

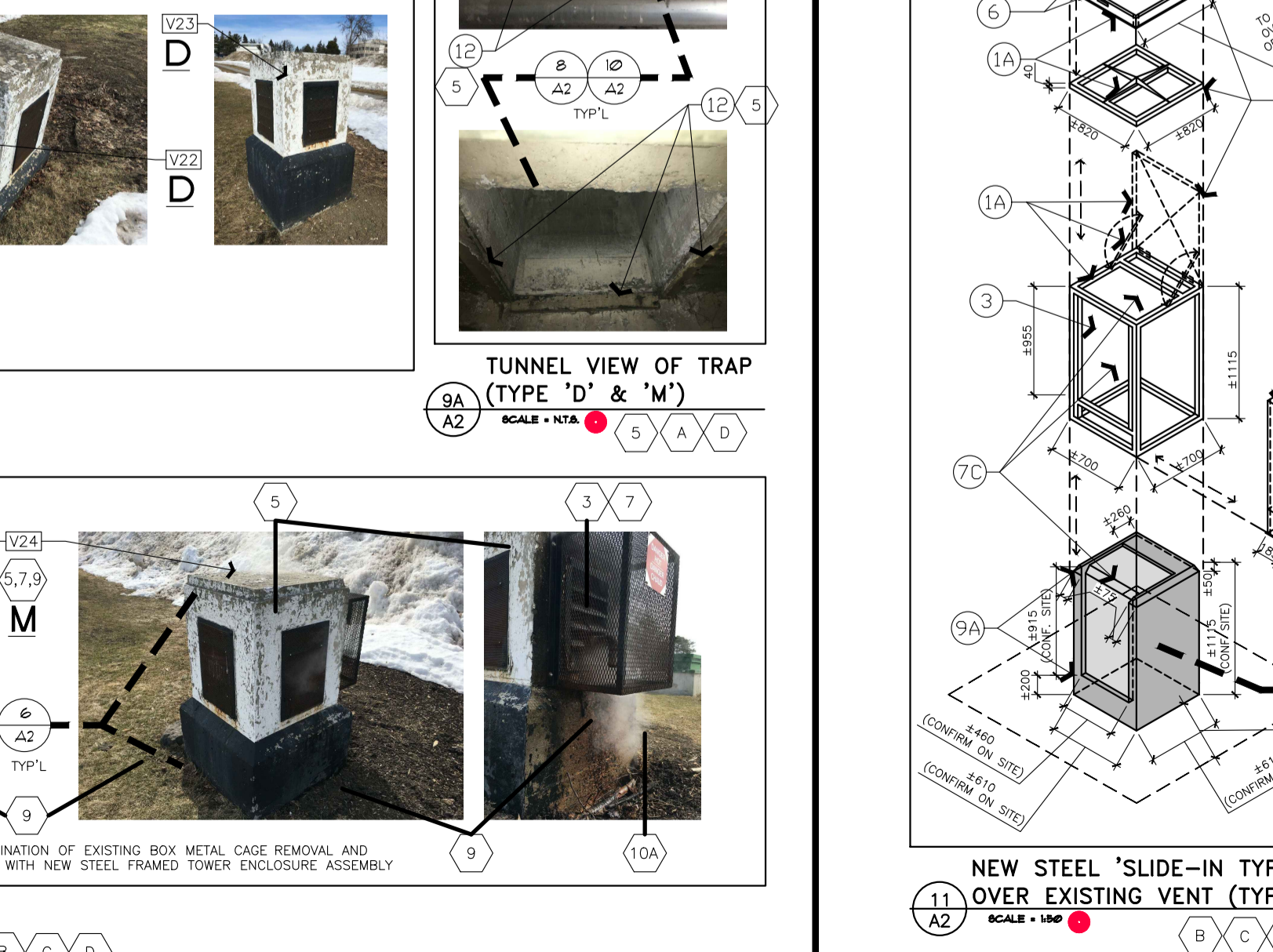
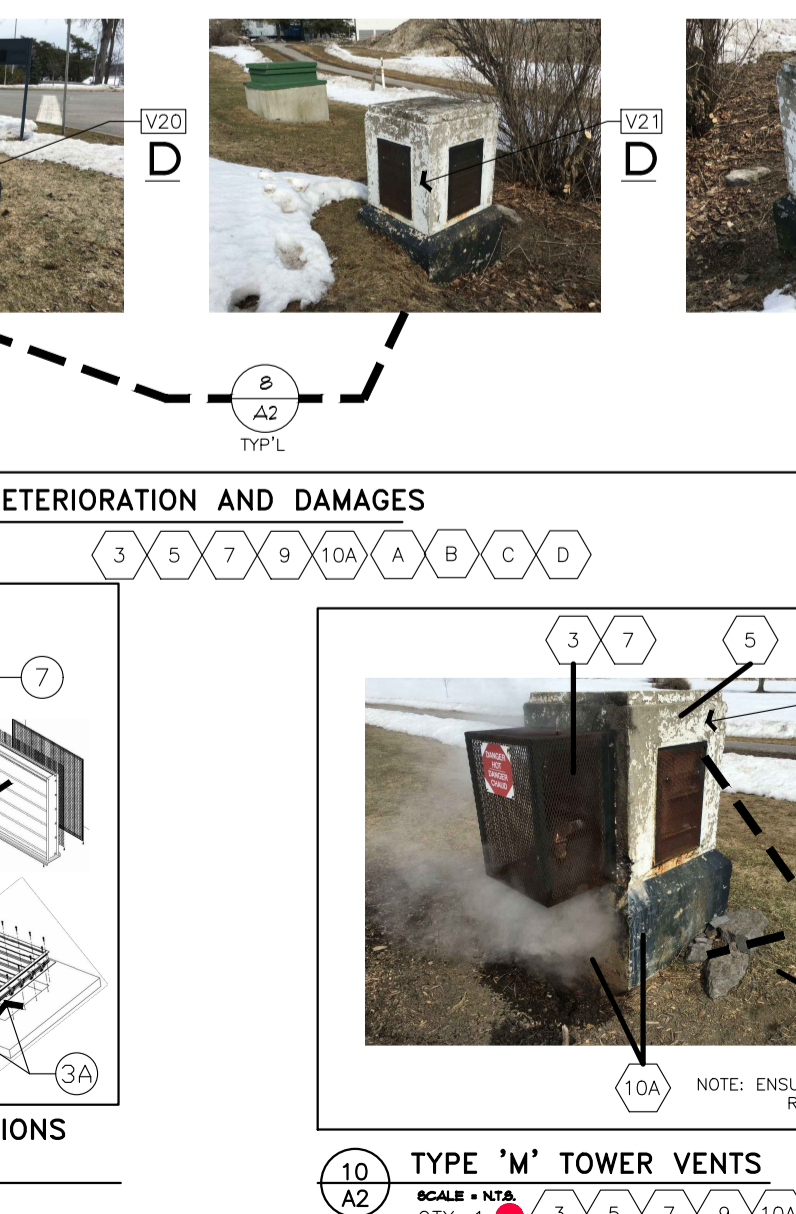
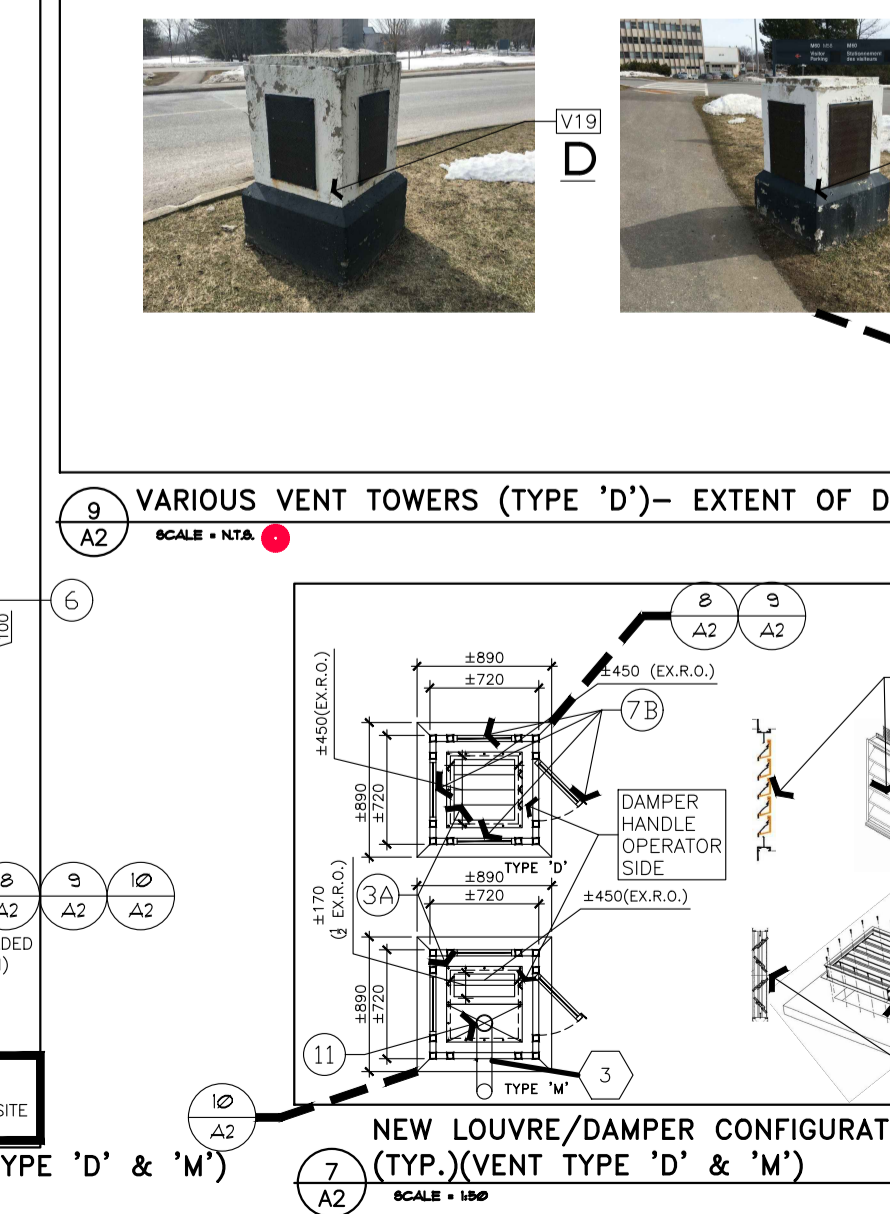
