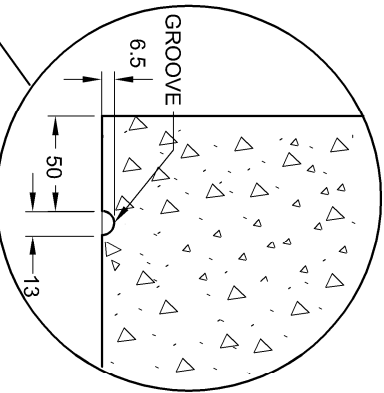
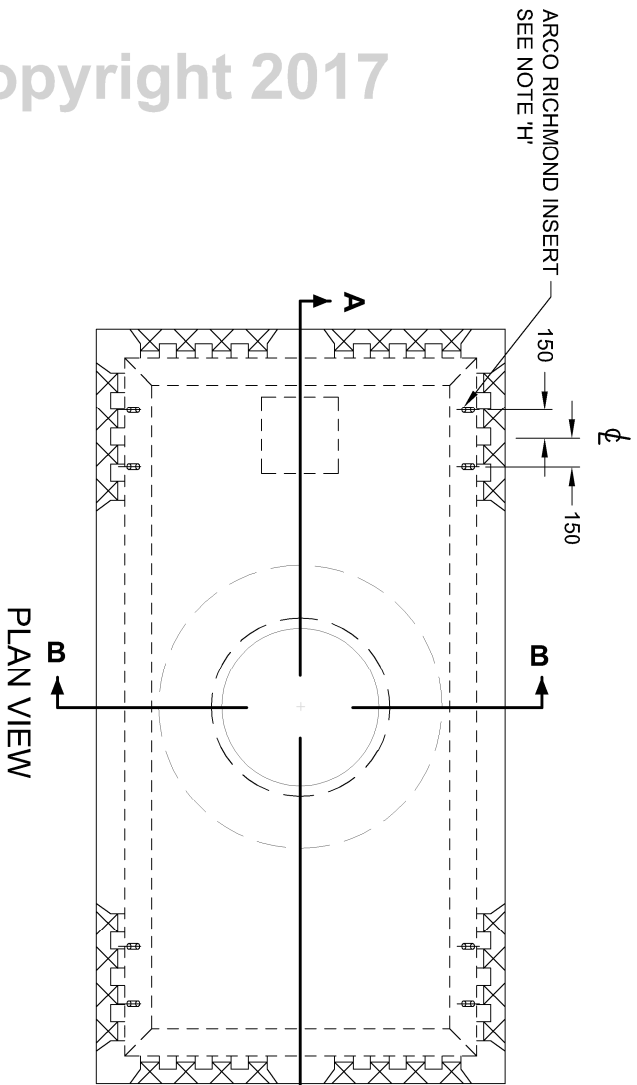
