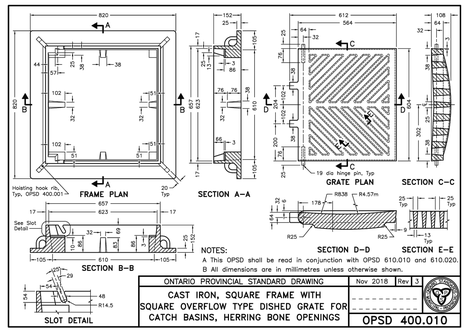


6 C5.1

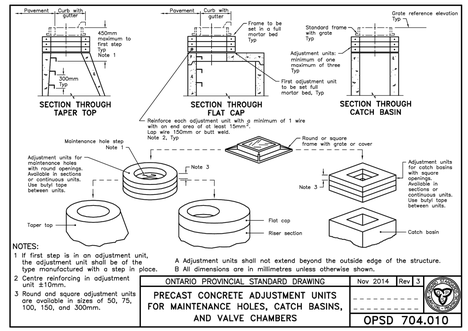
TYPICAL SWALE DETAIL

SCALE: N.T.S.



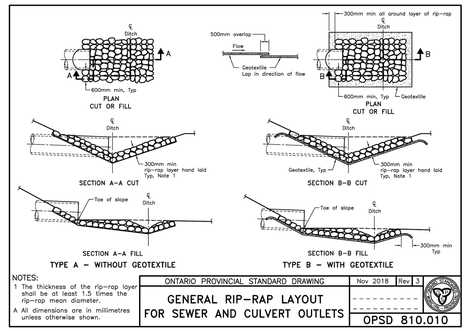
NOTES:
A This OPSD shall be read in conjunction with OPSD 610.010 and 610.020.
B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 3
CAST IRON, SQUARE FRAME WITH SQUARE OVERFLOW TYPE DISHED GRATE FOR CATCH BASINS, HERRING BONE OPENINGS		OPSD 400.010



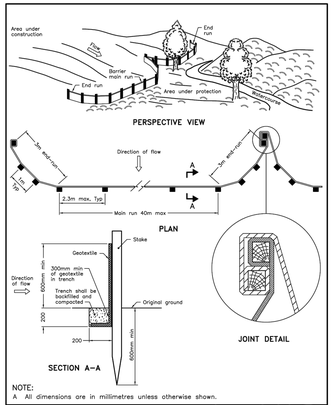
NOTES:
1 If first step is in an adjustment unit, the adjustment unit shall be of the type manufactured with a step in place.
2 Centre reinforcing in adjustment unit ø10mm.
3 Round and square adjustment units are available in sizes of 50, 75, 100, 150, and 300mm.
A Adjustment units shall not extend beyond the outside edge of the structure.
B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2014	Rev 3
PRECAST CONCRETE ADJUSTMENT UNITS FOR MAINTENANCE HOLES, CATCH BASINS, AND VALVE CHAMBERS		OPSD 704.010



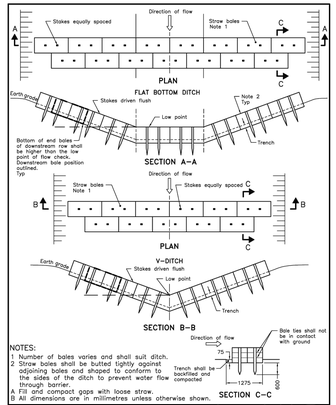
NOTES:
1 The thickness of the rip–rap layer shall be at least 1.5 times the rip–rap mean diameter.
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 3
GENERAL RIP–RAP LAYOUT FOR SEWER AND CULVERT OUTLETS		OPSD 810.010



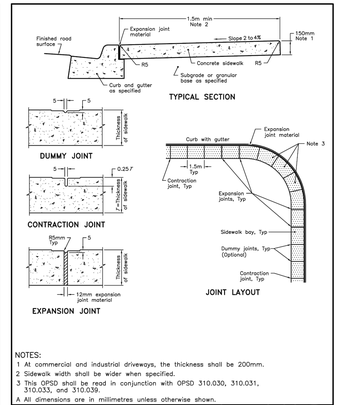
NOTE:
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2021	Rev 3
LIGHT–DUTY SILT FENCE BARRIER		OPSD 219.110



