

VARIES

1. SEWER INSTALLATION (INCLUDING BEDDING AND COVER) TO BE PER CITY OF OTTAWA TRENCH DETAIL S6

2. INSULATION POINTS TO BE STAGGERED, WITH MINIMUM 0.3 OVERLAP

3. INSULATION TO BE CENTERED OVER PIPE WITH MINIMUM WIDTH OF 1.2m

4. INSULATION TO BE PROVIDED AT ALL SEWER LOCATIONS WHERE MINIMUM COVERAGE OF 2.0m IS NOT ACHIEVED.

INSULATION REFERENCE TABLE

EARTH COVER	REQUIRED INSULATION THICKNESS
2.0m - 1.6m	25mm
1.6m - 1.5m	50mm
1.5m - 1.2m	75mm
1.2m - 0.9m	100mm
0.9m - 0.6m	125mm

INSULATION DETAIL

N.T.S.

File Location: V:\27000\02796-02 Dymon 851 Industrial Ave\LR DWG\02796-02 C SSG.dwg

WATERMAIN TABLE-Sta. 1+000.00 TO 1+107.16				
STATION	ALONG WM	DETAIL	FINISHED GRADE	TOP OF WM
1+000		305 x 203 TEE CONNECTION TO EXISTING	73.50	71.10
1+006.93*		WM CROSSING OVER SANITARY	73.19	71.41
1+008.51**		WM CROSSING OVER STORM	73.17	71.41
1+024.70		PROPERTY LINE & VALVE & VB	73.47	71.00
1+025.40		HYDRANT	73.38	70.98
1+031.99***		WM CROSSING UNDER STORM	73.15	70.25
1+033.26		45° HORIZONTAL BEND	73.08	70.68
1+040			73.08	70.68
1+042.75		45° HORIZONTAL BEND	73.04	70.64
1+060			72.89	70.49
1+080			72.71	70.31
1+101.55****		WM CROSSING UNDER SANITARY	72.48	70.09
1+107.85****		WM CROSSING UNDER STORM	72.40	70.03
1+110.82		45° HORIZONTAL BEND	72.37	69.97
1+112.87		45° HORIZONTAL BEND	72.52	69.97
1+114.16		CONNECTION @ BUILDING	72.56	69.97

NOTE: ALL WM TO BE CONSTRUCTED AT 2.4m BELOW FINISHED GRADE.

TOP OF 2500 SANITARY SEWER = 69.78m;
BOTTOM OF WATERMAIN = 71.20m;
CLEARANCE = 1.42m.

TOP OF 6750 STORM SEWER = 70.96m;
BOTTOM OF WATERMAIN = 71.21m;
CLEARANCE = 0.25m.

BOTTOM OF 2500 STORM SEWER = 70.75m;
TOP OF WATERMAIN = 70.25m;
CLEARANCE = 0.5m.

BOTTOM OF 1500 SANITARY SEWER = 70.54m;
TOP OF WATERMAIN = 70.09m;
CLEARANCE = 0.45m.

BOTTOM OF 3000 STORM SEWER = 70.79m;
TOP OF WATERMAIN = 70.03m;
CLEARANCE = 0.76m.

HEAVY DUTY ASPHALT

40mm HL3

65mm HL8

150mm GRANULAR 'A'

300mm GRANULAR 'B'

NOTE: HEAVY DUTY PAVEMENT STRUCTURE TO BE IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION REPORT (FE-P17-8323 GEO) PREPARED BY FISHER ENVIRONMENTAL LIMITED.

