

DRAWING NOT TO BE USED FOR CONSTRUCTION

GENERAL NOTES:

- ALL DIMENSIONS INDICATED ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SPECIFIED.
- JELLYFISH STRUCTURE INLET AND OUTLET PIPE SIZE AND ORIENTATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.
- UNLESS OTHERWISE NOTED, BYPASS INFRASTRUCTURE, SUCH AS ALL UPSTREAM DIVERSION STRUCTURES, CONNECTING STRUCTURES, OR PIPE CONDUITS CONNECTING TO COMPLETE THE JELLYFISH SYSTEM SHALL BE PROVIDED AND ADDRESSED SEPARATELY.
- DRAWING FOR INFORMATION PURPOSES ONLY. REFER TO ENGINEER'S SITE UTILITY PLAN FOR STRUCTURE ORIENTATION.
- NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

JELLYFISH STRUCTURE & DESIGN NOTES:

- 457 MM (18") MAINTENANCE ACCESS SHALL BE USED FOR CLEANOUT AND ACCESS BELOW CARTRIDGE DECK.
- CARTRIDGE OR DOORS OF THE JELLYFISH MANHOLE STRUCTURE TO EXTEND TO DESIGN FINISH GRADE. DEPTHS IN EXCESS OF 3.65 M (12') MAY REQUIRE THE DESIGN AND INSTALLATION OF INTERMEDIATE SAFETY GRATES OR OTHER STRUCTURAL ELEMENTS.
- CARTRIDGE AND GRADE RINGS, OR DOORS OR DOOR RISERS, OR BOTH SHALL BE GROUTED FOR WATER TIGHTNESS.
- STRUCTURE SHALL MEET ASHTO HS-20, ASSUMING EARTH COVER OF 0.3, AND GROUNDWATER ELEVATION AT OR BELOW THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET ASHTO M506 LOAD RATING AND BE CAST WITH THE REINBURM LOGO.
- ALL STRUCTURAL SECTIONS AND PARTS TO MEET OR EXCEED ASTM C-418, ASTM C-443, AND ASTM A-955 CORRESPONDING TO ASBOTO SPECIFICATIONS, AND ANY OTHER SITE OR LOCAL STANDARDS.
- CONCRETE REINFORCING FROM BOTTOM TO TOP WILL BE ADDED AS REQUIRED INCLUDING TRANSITION PIECES TO SMALLER DIAMETER RISERS FOR SURFACE ACCESSES WHERE WARRANTED BY SERVICE DEPTH.
- IF MINIMUM DEPTH FROM TOP OF CARTRIDGE DECK TO BOTTOM OF STRUCTURE TOP SLAB CANNOT BE ACHIEVED DUE TO PIPING INVERT ELEVATIONS OR OTHER SITE CONSTRAINTS, ALTERNATIVE HATCH CONFIGURATIONS MAY BE AVAILABLE. HATCH DOORS SHOULD BE SIZED TO PROVIDE FULL ACCESS ABOVE THE CARTRIDGES TO ACCOMMODATE MAINTENANCE.
- STEPS TO BE APPROXIMATELY 330 MM (13") APART AND DIMENSIONS MUST MEET LOCAL STANDARDS. STEPS MUST BE INSTALLED AFTER CARTRIDGE DECK IS IN PLACE.
- CONFIGURATION OF INLET AND OUTLET PIPE CAN VARY TO MEET SITE NEEDS. IT IS THE RESPONSIBILITY OF OTHERS TO PROPERLY PROTECT THE TREATMENT DEVICE, AND KEEP THE DEVICE OFF DURING CONSTRUCTION. FILTER CARTRIDGES SHALL NOT BE INSTALLED UNTIL THE PROJECT SITE IS CLEAN AND FREE OF DEBRIS. BY OTHERS, THE PROJECT SITE INCLUDES ANY SURFACE THAT CONTRIBUTES STORM DRAINAGE TO THE TREATMENT DEVICE. CARTRIDGES SHALL BE FURNISHED NEW, AT THE TIME OF FINAL ACCEPTANCE. THIS DRAWING MUST BE VIEWED IN CONJUNCTION WITH THE STANDARD JELLYFISH SPECIFICATION, AND STORMWATER QUALITY FILTER TREATMENT JELLYFISH DOCUMENTS.

