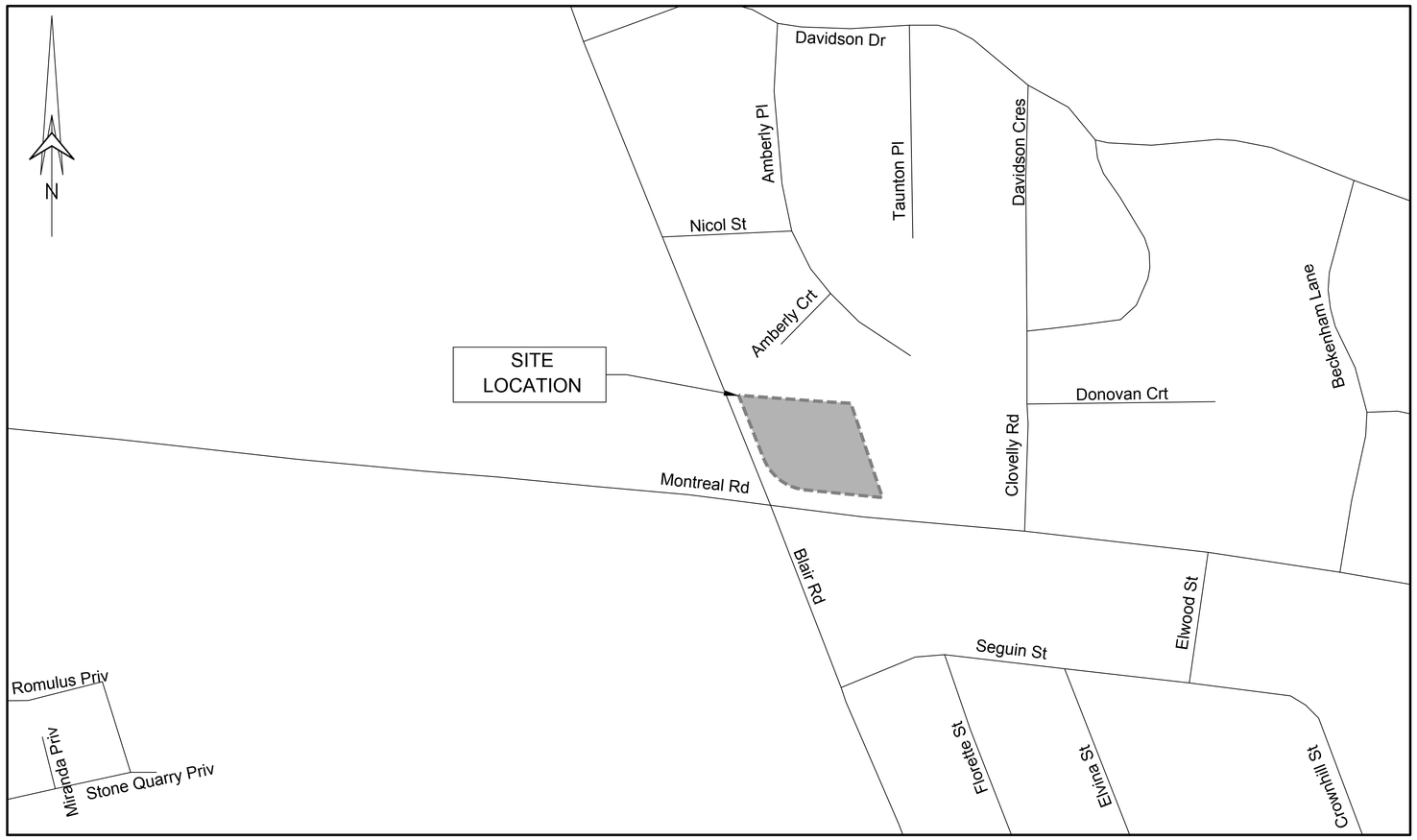
BERTONE



1649 MONTREAL ROAD
MONTREAL AND BLAIR ROAD

LIST OF DRAWINGS

PLAN No:	DESCRIPTION
C000	COVER PAGE
C001	TOPOGRAPHICAL SURVEY PLAN
C002	SEDIMENT AND EROSION CONTROL PLAN
C003	NOTES PLAN – 1 of 2
C004	NOTES PLAN – 2 of 2
C005	GRADE CONTROL AND DRAINAGE PLAN
C006	SITE SERVICING PLAN
C006B	SANITARY SEWER LID REPLACEMENTS
C007	STORM WATER MANAGEMENT PLAN
C008	CIVIL DETAILS PLAN – 1 of 7
C009	CIVIL DETAILS PLAN – 2 of 7
C010	CIVIL DETAILS PLAN – 3 of 7
C011	CIVIL DETAILS PLAN – 4 of 7
C012	CIVIL DETAILS PLAN – 5 of 7
C013	CIVIL DETAILS PLAN – 6 of 7
C014	CIVIL DETAILS PLAN – 7 of 7

NADAO

CIMA+

CIMA+
T. 613.860.2492
600-1400 Blair Towers Place, Ottawa, ON K1J 9B8 CANADA

BERTONE DEVELOPMENT CORPORATION
1649 MONTREAL ROAD
RE-ISSUED FOR SITE PLAN CONTROL REV. 6 - FEBRUARY 11, 2025

C000

D07-12-22-0132

#18876

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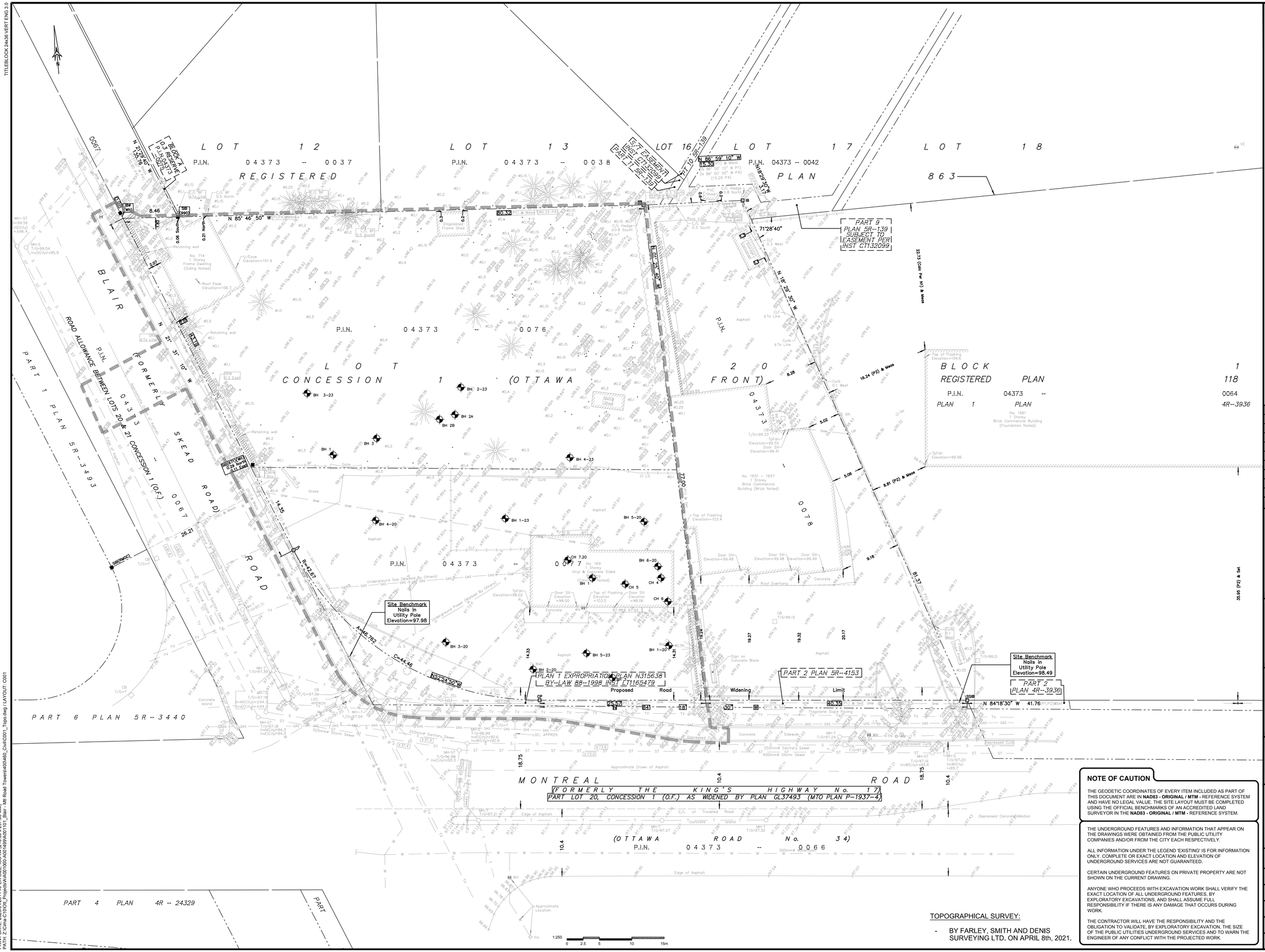
11 February 2025 Devdatsinh Vaghela



EXISTING / PROPOSED

	Survey Monument Planted
	Survey Monument Found
SIB	Standard Iron Bar
SSIB	Short Standard Iron Bar
IB	Iron Bar
IBB	Round Iron Bar
CP	Concrete Pin
(Wit)	Witness
Meas	Measured
(P1)	Plan 5R-4153
(P2)	Plan by (1287) dated May 26, 1986 (Job No. 236/86)
(P3)	Plan 5R-2278
(P4)	Registered Plan 863
(P5)	Plan 4R-3936
(P6)	Plan 5R-3440
(N1)	Notes by (1287) dated August 6, 1986
(D1)	Inst GL65177
(D2)	Inst GL63040
MH-ST	Maintenance Hole (Storm)
MH-S	Maintenance Hole (Sanitary)
MH-T	Maintenance Hole (Traffic)
VC	Valve Chamber (Watermain)
ST	Underground Storm Sewer
S	Underground Sanitary Sewer
W	Underground Water
P	Underground Power
GAS	Underground Gas
B	Underground Bell
TV	Underground Cable
OHW	Overhead Wires
	Utility Pole
AN	Anchor
LS	Light Standard
CB	Catch Basin
FH	Fire Hydrant
WV	Water Valve
GV	Gas Valve
GM	Gas Meter
TB-B	Bell Terminal Box
TSP	Traffic Signal Post
TSL	Traffic Light
B	Bollard
S	Sign
	Gate
TEL	Telephone Booth
ø	Diameter
CLF	Chain Link Fence
BF	Board Fence
MF	Metal Fence
CRW	Concrete Retaining Wall
SRW	Stone Retaining Wall
Inv.	Invert
T/G	Top of Grate
U/Eave	Underside of Eave
TpFdn	Top of Foundation
C/L	Centreline
+65.00	Location of Elevations
+65.00	Top of Concrete Curb/Retaining Wall Elevation
	Property Line
	Easement
	Shrub
	Deciduous Tree
	Coniferous Tree
MW17-1	Work Limit
	Borehole (Loc. Approx.)

No.	Date	Description	By
7	2025/01/28	ISSUED FOR SITE PLAN CONTROL REV. 6	E.P.
6	2024/12/13	ISSUED FOR SITE PLAN CONTROL REV. 5	É.P
5	2024/10/25	ISSUED FOR SITE PLAN CONTROL REV. 4	É.P
4	2023/08/25	ISSUED FOR SITE PLAN CONTROL REV. 3	É.P
3	2023/07/28	ISSUED FOR SITE PLAN CONTROL REV. 2	É.P
2	2023/03/17	ISSUED FOR SITE PLAN CONTROL REV. 1	É.P
1	2022/08/12	ISSUED FOR SITE PLAN CONTROL	É.P

STAMPS:

DESIGNED BY APPROVED BY

ENGINEER: CIMA+

CLIENT: BERTONE

PROJECT NAME:

1649 MONTREAL ROAD
MONTREAL AND BLAIR

SHEET TITLE:

TOPOGRAPHICAL PLAN

DISCIPLINE: CIVIL

DRAFTER: D.VAGHELA	SCALE: 1:250
DESIGNER: É. POTVIN	DATE: 22/08/31
APPROVER: C.L. LEBEL	CITY APPLICATION No: D07-12-22-0132
PROJECT No: A001101	DRAWING No: C001
SHEET No: 1 of 15	

D07-12-22-0132

#18876

NOTE OF CAUTION

THE GEODETIC COORDINATES OF EVERY ITEM INCLUDED AS PART OF THIS DOCUMENT ARE IN **NAD83 - ORIGINAL / MTM -** REFERENCE SYSTEM AND HAVE NO LEGAL VALUE. THE SITE LAYOUT MUST BE COMPLETED USING THE OFFICIAL BENCHMARKS OF AN ACCREDITED LAND SURVEYOR IN THE **NAD83 - ORIGINAL / MTM -** REFERENCE SYSTEM.

THE UNDERGROUND FEATURES AND INFORMATION THAT APPEAR ON THE DRAWINGS WERE OBTAINED FROM THE PUBLIC UTILITY COMPANIES AND/OR FROM THE CITY EACH RESPECTIVELY.

ALL INFORMATION UNDER THE LEGEND 'EXISTING' IS FOR INFORMATION ONLY. COMPLETE OR EXACT LOCATION AND ELEVATION OF UNDERGROUND SERVICES ARE NOT GUARANTEED.

CERTAIN UNDERGROUND FEATURES ON PRIVATE PROPERTY ARE NOT SHOWN ON THE CURRENT DRAWING.

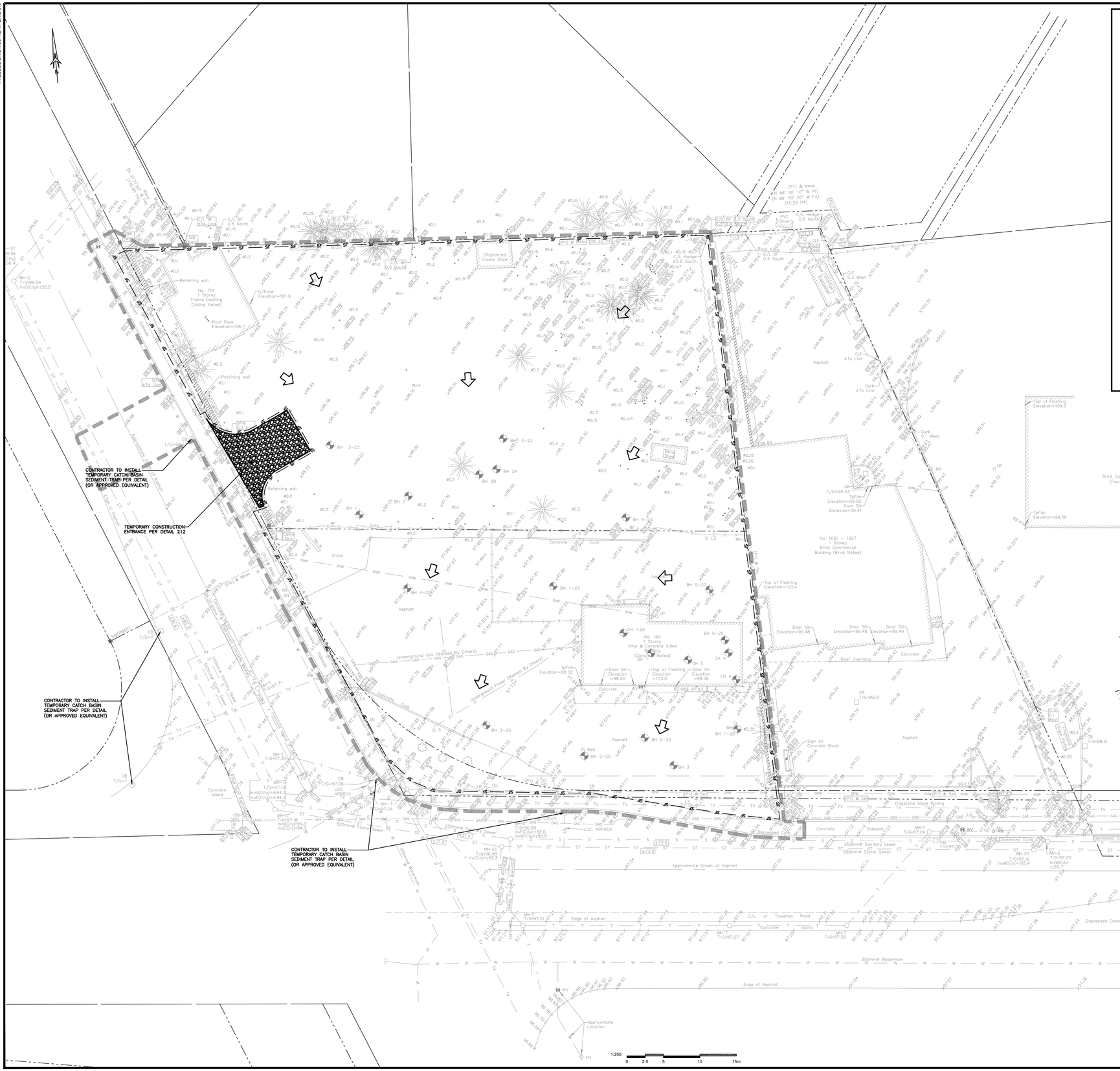
ANYONE WHO PROCEEDS WITH EXCAVATION WORK SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND FEATURES, BY EXPLORATORY EXCAVATIONS, AND SHALL ASSUME FULL RESPONSIBILITY IF THERE IS ANY DAMAGE THAT OCCURS DURING WORK.

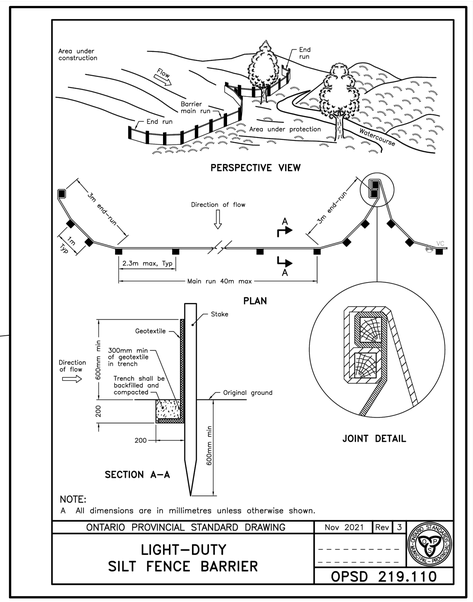
THE CONTRACTOR WILL HAVE THE RESPONSIBILITY AND THE OBLIGATION TO VALIDATE, BY EXPLORATORY EXCAVATION, THE SIZE OF THE PUBLIC UTILITIES UNDERGROUND SERVICES AND TO WARN THE ENGINEER OF ANY CONFLICT WITH THE PROJECTED WORK.

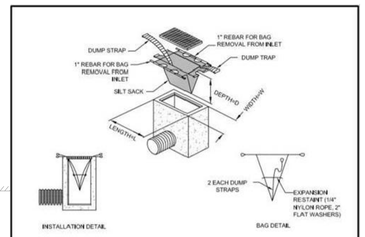
TOPOGRAPHICAL SURVEY:

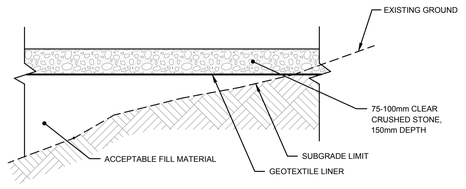
- BY FARLEY, SMITH AND DENIS SURVEYING LTD. ON APRIL 8th, 2021.

TITLEBLOCK 24x36 VERT ENG 3.0









212 TYPICAL SECTION - TEMPORARY CONSTRUCTION ENTRANCE

NOTE OF CAUTION

THE GEODETIC COORDINATES OF EVERY ITEM INCLUDED AS PART OF THIS DOCUMENT ARE IN **NAD83 - ORIGINAL / MTM -** REFERENCE SYSTEM AND HAVE NO LEGAL VALUE. THE SITE LAYOUT MUST BE COMPLETED USING THE OFFICIAL BENCHMARKS OF AN ACCREDITED LAND SURVEYOR IN THE **NAD83 - ORIGINAL / MTM -** REFERENCE SYSTEM.

