

# TOM SMITH GMC

## 824 KING STREET

## MIDLAND, ONTARIO

Dwg.No.	Description
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SERV-1	SITE SERVICING PLAN
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DET-1	GENERAL NOTES AND DETAILS



**SITE LOCATION**

**PUBLIC WORKS DEPARTMENT**

MIDLAND PUBLIC WORKS AND ROADS  
575 DOMINION AVENUE  
MIDLAND, ONTARIO  
L4R 1R2

**OWNER**

TOM SMITH GMC  
824 KING ST.  
MIDLAND ON  
L4R 4K8

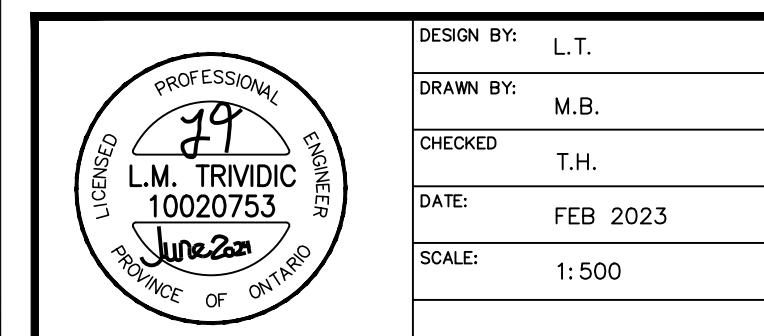
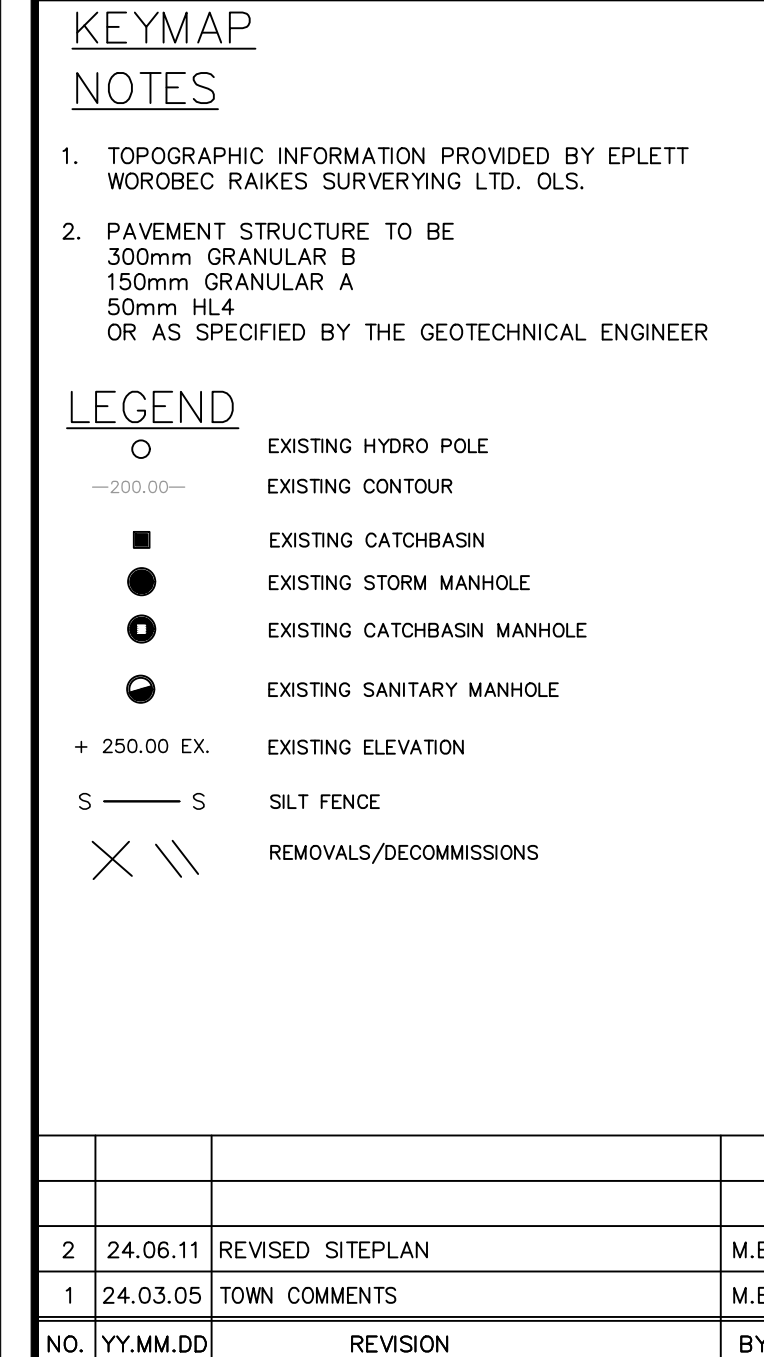
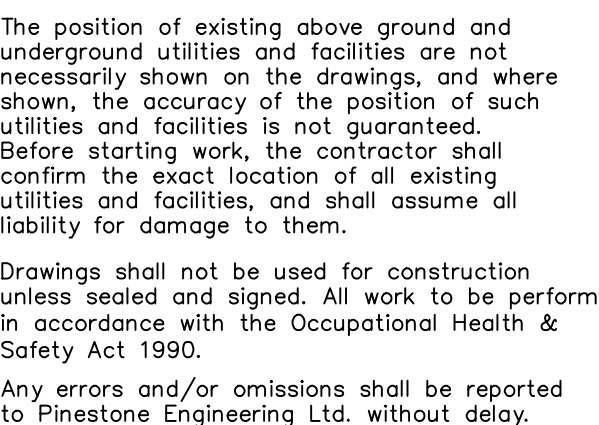
**DEVELOPER'S ENGINEER**