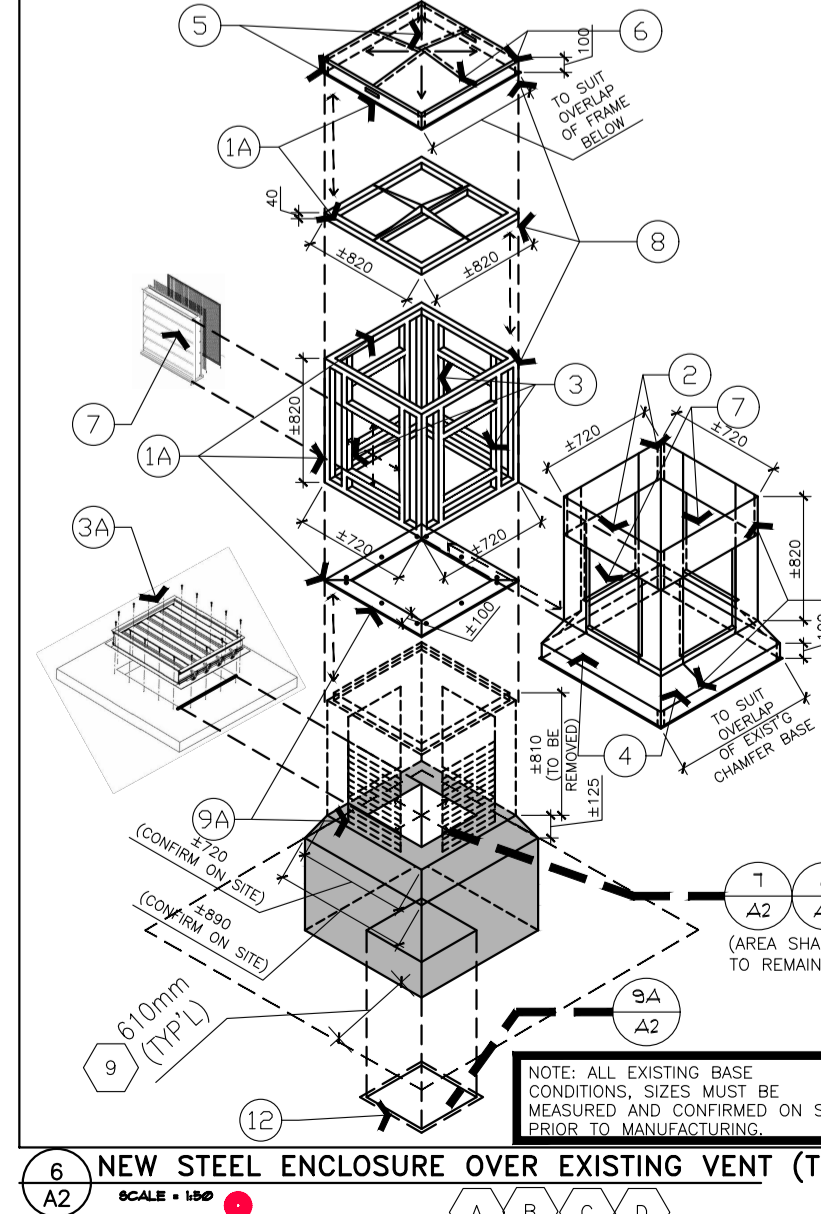
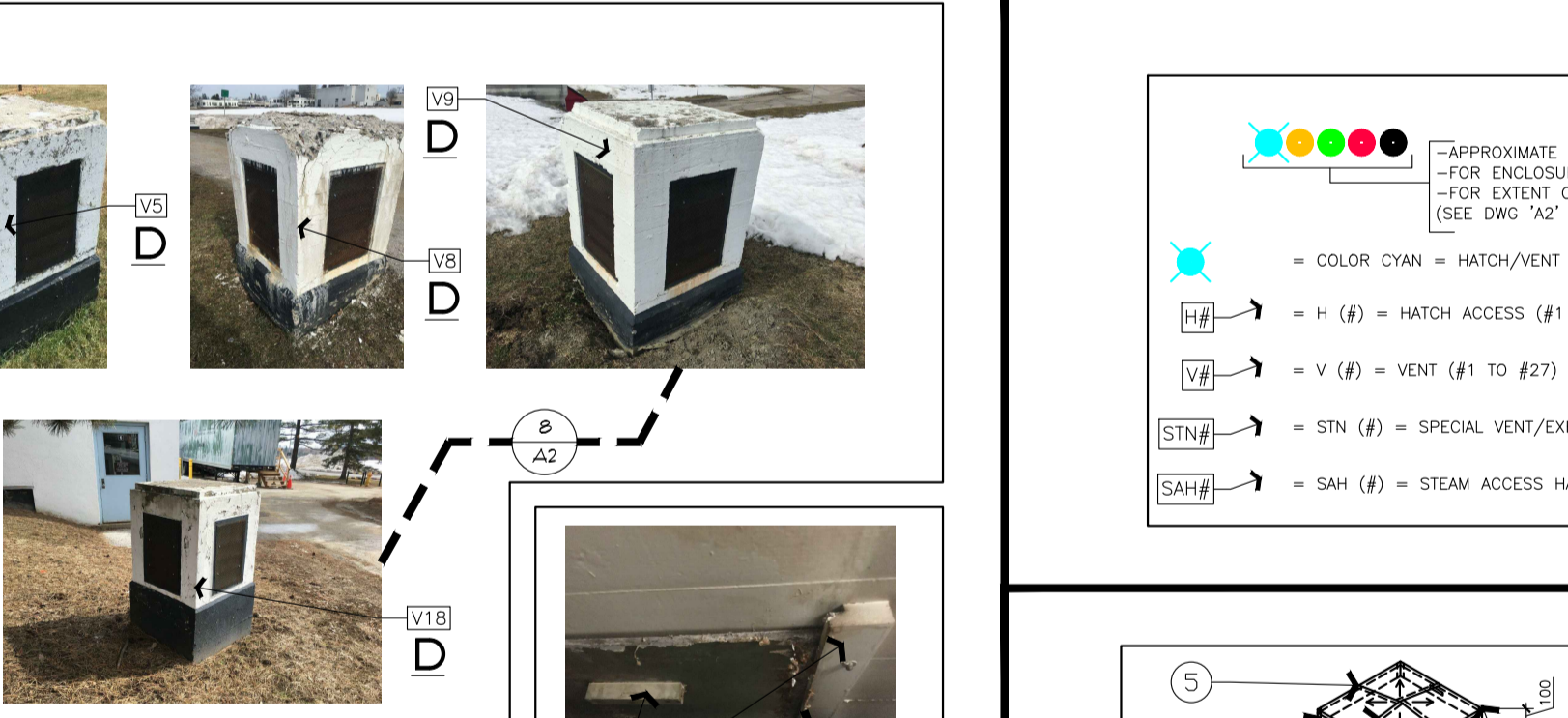