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EXISTING	PROPOSED
MH–ST	Maintenance Hole (Storm)
MH–S	Maintenance Hole (Sanitary)
MH–T	Maintenance Hole (Traffic)
VC	Valve Chamber (Watermain)
ST	Underground Storm Sewer
S	Underground Sanitary Sewer
W	Underground Water
P	Underground Power
GAS	Underground Gas
B	Underground Bell
TV	Underground Cable
OHW	Overhead Wires
UP	Utility Pole
AN	Anchor
LS	Light Standard
CB	Catch Basin
FH	Fire Hydrant
WV	Water Valve
GV	Gas Valve
GM	Gas Meter
TB–B	Bell Terminal Box
TSP	Traffic Signal Post
TL	Traffic Light
B	Bollard
S	Sign
	Gate
TEL	Telephone Booth
ø	Diameter
CLF	Chain Link Fence
BF	Board Fence
MF	Metal Fence
CRW	Concrete Retaining Wall
SRW	Stone Retaining Wall
Inv.	Invert
T/G	Top of Grade
U/Eave	Underside of Eave
TpFdn	Top of Foundation
C/L	Centreline
+65.00	Location of Elevations
+65.00	Top of Concrete Curb/Retaining Wall Elevation
	Property Line
	Easement
	Shrub
	Deciduous Tree
	Coniferous Tree
	Work Limit
MW17–1	Borehole (Loc. Approx.)
	Silt Fence Per OPSD 219.110 — SF —
	Overland Flow
	Temporary Construction Entrance

No.	Date	Description	By
7	2025/01/28	ISSUED FOR SITE PLAN CONTROL REV. 6	E.P.
6	2024/12/13	ISSUED FOR SITE PLAN CONTROL REV. 5	É.P
5	2024/10/25	ISSUED FOR SITE PLAN CONTROL REV. 4	É.P
4	2023/08/25	ISSUED FOR SITE PLAN CONTROL REV. 3	É.P
3	2023/07/28	ISSUED FOR SITE PLAN CONTROL REV. 2	É.P
2	2023/03/17	ISSUED FOR SITE PLAN CONTROL REV. 1	É.P
1	2022/08/12	ISSUED FOR SITE PLAN CONTROL	É.P

STAMPS:

LICENSED PROFESSIONAL ENGINEER J. M. E. POTVIN 100208490 JANUARY 28, 2025 PROVINCE OF ONTARIO

DESIGNED BY | APPROVED BY

ENGINEER: CIMA+

CLIENT: BERTONE

PROJECT NAME:
1649 MONTREAL ROAD
MONTREAL AND BLAIR

SHEET TITLE:
SEDIMENT EROSION AND CONTROL PLAN

DISCIPLINE: CIVIL

DRAFTER: D.VAGHELA	SCALE: 1:250
DESIGNER: E. POTVIN	DATE: 22/08/31
APPROVER: C.L. LEBEL	CITY APPLICATION No: D07-12-22-0132
PROJECT No: A001101	DRAWING No: C002
SHEET No: 2 of 15	

D07-12-22-0132

#18876

PRINT DATE: 2025/01/28 / PAPER SIZE: ISO A4 (210.00 x 297.00 MM)
PATH: Z:\Cima-C1\IO\IN_Projects\A001000-A001499\A001101_Blair Mtl Road Tower\e4400460_Civil\C002_Sediment&Erosion.dwg / LAYOUT: C002

1. SEDIMENT AND EROSION CONTROL

1.1. Unless otherwise indicated, all materials and construction methods to be in accordance with the requirements of the latest edition of the Ontario Provincial Standard Specifications and Drawings (OPSS and OPSD), the Ontario Ministry of Environment, Conservation and Parks (MECP), applicable Conservation authorities, the municipal standard specifications and drawings, and all other governing authorities as they apply.

1.2. Wherever standards, laws and/or regulations are mentioned they refer to their current versions, modifications included.

1.3. Specifically, sediment and erosion control measures to be constructed as per OPSS.MUNI 805.

1.4. The Contractor must implement best management practices and provide adequate sediment and erosion control measures during construction:

- Prevent soil erosion which can result from stormwater runoff or wind erosion during construction;
- Prevent sediment deposits in the storm sewer and/or collecting streams and;
- Prevent air pollution from dust and particulate matter.

1.5. Provisions must be made for sediment and erosion control measures prior to stripping the site of vegetation and other deleterious materials. Measures such as phase stripping, vegetation buffer zones, silt fences, straw bales, sediment traps/basins, rock checks, etc. must be constructed and maintained in order to control sediment, as required by the provincial and municipal governing authorities.

1.6. The Contractor must set up the measures shown on the plan, inspect them frequently and clean and repair or replace the deteriorated structures.

1.7. When the sediment and erosion control measures have to be removed in order to complete a portion of the work, these same measures must be reinstated.

1.8. When storing soil on site in piles the Contractor must cover each pile with tarps, straw or a geotextile fabric to avoid fine particle transport by wind and/or streaming rain water.

1.9. During the construction period, sediment capture silt sacks or filter cloths must be installed and maintained between the frame and cover of all catchbasins and catchbasin/manholes to minimize sediments entering the storm sewer system. All landscaping areas must be completed prior to the removal of the silt sacks or filter cloths.

1.10. The light duty silt fence barrier must be installed as per OPSD 219.110.

1.11. At all times the Contractor must maintain the municipal access roads clean and free of sediments. When cleaning the access roads, the Contractor must take the necessary precautions to clear the surfaces covered with sediment prior to cleaning with water.

1.12. For dust control, Contractor to apply calcium chloride (Type I - OPSS 2501 and CAN/CGSB-15-1) and water with equipment approved by the Owner's representative at rate in accordance to OPSS.MUNI 506 when directed by Owner's representative.

1.13. At the end of the construction period, the Contractor is responsible for removal of the temporary sediment and erosion control measures and reconditioning the affected areas.

1.14. This plan is a "Living Document" which may be revised in the event that the control measures are not sufficient.

2. GRADE CONTROL AND DRAINAGE - GENERAL

2.1. The Contractor must conform to all laws, codes, ordinances, and regulations adopted by federal, provincial or municipal government councils and government agencies, applying to work to be carried out.

2.2. Unless otherwise indicated, all materials and construction methods to be in accordance with the requirements of the latest edition of the Ontario Provincial Standard Specifications and Drawings (OPSS and OPSD), the Ontario Ministry of Environment, Conservation and Parks (MECP), applicable Conservation Authorities, the municipal standard specifications and drawings, and all other governing authorities as they apply.

2.3. Wherever standards, laws and/or regulations are mentioned they refer to their current versions, modifications included.

2.4. The boreholes and test pits shown on the plan are for information purposes only. Their location on the plan is approximate. The Contractor must refer to the boreholes and test pit records to obtain information about observed stratigraphy on site.

2.5. The Contractor is responsible for obtaining all permits required to complete all works and bear cost of same, including road cut permit and water permit and their associated costs.

2.6. The Contractor is responsible for the coordination of his activities with others on site.

2.7. Independent géotechnical laboratory for quality control:

2.7.1. An independent geotechnical laboratory hired by the Owner will perform material testing, inspection and quality control services.

2.7.2. Geotechnical laboratory to review asphalt and concrete mix designs as requested.

2.7.3. The Contractor must provide equipment required for executing inspection and testing by appointed geotechnical firm.

2.7.4. The Contractor must provide labour and facilities to obtain and handle samples and materials on site. Provide sufficient space to store and cure test samples.

2.7.5. Employment of geotechnical laboratory does not relax responsibility to perform work in accordance with Contract Documents.

2.7.6. If defects are revealed during inspection and/or testing, appointed geotechnical firm will request additional inspection and/or testing to ascertain full degree of defect. Contractor to correct defect and irregularities at no cost to Owner. Contractor to pay costs for retesting and reinspection.

2.7.7. Submit copies of inspection and test reports to Owner's representative.

2.8. The location of existing underground municipal services and public utilities as shown on the plans are approximate. The Contractor must determine the exact location, size, material and elevation of all existing utilities (on-site and off-site) prior to any excavation work. Damage to any existing services and/or existing utilities during construction, whether or not shown on the drawings must be repaired by the Contractor at his own expense.

2.9. Site preparation includes clearing, grubbing, stripping of topsoil, demolition, removal of unsuitable materials, cut, fill and rough grading of all areas to receive finished surfaces.

2.10. All material must be compacted as per the requirements of the governing authority and be approved by the Consultant prior to delivery to the site.

2.11. Compaction must conform to the following requirements:

- Exposed subgrade:
  95% Standard Proctor maximum dry density (SPMDD)
- Granular Subbase foundations:
  95% Standard Proctor maximum dry density (SPMDD)
- Granular Base foundations:
  99% Standard Proctor maximum dry density (SPMDD)
- Asphalt pavement:
  As per City of Ottawa Special Provision F-3130
- Subgrade fill (pavement areas - OPSS Select Subgrade Material):
  95% Standard Proctor Maximum Dry Density (SPMDD)
- Structural fill (building and light standard footprints OPSS Granular 'A' or Granular 'B' Type II Material):
  98% Standard Proctor Maximum Dry Density (SPMDD)

2.12. If groundwater is encountered during construction, dewatering of excavations could be required as per OPSS.MUNI 518. It is assumed that groundwater may be controlled by sump and pumping methods. As required under the "Ontario Water Resources Act (OWRA)", the Contractor must register all water taking activities on Ontario's "Environmental Activity and Sector Registry (EASR)" if water taking exceeds 50,000 l/day, and obtain a "Permit to Take Water (PTTW)" if water taking exceeds 400,000 l/day. Furthermore, Contractor must provide all necessary measures required to ensure dewatering operations does not affect in any way the integrity of the existing surrounding buildings and must plan his work accordingly. Water Taking and Discharge Plan to be prepared by a Qualified Person as stipulated under O.Reg. 63/16.

2.13. Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements and as follows:

2.13.1. Provide flocculation tanks, settling basins, or other treatment facilities to remove suspended solids or other materials to within the required parameters of the receiving body before discharging to storm sewers, watercourses or drainage areas.

2.13.2. Before discharging to storm sewers, watercourses or drainage areas, discharge water must be sampled and tested to ensure quality requirements in accordance with City of Ottawa Sewer Use By-Law No. 2003-514 and the MECP are adhered to. The Contractor is to perform all additional sampling and testing as required by City of Ottawa. All associated fees to be paid by the Contractor.

2.13.3. Where water is not suitable for discharge into the adjacent storm sewers, watercourses or drainage areas it must be discharged into the on-site sanitary sewer collection system, or disposed off-site at an approved disposal facility.

2.13.4. Sanitary Sewer Discharge:
When discharging to the sanitary sewer, the Contractor must obtain a Sanitary Sewer Agreement for Dewatering from the City of Ottawa in accordance with City of Ottawa Sewer Use By-Law No. 2003-514 and pay all associated fees.

- A copy of the signed Sanitary Sewer Agreement for Dewatering must be provided to the Owner's Representative in advance of dewatering and discharge.
- The Contractor must ensure all requirements of the Discharge Agreement are adhered to and all prerequisite requirements of the Agreement are in place prior to commencing dewatering.
- Provide flow meter and record discharge rate in accordance with City of Ottawa requirements.
- Dewatering discharge rate to sanitary sewer not to exceed rate specified by City.
- For off-site disposal of dewatering effluent, Contractor to provide Departmental Representative proof of receipt that dewatering effluent was received at a licensed landfill facility and pay all associated disposal fees.
- Contractor must provide name of proposed licensed disposal facility to Owner's Representative in advance of any dewatering waste leaving the site.
- Contractor is responsible for paying all costs associated with any water quality sampling and testing required.

2.14. The Contractor must maintain benchmarks and landmark references as is. Otherwise these references will be repositioned by a certified land surveyor at the Contractor's expense.

2.15. The Contractor is the only person in charge of safety on the building site. The Contractor is responsible for providing adequate protection of the workers, other personnel and the general public, protection of materials, as well as maintaining in good condition the completed works and works to be completed. The Contractor must supply, install and maintain an appropriate safety fence along the work perimeter until the work is complete.

2.16. The Contractor must provide at any time:
- A sufficient number barriers, posters, guards and others to ensure safety;
- Necessary conveniences for the completion of the work such as heating, lighting, ventilation, etc.

2.17. Temporary excavations in the overburden must be completed as per the requirements of the Occupational Health and Safety Act (OHSA), O. Reg. 213/91, Part III - Excavations.
The side slopes of excavations in the soil and fill overburden materials should either be cut back at acceptable slopes or should be retained by shoring systems from the star of the excavation until the structure is backfilled.
The excavation side slopes above the groundwater level extending to a maximum depth of 3 m should be cut back at 1H:1V or flatter. The flatter slope is required for excavation below groundwater level. The subsurface soil is considered to be mainly a Type 2 and 3 soil according to the Occupational Health and Safety Act and Regulations for Construction Projects. Slopes in excess of 3 m in height should be periodically inspected by the geotechnical consultant in order to detect if the slopes are exhibiting signs of distress.

2.18. The Contractor must pace deliveries and removals in order to minimize and control stockpiles.

2.19. Excavated soil must not be stockpiled directly at the top of excavations and heavy equipment kept away from the excavation sides.

2.20. Cleanliness on the site:
- The Contractor must clean roadways at his own cost as directed by the Owner's representative;
- All site roads and walkways to and from the construction zone must be kept clean at all times, from mud, dirt, granular material, debris, etc;
- The Contractor must leave the work area clean at the end of each day;
- Materials and equipment must be laid out in an organized and safe manner;
- All material, equipment and temporary structures which are no longer necessary for the execution of the - Contract must be removed from the site;
- If required the Contractor must use screens, bulkheads, or any other recognized means in order to reduce noise, dust, interference, obstruction, etc., in conformity with the requirements of the provincial and municipal authorities having jurisdiction.

2.21. During the construction period the Contractor is responsible for installing and maintaining temporary traffic signage, including traffic signs, traffic markings and temporary traffic lights, and flagmen, as required by the Owner, the Consultant, the Municipality, and other governing authorities.

2.22. The Contractor must control surface runoff from precipitation during construction.

2.23. Protection of existing trees and shrubs:

- Where trees and naturalized areas are to be retained, the following best management practices as outlined in the City of Ottawa Tree Protection - By-law No. 2020-340 (City of Ottawa 2021b) should be followed when construction activities occur near trees. These protection measures must be in place prior to any work and maintained until the work is complete.
- Establish a buffer (i.e., fencing, stakes) around the critical root zone (CRZ) of trees as per TREE PROTECTION SPECIFICATION detail of drawing C013.
- Do not attach any signs, notices, or posters to any tree.
- Do not damage the root system, trunk, or branches of any tree.
- Do not place any material or equipment within the CRZ of the tree.
- Do not raise or lower the existing grade within the CRZ.
- Do not direct exhaust fumes from equipment towards any tree's canopy.
- Construction equipment and heavy equipment should arrive at the site clean and free of mud and debris to prevent the spread of additional noxious weeds species to the site. Upon completion of work, the equipment should be cleaned to prevent the spread of weeds to the next work area.
- Prune tree branches as needed to complete the work.
- The Contractor must perform any tree cutting prior to April 15 or after August 31 (i.e., outside of the migratory birds General Nesting Period).

2.24. The Contractor must ensure the following mitigation measures are implemented in order to reduce the risk of ground contamination from petroleum products:

- The list of persons and agencies to contact in the event of an emergency must be posted in plain sight on the work site for the duration of the construction period;
- Machinery must be clean and kept clean to limit any grease or oil deposits inside the work area;
- Frequent inspections must be performed to detect any oil, fuel, grease or other leaks. If a leak is detected, the necessary corrective action must be taken immediately;
- An emergency kit for the recovery of petroleum products must be kept on site at all times. The kit must include at least 30 m of absorbent booms, a box of absorbent pads and solid absorbent material (powder or granules). The kit must be stored near the location of work and machinery, and kept within easy reach at all times to ensure a rapid response;
- In the event of a spill the Contractor must immediately report to the Spills Action Centre of the MECP at 1-800-268-6060. Hydrocarbons and contaminated soils will be recovered by a specialized firm.

2.25. The Contractor must ensure the following measures are implemented regarding the handling of concrete:

- Concrete should either be mixed away from the site or should be prepared on paved surfaces if only small quantities are required (i.e. minor repairs);
- Excess concrete must be disposed off-site at a location that meets all regulatory requirements;
- The washing of concrete trucks and other equipment used for mixing concrete should not be carried out within 30 m of a watercourse or wetland and should take place outside of the work site;
- All concrete trucks should collect their wash water and recycle it back into their trucks for disposal off-site at a location meeting all regulatory requirements.

3. DEMOLITION AND REMOVALS

3.1. The Contractor must visit the premises in order to be fully aware of existing conditions on site, including all elements to be removed and demolished. No claim will be accepted due to a poor evaluation of the work to be completed.

3.2. The Contractor must protect and maintain in service the existing works which must remain in place. If they are damaged, the Contractor must immediately make the replacements and necessary repairs to the satisfaction of the Owner's representative and without additional expense to the Owner.

3.3. The Contractor must perform the nessessary clearing and grubbing in accordance with OPSS.MUNI 201.

3.4. The Contractor must carry out necessary saw cuts even if they are not shown on the drawings.

3.5. The Contractor must entirely remove the demolition wreckage from the construction site in accordance with the requirements of the MECP and in accordance with OPSS.MUNI 180 and OPSS.MUNI 510.

- The Contractor must discard recyclable demolition materials in collaboration with a regional recycling company. The Contractor must be able to provide proof, upon request, that the materials were properly recycled and that the chosen recycling company is recognized in the recycling field.
- All other demolition materials must be disposed off-site at authorized licensed landfills and in conformity with the applicable laws and regulations. The Contractor must be able to provide, upon request, copies of the disposal tickets.

3.6. The Contractor is responsible for locating existing public utilities and (if required) submit a request for the interruption of public utility services, such as gas, telephone, power, cable, sewers, watermain, etc.

3.7. The Contractor must conduct all removals required to make the work complete.

3.8. Unless otherwise specified, all materials, products and others coming from the demolition belong to the Contractor.

3.9. Surfaces and works located outside of the construction work limit must be reinstated as they were before beginning of work.

4. GENERAL SUBGRADE PREPARATION

4.1. Earth removal must be inspected by an experienced Geotechnical Engineer to ensure that all unsuitable materials are removed prior to the placement of fill, including concrete and/or others, and to confirm the compaction degree and condition of the founding soils. All unsuitable materials must be hauled off site and disposed as per provincial and municipal regulations.

4.2. Subgrade must be approved by experienced geotechnical personnel before proceeding with placement of fill.

4.3. All soft, wet or disturbed areas revealed under surface compaction must be removed to a minimum depth of 500 mm and replaced with compacted suitable subgrade fill as directed by the Geotechnical Engineer and/or an approved non-woven Class 1 geotextile, as per OPSS 1860.MUNI. Transition around sub-excavation, where backfill and native material are not of similar nature, must be sloped at 3 horizontal to 1 vertical, within 1.8 m of finished surface.

4.4. If construction is required during freezing temperatures, the native soils should be protected immediately from freezing using straw, propane heaters, polystyrene insulation, insulated tarpaulins, or other suitable means that prevent the underlying native soils from freezing, which could cause significant frost heave.

4.5. All granular fill must be placed in maximum 300 mm thick loose lifts and compacted using suitable methods as per the requirements.

4.6. All heavy equipment must not operate directly on the subgrade. A minimum of 500 mm of fill must be used to allow traffic over subgrade. Subgrade surfaces will be prone to disturbance by weather and traffic, therefore preparation of the subgrade must be scheduled such that the granular materials are placed as quickly as possible.

4.7. Excess soils generated must be managed in accordance O.Reg. 406/19 made under the Environmental Protection Act, R.S.O. 1990, c.E19 (EPA) and the adopted by reference "Rules for Soil Management and Excess Soil Quality Standards" (the 'Soil Rules') as well as other regulatory amendments related to the management of excess soil. Excess soil is defined as non-hazardous soil, or soil mixed with rock, that has been excavated as part of a project and removed from the project area for the project. As it relates to this Contract, the Project Leader is "the Client", as per the definition under O.Reg. 406/19.

- Where excess soils are anticipated to be generated, a notice is to be filed to the Resource Productivity and Recovery Authority (RPRA or successor organization) Excess Soils Registry (the 'Registry') prior to the removal of excess soil from the project area unless exempt in accordance with the Regulation. The Contractor is to provide "the Client" all information required for filing the notice to the Registry.
- A Soil Management Plan is to be developed by the Contractor for submission to "the Client". Where applicable, the Soil Management Plan is to be prepared in accordance with the MECP Management of Excess Soil - A Guide for Best Management Practices and in accordance with O.Reg. 406/19.
- The Contractor is responsible for retaining a Qualified Person (QP_{ESA}, as per the definition under O.Reg. 153/04) to evaluate and provide all the necessary services required in accordance with O.Reg. 406/19. The services may include but not be limited to an Assessment of Past Uses, Sampling and Analysis Plan, Soil Characterization Report, and Excess Soil Destination Assessment Report, collectively described as the 'Planning Documents', as specified within the Soil Rules. The Contractor may rely on existing Planning Documents and/or site characterization reports where provided "within the Contract Documents OR by the Engineer" in relation to Excess Soils. The Contractor is responsible to finalize any preliminary Planning Document reports required, identify proposed soil destination site(s) for "the Client" approval, and satisfy all associated requirements specified by the selected destination site.
- The Contractor is responsible to notify "the Client" if actual construction activities and/or site conditions encountered are not consistent, or appear not to be consistent, with the information presented within the Planning Documents.
- The Contractor is responsible to implement a tracking system in accordance with O.Reg. 406/19, to track each load of excess soil during its transportation and deposit at the approved destination site (i.e. reuse site, Class 1 soil management site, local waste transfer facility, landfilling site or dump, and any transportation to and from a Class 2 soil management site).

4.8. If contaminated material is encountered during the work, the Contractor must dispose off-site all materials from the contaminated area in accordance with the requirements of the MECP and OPSS.MUNI 180. Prior to the start of work the Contractor must provide the name and location of landfill(s) where the contaminated materials will be disposed to the Consultant. The Contractor must obtain from the landfill Owner documents confirming that he has the right to accept the contaminated material. During the work, the contractor must provide the Consultant copies of all check-in receipts issued by the landfill Owner.

4.9. The Contractor is responsible for providing a confirmation that the imported material used as subgrade fill is free of any contaminants such as Petroleum Hydrocarbons (C_6-C_{50}), PAH (Polycyclic Aromatic Hydrocarbons), MAH (Monocyclic Aromatic Hydrocarbons) and metals like mercury, silver, arsenic, cadmium, cobalt, chromium, copper, tin, manganese, molybdenum, nickel, lead and zinc.