PINESTONE ENGINEERING LTD.  
20 BELL FARM ROAD, UNIT 1  
BARRIE, ONTARIO  
L4M 6E4



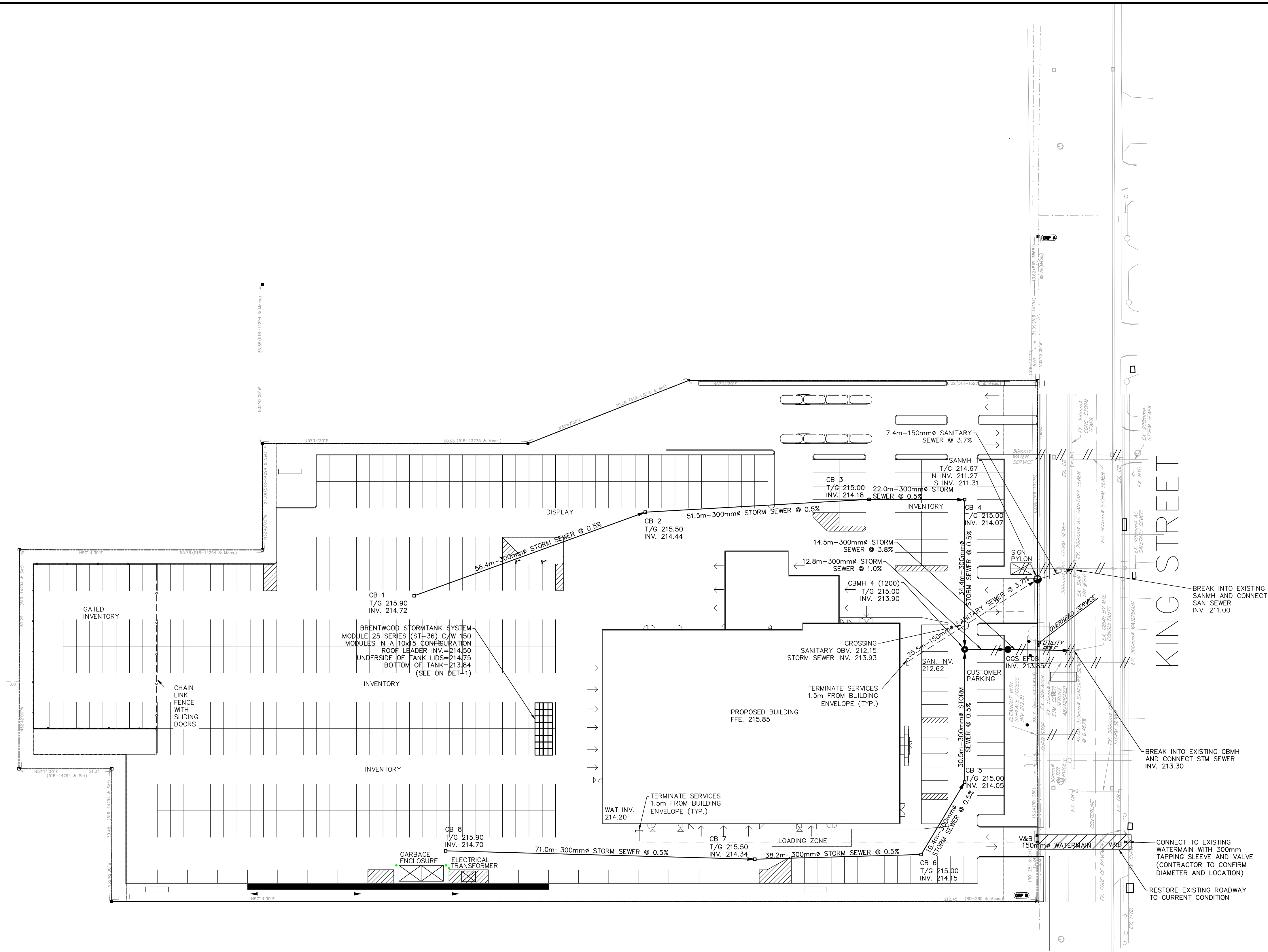
**Date: JUNE 2024**  
**PEL Project No. 22-11692-M**