1:100 YEAR PONDING TABLE						
CATCH BASIN	PONDING AREA	Qp (L/s)	Qp ICD (L/s)	PONDING VOLUME (m³)	PONDING AREA (m²)	PONDING DEPTH (m)
CB 1	--	25.43	N/A	0.00	0.00	0.00
CB 2 - ICD 1	Area 1	24.82	22.00	1.69	51.76	0.10
CB 3 - ICD 2	Area 2	49.77	9.00	19.13	235.01	0.25
CB 4 - ICD 3	Area 3	71.85	30.00	35.90	408.81	0.25
CBMH 1 - ICD 4	Area 4	41.43	22.00	11.66	191.83	0.18

ICD TABLE						
ICD #	OUTLET PIPE DIA. (mm)	Qr (L/s)	OUTLET INVERT (m)	TOP OF GRATE (m)	PONDING ELEV. 1:100 Yr. (m)	DESIGN HEAD 1:100 Yr. (m)
ICD 1 - CB 2	250	47.43	70.91	72.80	72.90	1.99
ICD 2 - CB 3	200	9.00	70.79	72.35	72.60	1.81
ICD 3 - CB 4	200	30.00	70.99	71.90	72.15	1.16
ICD 4 - CBMH1	300	22.00	70.96	72.65	72.83	1.87

ROOF DRAIN TABLE					
BUILDING	ROOF DRAIN	WEIR OPENING	MAX PONDING DEPTH (mm)	ROOF DRAIN TYPE	RELEASE RATE (L/S)
PROPOSED DYMON BUILDING	RD1	1/4 EXPOSED	160	WATTS ADJUSTABLE ACCUTROL WEIR	0.94
	RD2	1/4 EXPOSED	160	WATTS ADJUSTABLE ACCUTROL WEIR	0.94
	RD3	1/4 EXPOSED	160	WATTS ADJUSTABLE ACCUTROL WEIR	0.94
	RD4	1/2 EXPOSED	160	WATTS ADJUSTABLE ACCUTROL WEIR	1.26
	RD5	1/2 EXPOSED	160	WATTS ADJUSTABLE ACCUTROL WEIR	1.26
	RD6	1/2 EXPOSED	160	WATTS ADJUSTABLE ACCUTROL WEIR	1.26
TOTAL FLOW RATE =					6.60

LEGEND

CATCH BASIN MAINTENANCE HOLE c/w ICD

PROPOSED CATCH BASIN c/w ICD & LEAD

PROPOSED WATERMAIN, HYDRANT, VALVE & VALVE BOX AND REDUCER

PROPOSED STORM SEWER & MAINTENANCE HOLE

WATER QUALITY UNIT (WQU)

PROPOSED SANITARY SEWER & MAINTENANCE HOLE

PROPOSED SCUPPER

PROPOSED EXISTING ELEVATION

EDGE OF GRASS ELEVATION

EDGE OF PAVEMENT ELEVATION

TOP OF WALL ELEVATION

BOTTOM OF WALL ELEVATION

SURFACE SLOPE

FLOW DIRECTION

FINISHED FLOOR ELEVATION

FIRE ROUTE ACCESS LANE

CONCRETE SURFACE

GRASS SURFACE

DEPRESSED CURB

RETAINING WALL c/w METAL GUARDRAIL

RETAINING WALL c/w CHAINLINK FENCE

SIAMESE CONNECTION

5	RE-ISSUED FOR SITE PLAN CONTROL	06/02/19
4	RE-ISSUED FOR SITE PLAN CONTROL	05/11/18
3	RE-ISSUED FOR SITE PLAN CONTROL	08/08/18
2	RE-ISSUED FOR SITE PLAN CONTROL	30/01/18
1	ISSUED FOR SITE PLAN CONTROL	05/10/2017

No.	ISSUE / REVISION	DDMMYY
5	RE-ISSUED FOR SITE PLAN CONTROL	06/02/19
4	RE-ISSUED FOR SITE PLAN CONTROL	05/11/18
3	RE-ISSUED FOR SITE PLAN CONTROL	08/08/18
2	RE-ISSUED FOR SITE PLAN CONTROL	30/01/18
1	ISSUED FOR SITE PLAN CONTROL	05/10/2017

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VERIFY SHEET SIZE AND SCALES. BAR TO THE RIGHT IS 25mm IF THIS IS A FULL SIZE DRAWING.

SCALE: 1:300

CLIENT: Dymon Self Storage

CONSULTANT: J.L. Richards ENGINEERS - ARCHITECTS - PLANNERS

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PROJECT: SELF STORAGE FACILITY

DRAWING: 851 INDUSTRIAL AVE.