5. EXCAVATION AND BACKFILL

5.1. Subgrade preparation must be completed as per Section "4.0 General Subgrade Preparation".

5.2. The management of excess materials to comply with OPSS.MUNI 180 and any excess soils with O.Reg 406/19.

5.3. Topsoil and deleterious fill, such as those containing organic materials, must be stripped from under any buildings, paved areas, pipe bedding, and other settlement sensitive structures.

5.4. Due to the relatively shallow depth of the bedrock surface and the anticipated founding level for the proposed building, all existing overburden material must be excavated from within the proposed building footprint.

5.5. Existing foundation walls and other construction debris must be entirely removed from within the building perimeter. Under paved areas, existing construction remnants, such as foundation walls, must be excavated to a minimum of 1 m below final grade.

5.6. Subgrade fill used for grading beneath asphalt or concrete pavement must consist of OPSS Select Subgrade Material or equivalent, approved by the Geotechnical Engineer prior to delivery to the site. Subgrade fill used below rigid surfaces, such as concrete sidewalks and concrete slabs, must not contain more than 25% silt.

5.7. Non-specified fills and on-site excavated soils may be used in landscaping areas and beneath paved areas where settlement of the ground surface is of minor concern. In landscaped areas the fill must be spread in thin lifts and compacted by the tracks of spreading equipment to minimize voids. When used to build up subgrade level in areas to be paved fill should be compacted in thin lifts to a minimum density of 95% SPMDD.

5.8. Non-specified fills and on-site excavated soils are not suitable for use as backfill against foundation walls unless used in conjunction with a drainage geocomposite, such as Miradrain G100N or Delta Drain 6000, connected to the perimeter foundation drainage system. Imported granular materials, such as clean sand or OPSS Granular B Type I granular material, should otherwise be used for this purpose. It is recommended that the composite drainage system extend down to the footing level. It is recommended that 150 mm diameter sleeves at 3 m centres be cast in the foundation wall at the footing interface to allow the infiltration of water to flow to an interior perimeter drainage pipe. The perimeter drainage pipe should direct water to sump pit(s) within the lower level area.

5.9. Structural fill used for grading beneath the footings of buildings, signs and light standards must consist of OPSS Granular 'A' or Granular 'B' Type II Material.

5.10. It is expected that line-drilling in conjunction with hoe-ramming, rock grinding and controlled blasting will be required to remove the bedrock for the underground parking levels. In areas of weathered bedrock and where only a small quantity of bedrock is to be removed, bedrock removal may be possible by hoe-ramming.

5.11. Rock excavation must conform to OPSS 403.MUNI and to all laws, codes, ordinances and regulations adopted by federal, provincial and municipal government councils and government agencies, applying to the work to be carried out.

5.12. It is expected that line-drilling in conjunction with hoe-ramming, rock grinding and controlled blasting will be required to remove the bedrock for the underground parking levels. In areas of weathered bedrock and where only a small quantity of bedrock is to be removed, bedrock removal may be possible by hoe-ramming.
Pre-Construction Survey (Pilling/Hoe Ramming, Rock Anchors, Shoring and/or close proximity to City Assets) or Pre-Blasting Survey will be required for any buildings/dwellings within proximity of 75m of the site. Circulation of notice of vibration/noise is required to residents within 150 m of site. Conditions for Pre-Construction/ Pre-Blast Survey & Use of Explosives will be applied to agreements. Refer to City's Standard S.P. No. F-1201 entitled Use of Explosives, as amended.

5.13. Excavation side slopes in sound bedrock may be completed with almost vertical side walls. A minimum of 1 m horizontal ledge must remain between the bottom of the overburden and the top of the bedrock surface to provide an area for potential sloughing. The 1 m horizontal ledge set back can be eliminated with a shoring program which has drilled piles extending below the proposed founding elevation.

5.14. In consideration of the groundwater conditions encountered at the time of the field investigation, an underfloor drainage system, will be required to control water infiltration below the lowest level floor slab. For design purposes, it is recommended that 150 mm perforated pipes be placed along the interior perimeter of the foundation wall and one drainage line within each bay. The spacing of the underfloor drainage system should be confirmed at the time of completing the excavation when water infiltration can be better assessed.

6. PAVEMENT STRUCTURES, CURBS, AND SIDEWALKS

6.1. Construction of granular foundation must conform to City of Ottawa Special Provisions.

6.2. Granular materials used on site must conform to the requirements of OPSS.MUNI 1010.

6.3. Asphalt pavements to be constructed as per Details #202 and #203.

6.4. Road cut reinstatement as per City of Ottawa Detail R10 with surface course key.

6.5. Where the proposed pavement structure abuts the existing pavement, the pavement structure should match the existing pavement layers.

6.6. Construction of asphalt must conform to City of Ottawa Special Provision F-3130.

6.6.1. Paving must not be carried out if the roadbed is frozen or wet.

6.6.2. The granular grade must be free of standing water at the time of hot mix asphalt placement. The surface of a pavement upon which hot mix asphalt is to be placed must be dry at the time of hot mix asphalt placement. Following the final compaction of a hot mix asphalt course, a 4 hour minimum time laps must be respected before placing a new new hot mix asphalt course. Additionally, the temperature of the previous course must be 60 °C or less.

6.6.3. The asphalt base coarse must not be placed unless the air temperature at the surface of the road is a minimum of 2°C and rising.

6.6.4. The asphalt surface coarse must not be placed unless the air temperature at the surface of the road is a minimum of 7°C.

6.7. Asphalt concrete material must conform to City of Ottawa Special Provision F-3104 for HL hot mix asphalt mixtures, and City of of Ottawa Special Provision F-3106 for Superpave hot mix asphalt mixtures. Minimum Performance Graded (PG) 58-34 asphalt cement must be used for this project.

6.8. Asphalt mix design must be reviewed and approved by a Geotechnical Engineer before paving.

6.9. Concrete curbs and gutters must conform to OPSS 353.MUNI, OPSS 904.MUNI and City of Ottawa Special Provisions F-3531, F-9040 and F-9045.

6.10. Concrete curbs to be constructed as per City of Ottawa Detail SC1.1 and Detail 113B and 112B.

6.11. Elevation at top of concrete curbs to be 150 mm above the asphalt, unless otherwise indicated on the drawings.

6.12. Concrete sidewalks must conform to OPSS.MUNI 351 and OPSS 904.MUNI and City of Ottawa Special Provisions F-3510, F-9040 and F-9045.

6.13. Concrete sidewalks to be constructed as per City of Ottawa Details SC2, SC6 and SC7.1. 8

6.14. Concrete pavers as per details 217C and 217D.

6.15. For all concrete placement during cold weather Contractor must place material in accordance to OPSS.904.MUNI.

6.15.1. When ambient air temperature is 5°C or less, forms for concrete work must be left in place for the duration of the curing period.

6.15.2. When the ambient air temperature is below 0°C at the time of placing, components must be cured with moisture vapour barrier.

6.15.3. Contractor must conform to OPSS.MUNI 904.07.11 for Control of Temperature when subjected to cold weather.

7. MISCELLANEOUS

7.1. Existing pavement markings in municipal right-of-way to be reinstated if erased/partially removed during construction. Pavement markings to be "Organic Solvent Based" as per OPSS.MUNI 710 and OPSS.MUNI 1712.

7.2. Tactile Walking Surface Indicators (TWSI) to be constructed as per detail SC7.3. Product shall be from the following list or approved equivalent:

Manufacturer		Specific Model (when applicable)
ADA Solutions	→	Irondome
Advantage Cast Iron		
Bibby Ste. Croix	→	Safety Detection System
Cedar Infrastructure		
East Jordan	→	Duralast
Ironped		
Neenah		
OUC		
Star Pipe Products		

7.3. Pour-in-place bollards to be constructed as per detail 403C.

No.	Date	Description	By
8	2025/02/11	RE-ISSUED FOR SITE PLAN CONTROL REV.6	E.P.
7	2025/01/28	ISSUED FOR SITE PLAN CONTROL REV. 6	E.P.
6	2024/12/13	ISSUED FOR SITE PLAN CONTROL REV. 5	É.P
5	2024/10/25	ISSUED FOR SITE PLAN CONTROL REV. 4	É.P
4	2023/08/25	ISSUED FOR SITE PLAN CONTROL REV. 3	É.P
3	2023/07/28	ISSUED FOR SITE PLAN CONTROL REV. 2	É.P
2	2023/03/17	ISSUED FOR SITE PLAN CONTROL REV. 1	É.P
1	2022/08/12	ISSUED FOR SITE PLAN CONTROL	É.P

STAMPS:

LICENSED PROFESSIONAL ENGINEER
J. M. E. POTVIN
100208490
FEBRUARY 11, 2025
PROVINCE OF ONTARIO

DESIGNED BY | APPROVED BY

ENGINEER: CIMA+

CLIENT: BERTONE

PROJECT NAME:
1649 MONTREAL ROAD
MONTREAL AND BLAIR

SHEET TITLE:
NOTES PLAN

DISCIPLINE: CIVIL

DRAFTER: D.VAGHELA	SCALE:
DESIGNER: É. POTVIN	DATE: 22/08/31
APPROVER: C.L. LEBEL	CITY APPLICATION No: D07-12-22-0132
PROJECT No: A001101	DRAWING No: C003
SHEET No: 3 of 15	

D07-12-22-0132

#18876

1. MUNICIPAL SERVICES - GENERAL

1.1. Unless otherwise indicated, all materials and construction methods to be in accordance with the requirements of the latest edition of the Ontario Provincial Standard Specifications and Drawings (OPSS and OPSD), the Ontario Ministry of Environment, Conservation and Parks (MECP), applicable Conservation Authorities, the municipal standard specifications and drawings, and all other governing authorities as they apply.

1.2. Wherever standards, laws and/or regulations are mentioned they refer to their current versions, modifications included.

1.3. The boreholes and test pits shown on the plan are for information purposes only. Their location on the plan is approximate. The Contractor must refer to the boreholes and test pit records to obtain information about observed stratigraphy on site.

1.4. The location of existing underground municipal services and public utilities as shown on the plans are approximate. The Contractor must determine the exact location, size, material and elevation of all existing utilities (on-site and off-site) prior to any excavation work. Damage to any existing services and/or existing utilities during construction, whether or not shown on the drawings must be repaired by the Contractor at his own expense.

1.5. The Contractor is responsible for obtaining all permits required to complete all works and bear cost of same, including water permit and associated costs.

1.6. The Contractor is responsible for the coordination of his activities with others on-site.

1.7. Terminate and plug all service connections at 1.0 meter from edge of the building.

1.8. The Contractor must complete trench and backfill compaction as per OPSS.MUNI 401/City special provisions and OPSS.MUNI 501:

MATERIALS	COMPACTION
Pipe bedding	99% SPMDD
Pipe cover	99% SPMDD
Trench backfill	95% SPMDD
Structure bedding	98% SPMDD

1.9. The Contractor is responsible for making or arranging all connections to the existing sewers as per municipal requirements. Prior to connection, the Contractor must provide, to the Engineer and the City for approval, all test results performed on the internal services. Test results must include C.C.T.V. inspection of sewers, infiltration/exfiltration tests for sewers and manholes, deformation tests of sewers, watermain hydrostatic leakage test, flushing and disinfecting operations, and bacteriological water analysis.

1.10. Advise the City Public Works at least 72 hours in advance before any connection to the City services. Coordinate with City as required.

1.11. The Contractor must determine the exact invert (geodetic elevation), diameter and construction material of the existing conduits at the proposed connections. He must also carry out, if necessary, exploratory excavations in order to determine the exact location and inverts of existing duct banks. This information must immediately be provided to the Engineer prior to start undertaking any municipal services work and a 48 hour period must be allocated to the Engineer for design review.

1.12. The Contractor is responsible for all excavation, backfill and reinstatement of all areas disturbed during construction to existing conditions or better and all associated works to the satisfaction of the Engineer and municipal authorities.

- Asphalt reinstatement must be in accordance with OPSS.MUNI 310 and City of Ottawa Special Provisions.
- Landscape areas to be reinstated with 150 mm of topsoil and sod in accordance with OPSS.MUNI 802 and OPSS.MUNI 803.

1.13. It is recommended that a trench box be used at all times to protect personnel working in trenches with steep or vertical sides. Services are expected to be installed by "cut and cover" methods and excavations should not remain open for extended periods of time.

1.14. The pipe bedding for sewer and water pipes must consist of at least 150 mm of OPSS Granular A material The material must be placed in maximum 300 mm thick lifts and compacted to a minimum of 95% of its SPMDD. The bedding material should extend at least to the spring line of the pipe.

1.15. The cover material, which must consist of OPSS Granular A, will extend from the spring line of the pipe to at least 300 mm above the obvert of the pipe. The material must be placed in maximum 300 mm thick loose lifts and compacted to a minimum of 95% of its SPMDD.

1.16. Where hard surface areas are considered above the trench backfill, the trench backfill material within the frost zone (about 1.8 m below finished grade) must match the soils exposed at the trench walls to minimize differential frost heaving. The trench backfill must be placed in maximum 300 mm thick loose lifts and compacted to a minimum of 95% of the material's SPMDD..

1.17. Dewatering of pipeline, utility and associated structure in rock excavations to be completed as per OPSS.MUNI 403.

1.18. Trenching, backfilling and compacting must conform to OPSS.MUNI 401.

2. WATERMAIN

2.1. Watermain, water service connections and associated appurtenances must be constructed in accordance with the Ontario Provincial Standard Specifications and the City of Ottawa Standards Specifications. Specifically watermains must conform to OPSS.MUNI 441.

2.2. Watermain must be constructed as per OPSS.MUNI 441 and specifically OPSD 802.010 for earth excavations and 802.013 for rock excavation.

2.3. Watermain pipe materials must be class 150 PVC DR 18 or approved equivalent, unless otherwise shown on the Drawings. Materials must conform to City of Ottawa Material Specification MW-18.1: Manufactured to AWWA C-900 and CSA B137.3 or Pressure Class 235psi/1620 kPA AWWA C-909 and CSA B137.3.1 standards. Pipe shall have the cast iron outside diameter dimensions, be blue in colour and supplied complete with gaskets.

2.4. All watermain must be installed with a minimum of 2.40 metres cover from finished grade. Where a minimum of 2.40 metres cover is not reached, thermal insulation is required as per City of Ottawa Details W22. Insulation for use in roads over pipe trenches shall:
- be type Extruded Polystyrene Foam Insulation Boards (XPS) in 600 x 2400 x 50mm size;
- meet the requirements of OPSS.MUNI 1605;
- Grade A (275 kPa compressive strength shall meet ASTM C578 Type VI;
- Grade B (400 kPa compressive strength shall meet ASTM C578 Type VII.

2.5. Cathodic protection (if required) must be installed as per City of Ottawa Details W40 and W42.

2.6. Thrust block and restraints must be as per City of Ottawa Details W25.3, W25.4, W25.5 and W25.6.

2.7. Valves to be installed as per OPSS 441 and City of Ottawa Special Provision F-4413 and conform to the following:

- All valves must open in a clockwise direction;
- Designed for cold water working pressure of 1035 kPa;
- Valves greater than or equal to 75 mm, and less than or equal to 300 mm, to be cast or ductile iron gate valves;

2.8. A continuous 12 gauge copper tracer wire must be installed over all watermains.

2.9. Valve box assembly to be as per City of Ottawa Detail W24 and valve chamber assembly to be as per City of Ottawa Detail W3.

2.10. Watermains must be thoroughly flushed and cleaned to remove all dirt and debris prior to the disinfection process.

2.11. All watermains must be hydrostatically and bacteriologically tested as per provincial and municipal regulations. It is the Contractor's responsibility to ensure that all requirements are followed.

2.12. The Contractor must make arrangements with and give a minimum of 24 hours' notice to the City for the closing off of necessary valves in the water distribution system. The City will operate valves at the time of tie-ins, etc. at no expense to the Contractor under normal conditions; however the Contractor will be responsible for all costs associated with emergency shutdowns if they occur outside of the normal working hours of the City forces (Monday to Friday, 7:00 a.m. to 5:00 p.m.)

2.13. Hydrostatic testing to be completed as per OPSS 441.07.24. Testing must be completed under the supervision of the Contract Administrator. The test section will be either a section between valves or the completed watermain. Test pressure to be 1035 kPa.

2.14. Flushing and Disinfecting to be completed as per OPSS 441.07.25 under the supervision of the Contract Administrator.

2.15. The Contractor must obtain a permit from the City before using an existing fire hydrant located within the City's territory.

2.16. The Contractor must coordinate and pay the cost of connection, inspection and disinfection by municipal personnel.

2.17. Contractor must coordinate the supply and installation of water meter and remote water meter for the building with the mechanical engineer.

3. STORM SEWER

3.1. Storm sewers, laterals and storm service connections must be constructed in accordance with the Ontario Provincial Standard Specifications / City of Ottawa Standards Specifications / Ministry of Environment and Climate Change Requirements. Specifically storm sewers must conform to OPSS.MUNI 410 and City of Ottawa Special Provisions.

3.2. PVC storm sewer material to conform to OPSS.MUNI 1841 and City of Ottawa Material Specification MS-18.1. PVC storm sewers to be installed as per OPSD 802.010 for earth excavation and 802.013 for rock excavation. Bedding and cover material to be OPSS Granular 'A'.

3.3. The allowable deflected pipe diameter when using flexible pipe is as follows:
- Pipes 100 to 750 mm: 7.5% of the base inside diameter of the pipe
- Greater than 750 mm: 5.0% of the base inside diameter of the pipe

3.4. Final backfill material for storm sewers must be approved native material or select subgrade material in conformance with OPSS.MUNI 212 and City of Ottawa Special Provision F-2120.

3.5. Storm sewer pipes must be type PVC SDR-35, unless noted otherwise on the drawings.

3.6. All storm sewers to be C.C.T.V. inspected by the Contractor as per OPSS.MUNI 409 and City of Ottawa Special Provision F-4090. Report must be provided to the Engineer in two (2) copies and the C.C.T.V. inspection in DVD format only.

3.7. Storm manholes, manhole/catchbasins, catchbasins, ditch inlets and valve chambers to be installed as per OPSS.MUNI 407 and conform to OPSS 1351 and City of Ottawa Special Provision F-4070.

3.8. Adjustment or rebuilding of manholes, manhole/catchbasins, catchbasins, ditch inlets and valve chambers to be completed as per OPSS.MUNI 408 and City of Ottawa Special Provisions F-4080 and F-4081.

3.9. Excavating, backfilling, and compacting for manholes, manhole/catchbasins, catchbasins, ditch inlets and valve chambers to be completed as per OPSS 402.

3.10. Storm manhole, manhole/catchbasin and catchbasin excavations to be backfilled with OPSS Granular 'B'. Joints between sections must be wrapped in a non-woven geotextile.

3.11. Concrete storm manholes and manhole/catchbasins to be as per OPSD 701.010 and must be equipped with safety platform as per OPSD 404.020 when exceeding 5.0 m to the lowest invert.

3.12. Concrete storm manhole frame and cover to be as per OPSD 401.010 Type "A" closed cover on private property and City of Ottawa Details S24.1 and S25 on municipal ROW.

3.13. Storm private roadway catch basin to be as per OPSD 704.010 and 705.010.

3.14. Storm rear yard elbow catch basin to be as per City of Ottawa Detail S31.

3.15. For building roof drain sizes and location refer to architectural and mechanical drawings.

3.16. When a minimum cover of 1.5 m is not reached, frost protection is required required as per detail 500.

4. SANITARY SEWER

4.1. Sanitary sewers, laterals and service connections must be constructed in accordance with the Ontario Provincial Standard Specifications / City of Ottawa Standards Specifications / Ministry of Environment and Climate Change Requirements. Specifically sanitary sewers must conform to OPSS.MUNI 410 / City of Ottawa Special Provisions.

4.2. If specified in the servicing drawings that the sanitary sewer pipes are to be PVC SDR-25, the sewer must be constructed with materials and joints that are equivalent to watermain standards of construction (as per F-6-1 procedures) and must be pressure tested in accordance with the OPSS.MUNI 441, with no leakage.

4.3. PVC sanitary sewer pipe material to conform to City of Ottawa Material Specification MS-18.1. PVC sanitary sewers to be installed as per OPSD 802.010 (Class B Bedding) for earth excavation and 802.013 (Class B Bedding) for rock excavation. Bedding and cover material to be OPSS Granular 'A'.

4.4. The allowable deflected pipe diameter when using flexible pipe is as follows:

- Pipes 100 to 750 mm: 7.5% of the base inside diameter of the pipe
- Greater than 750 mm: 5.0% of the base inside diameter of the pipe

4.5. Final backfill material for sanitary sewers must be approved native material or select subgrade material in conformance with OPSS.MUNI 212 and City of Ottawa Special Provision F-2120.

4.6. All sanitary sewers to be C.C.T.V. inspected by the Contractor as per OPSS.MUNI 409 and City of Ottawa Special Provision F-4090. Report must be provided to the Engineer in two (2) copies and the C.C.T.V. inspection in DVD format only.

4.7. Sanitary manholes to be installed as per OPSS.MUNI 407 and conform to OPSS 1351 and City of Ottawa Special Provision F-4070.

4.8. Adjustment or rebuilding of sanitary manholes to be completed as per OPSS.MUNI 408 and City of Ottawa Special Provisions F-4080 and F-4081.

4.9. Excavating, backfilling, and compacting for sanitary manholes to be completed as per OPSS.MUNI 402.

4.10. Sanitary manholes to be backfilled with OPSS Granular 'B'. Joints between sections must be wrapped in a non-woven geotextile.

4.11. Sanitary manholes to be as per OPSD 701.010 and must be equipped with safety platform as per OPSD 404.020 when exceeding 5.0 m to the lowest invert.

