

GENERAL NOTES:

1. A SITE INVESTIGATION SHALL BE CARRIED OUT BY THE CONTRACTOR TO VERIFY ALL EXISTING SERVICES PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCY BETWEEN THE EXISTING CONDITION AND THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE ENGINEER.
2. INSPECT BY CAMERA THE EXISTING UNDERGROUND SANITARY PIPING WITHIN THE AREA OF WORK. THE INSPECTION SHALL VERIFY ROUTING, CONDITION, AND INVERTS.
3. THE CONTRACTOR SHALL SCAN THE FLOOR SLAB AND WALLS USING APPROVED METHODS TO CONFIRM THE LOCATION OF EMBEDDED SERVICES AND AVOID DAMAGE FROM CUTTING, CORING AND DEMOLITION.
4. DISCONNECTED AND REMOVED ALL REDUNDANT SERVICES INCLUDING PIPING, DUCTWORK, FIXTURES, AND EQUIPMENT FROM THE WORK AREA. REDUNDANT ABOVEGROUND SERVICES SHALL BE REMOVED BACK TO THE POINT OF ORIGIN AND CAPPED. ABOVEGROUND SERVICES MAY BE CUT AND CAPPED WITHIN WALLS, WHERE WALLS ARE SCHEDULED TO REMAIN. UNDERGROUND SERVICES MAY BE CUT AND CAPPED FLUSH WITH THE FLOOR.
5. ALL REDUNDANT SERVICE THAT AFFECT THE INSTALLATION OF NEW SERVICES SHALL BE REMOVED BY THIS CONTRACTOR.
6. EXISTING VENT PIPING SHALL BE RETAINED AND REUSED WHERE APPLICABLE. REMOVED ALL VENT PIPING NO LONGER IN USE.
7. NEW PLUMBING VENTS SHALL BE ROUTED THROUGH THE ROOF, OR TIED INTO EXISTING VENT STACKS WHERE POSSIBLE.
8. ALL FLOOR DRAINS SHALL BE COVERED AND PROTECTED THROUGHOUT THE DURATION OF CONSTRUCTION TO PREVENT DEBRIS AND CONSTRUCTION MATERIALS FROM ENTERING THE SANITARY SYSTEM.
9. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES TO ENSURE NO INTERFERENCES BETWEEN MECHANICAL INSTALLATIONS AND ARCHITECTURAL, STRUCTURAL, OR ELECTRICAL COMPONENTS.
10. INTERFERENCE DRAWINGS SHALL BE PREPARED AND COORDINATED WITH ALL TRADES FOR ALL SERVICES. FINAL ROUTING AND ELEVATION OF SERVICES ARE THE CONTRACTORS RESPONSIBILITY AND SHALL REFLECT A COORDINATED DESIGN INTENT.
11. CEILING HEIGHTS SHALL BE VERIFIED AGAINST ARCHITECTURAL DRAWINGS AND COORDINATED WITH THE GENERAL CONTRACTOR. ALL NEW SERVICES SHALL BE INSTALLED WITHIN THE AVAILABLE CEILING SPACE, WITHIN JOIST CAVITIES AND BETWEEN LIGHTING FIXTURES.
12. NEW AND EXISTING DOMESTIC WATER PIPING SHALL BE INSULATED AND LABELED.
13. ALL MECHANICAL WORK AFFECTING EXISTING BUILDING SYSTEMS SHALL BE SCHEDULED TO MINIMIZE DISRUPTION TO OCCUPANTS AND COORDINATED WITH THE BUILDING OPERATOR.
14. ALL PENETRATIONS THROUGH RATED ASSEMBLIES SHALL BE SEALED WITH APPROVED FIRESTOPPING SYSTEMS IN ACCORDANCE WITH CODE AND FIRE-RESISTANCE RATING REQUIREMENTS.
15. THE CONTRACTOR SHALL FLUSH AND PERFORM A POST-INSTALLATION CAMERA INSPECTION OF THE UNDERGROUND SANITARY SYSTEM PRIOR TO SUBSTANTIAL COMPLETION. THE INSPECTION SHALL INCLUDE ALL NEW AND MODIFIED PIPING UP TO THE POINT OF CONNECTION TO THE BASE BUILDING MAIN. SUBMIT BOTH VIDEO AND WRITTEN REPORT.
16. LABEL THE CEILING GRID TO IDENTIFY ALL MECHANICAL EQUIPMENT AND ACCESS POINTS USING ENGRAVED LAMACORD NAMEPLATES.
17. PROVIDE SUPPLY ACCESS DOORS FOR ALL MECHANICAL DEVICES LOCATED BEHIND GYPSUM WALLS OR ABOVE DRYWALL CEILINGS. DOORS SHALL BE HANDED OVER TO THE GENERAL CONTRACTOR FOR INSTALLATION.
18. THE CONTRACTOR SHALL ENSURE THAT ALL MECHANICAL SYSTEMS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS, CODES, AND ACCEPTABLE INDUSTRY PRACTICE.
19. COORDINATE WITH THE ELECTRICAL CONTRACTOR TO SUPPLY BACK BOXES, CONDUIT, AND PULL STRINGS FOR NEW WALL-MOUNTED EXHAUST FAN CONTROLS.

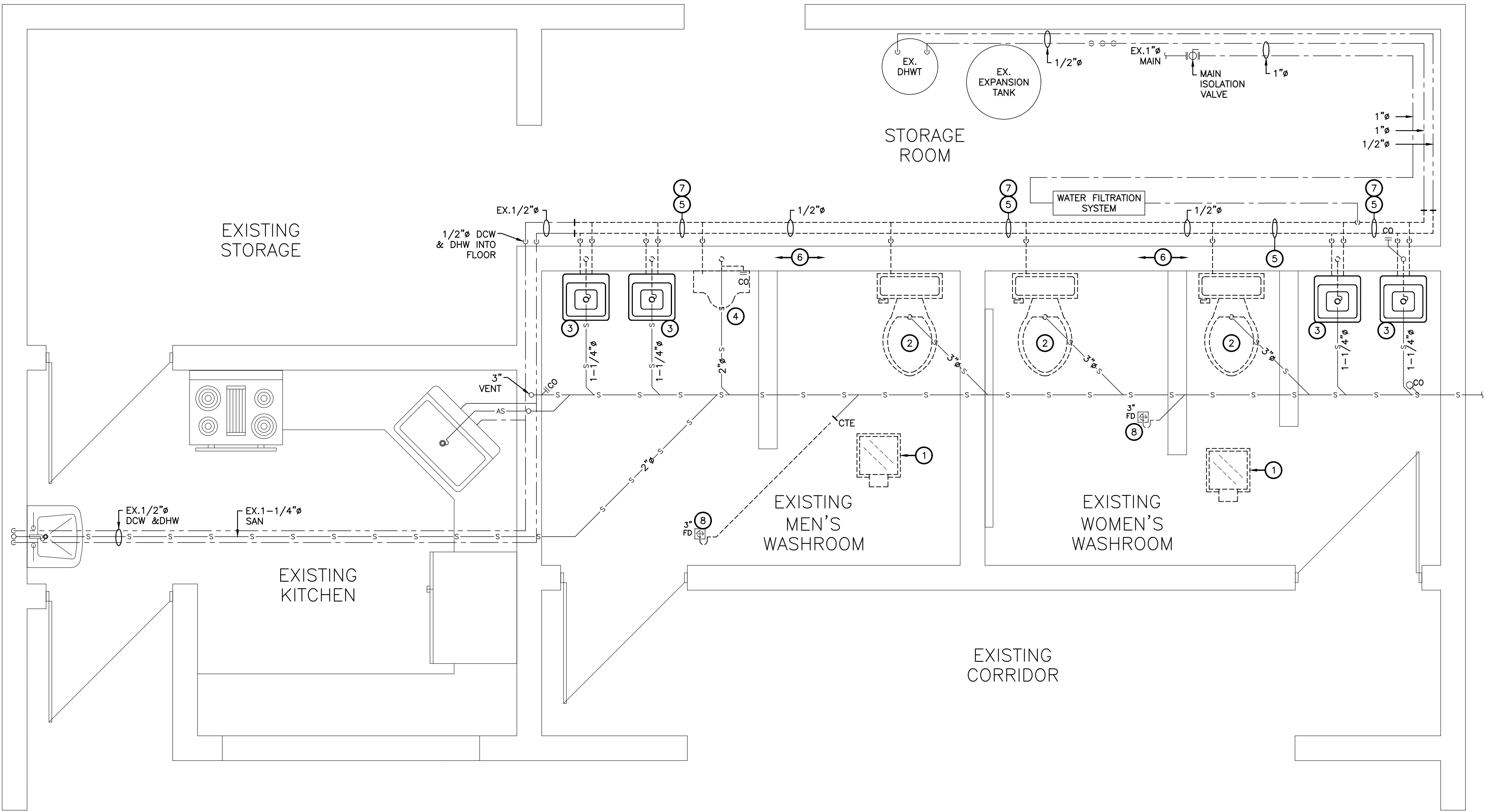
DEMOLITION PLUMBING & HVAC -- WORKING NOTES:

1. REMOVE EXISTING CEILING MOUNTED EXHAUST FAN C/W DUCTWORK, HANGERS, SUPPORTS AND CONTROL WIRING. LINE VOLTAGE WIRE DEMOLITION BY THE ELECTRICAL CONTRACTOR.
2. REMOVE EXISTING WATER CLOSET C/W TOILET FLANGE, PIPING AND ISOLATION VALVES.
3. REMOVE EXISTING LAVATORY C/W FIXTURE CARRIER, PIPING AND ISOLATION VALVES.
4. REMOVE EXISTING URINAL C/W FIXTURE CARRIER, PIPING AND ISOLATION VALVE.
5. REMOVE EXISTING DOMESTIC HOT AND COLD WATER PIPING SERVING PLUMBING FIXTURES ALONG STORAGE ROOM WALL.
6. CAP REDUNDANT SANITARY & VENT PIPING WITHIN WALLS WHERE PIPING WILL NOT BE REUSED FOR NEW PLUMBING FIXTURES.
7. REFER TO SCHEMATIC FOR DOMESTIC WATER DEMOLITION AND NEW SCOPE OF WORK.
8. REMOVE EXISTING FLOOR DRAIN C/W PIPING TO SUIT LOCATION OF NEW FLOOR DRAIN.

NEW PLUMBING & HVAC -- WORKING NOTES:

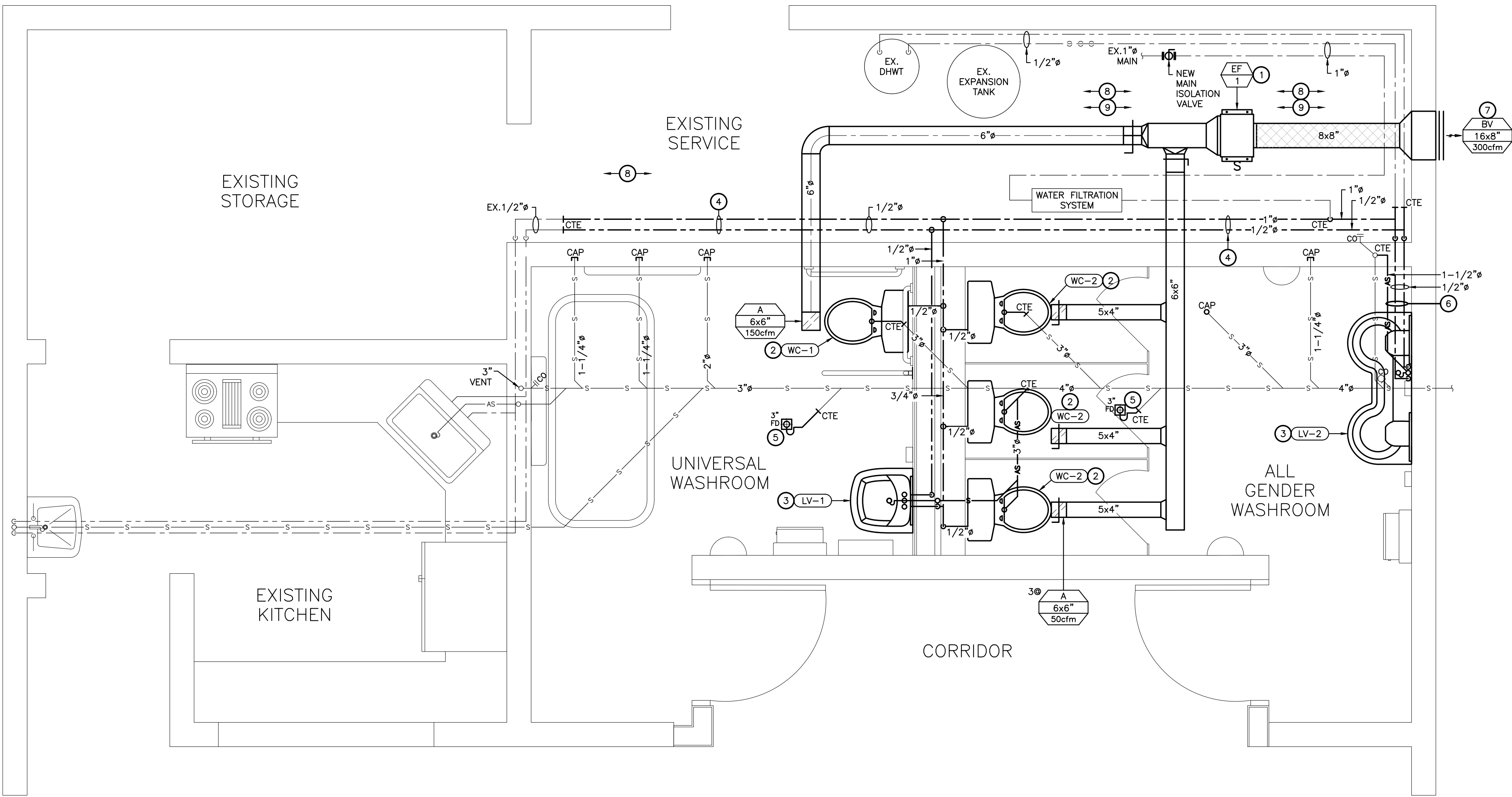
1. PROVIDE NEW INLINE EXHAUST FAN C/W DUCTWORK, HANGERS, SUPPORTS AND UNIT MOUNTED ISOLATION SWITCH. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR. EXHAUST FAN SHALL OPERATE WITH BOTH WASHROOM OCCUPANCY SENSORS/LIGHT SWITCHES.
2. PROVIDE NEW WATER CLOSET C/W NEW FLANGE, 1/2" DCW PIPING, FLEXIBLE CONNECTION AND ISOLATION VALVE.
3. PROVIDE NEW LAVATORY C/W 1/2" DCW & DHW PIPING, THERMOSTATIC MIXING VALVE, FIXTURE CARRIER AND ISOLATION VALVES.
4. PROVIDE NEW DOMESTIC HOT AND COLD WATER PIPING ALONG STORAGE ROOM WALL TO SERVE NEW FIXTURES. SIZES AS PER DRAWING.
5. PROVIDE NEW FLOOR DRAIN AND CONNECT TO EXISTING TRAP PRIMER LINES.
6. PROVIDE 1/2" DCW & DHW AND 1-1/2" SANITARY PIPING WITHIN FURRED CONSTRUCTION TO SERVE NEW BRADLEY FOUNTAIN. SANITARY PIPING SHALL CONNECT TO EXISTING RISER IN BLOCK WALL. CUT AND PATCH BLOCK WALL AS REQUIRED TO MAKE NEW CONNECTION.
7. PROVIDE 16x8" WALL BOX C/W LOUVER FOR EXHAUST AIR TERMINATION C/W THERMAL INSULATION 6 FEET BACK FROM THE EXTERIOR WALL. REFER TO DETAIL.
8. ALLOW FOR NEW PIPE INSULATION AND JACKET ON ALL NEW AND EXISTING DOMESTIC WATER PIPING WITHIN STORAGE ROOM.
9. ALLOW FOR BALL VALVE REPLACEMENT THROUGHOUT STORAGE ROOM. ALLOW FOR FOUR(4) 3/4" AND ONE(1) 1" BALL VALVE C/W PIPING AND COUPLINGS ON EITHER SIZE OF VALVE WHERE PIPE CONDITION DOES NOT ALLOW FOR NEW VALVE.