INSTALLATION NOTES:

- ANY EMBLEM, SIGN, WELL DEPTH, AND/OR ANTI-FILTRATION PROVISIONS ARE SITE SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS WITH SPRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT).
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
- CARTRIDGE INSTALLATION BY REINBURM SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS.
- CONTACT REINBURM TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION.

OFFLINE LAYOUT

CROSS SECTION 1-1

STANDARD OFFLINE JELLYFISH RECOMMENDED PIPE DIMENSIONS

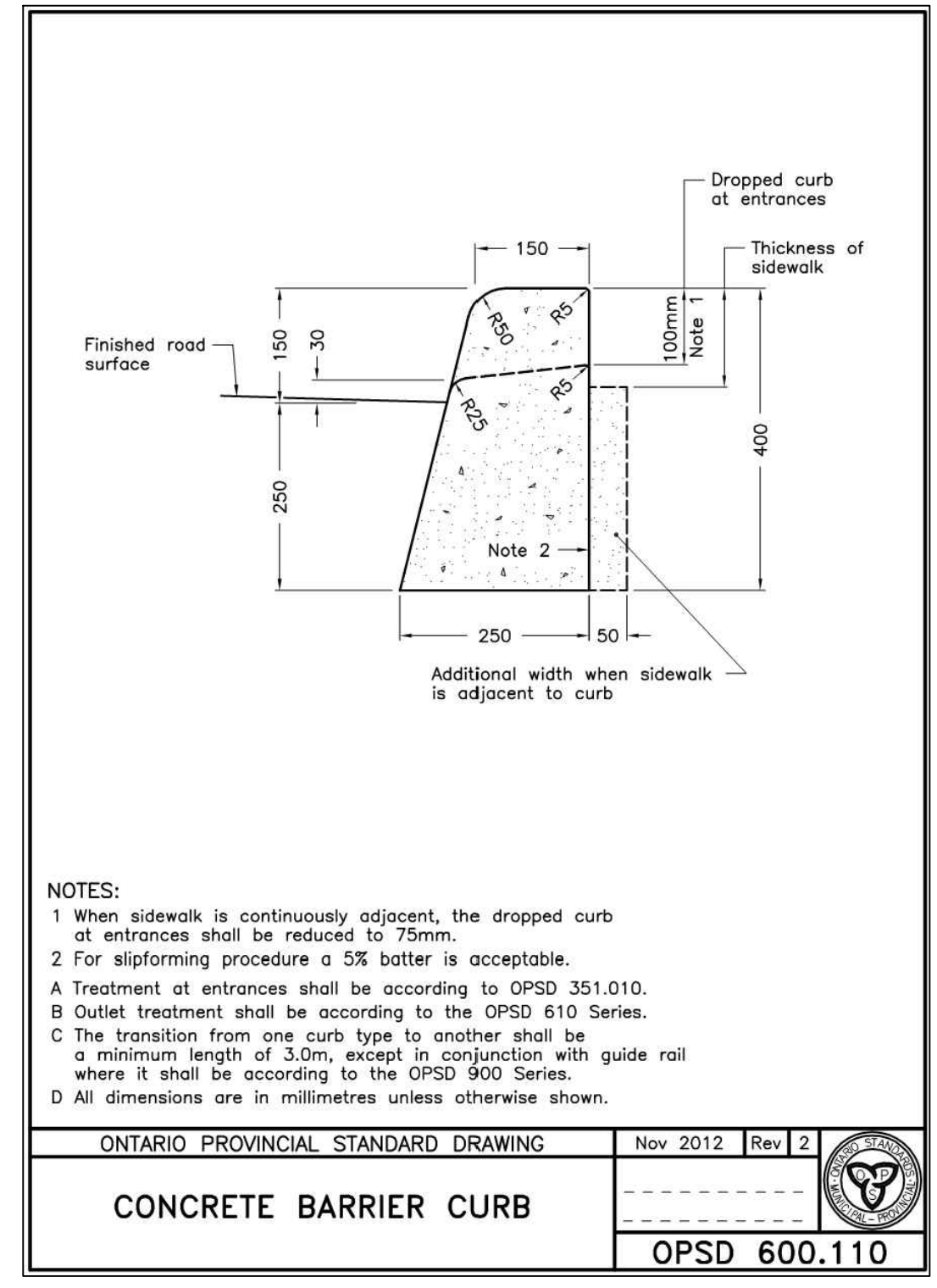