4.12. Sanitary manhole frame and cover to be as per OPSD 401.010 Type "A" closed cover.

4.13. Sanitary manhole frame and cover to be as per OPSD 401.010 on private property and Watertight frame and covers as per OPSD 401.030 on municipal ROW (Refer to drawing C006B).

4.14. Benching is required inside the concrete bottom of sanitary manholes as per OPSD 701.021.

4.15. When a minimum cover of 1.8 m is not reached, frost protection is required as per detail 500.

No.	Date	Description	By
7	2025/01/28	ISSUED FOR SITE PLAN CONTROL REV. 6	E.P.
6	2024/12/13	ISSUED FOR SITE PLAN CONTROL REV. 5	É.P
5	2024/10/25	ISSUED FOR SITE PLAN CONTROL REV. 4	É.P
4	2023/08/25	ISSUED FOR SITE PLAN CONTROL REV. 3	É.P
3	2023/07/28	ISSUED FOR SITE PLAN CONTROL REV. 2	É.P
2	2023/03/17	ISSUED FOR SITE PLAN CONTROL REV. 1	É.P
1	2022/08/12	ISSUED FOR SITE PLAN CONTROL	É.P

STAMPS:

LICENSED PROFESSIONAL ENGINEER
J.M.E. POTVIN
100208480
JANUARY 28, 2025
PROVINCE OF ONTARIO

DESIGNED BY APPROVED BY

ENGINEER: CIMA+

CLIENT: BERTONE

PROJECT NAME:
1649 MONTREAL ROAD
MONTREAL AND BLAIR

SHEET TITLE:
NOTES PLAN

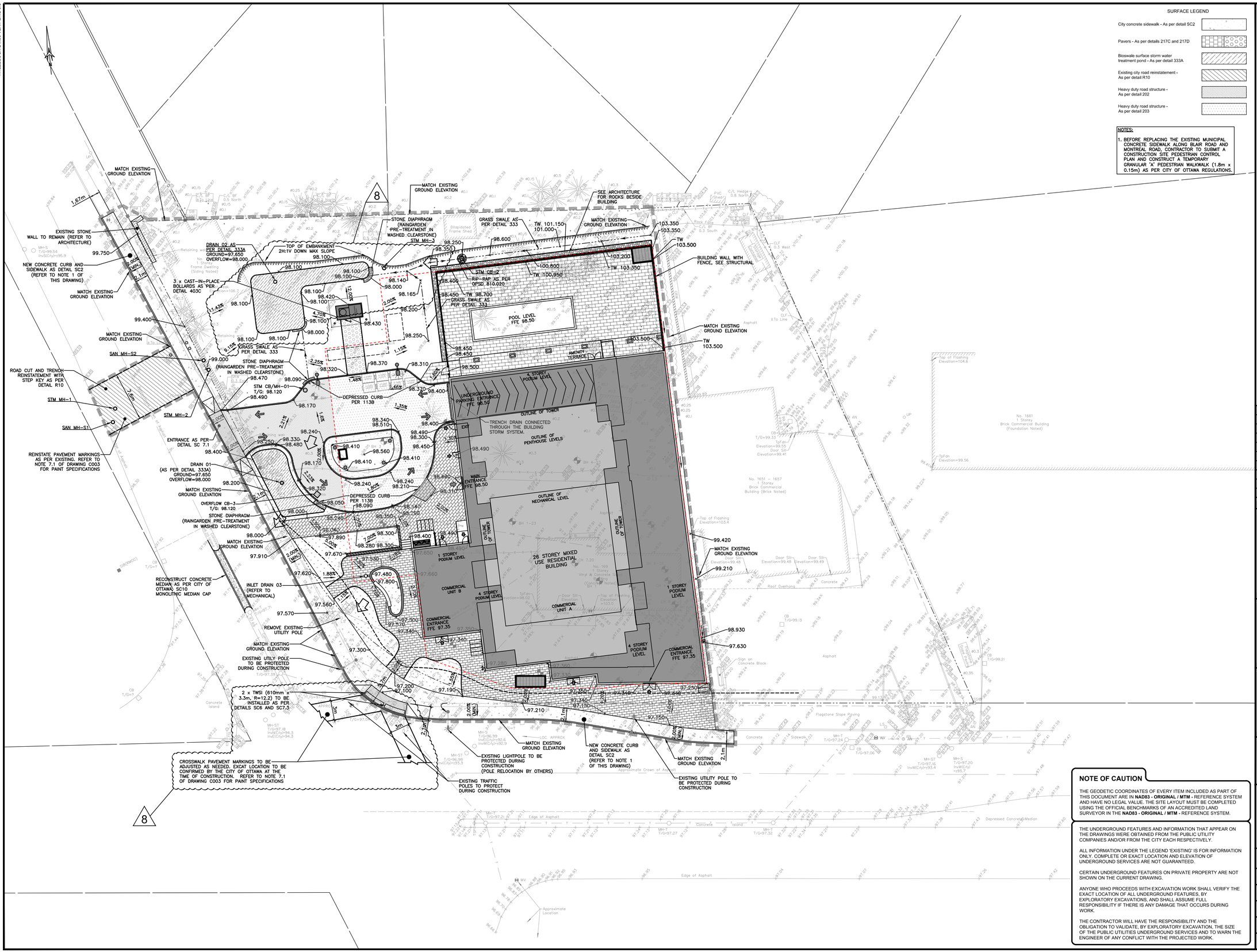
DISCIPLINE:
CIVIL

DRAFTER: D.VAGHELA	SCALE:
DESIGNER: É. POTVIN	DATE: 22/08/31
APPROVER: C.L. LEBEL	CITY APPLICATION No: D07-12-22-0132
PROJECT No: A001101	DRAWING No: C004
SHEET No: 4 of 15	

D07-12-22-0132

#158576

TITLEBLOCK 24x36 VERT ENG 3.0



SURFACE LEGEND

- City concrete sidewalk - As per detail SC2
- Pavers - As per details 217C and 217D
- Bioswale surface storm water treatment pond - As per detail 333A
- Existing city road reinstatement - As per detail R10
- Heavy duty road structure - As per detail 202
- Heavy duty road structure - As per detail 203

NOTES:

1. BEFORE REPLACING THE EXISTING MUNICIPAL CONCRETE SIDEWALK ALONG BLAIR ROAD AND MONTREAL ROAD, CONTRACTOR TO SUBMIT A CONSTRUCTION SITE PEDESTRIAN CONTROL PLAN AND CONSTRUCT A TEMPORARY GRANULAR 'A' PEDESTRIAN WALKWALK (1.8m x 0.15m) AS PER CITY OF OTTAWA REGULATIONS.

EXISTING	PROPOSED
MH-ST Maintenance Hole (Storm)	Maintenance Hole (Storm)
MH-S Maintenance Hole (Sanitary)	Maintenance Hole (Sanitary)
MH-T Maintenance Hole (Traffic)	Maintenance Hole (Traffic)
VC Valve Chamber (Watermain)	Valve Chamber (Watermain)
Overhead Wires	Overhead Wires
Utility Pole	Utility Pole
AN Anchor	Anchor
LS Light Standard	Light Standard
CB Catch Basin	Catch Basin
FH Fire Hydrant	Fire Hydrant
WV Water Valve	Water Valve
GV Gas Valve	Gas Valve
GM Gas Meter	Gas Meter
TB-B Bell Terminal Box	Bell Terminal Box
Traffic Signal Post	Traffic Signal Post
TSL Traffic Light	Traffic Light
B Bollard	Bollard
S Sign	Sign
Gate	Gate
TEL Telephone Booth	Telephone Booth
ø Diameter	Diameter
CLF Chain Link Fence	Chain Link Fence
BF Board Fence	Board Fence
MF Metal Fence	Metal Fence
CRW Concrete Retaining Wall	Concrete Retaining Wall
SRW Stone Retaining Wall	Stone Retaining Wall
Inv. Invert	Invert
T/G Top of Grate	Top of Grate
U/Eave Underside of Eave	Underside of Eave
TpFdn Top of Foundation	Top of Foundation
C/L Centreline	Centreline
+65.00 Location of Elevations	+ 99,000 Location of Elevations
+65.00 Top of Concrete Curb / Retaining Wall Elevation	Top of Concrete Curb / Retaining Wall Elevation
Drainage Direction	Drainage Direction
Property Line	Property Line
Easement	Easement
Concrete Curb	Concrete Curb
Depressed Concrete Curb/Sidewalk	Depressed Concrete Curb/Sidewalk
Curb / Retaining Wall	Curb / Retaining Wall
Shrub	Shrub
Deciduous Tree	Deciduous Tree
Coniferous Tree	Coniferous Tree
Work Limit	Work Limit
MW17-1 Borehole (Loc. Approx.)	Borehole (Loc. Approx.)
Overland Flow	Overland Flow
Top pf Slope	Top pf Slope
Ditch CL	Ditch CL
Bottom of Slope	Bottom of Slope
Two way vehicle circulation	Two way vehicle circulation
Air intake / Exhaust grill	Air intake / Exhaust grill
Light Standard	Light Standard
Underground Parking Outline	Underground Parking Outline
Sawcut	Sawcut
Fence	Fence

1:250
0 2.5 5 10 15m

No.	Date	Description	By
8	2025/02/11	RE-ISSUED FOR SITE PLAN CONTROL REV.6	E.P.
7	2025/01/28	ISSUED FOR SITE PLAN CONTROL REV. 6	E.P.
6	2024/12/13	ISSUED FOR SITE PLAN CONTROL REV. 5	É.P
5	2024/10/25	ISSUED FOR SITE PLAN CONTROL REV. 4	É.P
4	2023/08/25	ISSUED FOR SITE PLAN CONTROL REV. 3	É.P
3	2023/07/28	ISSUED FOR SITE PLAN CONTROL REV. 2	É.P
2	2023/03/17	ISSUED FOR SITE PLAN CONTROL REV. 1	É.P
1	2022/08/12	ISSUED FOR SITE PLAN CONTROL	É.P

STAMPS:

LICENSED PROFESSIONAL ENGINEER J. M. E. POTVIN 100208490 FEBRUARY 11, 2025 PROVINCE OF ONTARIO

DESIGNED BY APPROVED BY

ENGINEER: CIMA+

CLIENT: BERTONE

PROJECT NAME:
1649 MONTREAL ROAD
MONTREAL AND BLAIR

SHEET TITLE:
GRADE CONTROL AND DRAINAGE PLAN

DISCIPLINE: CIVIL

DRAFTER: D.VAGHELA	SCALE: 1:250
DESIGNER: É. POTVIN	DATE: 22/08/31
APPROVER: C.L. LEBEL	CITY APPLICATION No: D07-12-22-0132
PROJECT No: A001101	DRAWING No: C005
SHEET No: 5 of 15	

NOTE OF CAUTION

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THE CONTRACTOR WILL HAVE THE RESPONSIBILITY AND THE OBLIGATION TO VALIDATE, BY EXPLORATORY EXCAVATION, THE SIZE OF THE PUBLIC UTILITIES UNDERGROUND SERVICES AND TO WARN THE ENGINEER OF ANY CONFLICT WITH THE PROJECTED WORK.

PRINT DATE: 2025/02/11 / PAPER SIZE: ISO A4 (210.00 x 297.00 MM)
PATH: Z:\Cima-C19\C2I_Projects\AA001000-A001499\A001101_Blair - Mtl Road Towers\400460_Civil\C005_Grading.dwg / LAYOUT: C005

D07-12-22-0132

#18876

TITLEBLOCK 24x36 VERT ENG 3.0

PRINT DATE: 2025/02/11 / PAPER SIZE: ISO A4 (210.00 x 297.00 MM)
PATH: Z:\Cima-C10\Oil_Projects\AA\001000-A001499\A001101_Blair - Mtl Road Towers\400\460_Civil\C006_Servicing.dwg / LAYOUT: C006

#18876

NOTES:

1. REPLACE 32 LIDS AND FRAMES OF THE EXISTING SANITARY MAINTENANCE HOLES (REFER TO MHSA WHITE TAGS) WITH WATERTIGHT LIDS AND FRAMES AS PER OPSD 401.030

1:1000 — 0, 10, 20, 40, 60m

No.	Date	Description	By
7	2025/01/28	ISSUED FOR SITE PLAN CONTROL REV. 6	E.P.
6	2024/12/13	ISSUED FOR SITE PLAN CONTROL REV. 5	É.P
5	2024/10/25	ISSUED FOR SITE PLAN CONTROL REV. 4	É.P
4	2023/08/25	ISSUED FOR SITE PLAN CONTROL REV. 3	É.P
3	2023/07/28	ISSUED FOR SITE PLAN CONTROL REV. 2	É.P
2	2023/03/17	ISSUED FOR SITE PLAN CONTROL REV. 1	É.P
1	2022/08/12	ISSUED FOR SITE PLAN CONTROL	É.P

STAMPS:

J. M. E. POTVIN 100208490

DESIGNED BY — APPROVED BY

ENGINEER: CIMA+

CLIENT: BERTONE

NOTE OF CAUTION

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PROJECT NAME: 1649 MONTREAL ROAD MONTREAL AND BLAIR

SHEET TITLE: SANITARY SEWER LID REPLACEMENTS

DISCIPLINE: CIVIL

DRAFTER: D.VAGHELA	SCALE: 1:1000
DESIGNER: É. POTVIN	DATE: 22/08/31
APPROVER: C.L. LEBEL	CITY APPLICATION No: D07-12-22-0132
PROJECT No: A001101	DRAWING No: C006B
SHEET No: 7 of 15	

D07-12-22-0132

#18876

TITLEBLOCK 24x36 VERT ENG 3.0

PRINT DATE: 2025/01/28 / PAPER SIZE: ISO A4 (210.00 x 297.00 MM)

STORM WATER MANAGEMENT LEGEND

STORM DRAINAGE BOUNDARY

AREA ID

AREA IN m2

RUNOFF COEFFICIENT

A1
588 m²
100-YR= 0.95
5-YR= 0.90

STORMWATER MANAGEMENT – RETENTION CALCULATIONS - 5 YEAR EVENT

Sub-Area	Total Area (m²)	Available Storage Area (m²)	Catchbasin/ Roof Drain Elevation (m)	Maximum Ponding Elevation (m)	Y_{max} (m)	V_{max} (m³)	V_{rain} (m³)	V_{acc} (m³)	Y_{rain} (m)	$Elev_{rain}$ (m)	A_{rain} (m²)	Q (L/s)	Cistern Release Rate (L/s)	Drawdown Time (min)	Comments
A1	2310	Refer to note 1	-	-	-	55.0	12.7	12.9	-	-	-	43.9	51.4	-	Building Roof + Cistern
A2.a	245	8	98.25	98.30	0.05	0.1	0.4	0.1	-	-	-	4.1		-	Back East
A2.b	1348	Refer to note 2	97.65	98.00	0.35	33.0	33.0	33.0	-	-	-	0.4		-	Back West
A3.a	475	Refer to note 3	97.65	98.00	0.35	17.5	17.5	17.5	-	-	-	0.2		-	Front (Entrance)
A3.b	172	45	97.48	97.57	0.09	1.3	1.1	1.1	-	-	-	2.8		-	Front (POPS)
A4	332	0	-	-	-	0.0	0.0	0.0	-	-	-	8.7	-	-	Area between Building & Montreal Rd (unattenuated)
Total	4882					107.0	64.7	64.7				60.1	51.4		

NOTES:

1. 12.9 m³ are retained inside building **Cistern (max 55m³)**. No water retained on rooftop.
2. 33 m³ are retained in the **north raingarden.**
3. 17.5 m³ are retained in the **south raingarden.**

STORMWATER MANAGEMENT – RETENTION CALCULATIONS - 100 YEAR EVENT

Sub-Area	Total Area (m²)	Available Storage Area (m²)	Catchbasin/ Roof Drain Elevation (m)	Maximum Ponding Elevation (m)	Y_{max} (m)	V_{max} (m³)	V_{rain} (m³)	V_{acc} (m³)	Y_{rain} (m)	$Elev_{rain}$ (m)	A_{rain} (m²)	Q (L/s)	Cistern Release Rate (L/s)	Drawdown Time (min)	Comments
A1	2310	Refer to note 1	-	-	-	55.0	44.0	47.4	-	-	-	38.3	51.4	-	Building Roof + Cistern
A2.a	245	8	98.25	98.30	0.05	0.1	1.6	0.1	-	-	-	4.1		-	Back East
A2.b	1348	Refer to note 2	97.65	98.00	0.35	33.0	33.0	33.0	-	-	-	4.1		-	Back West
A3.a	475	Refer to note 3	97.65	98.00	0.35	17.5	17.5	17.5	-	-	-	2.2		-	Front (Entrance)
A3.b	172	45	97.48	97.57	0.09	1.3	3.3	1.3	-	-	-	2.8		-	Front (POPS)
A4	332	0	-	-	-	0.0	0.0	0.0	-	-	-	15.0	-	-	Area between Building & Montreal Rd (unattenuated)
Total	4882					107.0	99.4	99.4				66.4	51.4		

NOTES:

1. 47.4 m³ are retained inside building **Cistern (max 55m³)**. No water retained on rooftop.
2. 33 m³ are retained in the **north raingarden.**
3. 17.5 m³ are retained in the **south raingarden.**

DEFINITIONS OF ABBREVIATIONS USED IN CALCULATION TABLE:

NC = Area is not controlled (unattenuated)
Available Area = Area of water accumulated in sub-area at Max. Elev.
Catchbasin Elev. = Elevation of catchbasin inlet (top of grate).
Max. Elev. = Maximum elevation of water that may be accumulated within sub-area.
Y_{max} = Maximum depth of water that may be accumulated within the sub-area.
V_{max} = Maximum volume of water (capacity) that may be accumulated within the sub-area.
V_{rain} = Volume of water generated by rainfall.
V_{acc} = Total volume of water accumulated within the sub-area in the event of a specific rainfall.
Y_{rain} = Depth of water generated by rainfall.
$Elev_{rain}$ = Elevation of water generated by rainfall.
A_{rain} = Area of water generated by rainfall.
Q = Release flow rate.
Tank Release Rate = Release rate from the underground storage tank equal to 1/2 the allowable release rate.
Drawdown Time = Time required for the total volume of water accumulated within sub-area to subside.

EXISTING		PROPOSED
MH-ST	Maintenance Hole (Storm)	○
MH-S	Maintenance Hole (Sanitary)	○
MH-T	Maintenance Hole (Traffic)	
VC	Valve Chamber (Watermain)	⊕
ST	Underground Storm Sewer	
S	Underground Sanitary Sewer	
W	Underground Water	
P	Underground Power	
GAS	Underground Gas	
B	Underground Bell	
TV	Underground Cable	
OHW	Overhead Wires	
UP	Utility Pole	
AN	Anchor	
LS	Light Standard	
CB	Catch Basin	○ ▥ □
FH	Fire Hydrant	⊕
WV	Water Valve	
GV	Gas Valve	
GM	Gas Meter	
TB-B	Bell Terminal Box	
TSP	Traffic Signal Post	
TSL	Traffic Light	
B	Bollard	
S	Sign	
	Gate	
TEL	Telephone Booth	
ø	Diameter	
CLF	Chain Link Fence	
BF	Board Fence	
MF	Metal Fence	
CRW	Concrete Retaining Wall	
SRW	Stone Retaining Wall	
Inv.	Invert	
T/G	Top of Grate	
U/Eave	Underside of Eave	
TpFdn	Top of Foundation	
C/L	Centreline	
+65.00	Location of Elevations	
+65.00	Top of Concrete Curb/Retaining Wall Elevation	
	Drainage Direction	
— - - —	Property Line	
———	Easement	— —
	Curb / Retaining Wall	▨
	Shrub	
	Deciduous Tree	
	Coniferous Tree	
	Work Limit	▬ ▬ ▬
MW17-1	Borehole (Loc. Approx.)	
	Bioswale Surface Storm Water Treatment Pond	▨
	Remote Water Metering Reading Device	RM
	Fire Department (Siamese) Connection	

1:250
0 2.5 5 10 15m

No.	Date	Description	By
8	2025/02/11	RE-ISSUED FOR SITE PLAN CONTROL REV.6	E.P.
7	2025/01/28	ISSUED FOR SITE PLAN CONTROL REV. 6	E.P.
6	2024/12/13	ISSUED FOR SITE PLAN CONTROL REV. 5	É.P
5	2024/10/25	ISSUED FOR SITE PLAN CONTROL REV. 4	É.P
4	2023/08/25	ISSUED FOR SITE PLAN CONTROL REV. 3	É.P
3	2023/07/28	ISSUED FOR SITE PLAN CONTROL REV. 2	É.P
2	2023/03/17	ISSUED FOR SITE PLAN CONTROL REV. 1	É.P
1	2022/08/12	ISSUED FOR SITE PLAN CONTROL	É.P

STAMPS:

J. M. E. POTVIN
100208490
FEBRUARY 11, 2025

DESIGNED BY
APPROVED BY

ENGINEER:
CIMA+

CLIENT:
BERTONE

PROJECT NAME:
1649 MONTREAL ROAD
MONTREAL AND BLAIR

SHEET TITLE:
STORM WATER
MANAGEMENT PLAN

DISCIPLINE:
CIVIL

DRAFTER: D.VAGHELA	SCALE: 1:250
DESIGNER: É. POTVIN	DATE: 22/08/31
APPROVER: C.L. LEBEL	CITY APPLICATION No: D07-12-22-0132
PROJECT No: A001101	DRAWING No: C007
SHEET No: 8 of 15	