TYPICAL PLUMBING PIPE SIZING				
	DCW	DHW	SANITARY	VENT
WC (TANK TYPE)	1/2"	--	3"	1-1/2"
LAVATORY	1/2"	1/2"	1-1/4"	1-1/4"
BRADLEY SINK	1/2"	1/2"	1-1/2"	1-1/4"
3" FD	--	--	3"	1-1/2"
PROVIDE ISOLATION VALVES AT ALL FIXTURES				



DEMOLITION PLUMBING & HVAC LAYOUT

SCALE: 1/2" = 1'



NEW PLUMBING & HVAC LAYOUT

SCALE: 1/2" = 1'

CLIENT:
CENTRAL LAKE ONTARIO
CONSERVATION AUTHORITY

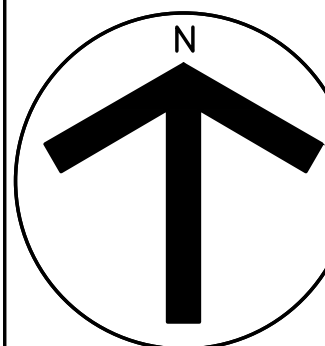
E
LEGACY
ENGINEERING
59 LIBERTY STREET SOUTH, BOWMANVILLE, ONTARIO
info@legacyengineering.ca / www.legacyengineering.ca
PH: (905) 995-2028

02	ISSUED FOR PERMIT & TENDER	LE	NOV. 18, 2025
01	PRELIMINARY	LE	NOV. 4, 2025
No.	DESCRIPTION	BY	DATE

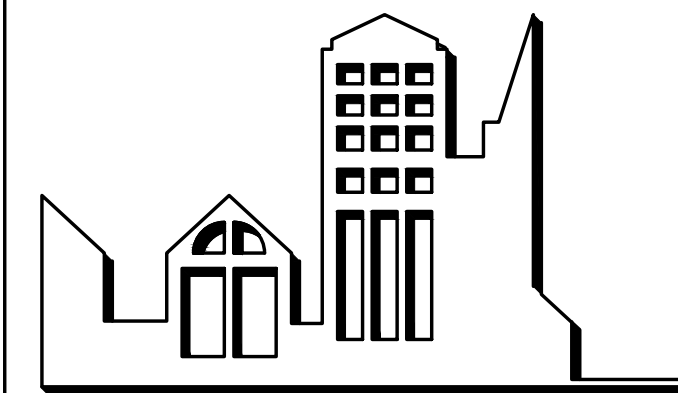
REVISIONS

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J.R. FREETHY ARCHITECT



325 LAKE RD. SUITE 202
BOWMANVILLE, ONTARIO
L1C 4P8 Tel: (905) 623 7476

PROJECT:

CLOCA RUSS POWELL NATURE
CENTRE INTERIOR WASHROOM
ALTERATIONS
7274 HOLT ROAD, ENNISKILLEN, ON

SCALE: AS NOTED

DWG. BY: L.E.L.

CHECKED BY: B.L.T.

STATUS: PERMIT & TENDER

PLOT FACTOR: 1:1

LE PROJECT NO.: LE25-124

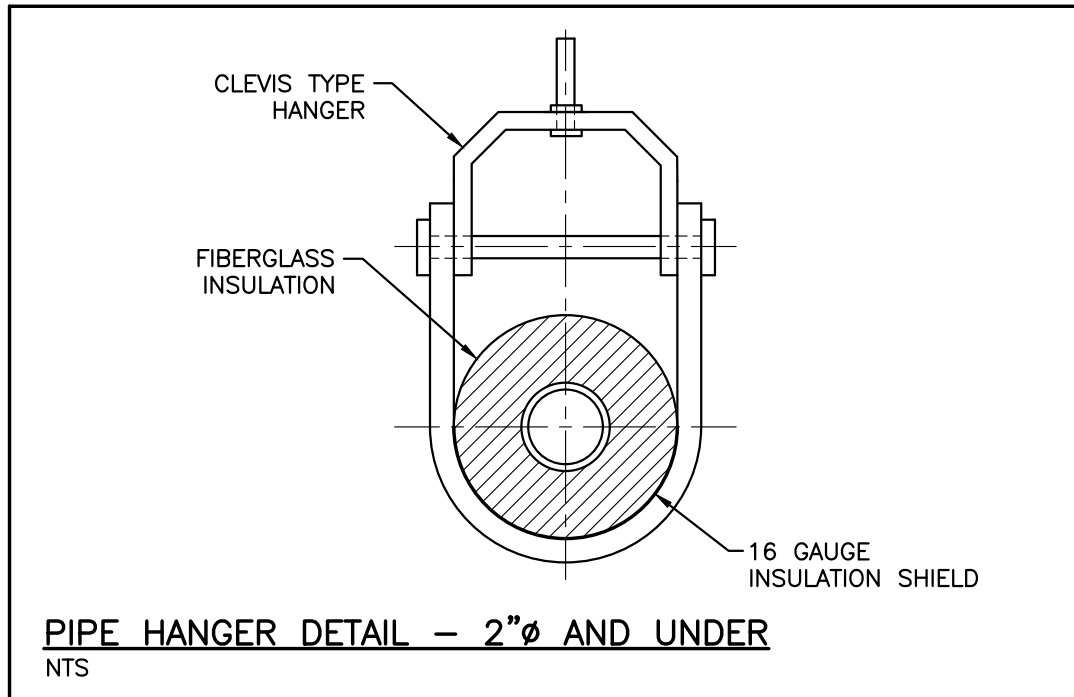
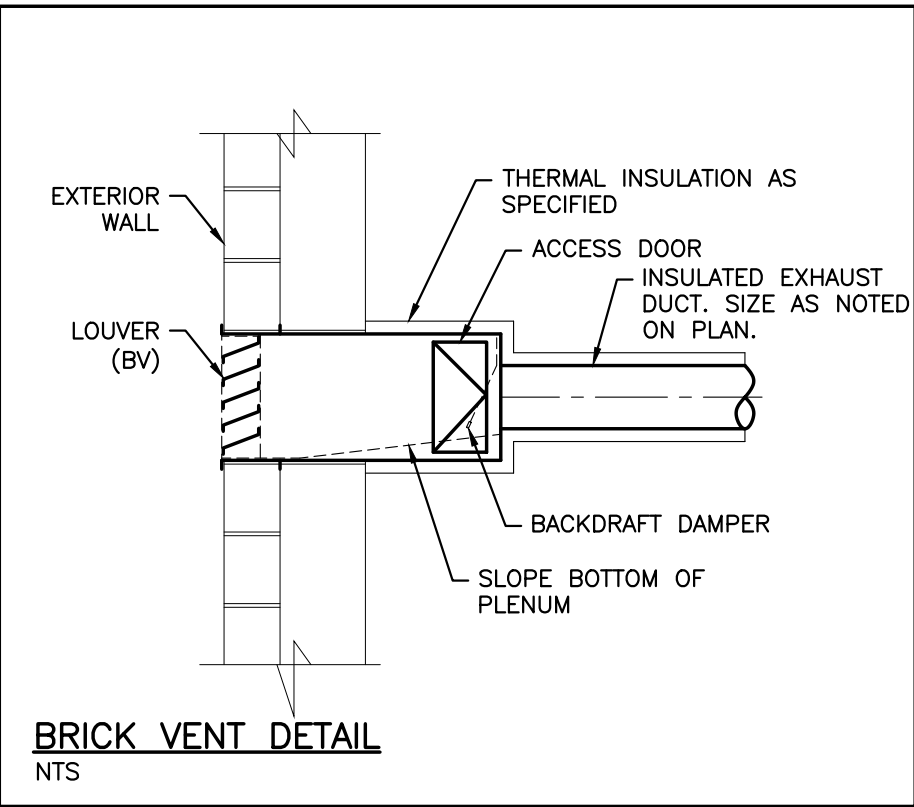
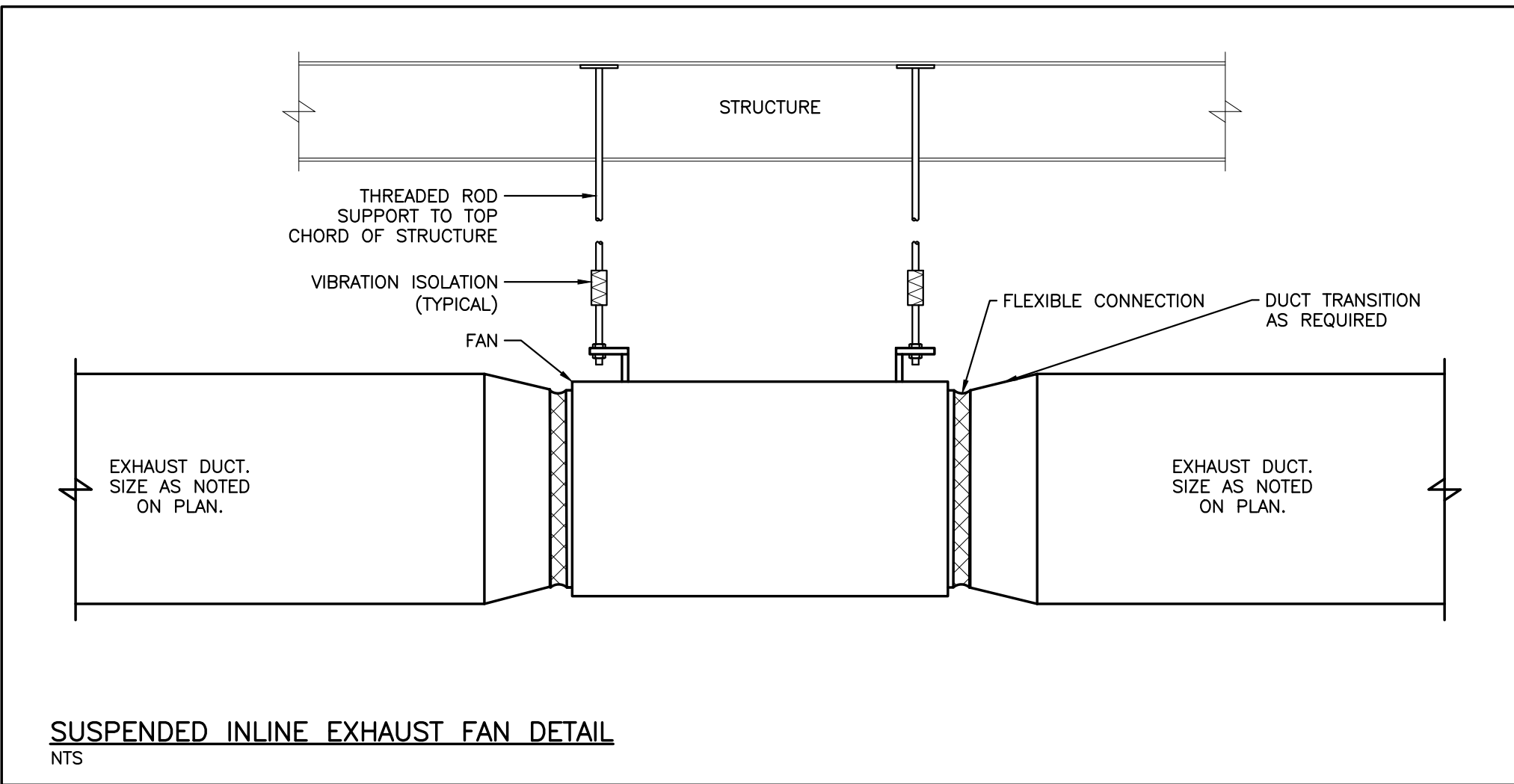
TITLE:

PLUMBING & SHEETMETAL
LAYOUTS

2025_36
DATE: OCTOBER 29, 2024

DWG. No.:

M1



HVAC LEGEND	
_____	NEW
_____	EXISTING
-----	DEMOLITION
	ROUND DUCTS (UP / DOWN)
	BALANCE DAMPER
	RETURN/EXHAUST CEILING GRILLE
	SUPPLY SIDE WALL/DUCT GRILLE
	EXHAUST FAN SWITCH SUPPLIED AND INSTALLED BY ELECTRICAL
	EQUIPMENT
	GRILLE
	TYPE OF EQUIPMENT
	SIZE (n)
	AIR FLOW (cfm)

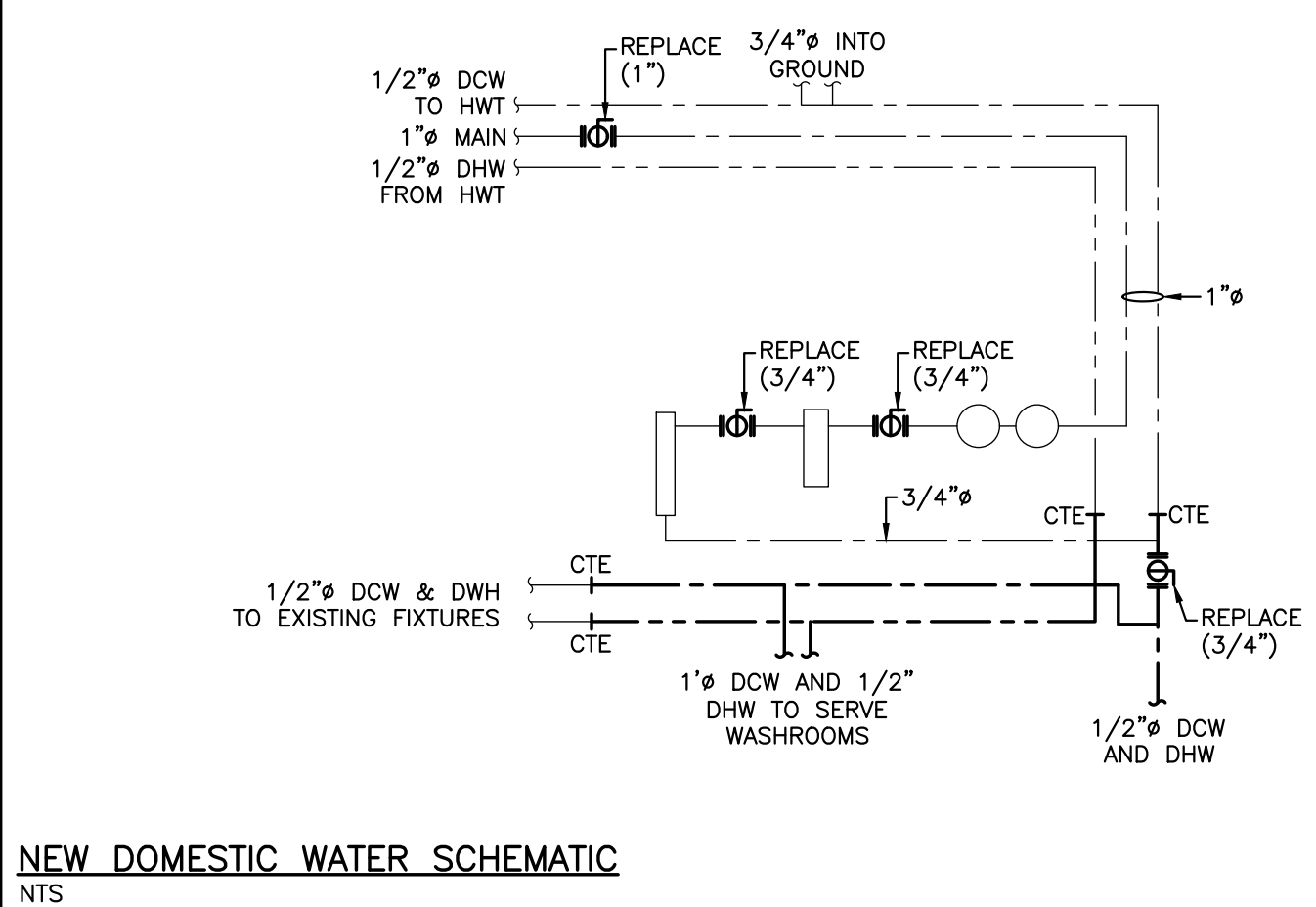
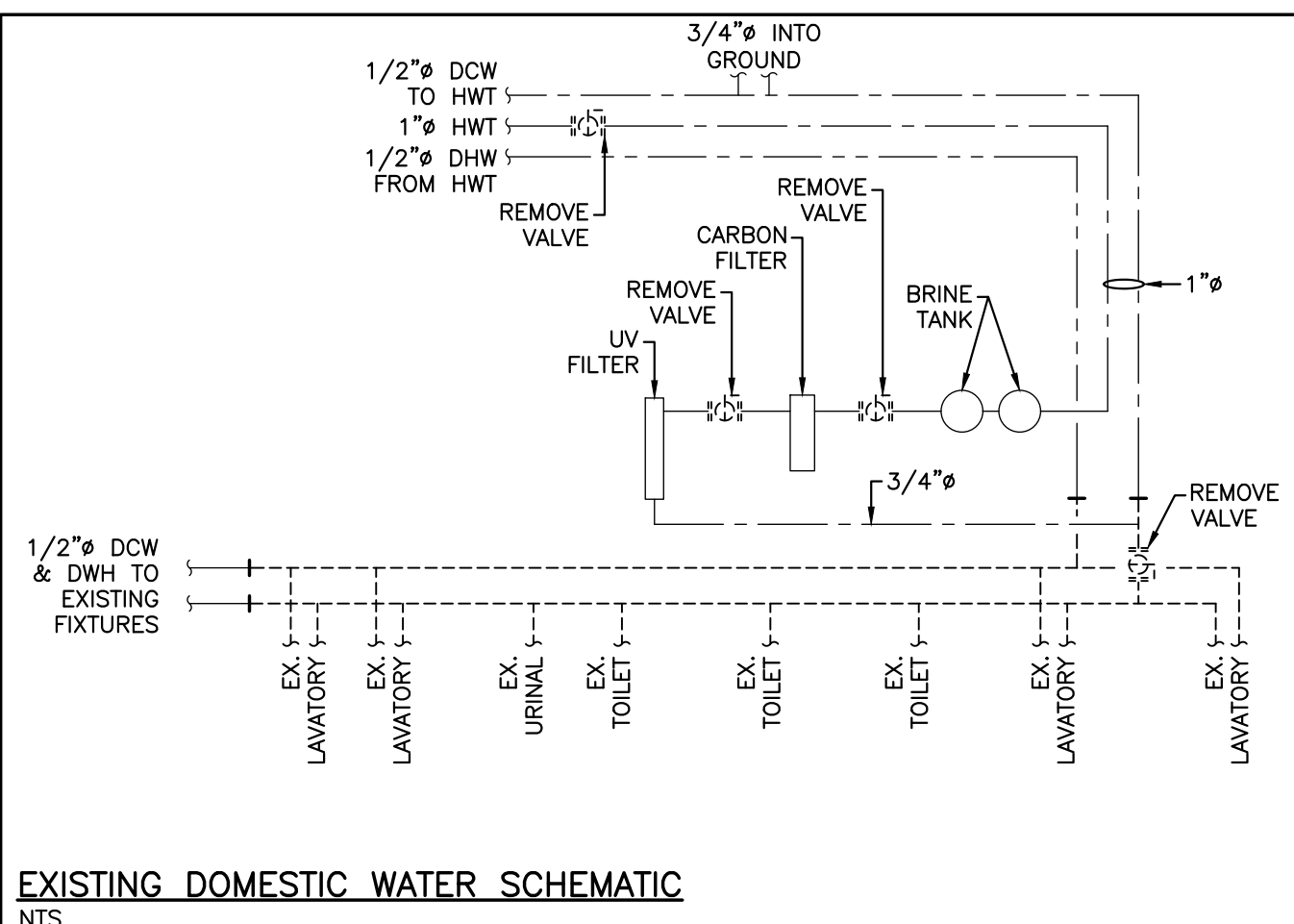
PLUMBING LEGEND	
_____	NEW
_____	EXISTING
-----	DEMOLITION
---AS---	DEMO ABOVEGROUND SANITARY
-----	DOMESTIC COLD WATER (DCW)
-----	DOMESTIC HOT WATER (DHW)
---AS---	ABOVEGROUND SANITARY
-----	UNDERGROUND SANITARY
	FLOOR DRAIN / FUNNEL FLOOR DRAIN
	STACK / FLOOR CLEANOUT
	FIXTURE TAG
	ELBOW RISING
	ELBOW DROPPING
	BRANCH RISING FROM TEE
	BRANCH DROPPING FROM TEE
	SHUT-OFF BALL VALVE

