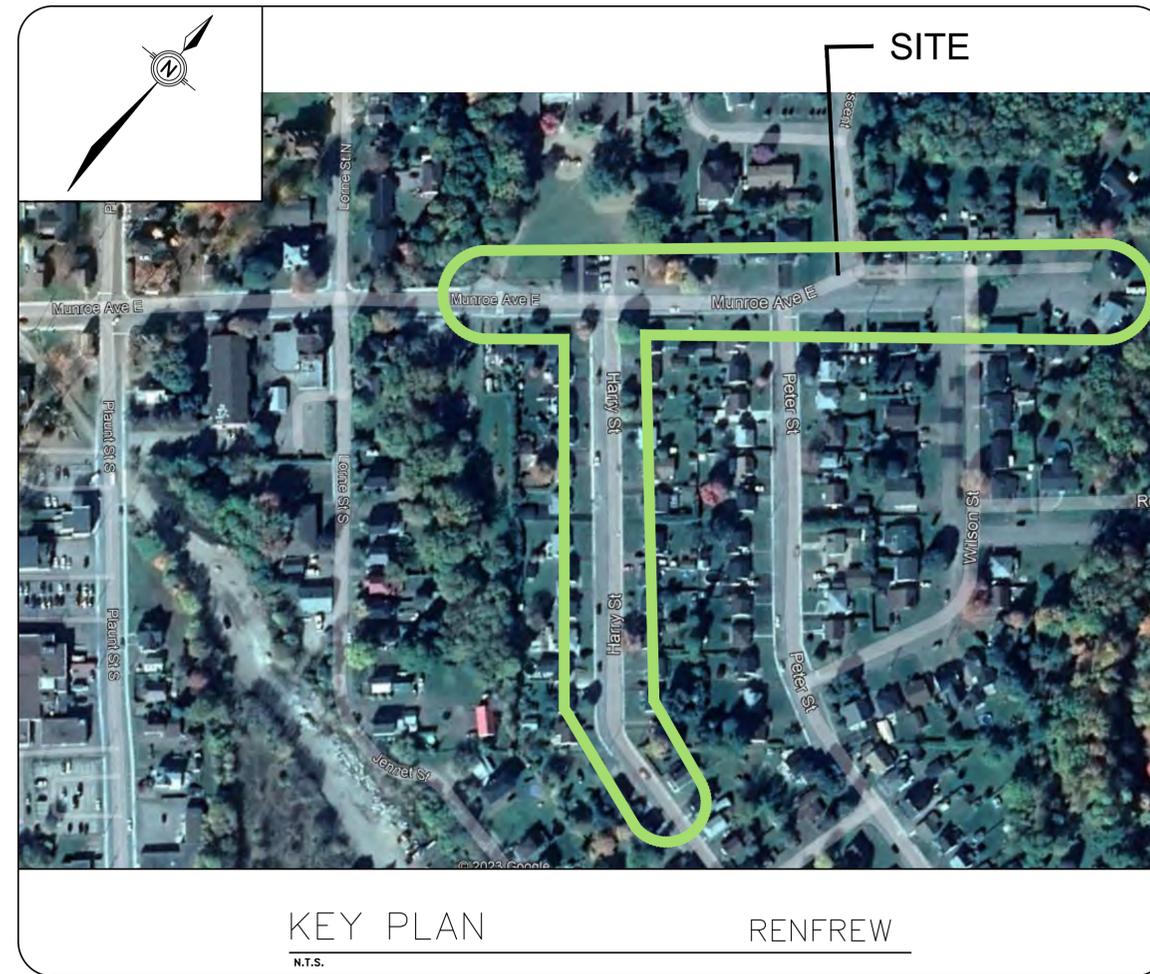


TOWN OF RENFREW HARRY AND MUNROE RECONSTRUCTION

MUNROE AVENUE FROM LORNE STREET NORTH TO DEAD END
HARRY STREET FROM MUNROE AVENUE EAST TO JOE AVENUE



SHEET No.	SHEET DESCRIPTION
01	LEGEND & NOTES
02	ALIGNMENT DATA
03	MUNROE AVENUE EAST REMOVALS
04	MUNROE AVENUE EAST REMOVALS
05	HARRY STREET REMOVALS
06	MUNROE AVENUE EAST MUNICIPAL REMOVALS
07	MUNROE AVENUE EAST MUNICIPAL REMOVALS
08	HARRY STREET MUNICIPAL REMOVALS
09	MUNROE AVENUE EAST NEW CONSTRUCTION
10	MUNROE AVENUE EAST NEW CONSTRUCTION
11	HARRY STREET NEW CONSTRUCTION
12	MUNROE AVENUE EAST PAVEMENT ELEVATIONS
13	MUNROE AVENUE EAST PAVEMENT ELEVATIONS
14	HARRY STREET PAVEMENT ELEVATIONS
15	MUNROE AVENUE EAST PROFILE
16	HARRY STREET PROFILE
17	SIDE STREET PROFILES
18	TYPICAL SECTIONS
19	DETAILS
20	MUNROE AVENUE EAST PAVEMENT MARKINGS
21	MUNROE AVENUE EAST PAVEMENT MARKINGS
22	MUNROE AVENUE EAST GRADING AND DRAINAGE
23	MUNROE AVENUE EAST GRADING AND DRAINAGE
24	MUNROE AVENUE EAST GRADING AND DRAINAGE
25	MUNROE AVENUE EAST GRADING AND DRAINAGE
26	HARRY STREET GRADING AND DRAINAGE
27	HARRY STREET GRADING AND DRAINAGE
28	MUNICIPAL DETAILS I
29	MUNICIPAL DETAILS II
30	MUNICIPAL DETAILS III

CENTRAL SCHOOL PARKING LOT – DESIGNED BY OTHERS	
PLAN.1	SITE PLAN & GRADING PLAN
REM.1	REMOVALS



ANDREA BISHOP P.Eng.
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING



ISSUED FOR TENDER
FEBRUARY 18, 2026

SYMBOLS			
UTILITIES	EXISTING	PROPOSED	REMOVALS
			ADJUST
WATERMAIN			
PLAN WATERMAIN	--- W --- W ---	-----	X W X W X
PROFILE WATERMAIN	EX 150mmØ WM	200mmØ PVC DR18 CL-235 WM	
VALVE & VALVE BOX	WV	⊖	X WV
HYDRANT	mh	⊕	mh X
WATERMAIN CUT AND CAP			--- W ---] X
HYDRO			
HYDRO POLE	● HP		
HYDRO POLE WITH GUY WIRE	GA --- ● HP		
LIGHT STANDARD	● STREET LAMP		
OVERHEAD WIRE	--- OHW ---		
SEWERS			
STORM SEWER	--- ST ---	===	X X X
SANITARY SEWER	--- S --- S ---	=====	X S X S X
MAINTENANCE HOLE	MH	○	MH X
MAINTENANCE HOLE ADJUSTMENT, REPLACE FRAME AND COVER WITH SELF-LEVELING FRAME AND COVER			●
SERVICE TAP		--- - - - -	
CATCHBASINS			
SINGLE CATCHBASIN	CB	■	X CB
TWIN INLET CATCHBASIN		■	
CURB INLET TYPE		■	
CATCH BASIN (ANY TYPE INCLUDING TWIN) ADJUSTMENT, REPLACE FRAME AND COVER WITH SELF-LEVELING FRAME AND COVER			■
PROPERTY LINE	--- - - - -		
SIGN POST	○ SPP		
GASMAIN	--- GAS --- GAS ---		
BELL/ROGERS	--- - - - - COM ---		
REFERENCE POINTS			
CONTROL POINT	▲ SCP		

NOTES:

GENERAL NOTES:

- ALL DIMENSIONS ARE IN METERS, UNLESS OTHERWISE NOTED.
- WITH THE EXCEPTION OF THE CITY OF OTTAWA CONSTRUCTION SPECIFICATIONS AND STANDARD DETAIL DRAWINGS REFERRED TO IN THIS CONTRACT, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND STANDARD SPECIFICATIONS (OPSS) SHALL APPLY TO THIS CONTRACT.
- THE LOCATION OF THE UTILITIES IS APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY CONSULTING THE MUNICIPAL AUTHORITIES AND UTILITY COMPANIES CONCERNED. THE CONTRACTOR SHALL PROVE THE LOCATION OF UTILITIES AND SHALL BE RESPONSIBLE FOR ADEQUATE PROTECTION FROM DAMAGE. OVERHEAD UTILITIES AND SERVICES ARE NOT SHOWN.
- GEOTECHNICAL INFORMATION IS AVAILABLE WITH REFERENCE TO THE "GEOTECHNICAL INVESTIGATION MUNROE AVENUE EAST AND HARRY STREET RECONSTRUCTION" PREPARED BY GEMTEC CONSULTING ENGINEERS AND SCIENTISTS LTD., DATED MAY 5, 2023.
- THE CONTRACTOR SHALL WORK TO WITHIN THE DESIGNATED WORK AREA AS DEFINED BY THE RIGHT-OF-WAY (RW) OR DESIGNATED WORK AREA LIMITS INDICATED ON THE CONTRACT DRAWINGS.
- UTILITY WORKS BY OTHERS OCCUR INTERMITTENTLY THROUGHOUT THE LENGTH OF THE CONTRACT. THE CONTRACTOR SHALL CO-ORDINATE REQUIREMENTS IN ACCORDANCE WITH THE SUPPLEMENTAL GENERAL CONDITIONS. THE CONTRACTOR SHALL PROTECT AND SUPPORT EXISTING UTILITIES THROUGHOUT THE CONTRACT LIMITS IN ACCORDANCE WITH UTILITY REQUIREMENTS.
- THE CONTRACTOR SHALL COMPLY WITH CONTRACT SUPPLEMENTAL GENERAL CONDITION D.39 & D.40 WITH RESPECT TO TRAFFIC LANE MAINTENANCE AND PEDESTRIAN CONTROL REQUIREMENTS DURING CONSTRUCTION. ACCESS TO/FROM ADJACENT STREETS AND RESIDENCES SHALL BE MAINTAINED AT ALL TIMES.
- THE CONTRACTOR SHALL CONFORM TO THE MODIFIED OPS GENERAL CONDITIONS AND SUPPLEMENTAL GENERAL CONDITIONS REQUIREMENTS FOR MAINTAINING ROADWAYS AND DETOURS.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT FOR ALL HYDRO POLES LOCATED WITHIN A 1:1 SLOPE FROM THE EDGE OF THE BASE OF THE TRENCH.
- PLACE STRAW BALE CHECK DAMS AS PER OPSD-219.180 IN DITCH ADJACENT TO DITCH INLETS, AND AT PIPE INLETS AND DITCH OUTLETS.

GRADING NOTES:

- THE CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT SURFACE EROSION AND SEDIMENT RUNOFF FROM IMPACTING EXISTING WATERCOURSES, DRAINAGE DITCHES, ADJACENT PROPERTIES AND EXISTING SEWERS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS AND TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR.
- RUNOFF FROM ADJACENT AREAS, DRAINAGE FROM EXISTING SEWER OUTLETS AND DITCHES SHALL BE MAINTAINED AND/OR RE-ROUTED AS REQUIRED UNTIL NEW GRADING AND SEWER OUTLETS ARE CONSTRUCTED.
- ALL GRADED AREAS TO BE REINSTATED WITH SOD OVER 100mm TOPSOIL, UNLESS OTHERWISE SPECIFIED.

REMOVAL NOTES:

- REMOVAL/REINSTATEMENT AREAS IDENTIFIED ARE ESTIMATED BASED ON INFORMATION AVAILABLE AT THE TIME OF DESIGN. ACTUAL AREAS WILL VARY AND WILL BE FIELD MEASURED DURING CONSTRUCTION. EXACT LIMITS OF REINSTATEMENT WILL BE AS DIRECTED BY THE CONTRACT ADMINISTRATOR. THE CONTRACTOR SHALL NOT PERFORM LANDSCAPING OR DRIVEWAY REMOVAL UNTIL LIMITS ARE AGREED TO ON-SITE WITH THE CONTRACT ADMINISTRATOR. THE CONTRACTOR SHALL MINIMIZE IMPACT AREAS TO BE RESTORED.
- ALL ADJACENT AREAS DISTURBED BY CONSTRUCTION SHALL BE REINSTATED TO ORIGINAL CONDITIONS TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REHABILITATION OF THE DAMAGE AND DISTURBANCE TO ADJACENT EXISTING LANDSCAPING, RETAINING WALLS, NOISE BARRIERS AND OTHER FEATURES CAUSED DURING REMOVALS AND NEW CONSTRUCTION.
- SAWCUT EXISTING PAVEMENT TO NEAT LINES AT ALL TIE-IN AND MATCH LINE LOCATIONS.
- ALL LIMITS OF CLEARING AND GRUBBING SHALL BE CONFIRMED WITH THE CONTRACT ADMINISTRATOR.
- ALL TREES NOT IDENTIFIED FOR REMOVAL SHALL BE PROTECTED. TREE PROTECTION SHALL BE INSTALLED, AS SPECIFIED ON PLANS AND AS DIRECTED BY THE CONTRACT ADMINISTRATOR. PRIOR TO GRADING OPERATIONS, TREE PROTECTION SHALL BE REMOVED AND REPLACED AS REQUIRED TO ALLOW FOR CONSTRUCTION.
- FOR WORK ADJACENT TO TREES, SELECTIVE PRUNING/TRIMMING AND/OR TYING BACK OF LIMBS SHALL ONLY PROCEED UNDER THE DIRECT SUPERVISION OF THE TOWN ARBORIST. THE CONTRACTOR SHALL PROVIDE TREE PROTECTION IN CONFORMANCE WITH THE CONTRACT SPECIFICATIONS. THE LOCATION OF THE TREE PROTECTION BARRIER WILL BE SUBJECT TO APPROVAL.
- THE CONTRACTOR SHALL REMOVE MISCELLANEOUS DEBRIS AND REFUSE, FALLEN TREES AND PILES WHERE ENCOUNTERED AND DISPOSE OF OFFSITE IN ACCORDANCE WITH CONTRACT SPECIFICATIONS.
- ALTHOUGH NOT SPECIFICALLY SHOWN, EXISTING SEWER AND WATER SERVICES SHALL BE REMOVED AS NEW SERVICES ARE INSTALLED.
- EXISTING MONITORING WELLS IDENTIFIED TO BE REMOVED/ABANDONED SHALL BE COMPLETED BY A CERTIFIED CONTRACTOR IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. DOCUMENTATION IS MANDATORY. REFER TO CONTRACT SPECIFICATIONS FOR REQUIREMENTS. PROTECT ALL WELLS NOT IDENTIFIED FOR REMOVAL/ABANDONMENT.
- IMPACTED IRRIGATION SPRINKLERS SHALL BE ADJUSTED TO ACCOMMODATE FINISHED GRADE.
- THE CONTRACTOR SHALL LAYOUT CURBS, SIDEWALKS AND/OR PATHWAYS AS PER CO-ORDINATE TABLES ON DETAILED GEOMETRY LAYOUT PLAN. THE CONTRACTOR SHALL PROVIDE TWO (2) WORKING DAYS ADVANCE NOTICE OF CURB, SIDEWALK AND/OR PATHWAY PLACEMENTS TO CONTRACT ADMINISTRATOR. THE CONTRACTOR MAY NOT PROCEED WITH PLACEMENT WITHOUT APPROVAL FROM THE CONTRACT ADMINISTRATOR.
- WHERE SALVAGED INTERLOCKING PAVING STONES ARE TO BE REINSTATED, GRANULAR 'A' DEPTH SHALL MATCH EXISTING BEDDING DEPTH OR HAVE A DEPTH AS SPECIFIED IN THE CITY OF OTTAWA STD. DET. NO. SC9, WHICHEVER IS GREATER.
- NEW ENTRANCE CONSTRUCTION SHALL MATCH TO THE EXISTING ENTRANCE WITH MAXIMUM GRADIENT OF 6% OR AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
- A TACK COAT SHALL BE APPLIED TO ALL PAVEMENT SURFACES PRIOR TO NEXT COURSE OF PAVING AS SPECIFIED IN THE CONTRACT.
- EXISTING SEWER AND WATERMAIN PIPES WHICH ARE NOT REMOVED SHALL BE CAPPED AND ABANDONED USING FLOWABLE FILL CONCRETE.
- THE CONTRACTOR SHALL COORDINATE TEMPORARY OVERHEAD STREET LIGHT FEEDS AS REQUIRED.
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING SEWERS AND MAINTENANCE HOLES. THE CONTRACTOR SHALL MAINTAIN AND MANAGE EXISTING SEWER FLOWS, AS SHOWN ON CONTRACT DRAWINGS, DURING THE CONSTRUCTION PERIOD.

SEWER NOTES:

- ALL SANITARY SERVICE LATERALS TO BE MINIMUM 150mm DIAMETER PVC PIPE, CLASS SDR 35, UNLESS OTHERWISE NOTED.
- ALL SINGLE CATCH BASIN LEADS TO BE 200mm DIAMETER. ALL DOUBLE CATCH BASIN LEADS TO BE 250mm DIAMETER, UNLESS OTHERWISE NOTED.
- ALL STORM SERVICE LATERALS TO BE MINIMUM 130mm DIAMETER PVC PIPE, CLASS SDR 35, UNLESS OTHERWISE NOTED.
- THE LOCATION OF SERVICE LATERALS ON THE DRAWINGS ARE APPROXIMATE ONLY. THE EXACT LOCATION OF SERVICE LATERALS ARE TO BE DETERMINED IN THE FIELD, AND AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
- TOP OF GRATE ELEVATION ON CURB INLET CATCH BASIN DATA CHARTS REFERS TO THE TOP OF FRAME AND COVER AT THE TOP OF CURB FACE, TOP OF GRATE ELEVATION ON SURFACE INLET CATCH BASIN DATA CHARTS REFERS TO THE TOP OF THE FRAME AND GRATE AT THE CURB LINE.
- ALL SEWER CROSSING BELOW EXISTING WATERMANS SHALL BE CONSTRUCTED PER CITY OF OTTAWA STD. DET. NO. S10.
- ALL WATERMAIN CROSSING BELOW EXISTING SEWERS SHALL BE CONSTRUCTED PER CITY OF OTTAWA STD. DET. NO. W25, ALL WATERMANS CROSSING ABOVE SEWERS SHALL BE CONSTRUCTED PER CITY OF OTTAWA STD. DET. NO. W25.2.
- EXISTING SEWERS TO BE PROTECTED AND MAINTAINED DURING CONSTRUCTION.
- ALL SANITARY MAINTENANCE HOLES TO BE BENCHED AS PER OPSD 701.021.
- ALL STORM SEWER MAINTENANCE HOLES SERVING SEWERS LESS THAN 900mm TO HAVE A 300mm SUMP. ALL STORM SEWER MAINTENANCE HOLES SERVICING SEWERS 900mm AND OVER TO BE BENCHED AS PER OPSD 701.021.
- CONTRACTOR SHALL ENSURE REHABILITATED ROADWAY AND DITCH MAINTAIN POSITIVE DRAINAGE AT ALL TIMES TO EXISTING OUTLETS AND CATCHBASINS.
- FOR CATCHBASIN AND CATCHBASIN MAINTENANCE HOLE CONSTRUCTION DETAILS AT CURBS, REFER TO CITY OF OTTAWA STD. DET. NOS. S1, S2 AND S3.
- POSITIVE DRAINAGE SHALL BE PROVIDED FOR ALL SUBDRAINS.
- FOR SEWER PIPE BEDDING/BACKFILL, REFER TO CITY OF OTTAWA STD. DET. NO. S6. BACKFILL WITH APPROVED NATIVE FILL TO MATCH ADJACENT MATERIAL EXPOSED ON TRENCH WALL OR AS DIRECTED BY THE CONTRACT ADMINISTRATOR. PIPE BEDDING AND COVER SHALL BE GRANULAR 'A', MINIMUM 300mm THICK.
- NEW SEWER LATERAL SERVICES ARE TO CROSS ABOVE SEWERS AND WATERMANS IN THE RIGHT-OF-WAY. THE CONTRACTOR SHALL NOTIFY THE CONTRACT ADMINISTRATOR IF THERE IS A CONFLICT WITH SEWER LATERALS CROSSING ABOVE SEWERS AND WATERMAIN AND PROVIDE TIME FOR THE CONTRACT ADMINISTRATOR TO ADJUST DESIGN, IF REQUIRED.

UTILITIES NOTES:

- FOR MANAGEMENT OF EXCAVATED MATERIAL AND GROUND WATER MANAGEMENT REQUIREMENTS, REFER TO CONTRACT SPECIFICATIONS.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY BYPASS PUMPING AND TEMPORARY MAINTENANCE HOLES AND CONNECTIONS TO HANDLE THE FLOWS DURING CONSTRUCTION. DETAILED PLANS OF BYPASS PUMPING TO BE SUBMITTED FOR APPROVAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE, BY EXCAVATION, THE EXACT LOCATION, ELEVATION AND DIAMETER OF THE EXISTING SEWERS AS REQUIRED FOR ALL CONNECTIONS, RELOCATIONS AND BLANKINGS.
- THE CONTRACTOR SHALL DETERMINE, VIA EXCAVATION AND/OR PROBING, THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITIES CROSSED BY NEW SERVICES AND CATCHBASIN LATERALS PRIOR TO PLACING NEW SERVICES AND LATERALS. THE CONTRACTOR SHALL PROVIDE TIME FOR CONTRACT ADMINISTRATOR TO ADJUST DESIGN DUE TO ANY CONFLICT, IF REQUIRED.
- THE CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING SERVICES IN THE FIELD. ALL SERVICES SHALL BE CONFIRMED IN FIELD BY PROBING, DYE TESTING OR OTHER METHODS.

HARRY ST AND MUNROE AVE E RECONSTRUCTION



LEGEND & NOTES

Contract No. 2026-03-IPWE	Dwg. No. N01
Sheet 01 of 30	

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING



Des.	SC	Chk'd.	DG
Des.	SC	Chk'd.	DG

Scale:

NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

REVISIONS	No.	Description	By	Date (dd/mm/yyyy)
		01	ISSUED FOR TENDER	MY
	02	ISSUED FOR TENDER	BH	18/02/2026

WATERMAIN NOTES:

- ALL MATERIALS AND CONSTRUCTION METHODS TO BE IN ACCORDANCE WITH THE LATEST CITY OF OTTAWA STANDARD SPECIFICATIONS AND DRAWINGS.
- THE CONTRACTOR SHALL PROVIDE EXCAVATION, DEWATERING, BEDDING AND BACKFILLING FOR ALL RELOCATIONS, BLANKINGS AND CONNECTIONS TO EXISTING WATERMANS.
- THE CONTRACTOR SHALL ASSUME ALL THRUST BLOCKS AND RESTRAINTS TO BE INSTALLED BASED ON 100kPa BEARING CAPACITY. THE BEARING CAPACITY SHALL BE CONFIRMED ON-SITE, AT TIME OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE, BY EXCAVATION, THE EXACT LOCATION, ELEVATION AND DIAMETER OF THE EXISTING WATERMANS AS REQUIRED FOR ALL CONNECTIONS, RELOCATIONS AND BLANKINGS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TEMPORARY OVERLAND WATER SERVICES.
- WATER SERVICE POST LOCATIONS SHOWN ARE BASED ON TOWN INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE, BY EXCAVATION, THE EXACT LOCATION, ELEVATION AND DIAMETER OF THE EXISTING WATERMANS, AS REQUIRED, FOR ALL CONNECTIONS, RELOCATIONS AND BLANKINGS.
- WATER SERVICES AND SERVICE POSTS SHALL BE REPLACED TO PROPERTY LINE, UNLESS OTHERWISE SPECIFIED, AS PER CITY OF OTTAWA STD. DET. NOS. W26 AND W35. SERVICE DIAMETER, EXACT LIMIT AND LAYOUT OF SERVICE REPLACEMENT TO BE DETERMINED IN FIELD AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
- NEW WATERMAIN SHALL BE INSTALLED AT 2.4m COVER OR INSULATED AS PER CITY OF OTTAWA STD. DET. NO. W21 AS INDICATED OR DIRECTED BY THE CONTRACT ADMINISTRATOR.
- EXISTING WATERMANS SHOWN ON THE PROFILE ARE APPROXIMATE. DEPTH OF COVER MAY VARY FROM WHAT IS ASSUMED.
- WATER SERVICES AND SERVICE POSTS TO BE PROTECTED.
- ALL WATER SERVICES TO BE 19mm DIA., UNLESS OTHERWISE NOTED. SHOULD WATER SERVICE GREATER THAN 19mm DIA. BE EXPOSED, THE CONTRACT ADMINISTRATOR IS TO BE ADVISED IMMEDIATELY TO ALLOW FOR THE REPLACEMENT DIAMETER TO BE CONFIRMED. ALL WATER SERVICES SHALL BE INSTALLED WITH MINIMUM 2.4m COVER AS PER CITY OF OTTAWA STD. DET. NO. W26.
- FOR CATHODIC PROTECTION OF DUCTILE IRON WATERMAIN PIPE, REFER TO CITY OF OTTAWA STD. DET. NO. W39.
- THERMAL INSULATION SHALL BE INSTALLED AT ALL OPEN STRUCTURES AS PER CITY OF OTTAWA STD. DET. NO. W23.
- WATERMAIN BEDDING AND COVER SHALL BE GRANULAR 'A'. REFER TO CITY OF OTTAWA STD. DET. NO. W17.
- THE CONTRACTOR SHALL BE SUPPLIED ALL MATERIALS REQUIRED CUT, CAPS, BLANKINGS AND CONNECTIONS TO EXISTING WATERMANS.
- THE CONTRACTOR SHALL PROVIDE RESTRAINED LENGTHS FOR WATERMAIN INSTALLATION AS PER CITY OF OTTAWA STD. DET. NO. W25.6. WHERE THE REQUIRED LENGTH CANNOT BE ACHIEVED DUE TO EXISTING CONDITIONS, THE CONTRACTOR SHALL EXPOSE ANY EXISTING JOINTS WITHIN THE REQUIRED RESTRAINED LENGTH AND INSTALL SPLIT RESTRAINING RINGS TO ACHIEVE THE NECESSARY RESTRAINT.