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PRINT DATE: 2025/02/05 / PAPER SIZE: ISO A4 (210.00 x 297.00 MM)
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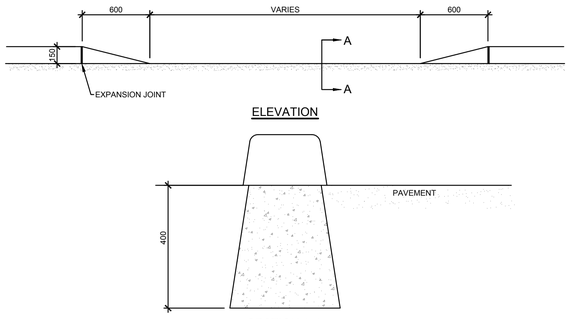
D07-12-22-0132

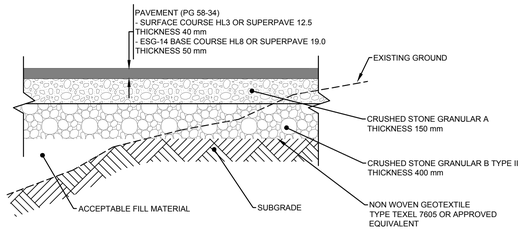
#18876



COMPLETELY DEPRESSED CONCRETE CURB (NOT LOCATED OVER UNDERGROUND PARKING)

113B

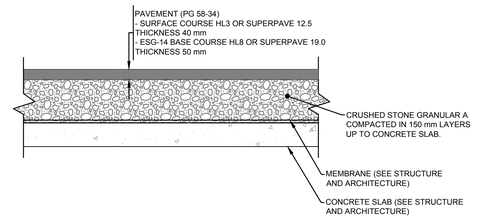
AUCUNE / NTS



TYPICAL SECTION - GRANULAR FOUNDATION AND ASPHALT PAVEMENT (HEAVY DUTY CIRCULATION OUTSIDE OF UNDERGROUND PARKING AREA)

202

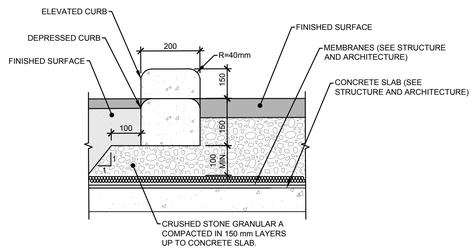
AUCUNE / NTS



TYPICAL SECTION - GRANULAR FOUNDATION AND ASPHALT PAVEMENT (HEAVY DUTY CIRCULATION ABOVE UNDERGROUND PARKING AREA)

203

AUCUNE / NTS



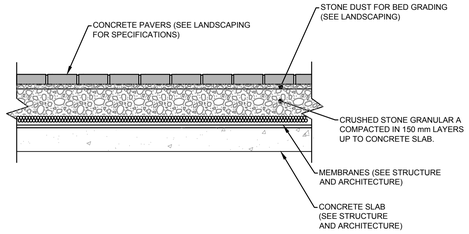
NOTES:

- CONCRETE CLASS: C-2;
- WATER/BINDER MAX. RATIO: 0.45;
- MINIMUM 28-DAY COMPRESSION RESISTANCE: 32 MPa;
- GRANULAR MAXIMUM NOMINAL Ø : 20mm;
- AIR CONTENT: 5% TO 8%;
- SLUMP: 80mm ± 30mm FOR FIXED FORMWORK
  30mm ± 30mm for SLIDING FORMWORK.;
- DUMMY JOINTS SHALL BE 25mm DEEP, FRONT, BACK AND TOP OF SECTION AT 4m SPACING OR MATCH JOINTING WHERE SIDEWALK IS ADJACENT.

CONCRETE CURB (LOCATED OVER UNDERGROUND PARKING)

112B

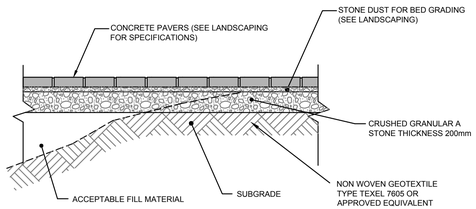
AUCUNE / NTS



CONCRETE PAVERS STRUCTURE (LOCATED ABOVE UNDERGROUND PARKING)

217C

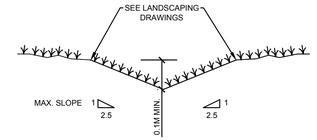
AUCUNE / NTS



CONCRETE PAVERS STRUCTURE (OUTSIDE OF UNDERGROUND PARKING)

217D

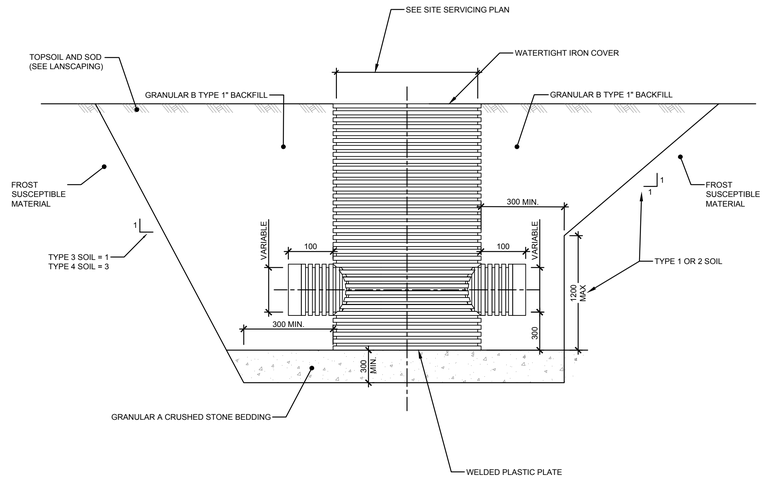
AUCUNE / NTS



SWALE IN LANDSCAPED AREA (TYPICAL)

333

NTS



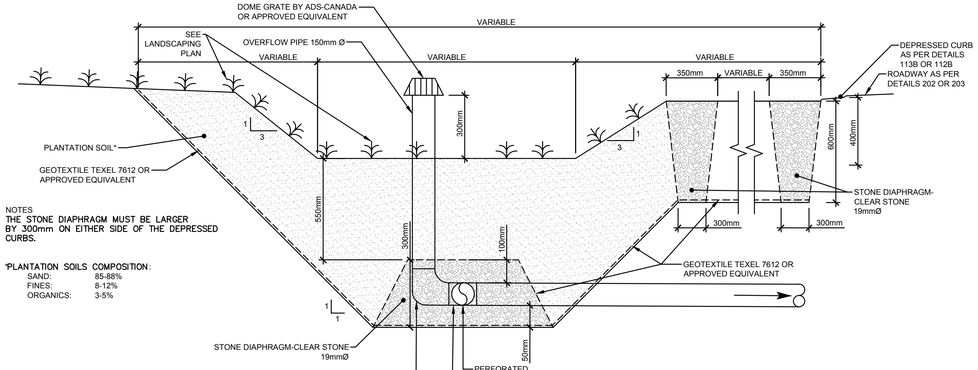
NOTES:

- 1 SOIL TYPES AS DEFINED IN THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
- 2 ALL DIMENSIONS ARE IN MILLIMETRES.

HDPE MANHOLE - PREFABRICATED (OFF-ROAD)

304B

AUCUNE / NTS



NOTES
THE STONE DIAPHRAGM MUST BE LARGER BY 300mm ON EITHER SIDE OF THE DEPRESSED CURBS.

*PLANTATION SOILS COMPOSITION:

SAND:	85-88%
FINES:	8-12%
ORGANICS:	3-5%

RAIN GARDEN CROSS (R.G.) SECTION

333A

NTS

No.	Date	Description	By
7	2025/01/28	ISSUED FOR SITE PLAN CONTROL REV. 6	É.P.
6	2024/12/13	ISSUED FOR SITE PLAN CONTROL REV. 5	É.P.
5	2024/10/25	ISSUED FOR SITE PLAN CONTROL REV. 4	É.P.
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3	2023/07/28	ISSUED FOR SITE PLAN CONTROL REV. 2	É.P.
2	2023/03/17	ISSUED FOR SITE PLAN CONTROL REV. 1	É.P.
1	2022/08/12	ISSUED FOR SITE PLAN CONTROL	É.P.

STAMPS:

LICENSED PROFESSIONAL ENGINEER
J. M. E. POTVIN
100208490
JANUARY 28, 2025
PROVINCE OF ONTARIO

DESIGNED BY | APPROVED BY

ENGINEER:

CIMA+

CLIENT:

BERTONE

PROJECT NAME:

1649 MONTREAL ROAD
MONTREAL AND BLAIR

SHEET TITLE:

DETAILS PLAN

DISCIPLINE:

CIVIL

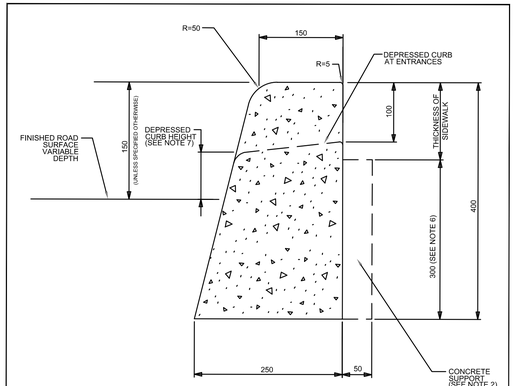
DRAFTER: D.VAGHELA	SCALE:
DESIGNER: É. POTVIN	DATE: 22/08/31
APPROVER: C.L. LEBEL	CITY APPLICATION No: D07-12-22-0132
PROJECT No: A001101	DRAWING No: C008
SHEET No: 9 of 15	

D07-12-22-0132

#18876

TITLEBLOCK 24x36 VERT ENG 3.0

PRINT DATE: 2025/01/28 / PAPER SIZE: ISO A4 (210.00 x 297.00 MM)
PATH: Z:\Cima-C19\Cli_Projects\AA001000-A001499\A001101_Blair - Mil Road Towers\4004460_Civil\C008@13_Details.dwg / LAYOUT: C008

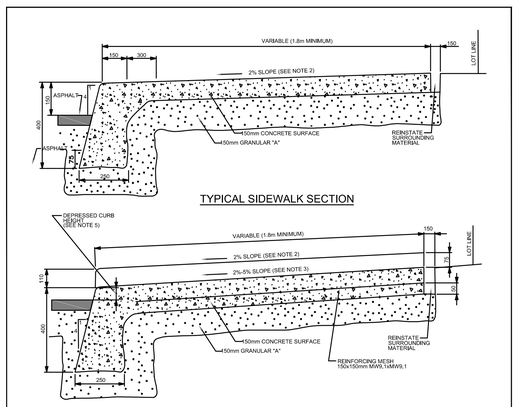


CONCRETE BARRIER CURB

NOTES:

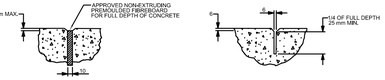
1. THE FULL CURB DEPTH SHALL BE CARRIED THROUGH THE DEPRESSED ACCESS CROSSING
2. A CONCRETE SUPPORT IS REQUIRED WHEN BUILT ADJACENT TO THE SIDEWALK
3. IF AN EXTRUSION CURBING MACHINE IS USED, THE EXPANSION BITUMINOUS MATERIAL AND THE #15 DOWELS ARE TO BE PLACED AT THE END OF THE EXTRUSION
4. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
5. EXPANSION AND DUMMY JOINTS AS PER SC5
6. FOR DEPRESSED CURB AT ENTRENCES USE 250
7. DEPRESSED CURB HEIGHT - FOR PEDESTRIAN CURB RAMPS 0 TO 6mm AND FOR PRIVATE ENTRANCES 0 TO 13mm

Ottawa	TITLE: CONCRETE BARRIER CURB FOR GRANULAR BASE PAVEMENT (MODIFIED OPSD-600.110)	DATE:	JAN 2003
		REV: DATE:	FEB 2025
		DWG No:	SC1.1



TYPICAL SIDEWALK SECTION

SECTION AT PRIVATE ENTRANCE AND PEDESTRIAN RAMPS

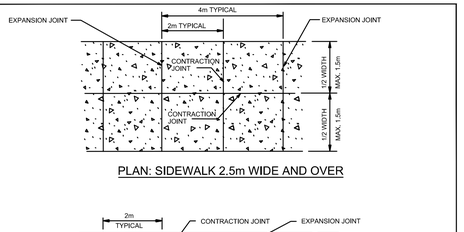


EXPANSION JOINT PROFILE DUMMY JOINT PROFILE

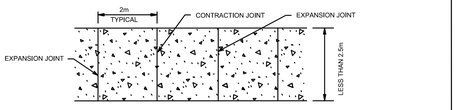
NOTES:

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
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 13mm

Ottawa	TITLE: MONOLITHIC CONCRETE CURB AND SIDEWALK	DATE:	MAY 2001
		REV:	FEB 2025
		DWG No:	SC2



PLAN: SIDEWALK 2.5m WIDE AND OVER



PLAN: SIDEWALK LESS THAN 2.5m WIDE

EXPANSION JOINT PROFILE JOINT PROFILE

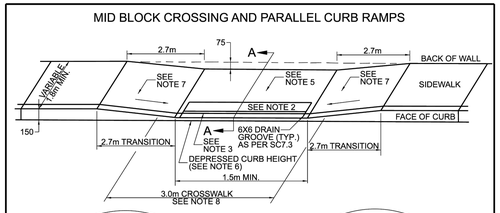
NOTES:

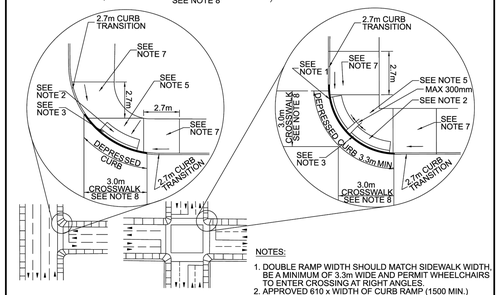
1. FOR CURBS THE EXPANSION JOINTS SHALL BE SPACED 4M APART OR COINCIDE WITH THE JOINTS IN THE ADJOINING SIDEWALK
2. TRANSVERSE EXPANSION JOINTS ARE REQUIRED AT THE ENDS, THE MIDPOINT, AT INTERVALS OF 4m MAXIMUM, AND ALSO TO ISOLATE OBSTRUCTIONS FROM SIDEWALK, HYDRANTS, POLES, BUILDINGS, ETC
3. EDGES ARE TO BE FINISHED WITH A 75mm EDGING TOOL
4. ALL CONCRETE SIDEWALKS ARE TO HAVE A BROOM FINISH UNLESS OTHERWISE SPECIFIED
5. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
6. INSTALL TRANSVERSE JOINTS AS REQUIRED SO THERE IS A MAXIMUM SPACING OF 2m BETWEEN ALL JOINTS
7. CONTRACTION JOINTS ARE TO BE SAWCUTTING WITH A GREEN SAW OR BY HANDTOOLING
8. JOINTS SHALL BE CONSTRUCTED TRANSVERSELY ACROSS THE SIDEWALK, PERPENDICULAR TO THE FACE OF CURB FOR SIDEWALK
9. WHEN JOINTS ARE CONSTRUCTED ADJACENT TO TWSI'S, THE JOINTS SHALL EXTEND FROM THE BACK CORNERS OF THE OUTSIDE TWSI PLATES TO THE BACK OF SIDEWALK, OR TERMINATE AT AN ADJACENT JOINT
10. THE TERMINATION OF THE JOINTS AT BOTH THE FRONT AND BACK OF SIDEWALK SHALL BE NO LESS THAN 600MM APART
11. JOINTS IN ALL CONCRETE ELEMENTS SHALL BE LAID OUT TO ENSURE THAT NO INDIVIDUAL RESULTING CONCRETE PANEL IS LESS THAN 0.5m² OR GREATER THAN 6m²

Ottawa	TITLE: SIDEWALK CONSTRUCTION JOINTS	DATE:	MAY 2001
		REV:	FEB 2025
		DWG No:	SC5

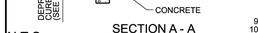
8

MID BLOCK CROSSING AND PARALLEL CURB RAMPS





SECTION THROUGH RAMP TOTAL (SEE NOTE 5)
SLOPE FOR 1.8m WALKS: 2% - 5%

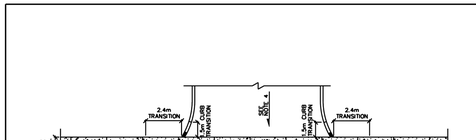


N.T.S. SECTION A - A

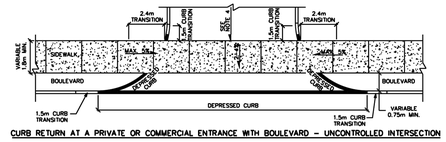
NOTES:

1. DOUBLE RAMP WIDTH SHOULD MATCH SIDEWALK WIDTH, BE A MINIMUM OF 3.3m WIDE AND PERMIT WHEELCHAIRS TO ENTER CROSSING AT RIGHT ANGLES.
2. APPROVED 610 x WIDTH OF CURB RAMP (1500 MIN.) TACTILE WALKING SURFACE INDICATOR, RADIUS TO MATCH CURB.
3. 150 TO 200 GAP
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
5. FOR TRANSITIONARE, MAXIMUM SLOPE OF 2%.
6. DEPRESSED CURB HEIGHT SHALL BE 0 TO 6mm FOR PEDESTRIAN CURB RAMPS AND 0 TO 25mm FOR PRIVATE ENTRANCES, OR EQUAL HEIGHT OF CROSSWALK WHERE APPLICABLE.
7. FOR CURB RAMPS SLOPE OF 2% TO 5% MAXIMUM 8%.
8. REFER TO R15 AND R15.1 FOR RAISED CROSSWALK AND R15.2 FOR AT - GRADE CONCRETE CROSSWALK SUBJECT TO AVOIDANCE OF MEDIANS, CROSSWALK LINES TO CENTRED ON THE CURB RAMP.
9. FOR RETROFIT APPLICATIONS ONLY.
10. FOR MONOLITHIC SIDEWALK, TWSI SHALL BE 300 TO 350mm BACK FROM CURB FACE.

Ottawa	PEDESTRIAN CURB RAMP WITHOUT BOULEVARD	DATE:	MAY 2001
		REV. DATE:	MARCH 2022
		DWG. No.:	SC6



CURB RETURN AT A PRIVATE OR COMMERCIAL ENTRANCE - UNCONTROLLED INTERSECTION



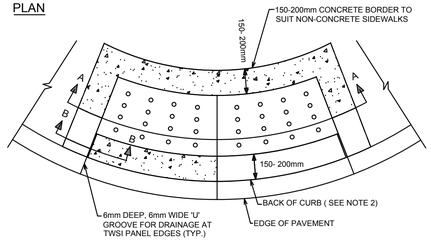
CURB RETURN AT A PRIVATE OR COMMERCIAL ENTRANCE WITH BOULEVARD - UNCONTROLLED INTERSECTION

NOTES:

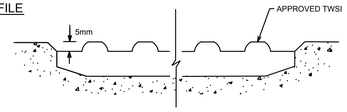
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. CURB DETAILS SEE SC1.1, SC1.2 AND SC1.3.
3. SIDEWALK DETAILS SEE SC2 AND SC3.
4. MAXIMUM SLOPE VARIES, SEE PRIVATE APPROACH BYLAW.
5. UNCONTROLLED INTERSECTION MEANS AN ENTRANCE NOT LOCATED AT A TRAFFIC SIGNAL OR ALL-WAY STOP CONTROL.

