

SANITARY STRUCTURE TABLE

NAME	RIM ELEV.	INVERT IN	INVERT OUT	DESCRIPTION
MH1A	95.57	SE94.170 SW94.210	NW94.148	COVER CITY STD S24 FRAME CITY STD S25 STRUC. OPSD 701.010
MH2A	95.69	SE94.070	NW94.052	COVER CITY STD S24 FRAME CITY STD S25 STRUC. OPSD 701.010
MH3A	95.62	EX.SW93.840 EX.SW93.586	EX.NE93.540	COVER CITY STD S24 FRAME CITY STD S25 STRUC. OPSD 701.010

STORM STRUCTURE TABLE

NAME	RIM ELEV.	INVERT IN	INVERT OUT	DESCRIPTION
CB1	95.45		NE93.861	STRUC. OPSD 705.010 FRAME: CITY S19 COVER: CITY S19 C/W TEMPEST LMF80 ICD
CB3	95.45		SW94.140	STRUC. OPSD 705.010 FRAME: CITY S19 COVER: CITY S19 C/W TEMPEST LMF75 ICD
MH2	95.72	SW93.710 SE93.670	NW93.649	COVER CITY STD S24.1 FRAME CITY STD S25 STRUC. OPSD 701.010
MH4	95.61	SE93.430	NW93.406	COVER CITY STD S24.1 FRAME CITY STD S25 STRUC. OPSD 701.010
MH5	95.59	SE93.270 EX.SW93.230	EX.NE93.220	COVER CITY STD S24.1 FRAME CITY STD S25 STRUC. OPSD 701.010

CROSSING CONFLICT TABLE

LOCATION	DESCRIPTION	SEPARATION
1*	200mm Ø EXISTING SANITARY SEWER INV 93.53	0.50
2*	200mm Ø EXISTING SANITARY SEWER INV 93.52	0.50
3*	150mm Ø WATER SERVICE OBY 93.02	2.59
4*	375mm Ø EXISTING STM SEWER OBY 93.63	0.33
5*	150mm Ø SANITARY SERVICE INV 94.96	0.50
6*	375mm Ø EXISTING STM SEWER INV 93.24	0.50
7*	150mm Ø WATER SERVICE OBY 92.74	0.50
8*	50mm Ø WATER SERVICE OBY 93.15	1.03
9*	150mm Ø SANITARY SERVICE INV 94.18	0.25
10*	150mm Ø STORM SERVICE OBY 93.98	0.53
11*	150mm Ø STORM SERVICE INV 93.70	0.40
12*	200mm Ø STORM SERVICE OBY 93.95	0.50
13*	150mm Ø WATER SERVICE OBY 93.17	2.40
14*	200mm Ø STORM SERVICE INV 93.73	0.50
15*	150mm Ø HYDRANT LEAD OBY 93.16	0.50
16*	300mm Ø STORM SERVICE INV 93.57	0.50

WATER COVER TABLE

LOCATION	STATION	FINISHED GRADE	TOP OF PIPE	COVER
A - 150 X 150 TEE	0+100.00	95.60	93.20	2.40
CROSSING 1	0+101.06	95.62	93.03	2.59
CROSSING 4	0+107.53	95.64	92.74	2.90
VALVE	0+115.51	95.69	93.29	2.40
150 X 150 TEE	0+117.52	95.67	93.27	2.40
22.5" BEND	0+121.16	95.62	93.22	2.40
22.5" BEND	0+123.12	95.57	93.17	2.40
150 X 150 TEE	0+126.43	95.51	93.11	2.40
CROSSING 8	0+130.79	95.57	93.17	2.40
CROSSING 10	0+143.12	95.67	93.23	2.44
BUILDING	0+153.97	95.92	93.52	2.40
B - 150 X 150 TEE	0+200.00	95.60	93.20	2.40
CROSSING 11	0+201.06	95.61	93.02	2.59
22.5" BEND	0+202.14	95.64	93.24	2.40
22.5" BEND	0+204.75	95.68	93.28	2.40
CROSSING 5	0+207.69	95.63	93.23	2.90
VALVE	0+216.69	95.69	93.29	2.40
45" BEND	0+217.89	95.67	93.27	2.40
45" BEND	0+218.35	95.67	93.27	2.40
150 X 150 TEE	0+219.17	95.67	93.27	2.40
C - 150 X 150 TEE	0+300.00	95.68	93.28	2.40
CROSSING 11	0+301.00	95.71	93.16	2.55
VALVE	0+302.24	95.70	93.17	2.53
PROPOSED HYDRANT	0+303.51	95.85	93.45	2.40