SITE SERVICING GRADING PLAN

DESIGN: JW

DRAWN: CJM

CHECKED: LD

JLR #: 27296-002.1

DRAWING #: SSG

GENERAL CONSTRUCTION NOTES :

1. ALL MATERIAL (SANITARY, STORM & WATERMAIN) AND CONSTRUCTION METHODS TO BE IN ACCORDANCE WITH THE CURRENT OPSD, OPSD AND CITY OF OTTAWA STANDARD DRAWINGS AND SPECIFICATIONS.

2. UNLESS OTHERWISE NOTED, DIMENSIONS FROM STREET LINE ARE TO THE CENTRELINE OF SEWER OR MAINTENANCE HOLE.

3. THE INSIDE DIAMETER OF PIPES ARE REFERRED TO IN PLAN VIEW.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING LOCATES FROM ALL UTILITY COMPANIES TO LOCATE EXISTING UTILITIES PRIOR TO EXCAVATION.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION, BACKFILL, REINSTATEMENT OF ALL AREAS DISTURBED DURING CONSTRUCTION AND ALL ASSOCIATED WORKS TO THE SATISFACTION OF THE ENGINEER AND THE CITY OF OTTAWA.

6. THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE, VIA EXCAVATION, THE EXACT LOCATION AND ELEVATION OF THE EXISTING WATERMAINS, SEWERS AND UNDERGROUND STRUCTURES AS REQUIRED FOR ALL CONNECTIONS, RELOCATIONS AND BLANKINGS.

7. EXISTING STORM SEWER SYSTEM AND CATCH BASIN NETWORK TO BE REMOVED AND DISPOSED OF OFF-SITE.

8. SERVICING DESIGN DRAWINGS TO BE READ IN CONJUNCTION WITH THE SITE SERVICING REPORT (JULY 2016) PREPARED BY J.L. RICHARDS & ASSOCIATES LIMITED (JLR 27296-002.1) AS WELL AS THE GEOTECHNICAL INVESTIGATION REPORT (SEPTEMBER 2017) PREPARED BY FISHER ENVIRONMENTAL LTD. (FE-P17-8323 GEO).

9. ALL WATERMAINS SHALL CONFORM TO THE LATEST REVISIONS OF THE CITY OF OTTAWA AND THE ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSD).

10. WATERMAINS CROSSING BELOW OR OVER A SEWER SHALL BE IN ACCORDANCE WITH CITY STANDARD DRAWING W25 AND W25.2.

11. PROVIDE A MINIMUM OF 2.4m COVER ON ALL WATERMAINS AND WATER SERVICES. OTHERWISE PROVIDE THERMAL INSULATION AS PER CITY STANDARD DRAWING W22 (IN SHALLOW TRENCHES) AND W23 (AT OPEN TRENCHES).

12. AT ALL CONNECTION POINTS, REINSTATE SURFACES TO EXISTING CONDITION OR BETTER - ASPHALT RESTORATION SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD DRAWING No. R10. - THICKNESS OF GRANULAR AND ASPHALT LAYERS SHALL MATCH EXISTING - BOULEVARDS SHALL BE REINSTATED WITH 100mm TOPSOIL AND SOD.

13. - SANITARY SERVICE LATERAL TO BE 150mmØ PVC DR 35. - STORM SEWERS TO BE PVC SDR 35 c/w INSULATION WHERE MINIMUM COVERAGE OF 1.8m IS NOT ACHIEVED (REFER TO INSULATION DETAIL). - WATERMAINS AND HYDRANT LATERAL TO BE PVC DR 18.

14. ALL SANITARY & STORM MAINTENANCE HOLES TO BE 1200mm UNLESS OTHERWISE NOTED AS PER OPSD 701.010 c/w FRAME AND COVERS AS PER CITY STANDARD DRAWINGS S24 AND S24.1. RESPECTIVELY SANITARY AND STORM MAINTENANCE HOLES INCLUDING WQU STMH100 TO HAVE WATERTIGHT COVERS AS PER OPSD 401.030. CATCH BASIN MAINTENANCE HOLE COVER TO BE PER CITY STANDARD DRAWING S28.1.