CLIENT/PROJECT		
TOM SMITH GMC MIDLAND		
DRAWING TITLE		
EXISTING CONDITIONS AND REMOVALS PLAN		
PROJECT NO.	DRAWING NO.	REVISION
22-11692-M	EX-1	2





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The position of existing above ground and underground utilities and facilities are not necessarily shown on the drawings, and where shown, the accuracy of the position of such utilities and facilities is not guaranteed. Before starting work, the contractor shall confirm the exact location of all existing utilities and facilities, and shall assume all liability for damage to them.

Drawings shall not be used for construction unless sealed and signed. All work to be performed in accordance with the Occupational Health & Safety Act 1990.

Any errors and/or omissions shall be reported to Pinestone Engineering Ltd. without delay.



### KEYMAP

### NOTES

1. TOPOGRAPHIC INFORMATION PROVIDED BY EPLETT WOROBEC RAIKES SURVEYING LTD. OLS.
2. PAVEMENT STRUCTURE TO BE  
300mm GRANULAR B  
150mm GRANULAR A  
50mm HL4  
OR AS SPECIFIED BY THE GEOTECHNICAL ENGINEER

### LEGEND

- PROPOSED STORM SEWER
- PROPOSED CATCHBASIN
- PROPOSED STORM CATCH BASIN MAHNOLE
- PROPOSED STORM SEWER SERVICE C/W CLEANOUT
- 50mm THICK STORM PIPE INSULATION (2.4m WIDE)
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY SERVICE C/W CLEANOUT
- PROPOSED WATERMAIN
- CURB STOP VALVE
- PROPOSED HYDRANT
- PROPOSED WATER SERVICE C/W CSV
- EX. SANITARY MANHOLE
- EX. CATCH BASIN
- EXISTING HYDRANT
- REMOVALS/DECOMMISSIONS

NO.	YY.MM.DD	REVISION	BY
2	24.06.11	REVISED SITEPLAN	M.B.
1	24.03.05	TOWN COMMENTS	M.B.