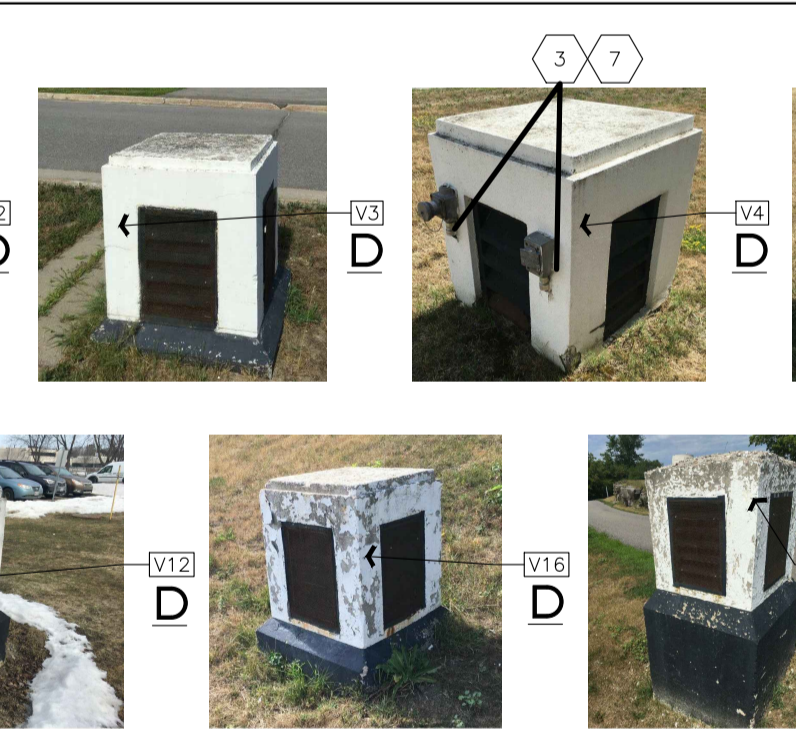
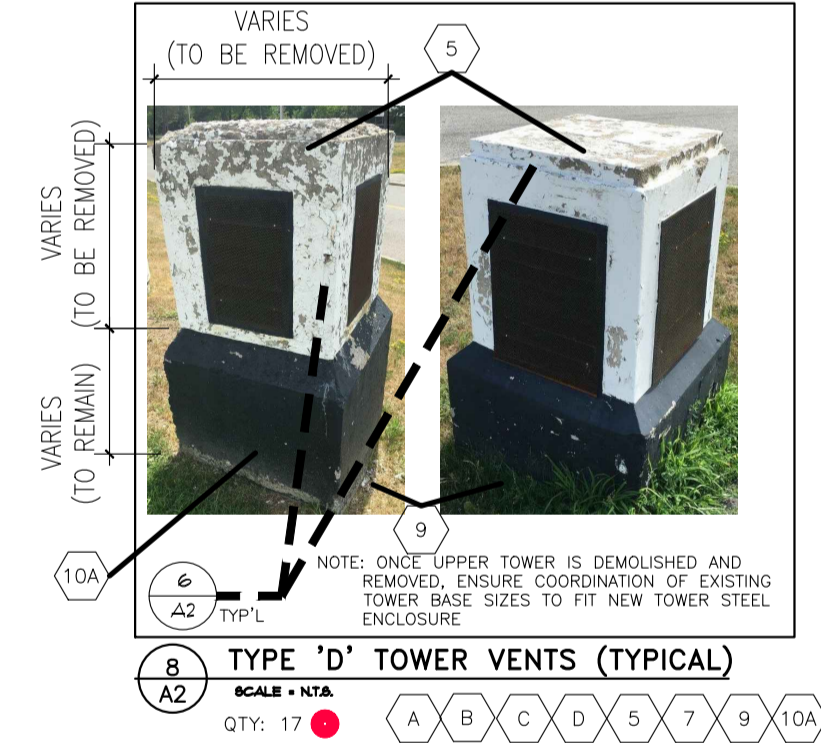
STEEL ENCLOSURE ASSEMBLY NOTES AND ACCESSORIES