HVAC MATERIAL SPECIFICATIONS:	
1. SHEET METAL	
1.1. IN CONFORMANCE WITH SMACNA, ASHRAE, OBC, AND NFPA 90A.	
1.2. SHEET METAL SHALL BE BEST QUALITY LOCK-FORMING GALVANIZED SHEET METAL, GALVANIZING SHALL CONFORM TO ASTM A525 (G90), HAVING A THICKNESS OF 0.054mm AND A COATING WEIGHT NOT LESS THAN 0.31 KG/M ² ON EACH SURFACE.	
1.3. PROVIDE INSTRUMENT TEST PORTS IN DUCTS FOR PITOT TUBE INSERTION COMPLETE WITH CAM-ACTION HANDLE, MOULDED NEOPRENE GASKET, AND EXPANSION PLUG. PORTS SHALL BE ZINC-COATED STEEL CONSTRUCTION.	
1.4. ALL ROUND DUCTWORK SHALL BE SPIRAL TYPE.	
2. DUCT INSULATION	
2.1. THERMAL DUCT INSULATION (INTERIOR)	
2.1.1. PRECOVERED, PREFORMED RIGID FIBROUS GLASS INSULATION WITH FOIL OR KRAFT JACKET.	
2.1.2. 0.75 PCF (12 KG/M ³) DENSITY, K-VALUE 0.29, FLAME/SMOKE RATING 25/50 PER CAN/ULC S102.	
2.1.3. EXHAUST DUCTS SET FROM THE BUILDING ENVELOPE: 1"(25mm) MINIMUM THICKNESS.	
2.1.4. OUTDOOR AIR INTAKE DUCTS: 2" (50 MM) MINIMUM THICKNESS.	
2.1.5. RECOVERING JACKETS (INTERIOR); ULC-LISTED "THERMO CANVAS," TREATED COTTON FABRIC.	
3. ACCESS DOORS AND COVERS	
3.1. FLUSH ACCESS DOORS: ACUDOR UF-5000, 14 GA STEEL, BAKED ENAMEL PRIME COAT, CONCEALED CONTINUOUS HINGE, SELF-OPENING SCREWDRIER LOCK. DOORS IN WASHROOMS SHALL BE STAINLESS STEEL. ALL OTHERS PRIMED FOR FIELD PAINTING. MINIMUM SIZE 12"x18" (300x450 MM); USE 24"x24" (600x600 MM) WHERE POSSIBLE.	
3.2. RECESSED ACCESS DOORS (DRYWALL AREAS): ACUDOR DW-5015 SERIES, 16 GA STEEL, BAKED ENAMEL PRIME COAT, CONCEALED HINGE, SELF-OPENING LOCK, RECESSED 5/8" (14 MM) TO RECEIVE DRYWALL. FLANGE SHALL BE GALVANIZED STEEL WITH TAPE BEAD FOR FINISHING.	