HARRY ST AND MUNROE AVE E
RECONSTRUCTION



MUNROE AVENUE EAST
REMOVALS
STA. 0+883 TO STA. 1+100

Contract No. 2026-03-IPWE | Dwg. No. R01
Sheet 03 of 30

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING



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1:250

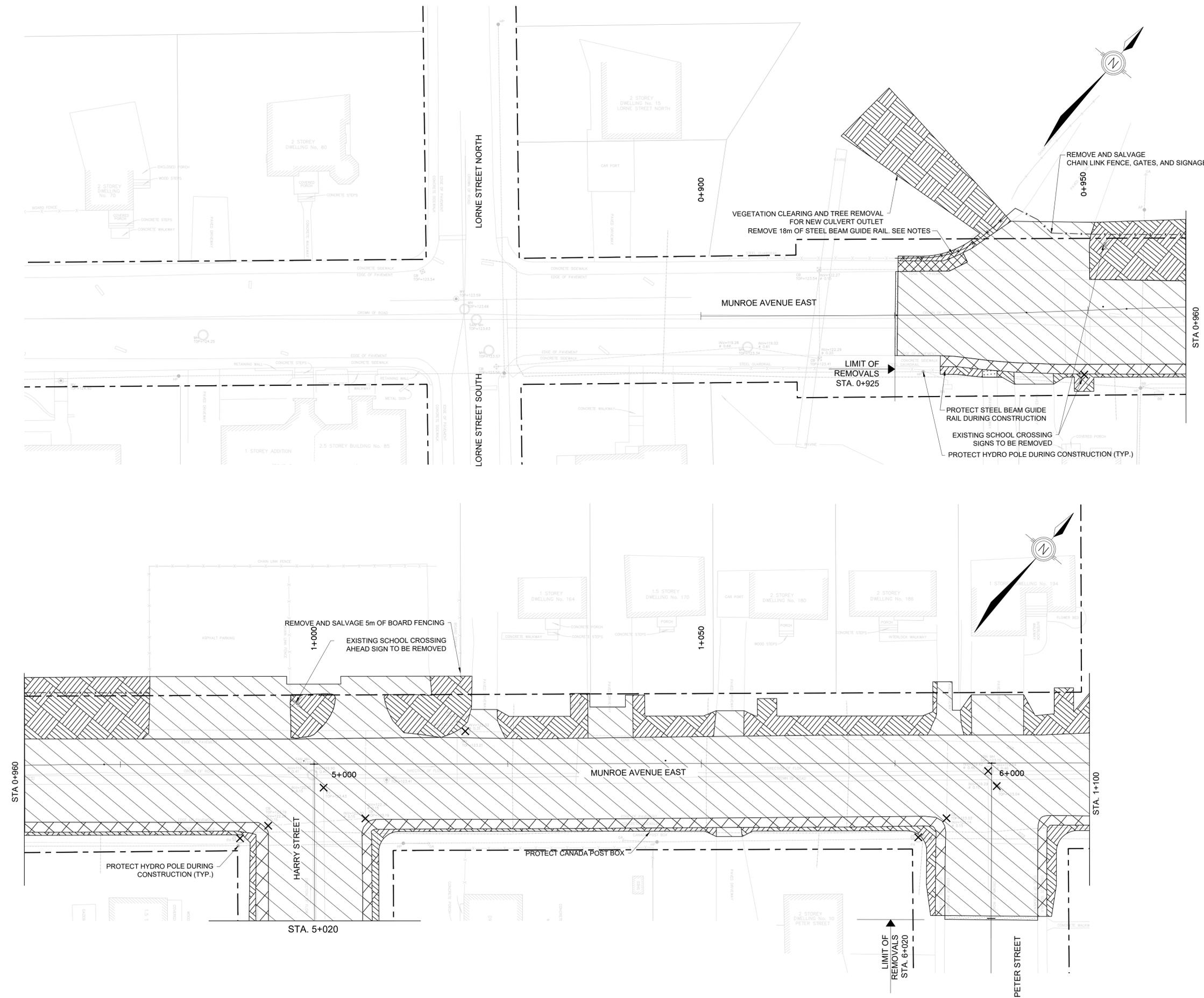
NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

No.	Description	By	Date (dd/mm/yyyy)
01	ISSUED FOR 50% DESIGN	MH	29/06/2023
02	ISSUED FOR PIC #1	MH	01/10/2023
03	ISSUED FOR 80% DESIGN SUBMISSION	MH	08/12/2023
04	ISSUED FOR TENDER	MY	04/10/2024
05	ISSUED FOR TENDER	BH	18/02/2025

- NOTES:
- ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.
 - THE LOCATION OF ALL UTILITIES IS APPROXIMATE ONLY, THE EXACT LOCATION SHOULD BE DETERMINED BY CONSULTING THE MUNICIPAL AUTHORITIES AND UTILITY COMPANIES CONCERNED. THE CONTRACTOR SHALL PROVE THE LOCATION OF UTILITIES, SHALL BE RESPONSIBLE FOR ADEQUATE PROTECTION FROM DAMAGE, AND, BE RESPONSIBLE FOR REPAIR OF DAMAGE THAT MAY OCCUR.
 - CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF EXISTING WORK AND ALL DETAILS ON SITE AND REPORT ANY DISCREPANCIES TO CONTRACT ADMINISTRATOR BEFORE PROCEEDING WITH WORK.
 - ALL CONSTRUCTION SIGNAGE AND TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF F.01, F.14, AND LATEST OTM BOOK 7.
 - ALL WORK SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH ONTARIO OCCUPATIONAL HEALTH AND SAFETY ACT AND IS TO FOLLOW BEST TRADES PRACTICES.
 - WITH THE EXCEPTIONS OF THE SPECIFICATIONS & STANDARD DETAIL DRAWINGS REFERENCED TO IN THE CONTRACT, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) & STANDARD SPECIFICATIONS (OPSS) SHALL APPLY TO THE CONTRACT.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING PERMANENT AND TEMPORARY WORKS WITHIN THE LIMITS OF CONSTRUCTION. CONTRACTOR TO REINSTATE ANY DISTURBED AREA(S) TO THE EXISTING CONDITIONS OR BETTER PRIOR TO PROJECT COMPLETION.
 - THE CONTRACTOR SHALL IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM.
 - THE CONTRACTOR SHALL PRESERVE ALL PROPERTY BARS IN ACCORDANCE WITH THE REQUIREMENTS OF GC7.02 PARAGRAPH 02.
 - CONTRACTOR SHALL PROVIDE TREE PROTECTION IN ACCORDANCE WITH SPECIAL PROVISION D.56.
 - CONTRACTOR SHALL ENSURE REHABILITATED ROADWAY AND DITCH MAINTAIN POSITIVE DRAINAGE AT ALL TIMES TO EXISTING OUTLETS AND CATCHBASINS.
 - MAINTAIN ALL EXISTING SIGNS NOT MARKED FOR REMOVAL.
 - FOR EXTENT OF DRIVEWAY REMOVALS REFER TO THE NEW CONSTRUCTION DRAWINGS.
 - DURING ANY TIME WHEN ROADSIDE BARRIERS AND SAFETY DEVICES ARE TEMPORARILY REMOVED OR DEEMED INEFFECTIVE DUE TO CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL PROVIDE ADEQUATE TRAFFIC CONTROL AND/OR TRAFFIC SAFETY DEVICES.

LEGEND:

- FULL DEPTH ASPHALT REMOVAL
- 40mm PARTIAL DEPTH ASPHALT REMOVAL
- CONCRETE SIDEWALK REMOVAL
- CLEARING/ EARTH EXCAVATION
- REMOVAL OF GRAVEL DRIVEWAY
- REMOVAL AND SALVAGE OF INTERLOCK DRIVEWAY
- RIGHT OF WAY
- REMOVAL OF CATCH BASINS, MANHOLES, WATER VALVES, OR FIRE HYDRANTS



NOTES:

- 1) ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.
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- 3) CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF EXISTING WORK AND ALL DETAILS ON SITE AND REPORT ANY DISCREPANCIES TO CONTRACT ADMINISTRATOR BEFORE PROCEEDING WITH WORK.
- 4) ALL CONSTRUCTION SIGNAGE AND TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF F.01, F.14, AND LATEST OTM BOOK 7.
- 5) ALL WORK SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH ONTARIO OCCUPATIONAL HEALTH AND SAFETY ACT AND IS TO FOLLOW BEST TRADES PRACTICES.
- 6) WITH THE EXCEPTIONS OF THE SPECIFICATIONS & STANDARD DETAIL DRAWINGS REFERENCED TO IN THE CONTRACT, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) & STANDARD SPECIFICATIONS (OPSS) SHALL APPLY TO THE CONTRACT.
- 7) THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING PERMANENT AND TEMPORARY WORKS WITHIN THE LIMITS OF CONSTRUCTION. CONTRACTOR TO REINSTATE ANY DISTURBED AREA(S) TO THE EXISTING CONDITIONS OR BETTER PRIOR TO PROJECT COMPLETION.
- 8) THE CONTRACTOR SHALL IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM.
- 9) THE CONTRACTOR SHALL PRESERVE ALL PROPERTY BARS IN ACCORDANCE WITH THE REQUIREMENTS OF GC7.02 PARAGRAPH 02.
- 10) CONTRACTOR SHALL PROVIDE TREE PROTECTION IN ACCORDANCE WITH SPECIAL PROVISION D.56.
- 11) CONTRACTOR SHALL ENSURE REHABILITATED ROADWAY AND DITCH MAINTAIN POSITIVE DRAINAGE AT ALL TIMES TO EXISTING OUTLETS AND CATCHBASINS.
- 12) MAINTAIN ALL EXISTING SIGNS NOT MARKED FOR REMOVAL.
- 13) FOR EXTENT OF DRIVEWAY REMOVALS REFER TO THE NEW CONSTRUCTION DRAWINGS.
- 14) DURING ANY TIME WHEN ROADSIDE BARRIERS AND SAFETY DEVICES ARE TEMPORARILY REMOVED OR DEEMED INEFFECTIVE DUE TO CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL PROVIDE ADEQUATE TRAFFIC CONTROL AND/OR TRAFFIC SAFETY DEVICES.

HARRY ST AND MUNROE AVE E RECONSTRUCTION



MUNROE AVENUE EAST REMOVALS STA. 1+100 TO STA. 1+241

Contract No. 2026-03-IPWE
Dwg. No. R02
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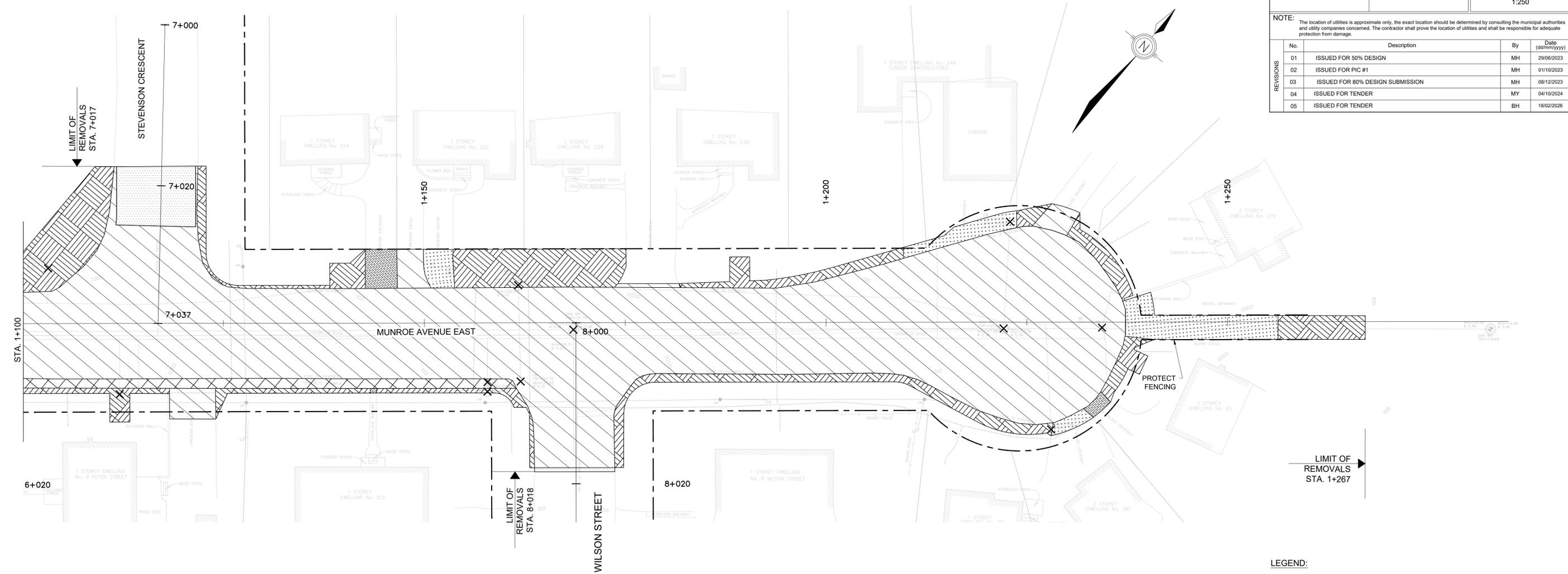


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3m 0 6m
1:250

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LEGEND:

- FULL DEPTH ASPHALT REMOVAL
- 40mm PARTIAL DEPTH ASPHALT REMOVAL
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- REMOVAL AND SALVAGE OF INTERLOCK DRIVEWAY
- RIGHT OF WAY
- REMOVAL OF CATCH BASINS, MANHOLES, WATER VALVES, OR FIRE HYDRANTS

HARRY ST AND MUNROE AVE E
RECONSTRUCTION



HARRY STREET
REMOVALS
STA. 5+020 TO STA. 5+213

Contract No. 2026-03-IPWE | Dwg. No. R03
Sheet 05 of 30

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING



Des. MC | Chkd. MY
Des. MC | Chkd. MY

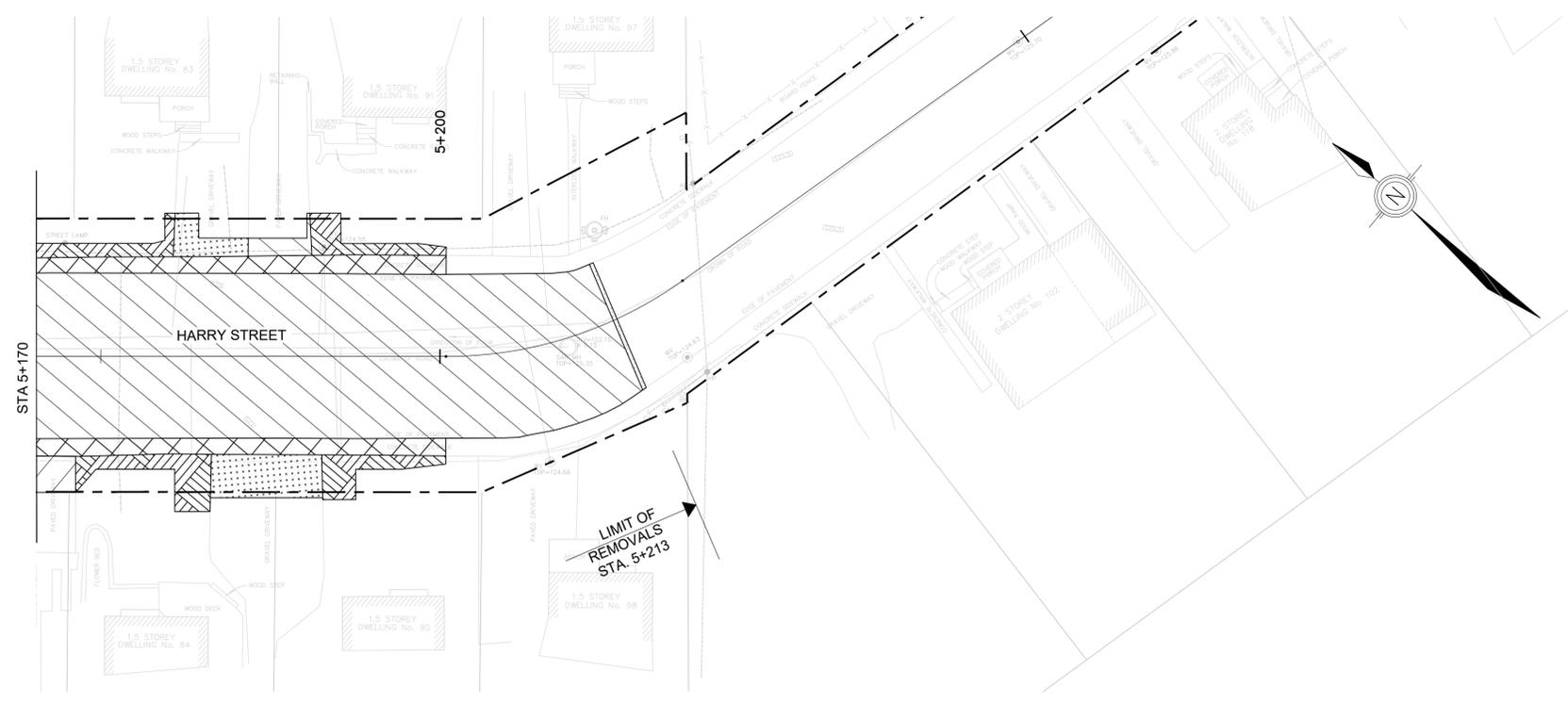
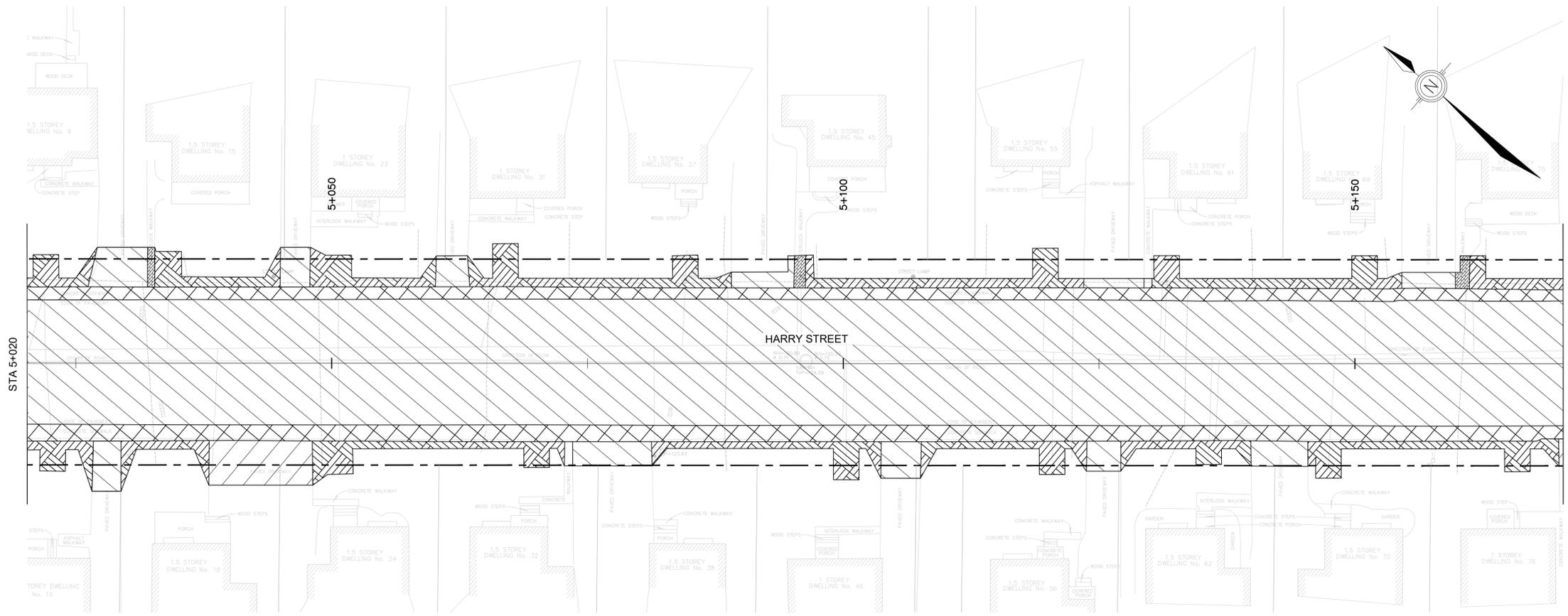
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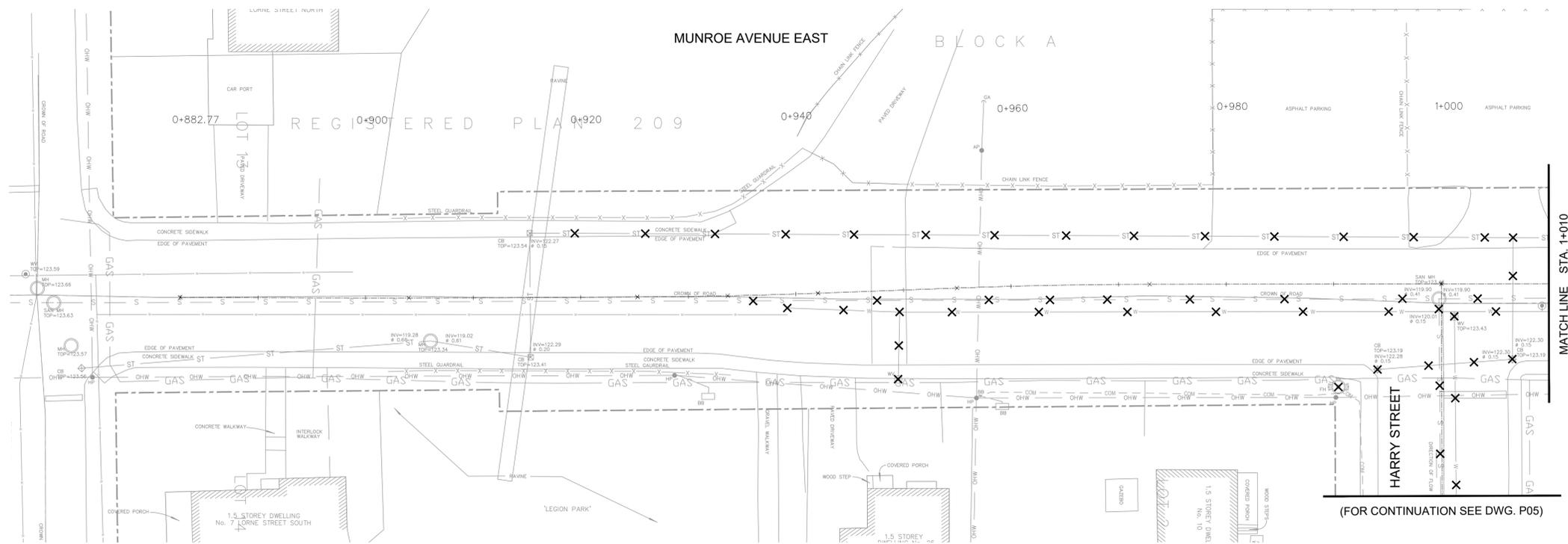
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02	ISSUED FOR PIC #1	MH	01/10/2023
03	ISSUED FOR 80% DESIGN SUBMISSION	MH	08/12/2023
04	ISSUED FOR TENDER	MY	04/10/2024
05	ISSUED FOR TENDER	BH	18/02/2025

- NOTES:
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 - THE LOCATION OF ALL UTILITIES IS APPROXIMATE ONLY, THE EXACT LOCATION SHOULD BE DETERMINED BY CONSULTING THE MUNICIPAL AUTHORITIES AND UTILITY COMPANIES CONCERNED. THE CONTRACTOR SHALL PROVE THE LOCATION OF UTILITIES, SHALL BE RESPONSIBLE FOR ADEQUATE PROTECTION FROM DAMAGE; AND, BE RESPONSIBLE FOR REPAIR OF DAMAGE THAT MAY OCCUR.
 - CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF EXISTING WORK AND ALL DETAILS ON SITE AND REPORT ANY DISCREPANCIES TO CONTRACT ADMINISTRATOR BEFORE PROCEEDING WITH WORK.
 - ALL CONSTRUCTION SIGNAGE AND TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF F.01, F.14, AND LATEST OTM BOOK 7.
 - ALL WORK SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH ONTARIO OCCUPATIONAL HEALTH AND SAFETY ACT AND IS TO FOLLOW BEST TRADES PRACTICES.
 - WITH THE EXCEPTIONS OF THE SPECIFICATIONS & STANDARD DETAIL DRAWINGS REFERENCED TO IN THE CONTRACT, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) & STANDARD SPECIFICATIONS (OPSS) SHALL APPLY TO THE CONTRACT.
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 - THE CONTRACTOR SHALL IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM.
 - THE CONTRACTOR SHALL PRESERVE ALL PROPERTY BARS IN ACCORDANCE WITH THE REQUIREMENTS OF GC7.02 PARAGRAPH 02.
 - CONTRACTOR SHALL PROVIDE TREE PROTECTION IN ACCORDANCE WITH SPECIAL PROVISION D.56.
 - CONTRACTOR SHALL ENSURE REHABILITATED ROADWAY AND DITCH MAINTAIN POSITIVE DRAINAGE AT ALL TIMES TO EXISTING OUTLETS AND CATCHBASINS.
 - MAINTAIN ALL EXISTING SIGNS NOT MARKED FOR REMOVAL.
 - FOR EXTENT OF DRIVEWAY REMOVALS REFER TO THE NEW CONSTRUCTION DRAWINGS.
 - DURING ANY TIME WHEN ROADSIDE BARRIERS AND SAFETY DEVICES ARE TEMPORARILY REMOVED OR DEEMED INEFFECTIVE DUE TO CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL PROVIDE ADEQUATE TRAFFIC CONTROL AND/OR TRAFFIC SAFETY DEVICES.