- NEW ENCLOSURE OVERALL SIZE TO BE COORDINATED ON SITE AT EACH LOCATION. ASSEMBLY TO INCLUDE SLOPED CAP AT THE TOP SECURED AND LOCKABLE TO ACCOMMODATE 4 BY 8 TRUSS BRACKET. THE ENCLOSURE TO BE BUILT WITH STRUCTURAL FRAME MADE OF NEW GALVANIZED UNSTRUT 40mmx40mmx1.2mm STEEL. HOLLOW SQUARE SHAPED PIECES. ALL PIECES TO BE SHAPED AWAY FROM SITE AND TO ACCOMMODATE PRE-DRILLED HOLES TO SUIT FLAT STOCK ALUMINUM SHEETS. ASSEMBLY INCLUDES 4 HOLE HINGES, 2-7 HOLES FITTINGS, BASE PLATE-POSTS, PRE-HOLE FRAMES & BASE PLATE AND SCREWS AS PER MANUFACTURERS SPECS.
- NEW ENCLOSURE SIMILAR TO 'L', BUT SIZE TO BE COORDINATE AND MEASURED ON SITE. MOST TOWER TYPE 'D', 'M' & 'K' ARE THE SAME SIZE WITH THE EXCEPTION OF TYPE 'L' & 'S'.
- PROVIDE OUTSIDE ENVELOP TO BE FLAT STOCK GRAY ALUMINUM, PRE-DIP PAINTED AT FACTORY (R.G.O.). SCREW FLATSTOCK SHEETS IN CONFIGURATION SHOWN. FASTEN WITH SELF-TAPPING STAINLESS STEEL SCREWS, MAX. SPACING 100mm (4") O. C.
- INSTALL ADJ'L VERTICAL TUBULAR STEEL FRAMING TO SUIT R.O. OPENINGS OF NEW LOUVER INSTALLATION (TO SUIT NEW LOUVER ASSEMBLY SIZES). COORDINATE R.O. WITH ACTUAL LOUVER SELECTION AND TOWER TYPE LOCATION. (NOTE: COORDINATE OPENINGS IN NEW ENCLOSURE WITH TYPE 'L' STATION SPECIAL REQUIREMENTS).
- INSULATED CONTROLLED DAMPER (4510mm x 4510mm) TO BE BROKEN FRAME FRONT-FLANGE MOUNT C/W JACK SHIRT AND HAND QUADRANTS, OPPOSED BLADES (CLEAR ANODIZED FINISH). TYPICAL DAMPER INSTALLATION TO ENSURE HANDLES ACCESSIBLE ON OPENING LOUVER PANEL SIDE. ADAPT FLAT HORIZONTAL CONNECTION OF EXTENDED FRAME TO OVERLAP BEYOND ROUGH OPENING. COORDINATE ON SITE FOR ALL (FOR TYPE 'M' VENT, ADAPT FOR A SMALLER SIZE DAMPER TO SUIT PIPING PENETRATIONS BELOW. SEE ALSO NOTE (1)).
- PROVIDE FLATSTOCK GRAY ALUMINUM BOTTOM FLASHING 100mm High WITH DRIP EDGE AT BOTTOM PERIMETER. INSTALL PIECES BEHIND MAIN PANELS.
- TOP CAP ASSEMBLY TO BE FLAT STOCK GRAY ALUMINUM PRE-DIP FACTORY PAINTED (140A). PIECES TO SLOPE TO ENSURE OUTWARD DRAINAGE. USE GUSSET FITTINGS TO SUIT. SECURE FASTENING TO TOP STRUCTURE ASSEMBLY FOR ALL PIECES. ENSURE PROPER 20mm OVERLAP OF JOINTS. ENSURE BOTTOM DRIP EDGE AT FULL PERIMETER. ENSURE 4 HOLE HINGES AND LOCKABLE HANDLES TO SUIT.
- ALL OVERLAPPING JOINTS CONTINUOUS CALK. SAME COLOR OF METAL SHEETS.
- SAME AS (6), ONE FULL CAP OR TWO PIECES FASTENED AND CALK TOGETHER AT SEAM. FOR TOWER 'L' ONLY, THESE TWO PIECES CAN BE PRE-ASSEMBLED AS ONE PIECE.
- NEW STORMPROOF LOUVER ASSEMBLY (4510mm x 4510mm x 50mm) TO BE FLANGE-FRAME MOUNT, C/W HORIZONTAL / DRAINING DOWN TYPE LOUVER (CLEAR ANODIZED FINISH). SIZE TO SUIT TUBULAR OPENING. PROVIDE BOTTOM EXTENDED ALUMINUM SILL (140A), GALVANIZED STANDARD BROSSCREEN (140A-INTER DRIPMED ALUMINUM) WITH 12mm x12mm MESH. PROVIDE FULL PERIMETER 40mm FLANGE. STAINLESS STEEL FASTENERS, ALL WELDED CONSTRUCTIONS. ALL STAINLESS STEEL FASTENERS, ALL WELDED CONSTRUCTIONS. ALL STAINLESS STEEL FASTENERS, ALL WELDED CONSTRUCTIONS. ALL STAINLESS STEEL FASTENERS, ALL WELDED CONSTRUCTIONS.
- SAME AS (7), BUT LOUVER SIZE AND ROUGH OPENING (R.O.) VARIES.
- UNLESS NOTED OTHERWISE, SAME AS (7), PROVIDE THREE (3) FIXED LOUVERS AND ONE (1) HINGED LOUVER AT OPENING PANEL (PROVIDE LOCKABLE HARDWARE). ENSURE DAMPER HANDLES INSIDE IS ON THE OPENING LOUVER PANEL SIDE (DAMPER OPERATION FOR OPEN/CLOSE SEQUENCE READY ACCESSIBLE FOR MAINTENANCE).
- AT TOWER TYPE 'K' ONLY, MAINTAIN METAL PLATES AS IS. COORDINATE CONFIGURATION OF FRAMING TO SUIT EXISTING METAL PLATES.
- AT TOWER STATION TYPE 'L' ONLY REPLACE DAMAGED BIRD WIRE SCREEN WITH MATCHING NEW GRILL. COORDINATE SIZE ON SITE. EXISTING LOUVER TO REMAIN.
- ENSURE TOP CAP ASSEMBLY TO BOTTOM ASSEMBLY FOR SECURED FIT. PROVIDE LOCKABLE HANDLE HARDWARE TO SUIT.
- COMPLETE ASSEMBLY TO BE BOLTED AND SECURED TO EXISTING GALVANIZED HATCH GRATE BELOW. FLUSH WITH ADJACENT CONCRETE CURB WITH METAL REMOVABLE CLAMPERS FROM INSIDE. ENSURE BOTTOM TUBULAR ASSEMBLY TO HAVE ADJ'L MEMBERS PRE-WELDED TO SUIT ANCHORAGE. INSTALLED AT 45° WITH 275mm OFFSETS FROM CORNERS. ENSURE BOTTOM CAULKING TO SEAL GAPS BETWEEN STEEL TUBE AND CONCRETE.
- COMPLETE ASSEMBLY INCLUDING BASE STEEL PLATE (WHERE APPLICABLE), TO BE SCREWED WITH ADEQUATE STEEL BRACKETS/ANCHORS TO EXISTING CONCRETE BASE. ENSURE BASE IS LEVEL AND FREE OF DEBRIS. ENSURE ANCHORS TO BE 75mm DEEP INTO CONCRETE.
- TYPE 'A' & 'B' EXISTING GRATE HATCH AND CONCRETE CURB BELOW TO REMAIN. FOR ENCLOSURE TYPE 'C' COLOR INVENTORY (SEE DWG 'A1').
- AT PIPING PENETRATION ADJACENT TO NEW DAMPER, PROVIDE FLAT METAL PLATE WITH PIPE SIZE HOLE TO ACCOMMODATE PIPING PENETRATION INSIDE. CALK PERIMETER.
- INSIDE TUNNEL LOCATED IN UPPER CEILING SPACE. REMOVE WOODEN AIR TRAP ASSEMBLY.

