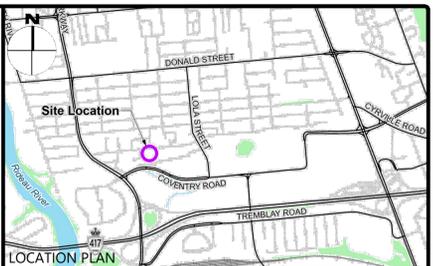


**GENERAL NOTES**

- 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 ANNIS, O'SULLIVAN, VOLLEBEK LTD. (JOB NO. 24681-24) AND CANNOT BE RELIED UPON TO BE 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 CONDITION EQUAL OR BETTER THAN ORIGINAL CONDITION AND TO THE SATISFACTION OF THE CITY AUTHORITIES.
- 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 LISTS 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 ORIGINAL CONDITIONS OR BETTER, AND BEAR THE COST OF THE SAME. NO ADDITIONAL PAYMENT WILL BE MADE FOR REINSTATEMENT WORK NOT SHOWN ON THE CONTRACT DRAWING 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 NOTED 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 EROSION AND SEDIMENT CONTROL

**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 95% STANDARD PROCTOR DRY DENSITY. CLEAR STONE BEDDING SHALL NOT BE PERMITTED.
- SUB-BEDDING, IF REQUIRED SHALL CONSIST OF 450mm OF COMPACTED GRANULAR "B" TYPE 1.
- BACKFILL TO AT LEAST 300mm ABOVE TOP OF PIPE WITH GRANULAR "A" OR GRANULAR "B" TYPE 1.
- TO MINIMIZE DIFFERENTIAL FROST HEAVING, TRENCH BACKFILL FROM PAVEMENT SUBGRADE TO 2 METRES BELOW FINISHED GRADE SHALL MATCH EXISTING SOIL CONDITIONS.
- SANITARY SEWERS AND CONNECTIONS 150mm AND SMALLER TO BE PVC SDR-26.
- SEWERS AND CONNECTIONS 200mm AND LARGER TO BE PVC SDR-35. BEDDING TO BE TYPE "B" EXCEPT AT RISERS, 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 703.011 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 S35, OPTION A.
- SEWER CONNECTIONS ARE TO BE MADE ABOVE THE SPRINGLINE OF THE WATERMAIN AS PER CITY OF OTTAWA STANDARD DRAWING S11, S11.1 & 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 2"x4"X8" LONG MARKER.
- CONTRACTOR TO TELETYPE (CTV) ALL PROPOSED SEWERS ON SITE. OUTLET CONNECTION TO THE MAIN AND PIPES 150mm OR GREATER PRIOR TO BASE COVER ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES.
- DYE TESTING IS TO BE COMPLETED ON SANITARY SERVICE TO CONFIRM PROPER CONNECTION TO SANITARY SEWER MAIN.



**LEGEND**

DC	CONCRETE BARRIER CURB DEPRESSED CURB	---	PROPERTY LINE
---	CONCRETE WALKWAY	---	DRAINAGE SWALE
---	PROPOSED HEAVY DUTY ASPHALT	---	SLIPPING AT 3:1 UNLESS SPECIFIED
---	INLET SEDIMENT CONTROL DEVICE	---	95.50 SURFACE ELEVATION
---	LANDSCAPING CATCH BASIN	---	95.50 SWALE ELEVATION
---	CBM/H	---	T/W 95.50 B/W 94.25 TOP OF WALL ELEVATION BOTTOM OF FLOW ROUTE
---	CBH	---	OVERLAND FLOW ROUTE
---	MHA	---	SILT FENCE BARRIER
---	HVD	---	TW5 PER SC7.1
---	B/F	---	PROPOSED STORM
---	---	---	PROPOSED SANITARY
---	---	---	RETAINING WALL
---	---	---	OUTLINE OF ROAD CUT AND REINSTATEMENT PER CITY STD
---	---	---	TEMPORARY CONSTRUCTION MUD MAT PER DETAIL