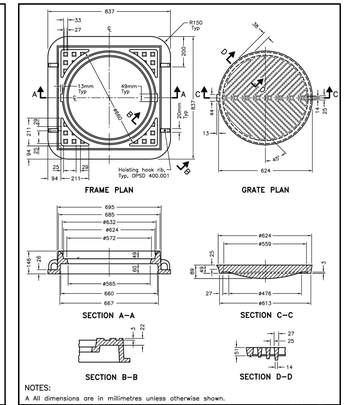
NOTES:
1 Number of bales varies and shall suit ditch.
2 Straw bales shall be butted tightly against adjoining bales and shaped to conform to the sides of the ditch to prevent water flow through barrier.
A Fill and compact gaps with loose straw.
B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2021	Rev 3
STRAW BALE FLOW CHECK DAM		OPSD 219.180



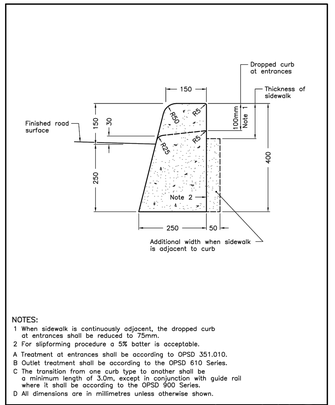
NOTES:
1 At commercial and industrial driveways, the thickness shall be 200mm.
2 Sidewalk width shall be wider when specified.
3 This OPSD shall be read in conjunction with OPSD 310.030, 310.031, 310.033, and 310.039.
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2019	Rev 3
CONCRETE SIDEWALK ADJACENT TO CURB WITH GUTTER		OPSD 310.020



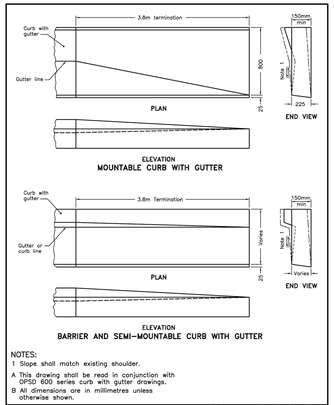
NOTES:
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 8
CAST IRON, RAISED SQUARE FRAME WITH CIRCULAR FLAT GRATE FOR CATCH BASINS, HERRING BONE OPENINGS		OPSD 400.070



NOTES:
1 When sidewalk is continuously adjacent, the dropped curb at entrances shall be reduced to 75mm.
2 For slipforming procedure a 5% batter is acceptable.
A Treatment at entrances shall be according to OPSD 351.010.
B Outlet treatment shall be according to the OPSD 610 Series.
C The transition from one curb type to another shall be a minimum length of 3.0m, except in conjunction with guide rail where it shall be according to the OPSD 900 Series.
D All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2012	Rev 2
CONCRETE BARRIER CURB		OPSD 600.110



NOTES:
1 Slope shall match existing shoulder.
A This drawing shall be read in conjunction with OPSD 600 series curb with gutter drawings.
B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2012	Rev 2
METHOD OF TERMINATION FOR CONCRETE CURB WITH GUTTER		OPSD 608.010

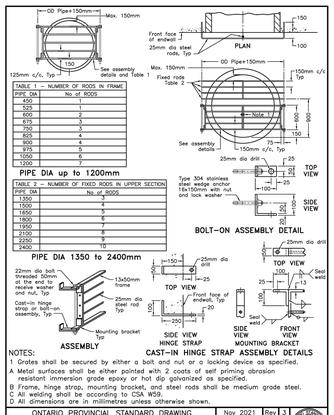
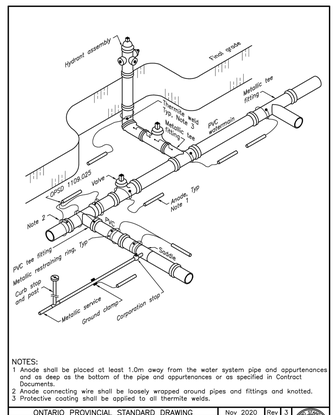