1 A2 SCALE: 1:100 QTY: 2

3 A2 SCALE: 1:100 QTY: 1

4 A3 SCALE: 1:100 QTY: 1



6 A2 SCALE: 1:100 QTY: 1

7 A2 SCALE: 1:100 QTY: 1

10 A2 SCALE: 1:100 QTY: 1

LEGEND:

● = APPROXIMATE LOCATION OF VENT / HATCH (SEE SITE PLAN ON DWG 'A1').
 ● = FOR ENCLOSURE TYPE BY COLOR INVENTORY (SEE DWG 'A1').
 ● = FOR EXTENT OF DAMAGE/REPAIR AND REPLACEMENT OPTIONS. (SEE DWG 'A2' & 'A3').

■ = COLOR CYAN = HATCH/VENT NOT IN CONTRACT (N.I.C.)

H# → H (#) = HATCH ACCESS (#1 TO #18)

V# → V (#) = VENT (#1 TO #27)

STN# → STN (#) = SPECIAL VENT/EXHAUST STATION (#1 TO #6)

SAH# → SAH (#) = STEAM ACCESS HATCHES (#1 TO #15) (N.I.C.)

X = TYPE OF HATCH / VENT (SEE SHEET A1 FOR TYPICAL PICTURE)

→ SEE SPECIFIC INSTRUCTION NOTE(S) ON SHEET 'A1'.

○ → SEE SPECIFIC ENCLOSURE NOTE(S) ON SHEET 'A2'.

National Research Council Canada
 Administrative Services and Property Management Branch

Conseil national de recherches Canada
 Division des services administratifs et gestion de l'immobilier



GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTOR MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

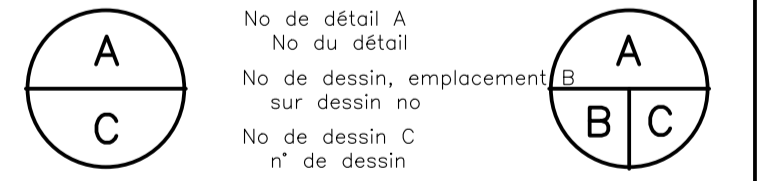
No.	Date	Revision	By:	For:
1	JUN 2021	ISSUED FOR TENDER	JCW	
0	JUN 2021	ISSUED FOR TRANSLATION	JCW	
0	NOV 2020	DESIGN FINAL REVIEW - ISSUED FOR PRICING & BUDGETARY APPROVALS	JCW	

KEY PLAN



MTL CAMPUS M-56 KEY PLAN
 NOT TO SCALE

- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité



M56-Utility Tunnel Vent / Hatch Modifications
 (NOTE: ALL SHEETS TO BE PRINTED IN COLOR)

MONTREAL ROAD CAMPUS

dessin / projet
 - VENTS / HATCHES 'A', 'B', 'D', 'K', 'L', 'M'
 - EXTENT OF DAMAGES AND DETERIORATION
 - SPECIFIC INSTRUCTIONS NOTES

designed / conçu	Date
JCW	MAY 2021

drawn / dessiné	scale / échelle
JCW	AS SHOWN

checked / vérifié	sheet / feuille
J.L./D.S./M.P.	A1 of/de A3

approved / approuvé	W.O.no. / N° d'ordre de travail
J.L./D.S.	A1-011388-01

dwg.no. / n° de dessin
5876-A2
 Fichier ACAD 5876-M56VENTS-ARCH.dwg / fichier CDAO



GENERAL NOTES

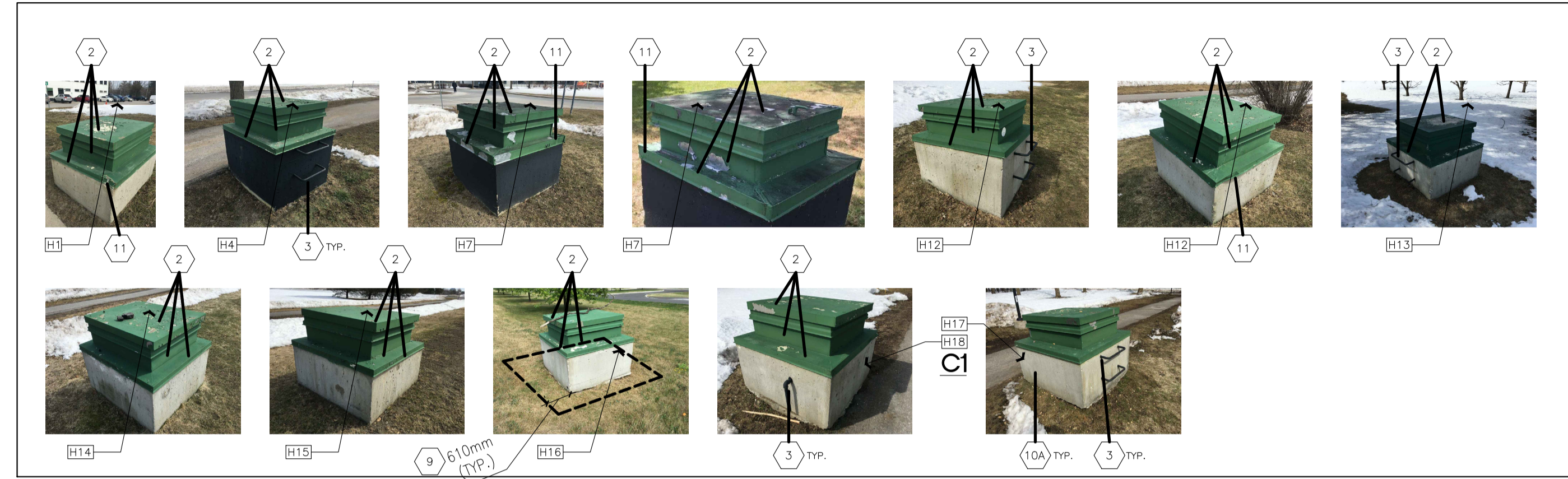
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LEGEND:

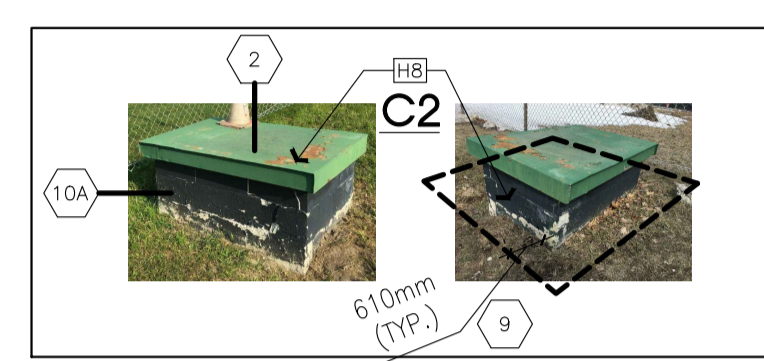
- APPROXIMATE LOCATION OF VENT / HATCH (SEE SITE PLAN ON DWG 'A1').
- FOR ENCLOSURE TYPE BY COLOR INVENTORY (SEE DWG 'A1').
- FOR EXTENT OF DAMAGES/REPAIR AND REPLACEMENT OPTIONS, (SEE DWG 'A2' & 'A3').

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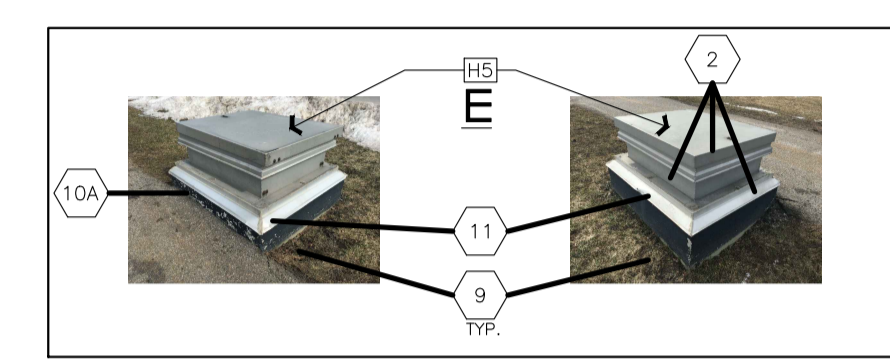
= TYPE OF HATCH / VENT (SEE SHEET A1 FOR TYPICAL PICTURE)
 = SEE SPECIFIC INSTRUCTION NOTE(S) ON SHEET 'A1'.
 = SEE SPECIFIC ENCLOSURE NOTE(S) ON SHEET 'A2'.



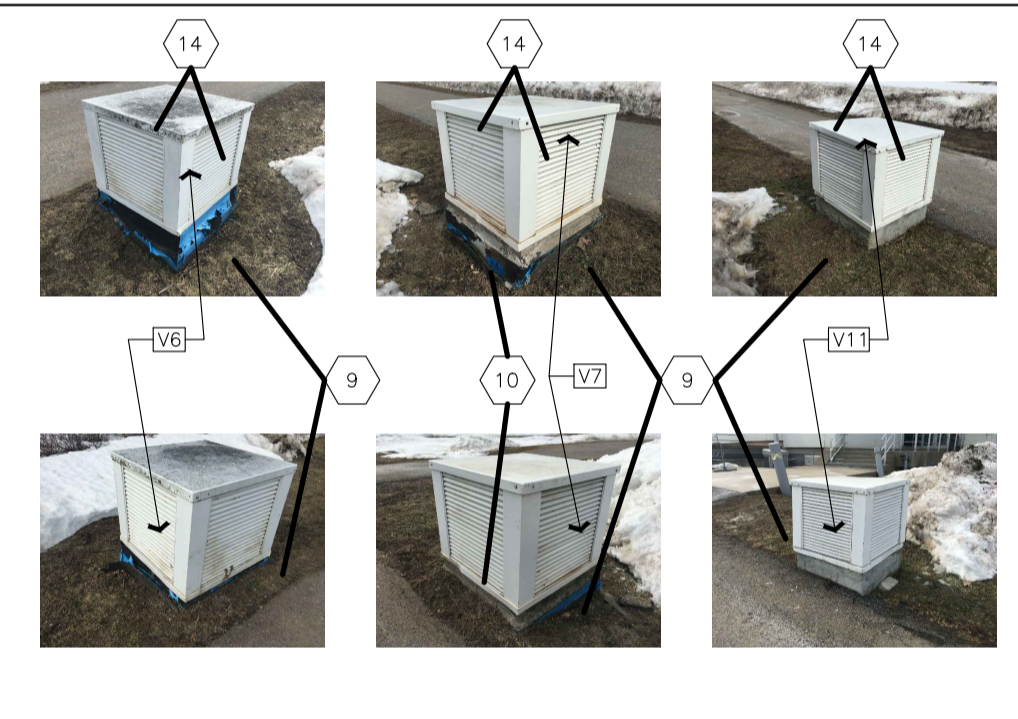
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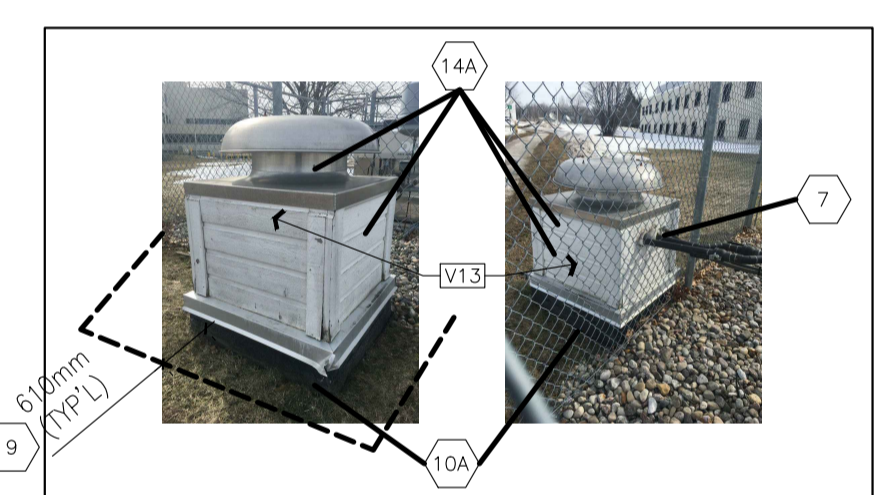
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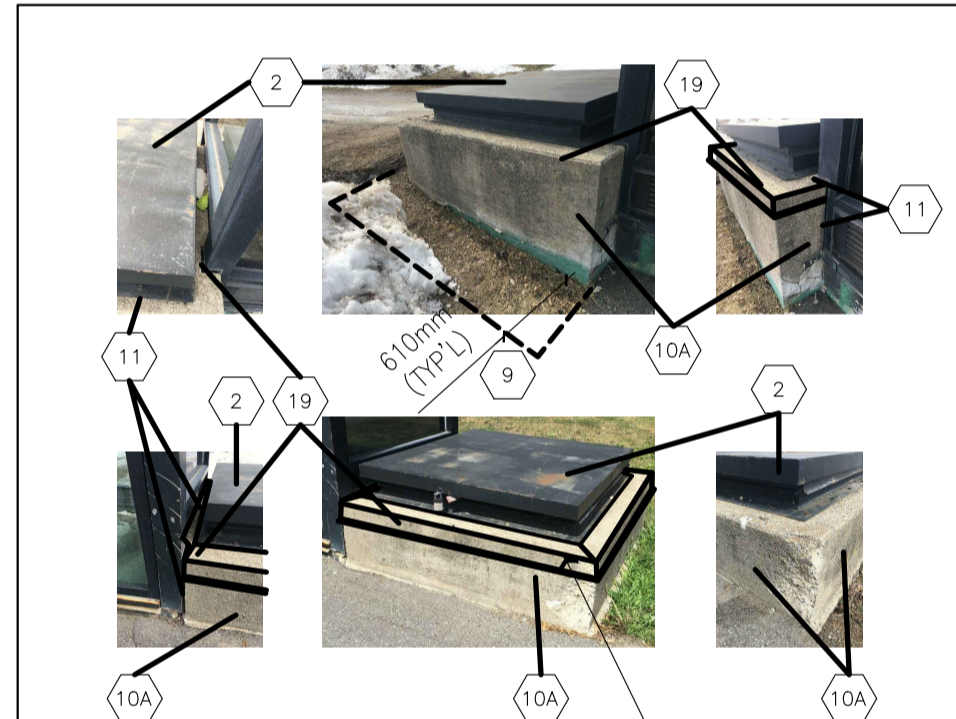
3 TYPE 'E' ACCESS HATCH – EXTENT OF DETERIORATION
 SCALE - NTA QTY: 1