- LEGEND:
- FULL DEPTH ASPHALT REMOVAL
 - 40mm PARTIAL DEPTH ASPHALT REMOVAL
 - CONCRETE SIDEWALK REMOVAL
 - CLEARING/ EARTH EXCAVATION
 - REMOVAL OF GRAVEL DRIVEWAY
 - REMOVAL AND SALVAGE OF INTERLOCK DRIVEWAY
 - RIGHT OF WAY
 - REMOVAL OF CATCH BASINS, MANHOLES, WATER VALVES, OR FIRE HYDRANTS





(FOR CONTINUATION SEE DWG. P05)

MATCH LINE STA. 1+010

HARRY ST AND MUNROE AVE E RECONSTRUCTION

MUNROE AVENUE EAST. MUNICIPAL REMOVALS STA. 0+882.77 TO STA. 1+140

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING



Contract No. 2026-03-IPWE MR01
Dwg. No. MR01
Sheet 06 of 30

Des.	SC	Chk'd.	DG
Des.	SC	Chk'd.	DG

Scale: 1:250
HORIZONTAL
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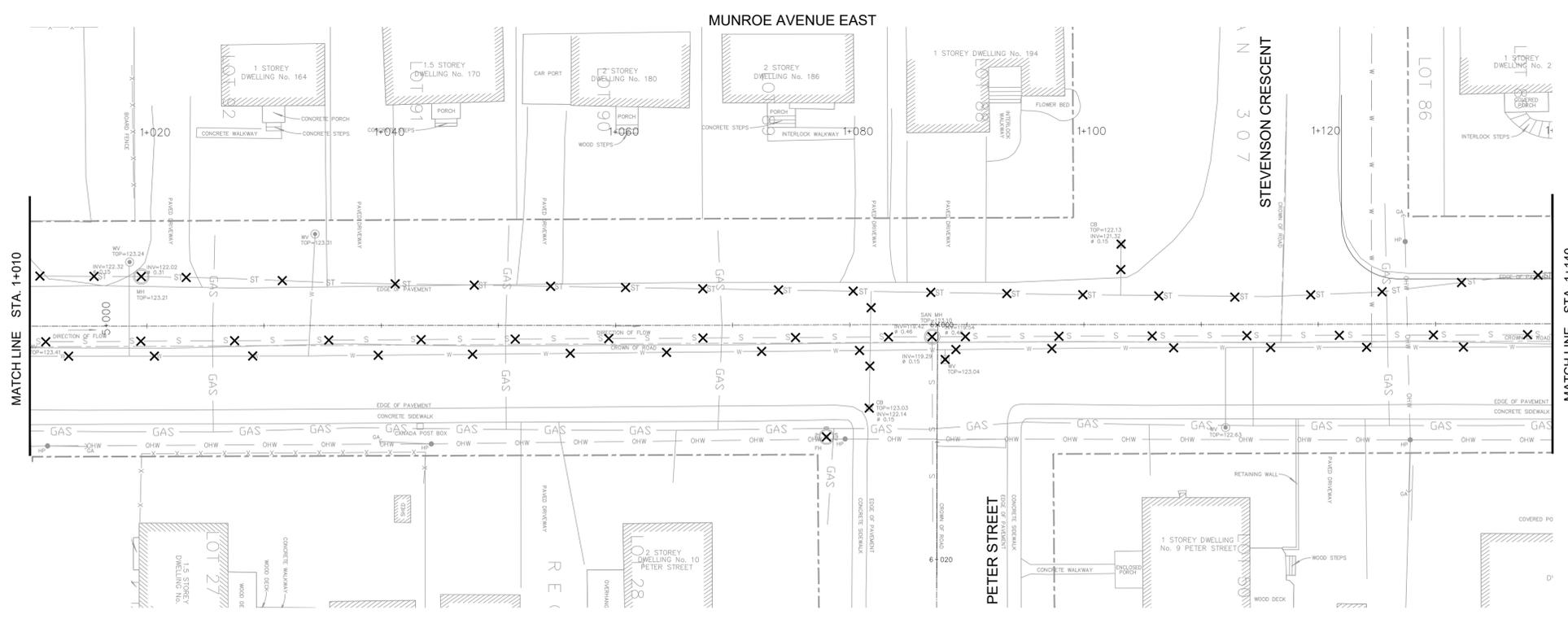
No.	Description	By	Date (dd/mm/yyyy)
01	ISSUED FOR TENDER	MY	04/10/2024
02	ISSUED FOR TENDER	DG	18/02/2026

LEGEND:

- ✕ EXISTING WATERMAIN OR SEWER, VALVE CHAMBER, MAINTENANCE HOLE OR CATCH BASIN TO BE REMOVED
- RIGHT OF WAY

NOTES:

1. COMPLETE ALL REMOVALS AND ABANDONMENTS IN ACCORDANCE WITH OPSS MUNI. 510.

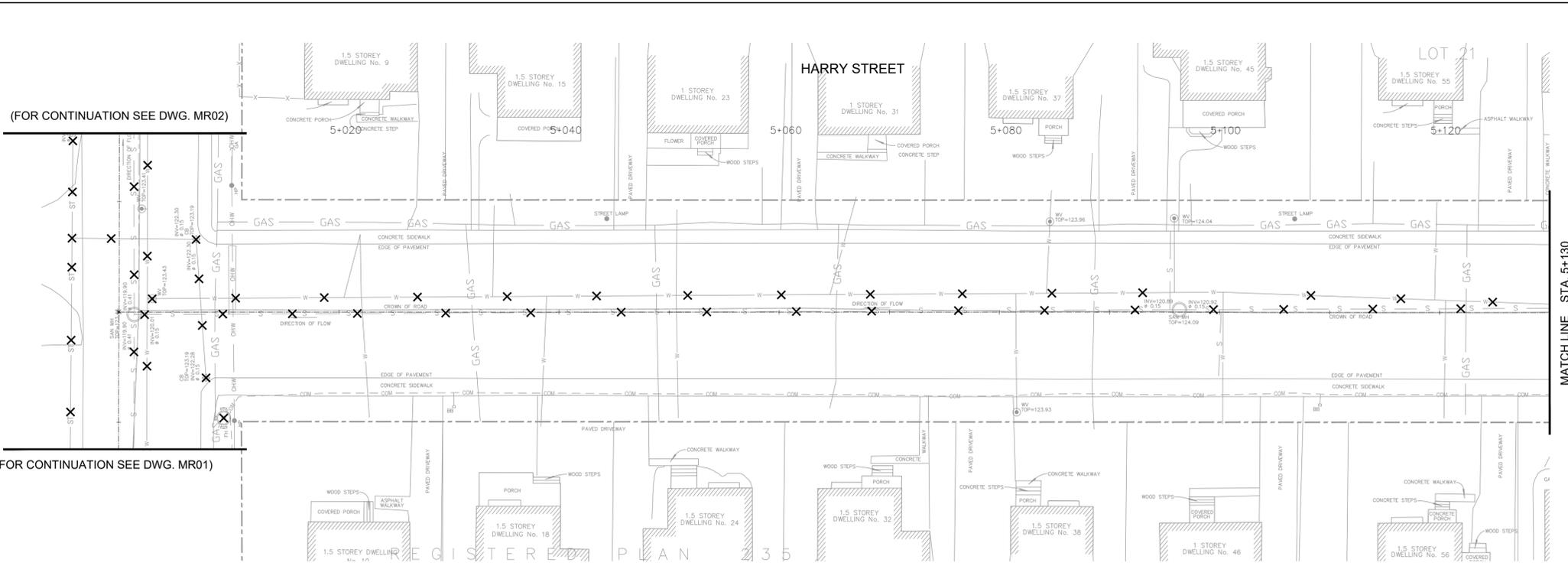


(FOR CONTINUATION SEE DWG. MR02)

MATCH LINE STA. 1+010

MATCH LINE STA. 1+140





(FOR CONTINUATION SEE DWG. MR02)

(FOR CONTINUATION SEE DWG. MR01)

HARRY ST AND MUNROE AVE E RECONSTRUCTION

HARRY STREET MUNICIPAL REMOVALS
STA. 5+000 TO STA. 5+220

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING

Contract No. 2026-03-IPWE MR03
Dwg. No. 08 of 30

Des.	SC	Chkd.	DG
Des.	SC	Chkd.	DG

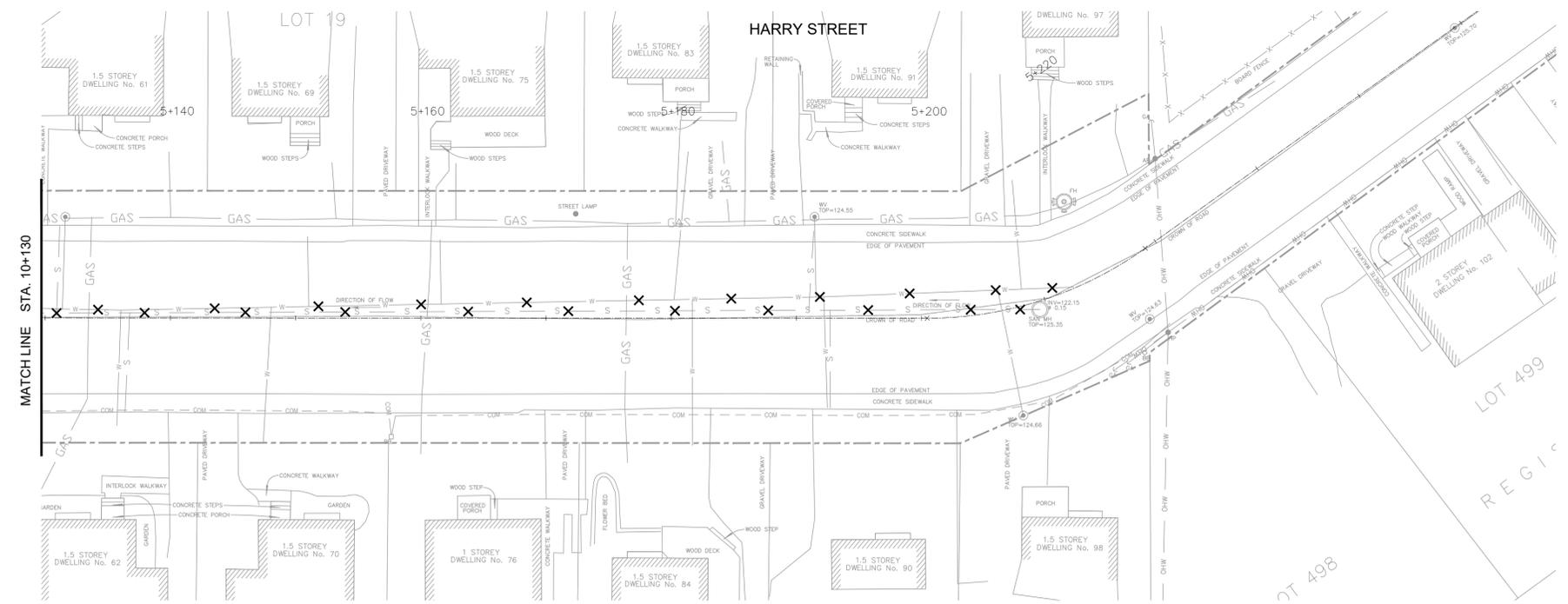
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0m 5 10

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02	ISSUED FOR TENDER	DG	18/02/2026

- LEGEND:**
- X EXISTING WATERMAIN OR SEWER, VALVE CHAMBER, MAINTENANCE HOLE OR CATCH BASIN TO BE REMOVED
 - RIGHT OF WAY

- NOTES:**
- COMPLETE ALL REMOVALS AND ABANDONMENTS IN ACCORDANCE WITH OPSS MUNI. 510.



MATCH LINE STA. 10+130

MATCH LINE STA. 10+190

HARRY ST AND MUNROE AVE E
RECONSTRUCTION



MUNROE AVENUE EAST.
GEOMETRY AND GENERAL LAYOUT
STA. 0+883 TO STA. 1+100

Contract No. 2026-03-IPWE | Dwg. No. G01
Sheet 09 of 30

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING



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Des. MC | Chk'd. MY

Scale:
3m 0 6m
1:250

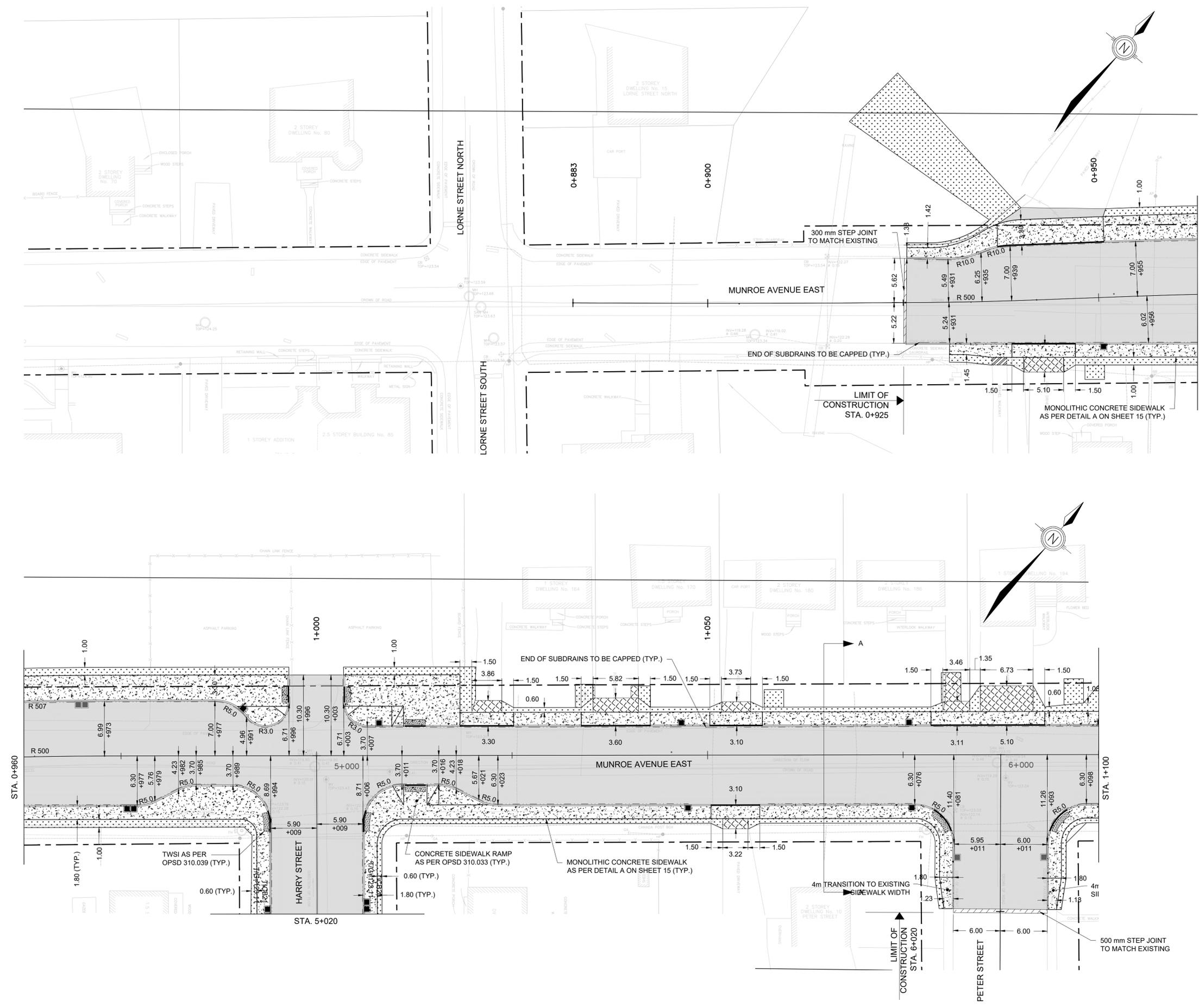
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LEGEND:

	40mm SP12.5 TRAFFIC LEVEL B
	60mm SP19.0 TRAFFIC LEVEL C
	150mm GRANULAR A
	300mm GRANULAR B, TYPE II
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	DEPRESSED CURB WITH 1.5m TRANSITIONS
	40mm SP12.5 LEVEL B ASPHALT DRIVEWAY REINSTATEMENT
	INTERLOCK REINSTATEMENT
	100mm GRANULAR A LANEWAY REINSTATEMENT
	100mm TOPSOIL AND SEED STANDARD ROADSIDE SEED MIX AS PER OPSS 804 MUNI
	CONCRETE MONOLITHIC SIDEWALK
	NEW MANHOLE
	NEW CATCH BASIN
	SUBDRAIN AS PER OPSS 405 MUNI
	RIGHT OF WAY



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HARRY ST AND MUNROE AVE E RECONSTRUCTION



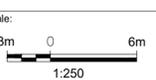
MUNROE AVENUE EAST.
GEOMETRY AND GENERAL LAYOUT
STA. 1+100 TO STA. 1+241

Contract No. 2026-03-IPWE | Dwg. No. G02
Sheet 10 of 30

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING

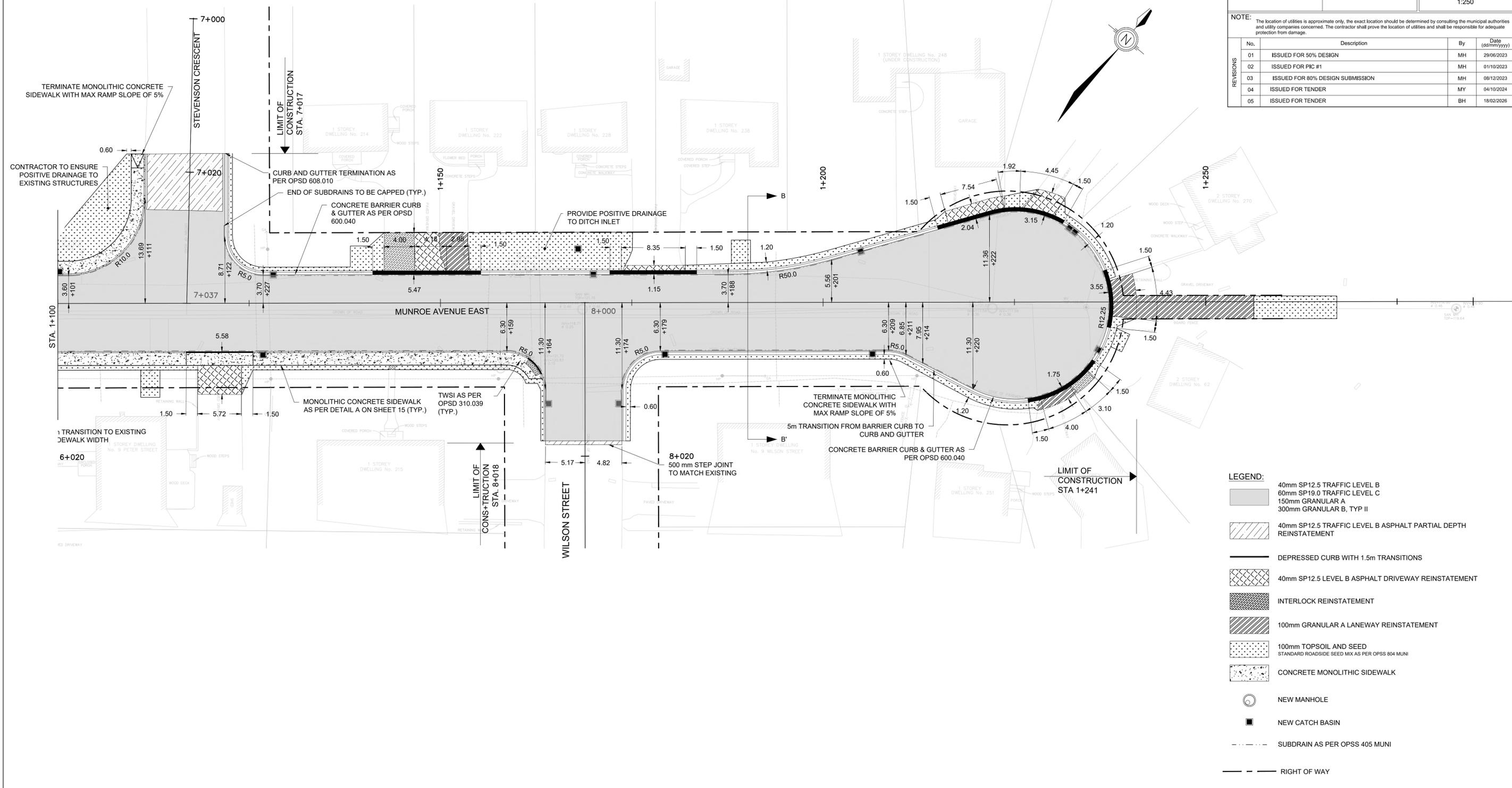


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- NEW MANHOLE
- NEW CATCH BASIN
- SUBDRAIN AS PER OPSS 405 MUNI
- RIGHT OF WAY

HARRY ST AND MUNROE AVE E
RECONSTRUCTION



HARRY STREET.
GEOMETRY AND GENERAL LAYOUT
STA. 5+020 TO STA. 5+213

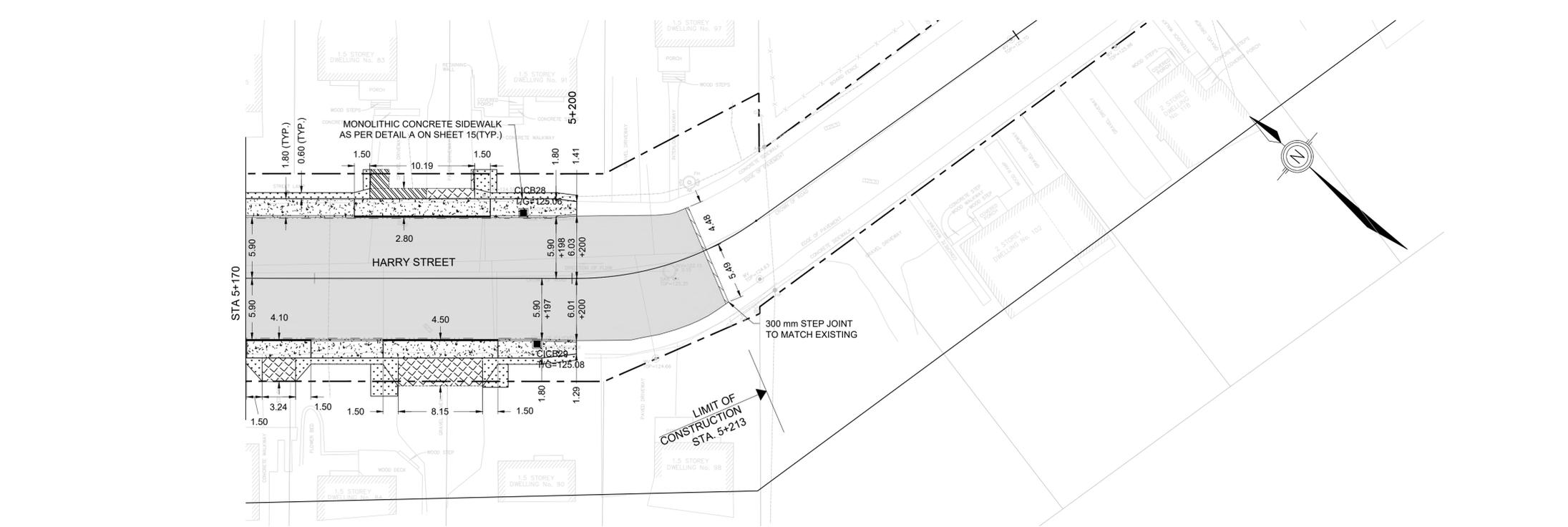
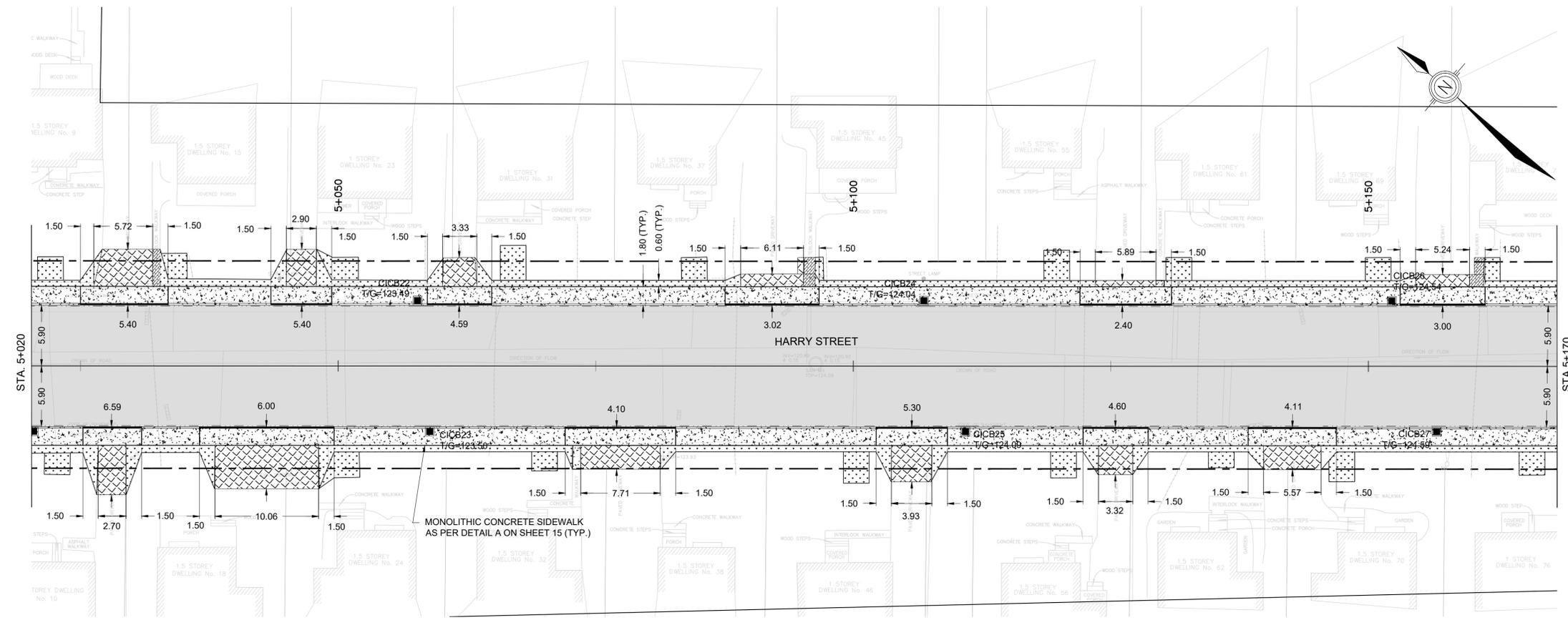
Contract No. 2026-03-IPWE | Dwg. No. G03
Sheet 11 of 30

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING



Des. MC | Chk'd. MY
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Scale:
3m 0 6m
1:250



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	RIGHT OF WAY

HARRY ST AND MUNROE AVE E
RECONSTRUCTION



MUNROE AVENUE EAST.
PAVEMENT ELEVATIONS
STA. 0+883 TO STA. 1+100

Contract No. 2026-03-IPWE | Dwg. No. PE01
Sheet 12 of 30

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING

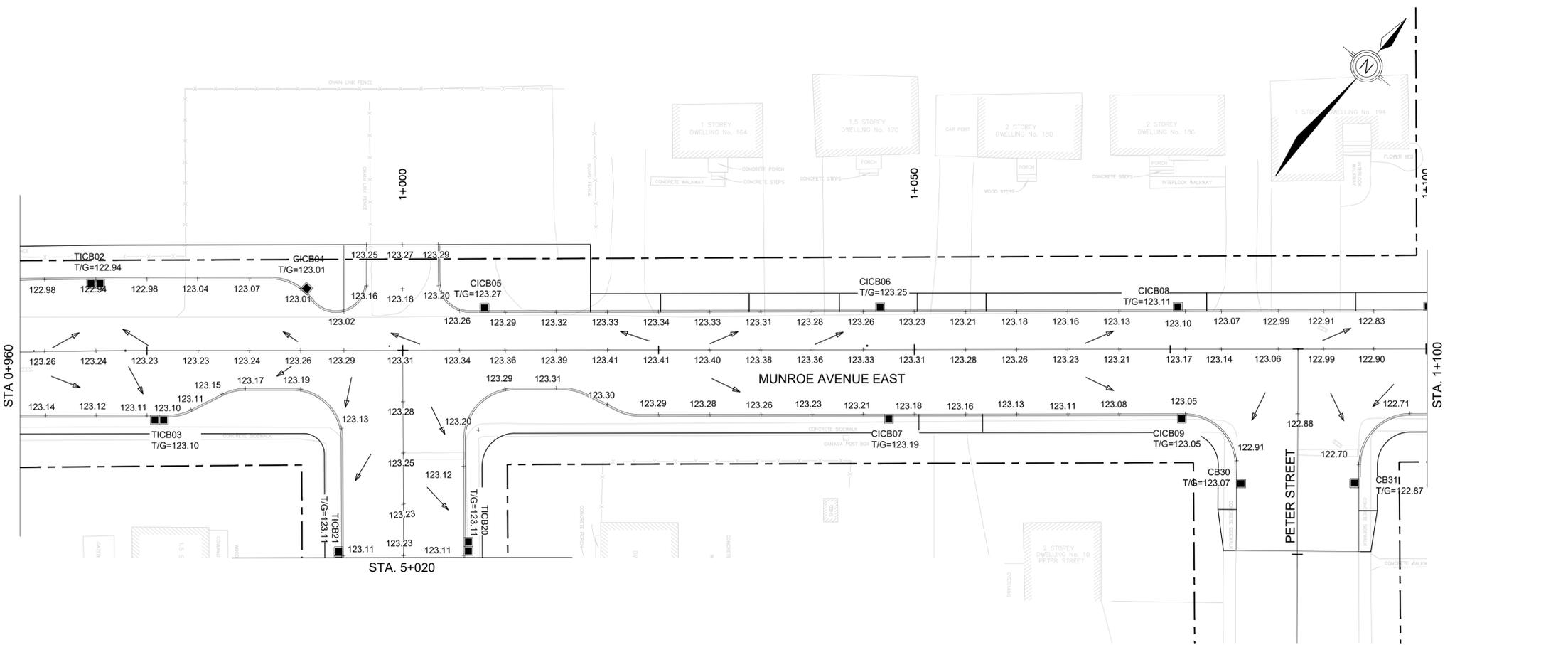


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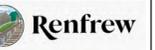
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HARRY ST AND MUNROE AVE E
RECONSTRUCTION



