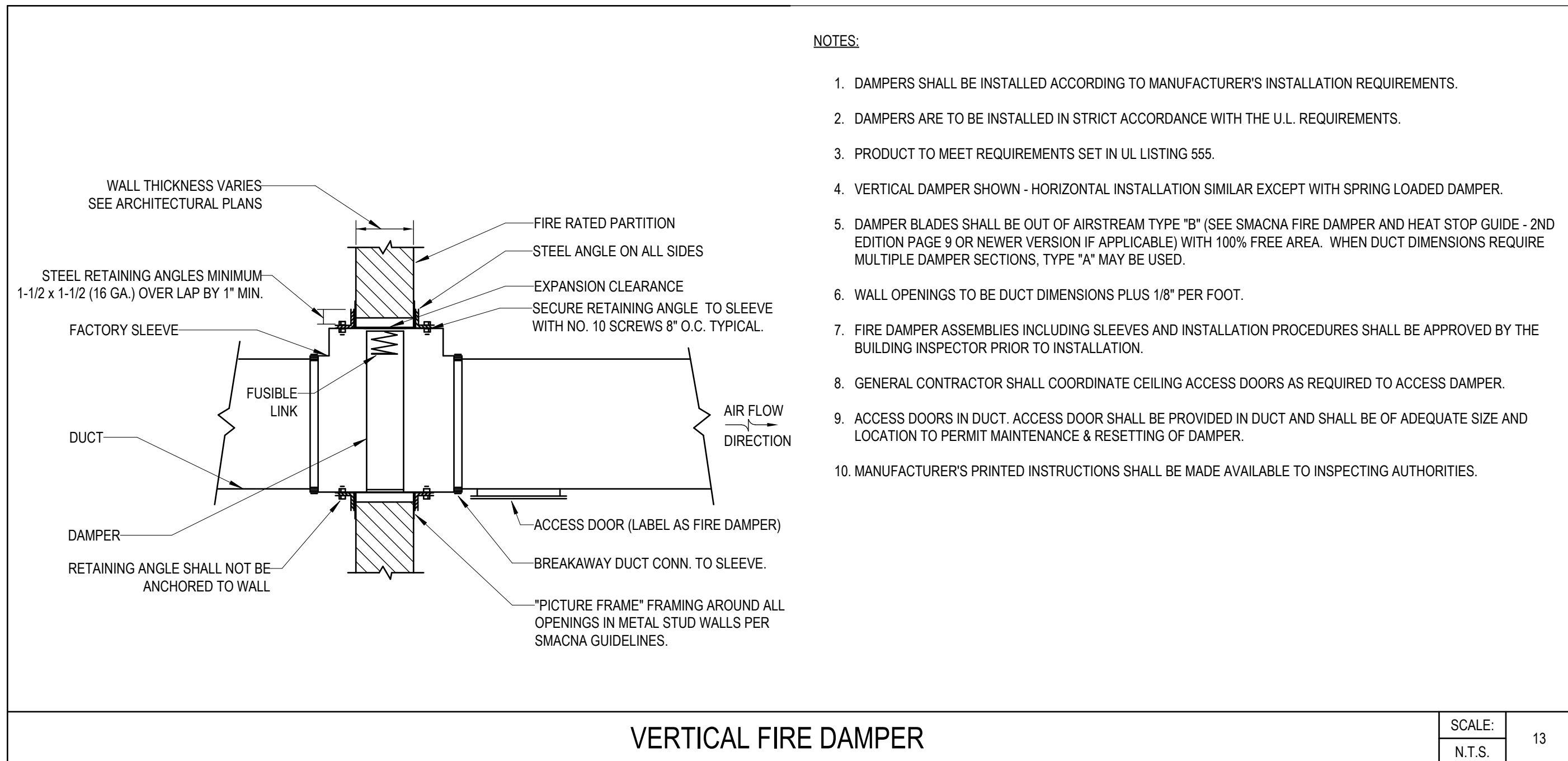
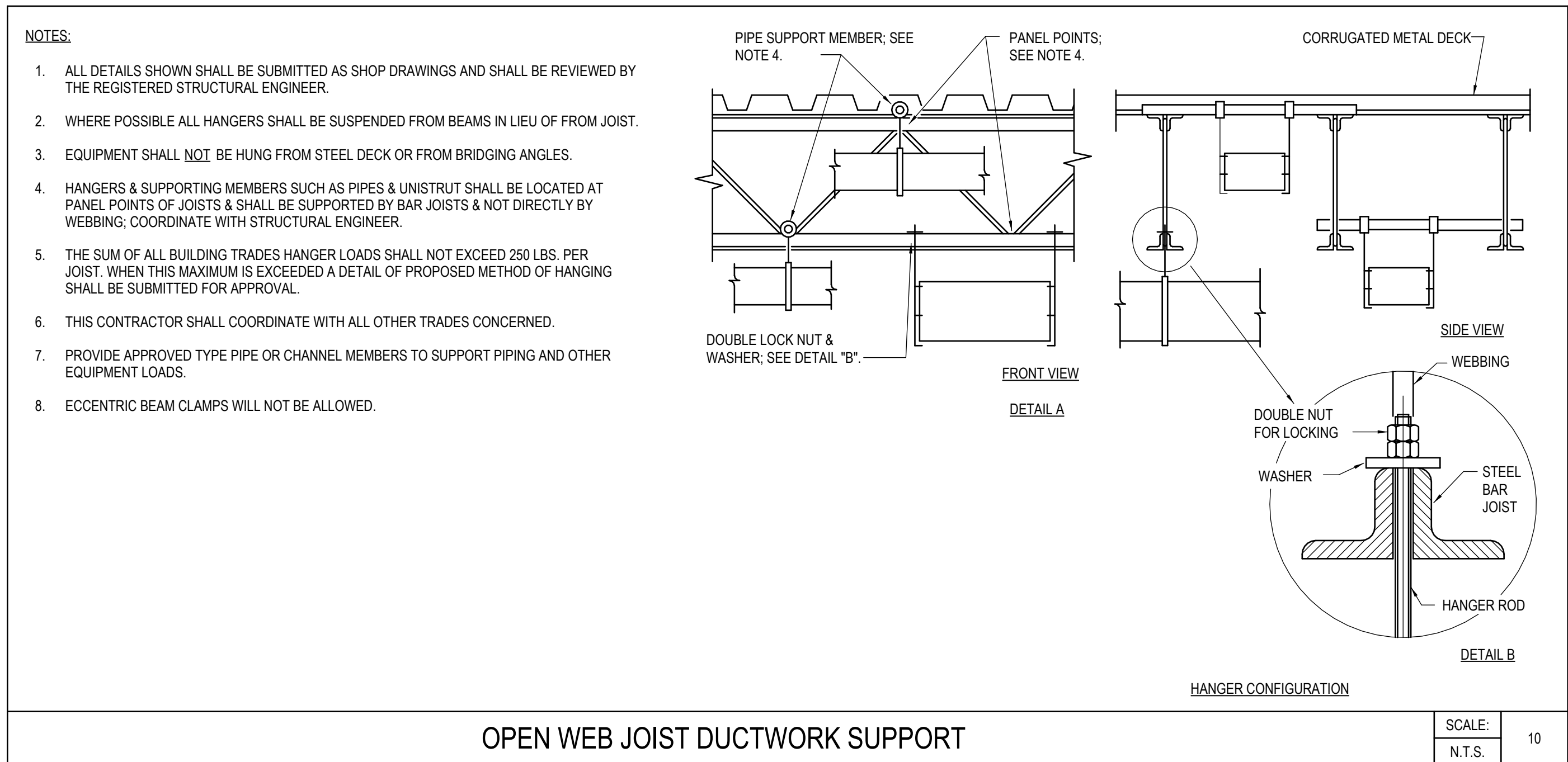
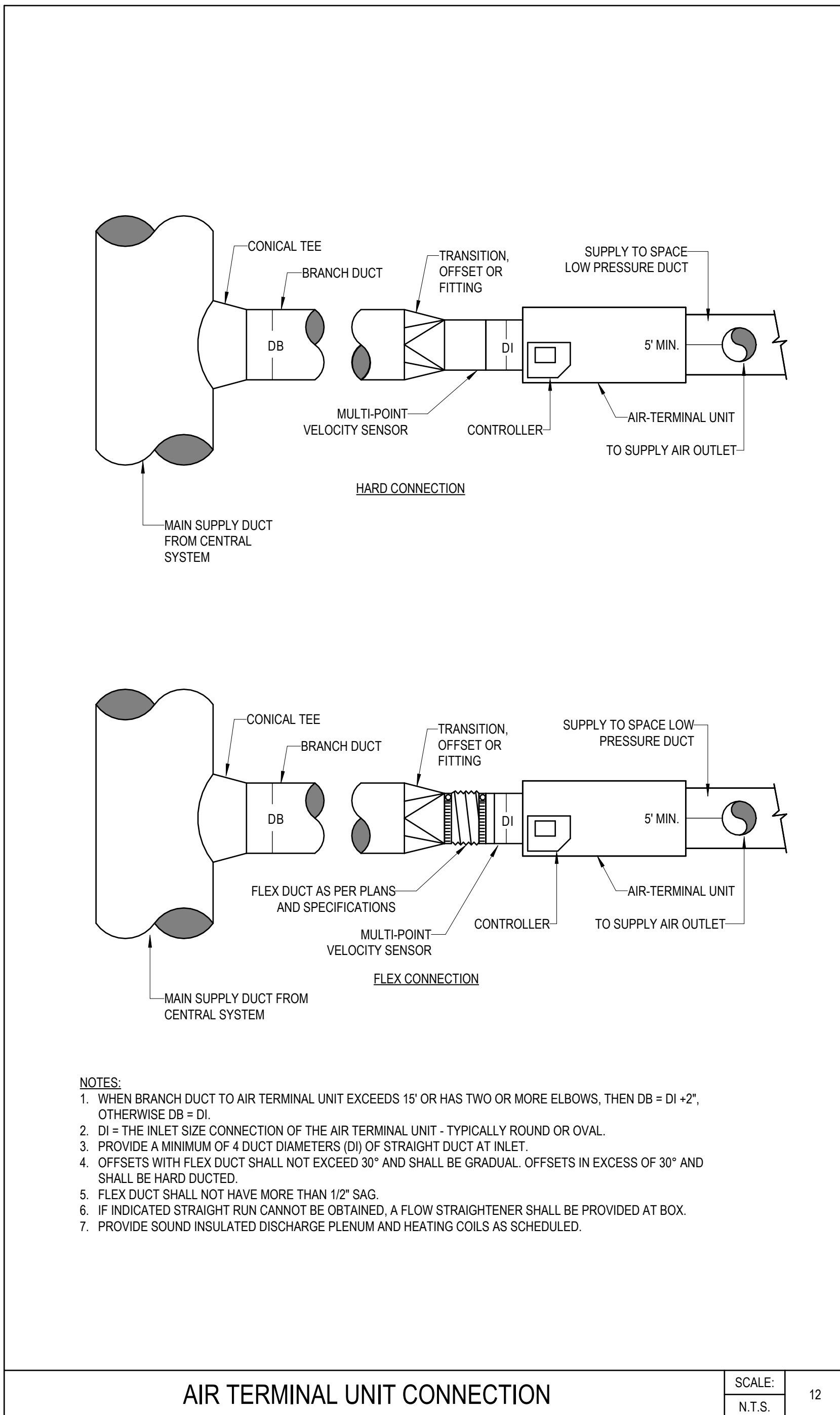
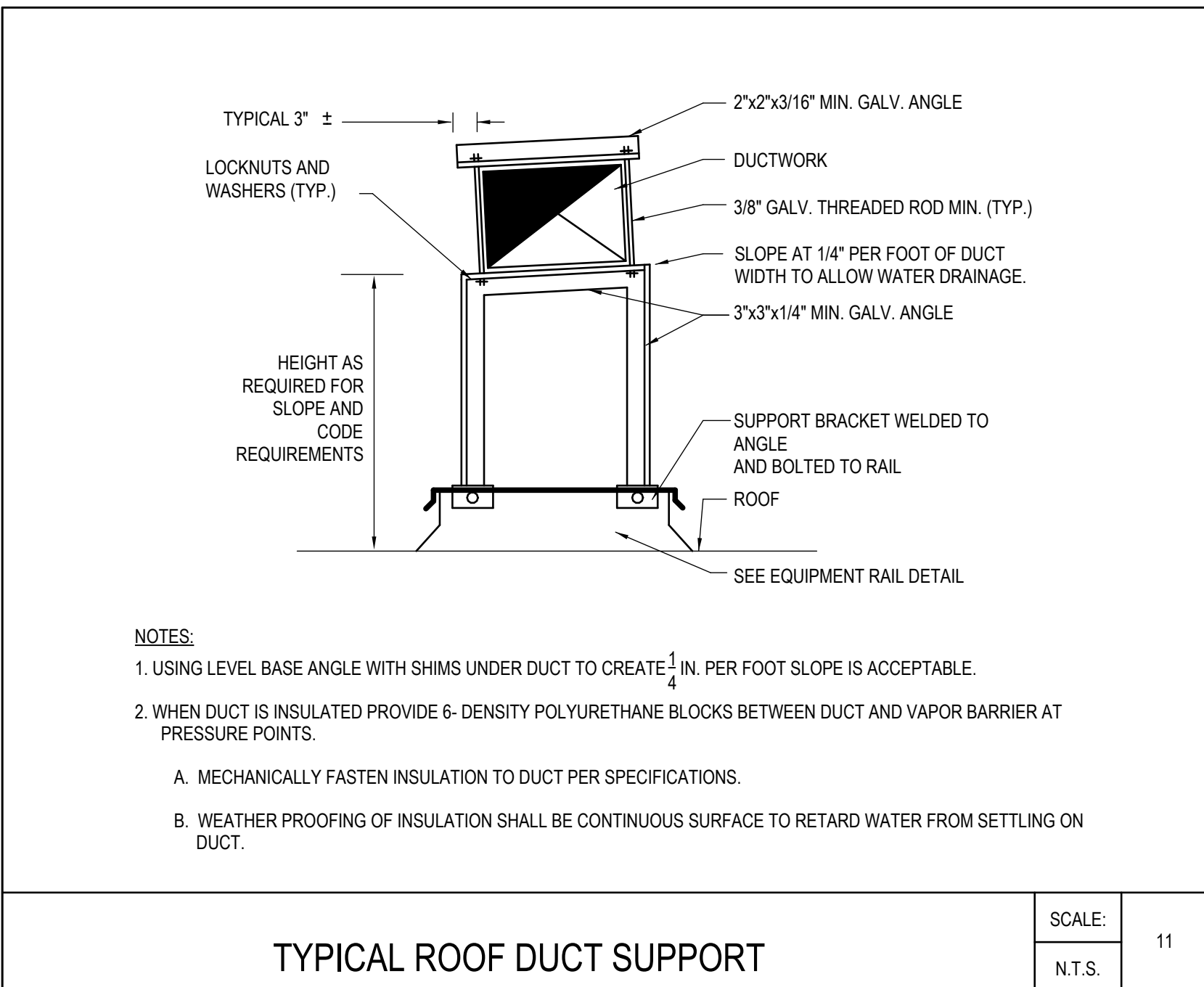
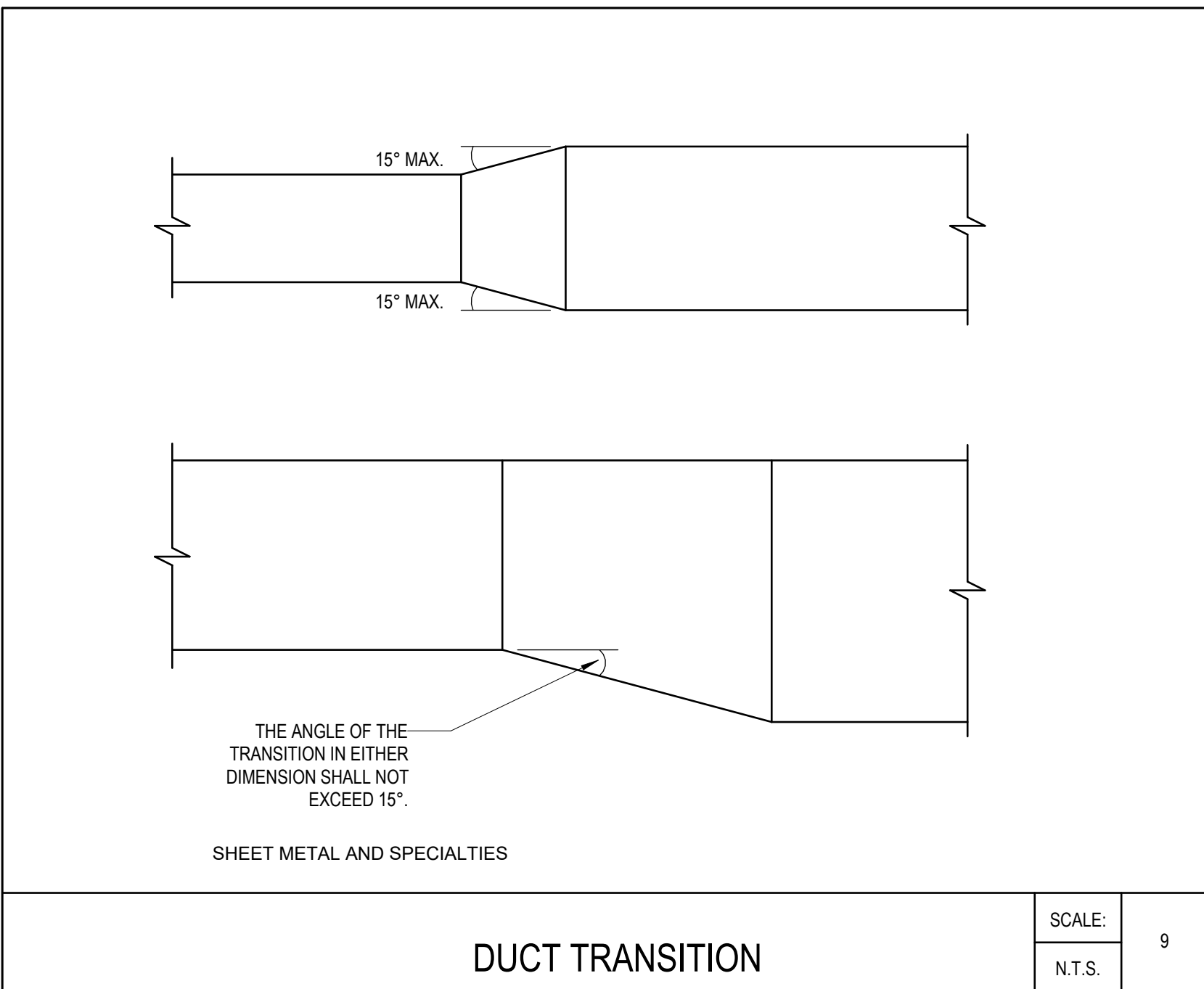