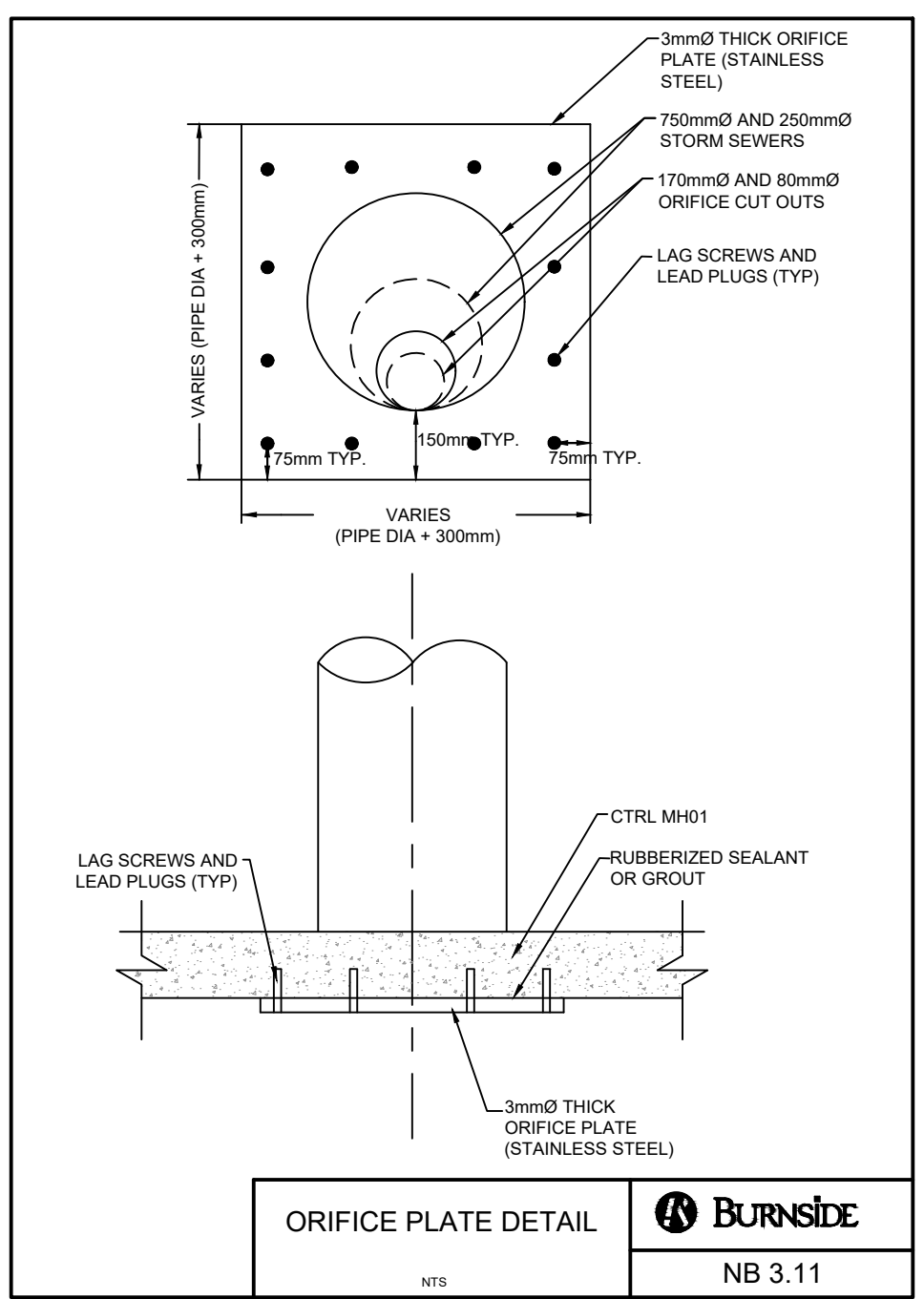
HOOK DIMENSION (IN)	RECOMMENDED PIPE DIAMETER (IN)	MINIMUM PIPE WALL THICKNESS (IN)	MINIMUM PIPE WALL THICKNESS (MM)
12	12	0.0625	1.5875
14	14	0.0625	1.5875
16	16	0.0625	1.5875
18	18	0.0625	1.5875
20	20	0.0625	1.5875
24	24	0.0625	1.5875
30	30	0.0625	1.5875
36	36	0.0625	1.5875
42	42	0.0625	1.5875
48	48	0.0625	1.5875
60	60	0.0625	1.5875
72	72	0.0625	1.5875
90	90	0.0625	1.5875
108	108	0.0625	1.5875
120	120	0.0625	1.5875
144	144	0.0625	1.5875
180	180	0.0625	1.5875
240	240	0.0625	1.5875
300	300	0.0625	1.5875

