

TOWN OF RENFREW 127 Raglan Street South Renfrew, Ontario K7V 1P8

ADDENDUM NO. 3

Date: July 4, 2024 Project No. 2024-19-DEI

Project: Eighth Reconstruction

To: All Bidders

PRE-BID QUESTIONS

1. Question: Could you confirm if the schedule of prices included in addendum 1 is the most recent? There appears to be no changes.

Answer: Please see the most recent schedule of items and prices attached.

2. Question: Earth Excavation is missing from the schedule of items and prices.

Answer: Separate item for excavation will not be provided.

3. Question: The contract drawings note tack coat however there is no item for this.

Answer: EXP has revised the line-item E-2 showing "Tack coat". Please see the revised schedule of items and prices attached.

4. Question: Also the answer to question 4, notes that as much material is to be reused onsite as is possible. However, as there is little change to the profile grade and the project introducing 3,545 tonnes of granular A and B there will be considerable material to generated from this in addition to some sewer spoil. Is there another area that would potentially utilize this material? Without some soil test results, are we to allow for some of the material to be contaminated and disposed of as such?

Answer: For bidding purpose few line items have been added such as 250 m3 soil meets Table 2.1 and 250 m3 exceeds Table 3.1. Refer to attached schedule of items and prices.

5. Question: The existing watermain is shown as transite pipe. To confirm, will the Town be responsible for the removal, bagging, tagging, and disposal of the transite pipe from the cut in tees? If not, can you please provide a separate item for this?



TOWN OF RENFREW 127 Raglan Street South Renfrew, Ontario K7V 1P8

Answer: Separate item for handling of transite pipe will not be provided. The contractor should include it in the price for the new fire hydrants installation.

6. Question: It's to our understanding that the entire road base will be excavated and replaced. We do not foresee a substantial quantity of soils to be reused other than backfilling of trenches. Will the Town be completing testing on the soils for disposal? For bidding purposes, should we assume a certain quality of soil, ie meeting Table 2.1 or 3.1?

Answer: Soil testing, to determine whether it meets Table 2.1 or exceeds Table 3.1, will be the responsibility of the contractor.

- Excess soil meeting Table 2.1 or exceeding Table 3.1 that cannot be reused on-site must be disposed off-site by the contractor in accordance with the applicable regulations.
- For bidding purposes for Eighth Street, a few line items have been added such as offsite disposal of excess soil of 250 m3 soil meets Table 2.1 and 250 m3 when exceeding Table 3.1. Refer to attached revised schedule of items and prices.
- 7. Question: For the 'Connection to Existing Sanitary Sewer' item -2 each, could you clarify which connections these are referring to?

Answer: Please refer to the revised schedule of items and prices attached.

8. Question: Is PVC DR18 acceptable for watermain?

Answer: That shall be acceptable.

Please attach this addendum to your Tender document and be governed accordingly.

Bidders must acknowledge receipt of all addenda.



Schedule of Items and Prices

(AS APPENDED TO FORM OF TENDER)

The following are items and prices for: Rehabilitation Of Eighth Street - Barnet Boulevard to O'Brien Road

Item No.	Reference / Regulation Standards	Item Description	Estimated Quantities	Units	Unit Price	Amount
Α		General Requirements				
1		Contract Initiation (2%)	1.0	LS		
2		Mobilization and Demobilization (4%)	1.0	LS		
3		Traffic Control Plan (TCP)	1.0	LS		
4		Pedestrian & Cyclist Control Plan (PCP)	1.0	LS		
5	OPSS 805	Erosion and Sedimentation Control Plan	1.0	LS		
6	OPSS 180	Soil Management Plan and Excess Soil Disposal Documentation per O. Req. 406/19	1.0	LS		
7		Legal Survey of R.O.W. by an OLS Surveyor	1.0	LS		
8	OPSS 493	Temporary Water Supply (All inclusive)	1.0	LS		
9		Temporary Wastewater Bypass and Pumping (All inclusive)	1.0	LS		
10		Bonding and Insurance	1.0	LS		
					Subtotal	\$ -
В		Removals				
1	OPSS.510	Asphalt Pavement including Driveway and Walkway Removal and Disposal	3,460.00	m²		
2	OPSS 510			m²		
3	OPSS 510	10 Removal of Gravel Driveway and Disposal		m²		
4	OPSS 510	10 200mm dia. Sanitary Sewers removal and Disposal		m		
5	OPSS 510	0 Sanitary Service Lateral Removal and Disposal		m		
6	OPSS 510	Sanitary Maintenance Hole Removal and Disposal	4.00	ea		
7	OPSS 510, 928	Concrete Curb Removal and Disposal Full Depth	45.00	m		
	020				Subtotal	\$ -
С		Storm Sewers				
1	OPSS 407	1200mm dia. Pre Cast Concrete Storm Catch Basin Maintenance Hole c/w Frame and Cover	3.00	ea		
2	OPSS 410	600×600 Pre Cast Concrete Catch Basin c/w Frame and Grate	1.00	ea		
3	OPSS 410	375mm dia. PVC DR-28 Storm Pipe	73.00	m		
4	OPSS 410	200mm dia. PVC DR-35 Catch Basin Lead	14.00	m		
5	OPSS 410	Connection into Existing Storm Maintenance Hole	1.00	ea		\$ -
6	OPSS 441, OPSD 1109.030	Storm Sewer Rigid Board Insulation HI-40	90.00	m ²		\$ -
					Subtotal	\$ -



D		Sanitary Sewers				
1	OPSS 407	1200mm dia. Pre Cast Concrete Sanitary Maintenance Hole c/w Frame and Cover	4.00	ea		
2	OPSS 407	200mm dia. PVC DR-35 Sanitary Pipe	19.00	m		
3	OPSS 410	135mm dia. PVC DR-28 Sanitary Service including Connection		m		
		·			Subtotal	\$ -
Ε		Watermain				
1	OPSS 441, OPSD 1105.010	Fire Hydrant Assembly including Valve, Valve Box, Marker and Appurtenances	rdrant Assembly including Valve, Valve Box, Marker and			
2	OPSS 935, OPSD 1109.011	Cathodic Protection for Watermain, Hydrant Assembly, and Test Station	4	ea		
					Subtotal	\$ -
E		Roads				
1	OPSS 353, 904	Reinforced Concrete Barrier Curb	625.00	m		
2	OPSS 310, 313	Asphalt Pavement(Light Duty) HL3 PG 58-34	330.00	Ton		
3	OPSS 310, 314	Asphalt Pavement (Heavey Duty) HL8 PG 58-34	395.00	Ton		
4	OPSS 314, 501, 1010	Roadway Granular A Base including Compaction	945.00	Ton		
5	OPSS 314, 501, 1010	Roadway Granular B Type II Subbase including Compaction		Ton		
6		Roadway Perforated Pipe 150mm dia. Subdrain	600.00	m		
7	OPSS 351, 904	Monolithic Concrete Curb & Sidewalk including Granular A Base (with TWSI)	575.00	m ²		
8	OPSS 802	100mm Topsoil Reinstatement	91.00	m ³		
9	OPSS 803	Sodding including Watering and Maintenance	910.00	m ²		
10	OPSS 710	Pavement Marking including Crosswalk LineS, Stop Bars and Tails	1.00	LS		
11	OPSS 310, 314	Tack Coat	1.00	LS		
					Subotal	\$ -
F		Miscellaneous				
1		Stop Sign and Post Removal, Salvage and Reinstallation	2.00	ea		
2		Street Sign and Post Removal, Salvage and Reinstallation	2.00	ea		
3	OPSS 310, 313, 1010	Asphalt HL3 PG58-34 Driveway and Walkway Reinstatement, including Granular A Base and Ganular B Subbase	680.00	m²		
4	OPSS 1010	Gravel Driveway Reinstatement, including Granular A Base and Granular B Subbase	156.00	m ²		
5	OPSS 351, 904	Concrete Driveway Reinstatement, Granualar A Base and Granular B Subbase	30.00	m ²		
6	OPSS 310, 314, 1150	Temporary asphalt ramps at all driveways and at both the intersections with HL8 (after placement of first asphalt lift (HL8)	1.00	LS		
7		Town Allowance	1.00	LS	\$ 50,000.00	\$ 50,000.00
					Subtotal	\$ -
Н		Earthwork				
1		Offiste Soil Disposal - Assuming Soil Meets Table 2.1	250.00	m ³		
2		Offiste Soil Disposal - Assuming Soil Meets Table 3.1	250.00	m ³		
					Subtotal	\$ -
		тот	AL TENDER A	MOUNT (Exc	luding H.S.T.)	\$ -