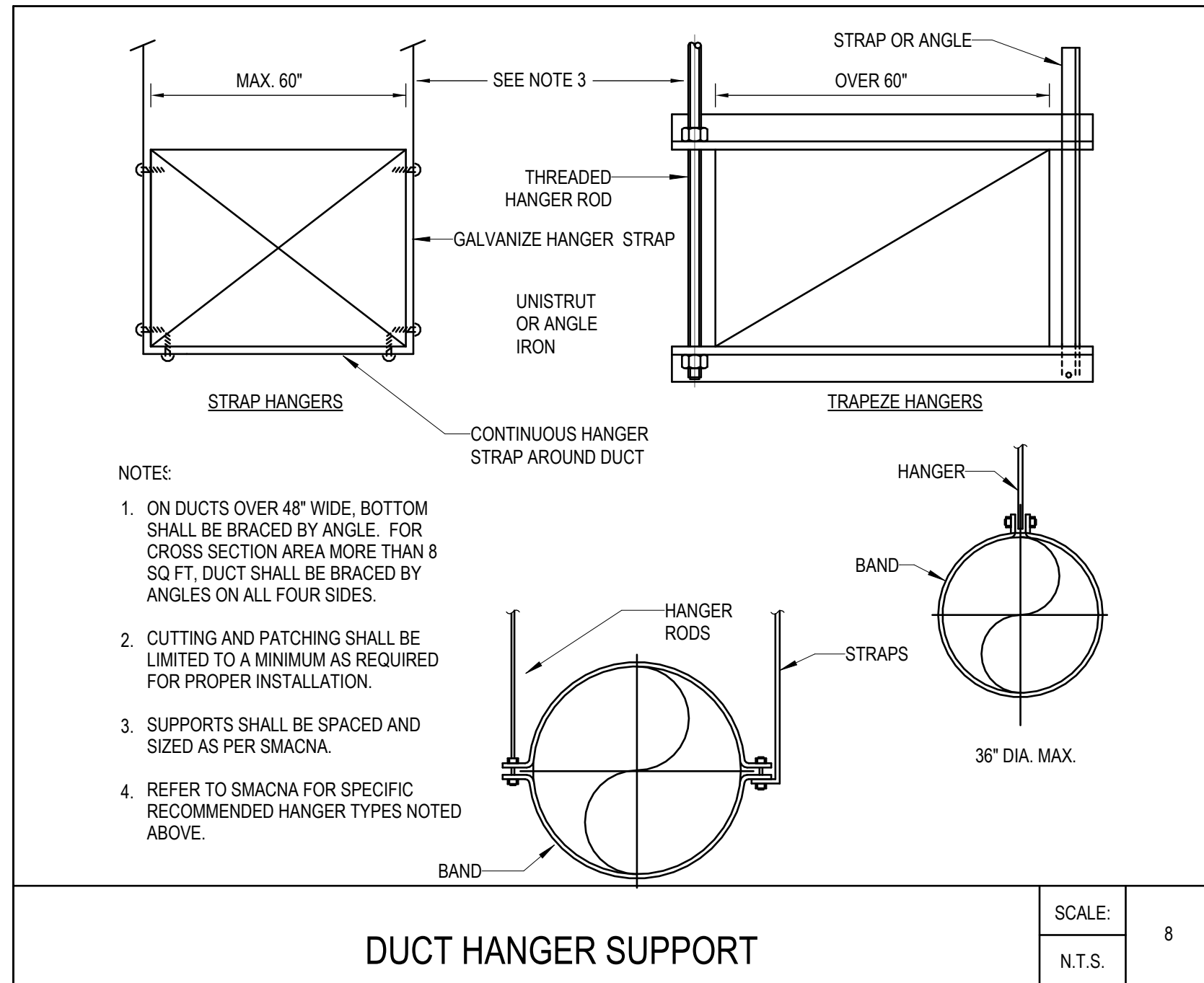
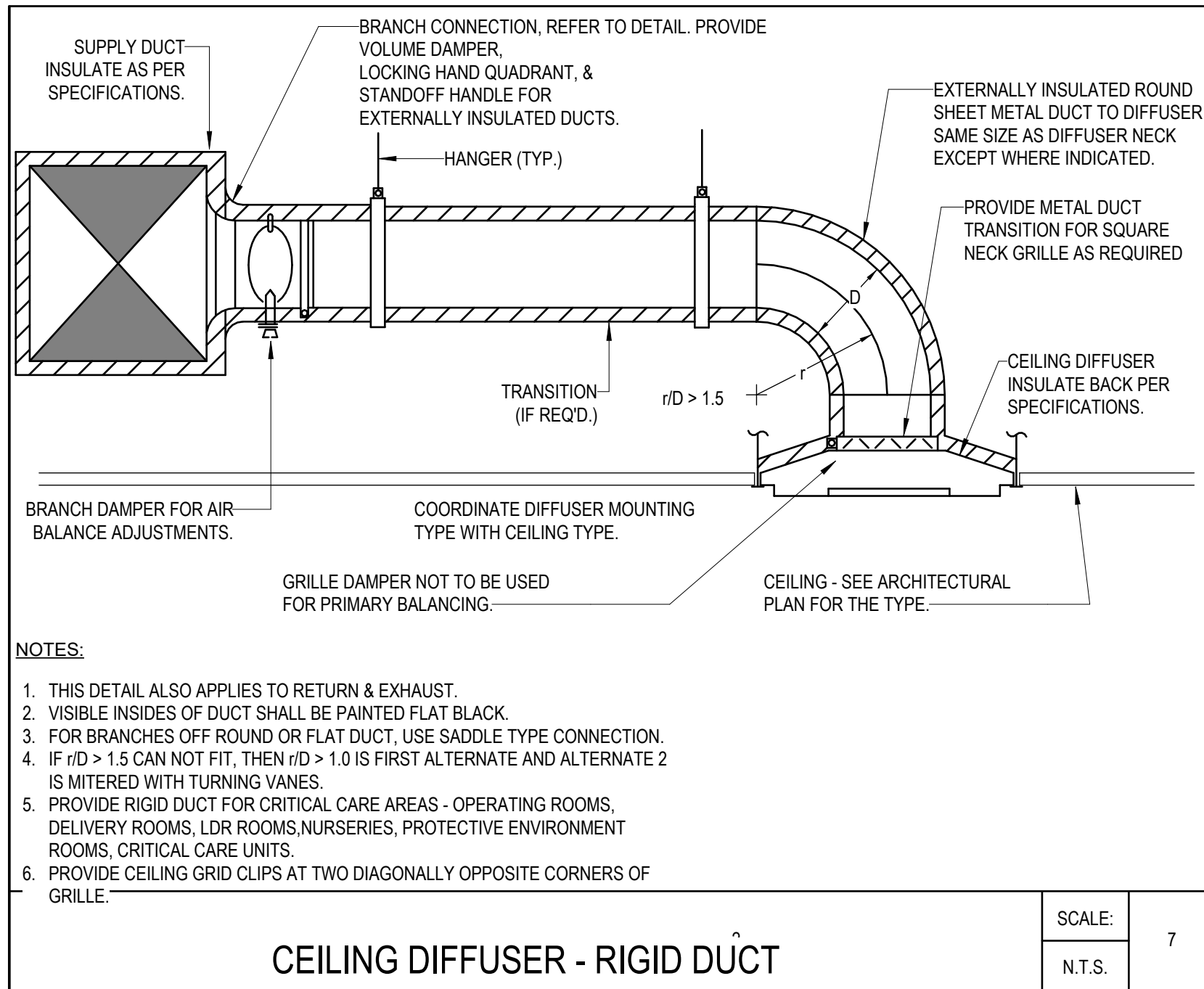
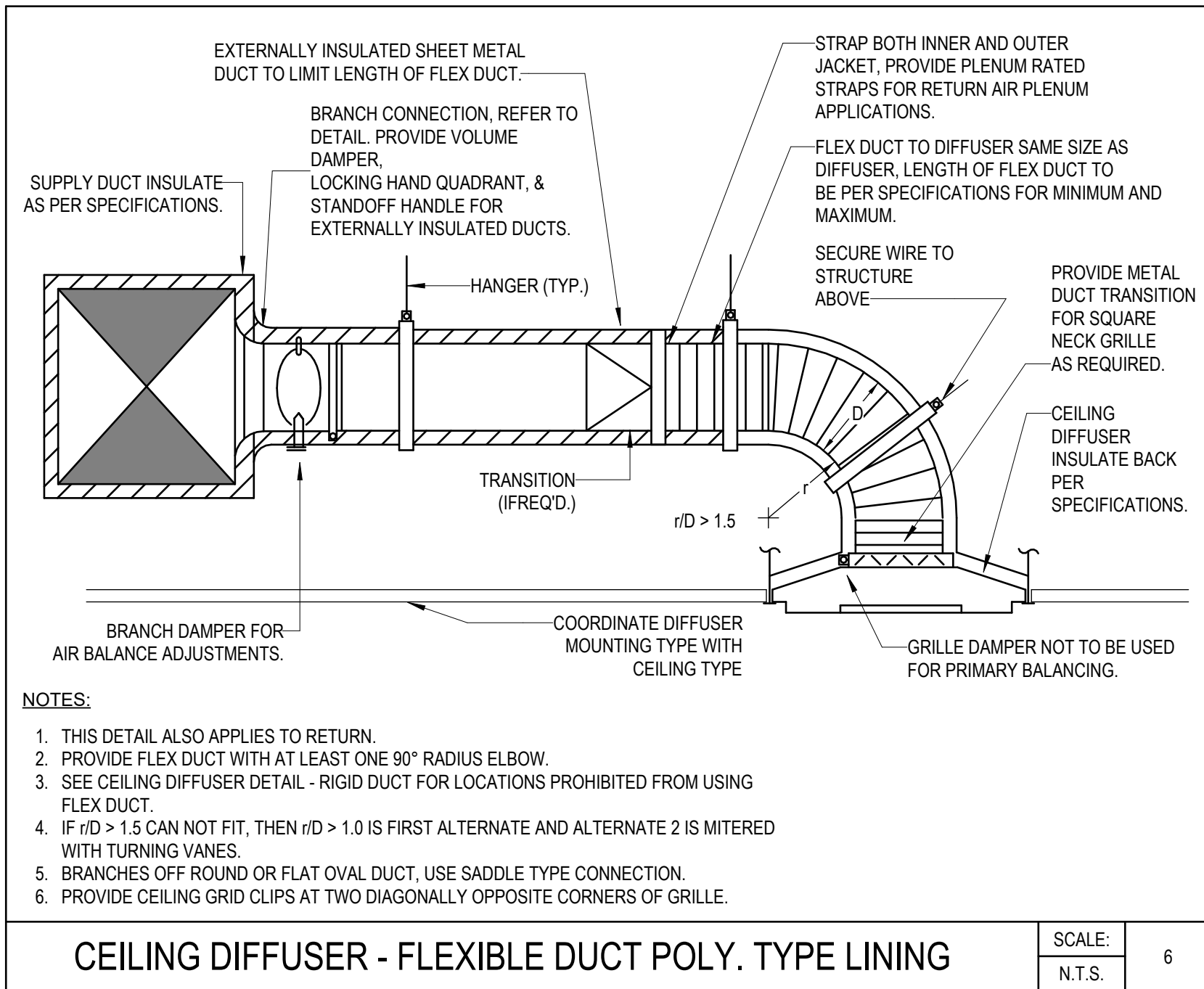
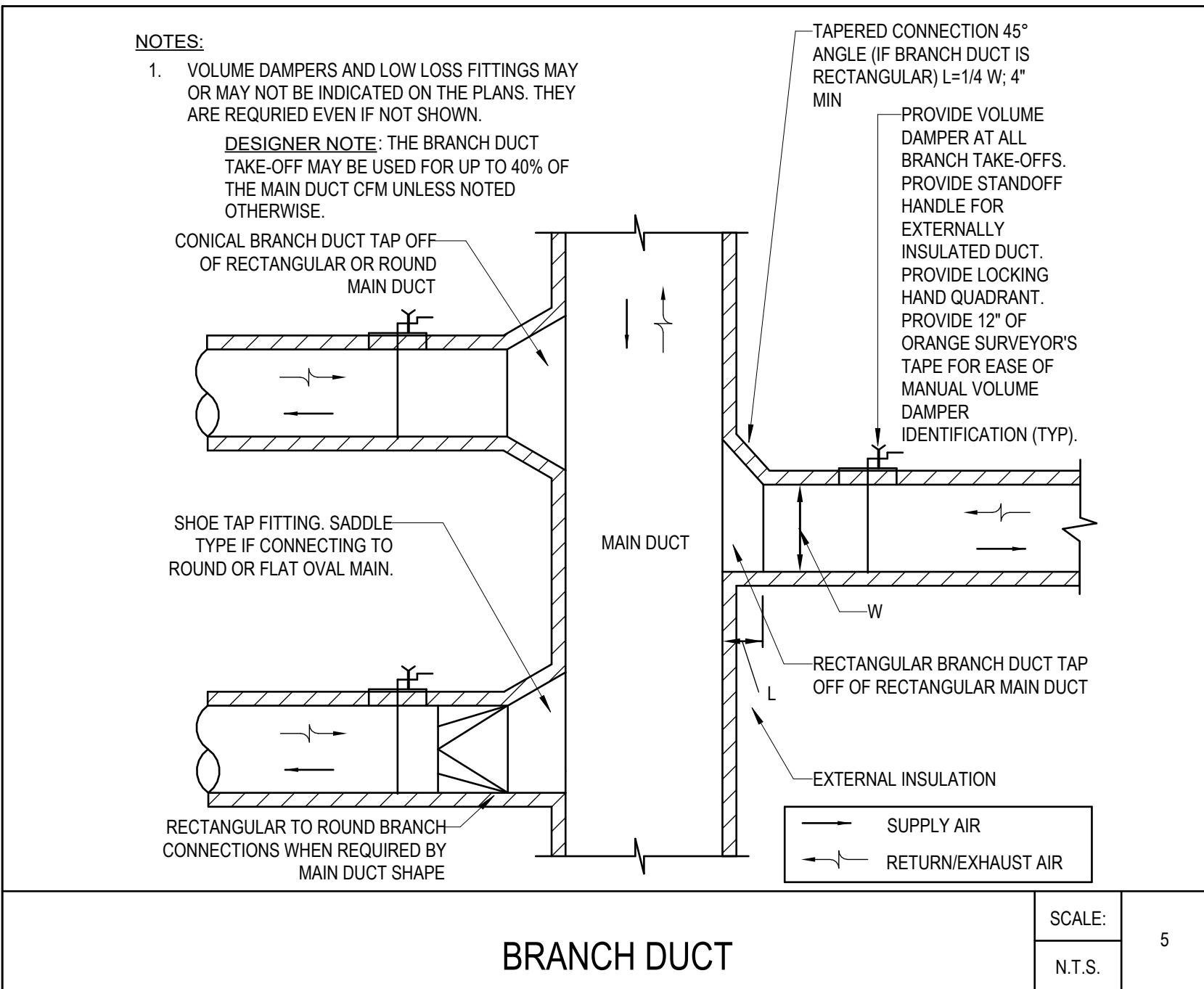
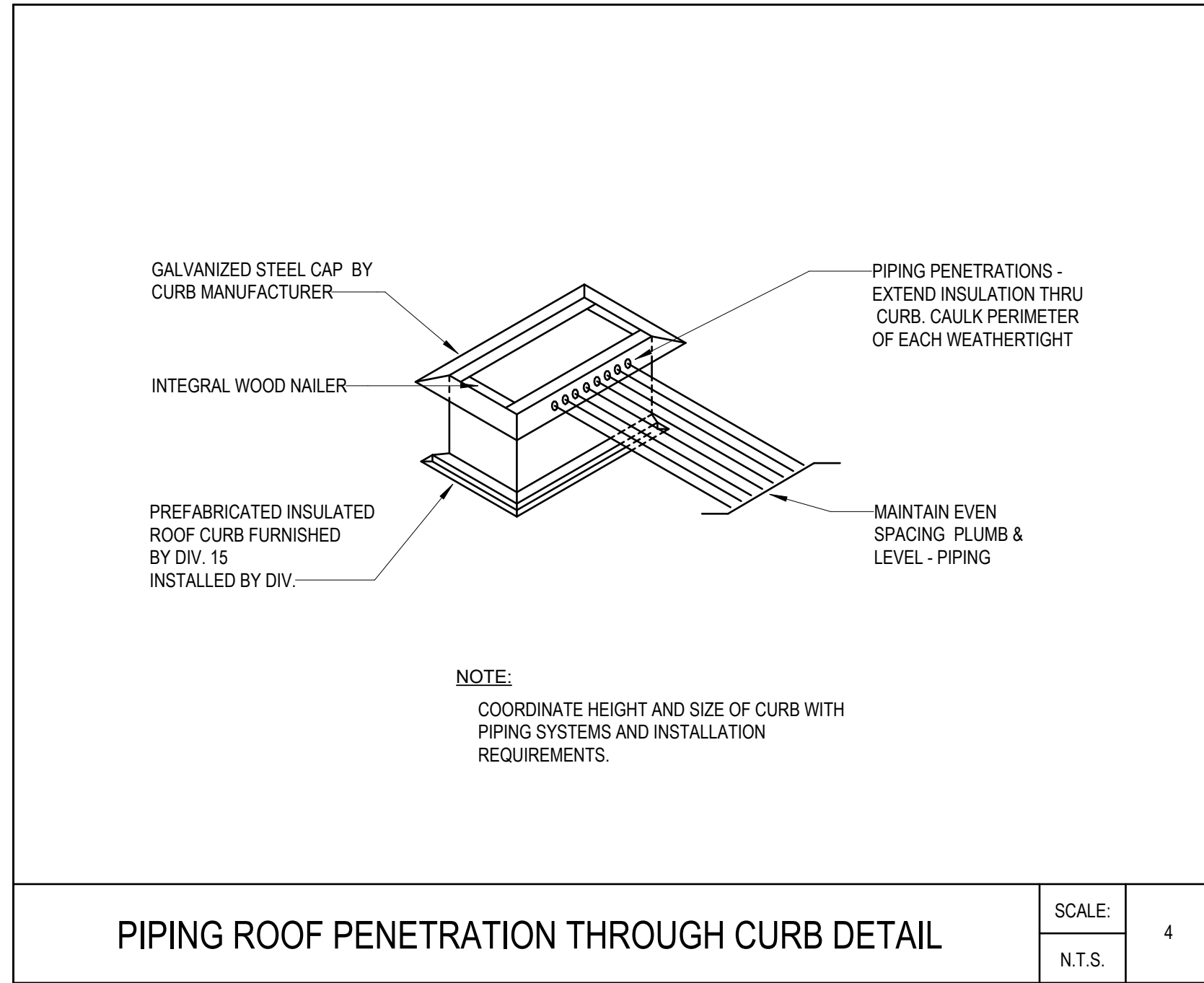
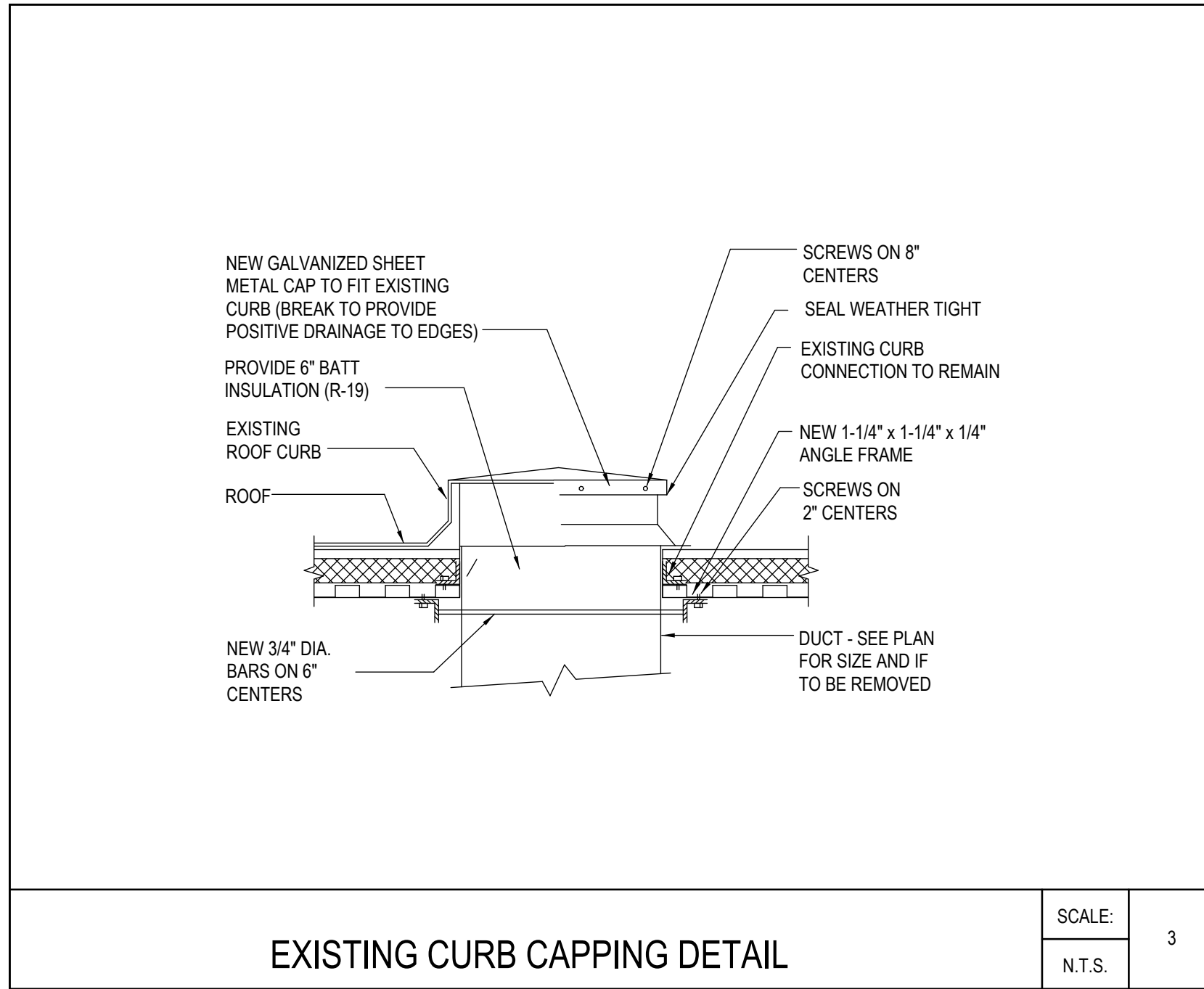