ROOF DRAINS (B1)

TYPE OF CONTROL DEVICE	WATTS (BASE) (RD-100-A) (B1) (RD)
NUMBER OF ROOF DRAINS	1
MAXIMUM DEPTH (m)	0.150
MAXIMUM STORAGE (m³)	0.023
STORAGE REQUIRED (m³)	1.645
STORAGE AVAILABLE (m³)	17.57
DEPTH OF FLOW (m)	0.80
FLOW PER ROOF DRAIN (L/S)	0.91
TOTAL FLOW (L/S)	1.83
DRAW/DOWN TIME (min)	1.50

1 LOT GRADING, DRAINAGE, EROSION & SEDIMENT CONTROL

GENERAL NOTES

- THE ORIGINAL TOPOGRAPHY, GROUND ELEVATION AND SURVEY DATA SHOWN ARE SUPPLIED FOR INFORMATION PURPOSES ONLY, AND IMPLY NO GUARANTEE OF ACCURACY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL INFORMATION SHOWN.
- THIS PLAN IS NOT A CADASTRAL SURVEY SHOWING LEGAL PROPERTY BOUNDARIES AND EASEMENTS. THE PROPERTY BOUNDARIES SHOWN HEREON HAVE BEEN DERIVED FROM INFORMATION SUPPLIED BY (OR SHOWN ON) FAIRHALL, MOFFAT & WOODLAND DRAWING V22282 AND CANNOT BE RELIED UPON FOR ACCURATE OR COMPLETE. THE PRECISE LOCATION OF THE CURRENT PROPERTY BOUNDARIES AND EASEMENTS CAN ONLY BE DETERMINED BY AN UP-TO-DATE LAND TITLES SEARCH AND A SUBSEQUENT CADASTRAL SURVEY PERFORMED AND CERTIFIED BY AN ONTARIO LAND SURVEYOR.
- THE CONTRACTOR IS TO OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY BEFORE COMMENCING CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT.
- THE CONTRACTOR IS TO DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME ALL RESPONSIBILITY FOR EXISTING UTILITIES WHETHER OR NOT SHOWN ON THESE DRAWINGS. IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.
- RESTORE ALL TRENCHES AND SURFACES OF PUBLIC ROAD ALLOWANCES TO ORIGINAL CONDITION AND TO THE SATISFACTION OF THE CITY AUTHORITY.
- EXCAVATE AND DISPOSE OF ALL EXCESS EXCAVATED MATERIAL, SUCH AS ASPHALT, CURBING AND DEBRIS, OFF SITE AS DIRECTED BY THE ENGINEER AND THE CITY.
- TOPSOIL TO BE STRIPPED AND STOCKPILED FOR REHABILITATION. CLEAN FILL TO BE PLACED IN FILL AREAS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
- CONTRACTOR TO MINIMIZE THE ACTUAL LIMITS OF REMOVALS AND REINSTATEMENT WHEREVER POSSIBLE, AND SHALL MAKE THEIR OWN JUDGEMENT AND ACCOUNT FOR ALL MATERIAL AND LABOUR REQUIRED FOR ADEQUATELY REINSTATING THE AREA TO PRE-CONSTRUCTION CONDITIONS OR BETTER, AND BEAR THE COST OF THE SAME. NO ADDITIONAL PAYMENT WILL BE MADE FOR REINSTATEMENT WORK NOT SHOWN ON THE CONTRACT DRAWINGS AS A DIRECT RESULT FROM CONSTRUCTION.
- ALL DISTURBED AREAS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL AND SAFETY MEASURES DURING THE CONSTRUCTION PERIOD, INCLUDING THE SUPPLY, INSTALLATION, AND REMOVAL OF ALL NECESSARY SIGNAGE, DELINEATORS, MARKERS AND BARRIERS.
- DO NOT ALTER GRADING OF THE SITE WITHOUT PRIOR APPROVAL OF THE ENGINEER/CITY.
- ALL ROADWAY, PARKING LOT, AND GRADING WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH CITY STANDARDS AND SPECIFICATIONS. THE CONTRACTOR IS TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING.
- CONTACT THE CITY FOR INSPECTION OF ROUGH GRADING OF PARKING LOTS, ROADWAYS AND LANDSCAPED AREAS PRIOR TO PLACEMENT OF ASPHALT AND TOPSOIL. ALL DEFICIENCIES NOTICED SHALL BE RECTIFIED TO THE CITY'S SATISFACTION PRIOR TO PLACEMENT OF ANY ASPHALT, TOPSOIL, SEED & MULCH AND/OR SOIL.
- ALL DIMENSIONS AND INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION. IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.
- ELECTRICAL, GAS, TELEPHONE AND TELEVISION SERVICE LOCATIONS ARE SUBJECT TO THE INDIVIDUAL AGENCY:
 - GAS SERVICE - ENBRIDGE,
 - TELEPHONE SERVICE - BELL CANADA,
 - TELEVISION SERVICE - ROGERS.
- INSTALLATION TO BE IN ACCORDANCE WITH CURRENT CODES AND STANDARDS OF THE APPROVAL AGENCIES SHALL BE RECTIFIED TO THE LEVEL OF THE GRADE EXISTING AT THE TIME THE CONTROL MEASURE WAS CONSTRUCTED AND BE ACCORDING TO THE FOLLOWING:
 - FOR LIGHT-DUTY SEDIMENT BARRIERS, ACCUMULATED SEDIMENT SHALL BE REMOVED TO THE LESSER OF THE FOLLOWING:
 - A DEPTH OF ONE-HALF THE EFFECTIVE HEIGHT OF THE CONTROL MEASURE.