PLUMBING FIXTURE SCHEDULE	
WC-1 - TOILET - FLOOR MOUNTED - BARRIER FREE	
American Standard "CADET PRO" #215AA.104 - Cadet Flush System Vitreous China, elongated, chair height, High Efficiency Toilet, ultra low consumption (4.8Lpf/1.28gpn) meet epa water sense criteria, power wash rim, metal trip lever, metal shank fill valve, 3" flush valve, fully glazed 2-1/8" trapway, 12" rough in, 9"x8" water surface, chrome finish trip lever, 1000MaP Score, 5 year warranty, Cardiff #5257A.65MT Seat, ELONGATED toilet seat, slow close, 2.82lb., white, McGuire #H166LNK3 Supply, C.P., polished, rigid horizontal with V.P. loose key angle stop, escutcheon and flexible riser.	
WC-2 - TOILET - FLOOR MOUNTED	
American Standard "CADET PRO" #215DA.104 - Cadet Flush System Vitreous China, High Efficiency Toilet, ultra low consumption (4.8Lpf/1.28gpn) meet epa water sense criteria, power wash rim, metal trip lever, metal shank fill valve, 3" flush valve, fully glazed 2-1/8" trapway, 12" rough in, 9"x8" water surface, chrome finish trip lever, 1000MaP Score, 5 year warranty, Cardiff #5257A.65MT Seat, round front toilet seat, slow close, 2.82lb., white, McGuire #H166LNK3 Supply, C.P., polished, rigid horizontal with V.P. loose key angle stop, escutcheon and flexible riser.	
LV-1 - BASIN WALL HUNG	
American Standard "MURRO" #095400AEC Basin, 4" (102mm) centres, 22" x 21" x 5 - 7-1/2" (558mm x 533mm x 127-191mm) deep, wall hung, vitreous china, rear overflow, for concealed arm support.	
MOEN, M-Press 8886, two-handed ADA metering lavatory faucet, Chrome plated solid brass construction, 4" centerset, metering faucet, Vandal resistant OPERATION: Operates with water supply line pressures of 20 to 125psi, ADA compliant lever style handle with hot and cold indicators, Cycle time easily adjusted from 5 to 60 seconds, independent from water pressure, Factory preset to automatically shut off after 10 seconds, 1/2" IPS supply shanks	
FLOW: 0.5gpm max (1.9 L/min), vandal-resistant multi-stream laminar, flow limits water discharge to a maximum of 0.25gpc (0.95L/cycle) at 30 seconds or 0.20gpc (0.76 L/cycle) at 24 seconds (CARTRIDGE: 52100 brass shell cartridge, Self contained metering mechanism which is separate from the potable water supply.	
LAWLER #TMM-1070 Mechanical Mixing Valve with Thermostatic Limit Stop, with temperature adj. dial and with integral back checks. Set valve temperature at 115° F (46° C), shut-off temp. at 120° F (48.9° C). Mixer installed in 4" CW supplies to provide tempered water to hot side of faucet. ASSE 1070 approved. Provide tee, adapters and flex. copper tubing for suit installation. Provide C.P. with metal angle stops, adaptors, escutcheons and metal flexible risers.	
McGuire #155A Drain, C.P. open grid.	
McGuire #H165LNK3RB Supplies, C.P., polished, short horizontal with V.P. loose key angle stops, escutcheons and braided flexible risers. McGuire #8872C "p" Trap, C.P., polished, cost barrier -1-1/4" (32mm) with cleanout and escutcheon.	
Smith Series #0700-M Carrier, with steel pipe legs, block base feet support, concealed arms and pedestal plate. (For narrow wall installation provide 2" type sleeve for walls.)	
LV-2 - WALL HUNG - TWO USER - CONTINUOUS	
BRADLEY - Express Lavatory System SS-Series, Model Number: SS-2N/ARP. Bowl with two lavatories, pedestal, stainless steel mounting frame, P-trap; tailpiece; two flexible stainless steelsupply connections; and Navigator thermostatic mixing valve with stop valves, and 120VAC/12VDC plug-in adapter. Pre-assembled spray head module is equipped with independent aerators each served by a separate infrared sensing module and solenoid valve. Each of the aerators is controlled by a separate slow-closing solenoid valve. Operating range is 20-80psi. Bowl assembly and panel are secured to a heavy gauge stainless steel support frame mounted to the wall, coordinate power with electrical.	
FD - FLOOR DRAINS - FINISHED AREAS	
WATTS FD-100-C-A epoxy coated cast iron floor drain with anchor flange, reversible membrane clamp, adjustable combined access cover and plug with gasket seal.	
CO - FLOOR CLEANOUTS	
WATTS CO-100-C-A epoxy coated cast iron cleanout with anchor flange, reversible membrane clamp, adjustable combined access cover and plug with gasket seal.	
TSP-1 ELECTRONIC TRAP SEAL PRIMER	
Sioux Chief 695 Series ETP electronic trap primers shall be used where necessary to replenish water in floor drain traps to prevent escape of sewer gas. Trap Primer shall be equipped with solenoid actuating device, vacuum breaker, CSA B64 air gap and proper electrical hardware. Trap primers water release shall be factory-set for daily operation of 2 ounces of water and allow adjustment of the frequency and duration of the priming operation. Trap primer shall be equipped with an ASSE 1010 water hammer arrester to protect the solenoid device. Trap primer unit shall include a brass extension nipple (not pre-installed) to be used when additional length is needed.	
ACCESS DOORS/COVERS - RECESSED ACCESS DOOR - DRYWALL AREA	
Acudor #UF-5000 Universal Access Doors, 14 GA (1.7mm) steel, baked enamel prime coat, continuous concealed hinge, self-opening screwdriver operated lock. Doors in the walls shall be stainless steel and shall suit tile pattern. All other panels shall be prime painted steel. Minimum size 12" panels shall be 12" x 18" (300mm x 450mm), wherever possible 24" x 24" (600mm x 600mm) panels shall be used universal Flush Access Door - For Walls and Ceilings.	

EXHAUST FAN SCHEDULE	
TAG	EF-1
SERVICE	WASHROOMS
TYPE	IN-LINE CABINET
MANUFACTURER	GREENHECK
MODEL	CSP-A390-VG
AIR FLOW	cfm 300
FLA	in.w.c. 0.75
SOUND	3.9 SONES
FAN RPM	1493
FAN MOTOR	47W
FAN TYPE	DIRECT DRIVE
ELECTRICAL	volt/ph 120/1
FLA	amps 1.5
DIMENSIONS	in 14W x 12L x 11H
WEIGHT	lbs 24
CONTROLS	-OCCUPANCY SENSOR -FAN SPEED CONTROL
ACCESSORIES/FEATURES	-HANGING ISOLATOR KIT -BACKDRAFT DAMPER -FAN SPEED CONTROLLER -GALVANIZED WHEEL -WALL CAP
NOTES	-SITE REQUIREMENTS, ADDITIONAL WORK AND EXTRA COSTS DUE TO THE SUPPLY OF ALTERNATE EQUIPMENT IS THE CONTRACTORS RESPONSIBILITY -SOUND POWER LEVELS FOR ALTERNATE EQUIPMENT SHALL NOT EXCEED THE SOUND POWER LEVELS SPECIFIED HEREIN
ALTERNATE MANUFACTURERS	COOK, PENN, ACME, ZONEX, CARNES

AIR OUTLET SCHEDULE	
TAG	A BV
TYPE	EGG CRATE RETURN OUTDOOR EXTRUDED ALUMINUM
MANUFACTURER	PRICE NAILOR
MODEL	80 16BVF
SIZE	SEE DRAWINGS 16x8
COLOUR	B12 ALUMINUM
NOTES	-NO BORDER FOR T-BAR MOUNTING -BALANCE DAMPER -ALUMINUM INSECT SCREEN
ALTERNATE MANUFACTURERS	NAILOR, TITUS, METALAIRE