TABLE 1 – NUMBER OF RODS IN FRAME	
PIPE DIA	No. of RODS
450	1
525	1
600	2
675	3
750	3
825	4
900	4
975	5
1050	6
1200	7

TABLE 2 – NUMBER OF FIXED RODS IN UPPER SECTION	
PIPE DIA	No. of RODS
1350	3
1500	4
1650	5
1800	6
1950	7
2100	8
2250	9
2400	10

NOTES:
1 Grates shall be secured by either a bolt and nut or a locking device as specified.
A Metal surfaces shall be either painted with 2 coats of self priming abrasion resistant immersion grade epoxy or hot dip galvanized as specified.
B Frame, hinge strap, mounting bracket, and steel rods shall be medium grade steel.
C All welding shall be according to CSA W59.
D All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2021	Rev 3
GRATING FOR CONCRETE ENDWALL		OPSD 804.050



NOTES:
1 Anode shall be placed at least 1.0m away from the water system pipe and appurtenances and as deep as the bottom of the pipe and appurtenances or as specified in Contract Documents.
2 Anode connecting wire shall be loosely wrapped around pipes and fittings and knotted.
3 Protective coating shall be applied to all thermite welds.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2020	Rev 3
CATHODIC PROTECTION FOR PVC WATERMAIN SYSTEMS		OPSD 1109.011

wsp
2611 Queensview Dr. Ottawa, ON Canada K2B 8K2
t: 613.829.2800 f: 613.829.8299 www.wspgroup.com

CONSULTANT:

SEAL:

LICENSED PROFESSIONAL ENGINEER
W. ZHUANG
100231427
2026-07-16
PROVINCE OF ONTARIO

CLIENT:

MR. ABDO EL-ARAB
6175 ROCKDALE RD.
VARS, ONTARIO
K0A 3H0
PHONE NUMBER:
(613) 835-3525

CLIENT REF. #: --

PROJECT:

GAS STATION
REDEVELOPMENT
6175 ROCKDALE RD., CONC. 6
PT. LOT 27 RP 50R-5729 PART
1,2 & 3 (IRREG.)

KEY PLAN:



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THIS DRAWING IS NOT TO BE SCALED.

ISSUED FOR - REVISION:

IS	RE	DATE	DESCRIPTION
15		JULY 16, 2026	REVISED PER CITY COMMENTS
14		APRIL 24, 2026	ISSUED FOR SITE PLAN APPLICATION
13		MAR 24, 2026	REVISED PER MECP COMMENTS
12		SEPT 25, 2025	ISSUED FOR SITE PLAN APPLICATION
11		JUNE 28, 2024	ISSUED AS PER CITY COMMENTS DATED MARCH 19, 2024
10		OCT 12, 2023	ISSUED FOR REVIEW
9		JULY 15, 2020	ISSUED FOR REVIEW
8		JUNE 8, 2020	ISSUED FOR REVIEW
7		AUGUST 29/19	ISSUED FOR REVIEW
6	1	APRIL 8/19	ISSUED FOR REVIEW
5		MAY 28/18	ISSUED FOR REVIEW
4		APRIL 26/18	ISSUED FOR REVIEW
3		MAR 20/18	ISSUED FOR REVIEW
2		DEC 20/17	ISSUED FOR REVIEW

PROJECT NO: CA0008077.7007
DATE: 2026-07-16
ORIGINAL SCALE: AS SHOWN
IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE.
DESIGNED BY: IJ/AZ
DRAWN BY: SM/JT
CHECKED BY: IJ
25mm

DISCIPLINE: CIVIL

TITLE: DETAILS

SHEET NUMBER: C5.1
SHEET #: 6 OF 6

ISSUE: REVISED PER CITY COMMENTS
REV #: 15
DATE OF: 2026-07-16

Sarah McCormick

SARAH MCCORMICK
PLANNER III
PLANNING, DEVELOPMENT AND BUILDING SERVICES DEPARTMENT, CITY OF OTTAWA

APPROVED
By Sarah McCormick at 1:25 pm, Nov 05, 2026

FILE NO.: D07-12-18-0009 PLAN NO.: 17163

\\OTT-FILE-P01\Projects\171-14602 Vars Gas Station\3. Drawings\Working drawings\Civil\Submission\171-14602-00-C5-13_20260716.dwg Aug 17, 2026 4:47pm BY (CAAZ146826)