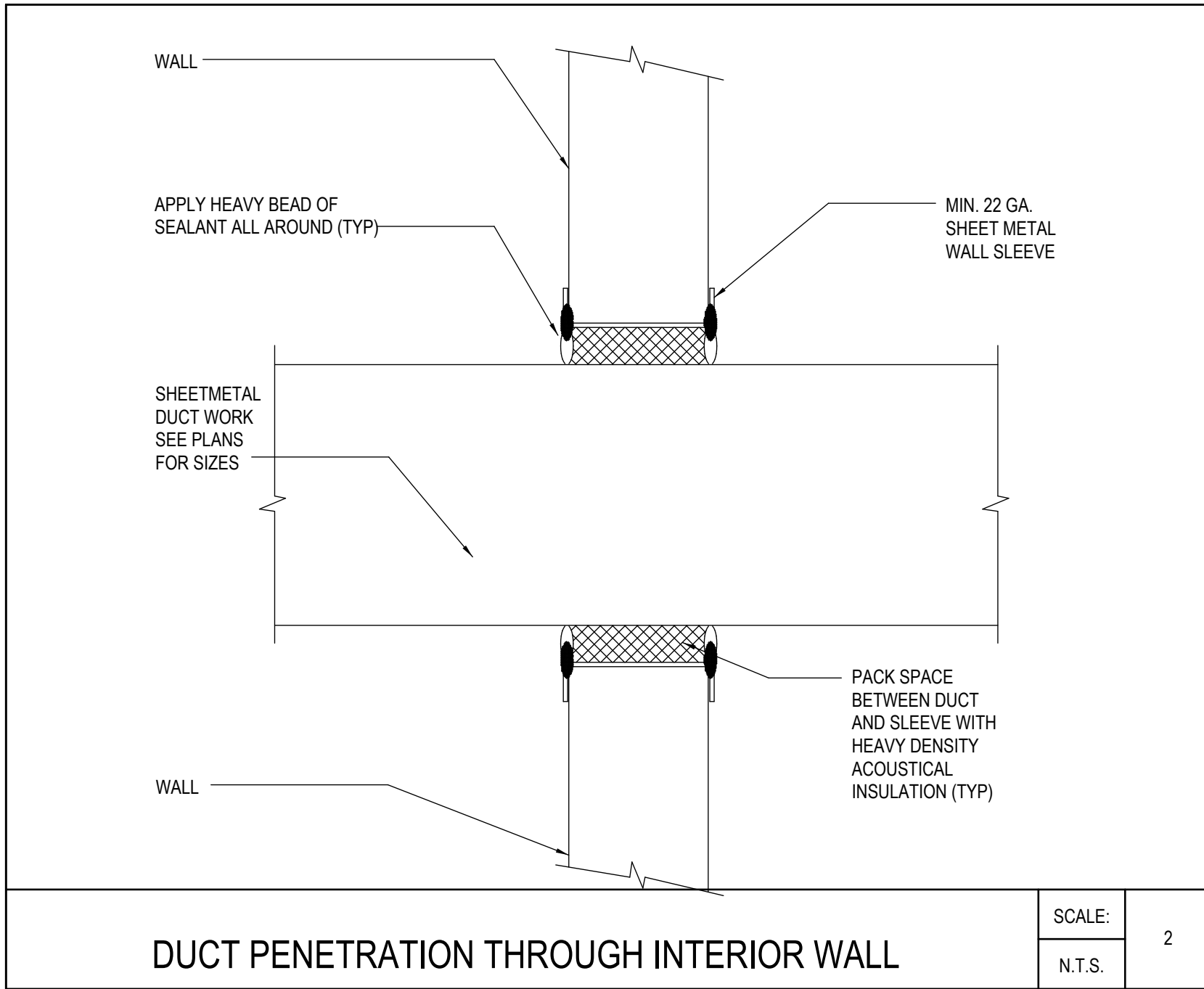
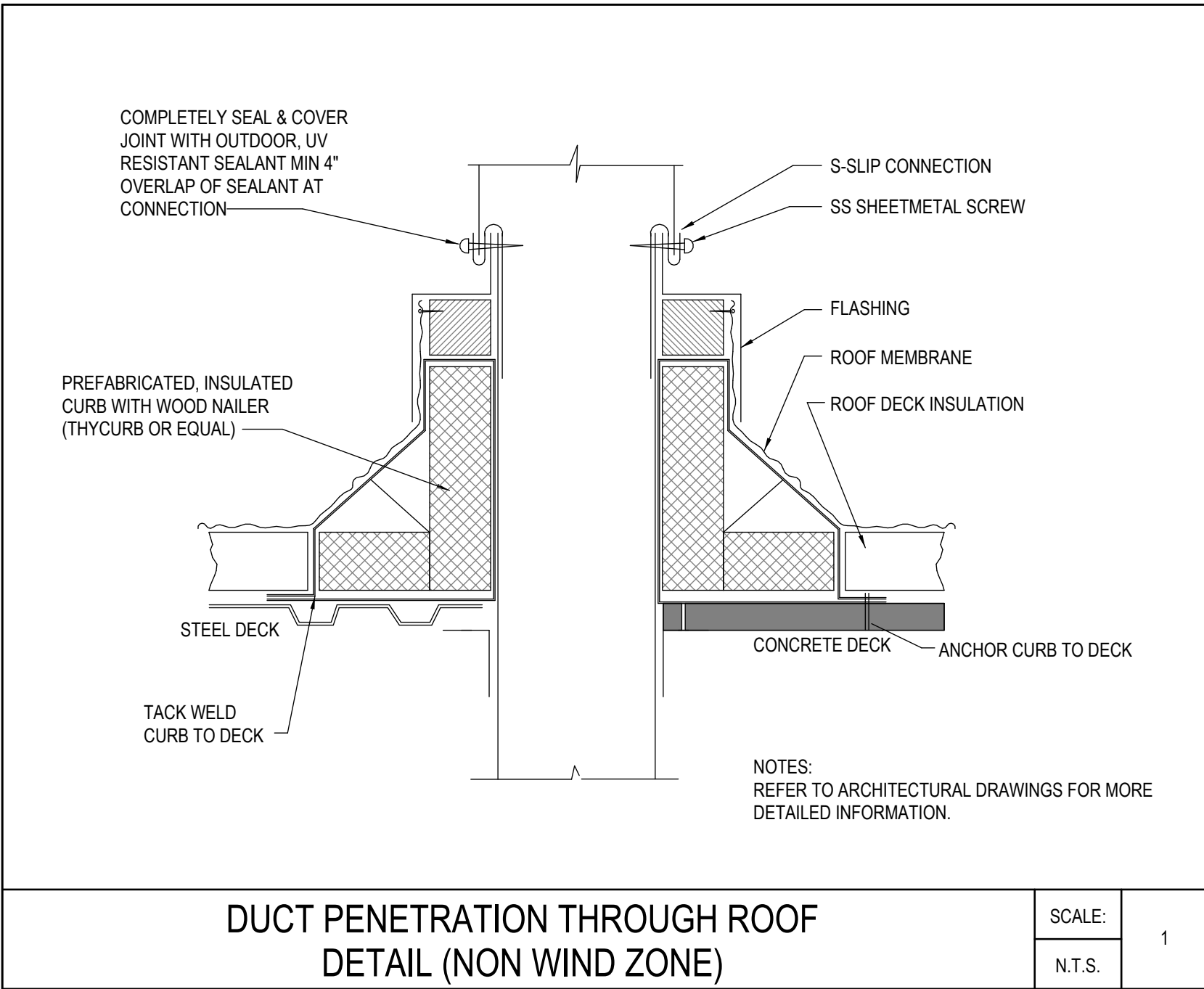
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REVIEWED BY: Checker
JOB NUMBER: 24082
PLOT DATE: 02/04/25