Ottawa	CURB RETURN ENTRANCES - UNCONTROLLED INTERSECTIONS	DATE:	MARCH 2007
		REV. DATE:	MARCH 2021
		DWG. No.:	SC7.1

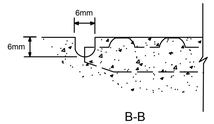
PLAN



PROFILE



A-A

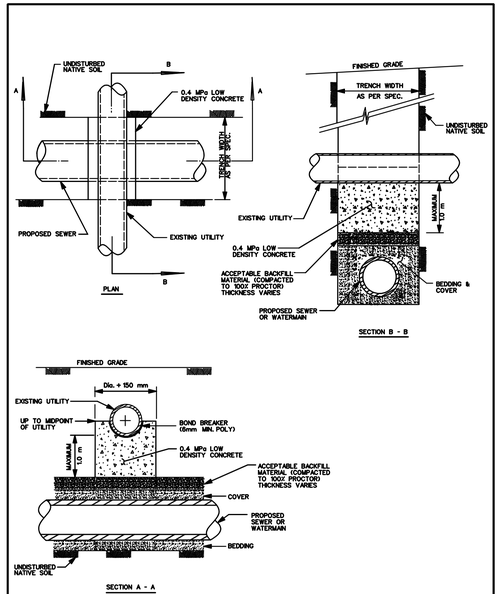


B-B

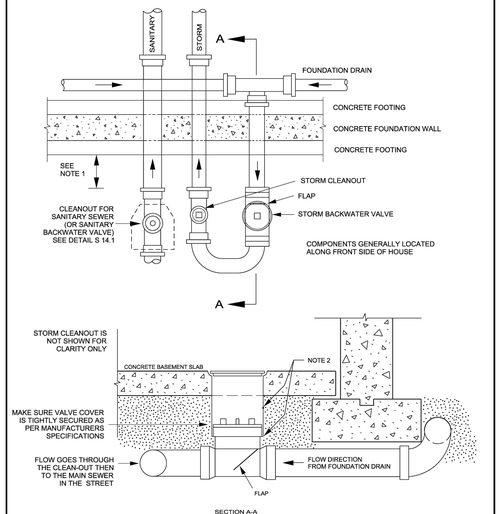
NOTES:

1. TOPS OF TWSI'S (TACTILE WALKING SURFACE INDICATOR) SHALL BE ALIGNED & LEVEL WITH THE ADJACENT CONCRETE SURFACE & INSTALLATION IN WET CONCRETE SHALL BE EFFECTIVE IN PERMANENTLY SECURING THE TWSI IN PLACE ONCE DRY
2. FOR MONOLITHIC SIDEWALKS, TWSI SHALL BE 300 TO 350mm BACK FROM THE CURB FACE
3. JOINTS SHALL BE CONSTRUCTED TRANSVERSELY ACROSS THE SIDEWALK, PERPENDICULAR TO THE FACE OF CURB FOR SIDEWALK
4. WHEN JOINTS ARE CONSTRUCTED ADJACENT TO TWSI'S, THE JOINTS SHALL EXTEND FROM THE BACK CORNERS OF THE OUTSIDE TWSI PLATES TO THE BACK OF SIDEWALK, OR TERMINATE AT AN ADJACENT JOINT
5. THE TERMINATION OF THE JOINTS AT BOTH THE FRONT AND BACK OF SIDEWALK SHALL BE NO LESS THAN 600mm APART
6. JOINTS IN ALL CONCRETE ELEMENTS SHALL BE LAID OUT TO ENSURE THAT NO INDIVIDUAL RESULTING CONCRETE PANEL IS LESS THAN 0.5m² OR GREATER THAN 6m²

Ottawa	TITLE: TWSI DETAIL	DATE:	MAR 2015
		REV:	FEB 2025
		DWG No:	SC7.3



Ottawa	SUPPORT DETAIL FOR EXISTING UTILITY CROSSING SEWER OR WATERMAIN TRENCH	DATE:	MAY 2001
		REV. DATE:	NONE
		DWG. No.:	S10



STORM BACKWATER VALVE

NOTES:

1. BACKWATER VALVE, CLEAN-OUTS AND ANY OTHER FITTINGS MUST BE INSTALLED A MINIMUM OF 300mm INSIDE OF THE BASEMENT FOOTING. THIS IS TO ENSURE THERE IS SUFFICIENT ROOM TO REPLACE THESE COMPONENTS IN THE FUTURE WITHOUT HAVING TO DAMAGE THE FOOTING/WALL DURING THE PROCESS
2. JOINTS BETWEEN THE SLEEVE AND THE BACKWATER VALVE AND THE FLOOR SHALL BE WATERTIGHT.

N.T.S.

Ottawa	FOUNDATION DRAIN BACKWATER VALVE INSTALLATION	DATE:	DEC. 2002
		REV. DATE:	MARCH 2011
		DWG. No.:	S14

No.	Date	Description	By
8	2025/02/11	RE-ISSUED FOR SITE PLAN CONTROL REV.6	É.P.
7	2025/01/28	ISSUED FOR SITE PLAN CONTROL REV. 6	E.P.
6	2024/12/13	ISSUED FOR SITE PLAN CONTROL REV. 5	É.P.
5	2024/10/25	ISSUED FOR SITE PLAN CONTROL REV. 4	É.P.
4	2023/08/25	ISSUED FOR SITE PLAN CONTROL REV. 3	É.P.
3	2023/07/28	ISSUED FOR SITE PLAN CONTROL REV. 2	É.P.
2	2023/03/17	ISSUED FOR SITE PLAN CONTROL REV. 1	É.P.
1	2022/08/12	ISSUED FOR SITE PLAN CONTROL	É.P.

STAMPS:

LICENSED PROFESSIONAL ENGINEER J. M. E. POTVIN 100208490 FEBRUARY 11, 2025 PROVINCE OF ONTARIO

DESIGNED BY APPROVED BY

ENGINEER: CIMA+

CLIENT: BERTONE

PROJECT NAME:
1649 MONTREAL ROAD
MONTREAL AND BLAIR

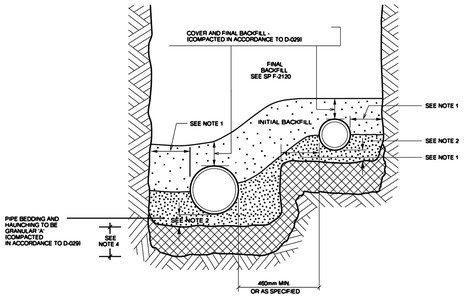
SHEET TITLE:
DETAILS PLAN

DISCIPLINE: CIVIL

DRAFTER: D.VAGHELA	SCALE:
DESIGNER: É. POTVIN	DATE: 22/08/31
APPROVER: C.L. LEBEL	CITY APPLICATION No: D07-12-22-0132
PROJECT No: A001101	DRAWING No: C009
SHEET No: 10 of 15	

D07-12-22-0132

#158876



NOTES:

1.

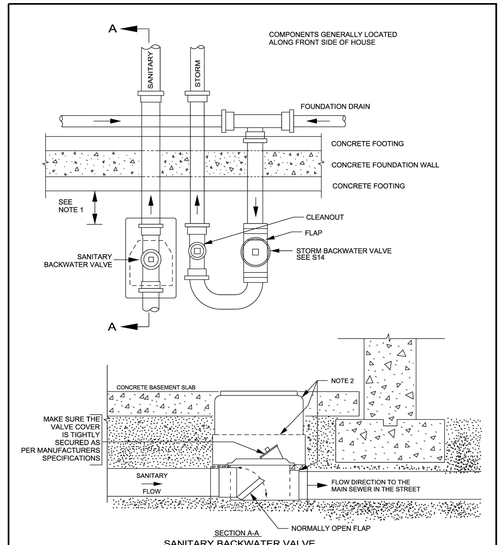
PIPE INSIDE DIAMETER (mm)	CLEARANCE (mm)
150 TO 900	CONC 450 PVC 450
OVER 900	500

2.

CONDITION	SEWER	SERVICES
EARTH	150 Min.	150 Min.
ROCK	300 Min.	150 Min.

3. FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-2120
4. WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, POOR SOILS SHALL BE EXCAVATED TO CREATE A FOUNDATION THAT SHALL BE FILLED TO THE BOTTOM OF THE BEDDING WITH GRANULAR 'B'
5. SEE S11.3 FOR TYPICAL SINGLE, SEMI-DETACHED AND TOWNHOUSE LOT SERVICING
6. INITIAL BACKFILL: CONCRETE PIPE - GRANULAR 'A' OR GRANULAR 'B' WITH 100% PASSING THE 37.5mm SIEVE
PVC PIPE - GRANULAR 'A'

Ottawa	COMBINED TRENCH (SEWERS & SEWER SERVICES)	DATE: MAY 2001 REV. DATE: MARCH 2019 DWG. No.: S7



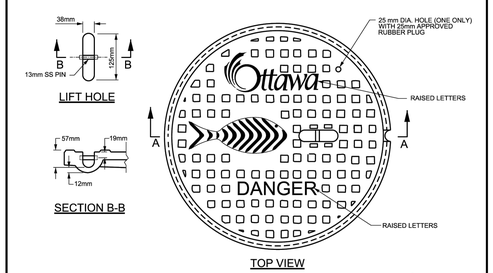
SANITARY BACKWATER VALVE

NOTES:

1. BACKWATER VALVE, CLEAN-OUTS AND ANY OTHER FITTINGS MUST BE INSTALLED A MINIMUM OF 300mm INSIDE OF THE BASEMENT FOOTING. THIS IS TO ENSURE THERE IS SUFFICIENT ROOM TO REPLACE THESE COMPONENTS IN THE FUTURE WITHOUT HAVING TO DAMAGE THE FOOTING/WALL DURING THE PROCESS
2. JOINTS BETWEEN THE ACCESS BOX SECTIONS AND THE ACCESS BOX AND THE BACKWATER VALVE AND THE FLOOR SLAB SHALL BE SEALED.

N.T.S.

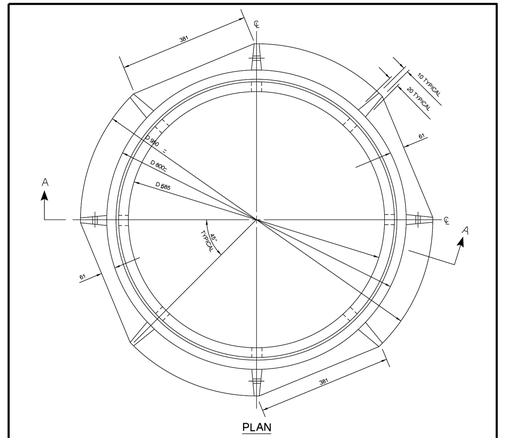
Ottawa	SANITARY BACKWATER VALVE INSTALLATION TYPE 1	DATE: MARCH 2010 REV. DATE: MARCH 2011 DWG. No.: S14.1



NOTES:
1. PIN TO BE SS.
2. FOR FRAME DETAIL SEE DWG No. S25.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

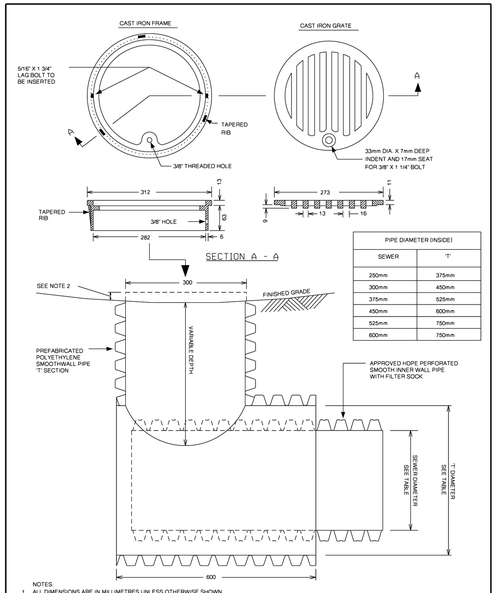
N.T.S.

Ottawa	STANDARD CIRCULAR STORM MAINTENANCE HOLE COVER ON CITY R.O.W.	DATE: MARCH 2010 REV. DATE: MARCH 2017 DWG. No.: S24.1



NOTES:
1. MATERIAL - GREY IRON.
2. FOR MAINTENANCE HOLE COVER SEE DWG S24. S24.1, S24.2.
3. OPSD 400.001 HOISTING HOOKS ARE ALSO ACCEPTED.
4. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SHOWN.

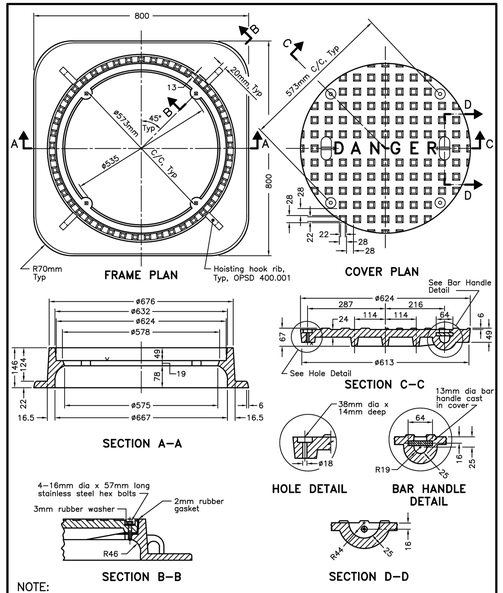
Ottawa	STANDARD CIRCULAR FRAME FOR MAINTENANCE HOLES (MODIFIED OPSD-401.020)	DATE: MAY 2001 REV. DATE: MARCH 2019 DWG. No.: S25



PIPE DIAMETER (INSIDE)	
SEWER	'T'
250mm	375mm
300mm	450mm
375mm	525mm
450mm	600mm
525mm	750mm
600mm	750mm

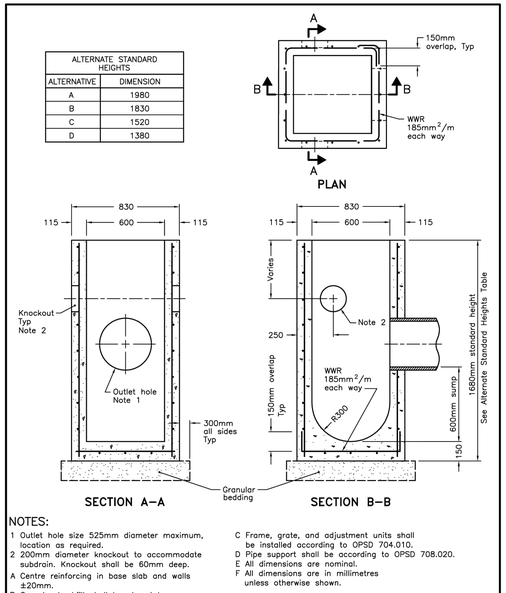
NOTES
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
2. FOR DITCHED PIPE APPLICATIONS, TOP OF CB SHALL BE MIN. 5cm ABOVE BOTTOM OF THE DITCH/SWALE AND BE LOCATED MIN. 2m FROM EDGE OF PAVEMENT.
3. WHEN NON-PERFORATED PIPE IS USED, MATCH THE 'T's HORIZONTAL OPENING DIAMETERS TO THE PIPE DIAMETER AND CONNECT WITH MANUFACTURER RECOMMENDED CONNECTION SLEEVE.
4. SEE MS.22.15 FOR ALTERNATE APPROVED FITTING MANUFACTURERS.

Ottawa	CATCH BASIN - ELBOW FOR REAR YARD, DITCHED PIPE AND LANDSCAPING APPLICATIONS	DATE: MARCH 2007 REV. DATE: MARCH 2019 DWG. No.: S31



NOTE:
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING		Nov 2018	Rev 4
CAST IRON, SQUARE FRAME WITH CIRCULAR WATERTIGHT COVER FOR MAINTENANCE HOLES			OPSD 401.030



NOTES:
1 Outlet hole size 525mm diameter maximum, location as required.
2 200mm diameter knockout to accommodate subdrain. Knockout shall be 60mm deep.
A Centre reinforcing in base slab and walls ±20mm.
B Granular backfill shall be placed to a minimum thickness of 300mm all around the catch basin.
C Frame, grate, and adjustment units shall be installed according to OPSD 704.010.
D Pipe support shall be according to OPSD 708.020.
E All dimensions are nominal.
F All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING		Nov 2019	Rev 4
PRECAST CONCRETE CATCH BASIN 600x600mm			OPSD 705.010

No.	Date	Description	By
8	2025/02/11	RE-ISSUED FOR SITE PLAN CONTROL REV.6	É.P.
7	2025/01/28	ISSUED FOR SITE PLAN CONTROL REV. 6	E.P.
6	2024/12/13	ISSUED FOR SITE PLAN CONTROL REV. 5	É.P
5	2024/10/25	ISSUED FOR SITE PLAN CONTROL REV. 4	É.P
4	2023/08/25	ISSUED FOR SITE PLAN CONTROL REV. 3	É.P
3	2023/07/28	ISSUED FOR SITE PLAN CONTROL REV. 2	É.P
2	2023/03/17	ISSUED FOR SITE PLAN CONTROL REV. 1	É.P
1	2022/08/12	ISSUED FOR SITE PLAN CONTROL	É.P

STAMPS:

LICENSED PROFESSIONAL ENGINEER
J. M. E. POTVIN
100208490
FEBRUARY 11, 2025
PROVINCE OF ONTARIO

DESIGNED BY | APPROVED BY

ENGINEER: CIMA+

CLIENT: BERTONE

PROJECT NAME:
1649 MONTREAL ROAD
MONTREAL AND BLAIR

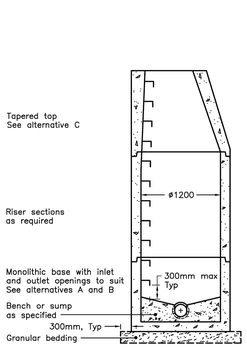
SHEET TITLE:
DETAILS PLAN

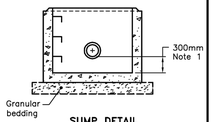
DISCIPLINE: CIVIL

DRAFTER: D.VAGHELA	SCALE:
DESIGNER: E. POTVIN	DATE: 22/08/31
APPROVER: C.L. LEBEL	CITY APPLICATION No: D07-12-22-0132
PROJECT No: A001101	DRAWING No: C010
SHEET No: 11 of 15	

D07-12-22-0132

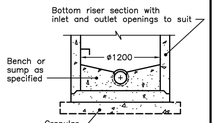
#15876



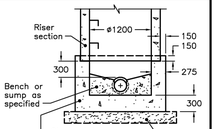


SUMP DETAIL

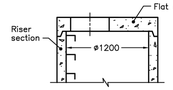
ALTERNATIVES



A PRECAST SLAB BASE



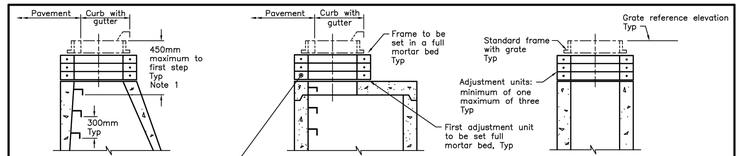
B CAST-IN-PLACE BASE



C PRECAST FLAT CAP

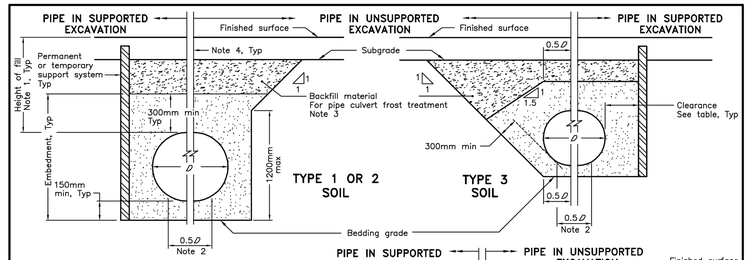
NOTES:
1 The sump is measured from the lowest invert.
A Granular backfill shall be placed to a minimum thickness of 300mm all around the maintenance hole.
B Precast concrete components shall be according to OPSD 701.030, 701.031, or 701.032.
C Structure exceeding 5.0m in depth shall include safety platform according to OPSD 404.020.
D Pipe support according to OPSD 708.020.
E For benching and pipe opening details, see OPSD 701.021.
F For adjustment unit and frame installation, see OPSD 704.010.
G All dimensions are nominal.
H All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2014	Rev 5
PRECAST CONCRETE MAINTENANCE HOLE 1200mm DIAMETER		OPSD 701.010



NOTES:
1 If first step is in an adjustment unit, the adjustment unit shall be of the type manufactured with a step in place.
2 Centre reinforcing in adjustment unit ±10mm.
3 Round and square adjustment units are available in sizes of 50, 75, 100, 150, and 300mm.
A Adjustment units shall not extend beyond the outside edge of the structure.
B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2014	Rev 3
PRECAST CONCRETE ADJUSTMENT UNITS FOR MAINTENANCE HOLES, CATCH BASINS, AND VALVE CHAMBERS		OPSD 704.010

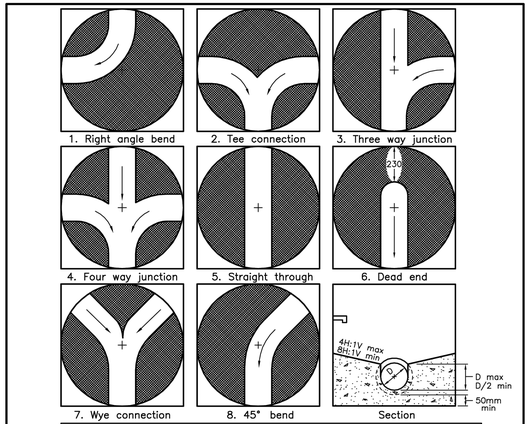


LEGEND:
Ø – Inside diameter

NOTES:
1 Height of fill is measured from the finished surface to top of pipe.
2 The pipe bed shall be compacted and shaped to receive the bottom of the pipe.
3 Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.
4 Condition of excavation is symmetrical about centreline of pipe.
A Granular material placed in the haunch area shall be compacted prior to placing and compacting the remainder of the embedment material.
B Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.
C All dimensions are in metres unless otherwise shown.