SEAL

NORTH ARROW

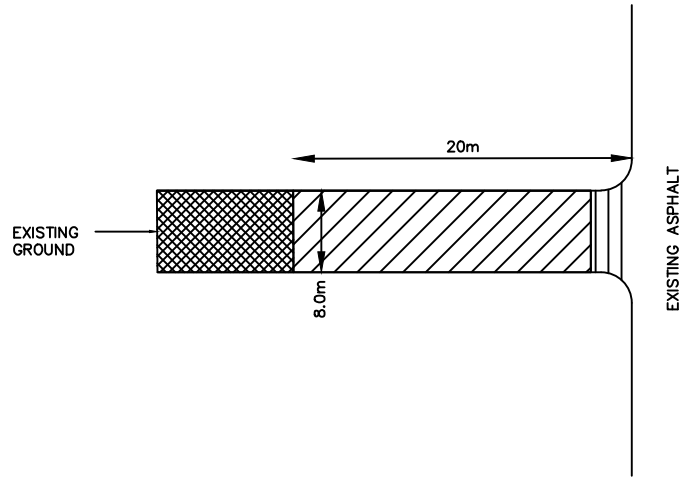
	DESIGN BY:	L.T.
	DRAWN BY:	M.B.
	CHECKED:	T.H.
	DATE:	FEB 2023
SCALE:		1:500

CLIENT/PROJECT		
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SITE SERVICING PLAN		
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EROSION CONTROL NOTES:

1. All silt fencing to be installed prior to any grading or excavation.
2. Erosion control fencing to be installed around the base of all stockpiles.
3. Additional erosion control measures may be required as site development progresses. Contractor to provide all additional erosion control structures as directed by the engineer.
4. Pinestone Engineering Ltd. to monitor erosion control structures to ensure fencing is installed and maintenance is performed to municipal requirements.
5. Erosion control structures to be monitored regularly and after every rainfall. Any damage repaired immediately. Sediments to be removed when accumulations reach a maximum of 1/2 the height of the fence.
6. All erosion control structures to remain in place until all disturbed ground have been re-stabilized either by paving or restoration of vegetative ground cover.
7. No alternate methods of erosion protection shall be permitted unless approved Pinestone Engineering Ltd. and the Town of Midland.
8. Install mud mat prior to any grading works onsite.
9. Contractor is responsible for municipal roadway to be cleared of all sediments from vehicular tracking etc. at the end of each day.



STONE SIZE

- THE STONE PAD SHALL BE A MIN. 150mm THICK. USE 50mm# STONE OR RECLAIMED CONCRETE EQUIVALENT FOR FIRST 10m FROM ADJACENT ROAD AND 150mm# STONE FOR REMAINDER OF STONE PAD.

LENGTH

- AS REQUIRED BUT NOT LESS THAN 20m

WIDTH

- 8m WIDTH

GEOTEXTILE FABRIC

- GEOTEXTILE FABRIC (TERRAFIX 270R OR EQUIVALENT) WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE

SURFACE WATER

- ALL SURFACE WATER FLOWING OR DIRECTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.