DRAWING NUMBER:

M-603



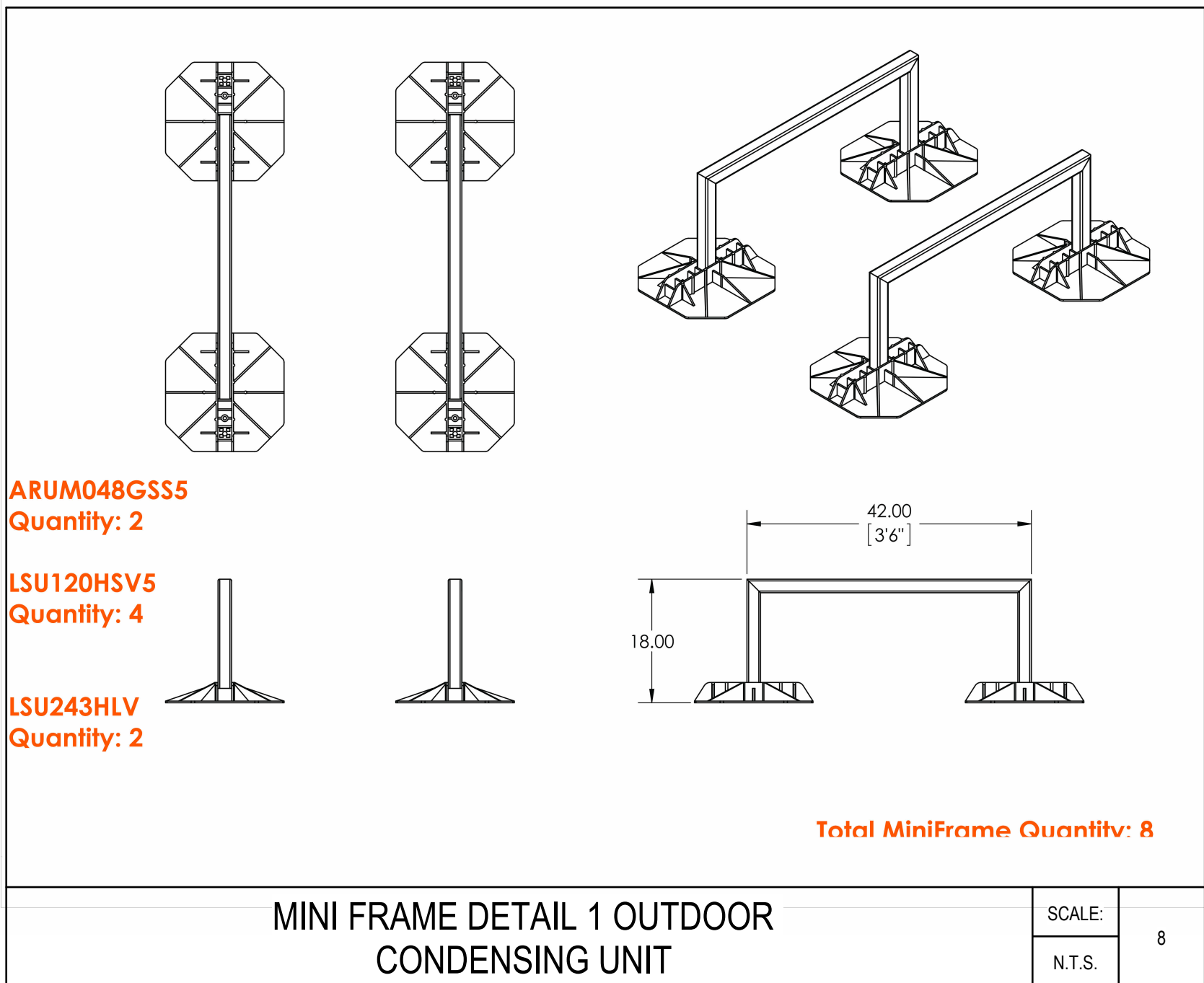
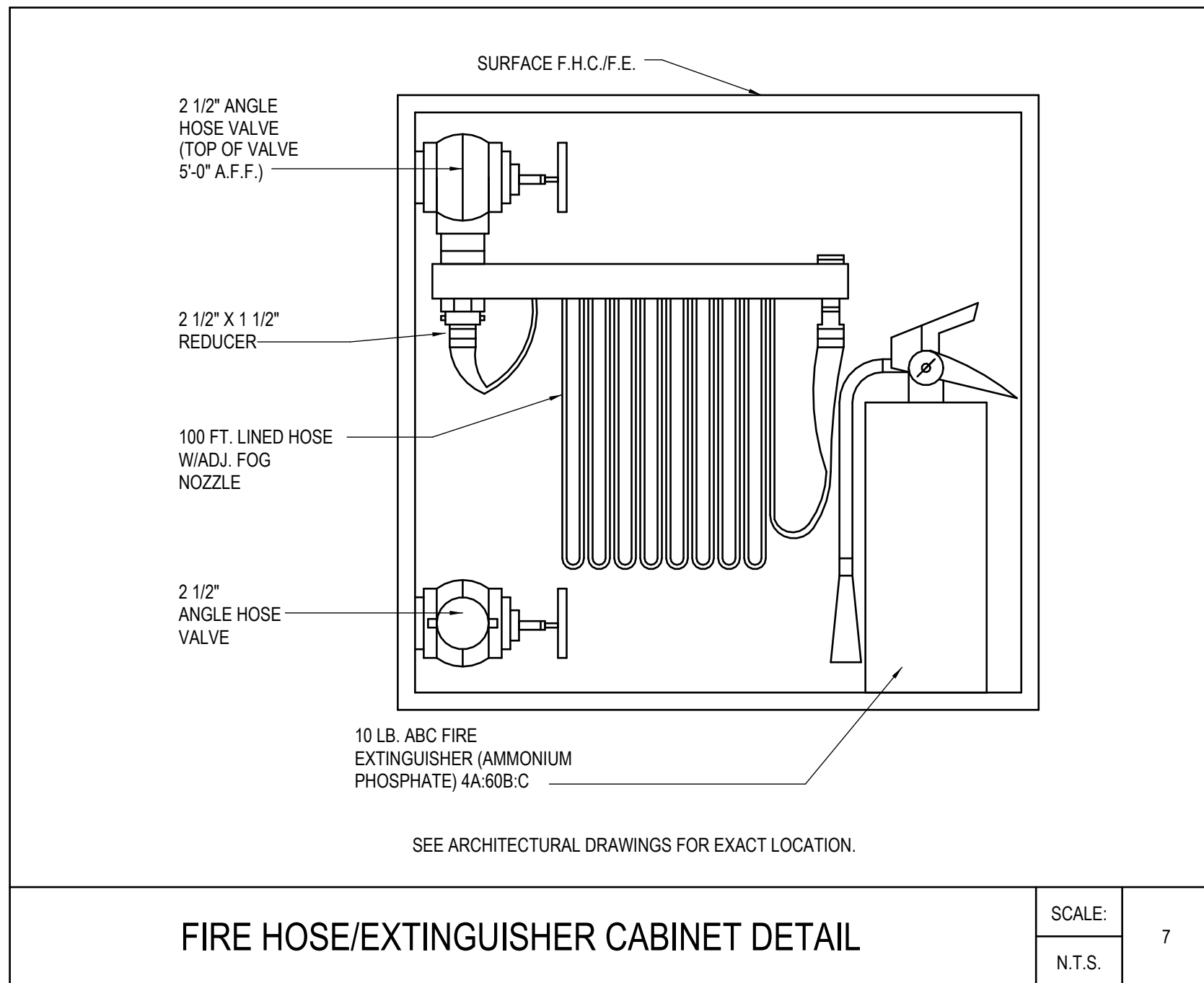
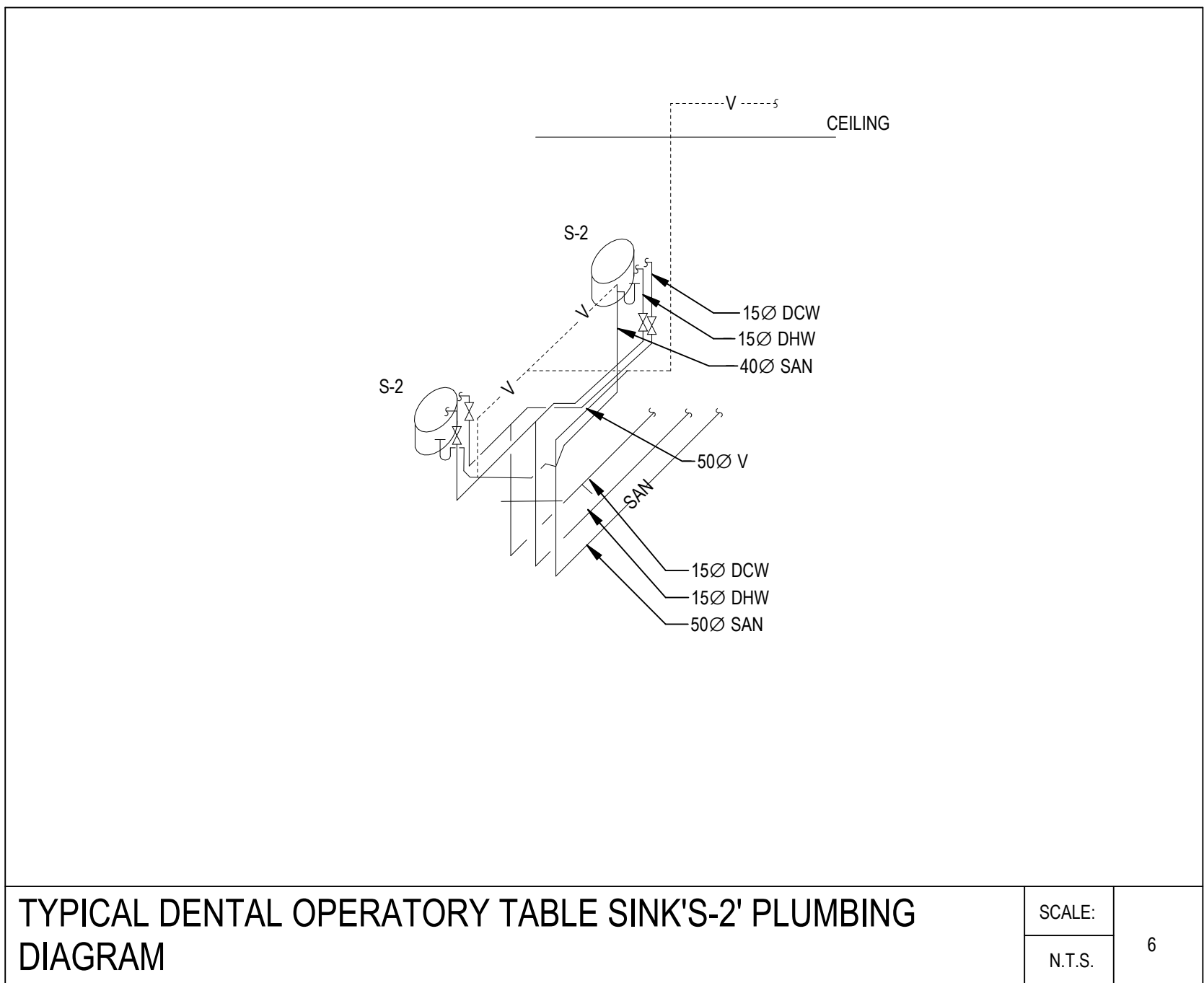
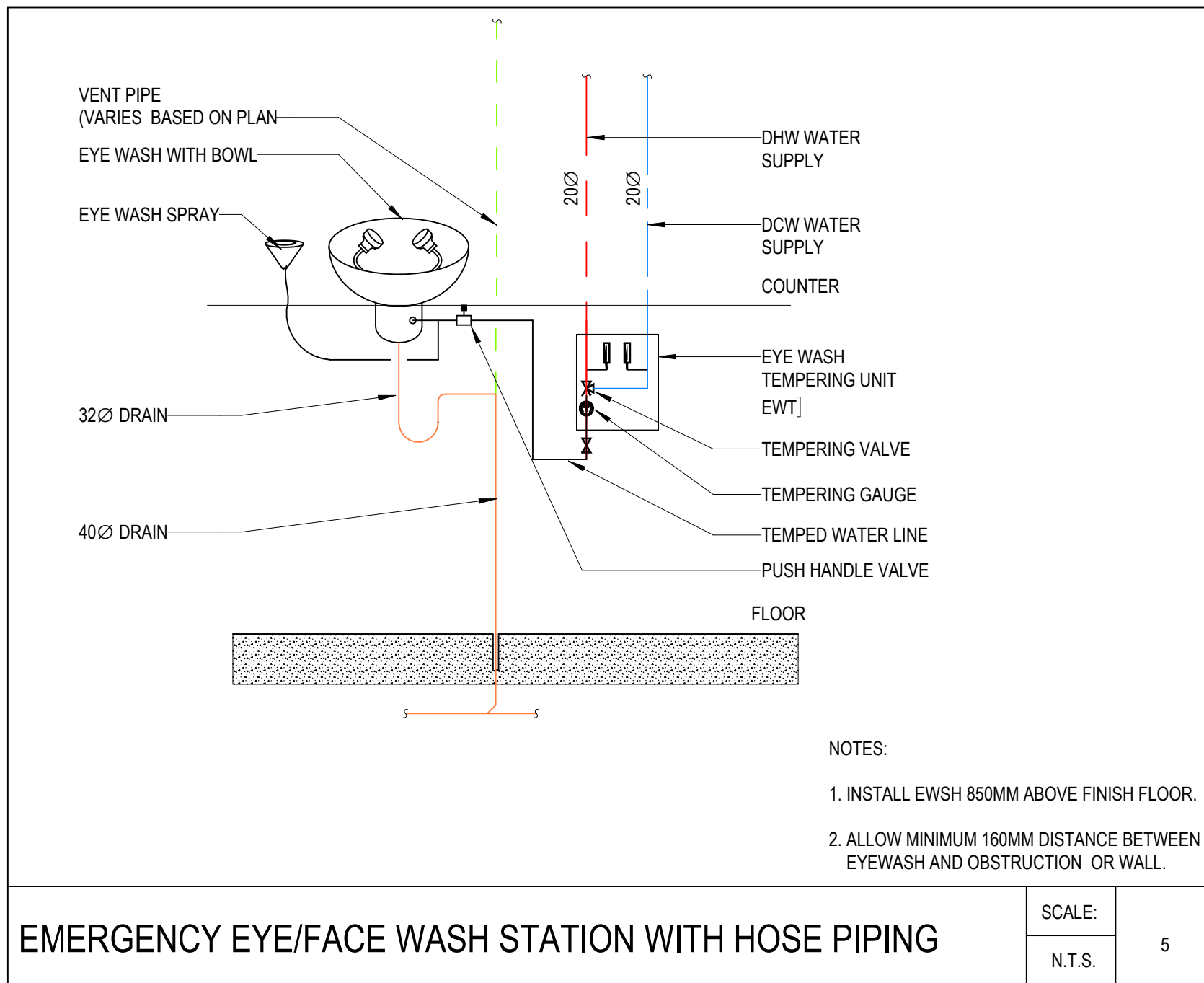
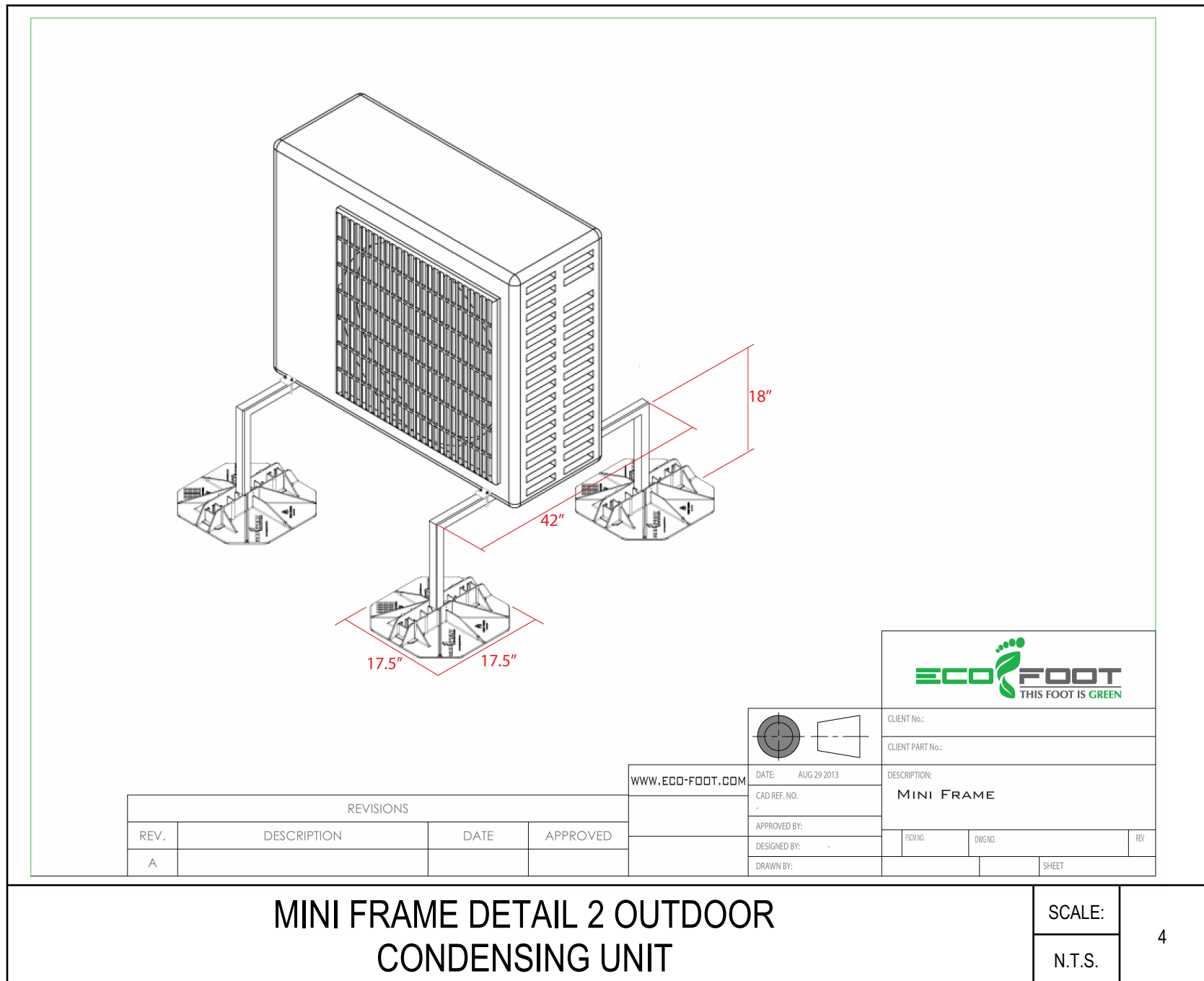
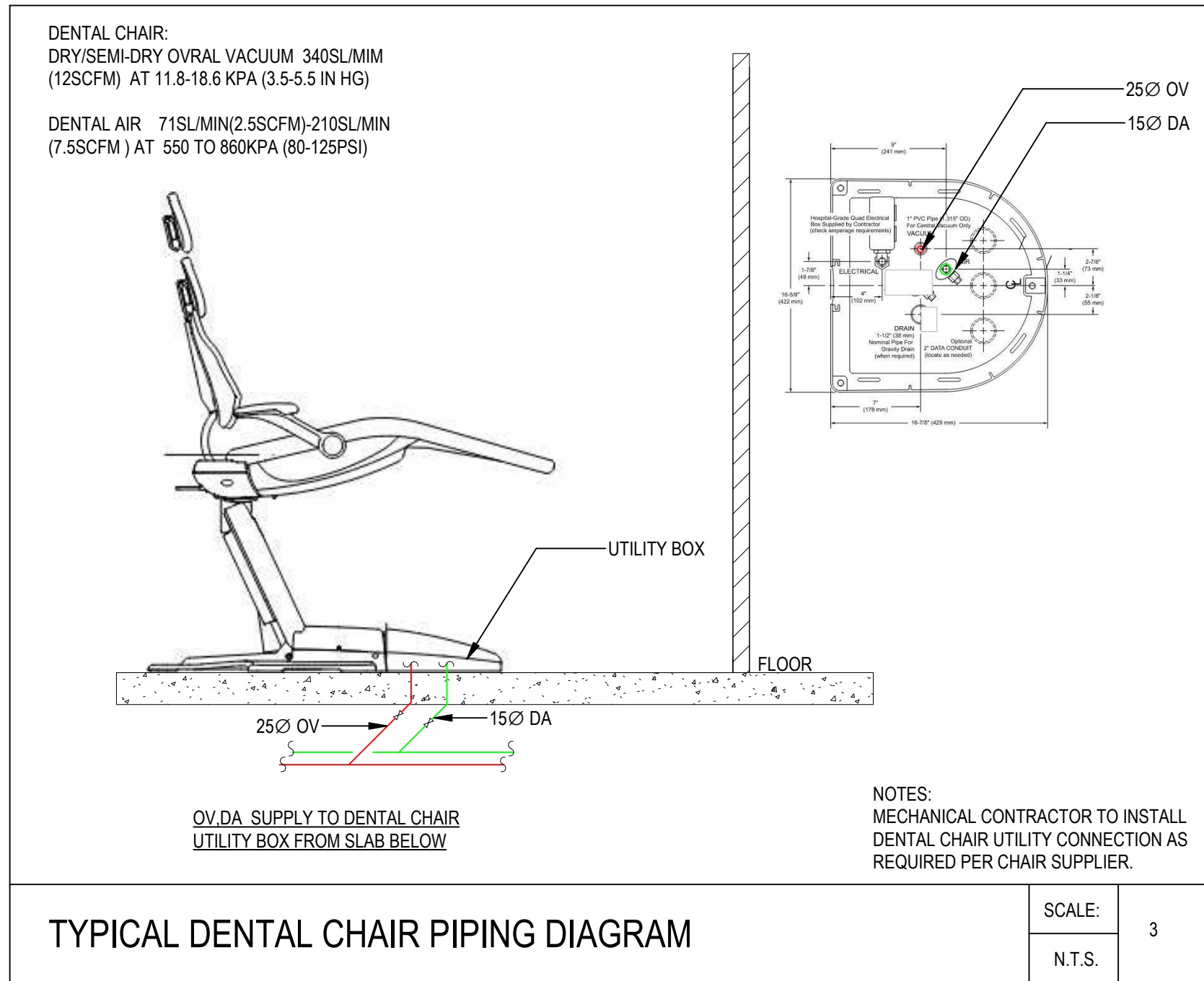
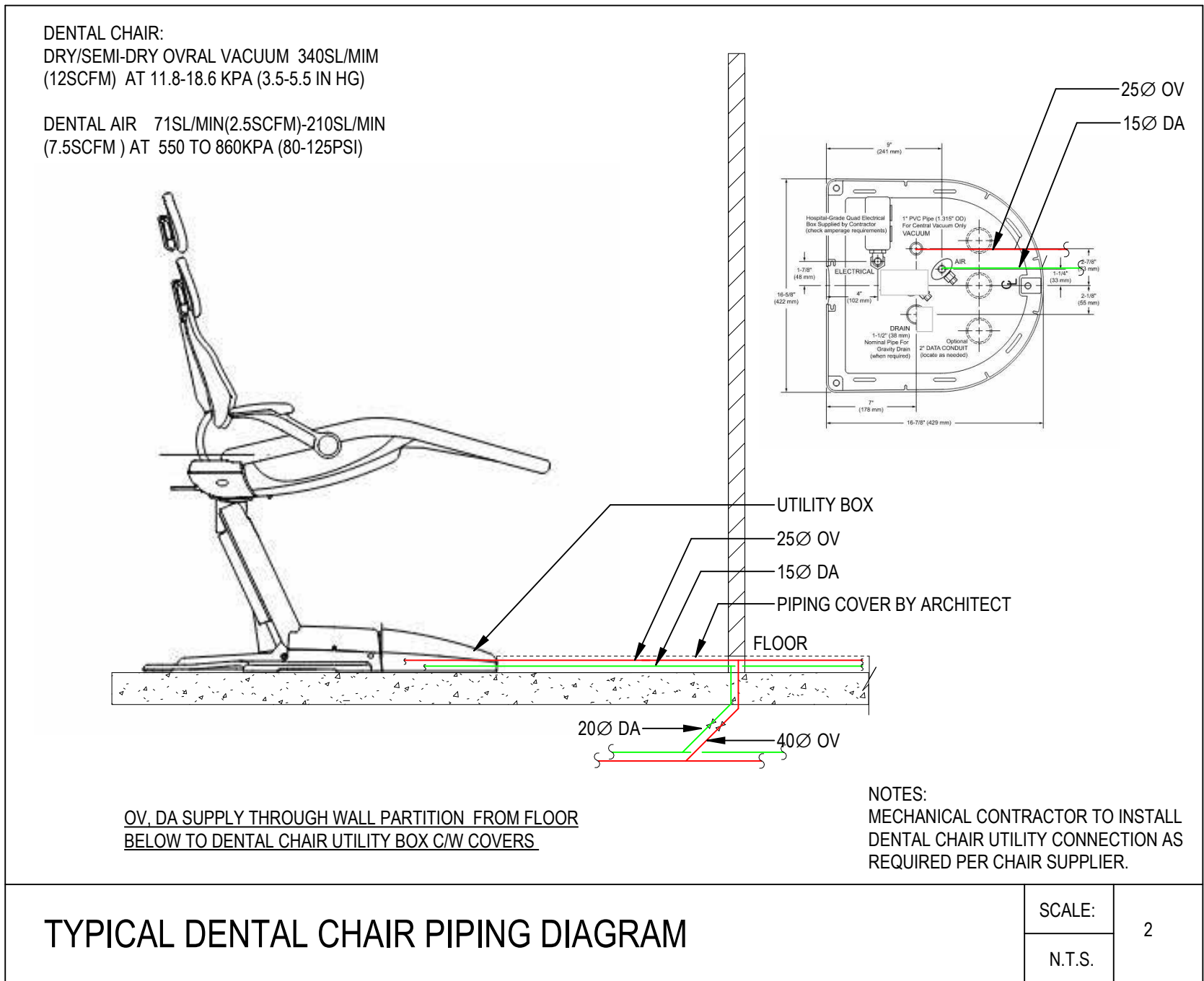