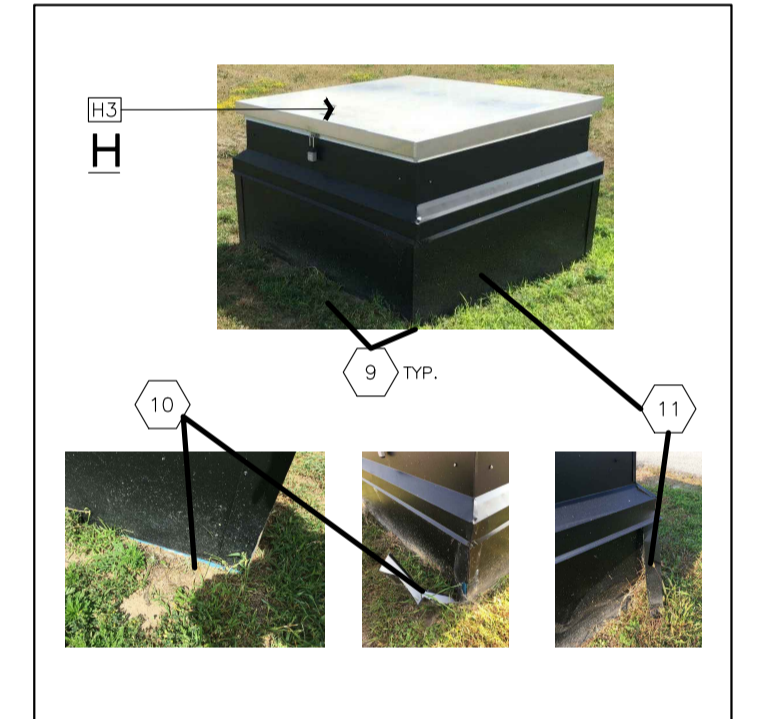
4 TYPE 'F1' VENTS – EXAMPLES OF DETERIORATION AND DAMAGES
 SCALE - NTA QTY: 3



5 TYPE 'F2' VENTS – EXAMPLES OF DETERIORATION AND DAMAGES
 SCALE - NTA QTY: 1



6 TYPE 'G' ACCESS HATCH – EXTENT OF DAMAGES AND DETERIORATION
 SCALE - NTA QTY: 1



7 TYPE 'H' ACCESS HATCH – EXTENT OF DAMAGES
 SCALE - NTA QTY: 1

No.	Date	Revision	By:
1	JUN 2021	ISSUED FOR TENDER	JCW
0	JUN 2021	ISSUED FOR TRANSLATION	JCW
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KEY PLAN



MTL CAMPUS M-56 KEY PLAN
 NOT TO SCALE

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- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

A	No de détail A No du détail	A
C	No de dessin, emplacement sur dessin no	B/C
	No de dessin C n° de dessin	

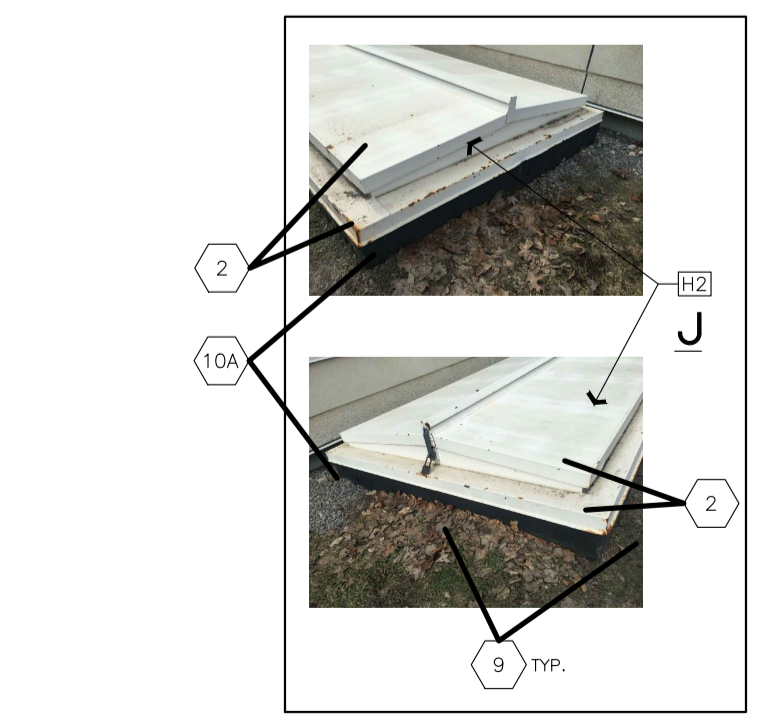
projet M56-Utility Tunnel Vent / Hatch Modifications
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MONTREAL ROAD CAMPUS