CLEARANCE TABLE	
Pipe Inside Diameter mm	Clearance mm
900 or less	300
Over 900	500

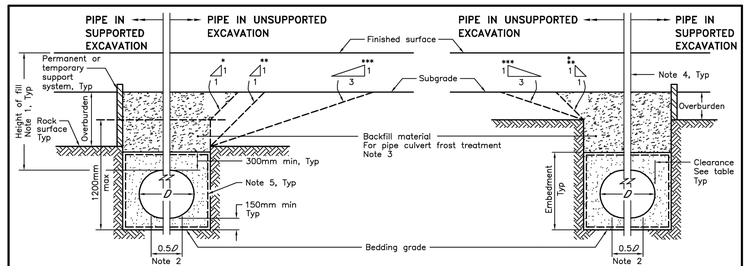
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2014	Rev 3
FLEXIBLE PIPE EMBEDMENT AND BACKFILL EARTH EXCAVATION		OPSD 802.010



MAXIMUM SIZE HOLE IN THE WALL IN PRECAST RISER SECTIONS					
Maintenance Hole Diameter	No. 1–4	No. 5 and 6	No. 8	No.7	
				Inlet Hole	Outlet Hole
1200	700	860	780	700	860
1500	860	1220	960	860	1170
1800	1220	1485	1220	1220	1485
2400	1485	2020	1760	1485	2020
3000	1930	2450	2300	1930	2450
3600	2470	3085	2730	2470	3085

NOTES:
1 Slopes shall be maintained from the outlet hole opening for top of benching.
A Concrete for benching shall be 30MPa.
B When benching is hand–finished, it shall be given wood float finish, channel shall be given steel trowel finish.
C Benching slope and height shall be as specified.
D When specified, maintenance holes that are 1200mm in diameter with a uniform channel for 200 or 250mm pipe may be prebenched at the manufacturer with standardized benching slope and channel orientation.
E All dimensions are nominal.
F All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2014	Rev 4
MAINTENANCE HOLE BENCHING AND PIPE OPENING ALTERNATIVES		OPSD 701.021

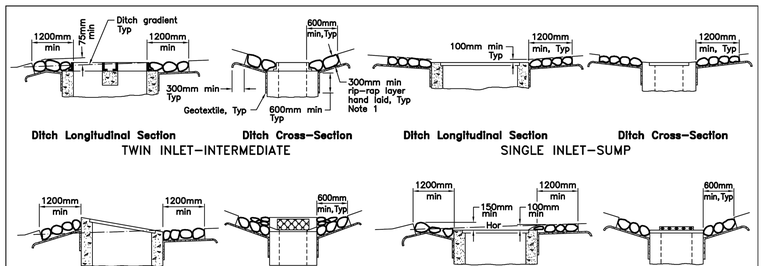


NOTES:
1 Height of fill is measured from the finished surface to top of pipe.
2 The pipe bed shall be compacted and shaped to receive the bottom of the pipe.
3 Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.
4 Condition of excavation is symmetrical about centreline of pipe.
5 Embedment material shall be wrapped in non–woven geotextile when specified.
A Granular material placed in the haunch area shall be compacted prior to placing and compacting the remainder of the embedment material.
B Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.
C Fractured rock shall be treated as Type 1 soil.
D All dimensions are in metres unless otherwise shown.

LEGEND:
Ø – Inside diameter
* – Type 1 or 2 soil
** – Type 3 soil
*** – Type 4 soil

CLEARANCE TABLE	
Pipe Inside Diameter mm	Clearance mm
900 or less	300
Over 900	500

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2014	Rev 3
FLEXIBLE PIPE EMBEDMENT AND BACKFILL ROCK EXCAVATION		OPSD 802.013



NOTES:
1 The thickness of the rip–rap layer shall be at least 1.5 times the rip–rap mean diameter.
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2013	Rev 2
GENERAL RIP–RAP LAYOUT FOR DITCH INLETS		OPSD 810.020

No.	Date	Description	By
7	2025/01/28	ISSUED FOR SITE PLAN CONTROL REV. 6	E.P.
6	2024/12/13	ISSUED FOR SITE PLAN CONTROL REV. 5	É.P
5	2024/10/25	ISSUED FOR SITE PLAN CONTROL REV. 4	É.P
4	2023/08/25	ISSUED FOR SITE PLAN CONTROL REV. 3	É.P
3	2023/07/28	ISSUED FOR SITE PLAN CONTROL REV. 2	É.P
2	2023/03/17	ISSUED FOR SITE PLAN CONTROL REV. 1	É.P
1	2022/08/12	ISSUED FOR SITE PLAN CONTROL	É.P

STAMPS:

LICENSED PROFESSIONAL ENGINEER
J. M. E. POTVIN
100208490
JANUARY 28, 2025
PROVINCE OF ONTARIO

DESIGNED BY | APPROVED BY

ENGINEER: CIMA+

CLIENT: BERTONE

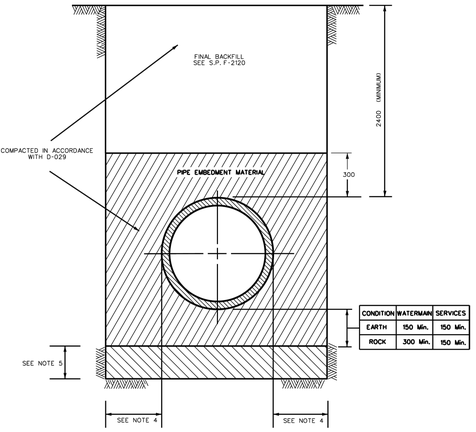
PROJECT NAME:
1649 MONTREAL ROAD
MONTREAL AND BLAIR

SHEET TITLE:
DETAILS PLAN

DISCIPLINE: CIVIL

DRAFTER: D.VAGHELA	SCALE:
DESIGNER: E. POTVIN	DATE: 22/08/31
APPROVER: C.L. LEBEL	CITY APPLICATION No: D07-12-22-0132
PROJECT No: A001101	DRAWING No: C011
SHEET No: 12 of 15	

D07-12-22-0132



CONDITION	WATERMAIN	SERVICES
EARTH	150 Min.	150 Min.
ROCK	300 Min.	150 Min.

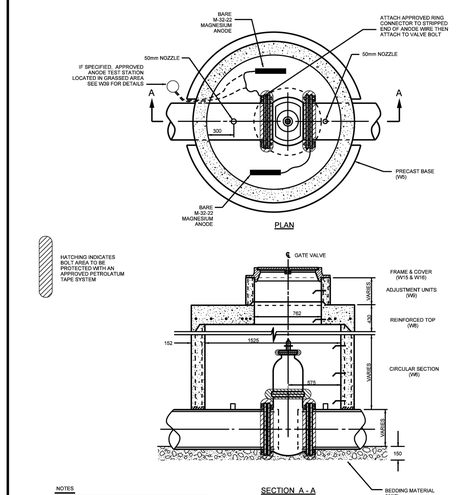
NOTES:

1. PIPE EMBEDMENT MATERIAL - GRANULAR 'A'.
2. FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-2120
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
4.

PIPE OUTSIDE DIA. (mm)	CLEARANCE (mm)
900 or LESS	450
OVER 900	500

5. WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, POOR SOILS SHALL BE EXCAVATED TO CREATE A FOUNDATION THAT SHALL BE FILLED TO THE BEDDING WITH GRANULAR 'B'.

Ottawa | STANDARD TRENCH DETAIL | DATE: MAY 2001 | REV. DATE: MARCH 2016 | DWG. No.: W17

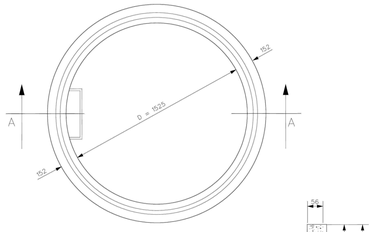


NOTES

FOR VALVES ON 300mm (NOMINAL) WATERMAINS.

1. CLEARANCE AROUND PIPE AT CHAMBER WALL TO BE 50mm MINIMUM.
2. VALVE CHAMBERS IN LIEU OF BOXES ON WATERMAINS SMALLER THAN 300mm ONLY TO BE USED, IF APPROVED BY THE CONTRACT ADMINISTRATOR.
3. REFER TO MW-13.1 FOR ADDITIONAL REQUIREMENTS.
4. REFER TO MW-19.15 FOR APPROVED MANUFACTURERS.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
6. CATHODIC PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH W09, W40 AND W42.
7. TRACER WIRE REQUIRED FOR PVC, PEX AND HDPE WATERMAIN PIPE ONLY AS PER W06. TRACER WIRE TO BE CONNECTED TO VALVE BOLT AS PER W65 AND SECURED TO TOP OF CHAMBER.

Ottawa | CIRCULAR CHAMBER GATE VALVES | DATE: MAY 2001 | REV. DATE: MARCH 2021 | DWG. No.: W5

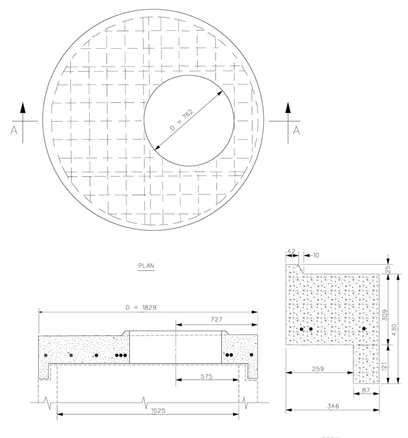


NOTES

REFER TO DETAILS W2, W3, W5.

1. REFER TO MW-13.1 FOR ADDITIONAL REQUIREMENTS.
2. REFER TO MW-19.15 FOR APPROVED MANUFACTURERS.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

Ottawa | CIRCULAR CHAMBER SECTION | DATE: MAY 2001 | REV. DATE: NONE | DWG. No.: W6

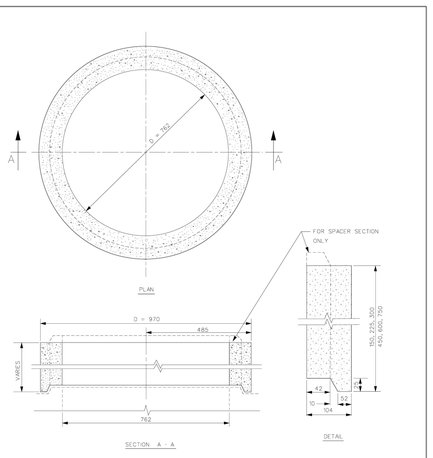


NOTES

REFER TO DETAIL W3, GATE VALVES.

1. REFER TO WSM-6 FOR ADDITIONAL REQUIREMENTS.
2. REFER TO WSM-15 FOR APPROVED MANUFACTURERS.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

Ottawa | PRECAST TOP FOR GATE VALVE CHAMBERS | DATE: MAY 2001 | REV. DATE: NONE | DWG. No.: W8

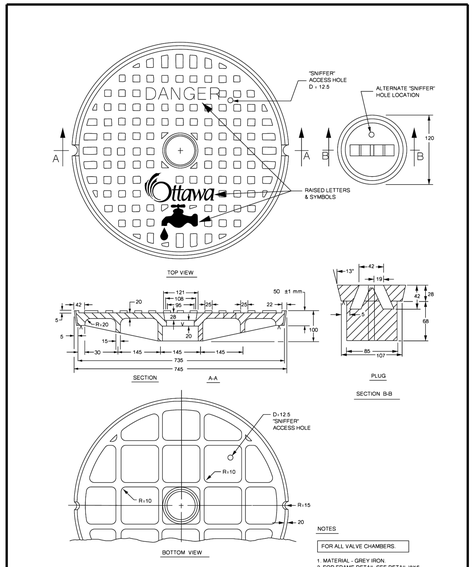


NOTES:

FOR ALL VALVE CHAMBERS

1. REFER TO MW-13.1 FOR ADDITIONAL REQUIREMENTS.
2. REFER TO MW-19.15 FOR APPROVED MANUFACTURERS.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

Ottawa | ADJUSTMENT SECTION | DATE: MAY 2001 | REV. DATE: NONE | DWG. No.: W9

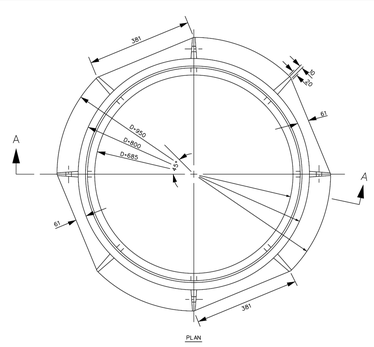


NOTES

FOR ALL VALVE CHAMBERS.

1. MATERIAL - GREY IRON.
2. FOR FRAME DETAIL SEE DETAIL W16
3. TOLERANCE ±1.5mm
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

Ottawa | STANDARD COVER FOR VALVE CHAMBERS | DATE: MAY 2001 | REV. DATE: MARCH 2019 | DWG. No.: W15

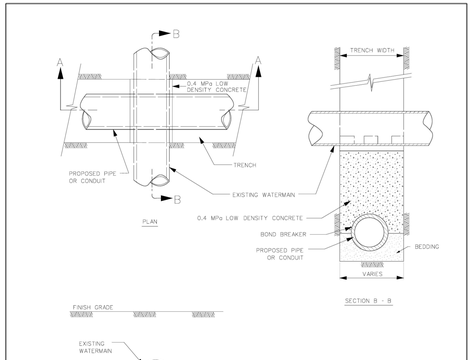


NOTES

FOR ALL VALVE CHAMBERS.

1. MATERIAL - GREY IRON.
2. FOR VALVE CHAMBER COVER SEE DETAIL W15.
3. TOLERANCES ± 1.5mm.
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
5. NON-STANDARD FRAMES WITH CENTERING TABS MAY ALSO BE USED FOR VALVE CHAMBERS.
6. OPSD 400.001 HOISTING HOOKS ALSO ACCEPTED.

Ottawa | STANDARD FRAME FOR VALVE CHAMBERS (MODIFIED OPSD-401.020) | DATE: MAY 2001 | REV. DATE: MARCH 2016 | DWG. No.: W16



NOTES:

FOR CROSSING WITH A CLEARANCE LESS THAN 1m

1. CONCRETE ENCASED STEEL MAINS SHALL BE SUPPORTED WITH CONCRETE TO UNDERSIDE OF MAIN.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

Ottawa | SUPPORT DETAIL FOR CROSSING BELOW AN EXISTING WATERMAIN | DATE: MAY 2001 | REV. DATE: NONE | DWG. No.: W29

No.	Date	Description	By
7	2025/01/28	ISSUED FOR SITE PLAN CONTROL REV. 6	E.P.
6	2024/12/13	ISSUED FOR SITE PLAN CONTROL REV. 5	É.P
5	2024/10/25	ISSUED FOR SITE PLAN CONTROL REV. 4	É.P
4	2023/08/25	ISSUED FOR SITE PLAN CONTROL REV. 3	É.P
3	2023/07/28	ISSUED FOR SITE PLAN CONTROL REV. 2	É.P
2	2023/03/17	ISSUED FOR SITE PLAN CONTROL REV. 1	É.P
1	2022/08/12	ISSUED FOR SITE PLAN CONTROL	É.P

STAMPS:

LICENSED PROFESSIONAL ENGINEER
J.M.E. POTVIN
100208480
JANUARY 28, 2025
PROVINCE OF ONTARIO

DESIGNED BY | APPROVED BY

ENGINEER: CIMA+

CLIENT: BERTONE

PROJECT NAME:
1649 MONTREAL ROAD
MONTREAL AND BLAIR

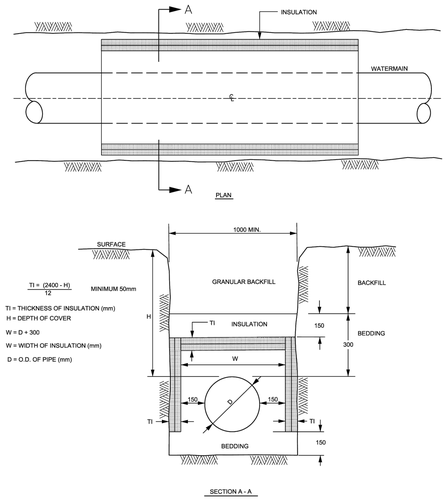
SHEET TITLE:
DETAILS PLAN

DISCIPLINE:
CIVIL

DRAFTER:	SCALE:
D.VAGHELA	
DESIGNER: E. POTVIN	DATE: 22/08/31
APPROVER: C.L. LEBEL	CITY APPLICATION No: D07-12-22-0132
PROJECT No: A001101	DRAWING No: C012
SHEET No: 13 of 15	

D07-12-22-0132

#158576

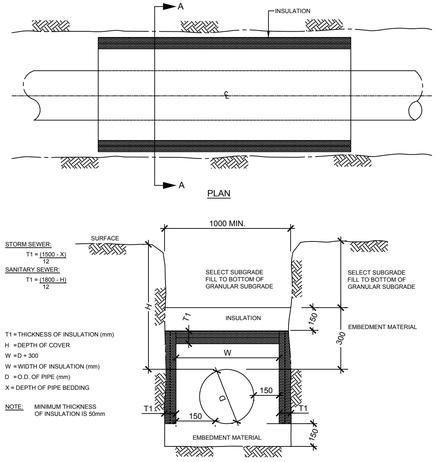


NOTES

FOR 150 - 400mm (NOMINAL DIAMETER) WATERMAINS, WHERE THE DEPTH OF COVER IS LESS THAN 2400mm

1. INCREMENTS OF THICKNESS SHALL BE ADJUSTABLE TO 25mm.
2. IN PROXIMITY OF MAINTENANCE HOLES, CULVERTS, CATCHBASINS, ETC., INSULATION SHALL BE PLACED PER DETAIL W23
3. DEPTH OF COVER LESS THAN 1200mm REQUIRES SPECIAL DESIGN
4. STAGGER JOINTS OF MULTIPLE SHEETS.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

Ottawa	THERMAL INSULATION FOR WATERMAINS IN SHALLOW TRENCHES	DATE: MAY 2001 REV. DATE: MARCH 2013 DWG. No.: W22



NOTES:

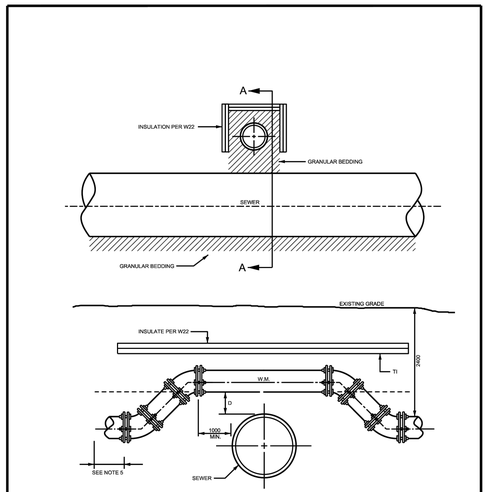
– FOR STORM SEWER, WHERE DEPTH OF COVER IS LESS THAN 1500mm.
– FOR SANITARY SEWER, WHERE DEPTH OF COVER IS LESS THAN 1800mm.

1. RIGID INSULATION SHEETS TO BE HI-40 EXTRUDED POLYSTYRENE
2. INCREMENTS OF THICKNESS SHALL BE ADJUSTABLE TO 25mm.
3. STAGGER JOINTS OF MULTIPLE SHEETS.
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
5. FOR SEWER MAINTENANCE HOLE, WHEN H<1.8m, INSULATE COVERS AS PER DETAIL 306.

THERMAL INSULATION FOR SEWER PIPES IN SHALLOW TRENCHES

NTS

500

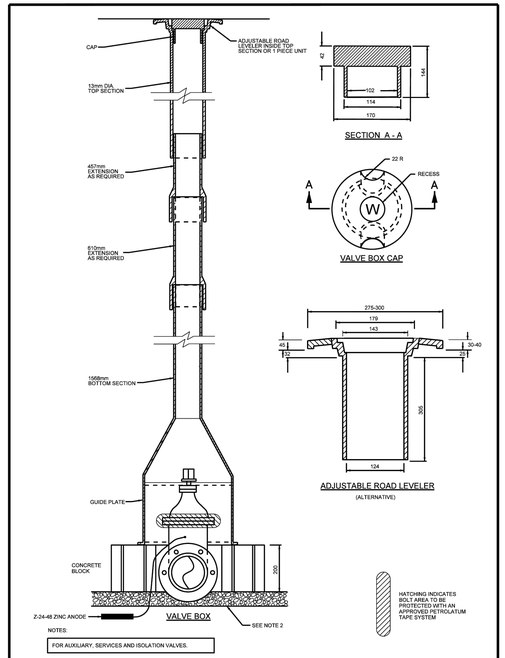


NOTES:

FOR WATERMAIN 100mm (NOMINAL) TO 400mm (NOMINAL)

1. BARREL TO BARREL SEPARATION (D) SHALL BE 250mm MINIMUM.
2. THRUST BLOCKS FOR MAINS LARGER THAN 400mm (NOMINAL) SHALL BE PER SPECIAL DESIGN.
3. FOR 300mm (NOMINAL) AND 400mm (NOMINAL) MAINS, BENDS SHALL BE MAX. 22° 30'.
4. CONCRETE FOR THRUST BLOCKS SHALL BE 20 MPa.
5. REFER TO W26.4 FOR RESTRAINED LENGTH REQUIREMENTS.
6. REFER TO W25.3 AND W25.4 FOR THRUST BLOCK REQUIREMENTS.
7. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
8. DESIGNED TO MEET THE INTENT OF THE MOE WATERMAIN DESIGN CRITERIA JUNE 2012.
9. CATHODIC PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH W39, W40, AND W42.
10. TRACER WIRE REQUIRED FOR PVC, PEX AND HDPE WATERMAIN PIPE ONLY AS PER W36.

Ottawa	WATERMAIN CROSSING OVER SEWER	DATE: MAY 2001 REV. DATE: MARCH 2021 DWG. No: W25.2



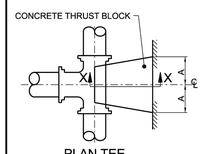
NOTES:

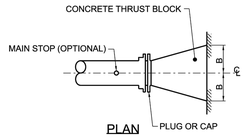
FOR AUXILIARY, SERVICES AND ISOLATION VALVES.

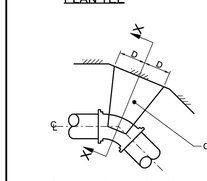
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. FOR 200 AND 250mm VALVES, ADD BEDDING BELOW THE CONCRETE BLOCKS AS REQUIRED TO RAISE BELL HIGH ENOUGH TO PREVENT CONTACT WITH THE VALVE BONNET.