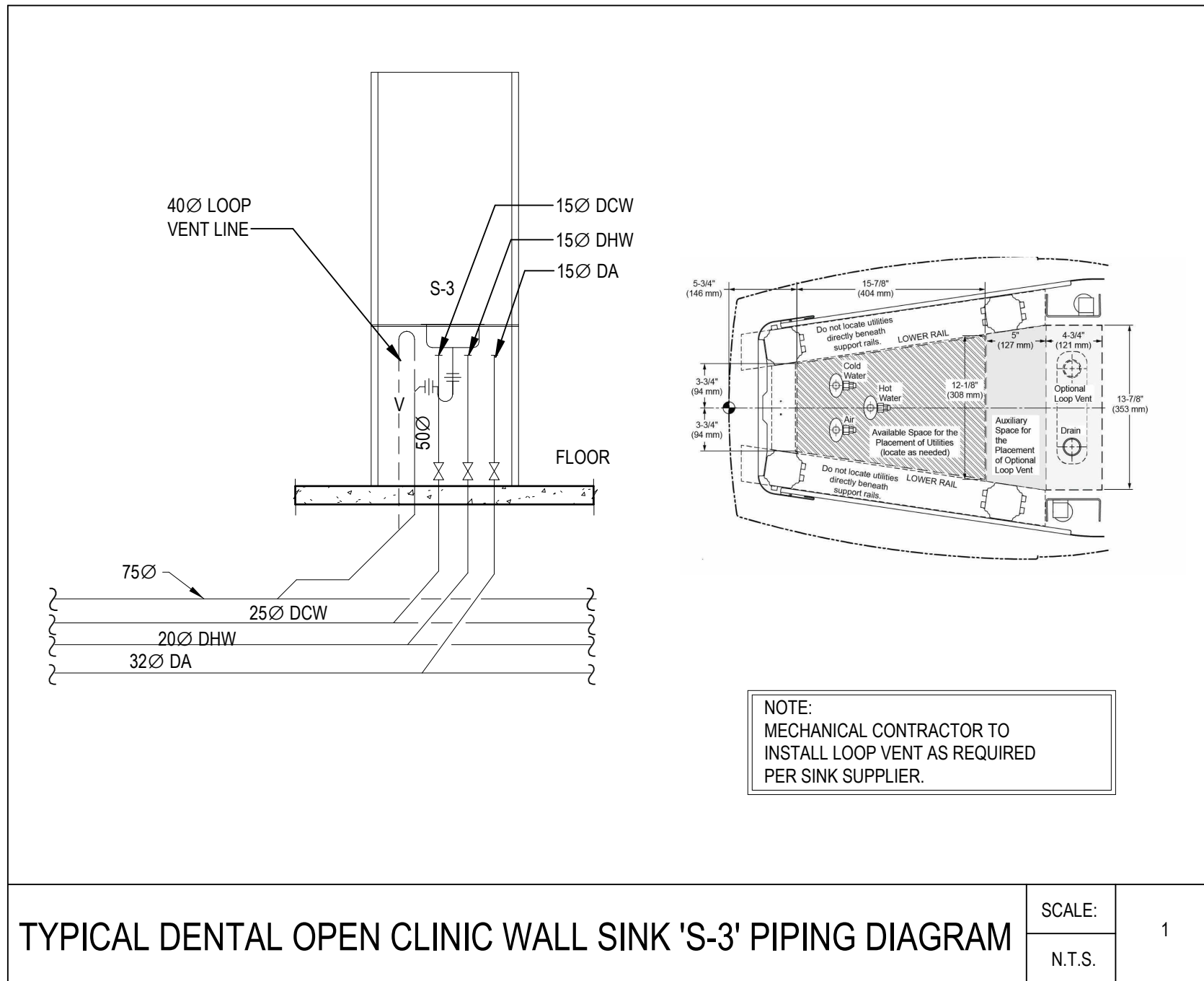
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5	2025-01-09	ISSUED FOR 100% CD	EXP
4	2025-12-19	ISSUED FOR 100% CD DRAFT	EXP
3	2025-12-06	ISSUED FOR PERMIT	EXP
2	2025-11-26	RE-ISSUED FOR FAS REVIEW	EXP
1	2025-05-16	ISSUED FOR RDCD	EXP
#	DATE	REVISION	BY