MUNROE AVENUE EAST.
PAVEMENT ELEVATIONS
STA. 1+100 TO STA. 1+241

Contract No. 2026-03-IPWE Dwg. No. PE02
Sheet 13 of 30

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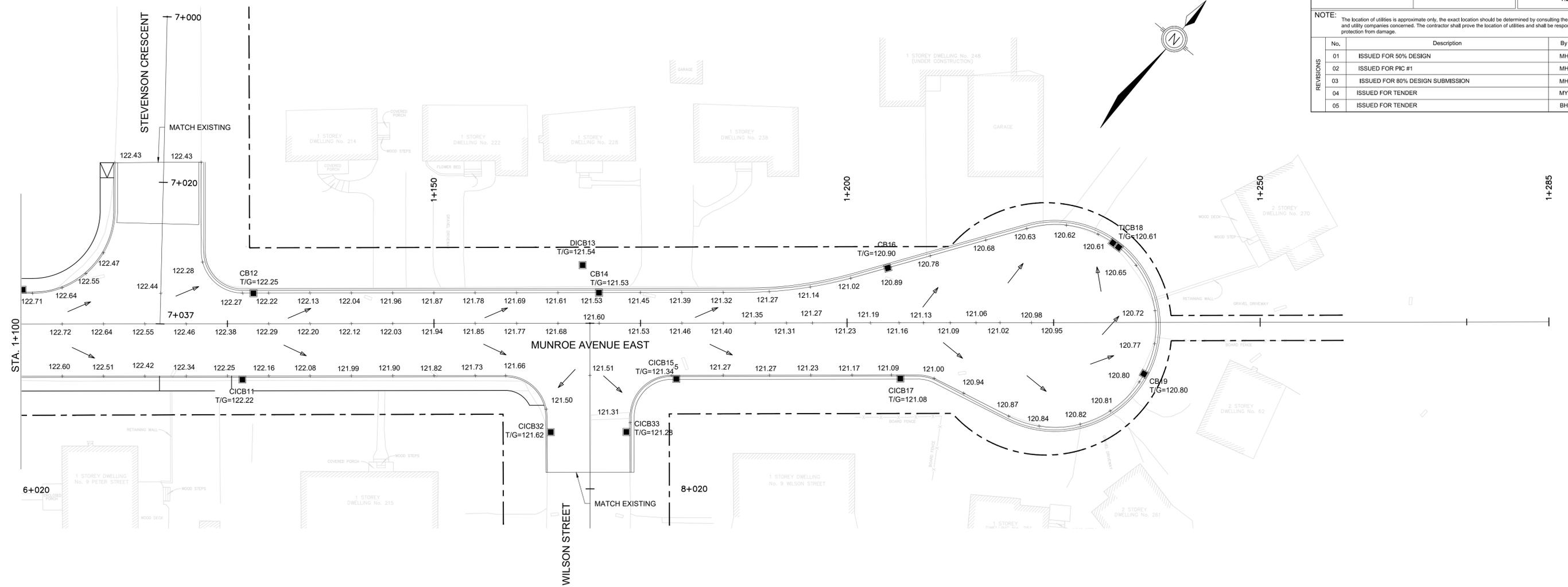


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HARRY ST AND MUNROE AVE E
RECONSTRUCTION



Contract No. 2026-03-IPWE | Dwg. No. PE03
Sheet 14 of 30

HARRY STREET.
PAVEMENT ELEVATIONS
STA. 5+020 TO STA. 5+221

ANDREA BISHOP, P.ENG
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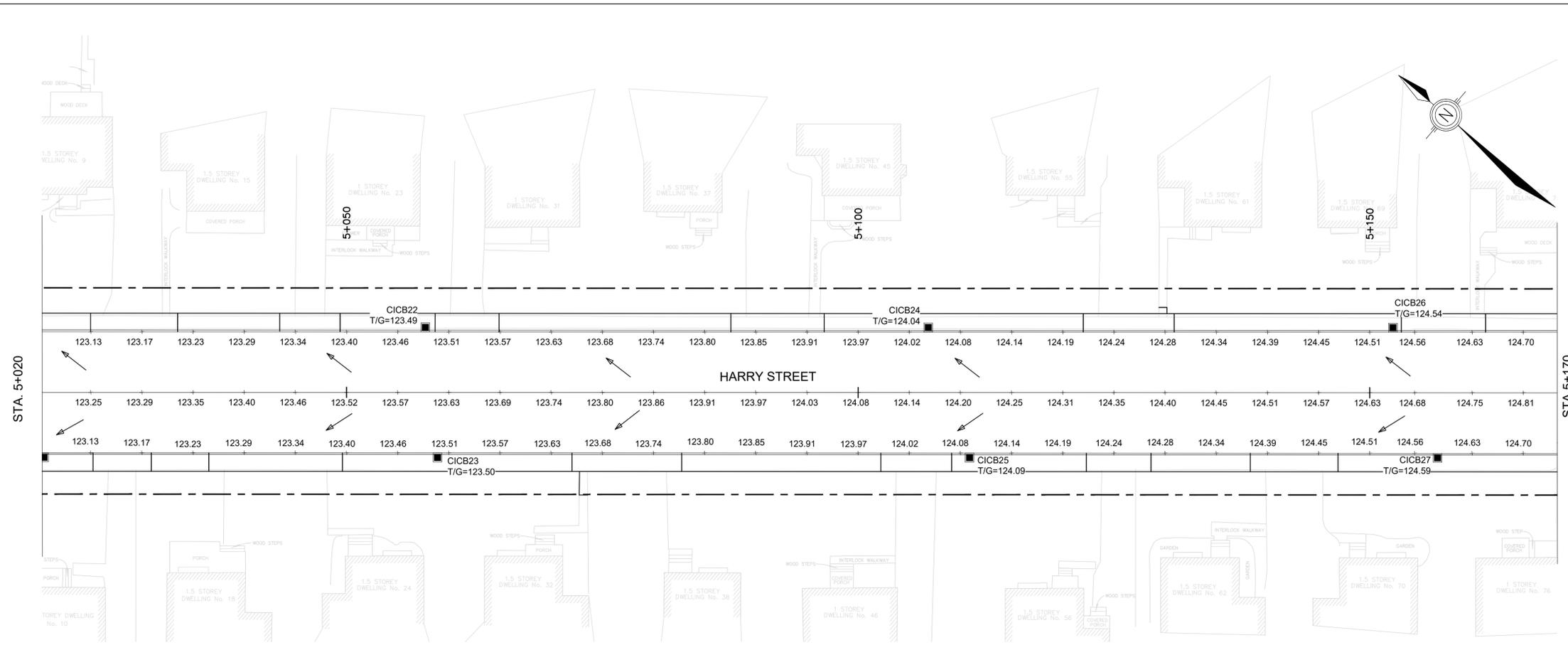


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Des. MC | Chk'd. MY

Scale:
3m 0 6m
1:250

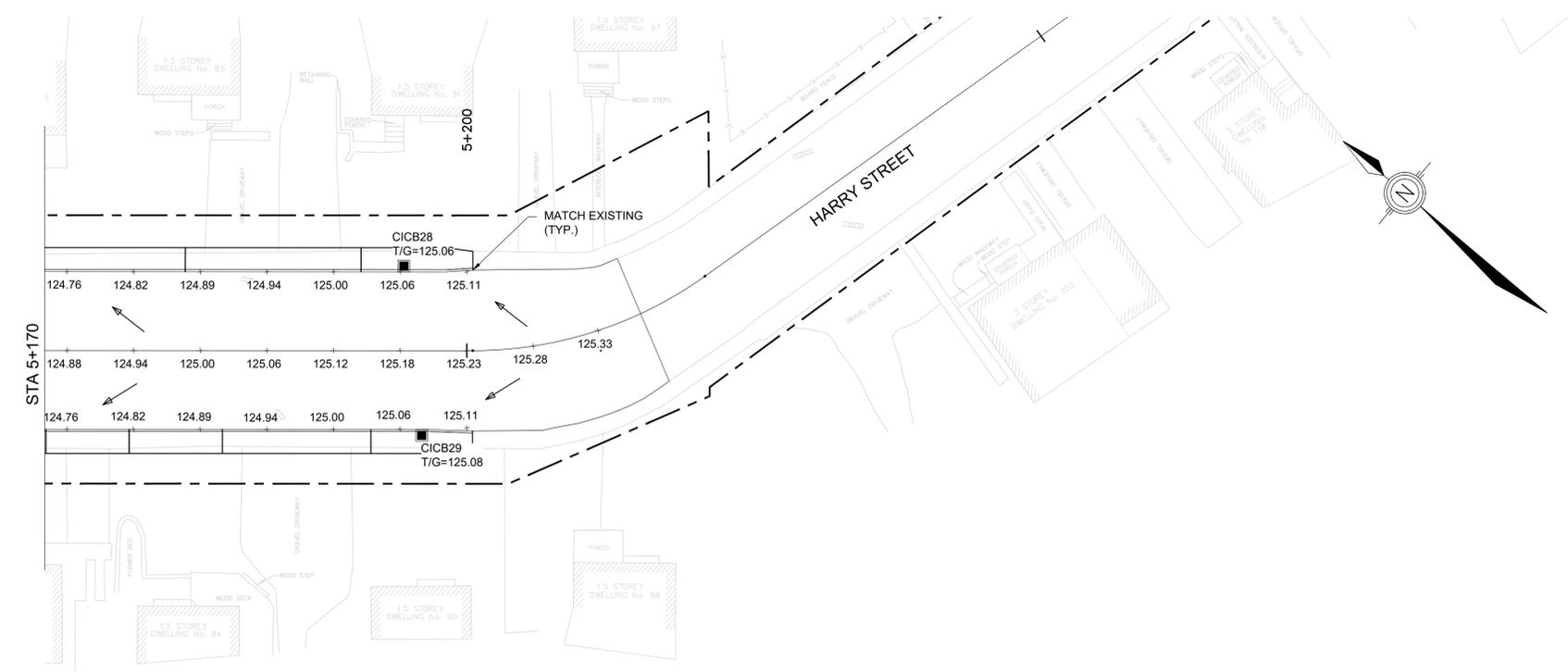
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04	ISSUED FOR TENDER	MY	04/10/2024
05	ISSUED FOR TENDER	BH	18/02/2026



STA. 5+020

STA 5+170



STA 5+170

HARRY ST AND MUNROE AVE E
RECONSTRUCTION



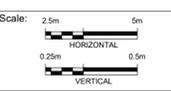
MUNROE AVENUE EAST.
PROFILE

Contract No. 2026-03-IPWE | Dwg. No. PR01
Sheet 15 of 30

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING

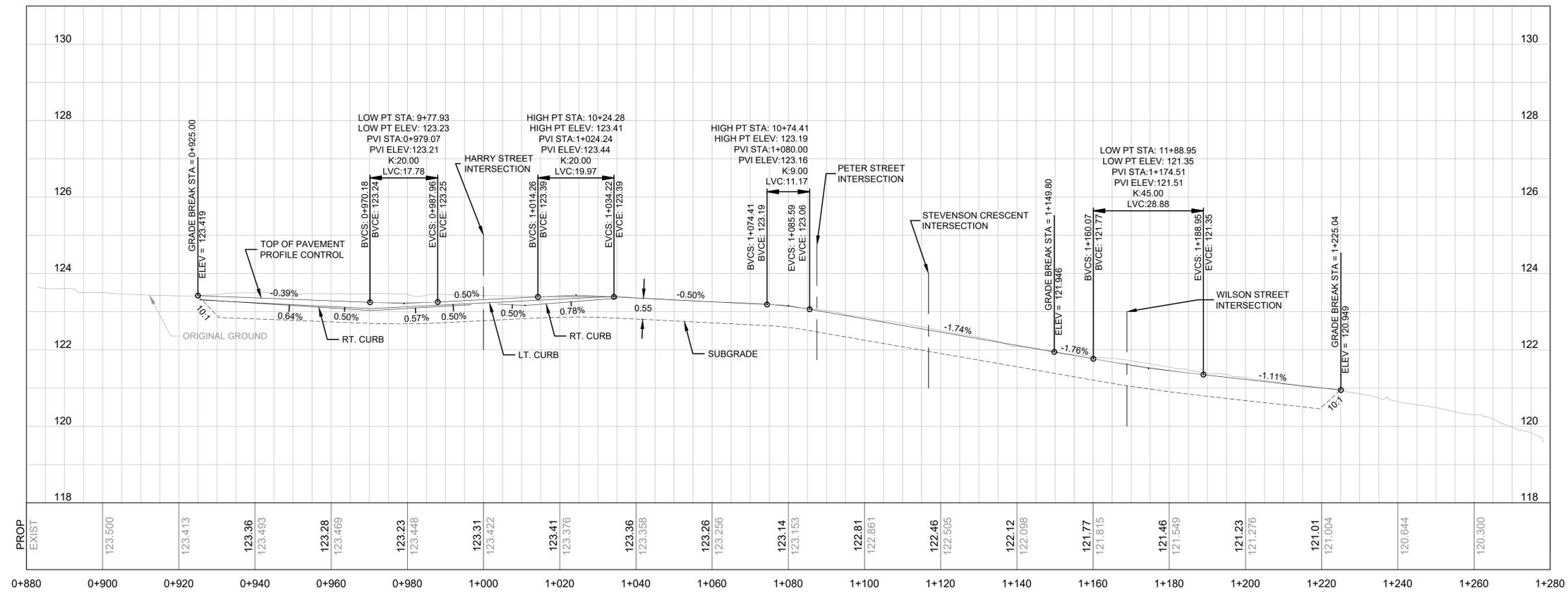


Des. MC | Chk'd. MY
Des. MC | Chk'd. MY



NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

No.	Description	By	Date (dd/mm/yyyy)
01	ISSUED FOR 50% DESIGN	MH	29/06/2023
02	ISSUED FOR PIC #1	MH	01/10/2023
03	ISSUED FOR 80% DESIGN SUBMISSION	MH	08/12/2023
04	ISSUED FOR TENDER	MY	04/10/2024
05	ISSUED FOR TENDER	BH	18/02/2026



HARRY ST AND MUNROE AVE E
RECONSTRUCTION



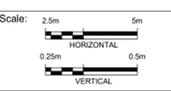
HARRY STREET
PROFILE

Contract No. 2026-03-IPWE | Dwg. No. PR02
Sheet 16 of 30

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING

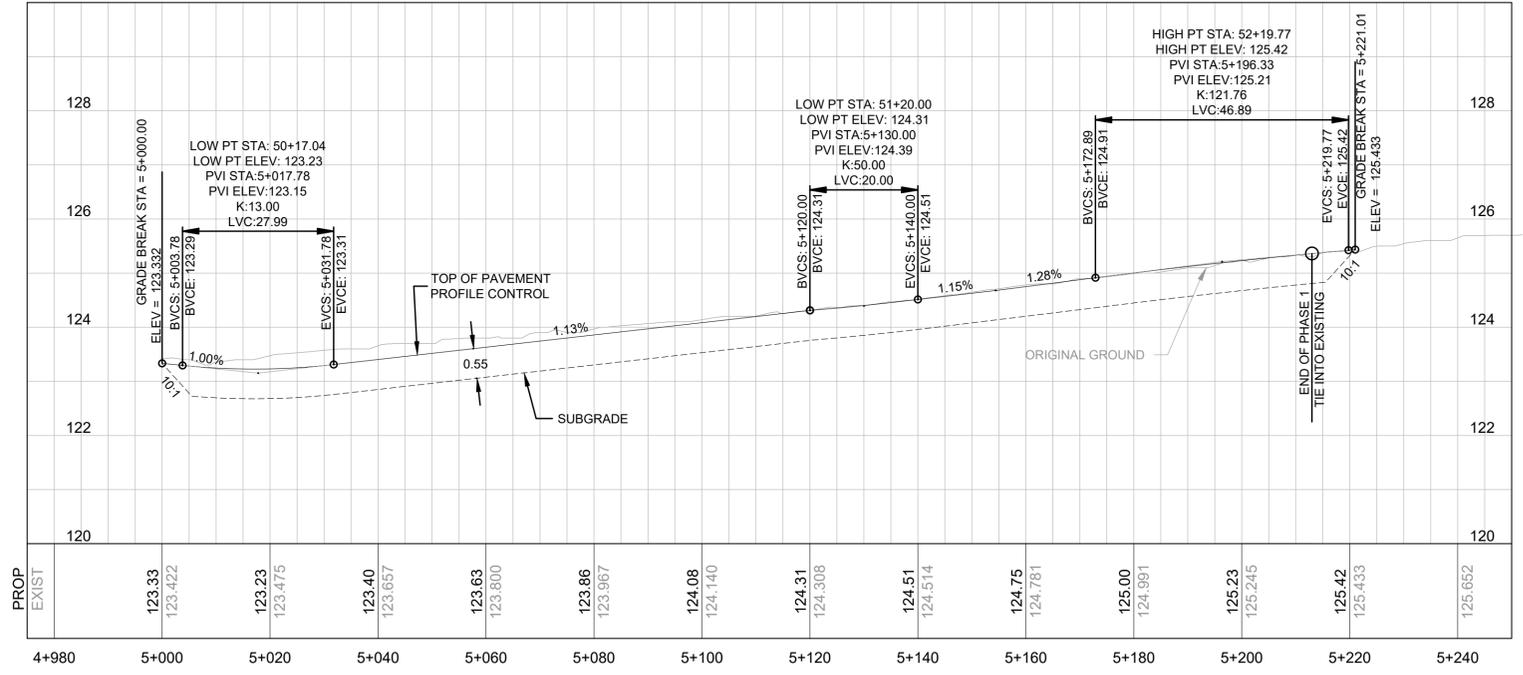


Des. MC | Chk'd. MY
Des. MC | Chk'd. MY



NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

No.	Description	By	Date (dd/mm/yyyy)
01	ISSUED FOR 50% DESIGN	MH	29/06/2023
02	ISSUED FOR PIC #1	MH	01/10/2023
03	ISSUED FOR 80% DESIGN SUBMISSION	MH	08/12/2023
04	ISSUED FOR TENDER	MY	04/10/2024
05	ISSUED FOR TENDER	BH	18/02/2026



HARRY ST AND MUNROE AVE E
RECONSTRUCTION



SIDE STREET
PROFILES

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING

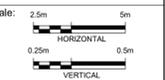


Contract No. 2026-03-IPWE | Dwg. No. PR03

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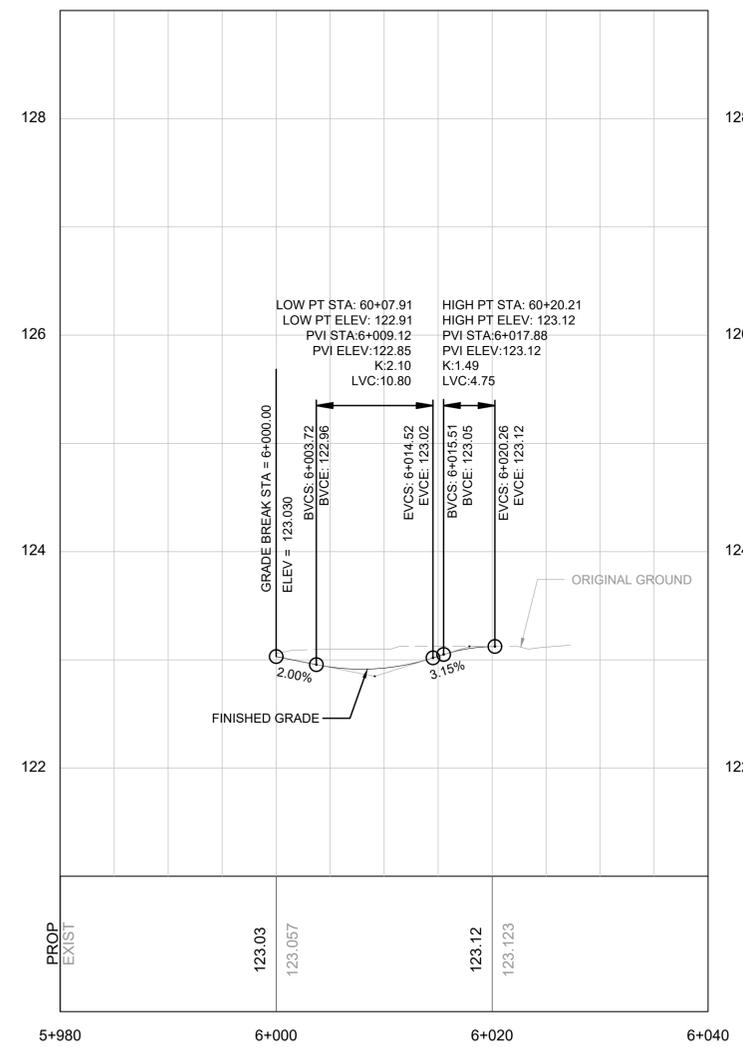
Des. MC | Chk'd. MY

Des. MC | Chk'd. MY

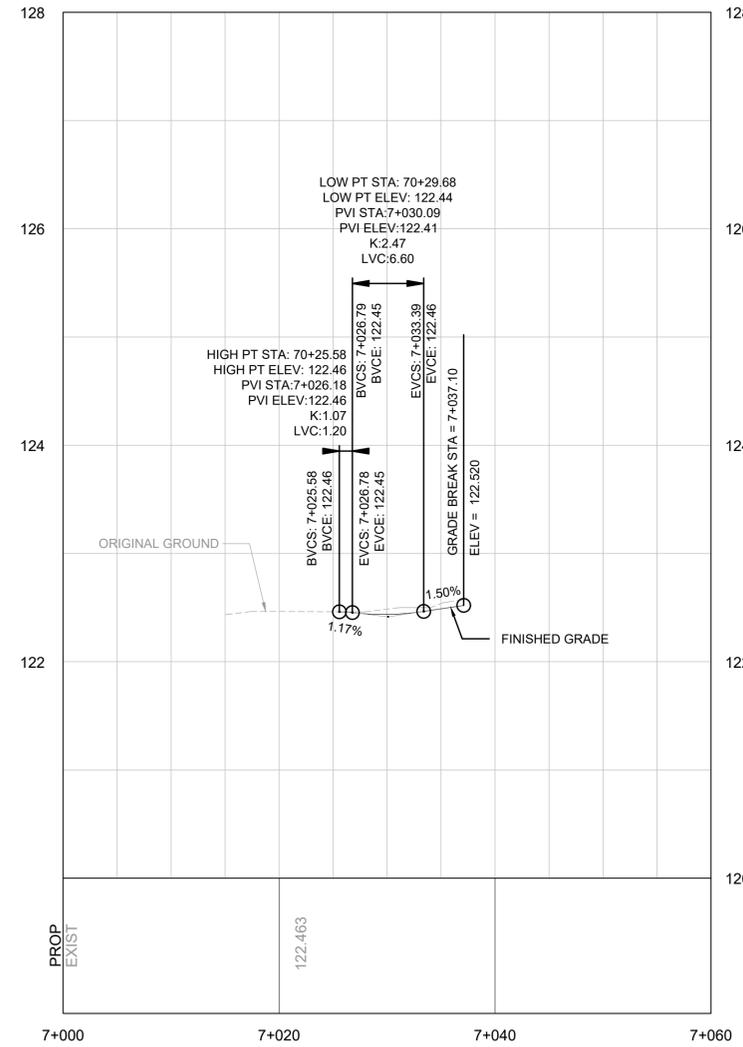


NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

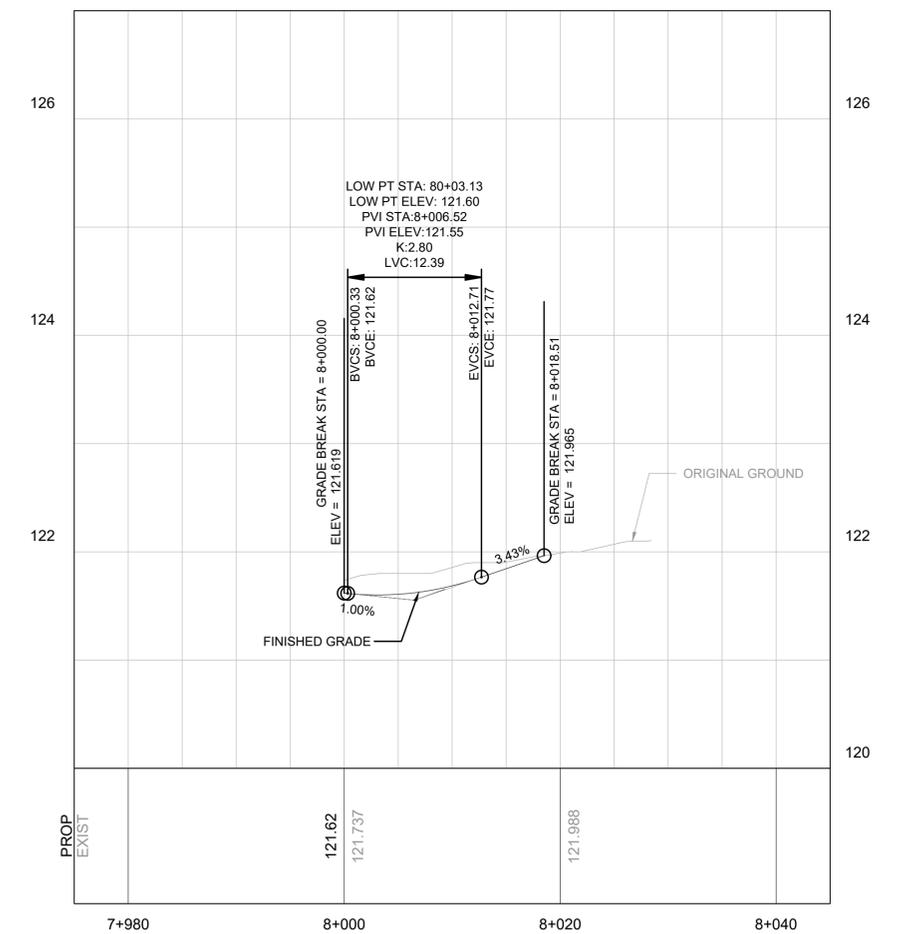
No.	Description	By	Date (dd/mm/yyyy)
01	ISSUED FOR 50% DESIGN	MH	29/06/2023
02	ISSUED FOR PIC #1	MH	01/10/2023
03	ISSUED FOR 80% DESIGN SUBMISSION	MH	08/12/2023
04	ISSUED FOR TENDER	MY	04/10/2024
05	ISSUED FOR TENDER	BH	18/02/2026