PLUMBING NOTES:	
1. EXECUTION	
1.1. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING, CORING, SAW CUTTING, EXCAVATION, BEDDING AND BACKFILL OF CONCRETE FLOORS AND WALLS ASSOCIATED WITH THE INSTALLATION NEW PLUMBING SYSTEMS, COORDINATE FLOOR AND WALL RESTORATION WITH THE GENERAL CONTRACTOR.	
1.2. ALL NEW PENETRATIONS THROUGH MASONRY OR BLOCK WALLS SHALL BE SLEEVED. PIPING SHALL BE WRAPPED TO PREVENT CONTACT BETWEEN DISSIMILAR METALS.	
2. DRAINAGE SYSTEMS	
2.1. ALL NEW SANITARY PIPING SHALL BE FLUSHED AND SCOPED UPON COMPLETION OF CONSTRUCTION. A VIDEO INSPECTION REPORT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.	
2.2. CLEANOUTS SHALL BE INSTALLED AS PER CODE REQUIREMENTS. CLEAN-OUT SIZE SHALL MATCH THE CORRESPONDING PIPE SIZE UNLESS NOTED OTHERWISE.	
2.3. ALL FLOOR DRAINS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR TO SUIT FLOOR SLOPE AND SLAB DESIGN.	
2.4. TRAP SEAL PRIMERS SHALL BE PROVIDED FOR ALL FLOOR DRAINS. THE TRAP PRIMER SHALL BE CONCEALED IN AN ACCESSIBLE LOCATION AND ABOVE THE FLOOR LINE OF THE FLOOR DRAINS. TRAP PRIMER LINES SHALL BE CONCEALED WITHIN WALLS AND FLOORS.	
2.5. NEW PLUMBING VENTS SHALL EXTEND THROUGH THE ROOF. REUSE EXISTING PLUMBING VENTS WHERE POSSIBLE. ROOF WORK (CUTTING, FLASHING) SHALL BE BY THE GENERAL CONTRACTOR OR CERTIFIED ROOFING CONTRACTOR. COORDINATE ALL WORK ACCORDINGLY.	
3. DOMESTIC WATER SYSTEM	
3.1. ISOLATION VALVES SHALL BE PROVIDED AT EACH FIXTURE FOR SERVICEABILITY.	
4. INSULATION	
4.1. ALL NEW DOMESTIC COLD AND HOT WATER PIPING SHALL BE INSULATED WITH A MINIMUM OF 25mm (1in) FIBERGLASS INSULATION.	
4.2. IN EXPOSED AREAS, INSULATION SHALL BE FINISHED WITH A PVC JACKET.	
5. FIXTURES & ACCESSORIES	
5.1. ESCUTCHEONS SHALL BE INSTALLED AT ALL WALL, FLOOR, AND MILLWORK PENETRATIONS FOR BOTH WATER SUPPLY AND SANITARY PIPING IN FINISHED AREAS.	
5.2. SURVEY ACCESS DOORS TO SERVICE CONCEALED VALVES OR DEVICES. TURNED OVER TO THE GENERAL CONTRACTOR FOR INSTALLATION.	
5.3. CEILING GRID SHALL BE LABELED AT ALL ACCESS POINTS TO MECHANICAL OR PLUMBING DEVICES WITH ENGRAVED LAMACODI NAME PLATES.	
6. IDENTIFICATION & LABELING	
6.1. ALL NEW AND EXISTING PIPING WITHIN THE AREA OF WORK SHALL BE LABELED WITH FLOW DIRECTION ARROWS AND SERVICE IDENTIFICATION.	
6.2. LABELS SHALL BE INSTALLED AT MAXIMUM 3m (10') INTERVALS AND ON BOTH SIDES OF WALLS, FLOORS AND CEILING PENETRATIONS.	
7. SYSTEM VERIFICATION & DOCUMENTATION	
7.1. PROVIDE POST-CONSTRUCTION FLUSHING VIDEO INSPECTIONS OF ALL UNDERGROUND SANITARY AND STORM SYSTEMS.	

PLUMBING SPECIFICATIONS:	
1. GENERAL REQUIREMENTS	
1.1. ALL PLUMBING PRODUCTS SHALL BE LEAD-FREE AND CERTIFIED TO ANSI/NSF 372.	
1.2. ALL MATERIALS, EQUIPMENT, AND INSTALLATION PRACTICES SHALL CONFORM TO THE LATEST EDITIONS OF THE ONTARIO BUILDING CODE (OBC), CSA B64, CSA B181, CSA B182, AND OTHER APPLICABLE STANDARDS AND LOCAL AUTHORITIES HAVING JURISDICTION.	
2. DOMESTIC WATER PIPING	
2.1. ALL NEW ABOVE-GROUND DOMESTIC WATER PIPING SHALL BE TYPE "L" HARD COPPER CERTIFIED TO ASTM B88, WITH LEAD-FREE SOLDERED JOINTS.	
3. DRAINAGE SYSTEMS	
3.1. ABOVE-GROUND DRAINAGE:	
3.1.1. PIPE 2-1/2" INCHES (63mm) AND OVER: SYSTEM 15 DW OR IPEX XFR.	
3.1.2. PIPE 2" INCHES (50mm) AND UNDER: COPPER DWV PIPE WITH WROUGHT COPPER SOLDER FITTINGS OR SYSTEM 15 DW OR IPEX XFR.	
3.2. UNDERGROUND DRAINAGE:	
3.2.1. PIPE UP TO AND INCLUDING 3in (75mm): ULC CERTIFIED PVC 40 DWV PIPE TO CAN/CSA B181.2, COMPLETE WITH PVC FITTINGS TO MATCH, AND SOLVENT WELD JOINTS.	
3.2.2. PIPE 3in (75mm) TO 4in (100mm): ULC CERTIFIED PVC 40 DWV PIPE TO CAN/CSA B181.2, OR PVC SDR 28/35 BDS PIPE TO CAN/CSA B182.1, COMPLETE WITH PVC FITTINGS TO CAN/CSA B182.2, SOLVENT WELDED.	
4. PIPE HANGERS AND SUPPORTS	
4.1. EPOXY-COATED CLEVIS TYPE HANGERS SHALL BE USED WHERE HANGER CONTACTS PIPE DIRECTLY.	
4.2. ADJUSTABLE WROUGHT IRON CLEVIS OR RING TYPE HANGERS WITH THREADED RODS SHALL BE USED WHERE HANGERS WRAP AROUND INSULATION.	
4.3. PROVIDE SADDLES TO PREVENT INSULATION DAMAGE.	
5. HANGER SPACING:	
5.1. UP TO 1-1/4" (32mm): 8ft (2.5m) MAXIMUM	
5.2. 1-1/2" (38mm) TO 2" (50mm): 10ft (3m) MAXIMUM	
5.3. 2-1/2" (63mm) AND OVER: 12ft (3.5m) MAXIMUM	
5.4. PROVIDE A HANGER WITHIN 12" (300mm) OF EVERY ELBOW.	
6. VALVES AND ACCESSORIES	
6.1. PROVIDE SUPPLY SHUT-OFF VALVES ON ALL HOTAND COLD WATER CONNECTIONS TO FIXTURES. VALVES SHALL BE EQUAL TO MCGUIRE H185. ALL VALVES SHALL BE LINE SIZE.	
6.2. VALVE TYPES:	
6.2.1. 2" (50mm) AND UNDER: BALL VALVES	
6.3. BALL VALVES:	
6.3.1. SOLDERED OR THREADED ENDS	
6.3.2. EQUAL TO KITZ #858 OR #859	
6.3.3. ALL VALVES SHALL BE LINE SIZE	
6.4. CHECK VALVES:	
6.4.1. 2" AND SMALLER: KITZ #822 OR #823, SOLDERED OR THREADED ENDS	
7. PIPE INSULATION	
7.1. EXTERNAL PIPE INSULATION SHALL BE RIGID SECTIONAL FIBERGLASS WITH FACTORY-APPLIED VAPOUR BARRIER.	
7.2. USE PRE-FORMED INSULATION AT FITTINGS AND VALVES.	
7.3. PROVIDE NON-CRUSHING INSULATION AT PIPE HANGERS WITH SADDLES.	
7.4. INSULATE ALL DCW AND DHW PIPING.	
7.5. INSULATE VENT LINES 1.5m BACK FROM ROOF PENETRATIONS.	
7.6. INSULATION THICKNESS SHALL BE 1" (25mm) MINIMUM.	