MAINTENANCE

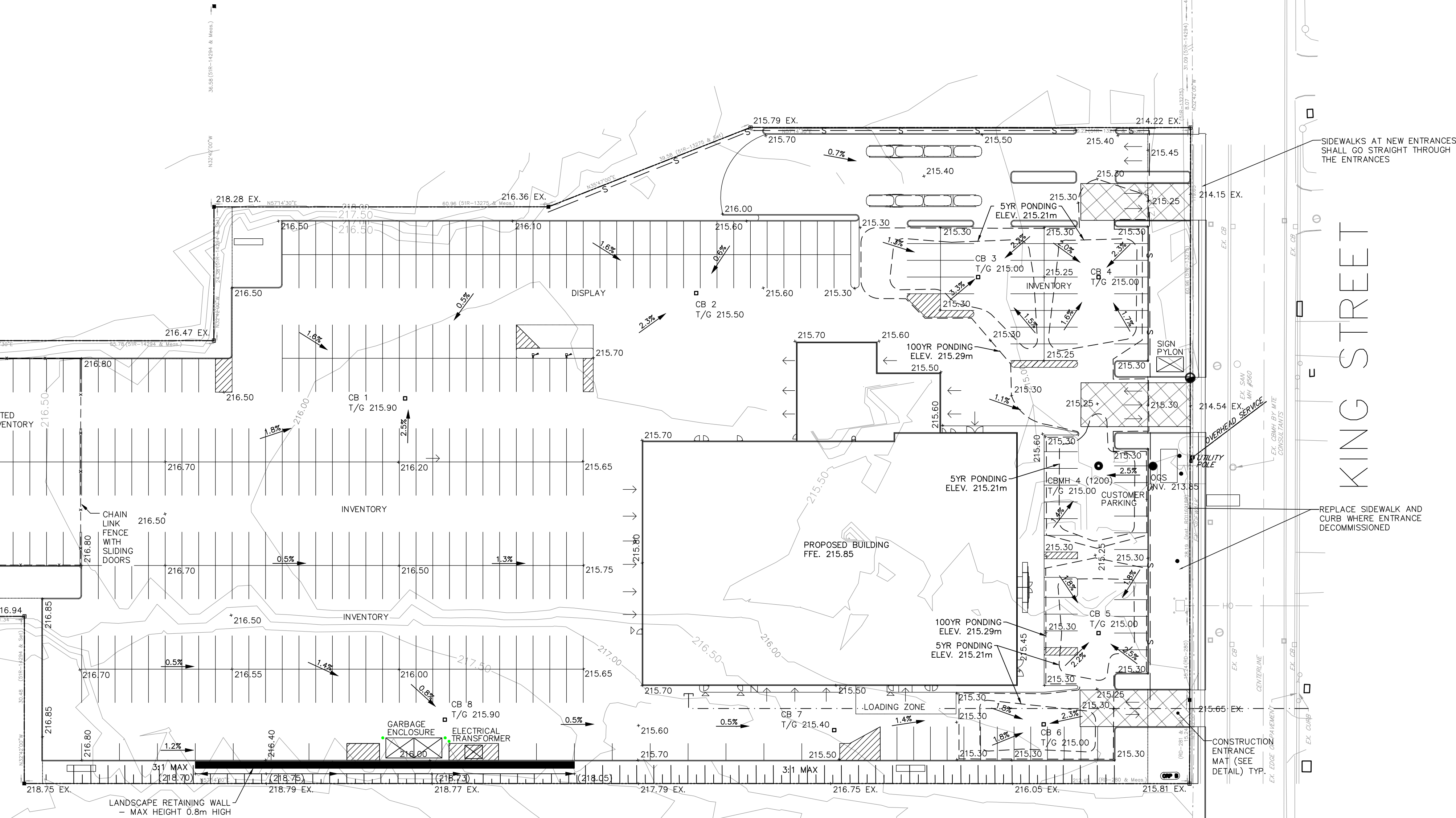
- THE CONTRACTOR SHALL MAINTAIN THE ENTRANCE IN A CONDITION WHICH WILL PREVENT TRACKING OF FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR. UPON OBSERVATION OF CONTINUOUS MUD TRACKING ONTO ADJACENT STREETS, THE MAT IS TO BE FULLY REPLACED.

WASHING

- WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE
- INSPECTION AND REQUIRED MAINTENANCE AFTER EACH RAIN SHALL BE PROVIDED BY THE CONTRACTOR.

20m x 8m STONE MUDMAT DETAIL

N.T.S.



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Drawings shall not be used for construction unless sealed and signed. All work to be performed in accordance with the Occupational Health & Safety Act 1990.

Any errors and/or omissions shall be reported to Pinestone Engineering Ltd. without delay.