PETER STREET



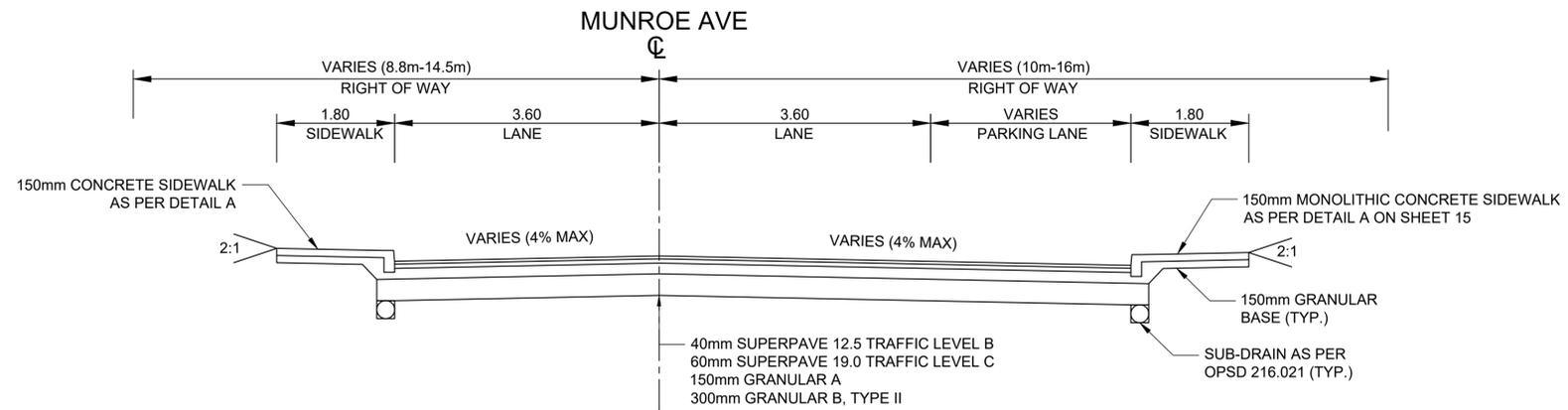
STEVENSON CRESCENT



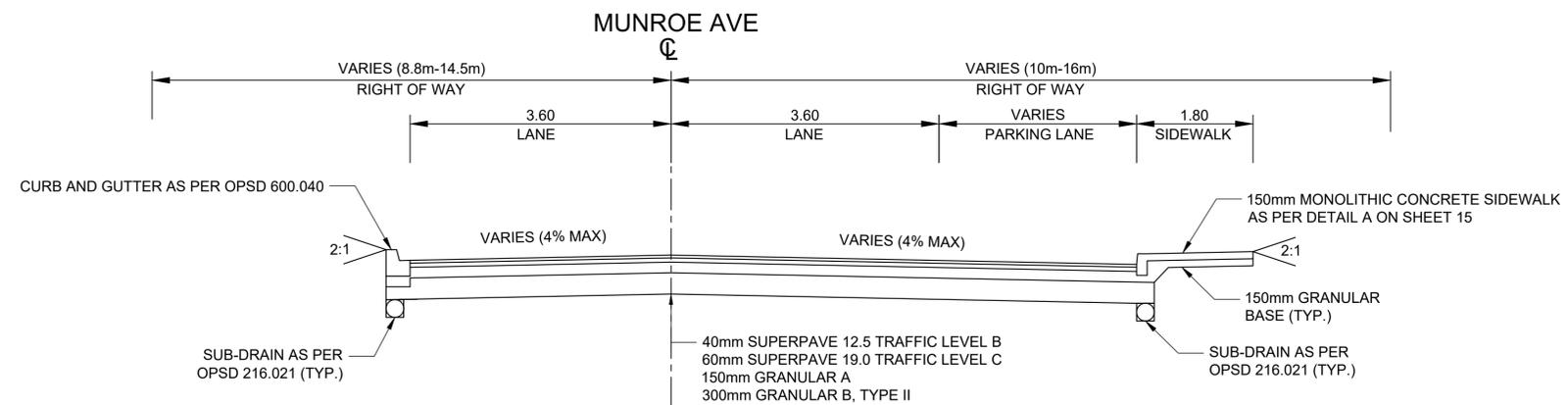
WILSON STREET

NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

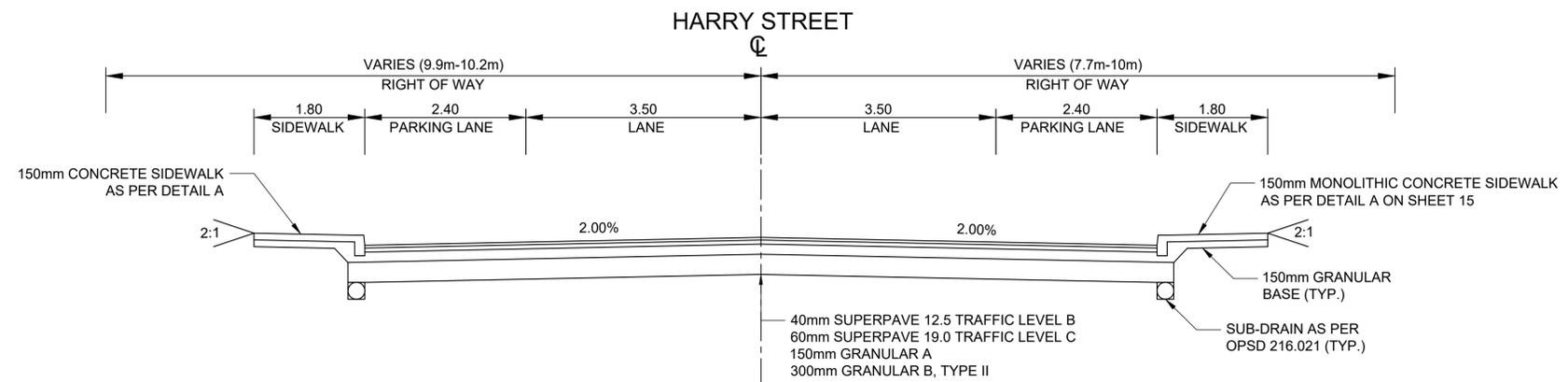
No.	Description	By	Date (dd/mm/yyyy)
01	ISSUED FOR 50% DESIGN	MH	29/06/2023
02	ISSUED FOR PIC #1	MH	01/10/2023
03	ISSUED FOR 80% DESIGN SUBMISSION	MH	08/12/2023
04	ISSUED FOR TENDER	MY	04/10/2024
05	ISSUED FOR TENDER	BH	18/02/2026



MUNROE AVENUE EAST SECTION A-A'



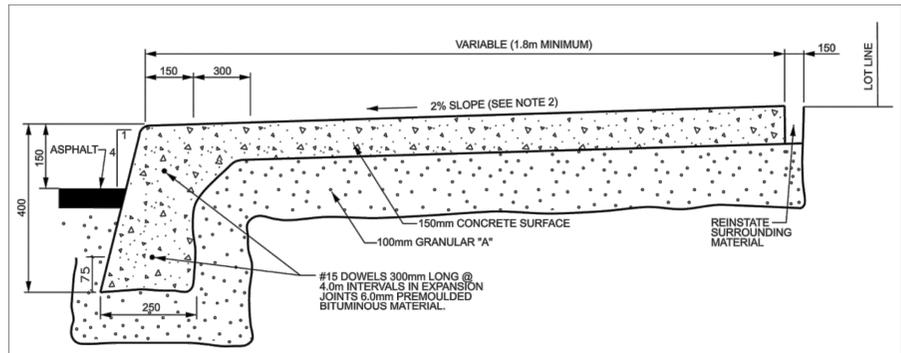
MUNROE AVENUE EAST SECTION B-B'



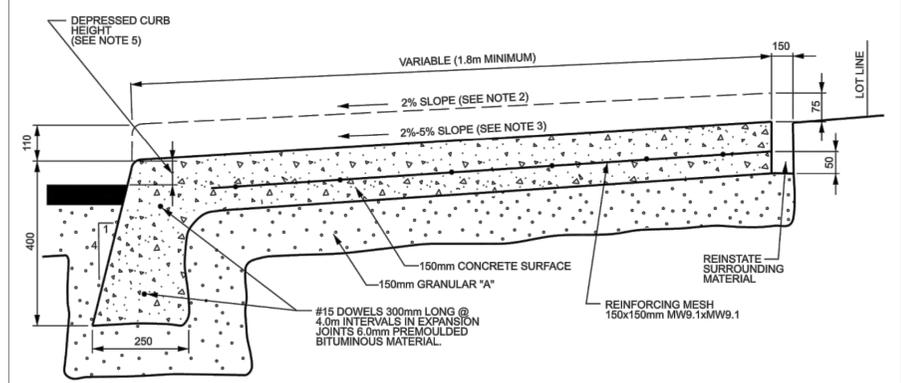
HARRY STREET

NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

No.	Description	By	Date (dd/mm/yyyy)
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03	ISSUED FOR 80% DESIGN SUBMISSION	MH	08/12/2023
04	ISSUED FOR TENDER	MY	04/10/2024
05	ISSUED FOR TENDER	BH	18/02/2026



TYPICAL SIDEWALK SECTION

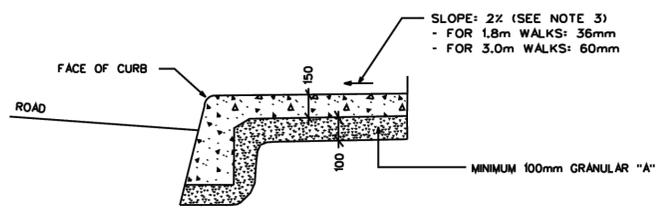
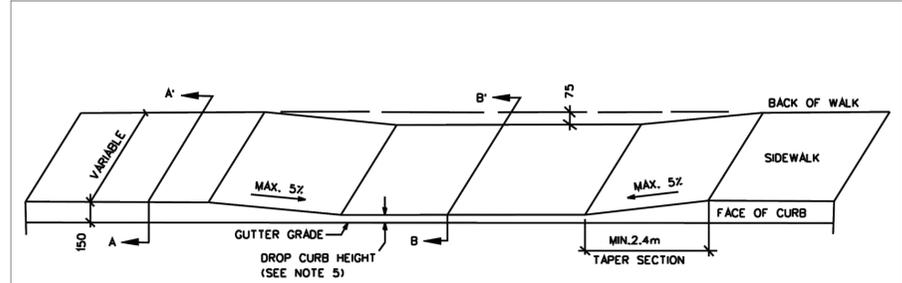


SECTION AT PRIVATE ENTRANCE AND PEDESTRIAN RAMPS

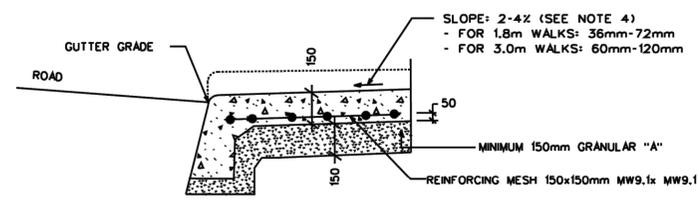
NOTES:
 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
 2. THE MAXIMUM SLOPE IS NOT TO EXCEED 2%.
 3. FOR CURB RAMPS, SLOPE OF 2% TO 5%, MAXIMUM 8%..
 4. EXPANSION AND DUMMY JOINTS AS PER SC5.
 5. DEPRESSED CURB HEIGHT - FOR PEDESTRIAN CURB RAMPS 0 TO 6 mm AND FOR PRIVATE ENTRANCES 0 TO 13 mm.

N.T.S.

DETAIL A - MONOLITHIC SIDEWALK



SECTION A - A
SECTION THROUGH SIDEWALK



SECTION B - B
SECTION THROUGH ACCESS CROSSING

NOTES:
 1. IN ALL DEPRESSED ACCESS CROSSINGS, INCLUDING TAPER SECTION, CONCRETE SLABS SHALL BE 150mm IN DEPTH WITH 150x150mm, MW9.1 x MW9.1 REINFORCING MESH ON 150mm GRANULAR 'A'.
 2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
 3. THE MAXIMUM SLOPE IS NOT TO EXCEED 2%.
 4. THE MAXIMUM SLOPE IS NOT TO EXCEED 4% FOR VEHICLE ACCESS RAMPS.
 5. DROP CURB HEIGHT MINIMUM 0mm, DESIRED 15mm, MAXIMUM 25mm.

DETAIL B - DRIVEWAY ENTRANCE

HARRY ST AND MUNROE AVE E RECONSTRUCTION



MUNROE AVENUE EAST. PAVEMENT MARKING
STA. 0+883 TO STA. 1+100

Contract No. 2026-03-IPWE | Dwg. No. PM01
Sheet 20 of 30

ANDREA BISHOP, P. ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING



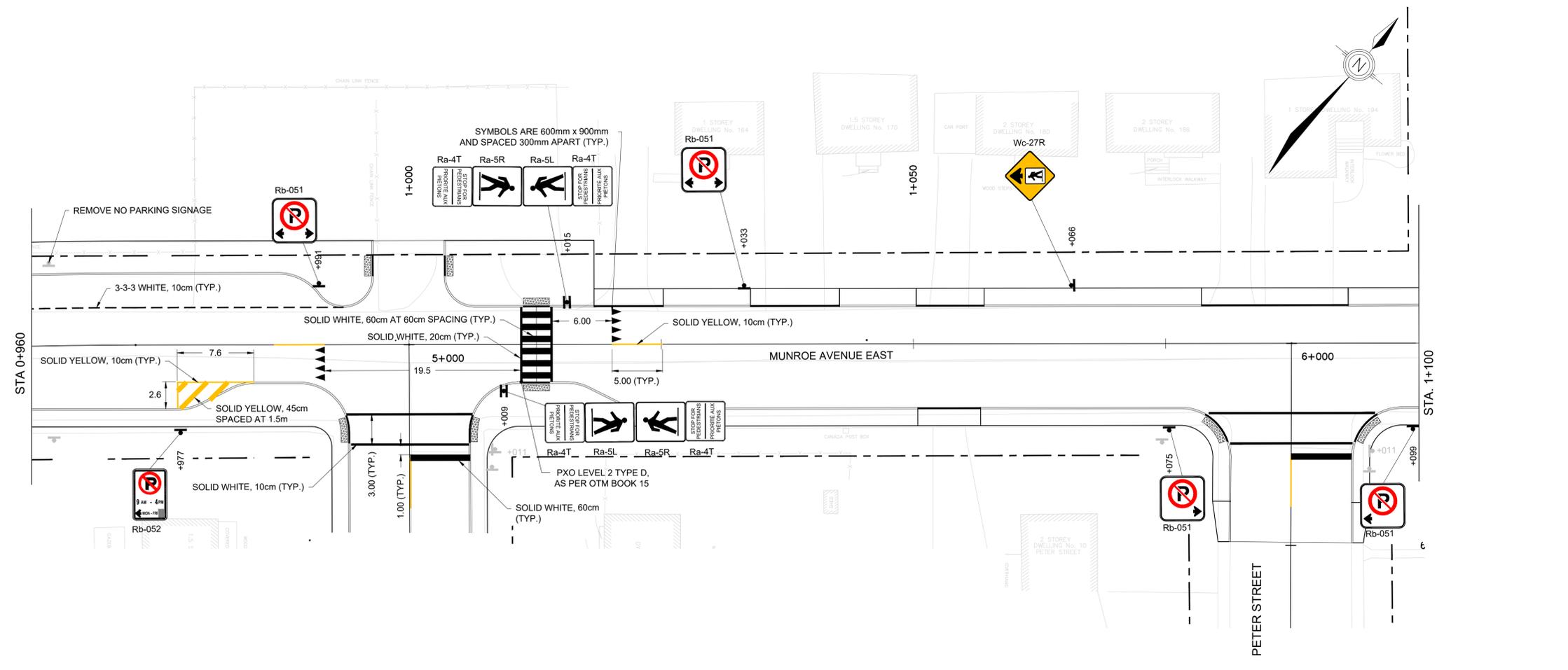
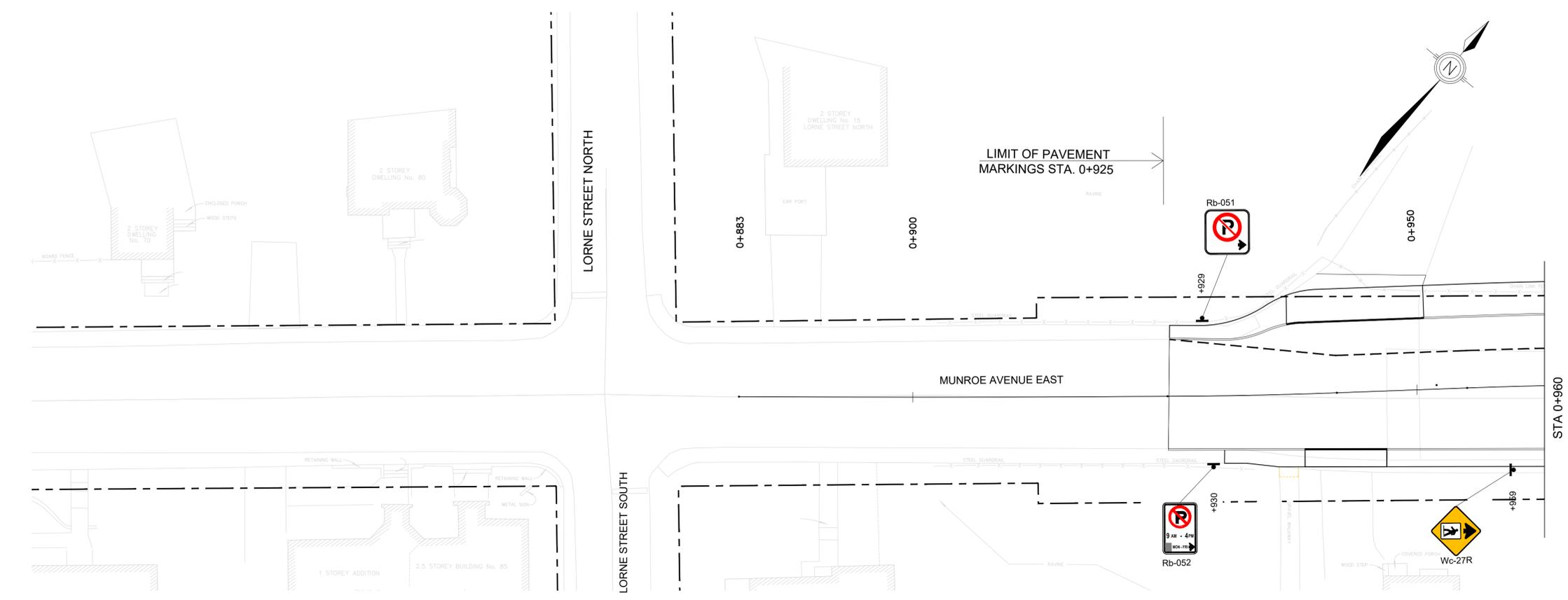
Des. MC | Chk'd. MY
Des. MC | Chk'd. MY

Scale:
3m 0 6m
1:250

NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

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02	ISSUED FOR PIC #1	MH	01/10/2023
03	ISSUED FOR 80% DESIGN SUBMISSION	MH	08/12/2023
04	ISSUED FOR TENDER	MY	04/10/2024
05	ISSUED FOR TENDER	BH	18/02/2025

NOTE:
1) MAINTAIN ALL EXISTING SIGNS NOT MARKED FOR REMOVAL



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HARRY ST AND MUNROE AVE E
RECONSTRUCTION



MUNROE AVENUE EAST.
PAVEMENT MARKING
STA. 1+100 TO STA. 1+285

Contract No. 2026-03-IPWE | Dwg. No. PM01
Sheet 21 of 30

ANDREA BISHOP, P. ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING



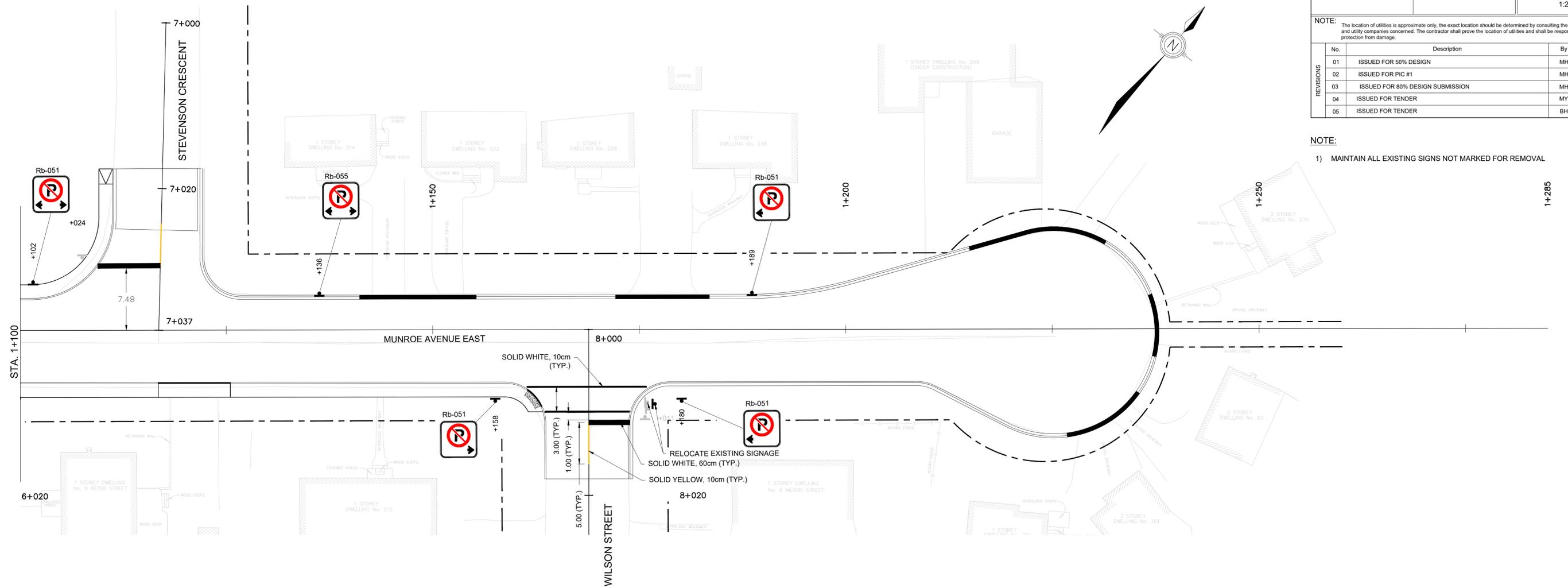
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Des. MC | Chk'd. MY

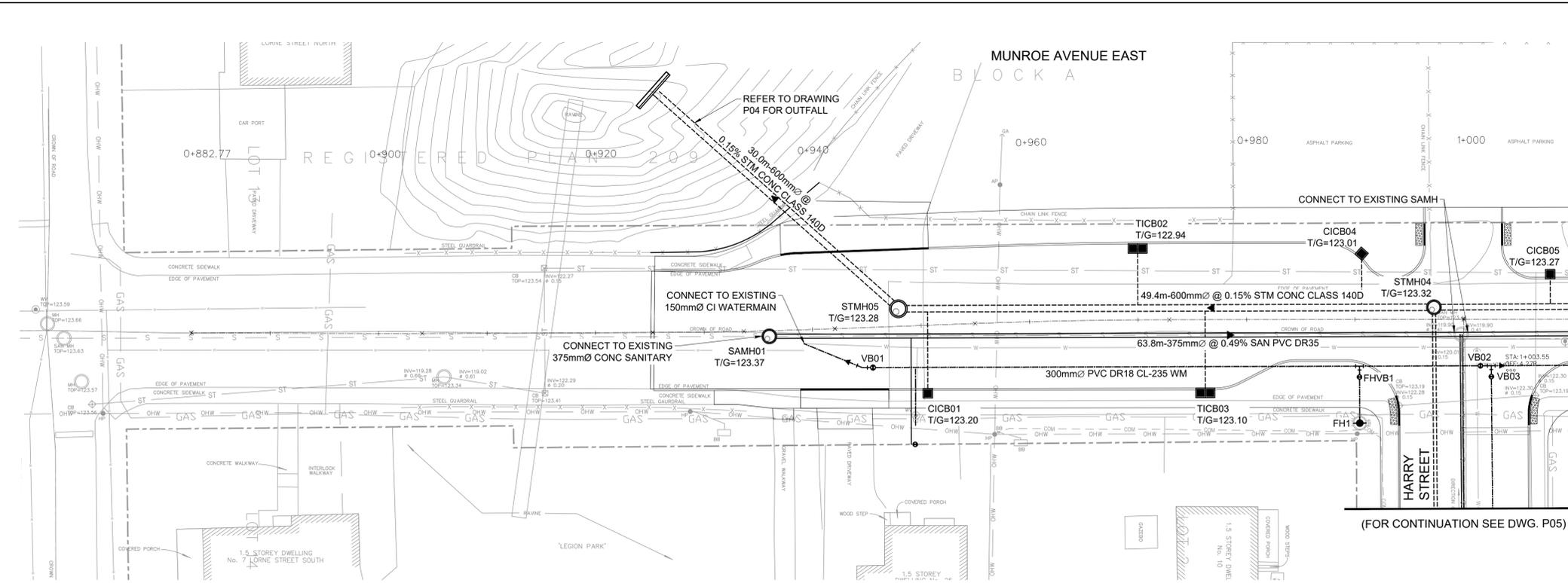
Scale:
3m 0 6m
1:250

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No.	Description	By	Date (dd/mm/yyyy)
01	ISSUED FOR 50% DESIGN	MH	29/06/2023
02	ISSUED FOR PIC #1	MH	01/10/2023
03	ISSUED FOR 80% DESIGN SUBMISSION	MH	08/12/2023
04	ISSUED FOR TENDER	MY	04/10/2024
05	ISSUED FOR TENDER	BH	18/02/2026

NOTE:
1) MAINTAIN ALL EXISTING SIGNS NOT MARKED FOR REMOVAL





MATCH LINE STA. 1+010
(FOR CONTINUATION SEE DWG. P02)

(FOR CONTINUATION SEE DWG. P05)

HARRY ST AND MUNROE AVE E RECONSTRUCTION

MUNROE AVENUE EAST.
GRADING & DRAINAGE
STA. 0+882.77 TO STA. 1+010

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING

Contract No.	Dwg. No.
2026-03-IPWE	PP01
Sheet 22 of 30	
Des.	Chk'd.
SC	DG
Des.	Chk'd.
SC	DG
Scale: 1:250 0m 5 10 HORIZONTAL	

NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

REVISIONS	No.	Description	By	Date (dd/mm/yyyy)
	01	ISSUED FOR 50% DESIGN		29/06/2023
	02	ISSUED FOR PIC #1	MH	01/10/2023
	03	ISSUED FOR 80% DESIGN SUBMISSION	MH	08/12/2023
	04	ISSUED FOR TENDER	MY	04/10/2024
	05	ISSUED FOR TENDER	DG	18/02/2026