GENERAL NOTES - MECHANICAL:	
1. PRE-CONSTRUCTION & ADMINISTRATION	
1.1. THE CONTRACTOR AND ITS SUBCONTRACTORS SHALL ATTEND ALL SITE MEETINGS CALLED BY THE CONSULTANT OR OWNER.	
1.2. PROVIDE ELECTRONIC SHOP DRAWINGS (PDF FORMAT) TO THE ENGINEER FOR REVIEW. ALL SUBMISSIONS SHALL BE REVIEWED, STAMPED AND SIGNED BY THE MECHANICAL CONTRACTOR PRIOR TO SUBMISSION. SHOP DRAWING REVIEW SHALL INCLUDE BUT IS NOT LIMITED TO: POWER REQUIREMENTS, EQUIPMENT PERFORMANCE, ACCESSORIES, DIMENSIONS AND CLEARANCES. SUBMIT TO INFOLEGACYENGINEERING.CA.	
1.3. REVIEW ALL SITE CONDITIONS AND THE COMPLETE SET OF CONTRACT DOCUMENTS BEFORE PROCEEDING OR INSTALLING ANY WORK. COORDINATE COMPLETE SCOPE OF WORK WITH ALL OTHER TRADES.	
2. CONSTRUCTION & INSTALLATION	
2.1. ALL SYSTEMS AND EQUIPMENT SHALL BE INSTALLED IN COMPLIANCE WITH THE MANUFACTURER'S INSTRUCTIONS, BUILDING CODES, ONTARIO REGULATIONS AND CANADIAN STANDARDS.	
2.2. NEW PERMANENT EQUIPMENT SHALL NOT BE USED FOR TEMPORARY CONSTRUCTION PURPOSES WITHOUT PRIOR WRITTEN APPROVAL FROM THE CLIENT AND ENGINEER. IF NEW SYSTEMS BECOME CONTAMINATED WITH DUST OR DEBRIS, THE CONTRACTOR SHALL CLEAN THEM TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE CLIENT.	
2.3. THE CONTRACTOR SHALL MAINTAIN A COMPLETE AND CURRENT SET OF RED-LINE AS-BUILT DRAWINGS FOR THE DURATION OF THE PROJECT. THE DRAWINGS SHALL BE AVAILABLE FOR THE ENGINEER TO REVIEW AT ANY TIME DURING CONSTRUCTION. AS-BUILTS SHALL REFLECT ALL DEVIATIONS FROM ORIGINAL DRAWINGS IN COLOUR.	
2.4. REMOVE ALL UNUSED OR REDUNDANT MATERIALS, EQUIPMENT AND WASTE FROM THE SITE. DISPOSAL SHALL BE CARRIED OUT IN AN APPROVED MANNER. NO EQUIPMENT SHALL BE LEFT ABANDONED IN PLACE.	
2.5. PERFORM ALL CUTTING AND CORING NECESSARY TO ACCOMMODATE NEW SERVICES. COORDINATE PATCHING AND RESTORATION WITH THE GENERAL CONTRACTOR.	
2.6. MAINTAINED THE REQUIRED CLEARANCES AND SERVICE ACCESS AROUND ALL EQUIPMENT AND SYSTEMS IN ACCORDANCE WITH CODE AND MANUFACTURER GUIDELINES.	
3. IDENTIFICATION, LABELS & TAGGING	
3.1. TAG ALL EQUIPMENT WITH LAMACODI NAMEPLATES.	
4. INSPECTIONS, TESTING, TRAINING	
4.1. CONTRACTOR SHALL ARRANGE FOR ROUGH-IN INSPECTIONS BY THE ENGINEER BEFORE INSULATING OR CONCEALING ANY WORK (CEILING, WALLS, ETC.). IF INSPECTIONS HAVE NOT BEEN ARRANGED, THE CONTRACTOR SHALL EXPOSE SERVICES AS DIRECTED BY THE ENGINEER (E.G., REMOVE CEILING TILES, INSULATION, OR OPEN ACCESS PANELS).	
4.2. PERFORM ALL REQUIRED TESTING AND START-UP OF SYSTEMS IN ACCORDANCE WITH APPLICABLE CODES, ENGINEERS DIRECTION, MANUFACTURER INSTRUCTIONS, AND AUTHORITIES HAVING JURISDICTION. SUBMIT ALL TEST AND START-UP REPORTS TO THE ENGINEER.	
5. CLOSE-OUT, WARRANTY & DOCUMENTATION	
5.1. THE ENGINEER WILL CONDUCT A FINAL REVIEW AND ISSUE A FINAL INSPECTION REPORT UPON COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL CORRECT ALL DEFICIENCIES AND SIGN THE REPORT BACK TO THE ENGINEER, CONFIRMING THEIR ACCEPTANCE. BEFORE THE ENGINEER WILL CONDUCT A FOLLOW-UP INSPECTION.	
5.2. PROVIDE A ONE (1) YEAR WARRANTY ON ALL MATERIALS AND LABOR STARTING FROM THE DATE OF SUBSTANTIAL COMPLETION.	
5.3. SUBSTANTIAL COMPLETION WILL NOT BE CERTIFIED UNTIL THESE DOCUMENTS ARE SUBMITTED AND ACCEPTED BY THE ENGINEER.	

MECHANICAL NOTES:	
1. EXECUTION	
1.1. CONCEAL ALL SERVICES WITHIN CEILING SPACES OR FURRED CONSTRUCTION UNLESS INSTALLED IN EXPOSED OR UNFINISHED AREAS, OR WHERE OTHERWISE SPECIALLY NOTED.	
1.2. COORDINATE ALL HVAC WORK WITH OTHER TRADES TO AVOID INTERFERENCES.	
1.3. REFER TO THE REFLECTED CEILING PLAN FOR GRILLE AND DIFFUSER LOCATIONS, WHERE CONFLICTS OCCUR, THE LIGHTING LAYOUT SHALL TAKE PRECEDENCE.	
1.4. LABEL CEILING TILES WITH PERMANENT ADHESIVE LABELS OR LAMACODI NAMEPLATES AT ACCESS POINTS TO MECHANICAL EQUIPMENT.	
2. DUCTWORK INSTALLATION	
2.1. TEMPORARILY SEAL ALL OPEN END DUCTS DURING CONSTRUCTION TO PREVENT DEBRIS FROM ENTERING NEW AND EXISTING SYSTEM. NON-COMPLIANCE WILL RESULT IN CLEANING OF THE DUCTWORK AND SYSTEMS TO THE OWNERS SATISFACTION AT THE CONTRACTOR'S EXPENSE.	
2.2. PROVIDE 4" FLEXIBLE CONNECTIONS AT ALL DUCT CONNECTIONS TO AIR HANDLING EQUIPMENT.	
2.3. SEAL ALL DUCT JOINTS USING SEALANT EQUAL TO DURYDENE. SEALANT SHALL COMPLY WITH ASHRAE 90.1 CLASS 'C' AND SMACNA STANDARDS. USE CLEAR SEALANT FOR EXPOSED DUCTWORK.	
2.4. PROVIDE BALANCE DAMPERS ON ALL BRANCH DUCTS NEAR MAIN DUCT TAKE-OFFS.	
2.5. FLEXIBLE DUCTING IS NOT PERMITTED	
2.6. PROVIDE DRYWALL ACCESS PANELS FOR ALL CONCEALED, BALANCING DAMPERS, AND MECHANICAL DEVICES. HAND OVER TO GENERAL CONTRACTOR FOR INSTALLATION.	
2.7. PROVIDE EXTERNAL INSULATION ON EXHAUST AIR DUCTWORK WITHIN 8ft FROM EXTERNAL WALLS.	
3. CONTROLS	
3.1. CONTROL WIRING TO BE INSTALLED AS FOLLOWS UNLESS OTHERWISE NOTED:	
5.1.1. INDOOR CONCEALED: EMT CONDUIT	
5.1.2. INDOOR EXPOSED: EMT CONDUIT	
5.1.3. FLEXIBLE BX (ARMORED CABLE) IS ACCEPTABLE FOR THE LAST 1500mm (5') CONNECTION TO SMALL EQUIPMENT AND FOR FISHING DOWN IN EXISTING WALLS.	
5.1.4. ALL WIRING TO RUN PARALLEL TO BUILDING LINES, TIGHT TO STRUCTURE, AND SLEEVED AT WALL PENETRATIONS WITH EMT AND BUSHINGS.	
6. BALANCING & COMMISSIONING	
6.1. RETAIN A CERTIFIED NEBB, CAABC, OR NBCTA FIRM TO PERFORM AIR BALANCING. SUBMIT REPORT TO THE ENGINEER FOR REVIEW.	
6.2. PERFORM TESTING AND START-UP OF ALL NEW EQUIPMENT. SUBMIT COMPLETE DOCUMENTATION TO THE ENGINEER FOR REVIEW AND ACCEPTANCE.	

CLIENT:
CENTRAL LAKE ONTARIO
CONSERVATION AUTHORITY

E
LEGACY
ENGINEERING

59 LIBERTY STREET SOUTH, BOWMANVILLE ONTARIO
info@legacyengineering.ca / www.legacyengineering.ca
PH: (905) 995-2028

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01 PRELIMINARY
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REVISIONS

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BY DATE

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LICENCED PROFESSIONAL ENGINEER
NOV 18, 2025
B. L. TREPANIER
100542325
P. Trepanier
PROVINCE OF ONTARIO

J.R. FREETHY ARCHITECT

325 LAKE RD. SUITE 202
DOWNMANVILLE ONTARIO
L1C 4P8 Tel: (905) 623-7476

PROJECT:
CLOCA RUSS POWELL NATURE
CENTRE INTERIOR WASHROOM
ALTERATIONS

7274 HOLT ROAD, ENNISKILLEN, ON

SCALE: AS NOTED
DWG. BY: L.E.L.
CHECKED BY: B.L.T.
STATUS: PRELIMINARY
PLOT FACTOR: 1:1
LE PROJECT NO.: 1525-124

TITLE:
LEGENDS, NOTES, SCHEDULES,
SPECIFICATIONS AND DETAILS

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DATE: OCTOBER 29, 2024

DWG. No.:
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