**FOR REVIEW ONLY**

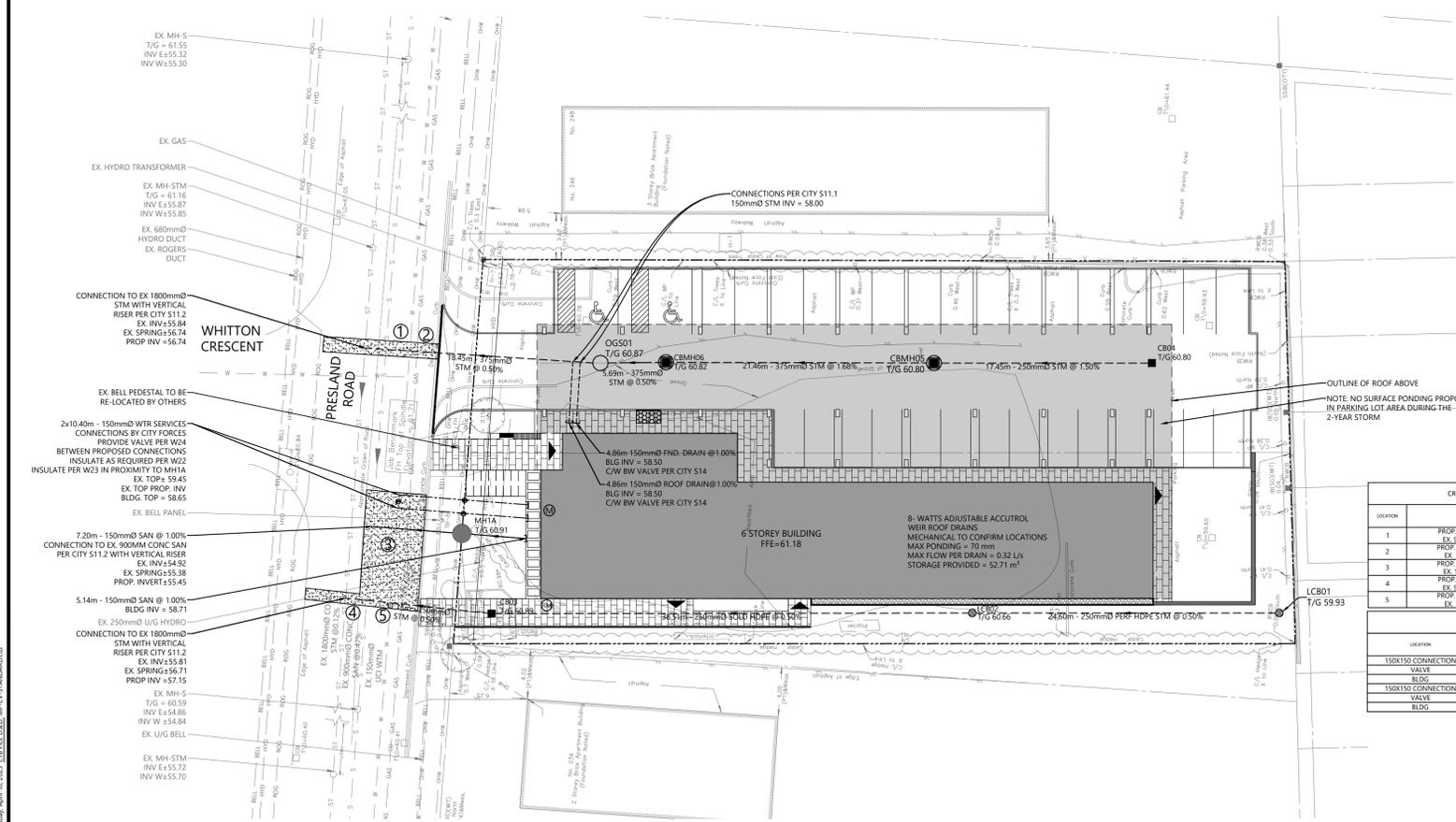
**1 GRADING, DRAINAGE AND SEDIMENT & EROSION CONTROL PLAN**  
1:250

**STORAGE SUMMARY TABLE**

LOCATION	5-YEAR ELEV	5-YEAR STORAGE VOLUME (m³)	100-YEAR ELEV	100-YEAR STORAGE VOLUME (m³)
CBM	60.85	0.3	60.89	1.9
CBM/H	60.85	0.4	60.89	2.6
CBM/H	60.85	0.4	60.89	2.3