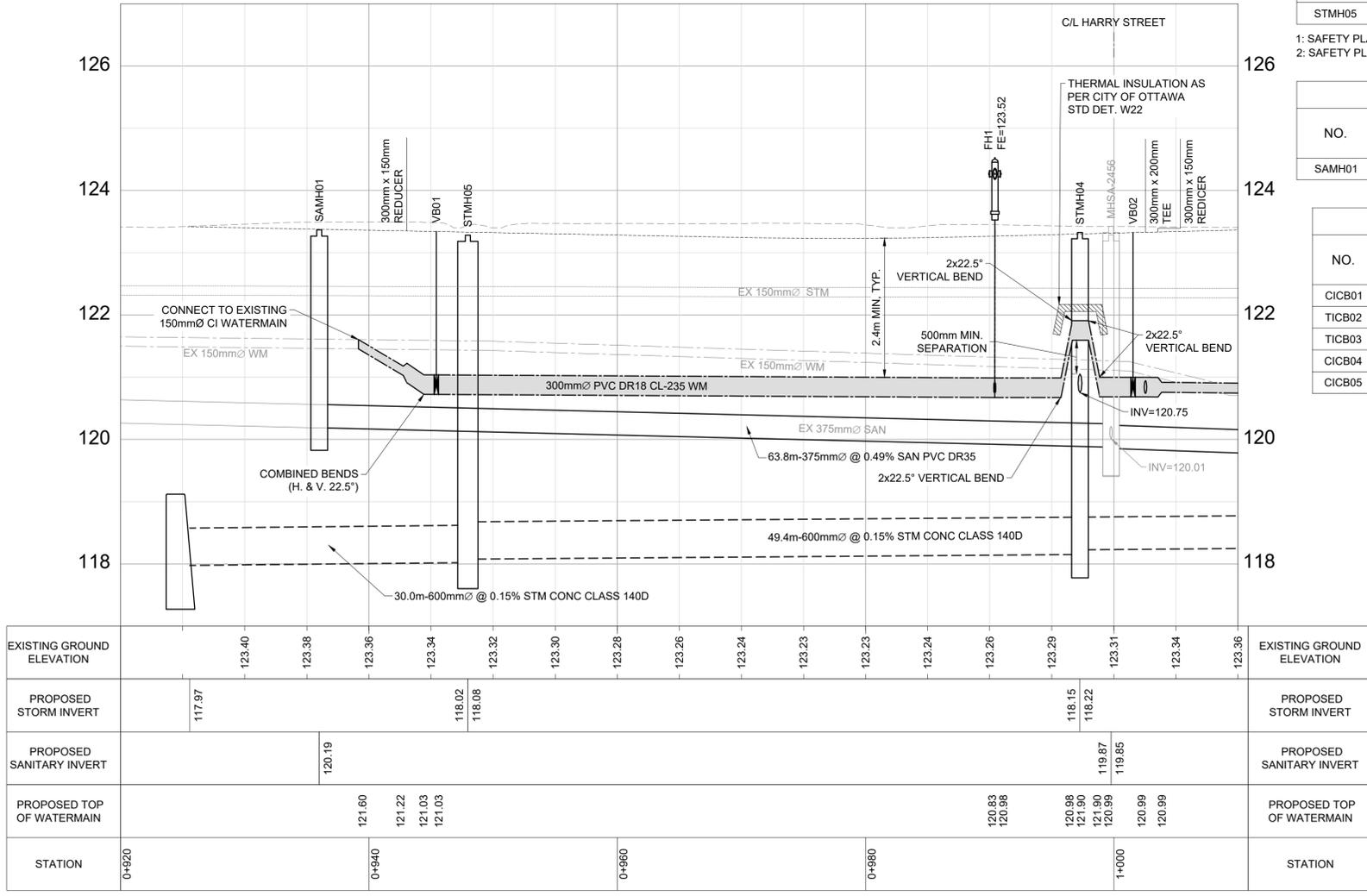
STORM MAINTENANCE HOLE DATA							
NO.	STA	OFFS.	COVER	STRUCT.	ELEVATION		GRATE TO INVERT
					T/GRADE	LOW/INV	
STMH04	0+997.27	1.11L	401.010B	701.010	123.32	118.15	5.17 ¹
STMH05	0+947.96	1.62L	401.010B	701.011	123.28	118.02	5.26 ²

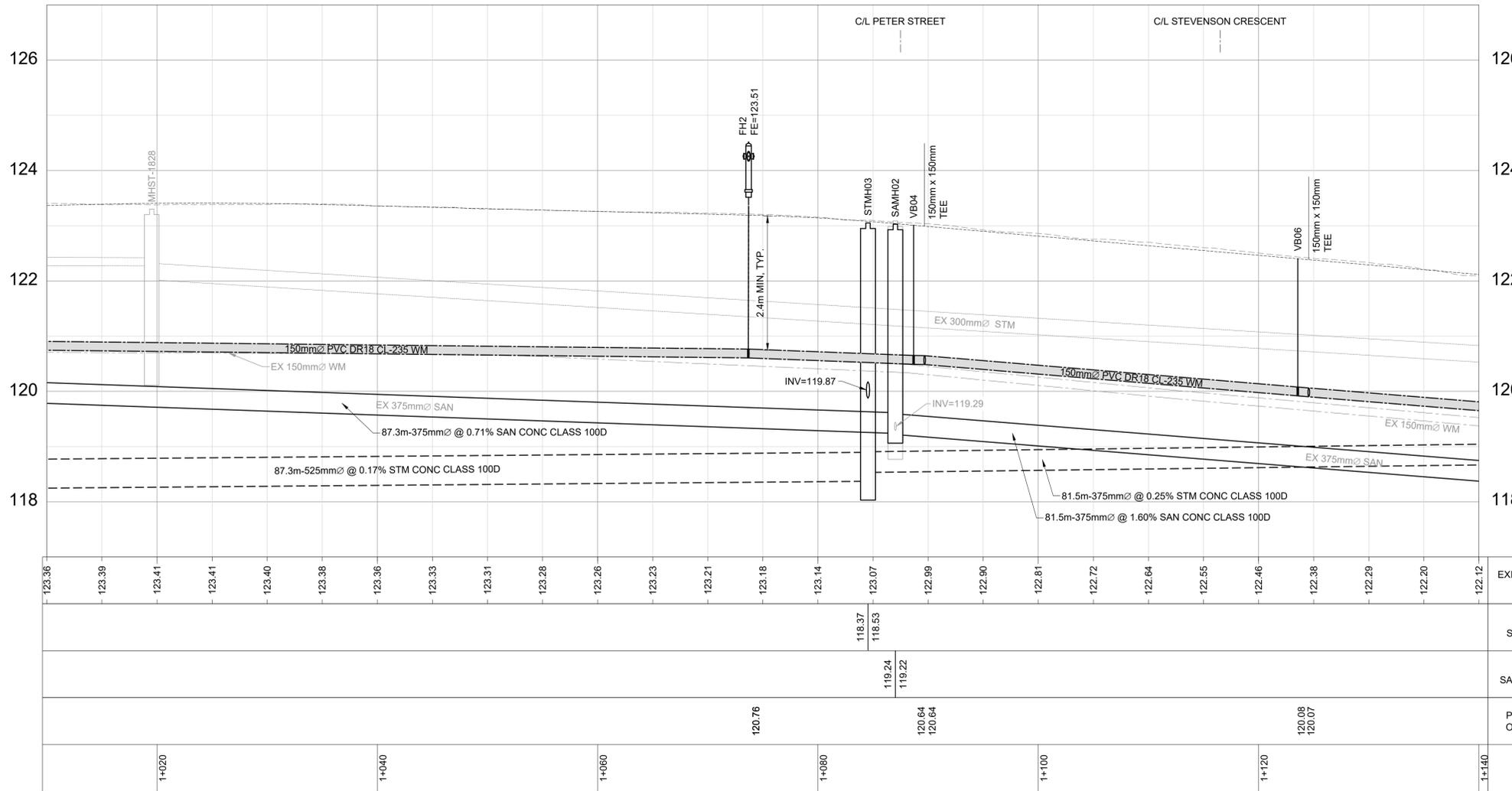
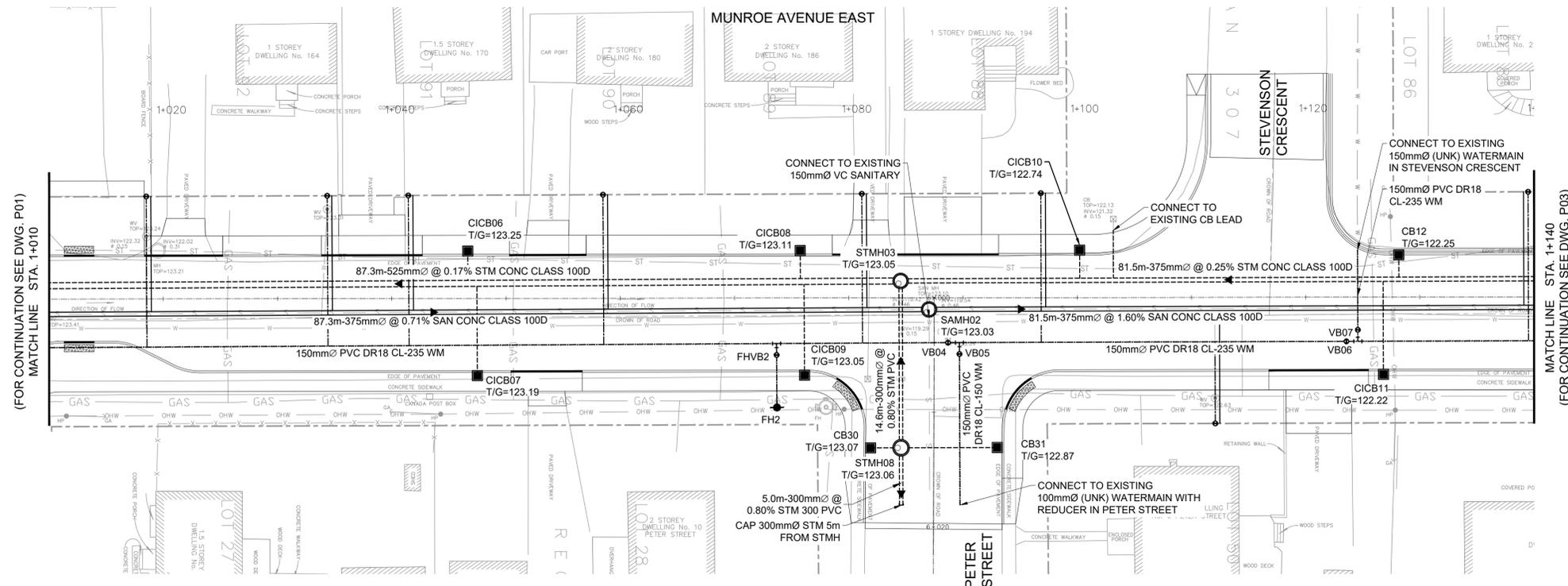
1: SAFETY PLATFORM TO BE INSTALLED IN STRUCTURE PER OPSD 404.020.
2: SAFETY PLATFORM TO BE INSTALLED IN STRUCTURE PER OPSD 404.021.

SANITARY MAINTENANCE HOLE DATA							
NO.	STA	OFFS.	COVER	STRUCT.	ELEVATION		GRATE TO INVERT
					T/GRADE	LOW/INV	
SAMH01	0+936.00	0.51R	401.010A	701.010	123.43	120.19	3.24

CATCH BASIN DATA							
NO.	STA	OFFS.	COVER	STRUCT.	ELEVATION		GRATE TO INVERT
					T/FRAME	LOW/INV	
CICB01	0+950.39	6.25R	400.082	705.010B	123.20	121.82	1.38
TICB02	0+970.01	6.57L	400.082	705.020B	122.94	121.56	1.38
TICB03	0+976.19	6.73R	400.082	705.020B	123.10	121.72	1.38
CICB04	0+990.61	6.05L	400.082	705.010B	123.01	121.63	1.38
CICB05	1+007.98	4.13L	400.082	705.010B	123.27	121.89	1.38

CATCH BASIN CONNECTION						
LOCATION	DIA (mm)	TYPE	LENGTH (m)	INVERT ELEVATION		
				UPSTR.	DOWNSTR.	
CICB01 - MAIN	200	PVC SDR35	7.48	121.82	118.28	
TICB02 - MAIN	200	PVC SDR35	5.19	121.56	118.31	
TICB03 - MAIN	200	PVC SDR35	7.52	121.72	118.32	
CICB04 - MAIN	200	PVC SDR35	4.65	121.63	118.34	
CICB05 - MAIN	200	PVC SDR35	2.72	121.89	118.40	





HARRY ST AND MUNROE AVE E RECONSTRUCTION

MUNROE AVENUE EAST. GRADING & DRAINAGE STA. 1+010 TO STA. 1+140

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING

Stantec

Des. SC Chk'd. DG
Des. SC Chk'd. DG

Scale: 1:250
HORIZONTAL
0m 5 10

NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

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01	ISSUED FOR 50% DESIGN		29/06/2023
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03	ISSUED FOR 80% DESIGN SUBMISSION	MH	08/12/2023
04	ISSUED FOR TENDER	MY	04/10/2024
05	ISSUED FOR TENDER	DG	18/02/2026

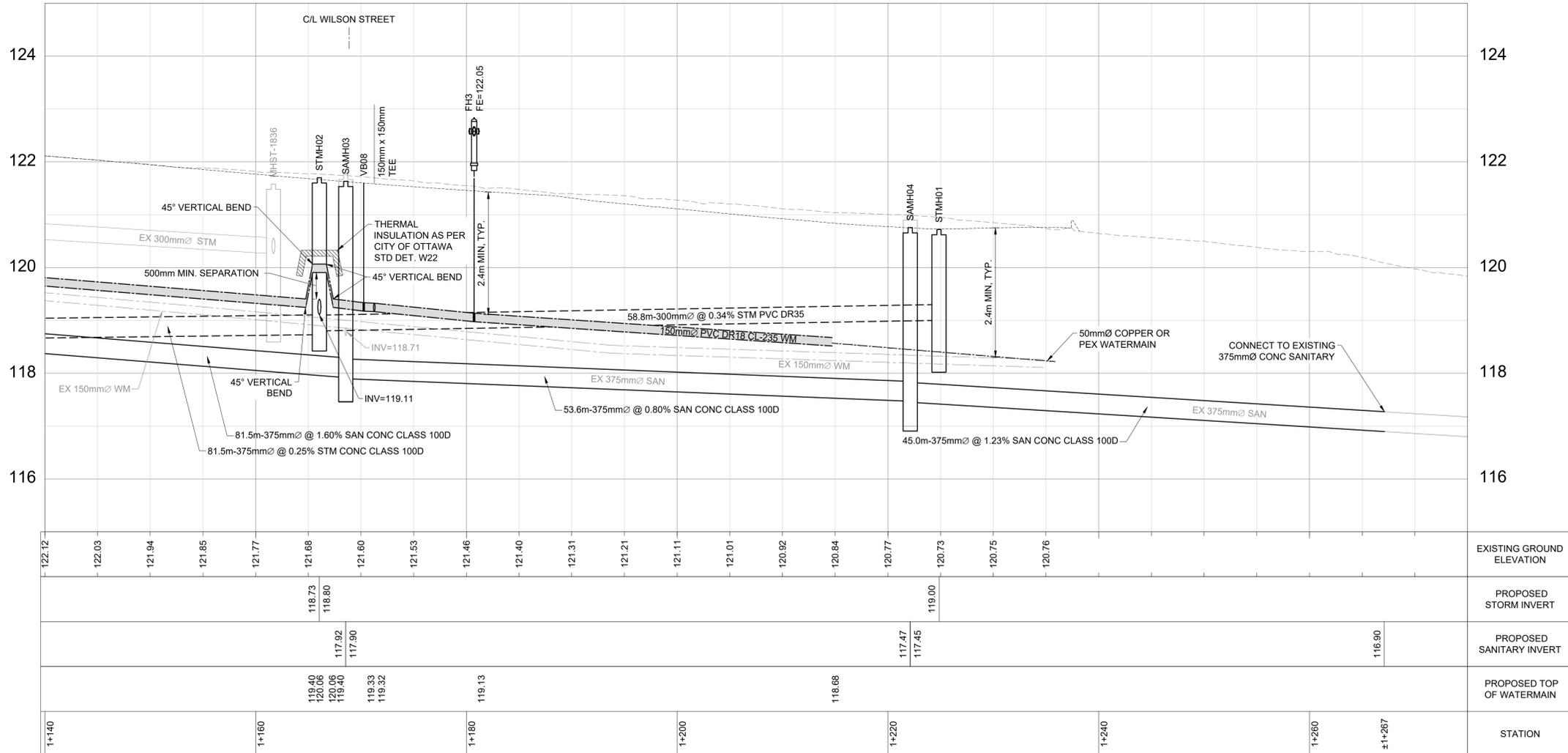
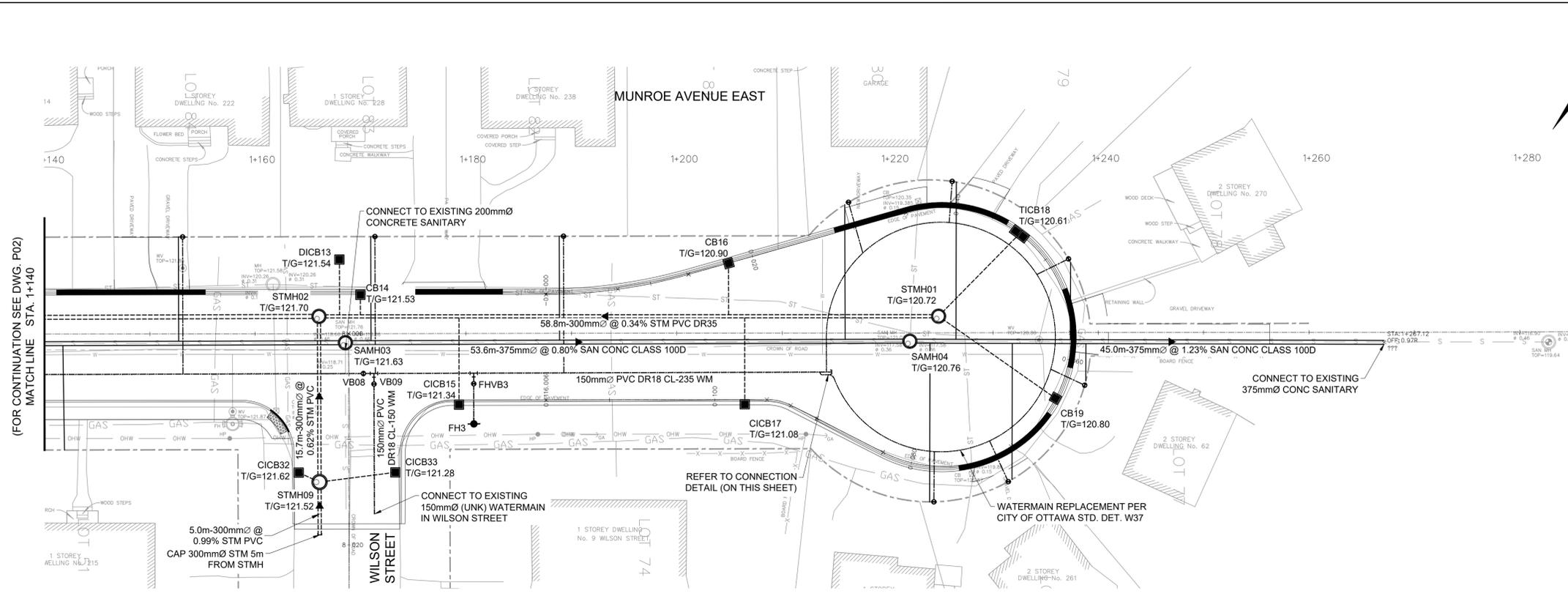
STORM MAINTENANCE HOLE DATA							
NO.	STA	OFFS.	COVER	STRUCT.	ELEVATION		GRATE TO INVERT
					T/GRADE	LOW/INV	
STMH03	1+084.54	1.47L	401.010B	701.010	123.05	118.37	4.68'
STMH08	6+013.10	2.86R	401.010B	701.010	123.06	119.76	3.30

1: SAFETY PLATFORM TO BE INSTALLED IN STRUCTURE PER OPSD 404.020.

SANITARY MAINTENANCE HOLE DATA							
NO.	STA	OFFS.	COVER	STRUCT.	ELEVATION		GRATE TO INVERT
					T/GRADE	LOW/INV	
SAMH02	1+087.03	1.02R	401.010A	701.010	123.09	119.22	3.87

CATCH BASIN DATA							
NO.	STA	OFFS.	COVER	STRUCT.	ELEVATION		GRATE TO INVERT
					T/GRADE	LOW/INV	
CICB06	1+046.65	4.13L	400.082	705.010B	123.25	121.87	1.38
CICB07	1+047.48	6.73R	400.082	705.010B	123.19	121.81	1.38
CICB08	1+075.76	4.13L	400.082	705.010B	123.11	121.73	1.38
CICB09	1+076.12	6.73R	400.082	705.010B	123.05	121.67	1.38
CICB10	1+100.22	4.14L	400.082	705.010B	122.74	121.36	1.38
CICB11	1+126.80	6.73R	400.082	705.010B	122.22	120.84	1.38
CB12	1+128.16	3.68L	610.010	705.010B	122.25	120.87	1.38
CB30	6+013.12	5.53R	400.020	705.010B	123.07	121.69	1.38
CB31	6+013.05	5.56L	400.020	705.010B	122.87	121.49	1.38

CATCH BASIN CONNECTION					
LOCATION	DIA (mm)	TYPE	LENGTH (m)	INVERT ELEVATION	
				UPSTR.	DOWNSTR.
CICB06 - MAIN	200	PVC SDR35	2.56	121.87	118.47
CICB07 - MAIN	200	PVC SDR35	7.83	121.81	118.47
CICB08 - MAIN	200	PVC SDR35	2.44	121.73	118.52
CICB09 - MAIN	200	PVC SDR35	7.91	121.67	118.52
CICB10 - MAIN	200	PVC SDR35	2.44	121.36	118.85
CICB11 - MAIN	200	PVC SDR35	8.10	120.84	118.91
CB12 - MAIN	200	PVC SDR35	1.94	120.87	118.92
CB31 - MAIN	200	PVC SDR35	2.67	121.69	121.63
CB32 - MAIN	200	PVC SDR35	8.43	121.49	121.32



STATION	EXISTING GROUND ELEVATION	PROPOSED STORM INVERT	PROPOSED SANITARY INVERT	PROPOSED TOP OF WATERMAIN
1+140	122.12	118.73	117.92	119.40
1+160	122.03	118.80	117.90	119.06
1+180	121.94	118.80	117.90	119.40
1+200	121.85	118.80	117.90	119.33
1+220	121.77	118.80	117.90	119.32
1+240	121.68	118.80	117.90	119.13
1+260	121.60	118.80	117.90	118.68
1+280	121.53	118.80	117.90	118.68

(FOR CONTINUATION SEE DWG. P02)
MATCH LINE STA. 1+140

HARRY ST AND MUNROE AVE E RECONSTRUCTION

MUNROE AVENUE EAST. GRADING & DRAINAGE
STA. 1+140 TO STA. 1+280

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING

Contract No. 2026-03-IPWE
Dwg. No. PP03
Sheet 24 of 30

Des. SC Chk'd. DG
Des. SC Chk'd. DG

Scale: 1:250
0m 5m 10m

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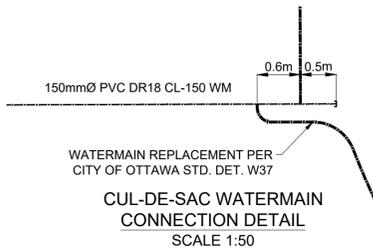
No.	Description	By	Date (dd/mm/yyyy)
01	ISSUED FOR 50% DESIGN		29/06/2023
02	ISSUED FOR PIC #1	MH	01/10/2023
03	ISSUED FOR 80% DESIGN SUBMISSION	MH	08/12/2023
04	ISSUED FOR TENDER	MY	04/10/2024
05	ISSUED FOR TENDER	DG	18/02/2026

STORM MAINTENANCE HOLE DATA							
NO.	STA	OFFS.	COVER	STRUCT.	ELEVATION		GRATE TO INVERT
					T/GRADE	LOW/INV	
STMH01	1+224.85	1.57L	401.010B	701.010	120.72	119.00	1.72
STMH02	1+166.05	1.64L	401.010B	701.010	121.70	118.73	2.97
STMH09	8+014.04	2.78R	401.010B	701.010	121.52	119.20	2.32

SANITARY MAINTENANCE HOLE DATA							
NO.	STA	OFFS.	COVER	STRUCT.	ELEVATION		GRATE TO INVERT
					T/GRADE	LOW/INV	
SAMH03	1+168.56	0.86R	401.010A	701.010	121.77	117.90	3.87
SAMH04	1+222.12	0.79R	401.010A	701.010	121.00	117.45	3.55

CATCH BASIN DATA							
NO.	STA	OFFS.	COVER	STRUCT.	ELEVATION		GRATE TO INVERT
					T/FRAME	LOW/INV	
DICB13	1+168.00	7.02L	403.010	705.010B	121.54	120.16	1.38
CB14	1+169.98	3.70L	610.010	705.010B	121.53	120.15	1.38
CICB15	1+179.33	6.74R	400.082	705.010B	121.34	119.96	1.38
CB16	1+204.93	6.61L	610.010	705.010B	120.90	119.52	1.38
CICB17	1+206.44	6.74R	400.082	705.010B	121.08	119.70	1.38
TICB18	1+232.54	9.35L	610.010	705.020B	120.61	119.23	1.38
CB19	1+235.92	6.21R	610.010	705.010B	120.80	119.42	1.38
CB32	8+013.15	4.75R	400.020	705.010B	121.62	120.24	1.38
CB33	8+013.13	4.41L	400.020	705.010B	121.28	119.90	1.38

CATCH BASIN CONNECTION					
LOCATION	DIA (mm)	TYPE	LENGTH (m)	INVERT ELEVATION	
				UPSTR.	DOWNSTR.
DICB13 - MAIN	200	PVC SDR35	5.23	120.16	118.86
CB14 - MAIN	200	PVC SDR35	1.90	120.15	118.86
CICB15 - MAIN	200	PVC SDR35	8.21	119.96	118.90
CB16 - MAIN	200	PVC SDR35	4.87	119.52	118.98
CICB17 - MAIN	200	PVC SDR35	8.18	119.70	118.99
TICB18 - MAIN	200	PVC SDR35	10.94	119.23	119.01
CB19 - MAIN	200	PVC SDR35	13.54	119.42	119.15
CB32 - MAIN	200	PVC SDR35	2.16	120.24	120.19
CB33 - MAIN	200	PVC SDR35	7.25	119.90	119.75