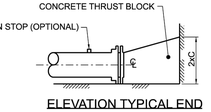
Ottawa	VALVE BOX ASSEMBLY	DATE: MAY 2001 REV. DATE: MARCH 2021 DWG. No. W24

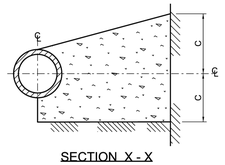
7	2025/01/28	ISSUED FOR SITE PLAN CONTROL REV. 6	E.P.
6	2024/12/13	ISSUED FOR SITE PLAN CONTROL REV. 5	É.P
5	2024/10/25	ISSUED FOR SITE PLAN CONTROL REV. 4	É.P
4	2023/08/25	ISSUED FOR SITE PLAN CONTROL REV. 3	É.P
3	2023/07/28	ISSUED FOR SITE PLAN CONTROL REV. 2	É.P
2	2023/03/17	ISSUED FOR SITE PLAN CONTROL REV. 1	É.P
1	2022/08/12	ISSUED FOR SITE PLAN CONTROL	É.P
No.	Date	Description	By











NOTES:

1. CONCRETE SHALL BE PLACED TO WITHIN 50mm OF FACE OF THE BELL.
2. BOND BREAKER TO BE USED BETWEEN CONCRETE AND FITTINGS.
3. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
4. REFER TO W25.4 FOR ADDITIONAL REQUIREMENTS.
5. 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 CRADLE 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.
6. 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.
7. 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. N.T.S.

Ottawa	CONCRETE THRUST BLOCKS FOR PVC AND DI PIPE 400mm AND UNDER	DATE: MAY 2001 REV. DATE: MARCH 2022 DWG. No.: W25.3

1. SOIL DESCRIPTION: VERY FINE SANDS, SANDY CLAYS, CLAYS.
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

2. SOIL DESCRIPTION: SILTY SAND GRAVELS OR CLAYEY SAND GRAVEL MIXTURES, MODERATE AMOUNT OF FINES.
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

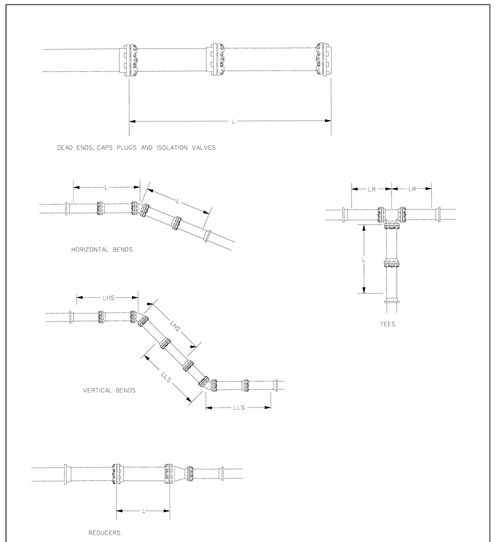
3. SOIL DESCRIPTION: SANDS, GRAVELS AND GRAVEL-SAND MIXTURES, LITTLE OR NO FINES.
SOILS WITH TYPICAL BEARING STRENGTH OF 300 KPa AND OVER

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

NOTES:

1. THE ABOVE THRUST BLOCK DIMENSIONS MEET OR EXCEED THE WATERMAIN DESIGN CRITERIA FOR FUTURE ALTERATIONS AUTHORIZED UNDER A DRINKING WATER WORKS PERMIT.
2. 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 0.6 m/s OF 115 psi (115 psi FOR CLASS 52 DI AND FOR PVC MAX. SURGE IS 35 psi)
3. THE TABLES APPLY TO BOTH DUCTILE IRON AND PVC. WHERE ONE LENGTH EXCEEDED THE OTHER THE LONGER LENGTH WAS USED.
4. DIMENSIONS MAY BE ADJUSTED SO LONG AS THE BEARING SURFACE AREA OF THE THRUST BLOCK IS NOT REDUCED.
4. TO BE USED IN CONJUNCTION WITH W25.3.

Ottawa	THRUST BLOCK DIMENSION TABLES FOR PVC AND DI PIPE 400mm AND UNDER	DATE: MAY 2001 REV. DATE: MARCH 2011 DWG. No.: W25.4



NOTES:

1. ANY JOINT THAT FALLS WITHIN THE RECOMMENDED LENGTH (L) SHALL BE RESTRAINED, SEE DRAWING W25.6
2. TO REDUCE THE NUMBER OF RESTRAINERS REQUIRED THE USE OF FULL PIPE LENGTHS IS RECOMMENDED IN THESE AREAS.

Ottawa	RESTRAINING AND RETAINING RINGS FOR PVC AND DI PIPE 400mm AND UNDER	DATE: MAY 2001 REV. DATE: NONE DWG. No.: W25.5

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					
	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:

1. THE ABOVE RESTRAINED LENGTHS MEET OR EXCEED THE WATERMAIN DESIGN CRITERIA FOR FUTURE ALTERATIONS AUTHORIZED UNDER A DRINKING WATER WORKS PERMIT.
2. 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 0.6 m/s OF 115 psi (115 psi FOR CLASS 52 DI AND FOR PVC MAX. SURGE IS 35 psi)
3. 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.
4. TYPE 5 TRENCH BEDDING.
5. DEPTH TO BURY 2.4 METRES EXCEPT FOR VERTICAL BENDS WHERE THE HIGH SIDE IS AT 1.8 METRES.
6. EMBEDMENT MATERIAL GRANULAR 'A' WITH CHARACTERISTICS OF ASTM D2487 GP.
7. GP SOILS ARE DESCRIBED AS POORLY GRADED GRAVEL AND SAND-GRAVEL MIXES WITH LITTLE OR NO FINES.
8. (Lr) MUST BE OF SOLID PIPE WITHOUT JOINTS, FITTINGS, ETC.
9. THE TABLES APPLY TO BOTH DUCTILE IRON AND PVC. WHERE ONE LENGTH EXCEEDED THE OTHER THE LONGER LENGTH WAS USED.
10. RESTRAINED LENGTHS ARE IN METRES.

Ottawa	TABLES OF RESTRAINED LENGTHS FOR PVC AND DI PIPE 400mm AND UNDER	DATE: MAY 2001 REV. DATE: MARCH 2011 DWG. No.: W25.6

STAMPS:

LICENSED PROFESSIONAL ENGINEER
J. M. E. POTVIN
100208490
JANUARY 28, 2025
PROVINCE OF ONTARIO

DESIGNED BY APPROVED BY

ENGINEER: CIMA+

CLIENT: BERTONE

PROJECT NAME:
1649 MONTREAL ROAD
MONTREAL AND BLAIR

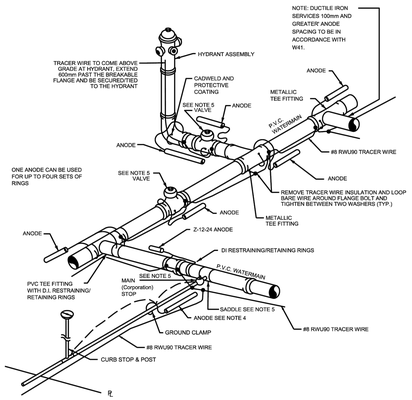
SHEET TITLE:
DETAILS PLAN

DISCIPLINE: CIVIL

DRAFTER: D.VAGHELA	SCALE:
DESIGNER: É. POTVIN	DATE: 22/08/31
APPROVER: C.L. LEBEL	CITY APPLICATION No: D07-12-22-0132
PROJECT No: A001101	DRAWING No: C013
SHEET No: 14 of 15	

D07-12-22-0132

#158876



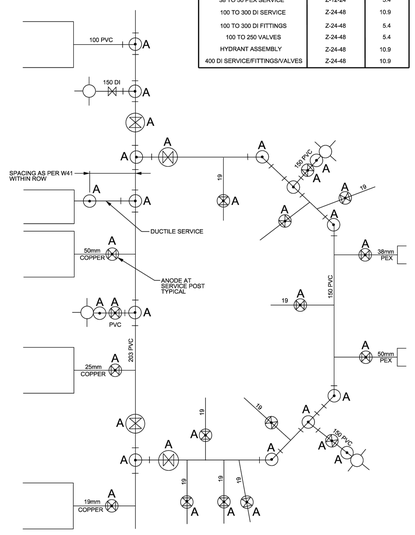
NOTES:

1. ANODE CONNECTING WIRE TO BE LOOPED AROUND PIPES / FITTINGS AND KNOTTED.
2. PROTECTIVE COATING TO BE APPLIED TO ALL CADWELDS.
3. ANODE TYPE & SPACING AS PER W42.
4. CONNECT ANODE TO COPPER SERVICES USING A GROUND CLAMP AND FOR PEX SERVICES CONNECT ANODE TO TRACER WIRE TERMINALS ON BOTH MAIN AND CURB STOPS.
5. PROTECT AUXILIARY VALVES, ISOLATION VALVES, SADDLES AND FLANGED CONNECTIONS/VALVES/HYDRANT BOLTS AND FLANGE WITH A PETROLATUM WAX TAPE COATING SYSTEM FOR PEX SERVICES ALSO WAX TAPE CURB STOP UP TO THE BASE OF THE TEE HEAD.
6. ALL DIMENSIONS ARE IN MILLIMETERS.
7. TRACER WIRE BOLT CONNECTIONS TO BE COMPLETED PER W55.
8. TRACER WIRE SPLICES TO BE COMPLETED PER W47.

Ottawa | CATHODIC PROTECTION FOR PVC WATERMAIN SYSTEMS

DATE:	MAY 2001
REV. DATE:	MARCH 2021
DWG. No.:	W40

SIZE (mm)	ANODE TYPE	WEIGHT (Kg)
19 TO 50 COPPER SERVICE	Z-12-24	5.4
38 TO 50 PEX SERVICE	Z-12-24	5.4
100 TO 300 DI SERVICE	Z-24-48	10.9
100 TO 300 DI FITTINGS	Z-24-48	5.4
100 TO 250 VALVES	Z-24-48	5.4
HYDRANT ASSEMBLY	Z-24-48	10.9
400 DI SERVICE/FITTINGS/VALVES	Z-24-48	10.9

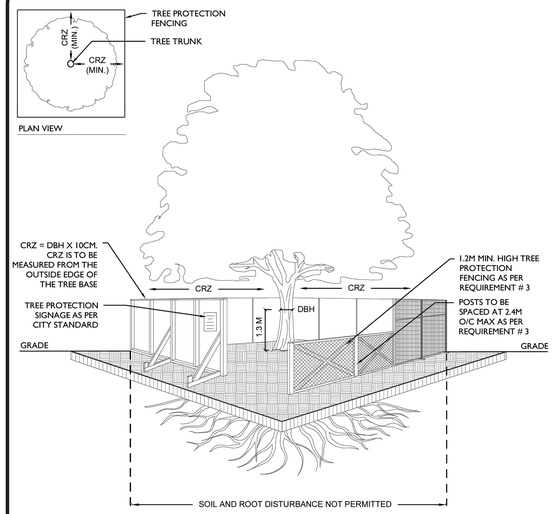


NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. ANODE FOR JOINT RESTRAINTS FOR PVC FITTINGS 300mm DIAMETER AND SMALLER.
3. INSTALL TRACER WIRE AS PER W40.

Ottawa | TYPICAL ANODE INSTALLATION PVC WATERMAIN

DATE:	MAY 2001
REV. DATE:	MARCH 2021
DWG. No.:	W42



ACCESSIBLE FORMATS AND COMMUNICATION SUPPORTS ARE AVAILABLE, UPON REQUEST

TREE PROTECTION REQUIREMENTS:

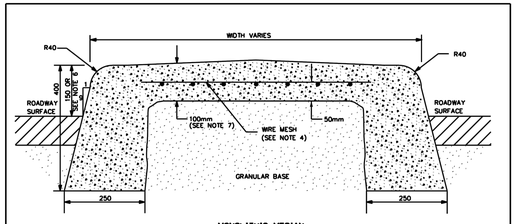
1. PRIOR TO ANY WORK ACTIVITY WITHIN THE CRITICAL ROOT ZONE (CRZ = 10 X DIAMETER) OF A TREE, TREE PROTECTION FENCING MUST BE INSTALLED SURROUNDING THE CRITICAL ROOT ZONE, AND REMAIN IN PLACE UNTIL THE WORK IS COMPLETE.
2. UNLESS PLANS ARE APPROVED BY CITY FORESTRY STAFF, FOR WORK WITHIN THE CRZ:
   - DO NOT PLACE ANY MATERIAL OR EQUIPMENT - INCLUDING OUTHOUSES;
   - DO NOT ATTACH ANY SIGNS, NOTICES OR POSTERS TO ANY TREE;
   - DO NOT RAISE OR LOWER THE EXISTING GRADE;
   - TUNNEL OR BORE WHEN DIGGING;
   - DO NOT DAMAGE THE ROOT SYSTEM, TRUNK, OR BRANCHES OR ANY TREE;
   - ENSURE THAT EXHAUST FUMES FROM ALL EQUIPMENT ARE NOT DIRECTED TOWARD ANY TREE CANOPY.
   - DO NOT EXTEND HARD SURFACE OR SIGNIFICANTLY CHANGE LANDSCAPING
3. TREE PROTECTION FENCING MUST BE AT LEAST 1.2M IN HEIGHT, AND CONSTRUCTED OF RIGID OR FRAMED MATERIALS (E.G. MODULOC - STEEL, PLYWOOD HOARDING, OR SNOW FENCE ON A 2"X4" WOOD FRAME) WITH POSTS 2.4M APART, SUCH THAT THE FENCE LOCATION CANNOT BE ALTERED. ALL SUPPORTS AND BRACING MUST BE PLACED OUTSIDE OF THE CRZ, AND INSTALLATION MUST MINIMISE DAMAGE TO EXISTING ROOTS. (SEE DETAIL)
4. THE LOCATION OF THE TREE PROTECTION FENCING MUST BE DETERMINED BY AN ARBORIST AND DETAILED ON ANY ASSOCIATED PLANS FOR THE SITE (E.G. TREE CONSERVATION REPORT, TREE INFORMATION REPORT, ETC). THE PLAN AND CONSTRUCTED FENCING MUST BE APPROVED BY CITY FORESTRY STAFF PRIOR TO THE COMMENCEMENT OF WORK.
5. IF THE FENCED TREE PROTECTION AREA MUST BE REDUCED TO FACILITATE CONSTRUCTION, MITIGATION MEASURES MUST BE PRESCRIBED BY AN ARBORIST AND APPROVED BY CITY FORESTRY STAFF. THESE MAY INCLUDE THE PLACEMENT OF PLYWOOD, WOOD CHIPS, OR STEEL PLATING OVER THE ROOTS FOR PROTECTION OR THE PROPER PRUNING AND CARE OF ROOTS WHERE ENCOUNTERED.

THE CITY'S TREE PROTECTION BY-LAW, 2020-340 PROTECTS BOTH CITY-OWNED TREES, CITY-WIDE, AND PRIVATELY-OWNED TREES WITHIN THE URBAN AREA. PLEASE REFER TO WWW.OTTAWA.CA/TREEBYLAW FOR MORE INFORMATION ON HOW THE TREE BY-LAW APPLIES.

Ottawa | TREE PROTECTION SPECIFICATION

TO BE IMPLEMENTED FOR RETAINED TREES, BOTH ON SITE AND ON ADJACENT SITES, PRIOR TO ANY TREE REMOVAL OR SITE WORKS AND MAINTAINED FOR THE DURATION OF WORK ACTIVITIES ON SITE.

SCALE:	NTS
DATE:	MARCH 2021
DRAWING NO.:	1 of 1



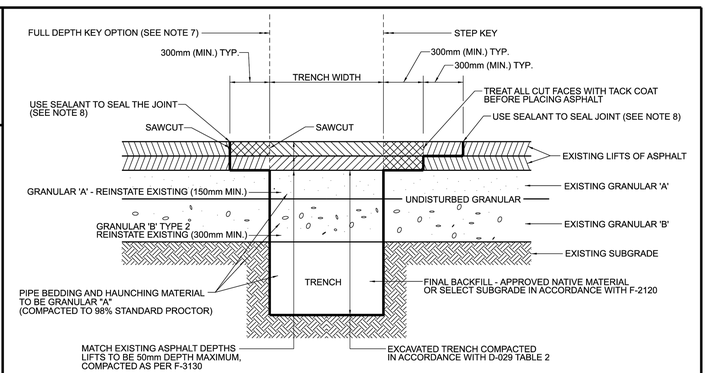
MONOLITHIC MEDIAN

NOTES:

1. MEDIANS ARE TO BE BUILT MONOLITHICALLY WHENEVER POSSIBLE OTHERWISE THE CURB AND CAP MEDIAN SECTION CAN BE BUILT.
2. TRANSVERSE JOINTS IN MEDIAN CAP TO BE ALIGNED WITH CURB JOINTS.
3. FOR DETAILS OF JOINTS AND JOINT INTERVALS SEE SC4 AND SC5.
4. FOR MEDIANS 2.0m WIDE OR WIDER AND WHERE MEDIANS ARE DEPRESSED TO CARRY VEHICLES, 152mm x 152mm MW9.2/MW9.2 WIRE MESH SHALL BE USED.
5. GRANULAR 'A' DEPTH TO BE 100mm MINIMUM OVER UNEXCAVATED AREAS.
6. DEPRESS MEDIAN AS PER PEDESTRIAN RAMP SC10.1 OR AS PER VEHICLE ACCESS CROSSING SC8 WHERE APPLICABLE.
7. INCREASE CAP DEPTH TO 150mm IF DROPPED FOR VEHICULAR OR PEDESTRIAN CROSSING.

Ottawa | MONOLITHIC CONCRETE MEDIAN CAP

DATE:	MAY 2001
REV. DATE:	MARCH 2019
DWG. No:	SC10

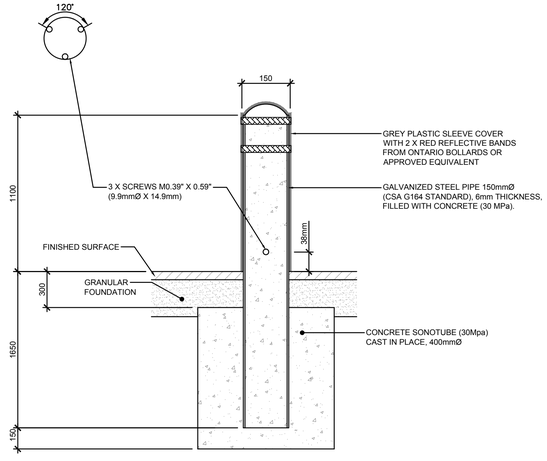


NOTES:

1. ALL EXISTING ASPHALT TO BE SAW CUT.
2. UNLESS SPECIFIED ELSEWHERE, SURFACE COURSE ASPHALT SUPERPAVE 12.5mm AND BASE COURSE ASPHALT SUPERPAVE 19.0mm IS TO BE USED.
3. UNLESS SPECIFIED ELSEWHERE, ASPHALT MIX SHALL BE LEVEL B (PG58-34) FOR NON-BUS LOCAL ROADS, AND LEVEL D (PG 64-34) FOR ALL OTHER ROADS.
4. UNLESS SPECIFIED ELSEWHERE, WHERE EXISTING PAVEMENT STRUCTURE EXCEEDS 150mm IN DEPTH, ASPHALT REINSTATEMENT SHALL BE 150mm AND GRANULAR "A" FOR THE REMAINDER.
5. UNLESS SPECIFIED ELSEWHERE, WHERE AN UNDERLYING LAYER OF CONCRETE PAVEMENT EXISTS, REINSTATEMENT SHALL CONSIST OF 150mm OF SUPERPAVE 19.00mm LEVEL B (PG58-34) COMPACTED IN LIFTS.
6. UNLESS SPECIFIED ELSEWHERE, HOT MIX ASPHALT PLACEMENT AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH F-3130.
7. STEP KEY REINSTATEMENT TO BE IMPLEMENTED UNLESS FULL DEPTH KEY OPTION APPROVED BY THE CITY.
8. ALL EDGES TO BE ROUTED AND SEALED WITH A BEAD OF HOT RUBBERIZED ASPHALT JOINT SEALING COMPOUND.

Ottawa | STANDARD TRENCH REINSTATEMENT IN PAVED SURFACE | N.T.S.

DWG No.:	R10
REV. DATE:	MARCH 2022
DATE:	MAY 2001



NOTE:

- ALL MEASUREMENTS ARE IN MILLIMETERS, UNLESS OTHERWISE STATED.

150mmØ STEEL BOLLARD (304B)

AUCUNE / NTS

7	2025/01/28	ISSUED FOR SITE PLAN CONTROL REV. 6	E.P.
6	2024/12/13	ISSUED FOR SITE PLAN CONTROL REV. 5	É.P
5	2024/10/25	ISSUED FOR SITE PLAN CONTROL REV. 4	É.P
4	2023/08/25	ISSUED FOR SITE PLAN CONTROL REV. 3	É.P
3	2023/07/28	ISSUED FOR SITE PLAN CONTROL REV. 2	É.P
2	2023/03/17	ISSUED FOR SITE PLAN CONTROL REV. 1	É.P
1	2022/08/12	ISSUED FOR SITE PLAN CONTROL	É.P
No.	Date	Description	By

STAMPS:

LICENSED PROFESSIONAL ENGINEER J. M. E. POTVIN 100208490 JANUARY 28, 2025 PROVINCE OF ONTARIO

DESIGNED BY | APPROVED BY

ENGINEER: CIMA+

CLIENT: BERTONE

PROJECT NAME:

1649 MONTREAL ROAD
MONTREAL AND BLAIR

SHEET TITLE:

DETAILS PLAN

DISCIPLINE: CIVIL

DRAFTER: D.VAGHELA	SCALE:
DESIGNER: É. POTVIN	DATE: 22/08/31
APPROVER: C.L. LEBEL	CITY APPLICATION No: D07-12-22-0132
PROJECT No: A001101	DRAWING No: C014
SHEET No: 15 of 15	

D07-12-22-0132

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