FOR SITE SPECIFIC DRAWINGS PLEASE CONTACT YOUR LOCAL JELLYFISH REPRESENTATIVE. SITE SPECIFIC DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME. SOME FIELD REVISIONS TO THE SYSTEM LOCATION OR CONNECTION PIPING MAY BE NECESSARY BASED ON AVAILABLE SPACE OR SITE CONFIGURATION REVISIONS. ELEVATIONS SHOULD BE MAINTAINED EXCEPT WHERE NOTED ON BYPASS STRUCTURE.

JELLYFISH DESIGN NOTES

JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE TYPE OF CARTRIDGES. THE STANDARD MANHOLE STYLE IS 300MM (12") MANHOLE JELLYFISH TREATMENT CAPACITY IS 12 L/S (3.4 CFS). TREATMENT FLOW RATE IS BASED ON 457 MM (18") CARTRIDGE SELECTION.

CARTRIDGE DEPTH	300MM (12")	457MM (18")	603MM (24")
1.52M (5.0')	1.41	2.82	4.23
1.83M (6.0')	1.71	3.42	5.14
2.14M (7.0')	2.01	4.02	6.05
2.45M (8.0')	2.31	4.62	6.96
2.76M (9.0')	2.61	5.22	7.87
3.07M (10.0')	2.91	5.82	8.78
3.38M (11.0')	3.21	6.42	9.69
3.69M (12.0')	3.51	7.02	10.60
4.00M (13.0')	3.81	7.62	11.51
4.31M (14.0')	4.11	8.22	12.42
4.62M (15.0')	4.41	8.82	13.33
4.93M (16.0')	4.71	9.42	14.24
5.24M (17.0')	5.01	10.02	15.15
5.55M (18.0')	5.31	10.62	16.06
5.86M (19.0')	5.61	11.22	16.97
6.17M (20.0')	5.91	11.82	17.88
6.48M (21.0')	6.21	12.42	18.79
6.79M (22.0')	6.51	13.02	19.70
7.10M (23.0')	6.81	13.62	20.61
7.41M (24.0')	7.11	14.22	21.52
7.72M (25.0')	7.41	14.82	22.43
8.03M (26.0')	7.71	15.42	23.34
8.34M (27.0')	8.01	16.02	24.25
8.65M (28.0')	8.31	16.62	25.16
8.96M (29.0')	8.61	17.22	26.07
9.27M (30.0')	8.91	17.82	26.98
9.58M (31.0')	9.21	18.42	27.89
9.89M (32.0')	9.51	19.02	28.80
10.20M (33.0')	9.81	19.62	29.71
10.51M (34.0')	10.11	20.22	30.62
10.82M (35.0')	10.41	20.82	31.53
11.13M (36.0')	10.71	21.42	32.44
11.44M (37.0')	11.01	22.02	33.35
11.75M (38.0')	11.31	22.62	34.26
12.06M (39.0')	11.61	23.22	35.17
12.37M (40.0')	11.91	23.82	36.08
12.68M (41.0')	12.21	24.42	36.99
12.99M (42.0')	12.51	25.02	37.90
13.30M (43.0')	12.81	25.62	38.81
13.61M (44.0')	13.11	26.22	39.72
13.92M (45.0')	13.41	26.82	40.63
14.23M (46.0')	13.71	27.42	41.54
14.54M (47.0')	14.01	28.02	42.45
14.85M (48.0')	14.31	28.62	43.36
15.16M (49.0')	14.61	29.22	44.27
15.47M (50.0')	14.91	29.82	45.18
15.78M (51.0')	15.21	30.42	46.09
16.09M (52.0')	15.51	31.02	47.00
16.40M (53.0')	15.81	31.62	47.91
16.71M (54.0')	16.11	32.22	48.82