**ICD TABLE**

STRUCTURE	AREA ID	INVERT (m)	5-YEAR DESIGN HEAD (m)	100-YEAR DESIGN HEAD (m)	5-YEAR DESIGN FLOW (L/s)	100-YEAR DESIGN FLOW (L/s)
CBM/H	B2	57.88	2.93	2.97	19.70	19.85



**ROADWAY NOTES**

- RESTORE ANY TRENCHES AND DISTURBED SURFACES OF PUBLIC ROAD ALLOWANCES TO CONDITION EQUAL OR BETTER THAN ORIGINAL CONDITION AND TO THE SATISFACTION OF CITY AUTHORITIES.
- CONCRETE CURB AND SIDEWALK SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD SC1.1 (BARRIER CURB), SC2 (MONOLITHIC SIDEWALK & CURB), AND SC4 (STANDARD SIDEWALK) AS NOTED. PROVISIONS SHALL BE MADE FOR CURB DEPRESSIONS AT SIDEWALKS, DRIVEWAYS AND RAMPS.
- PAVEMENT REINSTATEMENT FOR SERVICE AND UTILITY CUTS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA DETAIL R10 AND OPSD 300.000, OPSD 310.
- GRANULAR "A" SHALL BE PLACED TO A MINIMUM THICKNESS OF 300mm AROUND ALL STRUCTURES WITHIN PAVEMENT AREA.
- ALL GRANULAR FOR ROADS SHALL BE COMPACTED TO A MINIMUM OF 100% SPMD.
- ASPHALT WEAR COURSE SHALL NOT BE PLACED UNTIL THE VISUAL INSPECTION OF SEWERS & NECESSARY REPAIRS HAVE BEEN CARRIED OUT TO THE SATISFACTION OF THE ENGINEER.
- SUB-EXCAVATE SOFT AREAS AND FILL WITH GRANULAR "B" COMPACTED IN MAXIMUM 300mm LIFTS.
- TRENCH REINSTATEMENT TO INCLUDE STEP KEYS AS PER CITY DETAIL R10.

**CROSSING CONFLICT TABLE**

LOCATION	DESCRIPTION	SEPARATION
1	PROP. 375mm STM INV 57.25 EX. 300mm SAN INV 56.75	0.50m
2	PROP. 375mm STM INV 57.65 EX. 150mm MTR INV 55.10	1.70m
3	PROP. 150mm SAN INV 58.66 EX. 150mm MTR INV 55.10	0.64m
4	PROP. 250mm STM INV 58.50 EX. 900mm SAN INV 55.66	1.84m
5	PROP. 250mm STM INV 58.80 EX. 150mm MTR INV 52.55	0.55m

**WATER COVER TABLE**

LOCATION	SEWER	FINISHED GRADE	TOP OF PIPE	COVER
150X150 CONNECTION	0+00.00	60.80	59.45	1.35
VALVE	0+05.27	60.90	58.50	2.40
BLDG	0+01.00	61.05	58.65	2.40
150X150 CONNECTION	0+20.00	60.80	59.45	1.35
VALVE	0+05.27	60.90	58.50	2.40
BLDG	0+10.00	61.05	58.65	2.40