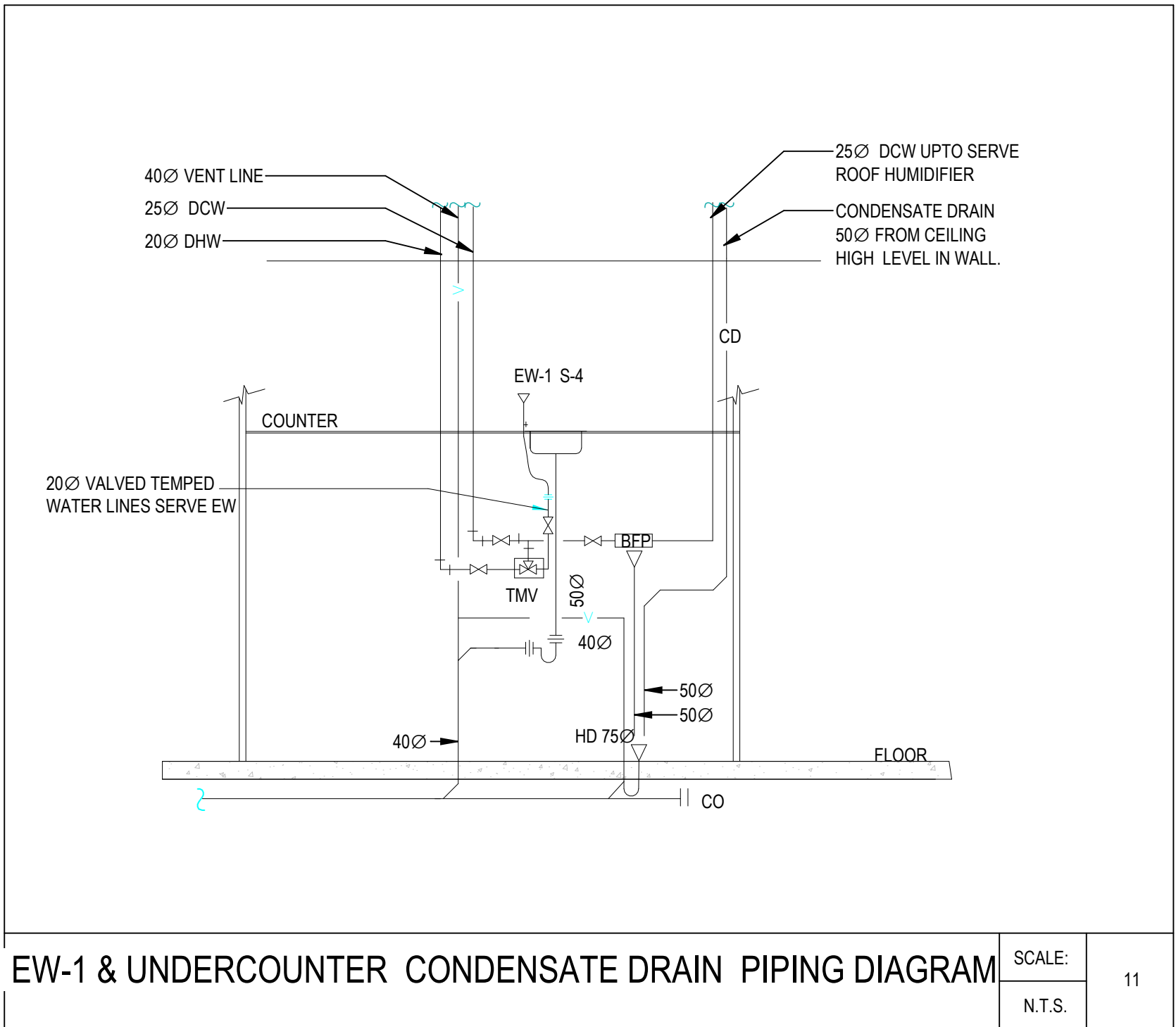
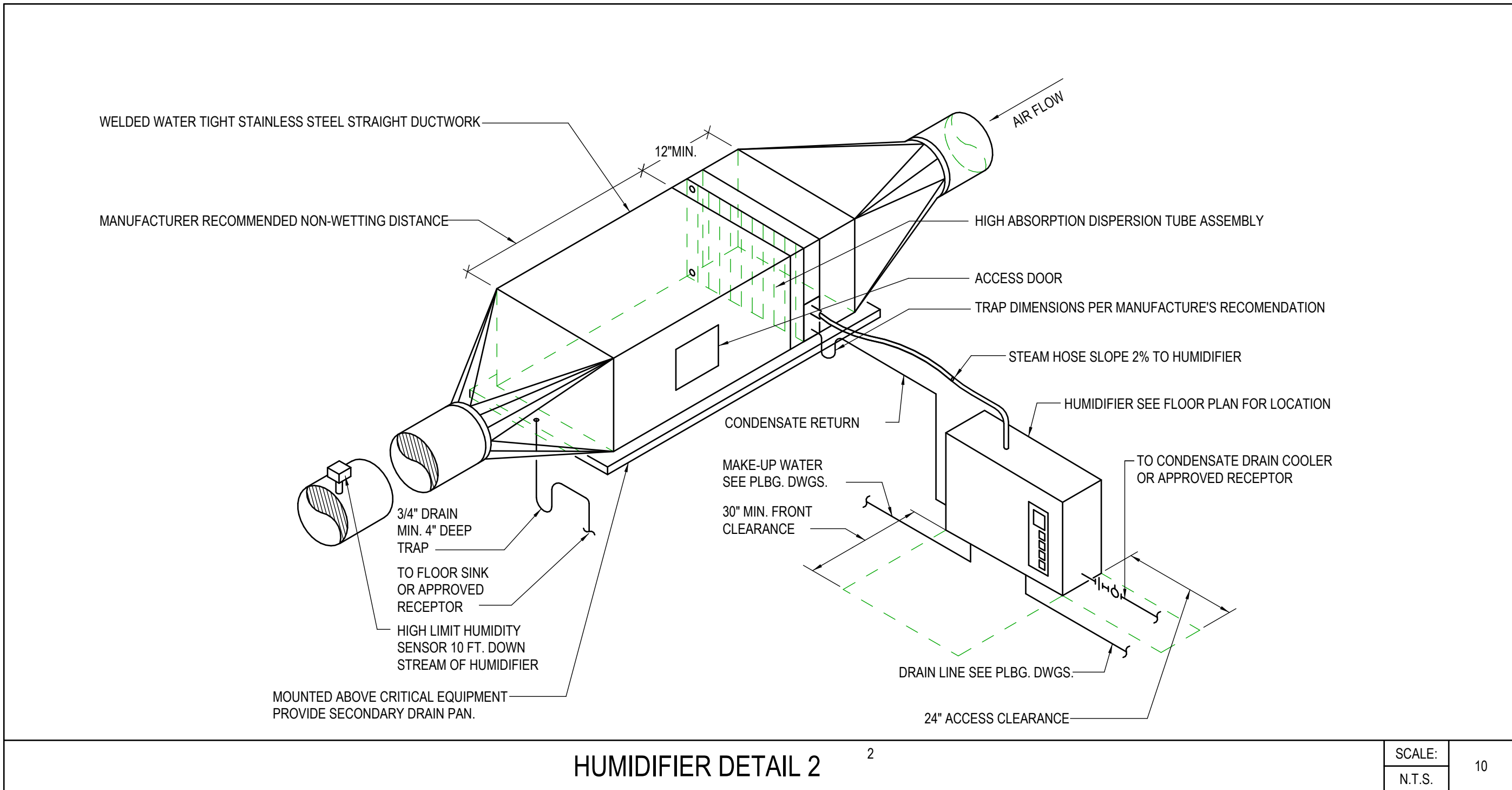
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PIPE CONNECTION					
SYMBOL	ITEM	C.W.	H.W.	DRAIN	VENT
WC	WATER CLOSET (FLUSH TANK)	15"	-	75"	40"
WC	WATER CLOSET (FLUSH VALVE)	25"	-	75"	40"
U	URINAL	20"	-	40"	32"
SH	SHOWER	15"	15"	40"	32"
LAV	LAVATORY	15"	15"	32"	32"
KS	KITCHEN SINK	15"	15"	40"	32"
MS	MOP SINK	15"	15"	75"	40"
DF	DRINKING FOUNTAIN	15"	-	32"	32"
CW	CLOTHES WASHER	15"	15"	40"	50"
DW	DISHWASHER (ROUGH-IN ONLY)	-	15"	40"	32"
HB	HOSE BIBB	15"	-	-	-
NFB	NON-FREEZE HOSE BIBB	20"	-	-	-
EW	EYE WASH	20"	20"	32"	32"
FD	FLOOR DRAIN	PRIMED	-	50"/75"	40"