Spec. OPSS.MUNI 407

S.P. The work deemed to be included in the unit price for this item shall be as follows:

General

The contractor shall supply and install sanitary and storm maintenance holes in accordance with the Ontario Provincial Standard Specifications and Drawings, except where amended and extended herein.

Construction

Storm and sanitary sewers specifications are amended and extended as follows:

- a) All sanitary maintenance holes installation shall conform to OPSD 701.010 and drop structures shall be in accordance with OPSD 1003.031.
- b) All storm maintenance holes installation shall conform to OPSD 701.010.
- c) All sewer pipes and precast manholes shall have approved rubber gaskets on all joints.
- d) A "filter trap" constructed of a filter cloth shall be provided on all manhole frames and covers. The filter cloth shall be adequately secured such that construction dirt and materials are prevented from entering the sewers. The filter traps shall be maintained until the date of Substantial Completion.
- e) All manholes shall be constructed to an elevation flush with base course asphalt when they lie within the proposed driving surface. The frame and cover shall not exceed 300 mm from the precast manhole structure when adjusted to top course asphalt with spacers. All dimensions are to be top of the frame and cover.
- f) Frames and covers are to be adjusted to final course asphalt elevation or as noted otherwise on the drawings. Frames and covers shall be to the Ontario Provincial Standards, OPSDs 401.010.
- g) Sanitary manholes are to be benched and storm manholes shall have a sump to Ontario Provincial Standards, unless otherwise detailed on the contract drawings.
- h) All sanitary manholes shall be hydrostatically tested in accordance with OPSS 407.07.26. The field tests shall be performed in the presence of a certified professional engineer, who shall submit a certified copy of the test results to the Town of Renfrew.
- The unit price for manhole structures shall include all costs to supply and install precast manholes complete with frame and covers, concrete caps, landings, drop pipes, excavation, bedding, backfill, compaction all appurtenances and manufactured bulkheads where indicated on the drawings all as per applicable OPS standards. The work shall also include all necessary costs for hydrostatic testing and associated test results.

j) Bedding requirements shall be consistent with OPSS specifications but shall be increased consistent with Geotechnical Investigation Report.

Measurement for Payment

Measurement will be made by each manhole unit installed.

Basis of Payment

Payment at the Contract price for the tender item shall include full compensation for all labour, equipment and material required to do the work.

DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED
SITE FEATURES			SERVICES AND STRUCTURES		
PROPERTY LINE			SANITARY SEWER	SA SA	s250mmø SAN
TOP OF SLOPE			COMBINATION SEWER	EX.300mmø COMB	300mmø COMB
TERRACING (3:1 TYPICAL)			STORM SEWER	SF <i>X.375mmø STM</i>	si ^{375mmø} STM
Q DITCH/SWALE AND DIRECTION OF FLOW	_ · · _ · · _ · · _ · · _		STORM SUBDRAIN	<i>EX.150mmø_SUBDRAIN</i>	150mmø_SUBDRAIN
EDGE OF SHOULDER			STORM CULVERT	EX.600mmø CULVERT	600mmø CULVERT
EDGE OF PAVEMENT			SANITARY MANHOLE	○ EX.SAN	SANMH 100
© ROAD/ALIGNMENT			COMBINATION MANHOLE	○ EX.COMB	○ СОМВМН 100
CHAINLINK FENCE	XX	XX	STORM MANHOLE	○ EX.STM	O STMMH 200
POST AND RAIL FENCE			CATCHBASIN MANHOLE	○ EX.CBMH	© CBMH 100
SIDEWALK (TYPE AS NOTED ON DRAWINGS)			CATCHBASIN	□ EX.CB	☑ CB1
BARRIER CURB (SC1.1)			DOUBLE CATCHBASIN	□□□ EX.DCB	■■ DCB1
MOUNTABLE CURB (SC1.3)			CATCHBASIN ELBOW (S30)	○ EX.CBE	O CBE
DEPRESSED CURB	DC	DC	CATCHBASIN TEE (S31)	○ EX.CBT	O CBT
TACTILE WALKING SURFACE INDICATOR "TWSI" (SC7.3)	(8888888)	\$888888	CURB INLET CATCHBASIN	■ EX.CICB	■ CICB 1
GUARDRAIL			DITCH INLET CATCHBASIN	■ EX.DICB	■ DICB 1
JERSEY BARRIERS			WATERMAIN	200mmø WATERMAIN	200mmø_WATERMAIN
BUILDING ENTRY/EXIT WITH RISERS	▼	▼	IRRIGATION	IR IR	IR IR
BUILDING ENTRY/EXIT BARRIER FREE	•	▼	VALVE AND VALVE BOX	⊗ V&VB	⊗ V&VB
BUILDING ENTRY/EXIT OVERHEAD DOOR	∇	∇	VALVE AND VALVE CHAMBER	⊗ v&vc	⊗ V&VC
POST	⊚ POST	⊚ POST	FIRE HYDRANT	- ○ FH	- ○ FH
SIGN	♭ SIGN	♭ SIGN	SIAMESE CONNECTION	Ŷsc	Ƴsc
BOLLARD	⊚ BOLL	⊚ BOLL	WATER METER	<u>M</u>	(M)
VEGETATION		(·) * * * * * * * * * * * * * * * * * * *	REMOTE WATER METER	RM √₁ 45°	RM ~₁ 45°
	<i>i</i> •		45° BEND 22.5° BEND	~ 45° ~ 22°	~45° ~22°
			11.25° BEND	H 11°	~ 22 ~ 11°
			TEE	→ 200X150 TEE	200X150 TEE
UTILITY AND STRUCTURES			REDUCER	► 200X100 RED	≥ 200X100 RED
JOINT UTILITY OVERHEAD LINE			CROSS	* 300X200 CROSS	• 300X200 CROSS
HYDRO (OVERHEAD)	——————————————————————————————————————	———— OH ————	CURB STOP	⊗ CS	● CS
HYDRO	———Н———	———Н———	WATER WELL	(W)	©
POWER	— P — P —	— Р — Р —			•
ELECTRICAL	———Е——	———Е———			
BELL (OVERHEAD)	OB	———— OB ————			
BELL	———В———	———В———	GRADING		
CABLE (OVERHEAD)	OC		GROUND ELEVATION	X 100.00	X 100.00
CABLE TV	C	c	SWALE ELEVATION	X 100.00(S)	X 100.00(S)
FIBRE OPTIC	FO	FO	TOP OF GRATE ELEVATION	T/G=100.00	T/G=100.00
STREETLIGHT	SL	SL	TOP OF WALL ELEVATION	X 100.00 T/W	X 100.00 T/W
GASMAIN	GG	G	BOTTOM OF WALL ELEVATION	X 100.00 B/W	X 100.00 B/W
JOINT USE TRENCH - BELL/CABLE TV	BC	BC	FINISHED FLOOR ELEVATION	FF=100.00	FF=100.00
JOINT USE TRENCH - HYDRO/CABLE TV	——— нс ———		TOP OF FOUNDATION ELEVATION	TF=100.00	TF=100.00
JOINT USE TRENCH - HYDRO/BELL/CABLE TV		——— НВС ———	BASEMENT FLOOR ELEVATION	BF=100.00	BF=100.00
JOINT USE TRENCH - HYDRO/BELL/CABLE TV/GAS	——— нвсс ———	нвсс	PARKING LEVEL ELEVATION	P1=100.00	P1=100.00
JOINT USE TRENCH - BELL/CABLE TV/GAS	BCG	BCG	UNDERSIDE OF FOOTING ELEVATION	USF=100.00	USF=100.00
DUCT CROSSING WITH NUMBER AND TYPE OF DUCTS	2H,2C,2B	2H,2C,2B	ORIGINAL GROUND ELEVATION	OG=100.00	OG=100.00
STREETLIGHT (c/w GROUND ROD WHERE REQUIRED)		⇒———— ‡h.cs	TOP OF ROCK ELEVATION	T/ROCK=100.00	T/ROCK=100.00
STREETLIGHT DISCONNECT	SD	SD SD	CONTOUR LINES	100.00	100.00
HYDRO TRANSFORMER			SLOPE AND DIRECTION OF FLOW	2.0%	2.0%
HYDRO SWITCHING KIOSK				·	-
HYDRO MANHOLE		Θ			
HYDRO METER	Hydro	Hydro			
JTILITY POLE AND GUY WIRE	(—O UP	(—OUP	GEOTECHNICAL		
CABLE PEDESTAL	©	C	BOREHOLE	• ВН	-ф -вн
BELL PEDESTAL	Bⅈ	Bell	TEST PIT	TP	₽ TP
BELL MANHOLE	B	\bigcirc	COREHOLE	- сн	◆ CH
BELL GROUND LEVEL BOX	GLB	GLB	PIEZOMETER	-# PIZ	⊕ PIZ
ENDWALL	CMB	CMB	MONITORING WELL	₩w	• MW
COMMUNITY MAILBOX	СМВ	<u>CMB</u>			
GAS VALVE	⊗ GV	⊗ GV			
GAS METER	©	\langle	MISCELLANEOUS		
TRAFFIC MANHOLE	○TMH	Отмн	MISCELLANEOUS	X RFM	
TRAFFIC HAND HOLE	□ HH		REMOVED	X	
TRAFFIC JOINT USE POLE	⊚ JUP	⊚ JUP	RELOCATED	X REL	
TRAFFIC MAST ARM	=O= MAF	-O= MAF	ADJUSTED	X ADJ	
TRAFFIC CONDUIT	I T	ı ī	ROAD REHABILITATION AREA		
			ASPHALT DRIVEWAY REINSTATEMENT AREA		
			CRAVEL DDIVEWAY DEINISTATEMENT ASS		
			GRAVEL DRIVEWAY REINSTATEMENT AREA		

GENERAL NOTES

- 1. ALL MATERIALS AND CONSTRUCTION METHODS TO THE LATEST EDITION OF THE ONTARIO PROVINCIAL STANDARD SPECIFICATIONS AND ONTARIO PROVINCIAL STANDARD DRAWINGS.
- 2. THE LOCATION OF UTILITIES IS APPROXIMATE ONLY, AND THE EXACT LOCATION SHOULD BE DETERMINED BY CONSULTING THE MUNICIPAL AUTHORITIES AND UTILITY COMPANIES CONCERNED. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE LOCATION AND STATUS OF UTILITIES AND SHALL BE RESPONSIBLE FOR ADEQUATE PROTECTION OF PLANT AND EQUIPMENT FROM DAMAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION, TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION.
- 3. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING SERVICES PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL CONFIRM LOCATIONS AND ELEVATIONS OF EXISTING SERVICES AND STRUCTURES TO BE CONNECTED TO AND EXISTING SERVICES THAT MAY BE DAMAGED OR CAUSE CONFLICTS PRIOR TO CONSTRUCTION OF ANY NEW SEWER, WATER AND/OR STORM WATER WORKS. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES, INTERPRETATIONS, CHANGES AND ADDITIONS TO THESE DRAWINGS MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER, WHEN NOTED AND BEFORE PROCEEDING WITH CONSTRUCTION WORKS. DO NOT CONTINUE CONSTRUCTION IN AREAS WHERE DISCREPANCIES APPEAR UNTIL SUCH DISCREPANCIES HAVE BEEN RESOLVED.
- 4. ALL UNITS ARE IN METERS OR MILLIMETERS UNLESS OTHERWISE NOTED.
- 5. ALL MUNICIPAL SERVICES TO BE CONSTRUCTED TO THE PROPERTY LINE UNLESS OTHERWISE DIRECTED BY THE
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED TO COMPLETE THIS WORK AND BEAR
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION AND TRENCHING ALONG WITH BACKFILL TO STANDARDS
- 8. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ALL CONNECTIONS INTO THE EXISTING SEWERS AND WATERMAINS.
- 9. SITE LAYOUT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 10. AS-BUILT "SITE PLAN" WILL BE MAINTAINED ON SITE BY THE CONTRACTOR.
- 11. SUB-EXCAVATE SOFT AREAS & FILL WITH GRANULAR 'B' (EXTRA BEDDING) WITH UNDERLYING GEO-TEXTILE MATERIAL. COMPACTED GRANULAR BEDDING IN 0.15m LAYERS.
- 12. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING FOUNDATION OF ADJACENT BUILDINGS DURING EXCAVATION AND CONSTRUCTION PERIOD.
- 13. THE LOCATION OF UTILITIES IS APPROXIMATE ONLY, AND THE EXACT LOCATION SHOULD BE DETERMINED BY CONSULTING THE MUNICIPAL AUTHORITIES AND UTILITY COMPANIES CONCERNED. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE LOCATION AND STATUS OF UTILITIES AND SHALL BE RESPONSIBLE FOR ADEQUATE PROTECTION OF PLANT AND
- 14. SOIL INFORMATION, IF SHOWN, IS NOT GUARANTEED. CONTRACTORS ARE ADVISED TO COLLECT ADDITIONAL SOIL INFORMATION AS DEEMED NECESSARY.
- 15. CONTRACTOR TO REMOVE ALL UNSUITABLE MATERIAL FROM THE SITE (i.e. STUMPS, LARGE ROOTS, ANY CONSTRUCTION DEBRIS, CONCRETE, ASPHALT, ROCK etc.).
- 16. THERMAL INSULATION TO BE INSTALLED AT OPEN STRUCTURES. (SEE DETAIL)
- 17. CONTRACTOR TO ADJUST EXISTING MANHOLES, FIRE HYDRANTS, VALVE CHAMBERS AND VALVE BOXES PER PLAN OR AS
- 18. TRENCH EXCAVATIONS SHALL BE ACCORDING TO THE ONTARIO HEALTH AND SAFETY ACT CLAUSE 234.
- 19. THE CONTRACTOR MAY IMPORT GRANULAR MATERIAL, TO PROVIDE A WORKING AREA. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL IMPORTED MATERIALS AND RETURNING THE SITE TO ITS ORIGINAL GRADES, OR
- PROPOSED GRADES, AS SHOWN ON THE DRAWINGS. 20. ALL TWSIs SHOULD MATCH WITH THE CURB RADIUS. PROPOSED TWSIs SHALL BE AS PER OPSD 310.039 AND INSTALLATION SHALL BE DONE AS PER OPSD 310.033.