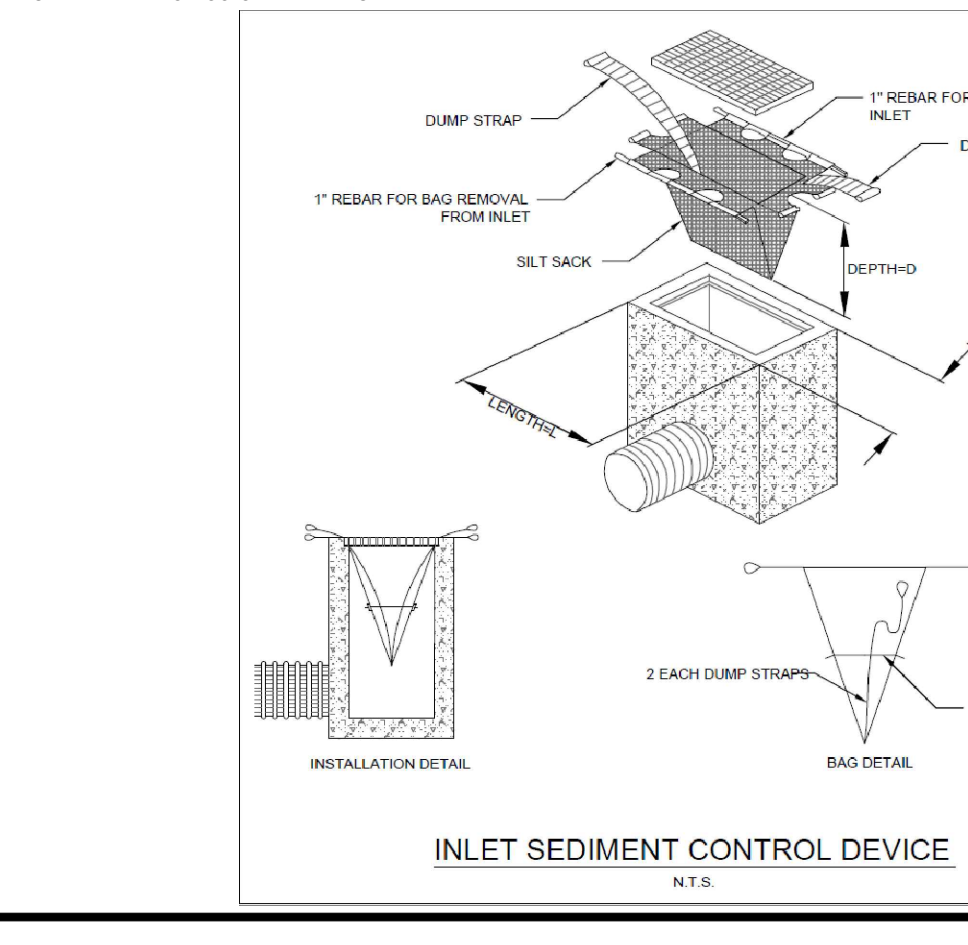
2 SITE SERVICING PLAN

SEWER NOTES:

- CONSTRUCT ALL SEWERS, CATCH BASINS, MANHOLES AND APPURTENANCES IN ACCORDANCE WITH OPSD STANDARDS AND SPECIFICATIONS, AS WELL AS CITY.
- SEWER TRENCHING AND BEDDING SHALL CONFORM TO OPSD 802.010 AND 802.013 UNLESS NOTED OTHERWISE.
- BEDDING SHALL BE A MINIMUM 150mm OF GRANULAR "A", COMPACTED TO MINIMUM 98% STANDARD PROCTOR DRY DENSITY. CLEAR STONE BEDDING SHALL NOT BE PERMITTED.
- SUB-BEDDING, IF REQUIRED SHALL CONSIST OF 50mm OF COMPACTED GRANULAR "B" TYPE 1.
- MINIMIZE DIFFERENTIAL FROST HEAVING, TRENCH BACKFILL FROM PAVEMENT SUBGRADE TO 2.0 METRES BELOW FINISHED GRADE SHALL EXISTING SOIL CONDITIONS.
- SANITARY SEWERS AND CONNECTIONS 150mm Ø AND SMALLER TO BE PVC SDR-26.
- SEWERS AND CONNECTIONS 200mm Ø AND LARGER TO BE PVC SDR-35. BEDDING TO BE TYPE "B" EXCEPT AT PARISEL, UNLESS NOTED OTHERWISE.
- SEWERS AND WATERMANS LOCATED PARALLEL TO EACH OTHER SHOULD BE CONSTRUCTED IN SEPARATE TRENCHES. WHEN IT IS IMPOSSIBLE OR NOT PRACTICAL TO MAINTAIN VERTICAL AND/OR HORIZONTAL SEPARATION PER MECP STANDARDS, ALL SEWERS SHOULD BE CONSTRUCTED OF WATERMAIN QUALITY PIPE, PRESSURE TESTED IN PLACE AT A PRESSURE OF 350 kPa (50 psi) WITHOUT LEAKAGE USING THE TESTING METHODOLOGY IN ONTARIO PROVINCIAL STANDARD SPECIFICATION 701.053(7) OF THE OPS.
- INSULATE ALL STORM AND SANITARY SEWERS/SERVICES THAT HAVE LESS THAN 2.0m OF COVER WITH THERMAL INSULATION AS PER CITY DETAIL W23, OPTION A.
- SEWER CONNECTIONS ARE TO BE MADE ABOVE THE SPRINGLINE OF THE SEWERMAIN AS PER CITY OF OTTAWA STANDARD DRAWING S11.511.1 & S11.2.
- SUPPLY AND INSTALL ALL PIPING AND APPURTENANCES AS SHOWN AND DETAILED TO WITHIN 1.0m OF BUILDING. ALL ENDS OF SERVICES TO BE PROPERLY CAPPED AND LOCATED WITH "X" OF LONG MARKER.
- CONTRACTOR TO TELEPHONE (CITY) ALL PROPOSED SEWERS ON SITE, OUTLET CONNECTION TO THE MAIN AND PIPES 150mm Ø OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLOOD AND CLEAN ALL SEWERS & APPURTENANCES.
- DYE TESTING IS TO BE COMPLETED ON SANITARY SERVICE TO CONFIRM PROPER CONNECTION TO SANITARY SEWER MAIN.