17.02M (55.0')	16.41	32.82	49.73
17.33M (56.0')	16.71	33.42	50.64
17.64M (57.0')	17.01	34.02	51.55
17.95M (58.0')	17.31	34.62	52.46
18.26M (59.0')	17.61	35.22	53.37
18.57M (60.0')	17.91	35.82	54.28
18.88M (61.0')	18.21	36.42	55.19
19.19M (62.0')	18.51	37.02	56.10
19.50M (63.0')	18.81	37.62	57.01
19.81M (64.0')	19.11	38.22	57.92
20.12M (65.0')	19.41	38.82	58.83
20.43M (66.0')	19.71	39.42	59.74
20.74M (67.0')	20.01	40.02	60.65
21.05M (68.0')	20.31	40.62	61.56
21.36M (69.0')	20.61	41.22	62.47
21.67M (70.0')	20.91	41.82	63.38
21.98M (71.0')	21.21	42.42	64.29
22.29M (72.0')	21.51	43.02	65.20
22.60M (73.0')	21.81	43.62	66.11
22.91M (74.0')	22.11	44.22	67.02
23.22M (75.0')	22.41	44.82	67.93
23.53M (76.0')	22.71	45.42	68.84
23.84M (77.0')	23.01	46.02	69.75
24.15M (78.0')	23.31	46.62	70.66
24.46M (79.0')	23.61	47.22	71.57
24.77M (80.0')	23.91	47.82	72.48
25.08M (81.0')	24.21	48.42	73.39
25.39M (82.0')	24.51	49.02	74.30
25.70M (83.0')	24.81	49.62	75.21
26.01M (84.0')	25.11	50.22	76.12
26.32M (85.0')	25.41	50.82	77.03
26.63M (86.0')	25.71	51.42	77.94
26.94M (87.0')	26.01	52.02	78.85
27.25M (88.0')	26.31	52.62	79.76
27.56M (89.0')	26.61	53.22	80.67
27.87M (90.0')	26.91	53.82	81.58
28.18M (91.0')	27.21	54.42	82.49
28.49M (92.0')	27.51	55.02	83.40
28.80M (93.0')	27.81	55.62	84.31
29.11M (94.0')	28.11	56.22	85.22
29.42M (95.0')	28.41	56.82	86.13
29.73M (96.0')	28.71	57.42	87.04
30.04M (97.0')	29.01	58.02	87.95
30.35M (98.0')	29.31	58.62	88.86
30.66M (99.0')	29.61	59.22	89.77
30.97M (100.0')	29.91	59.82	90.68



BENCHMARK
ELEVATIONS ARE REFERRED TO THE CANADIAN GEODETIC VERTICAL DATUM (CGVD-1928: PRE 1978) AND ARE DERIVED FROM CITY OF MISSISSAUGA BENCHMARK MONUMENT No. 1065, HAVING A PUBLISHED ELEVATION OF 178.912 METRES.

NOT FOR CONSTRUCTION

No.	Issue / Revision	Date	Auth.
1	ISSUED FOR SITE PLAN APPROVAL	20/03/20	DN
2	RE-ISSUED FOR SITE PLAN APPROVAL	22/01/11	DN
3	RE-ISSUED FOR SITE PLAN APPROVAL	23/05/10	TR
4	RE-ISSUED FOR ZONING	24/04/03	TR

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Drawing Title
NINTH LINE MISSISSAUGA

DETAIL PLAN

Drawn	Checked	Designed	Checked	Date	Drawing No.
TR	SR	TR	SR	23/07/17	

Project No. 300044049 Contract No. CONTRACT NO. Revision No. 0

Scale NOT TO SCALE

D2