NOTES: ALL SANITARY VENTING TO BE INSTALLED IN ACCORDANCE WITH LATEST EDITION OF THE OBC. ALL FLOOR DRAINING & HUB DRAINING SHALL BE TRAPPED, VENTED AND PRIMED BELOW FLOOR.

SCALE: 9
N.T.S.



Montgomery Sisam Architects Inc.

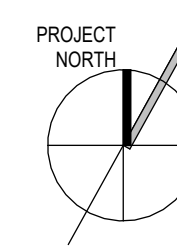
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6 2025-05-29 ISSUED FOR TENDER EXP
5 2025-01-09 ISSUED FOR 100% CD EXP
4 2025-10-19 ISSUED FOR 100% CD DRAFT EXP
3 2025-12-05 ISSUED FOR PERMIT EXP
2 2025-11-26 RE-ISSUED FOR FAS REVIEW EXP
1 2025-05-18 ISSUED FOR BIDDING EXP

DATE: REVISION: BY:

REVISIONS



UNIVERSITY OF TORONTO
DENTISTRY BUILDING
CLINIC 2 RENOVATION
24082

124 EDWARD STREET
TORONTO, ON M5G 1G8

MECHANICAL DETAILS #3

SCALE: As indicated

DRAWN BY: Author

REVIEWED BY: Checker

JOB NUMBER: 24082

PLOT DATE: 02/04/25

DRAWING NUMBER:

M-606

HEAT RECOVERY UNIT SCHEDULE																																												
REFERENCE TAG	MANUFACTURER	MODEL	LOCATION	SUPPLY AIR					EXHAUST AIR					HEAT RECOVERY (HEAT PIPE)		COIL SECTION (COOLING MODE)					COIL SECTION (HEATING MODE)					HUMIDIFICATION (KG/HR)	EMERGENCY POWER (Y/N)	ELECTRICAL			OCTAVE BAND CENTER FREQUENCY (Hz)								WEIGHT (KG)					
				TOTAL AIRFLOW (L/S)	EACH FAN				NO. OF FANS	TOTAL AIRFLOW (L/S)	EACH FAN				NO. OF FANS																SUMMER		WINTER		LOCATION	63	125	250		500	1000	2000	4000	8000
					AIR FLOW (L/S)	T.S.P (PA)	POWER (KW)	RPM			AIR FLOW (L/S)	T.S.P (PA)	POWER (KW)	RPM		E.A.T DB/WB (°C)	L.A.T DB/WB (°C)	E.A.T DB/WB (°C)	L.A.T DB/WB (°C)	COOLING CAPACITY (KW)	E.A.T DB/WB (°C)	L.A.T DB/WB (°C)	WATER FLOW (L/S)	E.W.T / L.W.T. (°C)	HEATING CAPACITY (KW)			E.A.T DB (°C)	L.A.T DB (°C)	WATER FLOW (L/S)	E.W.T / L.W.T. (°C)	VOLTAJE VPH/Hz	FLA	MCA		SA / OUTLET	-	-		-	-	-	-	-
				HRV-2	ANNEAIR	ERU-E-20-SL-HP-D-SL-SS-CA-6-M-T	LEVEL 3 ROOF	9,906	3301.0	1674.0	8.2	2125	3	9,906	3,301	844.00	4.3	1698	3	-	30.9/21.6	-	-5.4/-8.8	314	30.9/21.6			12.8/12.8	12.9	5.6/12.2	445	-5.4	31.1	21.5	48.9/43.3	172.8	N	575/360		53	56	RA / INLET	-	-
<div>NOTES:</div> <div><div>- REFER TO SEPERATE SCHEDULES FOR REMOTE ELECTRICAL HUMIDIFIER.</div><div>- ACUSTICLY LINED FAN SECTIONS AND INTERNAL SILENCERS AT AIR INLET AND EXHAUST AIR OUTLET, E.A. ACUSTICAL LOUVER AND PERFORATED O.A. HOOD.</div><div>- FACE & BYPASS OUTDOOR AIR FOR FROST CONTROL.</div><div>- INTERFACE WITH BAS.</div></div> <div><div>- C/W DVDS FOR SUPPLY FANS & EXHAUST FANS</div><div>- PROVIDE EYE BOLT / SUITABLE FOR RIGGING REQUIRED FOR REMOVAL OF FAN ASSEMBLIES, INCLUDING MOTORS FROM THE UNIT</div><div>- MERV 13 FOR FINAL FILTER.</div><div>- PROVIDE VIBRATION ISOLATOR TYPE C-E (MASON INDUSTRIES) AS RECOMMENDED BY ACOUSTIC ENGINEER</div></div>																																												

DIFFUSER & GRILLE SCHEDULE							
REFERENCE TAG	MANUFACTURER	MODEL	DESCRIPTION	FACE SIZE	NECK SIZE	DAMPER	REMARKS
A1	E.H. PRICE	RCD	ROUND SUPPLY AIR DIFFUSER	AS PER DRAWING	AS PER DRAWING	Y	
A2	E.H. PRICE	SCD	SQUARE SUPPLY AIR DIFFUSER	600(W)x600(H)	ON PLAN	Y	
A3	E.H. PRICE	SCD	RECESSED DIFFUSER (LOW LEVEL SUPPLY AIR)	300(W) x 300(H)	300(W) x 300(H)	N	SURFACE MOUNTED
A4	E.H. PRICE	SCD	RECESSED DIFFUSER (LOW LEVEL SUPPLY AIR)	500(W) x 750(H)	500(W) x 750(H)	N	SURFACE MOUNTED
A5	E.H. PRICE	SDS 100	LINEAR DIFFUSER	1800 LONG	2500	Y	2 SLOT, 25 SLOT WIDTH C/W SDA PLENUM
A6	E.H. PRICE	SDS 100	LINEAR DIFFUSER	1500 LONG	2500	Y	2 SLOT, 25 SLOT WIDTH C/W SDA PLENUM
A7	E.H. PRICE	TBD7	LINEAR DIFFUSER	1220 LONG	2500	Y	4 SLOT, 1 WAY, 6" WIDTH C/W SDA PLENUM
A8	E.H. PRICE	SDS 100	LINEAR DIFFUSER	910 LONG	2500	Y	4 SLOT, 1 WAY, 6" WIDTH C/W SDA PLENUM
B1	E.H. PRICE	10	PERFORATED RETURN GRILLE	AS PER DRAWING	AS PER DRAWING	N	SURFACE MOUNTED
B2	E.H. PRICE	80	EGG CRATE GRILLE	600(W) x 600(H)	611 x 610	N	SURFACE MOUNTED
B3	E.H. PRICE	TBR7	LINEAR RETURN	1220 LONG	-	N	4 SLOT, 1 WAY, 6" WIDTH
C1	E.H. PRICE	80	EGG CRATE EXHAUST GRILLE	300(W)x300(H)	ON PLAN	N	SURFACE MOUNTED
C2	E.H. PRICE	80	EGG CRATE EXHAUST GRILLE (LOW LEVEL EXHAUST AIR)	300(W)x300(H)	ON PLAN	N	SURFACE MOUNTED
C3	E.H. PRICE	80	EGG CRATE EXHAUST GRILLE (LOW LEVEL EXHAUST AIR)	500(W)x750(H)	500(W) x 750(H)	N	SURFACE MOUNTED
NOTES: 1. GRILLE / DIFFUSER AND LOUVER TO BE PAINTED AS PER ARCHITECTURAL REQUIREMENT. FINISH TO BE CLARIFIED PRIOR TO ORDERING 2. PROVIDE VOLUME DAMPER FOR RETURN GRILLE DUCTED BACK TO THE UNIT.							