STORM AND SANITARY

- 21. ALL MANHOLES HAVING A GREATER DEPTH THAN 5.0 METERS FROM TOP OF GRATE ELEVATION TO THE CENTER OF PIPE OUTLET SHALL HAVE SAFETY PLATFORM INSTALLED AT MID POINT ELEVATION AS PER OPSD 404.020.
- 22. ALL SEWER SERVICES TO BE 100mm DIA. PVC SDR35, COLOUR WHITE, AND HAVE A MINIMUM SLOPE OF 2%. IF THE SIZE OF THE EXISTING SERVICE IS NOT 100mm, THE CONTRACTOR SHALL MAKE THE CONNECTION TO THE PROPOSED 100mm SERVICE USING A SLEEVE.
- 23. SEWER SECTIONS TO BE REPLACED ARE TO BE SPIGOT AND BELL TYPE.
- $^{\prime}$ 24. SEWER MANHOLES SHALL BE PER OPSD 701.021, BENCHED FOR SANITARY, SUMP FOR STORM. MANHOLE FRAME AND $^{\prime}$ COVERS SHALL BE AS PER OPSD 401.010, OPEN FOR STORM AND CLOSED FOR SANITARY. SAFETY PLATFORMS SHALL) BE AS PER OPSD 404.02. DROP STRUCTURES SHALL BE IN ACCORDANCE WITH OPSD 1003.010. CATCHBASINS SHAL BE PER OPSD 705.010. CATCHBASIN COVERS SHALL BE PER OPSD 400.100.
- 25. SEWERS SHALL BE VIDEO INSPECTED AFTER CONSTRUCTION.
- 26. WEAR COURSE ASPHALT TO BE PLACED AFTER A VIDEO INSPECTION OF SEWERS & RESULTING REPAIRS ARE CARRIED OUT AND PRIOR TO EXPIRATION OF 1 YEAR WARRANTY PERIOD.
- 27. SEWER TRENCH SHALL CONSIST OF A CLASS 'B' BEDDING CONSISTING OF 150mm OF GRANULAR 'A' BEDDING AND BACKFILLED WITH GRANULAR 'A' TO 300mm OVER SEWER. COMPACTION SHALL BE A MINIMUM OF 95% STANDARD

<u>GRADING</u>

- 28. CONTRACTOR TO PRE-GRADE ROAD RIGHT-OF-WAY TO ABUTTING PROPERTIES, SO AS TO NOT CAUSE CHANNELIZED
- 29. THE CONTRACTOR SHALL COMPLETE ALL NECESSARY CLEARING AND GRUBBING. REVIEW WITH ENGINEER PRIOR TO
- 30. STEP JOINTS ARE TO BE USED WHERE PROPOSED ASPHALT MEETS EXISTING ASPHALT. ALL JOINTS MUST BE SEALED.
- 31. CONTRACTOR TO PREPARE SUBGRADE, INCLUDING PROOFROLLING, TO THE SATISFACTION OF THE ENGINEER PRIOR TO PLACING ANY GRANULAR SUBBASE MATERIAL.
- 32. CONTRACTOR IS TO SUPPLY, PLACE AND COMPACT THE ASPHALT MATERIAL IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT. UPON REQUEST, CONTRACTOR WILL PROVIDE TO ENGINEER SAMPLES OF ASPHALT MATERIAL USED FOR THIS PROJECT AND IN SUFFICIENT QUANTITY TO ALLOW TESTING (GRADATION, ASPHALT CONTENT, ETC.) AND CERTIFICATION BY THE GEOTECHNICAL ENGINEER.

ROADWAY

- 33. GRANULAR 'A' SHALL BE PLACED TO A MINIMUM THICKNESS OF 300mm AROUND ALL STRUCTURES WITHIN PAVEMENT
- 34. ALL GRANULAR FOR ROADS SHALL BE COMPACTED TO A MINIMUM OF 98% STANDARD PROCTOR DENSITY.

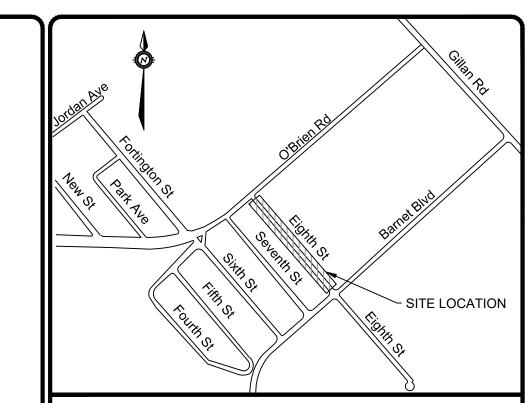
ENVIRONMENTAL

THE FOLLOWING TECHNIQUES:

- 35. FOR THE ENTIRE CONSTRUCTION PERIOD, MAINTAIN A FILTER FABRIC AROUND ALL MANHOLE TOPS.
- 36. CONTRACTOR TO PROVIDE TEMPORARY SEDIMENT CONTROLS AND SILT FENCES TO CONTROL STORMWATER RUNOFF FROM THE CONSTRUCTION SITE.
- 37. THE CONTRACTOR SHALL ENSURE THAT THE SURFACE OF ALL ROADS ARE KEPT FREE OF MATERIAL FROM THE SITE.
- 38. DURING ALL CONSTRUCTION ACTIVITIES, EROSION AND SEDIMENTATION SHALL BE CONTROLLED BY THE CONTRACTOR BY
 - a. LIMITING THE EXTENT OF EXPOSED SOILS AT ANY GIVEN TIME b. RE-VEGETATION OF EXPOSED AREAS AS SOON AS POSSIBLE.
 - c. MINIMIZATION OF AREA TO BE CLEARED AND DISRUPTION TO ADJACENT AREAS. INSTALLATION OF FILTER CLOTH BETWEEN FRAME AND COVER ON ALL MANHOLES.
- e. A VISUAL INSPECTION SHALL BE COMPLETED DAILY ON SEDIMENT CONTROL BARRIERS AND ANY DAMAGE REPAIRED IMMEDIATELY. CARE WILL BE TAKEN TO PREVENT DAMAGE DURING CONSTRUCTION OPERATIONS.
- f. IN SOME CASES, BARRIERS MAY BE REMOVED TEMPORARILY TO ACCOMMODATE THE CONSTRUCTION OPERATIONS.
- THE AFFECTED BARRIERS WILL BE REINSTATED AT NIGHT WHEN CONSTRUCTION IS COMPLETED. THE SEDIMENT CONTROL DEVICES WILL BE CLEANED OF ACCUMULATED SILT AS REQUIRED.
- ň. DURING THE COURSE OF CONSTRUCTION, IF THE ENGINEER BELIEVES THAT ADDITIONAL PREVENTION METHODS ARE REQUIRED TO CONTROL EROSION AND SEDIMENTATION, THE CONTRACTOR WILL INSTALL ADDITIONAL EROSION CONTROL METHODS AS REQUIRED TO THE SATISFACTION OF THE ENGINEER.
- i. CONSTRUCTION AND MAINTENANCE REQUIREMENTS FOR EROSION AND SEDIMENT CONTROLS TO COMPLY WITH THE LATEST EDITION OF THE ONTARIO PROVINCIAL STANDARD SPECIFICATIONS (OPSS) #577.

ROADWAY

37. ALL CONSTRUCTION SIGNAGE AND TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH ONTARIO TRAFFIC MANUAL BOOOK 7 "TEMPORARY CONDITIONS."



5	ISSUED FOR ADDENDUM #1	JUL 03 2024	SVP	AA
4	ISSUED FOR TENDER	JUN 07 2024	SVP	A.A.
3	ISSUED FOR TOWNSHIP REVIEW	MAR, 2024	Y.A.	A.A.
2	ISSUED FOR TOWNSHIP REVIEW	FEB, 2024	Y.A.	A.A.
1	ISSUED FOR TOWNSHIP REVIEW	JAN, 2023	M.S.	Y.A.
No.	REVISIONS	Date	Ву	Арр.

Disclaimer: exp Services Inc. This drawing/file is being supplied as a matter of courtesy and is in no way to be taken as appurtenant to, associated with or in placement of copies of the officially signed and sealed documents. The data is provided "as is" without a warranty of any kind either expressed or implied. This drawing/file does not include a professional engineer's stamp on the drawing, and only print copies of drawing with signed stamps are to be considered as true and final as issued by our office. Thank you.

exp Services Inc.

t: +1.613.688.1899 | f: +1.613.225.7330 2650 Queensview Drive, Unit 100 Ottawa, ON K2B 8H6

www.exp.com

Canada



• BUILDINGS • EARTH & ENVIRONMENT • ENERGY • • INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •

wner/Client:



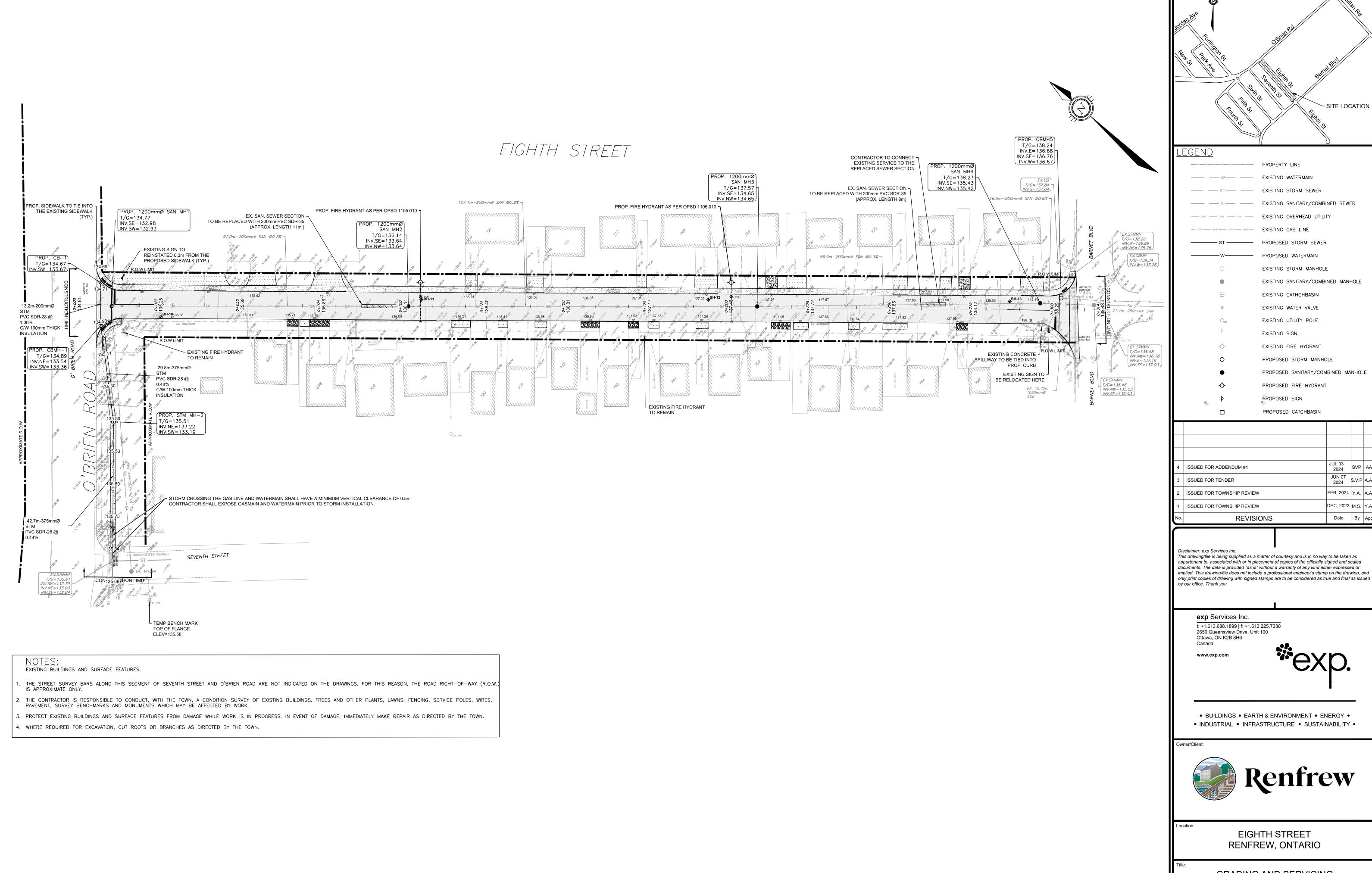
ocation: EIGHTH STREET

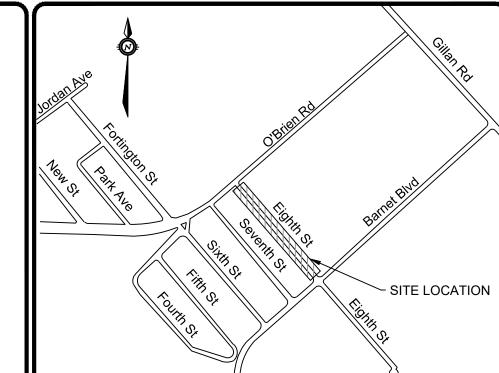
RENFREW, ONTARIO

LEGENDS AND NOTES

Drawn By: Y.A. Checked By: A.A. 1:500 Date: MAY. 2024

roject No.: OTT-22020563-AO





<u>LEGEND</u>							
	PROPERTY LINE						
W	EXISTING WATERMAIN						
ST	EXISTING STORM SEWER						
—— s— —	EXISTING SANITARY/COMBINED SEWER						
—— ОНИ —— ОНИ ——	EXISTING OVERHEAD UTILITY						
— GAS —— GAS —— GAS ——	EXISTING GAS LINE						
ST	PROPOSED STORM SEWER						
	PROPOSED WATERMAIN						
0	EXISTING STORM MANHOLE						
•	EXISTING SANITARY/COMBINED MANHOLE						
\Box	EXISTING CATHCHBASIN						
⊗	EXISTING WATER VALVE						
\bigcirc_{HP}	EXISTING UTILITY POLE						
þ	EXISTING SIGN						
	EXISTING FIRE HYDRANT						
0	PROPOSED STORM MANHOLE						
•	PROPOSED SANITARY/COMBINED MANHOLE						
ф	PROPOSED FIRE HYDRANT						
þ	PROPOSED SIGN						
	PROPOSED CATCHBASIN						

JUL 03 2024 2024 S.V.P A.A. FEB, 2024 Y.A. A.A 2 ISSUED FOR TOWNSHIP REVIEW ISSUED FOR TOWNSHIP REVIEW DEC, 2022 M.S. Y. REVISIONS Date By Ap

t: +1.613.688.1899 | f: +1.613.225.7330 2650 Queensview Drive, Unit 100



• BUILDINGS • EARTH & ENVIRONMENT • ENERGY • • INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •



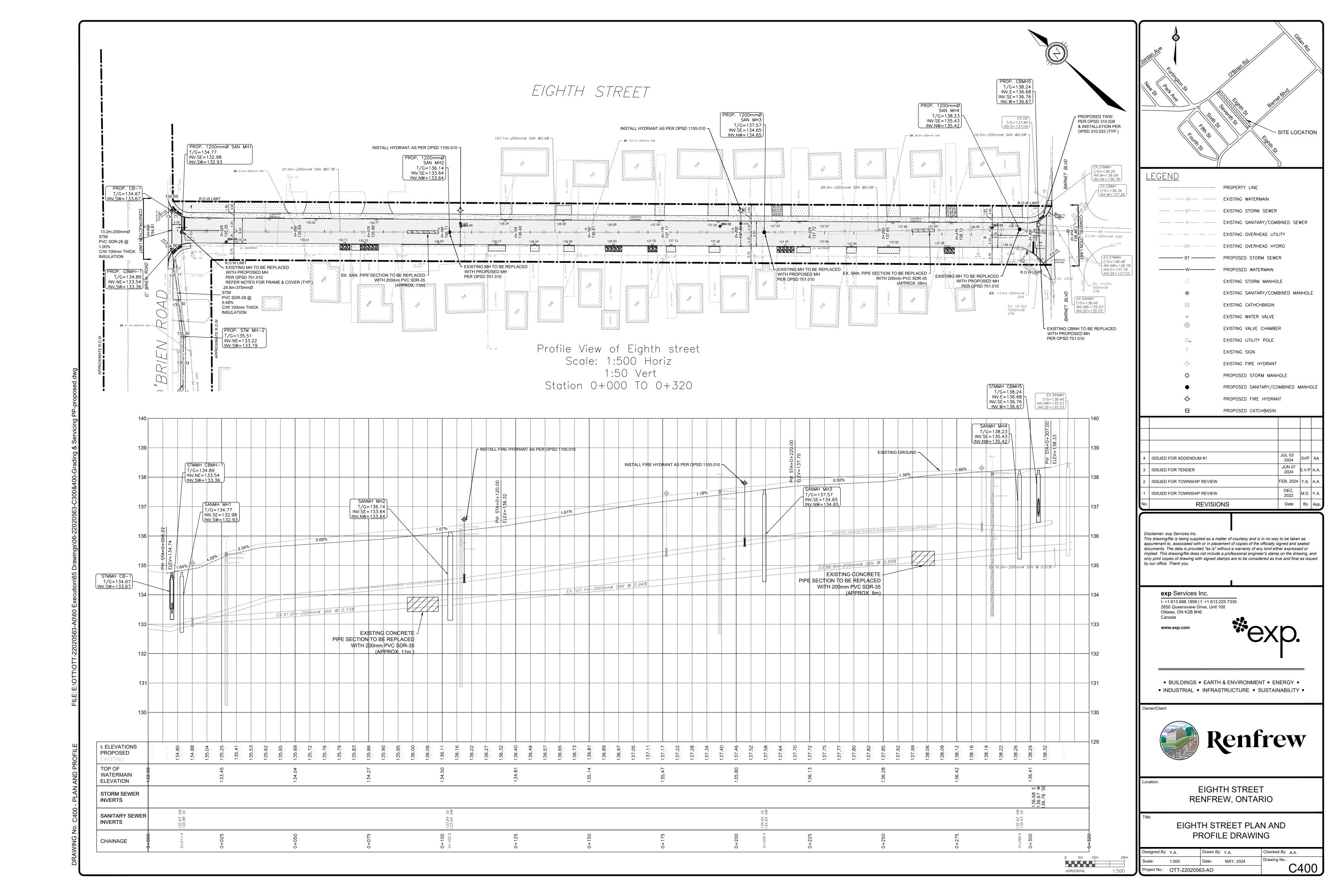
EIGHTH STREET RENFREW, ONTARIO

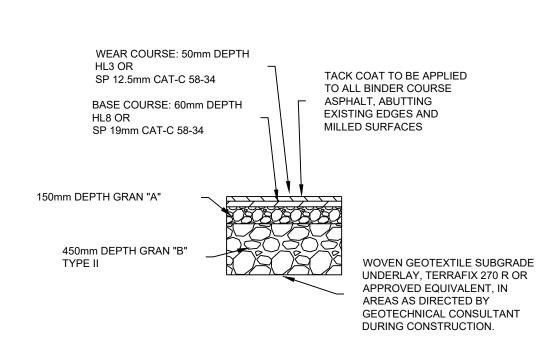
GRADING AND SERVICING PLAN

HORIZONTAL

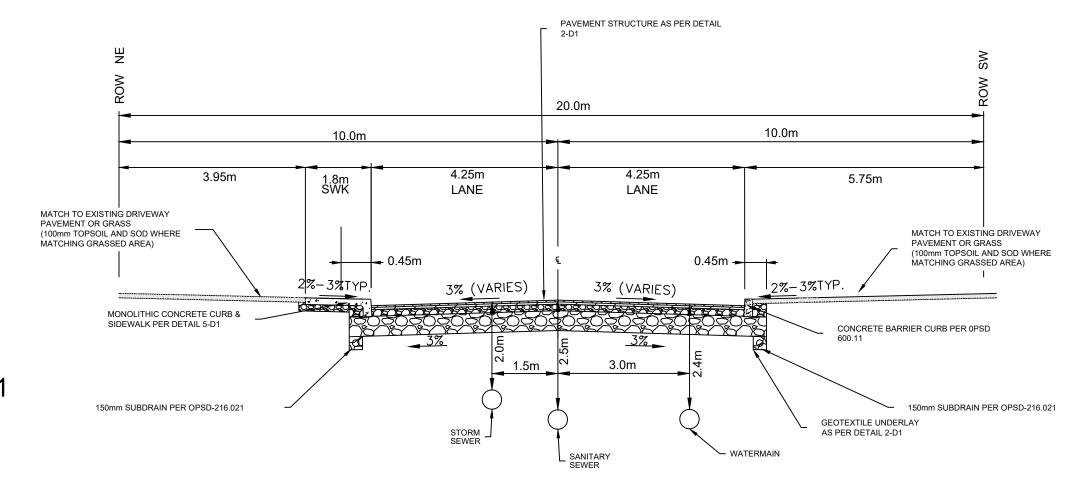
Checked By: A.A. esigned By: Y.A. Drawn By: Y.A. Scale: 1:500 Date: MAY, 2024

C300 roject No.: OTT-22020563-AO

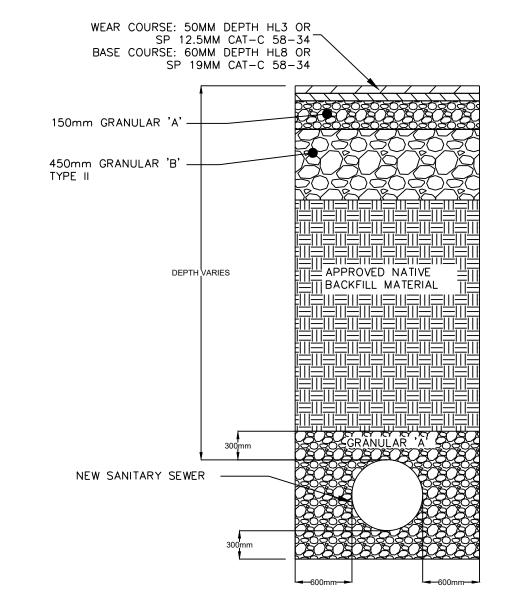




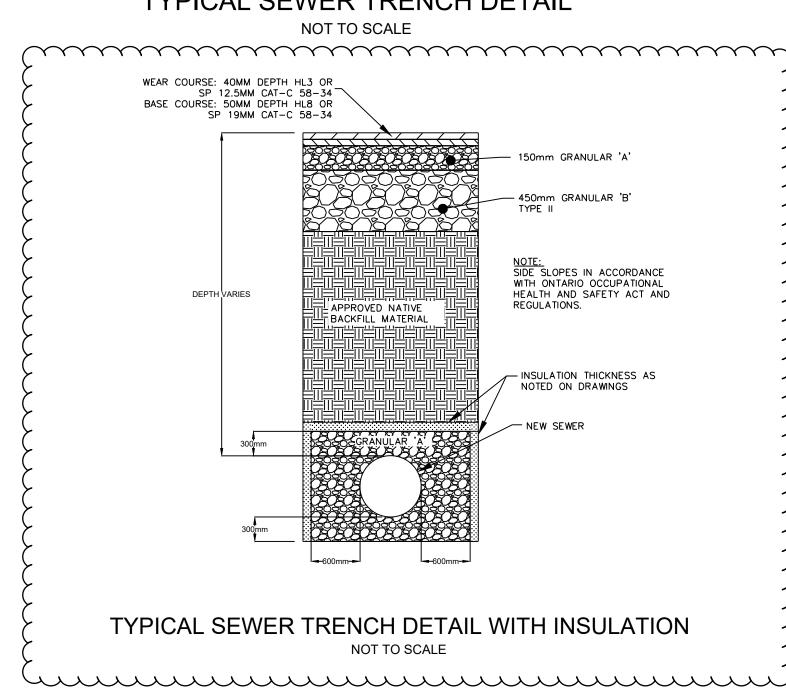
PAVEMENT STRUCTURE DETAIL 2-D1

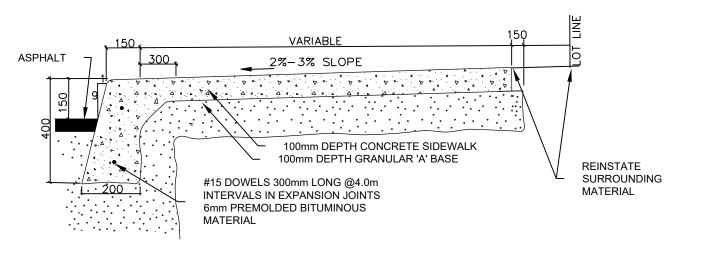


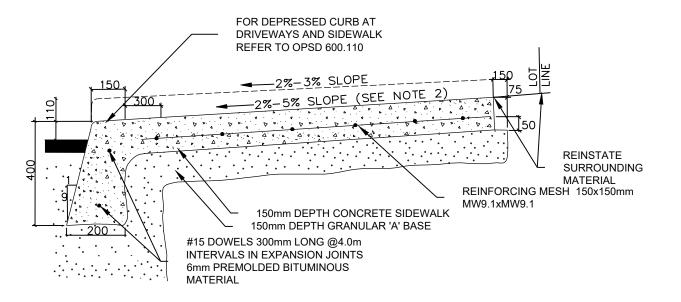
TYPICAL CROSS-SECTION DETAIL NOT TO SCALE