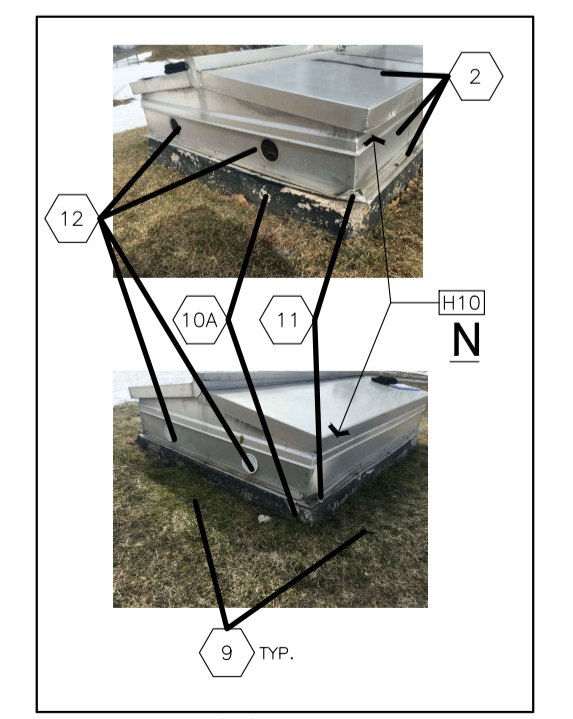
dessin - VENTS / HATCHES 'C1', 'C2', 'E', 'F1', 'F2', 'G', 'H'
 - EXTENT OF DAMAGES AND DETERIORATION

designed	JCW	conçu	Date	MAY 2021	Date
drawn	JCW	dessiné	scale	AS SHOWN	échelle
checked	J.L./D.S./M.P.	vérifié	sheet	A1 of/de A3	feuille
approved	J.L./D.S.	approuvé	W.D.no.	N° d'ordre de travail	
				A1-011388-01	

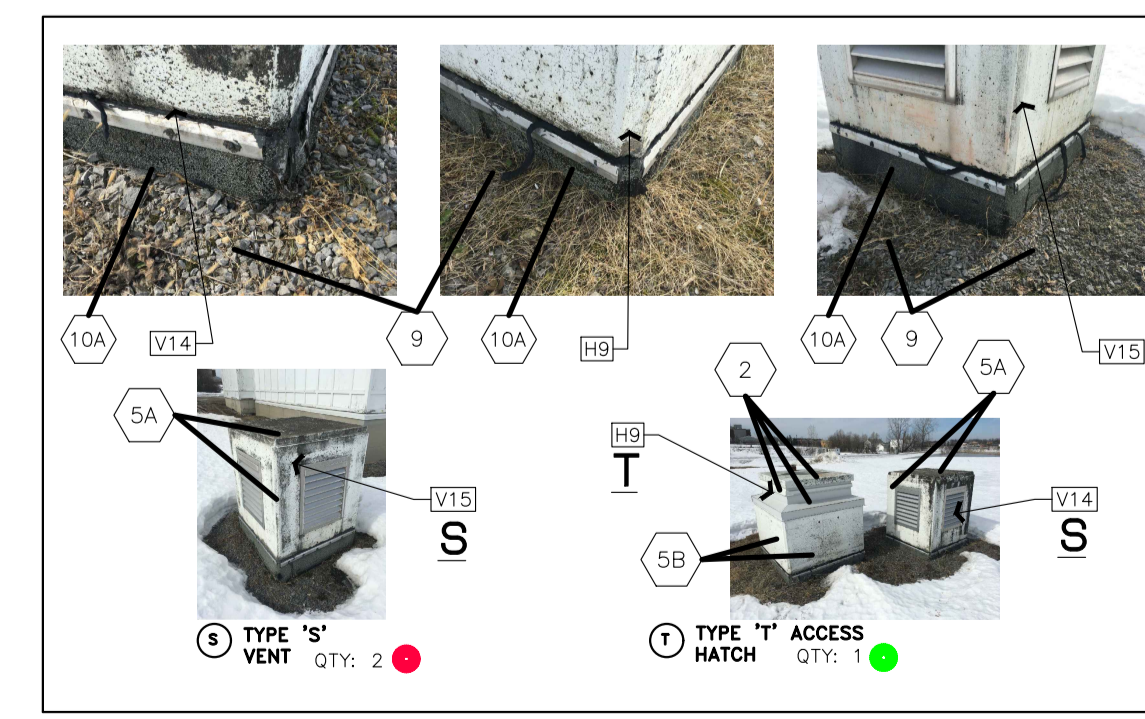
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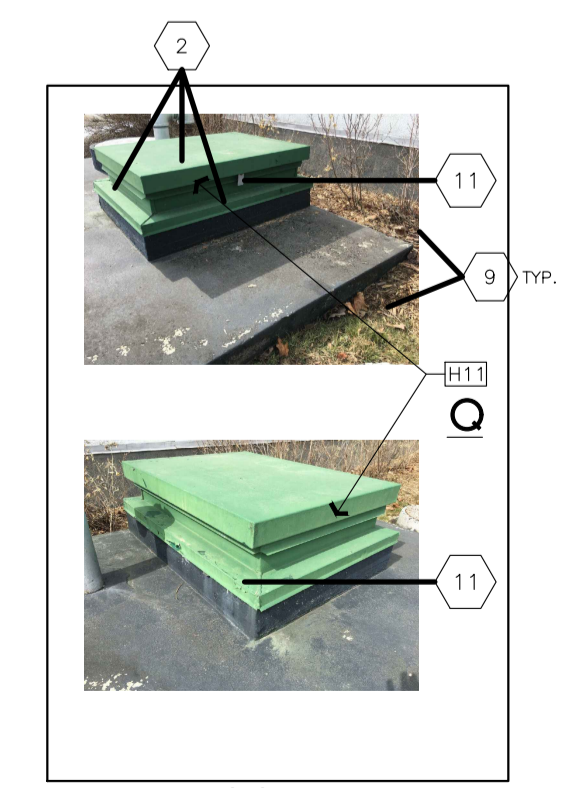
8 TYPE 'J' ACCESS HATCH – EXAMPLES OF EXTENT OF DAMAGES
 SCALE - NTA QTY: 1



9 TYPE 'N' ACCESS HATCH – EXAMPLES OF EXTENT OF DAMAGES
 SCALE - NTA QTY: 1



10 TYPE 'S' & 'T' VENT & ACCESS HATCH – EXTENT OF DAMAGES AND DETERIORATION
 SCALE - NTA QTY: 2



11 TYPE 'Q' ACCESS HATCH – EXTENT OF DAMAGES
 SCALE - NTA QTY: 1