VAV BOXES SCHEDULE														
TAG	AREA SERVED	MODEL	UNIT SIZE	MIN. AIRFLOW (LS)	AIRFLOW (LS)	DIFFERENTIAL PD (Pa)	ELECTRICAL REHEAT COIL CAPACITY (KW)	EAT (°C)	LAT (°C)	COIL AMPS	VOLTAGE	MAX DIS NC	MAX RAD NC	REMARKS
VAV-1	CLINIC (LOW LEVEL SUPPLY)	SDV	16	272	945	2.5	6.10	29.40	35.00	16.93	208/160	--	--	
VAV-2	CLINIC (LOW LEVEL SUPPLY)	SDV	16	272	945	2.5	6.10	29.40	35.00	16.93	208/160	--	--	
VAV-3	CLINIC (LOW LEVEL SUPPLY)	SDV	16	272	945	2.5	6.10	29.40	35.00	16.93	208/160	--	--	
VAV-4	CLINIC (LOW LEVEL SUPPLY)	SDV	16	272	945	2.5	6.10	29.40	35.00	16.93	208/160	--	--	
VAV-5	CLINIC (LINEAR DIFFUSERS)	SDV	14	203	700	2.5	4.50	29.40	35.00	12.49	208/160	--	--	
VAV-6	CLINIC (LINEAR DIFFUSERS)	SDV	12	142	600	2.5	3.90	29.40	35.00	18.75	208/160	--	--	
VAV-7	CLINIC (LINEAR DIFFUSERS)	SDV	12	142	600	2.5	3.90	29.40	35.00	18.75	208/160	--	--	
VAV-8	CLINIC (HIGH LEVEL SUPPLY)	SDV	16	272	945	2.5	6.10	29.40	30.00	16.93	208/160	--	--	
VAV-9	CLINIC (HIGH LEVEL SUPPLY)	SDV	12	142	472	2.5	3.00	29.40	35.00	14.42	208/160	--	--	
VAV-10	CLINIC (HIGH LEVEL SUPPLY)	SDV	12	142	472	2.5	3.00	29.40	35.00	14.42	208/160	--	--	
VAV-11	ADDA ROOM	SDV	4	31	56	2.5	0.50	29.40	35.00	2.40	208/160	--	--	
VAV-12	CLEAN DISPENSARY ROOMS	SDV	8	89	283	2.5	1.50	29.40	35.00	7.21	208/160	--	--	
VAV-13	ADDA OP ROOMS	SDV	10	99	368	2.5	2.40	29.40	35.00	11.54	208/160	--	--	
VAV-14	ADDA OP ROOMS	SDV	10	126	419	2.5	2.20	29.40	35.00	10.68	208/160	--	--	
VAV-15	HALLWAY	SDV	10	99	444	2.5	3.00	29.40	35.00	14.42	208/160	--	--	
VAV-16	WAITING AREA	SDV	10	99	444	2.5	3.00	29.40	35.00	14.42	208/160	--	--	
VAV-17	ADDA OP ROOMS	SDV	8	99	235	2.5	1.50	29.40	35.00	7.21	208/160	--	--	
VAV-18	CORRIDOR	SDV	6	62	112	2.5	0.50	29.40	35.00	2.40	208/160	--	--	
VAV-19	DIRTY DISPENSARY ROOMS	SDV	8	99	189	2.5	1.50	29.40	35.00	7.21	208/160	--	--	
VAV-20	SEMINAR ROOMS	SDV	14	243	811	2.5	4.50	29.40	35.00	12.49	208/160	--	--	
VAV-21	LAB	SDV	8	35	95	2.5	1.00	29.40	35.00	5.50	208/160	--	--	
VAV-22	CLINIC 2	SDV	10	108	361	2.5	2.20	29.40	35.00	10.68	208/160	--	--	
Notes: - DASHES (-) INDICATE NO VALUES LESS THAN 20 - NO VALUES ARE CALCULATED BASED ON PROCEDURES OUTLINED IN AHRI STANDARD 885-2008. *A PROCEDURE FOR ESTIMATING OCCUPIED SPACE SOUNE LEVELS IN THE APPLICATION OF AIR TERMINALS AND AIR OUTLETS. * - SOUND POWER LEVELS ARE GIVEN IN DECIBELS (dB) - DASHES (-) INDICATE SOUND POWER LEVELS BELOW 36.25-26.22-19.17 FOR EACH OCTAVE BAND. VALUES BELOW THESE SOUND POWER LEVELS ARE CONSIDERED BELOW SIGNIFICANCE PER AHRI 880. - MINIMUM OPERATING PRESSURE IS THE MINIMUM STATIC PRESSURE REQUIRED TO OPERATE THE TERMINAL ITEM ASSEMBLY AT A MAXIMUM PRIMARY FLOW WITH A WIDE OPEN DAMPER - NO VALUES ARE DERIVED FROM SOUND POWER LEVELS OBTAINED IN ACCORDANCE WITH ASHRAE STANDARD 130-2016 AND AHRI STANDARD 880-2017, WHICH INCLUDE DUCT END REFLECTION CORRECTIONS - C.W.T ATTENUATOR - CONTROLLERS, TEMPERATURE SENSORS ETC. SHALL COMPLY WITH UOT BAS DESIGN - BAS CONTROL FOR ELECTRICAL REHEAT COIL - INTERFACE WITH BAS.														

FAN SCHEDULE														
EQUIPMENT TAG	MANUFACTURER / MODEL	TYPE	AREA SERVED	LOCATION	AIR FLOW (L/S)	E.S.P. (PA)	FAN SPEED (RPM)	ELECTRICAL				EMERGENCY POWER (Y/N)	WEIGHT (KG)	REMARKS
								VOLTAGE (V/PH/HZ)	POWER (KW)	FLA (A)	MOTOR (KW)			
EF-1	PENN BARRY / Z10S-INLINE-SC	IN-LINE EXHAUST FAN	DARTY DISPENSARY ROOM	CEILING	236	62	1007	115/160	0.04	2.5	0.25	N	10	1, 2, 3, 4.
1. PROVIDE DIRECT DRIVE WITH EC MOTOR. 2. PROVIDE SPRING ISOLATORS AND BACKDRAFT DAMPER FOR ALL FANS. 3. INTERLOCK WITH AIR INTAKE (VAVS). 4. C/W 50MM MERV-8 PLEATED FILTER AND FILTER BOX.*														

PLUMBING FIXTURE SCHEDULE												
TAG	TYPE	LOCATION	MANUFACTURER	MODEL	TRIM AND ACCESSORIES							
					FAUCET/VALVE	FIXTURE DRAIN AND P-TRAP	VALVES AND SUPPLIES	CARRIER	SEAT	MISC	NOTES	
LAV-2	UNIVERSAL ACCESS COUNTERTOP BARRIER FREE SINK	PUBLIC WASHROOM	AMERICAN STANDARD	MEZZO SEMI-COUNTERTOP SINK 9960.403	AMERICAN STANDARD MONTERREY 5500.0175	OS&B 3737 STRAINER DRAIN LESS OVERFLOW MCGUIRE 155WC FIXTURE DRAIN	MIXING VALVE LAWLER 570-86820 SUPPLY MCGUIRE LFBV170	-	-	-		
WC-1	AFWALL MILLENNIUM FLOWISE TOILET WALL HUNG , FLUSH VALVE TYPE,	PUBLIC WASHROOM	AMERICAN STANDARD	AFWALL MILLENNIUM FLOWISE 3552.101	SLOAN 111 ESS-1.28-YG-OR-HW	MCGUIRE	SUPPLY MCGUIRE LFH166LK	WATTS ISCA-101-LJR	CENTOCO SLOW CLOSE FRONT SEAT 8205TSS-001 WITH COVER	24VAC POWER KIT SL-EL-154	-	
WC-2	RIGHT WIDTH FLOWISE TOILET FLOOR MOUNTED , FLUSH VALVE TYPE,	PUBLIC WASHROOM	AMERICAN STANDARD	RIGHT WIDTH FLOWISE 3641001.020	SLOAN 111 ESS-1.28-YG-OR-HW	MCGUIRE	SUPPLY MCGUIRE LFH166LK	-	CENTOCO SLOW CLOSE FRONT SEAT 8205TSS-001 WITH COVER	24VAC POWER KIT SL-EL-154	-	
S-1	STAINLESS STEEL UNDER COUNTER MOUNTED SINK	PHARMACY LAB	ELKAY	ELKAY ELUH2115	ZURN ZB31B3-XL	MCGUIREPW2150WC	MIXING VALVE LAWLER 570-86820 SUPPLY MCGUIRE LFCCK165LK	-	-	-		
S-2	COUNTER MOUNTED	DENTAL OPERATORY	ADEC	ADEC 592	ADEC	MCGUIRE 155WC MCGUIRE 8872CB	MIXING VALVE LAWLER 570-86820 SUPPLY MCGUIRE LFCCK165LK	ADEC	-	-	OWNER PROVIDE COMBINED UNIT SINK AND FAUCET. VALVES AND ALL RELATED TRIM PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR	
S-3	T-WALL SINK	DENTAL CHAIROPEN SPACE	ADEC	ADEC 593	ADEC	MCGUIRE 155WC MCGUIRE 8872CB	MIXING VALVE LAWLER 570-86820 SUPPLY MCGUIRE LFCCK165LK	ADEC	LOOP VENT BY ADEC	-	OWNER PROVIDE COMBINED UNIT SINK AND FAUCET. VALVES AND ALL RELATED TRIM PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR	
S-4	COUNTER MOUNTED SINK FOR EYE WASH SPRAY	DENTAL CLINIC	ELKAY	ELKAY LUSTERTONE LR1918	NO FAUCET	MCGUIREPW2150WC	-	-	-	ONE HOLE TO SUIT EYE WASH SPRAY		
EW-1	COUNTER MOUNTED EYE WASH SPRAY	DENTAL CLINIC	HAWS	HAWS 8904	-	-	MIXING VALVE AXION 9201EW, SUPPLY MCGUIRE LFBV169	-	-	-		
EW-2	SINK MOUNTED	PHARMACY LAB	HAWS	HAWS 7610S	-	-	MIXING VALVE AXION 9201EW, SUPPLY MCGUIRE LFBV170	-	-	-		
FD-1	FLOOR DRAIN	PUBLIC WASHROOM , UNIVERSAL , CLEAN UTILITY	WATTS	WATTS FD-100-C-FC9-1	-	-	100MM DRAIN	-	-	-		
HD-1	HUB DRAIN	AS INDICATED	WATTS	FD-100-C-F	-	-	75/50MM DRAIN	-	-	-		
TSP	ELECTRIC TRAP SEAL PRIMER	AS INDICATED	PPP	PT-4 TO PT-2130	-	-	-	-	-	-	TSP SERVICES FRFROM 4 TRAPS UP TO 30 TRAPS. FINAL MODEL SHOULD BASED ON SERVICES TRAP NUMBER	
NOTES: 1. COLOUR OF ALL FIXTURES (EXCEPT STAINLESS STEEL) & WATER CLOSET SEATS SHOULD BE WHITE OR PER ARCHOTECT REQUIREMENT. 2. QUANTITY OF FIXTURES AS INDICATED IN THE DRAWINGS 3. FIXTURES IN DENTAL OPERATORY SERVRY AREAS ARE SUPPLIED BY DENTAL CHAIR MANUFACTURATOR.												

SILENCER SCHEDULE (PRICE INDUSTRIES)																		
REFERENCE TAG	SYSTEM	DIMENSIONS (mm)			AIR FLOW (L/S)	VELOCITY (M/S)	PD (Pa)	P.D./W SE (Pa)	DYNAMIC INSERTION LOSS								MODEL NO.	REMARKS
		WIDTH OR DIA.	HEIGHT	LENGTH					OCTAVE BAND CENTER FREQUENCY, HZ									
									63	125	250	500	1000	2000	4000	8000		
SL-HRV-S	AIR VENTILATION SYSTEM	1500	1250	2700	9435	4	35	63	11	18	26	28	29	17	12	9	750 KCRS-F-TF/3	
SL-HRV-E	AIR VENTILATION SYSTEM	1500	1250	1500	9435	-4	50	60	3	10	23	26	29	25	16	9	375 KCRS-F-TF/2	
NOTES: - VELOCITY SHOWN IS + (FORWARD FLOW) OR - (REVERSE FLOW) AS DEFINED BY ASTM E477-13 - PRESSURE DROP, DYNAMIC INSERTION LOSS AND SELF GENERATED NOISE PER ASTM E477-13 - MAXIMUM PRESSURE DROP WITH SYSTEM EFFECTS = SILENCER PRESSURE DROP PER ASTM E477-13 + SYSTEM EFFECTS FOR NEARBY DUCT ELEMENTS																		

ELECTRICAL HUMIDIFIER SCHEDULE											
REFERENCE TAG	AREA SERVED	LOCATION	MANUFACTURER	MODEL NO.	MODULE	STEAM CAPACITY (KG/HR)	ELECTRICAL DATA		EMERGENCY POWER (Y/N)	WEIGHT (KG)	REMARKS
							VOLTAGE V/Hz/PH	POWER (KW)			
HU-2A	CLINIC 2	3RD FLOOR ROOF	STEAMOVAP	IER 88	1	118	575/60/3	86.6	N	222	
HU-2B	CLINIC 2	3RD FLOOR ROOF	STEAMOVAP	IER 44	1	59	575/60/3	43.3	N	107	
NOTES:											
1. FULLY MODULATING HUMIDIFIER. 2. DRAIN AUTOMATICALLY COOLED DOWN AT 60°C. 3. INTERFACE WITH BAS. 4. STEAM DISTRIBUTION TUBE WILL DELIVERY LOOSE AND INSTALL ON SITE. 5. EQUIPMENT INSTALLED ON ROOF CURB WHICH PROVIDED BY SUPPLIER.											