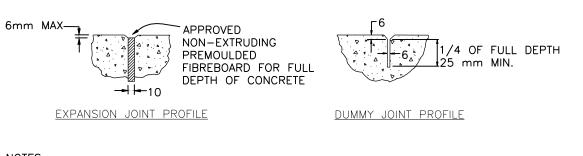
TYPICAL SEWER TRENCH DETAIL





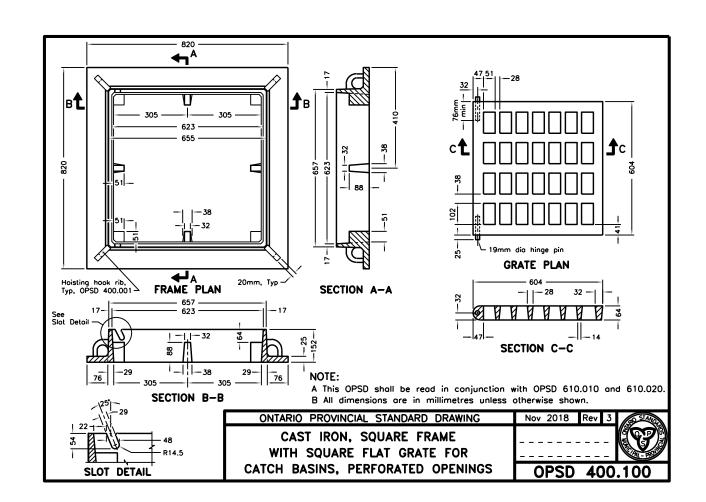


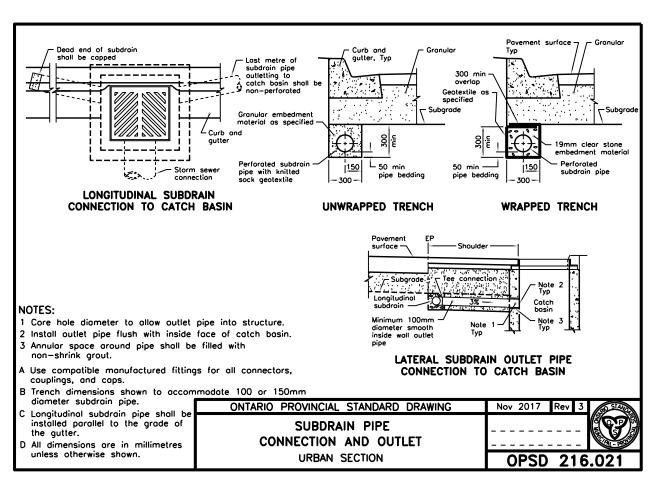
SECTION AT DRIVEWAY AND PEDESTRIAN RAMP

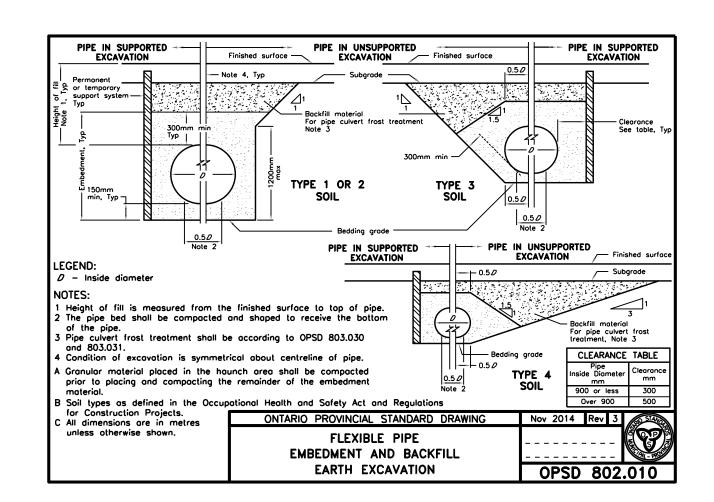


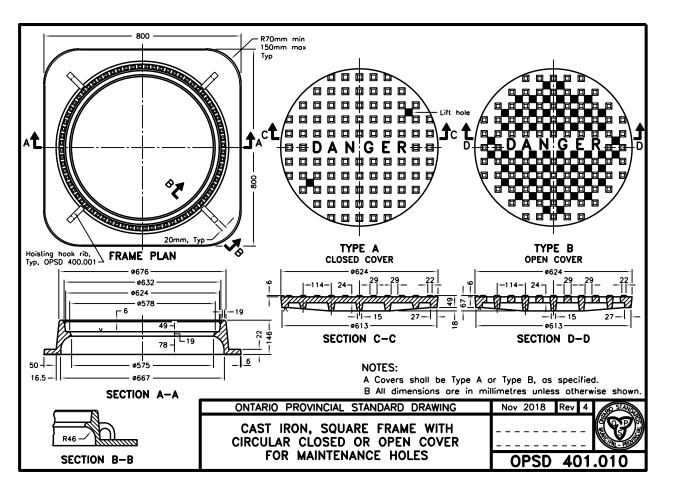
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE. 2. SIDEWALK SLOPE OF 5% AND 6% MAY BE USED ONLY ON EXCEPTION BASIS AND ONLY FOR SHORT DIS THE MAXIMUM SLOPE IS NOT TO EXCEED 4% ULESS ABSOLUTELY NECESSARY AS DETERMINED BY THE ENG

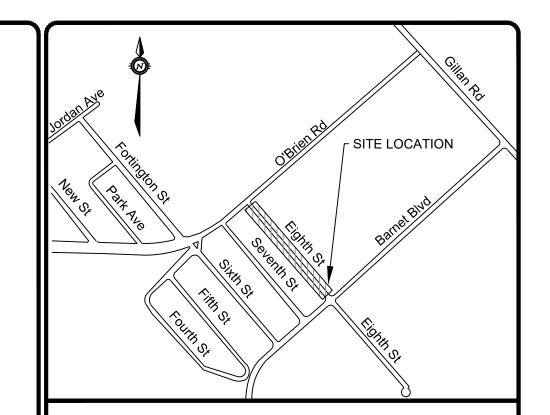
MONOLITHIC CURB & SIDEWALK DETAIL 5-D1

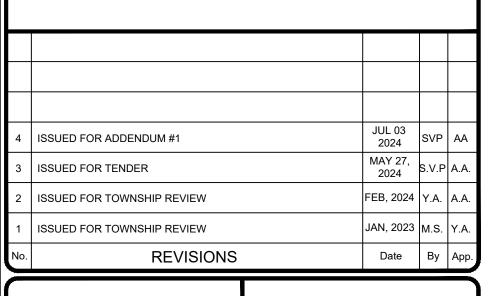












Disclaimer: exp Services Inc. This drawing/file is being supplied as a matter of courtesy and is in no way to be taken as appurtenant to, associated with or in placement of copies of the officially signed and sealed documents. The data is provided "as is" without a warranty of any kind either expressed or implied. This drawing/file does not include a professional engineer's stamp on the drawing, and only print copies of drawing with signed stamps are to be considered as true and final as issued by our office. Thank you.

exp Services Inc. t: +1.613.688.1899 | f: +1.613.225.7330 2650 Queensview Drive, Unit 100 Ottawa, ON K2B 8H6 Canada

www.exp.com



• BUILDINGS • EARTH & ENVIRONMENT • ENERGY • • INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •



wner/Client:



ocation: **EIGHTH STREET** RENFREW, ONTARIO

DETAILS 1

Drawn By: Y.A. Checked By: A.A. Date: MAY 27, 2024 N/A

roject No.: OTT-22020563-AO

C500