**SAN STRUCTURE TABLE**

NAME	RIM ELEV.	INVERT IN	INVERT OUT	DESCRIPTION
MHA1	60.91	58.666	58.640	STRUC. OPSD 701.030 COVER CITY S24 FRAME CITY S24
CB03	60.89	58.747	58.730	STRUC. OPSD 705.010 C/W SOLID COVER C/W TIELED CHECK VALVE OR APPR. EQV. COVER CITY S19
CB04	60.80		59.300	STRUC. OPSD 705.010 COVER CITY S19
CBM/H5	60.80	59.038	58.680	STRUC. OPSD 701.010 COVER CITY S28.1
CBM/H6	60.82	58.320	58.788	STRUC. OPSD 701.010 COVER CITY S28.1 FRAME CITY 25 C/W 150mm ORIFICE ICD
LCB01	59.93	59.080	59.080	CITY S31 C/W RAISED FRAME & GRILL
LCB02	60.66	58.957	58.940	CITY S30 C/W RAISED FRAME & GRILL
OGS01	60.87	57.860	58.785	EF04 OR APP. EQV.

**STM STRUCTURE TABLE**

NAME	RIM ELEV.	INVERT IN	INVERT OUT	DESCRIPTION
CB03	60.89	58.747	58.730	STRUC. OPSD 705.010 C/W SOLID COVER C/W TIELED CHECK VALVE OR APPR. EQV. COVER CITY S19
CBM/H5	60.80	59.038	58.680	STRUC. OPSD 701.010 COVER CITY S28.1
CBM/H6	60.82	58.320	58.788	STRUC. OPSD 701.010 COVER CITY S28.1 FRAME CITY 25 C/W 150mm ORIFICE ICD
LCB01	59.93	59.080	59.080	CITY S31 C/W RAISED FRAME & GRILL
LCB02	60.66	58.957	58.940	CITY S30 C/W RAISED FRAME & GRILL
OGS01	60.87	57.860	58.785	EF04 OR APP. EQV.

**SEWER 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. INSULATE 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 FORCES TO PERFORM CONNECTION WATERMAIN CONNECTION, CONNECTION, EXCAVATION, BACKFILLING AND REINSTATEMENT TO BE COMPLETED BY CONTRACTOR.
- CONCRETE THRUST BLOCKS TO CONFORM TO OPSD 1103.010, OPSD 1103.020 AND CITY OF OTTAWA STANDARDS. RESTRAINED JOINTS IN ACCORDANCE WITH CITY STANDARDS.
- 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/UTILITY IS 0.25m FOR CROSSING OVER THE SEWER, AS PER CITY DETAIL W23.2 FOR CROSSING UNDER SEWER, THE MINIMUM VERTICAL CLEARANCE IS 0.5m AS PER CITY DETAIL W23. FOR CROSSING UNDER SEWER, ADEQUATE STRUCTURAL SUPPORT 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.

**ROADWAY NOTES:**

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- SUB-EXCAVATE SOFT AREAS AND FILL WITH GRANULAR "B" COMPACTED IN MAXIMUM 300mm LIFTS.
- TRENCH REINSTATEMENT TO INCLUDE STEP KEYS AS PER CITY DETAIL R10.

**HEAVY DUTY PAVEMENT LIGHT DUTY PAVEMENT CROSS-SECTION**

**ASPHALT CROSS-SECTIONS TO CONFORM TO GEOTECHNICAL REPORT COMPLETED BY PARTISER GROUP**

**2 SITE SERVICING PLAN**  
1:250

1 ISSUED FOR REVIEW APR 10, 2025

No.	Revisions	Date
1	ISSUED FOR REVIEW	APR 10, 2025

Check and verify all dimensions before proceeding with the work. Do not scale drawings.

**SCALE 1:250**

0 5 10 15 20 25 Metres

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Stamp: [Professional Engineer Seal]

Client: **FIGUR ARCHITECTS COLLECTIVE**  
252 ARGYLE AVE  
OTTAWA ON K2P 1B9

Project: **SIX STOREY APARTMENT BUILDING**  
240 PRESLAND ROAD  
OTTAWA ON

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

Scale: 1:250 Project Number: CCO-25-2177

Drawn By: RRR Drawing Number: C101

Checked By: RRR Drawing Number: C101

Designed By: RRR

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