HARRY ST AND MUNROE AVE E
RECONSTRUCTION



MUNROE AVENUE EAST.
GRADING & DRAINAGE
STA. 10+000 TO STA. 10+040

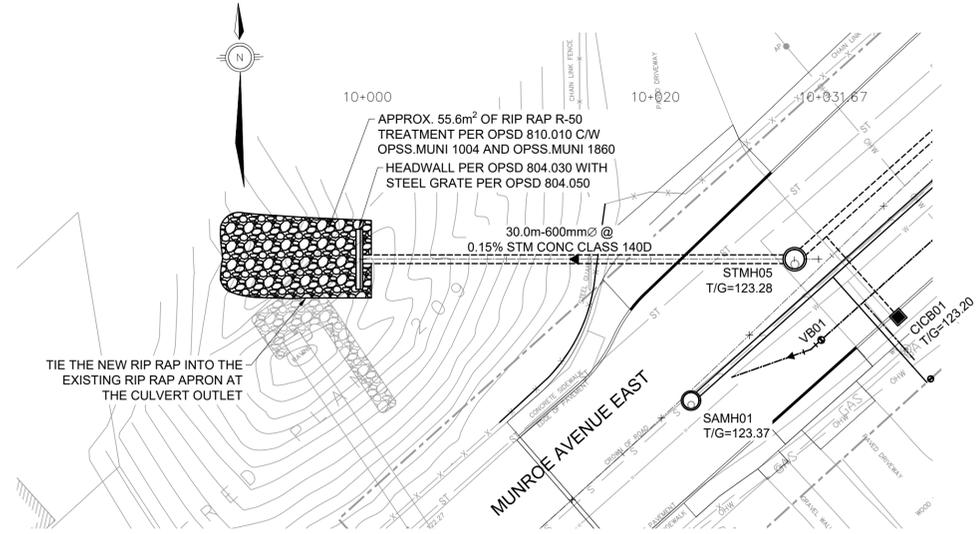
Contract No. 2026-03-IPWE
Dwg. No. PP04
Sheet 25 of 30

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING



Des. SC Chk'd. DG
Des. SC Chk'd. DG

Scale: 1:250
HORIZONTAL
0m 5 10

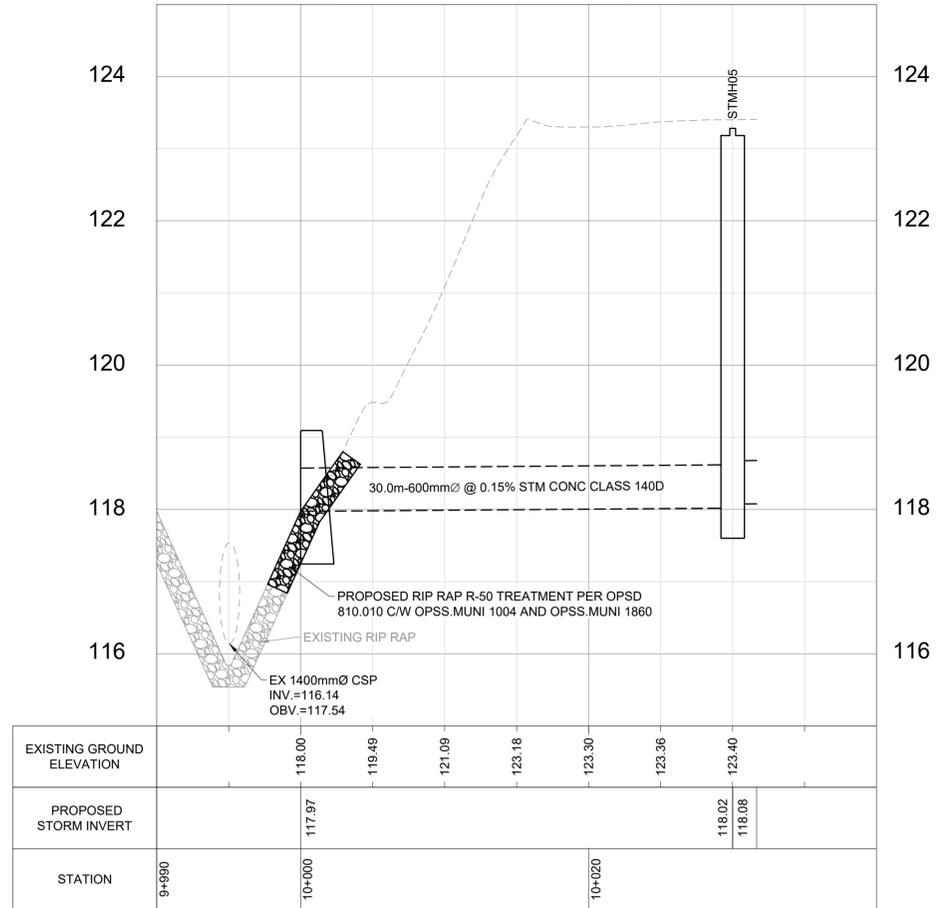


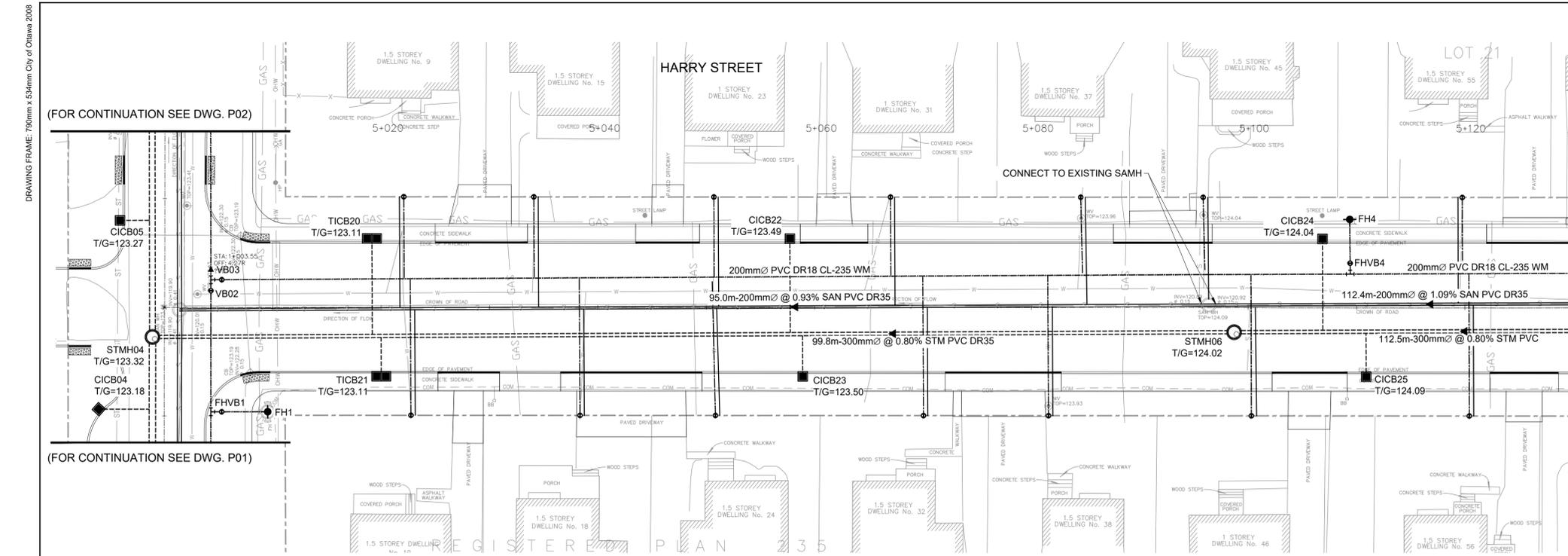
NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

No.	Description	By	Date (dd/mm/yyyy)
01	ISSUED FOR 50% DESIGN		29/06/2023
02	ISSUED FOR PIC #1	MH	01/10/2023
03	ISSUED FOR 80% DESIGN SUBMISSION	MH	08/12/2023
04	ISSUED FOR TENDER	MY	04/10/2024
05	ISSUED FOR TENDER	DG	18/02/2026

STORM MAINTENANCE HOLE DATA							
NO.	STA	OFFS.	COVER	STRUCT.	ELEVATION		GRATE TO INVERT
					T/GRADE	LOW/INV	
STMH05	0+947.96	1.62L	401.010B	701.011	123.32	118.02	5.26 ¹

1: SAFETY PLATFORM TO BE INSTALLED IN STRUCTURE PER OPSD 404.021.





MATCH LINE STA. 5+130
(FOR CONTINUATION SEE DWG. P05)

HARRY ST AND MUNROE AVE E RECONSTRUCTION

**HARRY STREET GRADING & DRAINAGE
STA. 5+000 TO STA. 5+130**

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING

Stantec

Contract No. 2026-03-IPWE | Dwg. No. PP05
Sheet 26 of 30

Des.	SC	Chk'd.	DG
Des.	SC	Chk'd.	DG

Scale: 1:250
0m 5 10
HORIZONTAL

NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

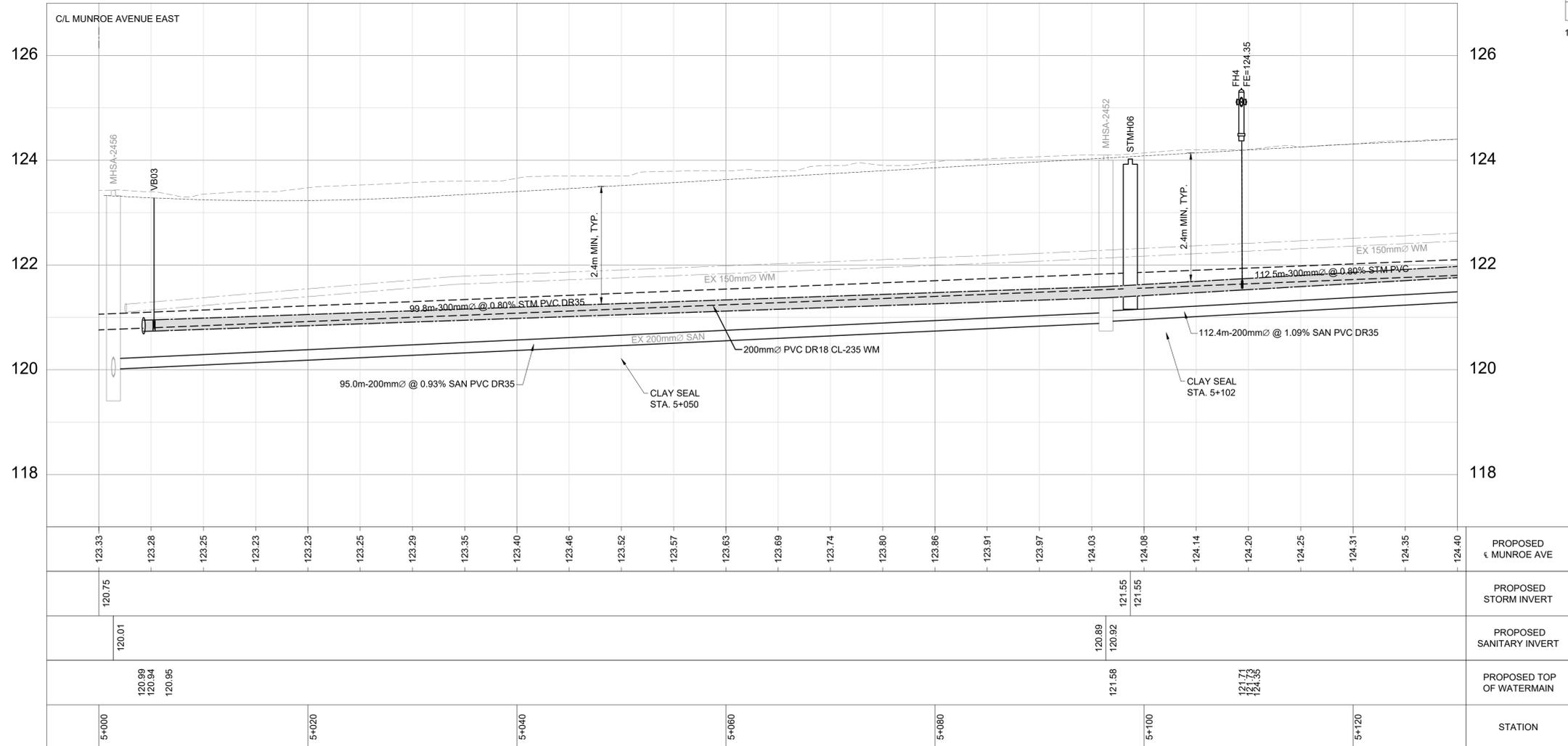
No.	Description	By	Date (dd/mm/yyyy)
01	ISSUED FOR 50% DESIGN		29/06/2023
02	ISSUED FOR PIC #1	MH	01/10/2023
03	ISSUED FOR 80% DESIGN SUBMISSION	MH	08/12/2023
04	ISSUED FOR TENDER	MY	04/10/2024
05	ISSUED FOR TENDER	DG	18/02/2026

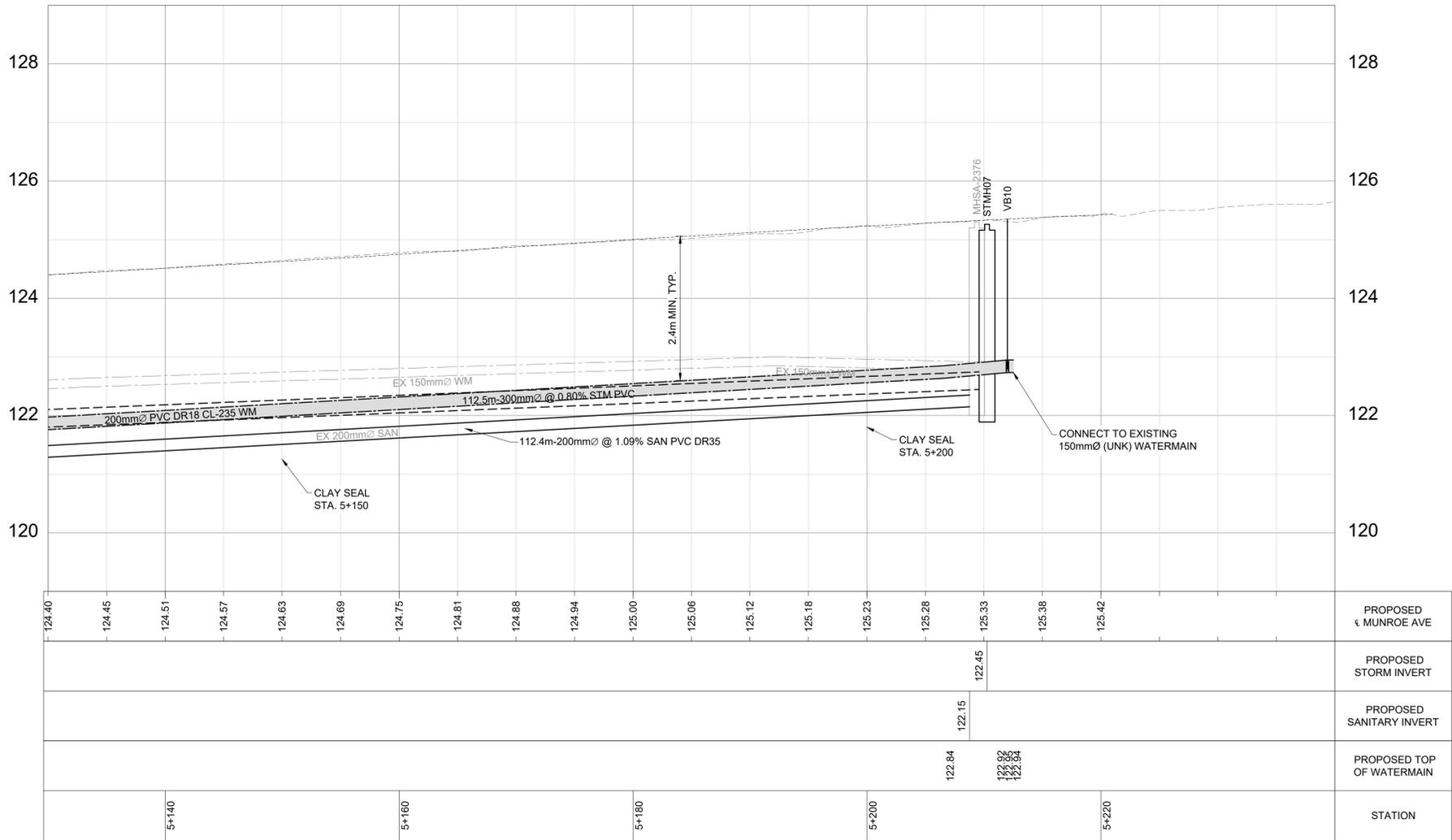
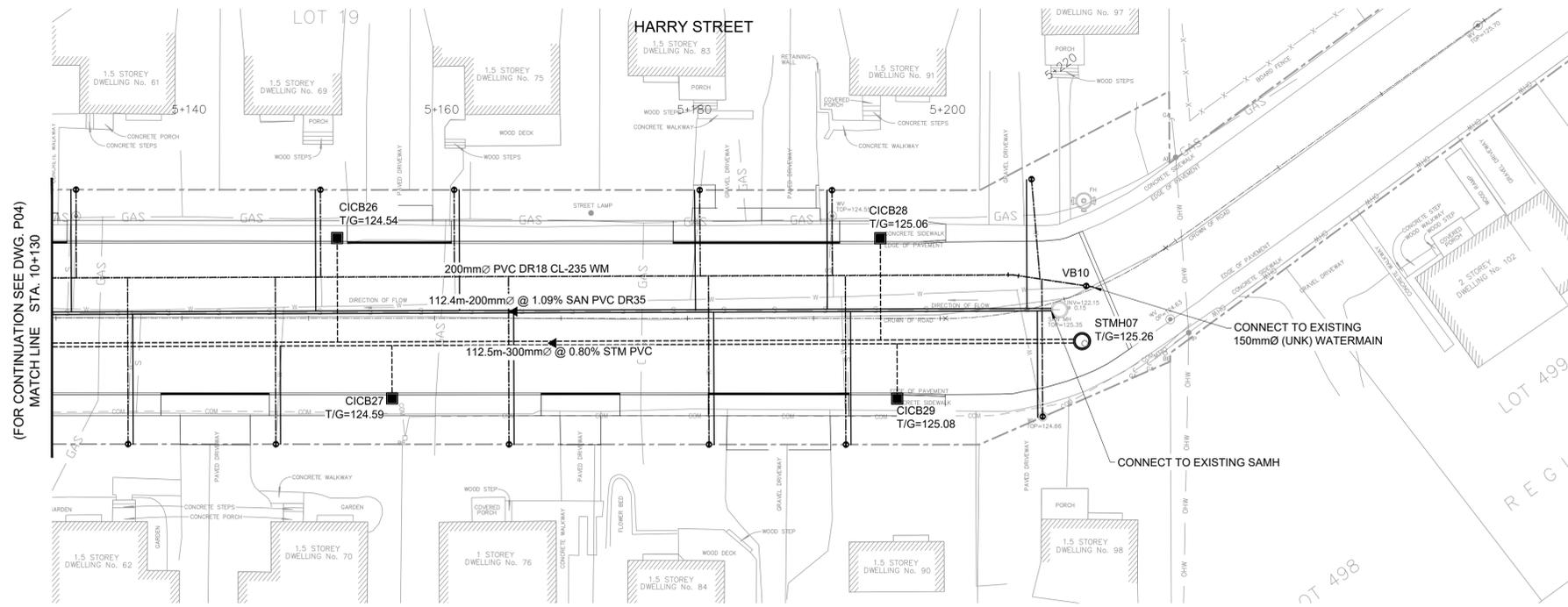
STORM MAINTENANCE HOLE DATA							
NO.	STA	OFFS.	COVER	STRUCT.	ELEVATION		GRATE TO INVERT
					T/GRADE	LOW/INV	
STMH04	0+997.27	1.11L	401.010B	701.010	123.32	118.15	5.17 ¹
STMH06	5+098.70	2.25R	401.010B	701.010	124.02	121.55	2.47

1: SAFETY PLATFORM TO BE INSTALLED IN STRUCTURE PER OPSD 404.021.

CATCH BASIN DATA							
NO.	STA	OFFS.	COVER	STRUCT.	ELEVATION		GRATE TO INVERT
					T/FRAME	LOW/INV	
TICB20	5+019.13	6.34L	401.081	705.020B	123.11	121.73	1.38
TICB21	5+020.00	6.33R	401.081	705.020B	123.11	121.73	1.38
CICB22	5+057.70	6.33L	400.082	705.010B	123.49	122.11	1.38
CICB23	5+058.89	6.33R	400.082	705.010B	123.50	122.12	1.38
CICB24	5+106.85	6.33L	400.082	705.010B	124.04	122.66	1.38
CICB25	5+110.89	6.34R	400.082	705.010B	124.09	122.71	1.38

CATCH BASIN CONNECTION						
LOCATION	DIA (mm)	TYPE	LENGTH (m)	INVERT ELEVATION		
				UPSTR.	DOWNSTR.	
TICB20 - MAIN	200	PVC SDR35	8.82	123.11	120.96	
TICB21 - MAIN	200	PVC SDR35	3.12	123.11	120.97	
CICB22 - MAIN	200	PVC SDR35	8.63	123.49	121.27	
CICB23 - MAIN	200	PVC SDR35	3.74	123.50	121.28	
CICB24 - MAIN	200	PVC SDR35	8.40	124.04	121.67	
CICB25 - MAIN	200	PVC SDR35	3.98	124.09	121.70	





HARRY ST AND MUNROE AVE E RECONSTRUCTION

HARRY STREET GRADING & DRAINAGE STA. 5+130 TO STA. 5+220

ANDREA BISHOP, P.ENG
DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING

Stantec

Des. SC Chk'd. DG
Des. SC Chk'd. DG

Scale: 1:250
0m 5 10

NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

No.	Description	By	Date (dd/mm/yyyy)
01	ISSUED FOR 50% DESIGN		29/06/2023
02	ISSUED FOR PIC #1	MH	01/10/2023
03	ISSUED FOR 80% DESIGN SUBMISSION	MH	08/12/2023
04	ISSUED FOR TENDER	MY	04/10/2024
05	ISSUED FOR TENDER	DG	18/02/2026

NO.	STA	OFFS.	COVER	STRUCT.	ELEVATION		GRATE TO INVERT
					T/GRADE	LOW/INV	
STMH07	5+210.27	3.58R	401.010B	701.010	125.26	122.45	2.81

NO.	STA	OFFS.	COVER	STRUCT.	ELEVATION		GRATE TO INVERT
					T/FRAME	LOW/INV	
CICB26	5+152.27	6.33L	400.082	705.010B	124.54	123.16	1.38
CICB27	5+156.63	6.34R	400.082	705.010B	124.59	123.21	1.38
CICB28	5+195.27	6.33L	400.082	705.010B	125.06	123.68	1.38
CICB29	5+196.61	6.33R	400.082	705.010B	125.08	123.70	1.38

LOCATION	DIA (mm)	TYPE	LENGTH (m)	INVERT ELEVATION	
				UPSTR.	DOWNSTR.
CICB26 - MAIN	200	PVC SDR35	8.22	123.16	122.03
CICB27 - MAIN	200	PVC SDR35	4.17	123.21	122.06
CICB28 - MAIN	200	PVC SDR35	8.04	123.68	122.37
CICB29 - MAIN	200	PVC SDR35	4.33	123.70	122.38

PLAN

SECTION A-A

TI = (2400 - H) / 12

MINIMUM 50mm

TI = THICKNESS OF INSULATION (mm)
H = DEPTH OF COVER
W = D + 300
W = WIDTH OF INSULATION (mm)
D = O.D. OF PIPE (mm)

NOTES

- FOR 150 - 400mm (NOMINAL DIAMETER) WATERMAINS, WHERE THE DEPTH OF COVER IS LESS THAN 2400mm
- INCREMENTS OF THICKNESS SHALL BE ADJUSTABLE TO 25mm.
- IN PROXIMITY OF MAINTENANCE HOLES, CULVERTS, CATCHBASINS, ETC., INSULATION SHALL BE PLACED PER DETAIL W23
- DEPTH OF COVER LESS THAN 1200mm REQUIRES SPECIAL DESIGN.
- STAGGER JOINTS OF MULTIPLE SHEETS.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
- INSULATION NOT TO BE USED AS A MEANS TO AVOID EXCAVATION.

Ottawa THERMAL INSULATION FOR WATERMAINS

DATE: MAY 2001
REV. DATE: JANUARY 2026
DWG. No.: W22

INSULATION REFERENCE TABLE

DISTANCE FROM C.B. OR MAN. WALL	REQUIRED INSULATION THICKNESS (T ₁ + T ₂)
2400 - 9000 mm	50 mm
900 - 1500 mm	75 mm
1500 - 1900 mm	100 mm
1000 - 900 mm	125 mm

PLAN

SECTION A-A

NOTES

- FOR WATERMAINS & SERVICES IN PROXIMITY TO CATCHBASINS, MAINTENANCE HOLES, CULVERTS, ETC.
- INSULATION SHALL EXTEND 1000 mm EACH WAY FROM THE ENDS OF THE STRUCTURE, PARALLEL TO THE WATERMAIN.
- STAGGER JOINTS OF MULTIPLE SHEETS.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
- INSULATION CAN BE AT EITHER LOCATION OR BOTH.

Ottawa THERMAL INSULATION OF WATERMAINS AT OPEN STRUCTURES

DATE: MAY 2001
REV. DATE: FEB 2004
DWG. No.: W23

SECTION A-A

VALVE BOX CAP

ADJUSTABLE ROAD LEVELER (ALTERNATIVE)

VALVE BOX ASSEMBLY

NOTES

- FOR AUXILIARY SERVICES AND ISOLATION VALVES
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
- FOR 200 AND 250mm VALVES, ADD BEDDING BELOW THE CONCRETE BLOCKS AS REQUIRED TO RAISE BELL HIGH ENOUGH TO PREVENT CONTACT WITH THE VALVE BONNET.