WATERMAIN NOTES

- CONSTRUCT ALL WATERMANS AND APPURTENANCES IN ACCORDANCE WITH OPSD STANDARDS AND SPECIFICATIONS, AS WELL AS CITY STANDARDS.
- WATERMANS AND/OR WATER SERVICES ARE TO HAVE A MINIMUM COVER OF 2.4m. INSTALL ALL WATERMANS AND SERVICES THAT HAVE LESS THAN 2.4m COVER WITH THERMAL INSULATION AS PER CITY DETAIL W22.
- IF THE WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS EQUAL TO OR LESS THAN THAT WHICH IS RECOMMENDED BY THE MANUFACTURER.
- THERMAL INSULATION OF WATERMANS AT OPEN STRUCTURES AS PER CITY DETAIL W23.
- VALVES TO BE OPERATED BY CITY STAFF ONLY.
- NO CONNECTION TO EXISTING WATER NETWORK SHALL BE COMPLETED UNTIL A WATER PERMIT IS OBTAINED FROM THE CITY. CITY TO BE PRESENT FOR WATERMAIN CONNECTION, CONNECTION, EXCAVATION, BACKFILLING AND REINSTATEMENT TO BE COMPLETED BY CONTRACTOR.
- IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ANY WATERMAIN CONNECTION(S) REQUIRED. THIS SHALL BE COMPLETED IN THE PRESENCE OF A DESIGNATED MUNICIPAL WATER OPERATOR AND THE SELECTED CONTRACTOR SHALL PROVE TO THE SATISFACTION OF THE CITY THAT THEY ARE COMPETENT TO PERFORM THE WORKS PRIOR TO INITIATING CONSTRUCTION.
- CONCRETE THRUST BLOCKS TO CONFORM TO OPSD 1103.010 AND OPSD 1103.020.
- ALL WATERMAIN TO BE CLASS 150 DR-18 OR APPROVED EQUIVALENT.
- ALL WATERMAIN TO BE EQUIPPED WITH TRACER WIRE.
- AS PER CITY GUIDELINE, THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER MAIN SHALL BE 2.0m FOR CROSSING OVER THE SEWER, AS PER CITY DETAIL W25 FOR CROSSING UNDER SEWER. THE MINIMUM VERTICAL CLEARANCE FOR THE SEWERS IS REQUIRED TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING. THE LENGTH OF WATER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER.



APPROVED
By Allison Hamlin at 4:17 pm, Nov 01, 2023

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Client: **CSV ARCHITECTS**
190 O'CONNOR STREET, SUITE 100
OTTAWA, ON K2P 2R3

Project: **RESIDENTIAL DEVELOPMENT**
56 CAPILANO DRIVE, OTTAWA, ON

Drawing Title: **LOT GRADING, DRAINAGE, SERVICING, EROSION & SEDIMENT CONTROL PLAN**

Scale: 1:250 Project Number: CCO-23-3325

Drawn By: NV Drawing Number: C101

Checked By: JH

Designed By: NV

Allison Hamlin
MANAGER (A), DEVELOPMENT REVIEW WEST
PLANNING, REAL ESTATE & ECONOMIC DEVELOPMENT
DEPARTMENT, CITY OF OTTAWA

LOCATION PLAN

LEGEND

- CONCRETE BARRIER CURB
- CONCRETE WALKWAY
- PROPOSED HEAVY DUTY ASPHALT
- PROPOSED LIGHT DUTY ASPHALT
- LANDSCAPING CATCHBASIN
- CATCHBASIN MANHOLE
- CATCHBASIN
- SANITARY SEWER MANHOLE
- FIRE HYDRANT
- WATER VALVE
- WATER METER
- REMOTE WATER METER
- LIMIT OF CONSTRUCTION
- DRAINAGE SWALE
- DRAINAGE DITCH
- SLOPING AT 3:1 UNLESS SPECIFIED
- SURFACE ELEVATION
- SWALE ELEVATION
- TOP OF WALL ELEVATION BOTTOM OF WALL ELEVATION
- OVERLAND FLOW ROUTE
- SILT FENCE BARRIER
- STRAW BALE CHECK DAM
- MUD MAT
- ROOF SCUPPER
- ROOF DRAIN

SCALE 1:250

0 5 10 15 20 25 Metres

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Client: **CSV ARCHITECTS**
190 O'CONNOR STREET, SUITE 100
OTTAWA, ON K2P 2R3

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Scale: 1:250 Project Number: CCO-23-3325

Drawn By: NV Drawing Number: C101

Checked By: JH

Designed By: NV

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DEPARTMENT, CITY OF OTTAWA

E:\M\A\10\101\01\Project - Residential\2023\106\106\CCO-23-3325\City - Reference - 56 Capilano Drive11 - 01.mxd(10/31/2023 3:32:32 PM) PRESENTATION.dwg
 LAST SAVED: Tuesday, October 10, 2023 1:57:45 PM BY: J. Hamlin
 LAST PLOTTED: Tuesday, October 10, 2023 1:57:45 PM BY: J. Hamlin