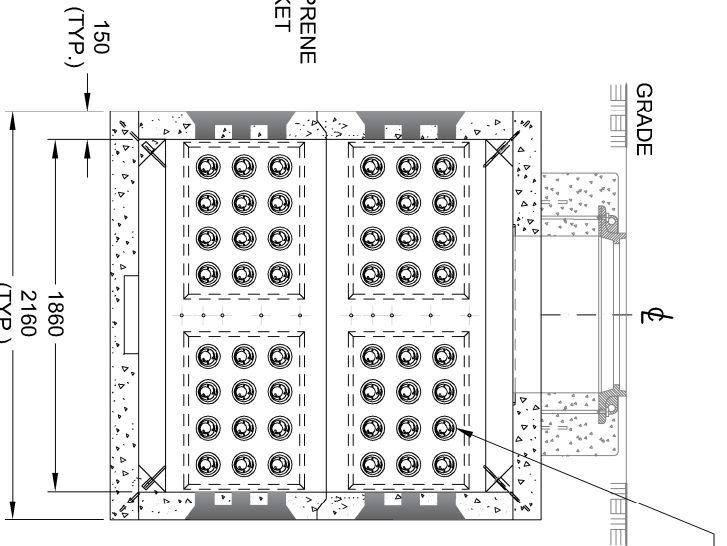
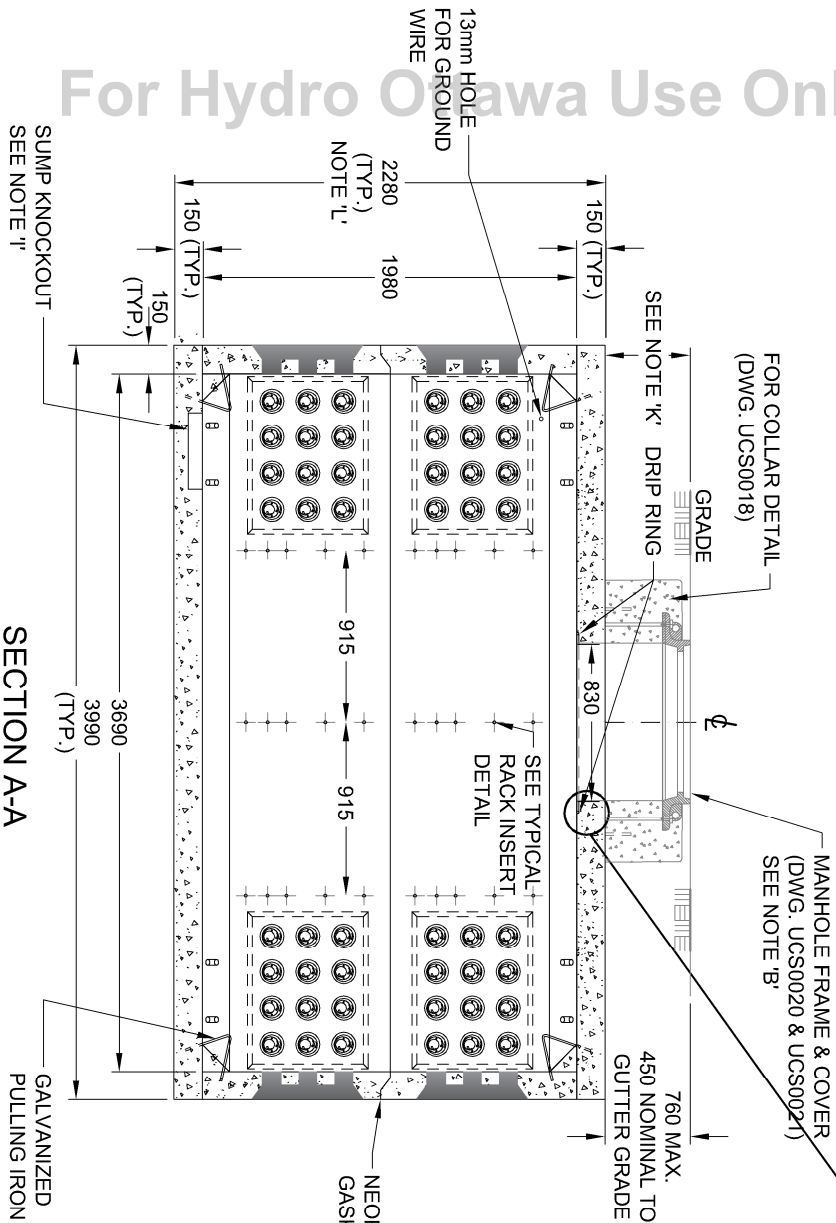