Ottawa VALVE BOX ASSEMBLY

DATE: MAY 2001
REV. DATE: MARCH 2001
DWG. No.: W24

NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

No.	Description	By	Date (dd/mm/yyyy)
01	ISSUED FOR TENDER	MY	04/10/2024
02	ISSUED FOR TENDER	DG	18/02/2026

SECTION A-A

NOTES

- FOR WATERMAIN 100mm (NOMINAL) TO 400mm (NOMINAL)
- BARREL TO INVERT SEPARATION (D) SHALL BE 500mm MINIMUM
- THRUST BLOCKS FOR MAINS LARGER THAN 400mm (NOMINAL) SHALL BE PER SPECIAL DESIGN
- FOR 300mm (NOMINAL) AND 400mm (NOMINAL) MAINS, BENDS SHALL BE MAX. 22° 30'
- CONCRETE FOR THRUST BLOCKS SHALL BE 20 MPa
- REFER TO W25.3 FOR RESTRAINED LENGTH REQUIREMENTS
- REFER TO W25.3 AND W25.4 FOR THRUST BLOCK REQUIREMENTS
- ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
- DESIGNED TO MEET THE INTENT OF THE MORE WATERMAIN DESIGN CRITERIA JUNE 2012
- CATHODIC PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH W9, W40, AND W42
- TRACER WIRE REQUIRED FOR PVC, PEX AND HDPE WATERMAIN PIPE ONLY AS PER W36

Ottawa WATERMAIN CROSSING BELOW SEWER

DATE: MAY 2001
REV. DATE: JAN 2008
DWG. No.: W25

SECTION A-A

NOTES

- FOR WATERMAIN 100mm (NOMINAL) TO 400mm (NOMINAL)
- BARREL TO BARREL SEPARATION (D) SHALL BE 500mm MINIMUM
- THRUST BLOCKS FOR MAINS LARGER THAN 400mm (NOMINAL) SHALL BE PER SPECIAL DESIGN
- FOR 300mm (NOMINAL) AND 400mm (NOMINAL) MAINS, BENDS SHALL BE MAX. 22° 30'
- CONCRETE FOR THRUST BLOCKS SHALL BE 20 MPa
- REFER TO W25.3 FOR RESTRAINED LENGTH REQUIREMENTS
- REFER TO W25.3 AND W25.4 FOR THRUST BLOCK REQUIREMENTS
- ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE
- DESIGNED TO MEET THE INTENT OF THE MORE WATERMAIN DESIGN CRITERIA JUNE 2012
- CATHODIC PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH W9, W40, AND W42
- TRACER WIRE REQUIRED FOR PVC, PEX AND HDPE WATERMAIN PIPE ONLY AS PER W36

Ottawa WATERMAIN CROSSING OVER SEWER

DATE: MAY 2001
REV. DATE: JANUARY 2025
DWG. No.: W25.2

PLAN TEE

PLAN - PLUG OR CAP

ELEVATION TYPICAL END

PLAN TYPICAL BEND

SECTION X-X

NOTES

- CONCRETE SHALL BE PLACED TO WITHIN 50mm OF FACE OF THE BELL.
- BOND BREAKER TO BE USED BETWEEN CONCRETE AND FITTINGS.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
- REFER TO W25.4 FOR ADDITIONAL REQUIREMENTS.
- THRUST BLOCKS SHALL BE 20 MPa CONCRETE AND AS SHOWN ON ABOVE DRAWINGS UNLESS OTHER DIRECTED BY THE CONTRACT ADMINISTRATOR. THE BLOCK SHALL BE CENTERED ON THE THRUST FORCE AND SHALL ALSO PARTIALLY GRADE THE FITTING TO DISTRIBUTE THE FORCE.
- THE SIDES OF THE BLOCK SHALL BE 80mm FROM THE JOINT ON EITHER SIDE OF THE BEND OR TEE.
- THE CONCRETE WHERE POSSIBLE SHALL BE PLACED AGAINST UNDISTURBED SOIL AT THE BOTTOM AND SIDE OF THE TRENCH, WHERE THRUST BLOCKS CAN NOT BE POURED TO UNDISTURBED SOIL, OR WHERE IT WOULD CONFLICT WITH EXISTING OR FUTURE INFRASTRUCTURE, THE THRUST BLOCK SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER.
- EXCEPT FOR THE ADDITION OF WATER, CONCRETE FOR THRUST BLOCKS SHALL COME PREMIXED FROM CONCRETE SUPPLIER, AS READY MIX FROM A CONCRETE TRUCK.
- ON-SITE MIXING OF CEMENT, SAND AND AGGREGATE ETC. BY THE CONTRACTOR FOR THE PURPOSE OF MAKING CONCRETE THRUST BLOCKS/ANCHORS WILL NOT BE ACCEPTED.

Ottawa CONCRETE THRUST BLOCKS FOR PVC AND DI PIPE 400mm AND UNDER

DATE: MAY 2001
REV. DATE: MARCH 2022
DWG. No.: W25.3

NOTES

- SOIL DESCRIPTION: VERY FINE SANDS, SANDY CLAYS, CLAYS.
SOILS WITH TYPICAL BEARING STRENGTH OF 100 TO 199 KPa
- SOIL DESCRIPTION: SILTY SAND GRAVELS OR CLAYEY SAND GRAVEL MIXTURES, MODERATE AMOUNT OF FINES.
SOILS WITH TYPICAL BEARING STRENGTH OF 200 TO 299 KPa
- SOIL DESCRIPTION: SANDS, GRAVELS AND GRAVEL-SAND MIXTURES, LITTLE OR NO FINES.
SOILS WITH TYPICAL BEARING STRENGTH OF 300 KPa AND OVER

THRUST BLOCK DIMENSION TABLES FOR PVC AND DI PIPE 400mm AND UNDER

TABLE 1: SOILS WITH TYPICAL BEARING STRENGTH OF 100 TO 199 KPa

PIPE DIAMETER	DIMENSION NOTED ON W25.3			
	A	B	C	D
102	250	250	200	200
152	400	400	250	300
203	550	550	300	450
254	650	650	400	500
305	800	800	450	650
406	1050	1050	600	850

TABLE 2: SOILS WITH TYPICAL BEARING STRENGTH OF 200 TO 299 KPa

PIPE DIAMETER	DIMENSION NOTED ON W25.3			
	A	B	C	D
102	200	200	150	150
152	250	250	200	200
203	350	350	250	270
254	450	450	300	350
305	500	500	350	400
406	750	750	400	600

TABLE 3: SOILS WITH TYPICAL BEARING STRENGTH OF 300 KPa AND OVER

PIPE DIAMETER	DIMENSION NOTED ON W25.3			
	A	B	C	D
102	150	150	150	150
152	200	200	200	200
203	300	300	200	230
254	400	400	250	270
305	450	450	300	300
406	650	650	350	450

Ottawa THRUST BLOCK DIMENSION TABLES FOR PVC AND DI PIPE 400mm AND UNDER

DATE: MAY 2001
REV. DATE: JAN 2008
DWG. No.: W25.4

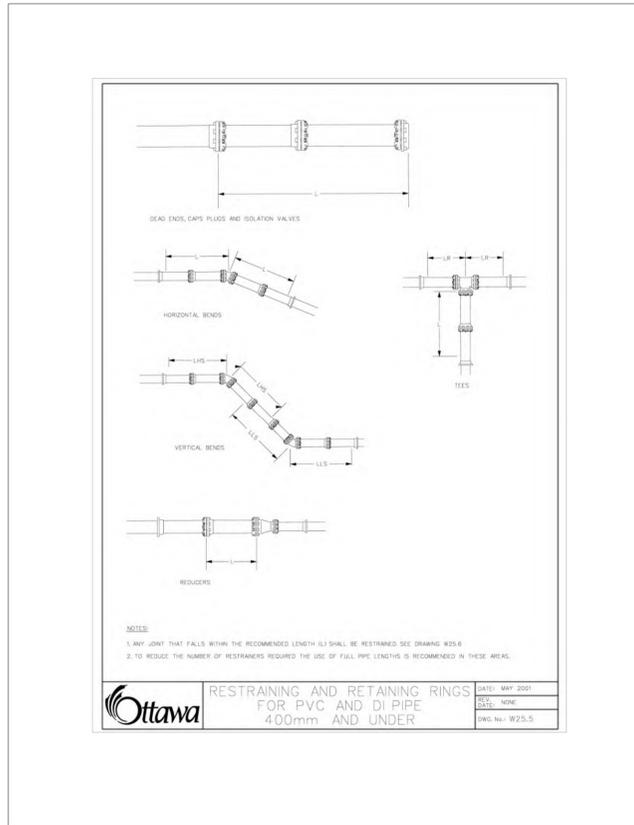


TABLE OF RESTRAINED LENGTHS FOR DI AND PVC WATERMAIN PIPE IN STANDARD GRANULAR 'A' EMBEDMENT IN SOILS OF BEARING CAPACITY OF 100 KPa AND OVER

REDUCERS	LARGER DIAMETER SIDE (TO BE RESTRAINED)						
	SMALLER DIAMETER (UNRESTRAINED)	100mm	150mm	200mm	250mm	300mm	400mm
100mm	N/A	3	6	8	10	14	
150mm	N/A	N/A	4	6	9	13	
200mm	N/A	N/A	N/A	3	6	11	
250mm	N/A	N/A	N/A	N/A	4	9	
300mm	N/A	N/A	N/A	N/A	N/A	7	
400mm	N/A	N/A	N/A	N/A	N/A	N/A	

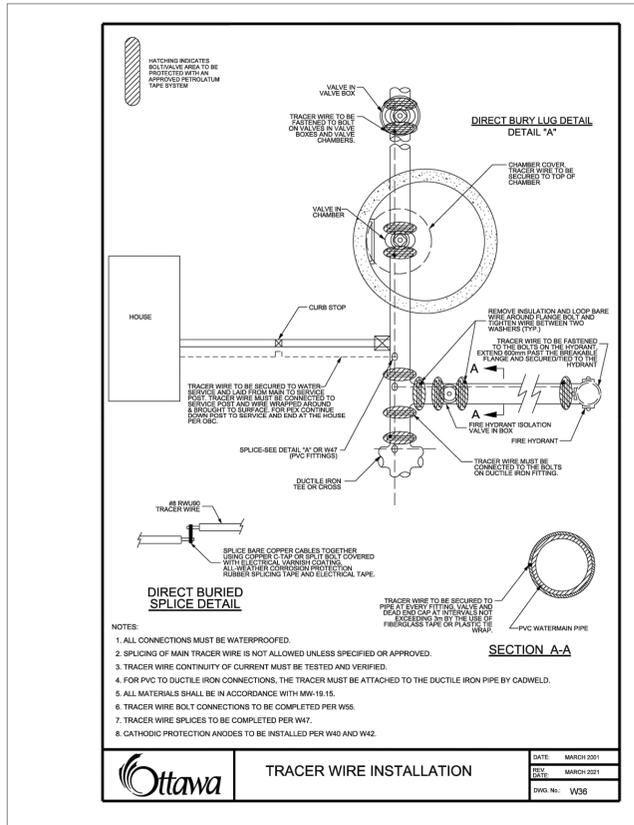
PIPE DIAMETER	PIPE DIAMETER					
	100mm	150mm	200mm	250mm	300mm	400mm
DEAD ENDS, CAPS, PLUGS, VALVES	BEFORE CAPS AND EITHER SIDE OF VALVES - L					
	5	6	9	10	12	16
VERTICAL BENDS	LENGTH HIGH SIDE - LHS					
	3	4	5	6	7	9
	LENGTH LOW SIDE - LLS					
	1.5	2	2.5	3	3.5	4.5
TEES	LENGTH ALONG THE BRANCH - L					
	1	1	1	1	1	1
	LENGTH ALONG THE RUN - Lr					
	3	3	3	3	3	3
HORIZONTAL BENDS	11.25, 22.5, AND 45 DEGREE BENDS					
	1	1.5	1.5	2	2	2.5

NOTES:

- THE ABOVE RESTRAINED LENGTHS MEET OR EXCEED THE WATERMAIN DESIGN CRITERIA FOR FUTURE ADEQUACY AUTHORIZED UNDER A DRINKING WATER WORKS PERMIT.
- THE ASSUMPTIONS MADE FOR THE ABOVE CALCULATIONS ARE AS FOLLOWS:
 - a) MAXIMUM OPERATING PRESSURE OF 100 psi
 - b) MAXIMUM SURGE PRESSURE WITH A FLOW VELOCITY CHANGE OF 0.8 m/s OF 115 psi (115 psi FOR CLASS 52 DI AND FOR PVC MAX. SURGE IS 135 psi)
- FOR SOFTWARE CALCULATIONS A TEST PRESSURE OF 150 psi AND A SAFETY FACTOR OF 1.5 WAS USED WHICH RESULTS IN 225 psi MAXIMUM PRESSURE.
- TYPE 5 TRENCH BEDDING.
- DEPTH TO BURY 2.4 METRES EXCEPT FOR VERTICAL BENDS WHERE THE HIGH SIDE IS AT 1.8 METRES.
- EMBEDMENT MATERIAL GRANULAR 'A' WITH CHARACTERISTICS OF ASTM D2455 GP.
- GP SOILS ARE DESCRIBED AS POORLY GRADED GRAVEL AND SAND-GRAVEL MIXES WITH LITTLE OR NO FINES.
- SOIL MUST BE OF SOLID PIPE WITHOUT JOINTS, FITTINGS, ETC.
- THE TABLES APPLY TO BOTH DUCTILE IRON AND PVC, WHERE ONE LENGTH EXCEEDED THE OTHER THE LONGER LENGTH WAS USED.
- RESTRAINED LENGTHS ARE IN METRES.

Ottawa TABLES OF RESTRAINED LENGTHS FOR PVC AND DI PIPE 400mm AND UNDER

DATE:	MAY 2001
REV. DATE:	JANUARY 2008
REV. DATE:	NONE
DWG. No.:	W25.5



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DIRECTOR OF INFRASTRUCTURE PUBLIC WORKS AND ENGINEERING

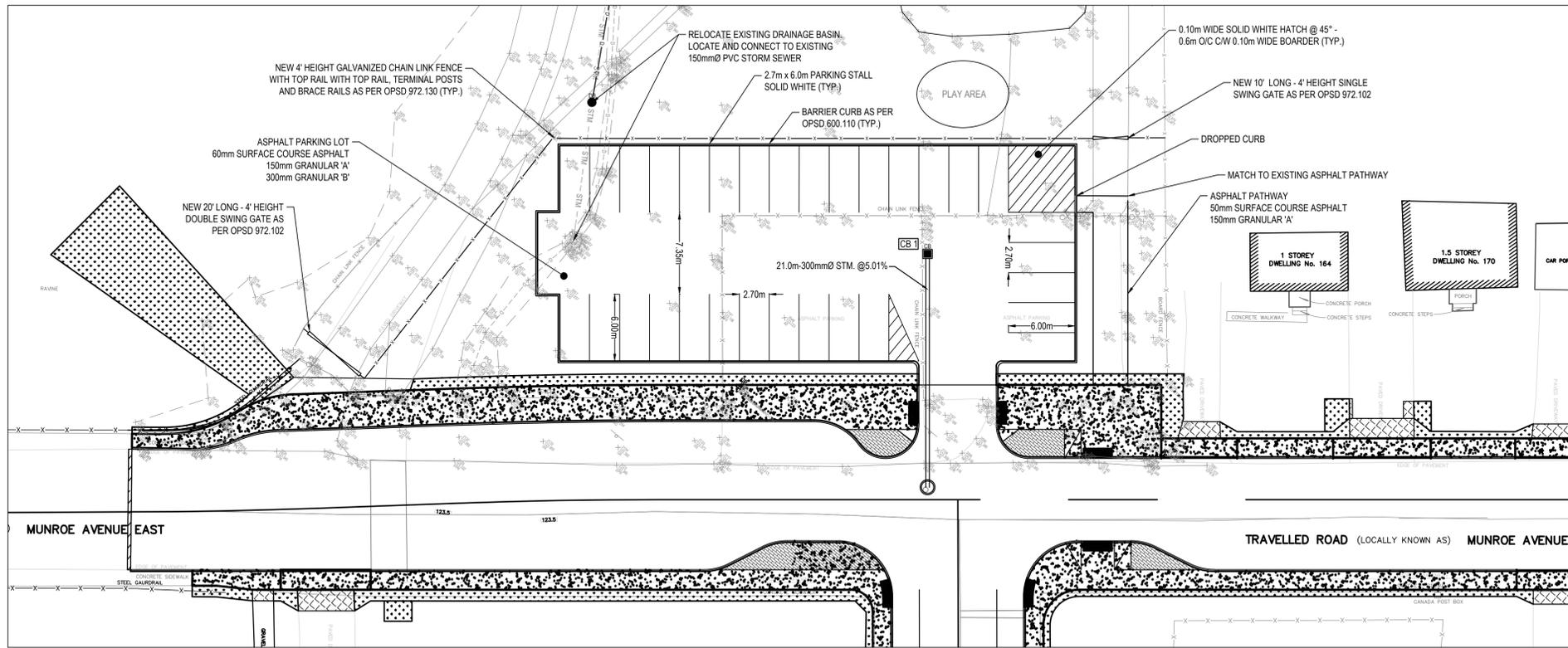


Des.	SC	Chk'd.	DG
Des.	SC	Chk'd.	DG

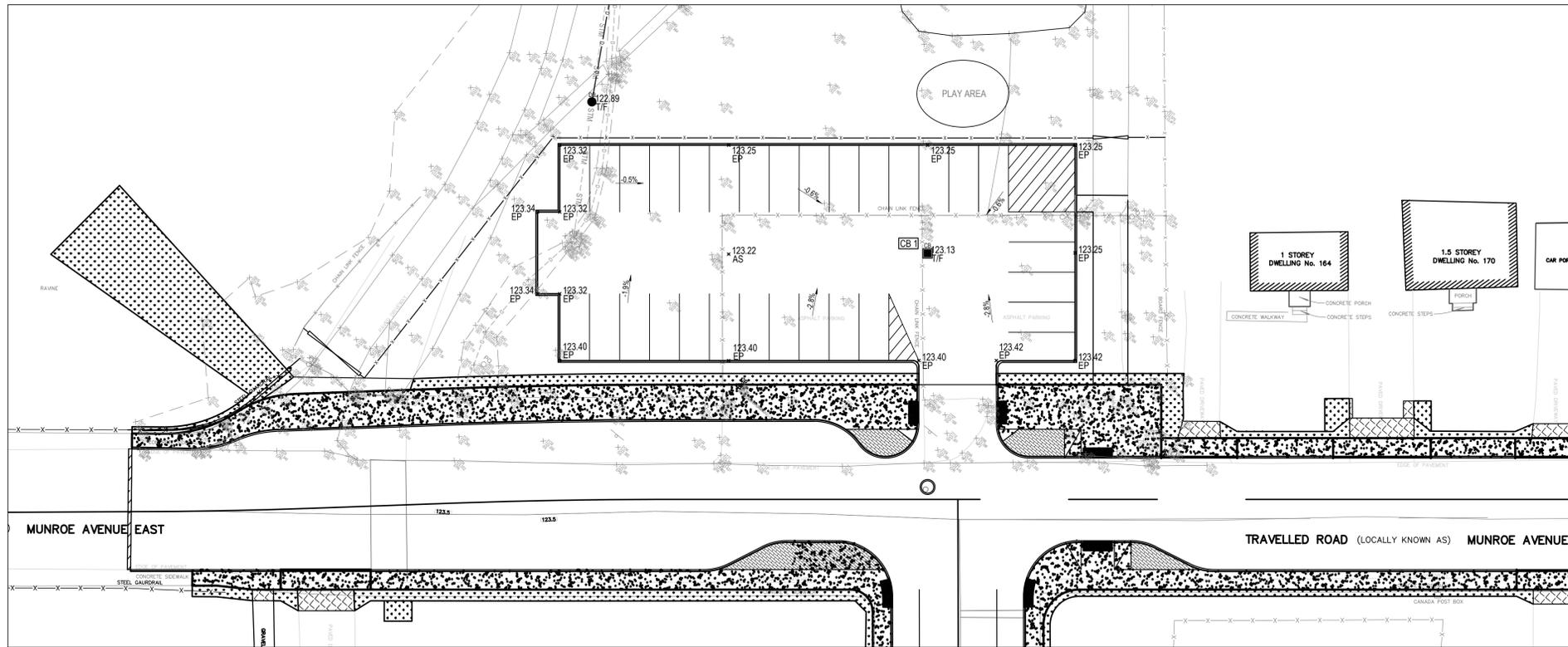
Scale:

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No.	Description	By	Date (dd/mm/yyyy)
01	ISSUED FOR TENDER	MY	04/10/2024
02	ISSUED FOR TENDER	DG	18/02/2026



PLANVIEW
SCALE 1:250



GRADING
SCALE 1:250

NEW CATCH BASIN SCHEDULE	
STRUCTURE NAME / DESCRIPTION	DETAILS
CB 1 600x600mm CATCHBASIN OPSD 705.010 FRAME 400.020	TOP OF FRAME = 123.13 SE INV. = 121.80-300mmØ SUMP = 0.6m



- DISCLAIMER NOTES
1. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ISSUES/PROBLEMS WHICH MAY OCCUR AS A RESULT OF A FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY.
 2. WHERE THERE ARE ALLEGED ERRORS, OMISSIONS, INCONSISTENCIES OR AMBIGUITIES PRESENT IN THE CONTRACT DOCUMENTS, THE CONTRACTOR MUST SEEK CLARIFICATION FROM Jp2g. ANY COSTS OR SCHEDULE DELAYS WHICH RESULT AS A FAILURE TO CONTACT Jp2g FOR CLARIFICATION SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
 3. DO NOT SCALE DRAWINGS. REFER ANY DIMENSIONAL CLARIFICATIONS AND/OR POSSIBLE TRADE INTERFERENCE CONFLICTS TO Jp2g FOR CLARIFICATION PRIOR TO COMMENCEMENT OF THE WORK.
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION WITH SUBTRACTORS AND SHALL ADDRESS CONSTRUCTION TEAM COORDINATION ITEMS PRIOR TO ISSUING REQUESTS FOR INFORMATION FROM Jp2g.
 5. THE POSITION OF POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWING, AND, WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM THEMSELVES OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

NOT FOR
CONSTRUCTION

0	2026-02-18	SGW/WSF	ISSUED FOR TENDER
No.	YYYY-MM-DD	BY	DESCRIPTION

STAMP	STAMP
-------	-------

PROJECT
**CENTRAL SCHOOL
 PARKING LOT**
 MUNROE AVENUE EAST
 RENFREW, ONTARIO

DRAWING
SITE PLAN & GRADING PLAN

Jp2g Consultants Inc.
 ENGINEERS • PLANNERS • PROJECT MANAGERS
 13 INTERNATIONAL DRIVE, PEMBROKE, ON N3A 6W5
 T: 613-750-2007
 P: 613-750-2007
 PEMBERO@JP2G.COM

Jp2g PROJECT No.: 25-5255C

	CLIENT No.:
	DRAFTED: W.FREDERICK
	DESIGNED: W.FREDERICK
	REVIEWED: S.WEBSTER
	APPROVED: S.WEBSTER



DISCLAIMER NOTES

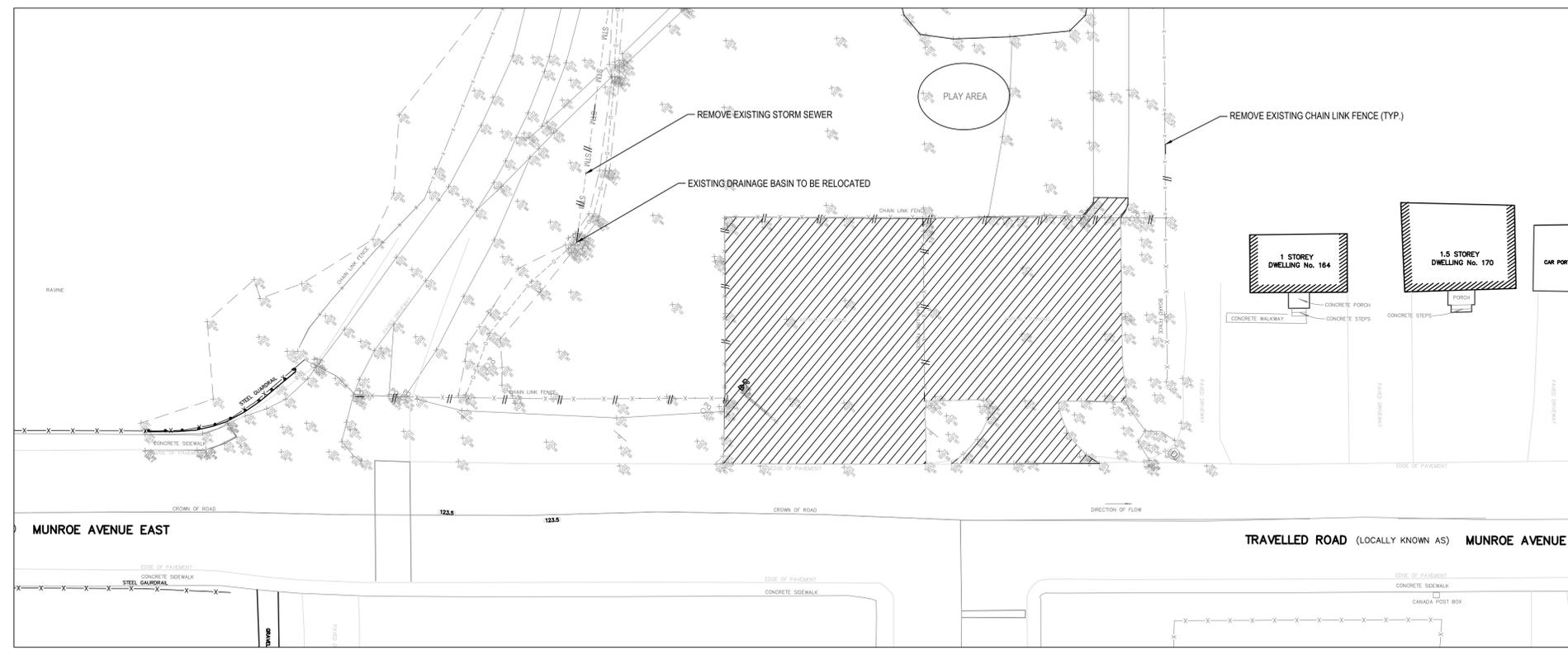
1. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ISSUES/PROBLEMS WHICH MAY OCCUR AS A RESULT OF A FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY.
2. WHERE THERE ARE ALLEGED ERRORS, OMISSIONS, INCONSISTENCIES OR AMBIGUITIES PRESENT IN THE CONTRACT DOCUMENTS, THE CONTRACTOR MUST SEEK CLARIFICATION FROM JP2G. ANY COSTS OR SCHEDULE DELAYS WHICH RESULT AS A FAILURE TO CONTACT JP2G FOR CLARIFICATION SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
3. DO NOT SCALE DRAWINGS. REFER ANY DIMENSIONAL CLARIFICATIONS AND/OR POSSIBLE TRADE INTERFERENCE CONFLICTS TO JP2G FOR CLARIFICATION PRIOR TO COMMENCEMENT OF THE WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION WITH SUBTRACTORS AND SHALL ADDRESS CONSTRUCTION TEAM COORDINATION ITEMS PRIOR TO ISSUING REQUESTS FOR INFORMATION FROM JP2G.
5. THE POSITION OF POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWING, AND, WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM THEMSELVES OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

REMOVALS

 FULL DEPTH ASPHALT REMOVAL (PARKING LOT, SIDEWALK)

 REMOVAL ITEM (PIPE, FENCE, ETC.)

NOT FOR CONSTRUCTION



REMOVALS
SCALE 1:250

0	2026-02-18	SGWWSF	ISSUED FOR TENDER
No.	YYYY-MM-DD	BY	DESCRIPTION

STAMP	STAMP
-------	-------

PROJECT

**CENTRAL SCHOOL
PARKING LOT**

MUNROE AVENUE EAST
RENFREW, ONTARIO

DRAWING

REMOVALS

Jp2g Consultants Inc.
ENGINEERS • PLANNERS • PROJECT MANAGERS

13 INTERNATIONAL DRIVE, PEMBROKE, ON K8A 6W5
T: 613-750-2000
PEMBROKE@JP2G.COM

JP2g PROJECT No.: 25-5255C

CLIENT No.:

DRAFTED: W.FREDERICK

DESIGNED: W.FREDERICK

REVIEWED: S.WEBSTER

APPROVED: S.WEBSTER

SCALE

1:250 H= 1:250
V= 1:50

0 m 2 4 6 8 10 m

SHEET #

REM.1

RENFREW COUNTY DISTRICT SCHOOL BOARD - CENTRAL SCHOOL - OFFICE RELOCATION - REMOVALS - SCALE 1:250 - SHEET 1 OF 1