15. ALL CATCH BASINS TO BE 600x600mm PRECAST CONCRETE PER OPSD 705.010 c/w FRAME AND COVER AS PER CITY STANDARD DRAWING S19.

16. DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL SITE PLAN PREPARED BY NICHOLAS CARAGIANIS ARCHITECT INC.

17. SERVICES TO BE TERMINATED 1.0m FROM BUILDING WALL (TYPICAL).

18. CONCRETE CURB TO BE BARRIER TYPE AS PER CITY STANDARD DRAWING SC1.1.

19. SIDEWALKS AND WALKWAYS TO BE CONSTRUCTED AS PER CITY OF OTTAWA DETAIL SC2 (OR SC1.4) AND SC4.

20. PAVEMENT DESIGN TO BE IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION REPORT (SEPTEMBER 2017) PREPARED BY FISHER ENVIRONMENTAL LIMITED (FE-P17-8323 GEO). REFER TO ARCHITECTURAL SITE PLAN PREPARED BY NICHOLAS CARAGIANIS ARCHITECT INC. FOR FIRE ROUTES.

21. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE SITE BENCHMARK(S) HAS NOT BEEN ALTERED OR DISTURBED AND THAT ITS RELATIVE ELEVATION AND DESCRIPTION AGREES WITH THE INFORMATION DERIVED ON THIS PLAN. FROM THE SURVEY COMPLETED BY AOV ON JULY 11, 2017 THE SITE BENCHMARK IS LOCATED ON THE EXISTING CONCRETE TRANSFORMER PAD, HAVING AN ELEVATION OF 73.77m.

22. EXCAVATION FOR THE INSTALLATION OF SERVICES ALONG OR IN PROXIMITY OF A BUILDING OR A STRUCTURE IS TO BE CONTAINED WITHIN A TRENCH BOX WIDTH AND IS TO ENSURE NO CONFLICT WITH ANY FUTURE FOOTINGS. SELECT SUBGRADE MATERIAL COMPACTED TO 100% SPD TO 1.0m BELOW EXISTING GRADE FOR FULL TRENCH WIDTH OF DISTURBED AREA SHALL BE USED FOR BACKFILL, INCLUDING ALONG ANY SEWERS AND WATERMAINS ADJACENT TO A BUILDING OR OTHER STRUCTURE.

23. HYDRANT SHALL BE INSTALLED AS PER CITY STANDARD DRAWING W19.

24. EXISTING SITE SANITARY SERVICE AND STORM SERVICE TO BE LOCATED BY CONTRACTOR AND CAPPED AT THE PROPERTY LINE TO THE SATISFACTION OF THE CITY SEWER OPERATIONS AND IN ACCORDANCE WITH CITY OF OTTAWA STANDARD DETAIL DRAWING S11.4.

25. THE PERIMETER WEeping TILE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE PRELIMINARY GEOTECHNICAL INVESTIGATION REPORT (SEPTEMBER 2017) PREPARED BY FISHER ENVIRONMENTAL LTD. (REPORT No. FE-P17-8323 GEO). WEeping TILE TO BE GRAVITY FED TO MAIN STORM LATERAL c/w BACKWATER VALVE LOCATED 1.0m DOWNSTREAM OF WEeping TILE CONNECTION. REFER TO ARCHITECTURAL DRAWINGS FOR WEeping TILE DETAIL.

26. WATER QUALITY UNIT (WQU) FOR STORMWATER TREATMENT SHALL BE CDS PMSU 2020-5 BY CONTECH OR APPROVED EQUIVALENT TO ACHIEVE MIN. 80% TSS REMOVAL.

APPROVED

By Don Herweyer at 11:19 am, Apr 04, 2019

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PLANNING, INFRASTRUCTURE & ECONOMIC
DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

D07-12-17-0133 PLAN # 17580