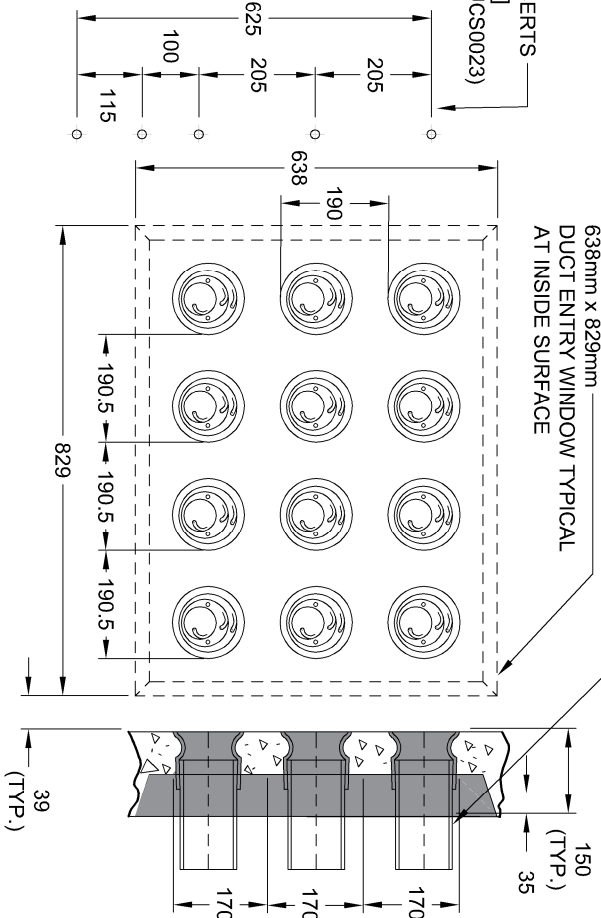


- NOTES:**
- A. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.
 - B. SUPPLIED BY HYDRO OTTAWA FOR HYDRO OTTAWA OWNED MANHOLES.
 - C. LOADS CAN/CSA-S6-06 CL-625-ONT TRUCK LIVE LOADING. SOIL - 1500mm MAX 300mm MIN. WATER TABLE AT SURFACE.
 - D. CONCRETE - 50 MPa AND SHALL MEET REQUIREMENTS OF CSA A23.1/A23.2 LATEST EDITION FOR CONCRETE EXPOSED TO DE-ICING CHEMICALS. AIR CONTENT 5-8% C1 CLASS OF EXPOSURE.
 - E. REINFORCING STEEL - 400 MPa, MIN 40mm CONCRETE COVER OVER STEEL.
 - F. GENERAL REQUIREMENTS FOR METHODS AND MATERIALS SHALL CONFORM TO CAN/CSA-A23.1/A23.2 (CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION / METHODS OF TEST AND STANDARD PRACTICES FOR CONCRETE.
 - G. SEE HYDRO OTTAWA CONSTRUCTION SPECIFICATION GCS0005 SECTION 6.2 FOR INSTALLATION PROCEDURE.
 - H. INSERTS TYPE 11/4 LEL - DH OR EQUIVALENT TO BE INSTALLED ABOVE TOP SECTION WINDOWS AND BELOW BOTTOM SECTION WINDOWS ON SIDE WALL.
 - I. SUMP KNOCKOUT IN FLOOR TO BE 400mm x 400mm [16" x 16"].
 - J. DUCT BANK REINFORCING TO BE DOWELED INTO MANHOLE WALL.
 - K. IF DIMENSION IS LESS THAN 450mm, ON-SITE APPROVAL BY HYDRO OTTAWA REQUIRED.
 - L. TOTAL HEIGHT OF MANHOLE MAY BE GREATER DEPENDING ON SUPPLIER. INSTALLER TO CONFIRM HEIGHT TO ENSURE PROPER SETTING DEPTH.



8 DUCT ENTRY WINDOWS WITH 12 - 127 mm UNIVERSAL PIPE SEAL PER WINDOW AT 190mm SPACING

CONCRETE INSERTS FOR 13mm [1/2"] BOLTS (DWG. UCS0023) QTY: 80 REQD



TYPICAL RACK INSERT TYPICAL DUCT ENTRY WINDOW DETAIL

REVISIONS				TITLE				
REV: 10	DATE: 2014-08-04	SK	RW	CSM	 www.hydroottawa.com ENGINEERING SPECIFICATION MANHOLE PRECAST 2 WAY 612 CONSTRUCTION DETAIL			
CHANGE: REVISE PLAN VIEW AND NOTE REFERENCE								
REV: 11	DATE: 2015-06-26	CP	MBW	CSM				
CHANGE: REVISED NOTE 'F'								
REV: 12	DATE: 2017-07-17	EV	MBW	BDH	NO: UCS0014 1 REV: 12			
CHANGE: ADD DUCT SEALS, REVISE NOTES 'D', 'F', 'H', 'J', 'K', 'L'								
ADD NOTE 'L', REVISE KNOCKOUT WINDOW								
SCALE: N.T.S. @ ANSI B								