KEYMAP

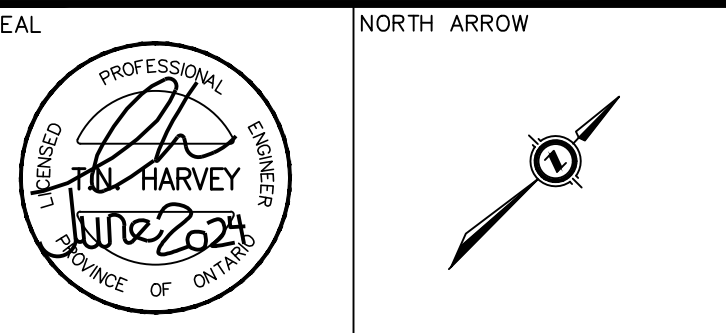
NOTES

1. TOPOGRAPHIC INFORMATION PROVIDED BY EPLETT WOROBECK RAIKES SURVEYING LTD. OLS.
2. PAVEMENT STRUCTURE TO BE 300mm GRANULAR B 150mm GRANULAR A 50mm H/L4 OR AS SPECIFIED BY THE GEOTECHNICAL ENGINEER

LEGEND

x 220.00	PROPOSED ELEVATION
x 220.00T/C	PROPOSED TOP OF CURB
x 220.00EX.	EXISTING ELEVATION
3.0%	PROPOSED GRADE
■	PROPOSED CATCHBASIN
■	PROPOSE WATER VALVE AND BOX
—	PROPERTY LINE
▲	PROPOSED ENTRANCE
—	EXISTING OVERHEAD HYDRO
—	EXISTING HYDRO POLE
—	EXISTING SANITARY MANHOLE
—	EXISTING LIGHT POST
—	EXISTING CATCHBASIN
—	EXISTING BELL PEDESTAL
—	EXISTING FIRE HYDRANT
—	EXISTING CURB STOP
—	SILT FENCE
—	CONSTRUCTION ENTRANCE MAT

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DRAWN BY:	M.B.
CHECKED:	T.H.
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GENERAL NOTES

1. All standards in accordance with current Ontario Provincial Standard Drawings (OPSD) and Ontario Provincial Standard Specifications (OPSS) unless otherwise noted.
2. All works shall conform to The Town of Midland Engineering Design Criteria and Standards Manual.
3. All dimensions are in metres. Pipe sizes in millimetres unless otherwise noted.
4. Notify Bell Canada, Union Gas, Water and Sewer, Hydro and Cable Departments (where applicable) 72 hours prior to commencement for locates.
5. The Contractor shall coordinate the works with the Engineer who shall oversee the project on behalf of the owner.
6. All construction to be completed to the satisfaction of the Engineer.
7. All services and utilities to be supported as per OPSD-1007.01.
8. All trenching to be in accordance with the Occupational Health and Safety Act.
9. All traffic control and signage to be in accordance with M.T.O. Book 7 requirements.
10. Town of Midland and Engineer to be notified at least 72 hours prior to construction.
11. Wherever pipes are passing through uncompacted fill areas, the bedding trench shall be excavated to the undisturbed ground level and backfilled with Granular 'A' compacted to 95% standard proctor density or as otherwise shown on the drawings.
12. Maintain a minimum cover of 1.8m for watermain or as otherwise shown on the drawings with insulation.
13. Perform all blasting in accordance with the specification. Undertake pre-blast survey and provide copy to Engineer prior to commencement of blasting operations.
14. The location of underground and above ground utilities and structures shown on drawings is approximate only and may not be complete. The exact location of all utilities and structures shall be determined by consulting the Town authorities and Utilities companies concerned. The contractor shall prove the exact location of all utilities and structures before construction and shall be responsible for adequately protecting them against damage, assuming all liabilities for damage of such.
15. The Contractor must check and verify dimensions, obtain all utility locates, and obtain all required permits and licenses and verify existing service elevations before proceeding with any work.
16. Latest approved drawings to be used for construction and all discrepancies reported to the Engineer.
17. Drawings are not to be scaled.
18. All materials to be used on this project shall be lead free.
19. Pipe length as labeled is measured horizontally along pipe centre line and may differ from baseline chainage where baseline is not parallel to pipe.
20. Utilize erosion and siltation controls as necessary during construction to control sediment/silt runoff from the site.
21. Ensure accessibility to existing residential driveways at all times.
22. Ensure adequate protection to all culverts.
23. Building storm outlets are not to connect to the sanitary lateral and are to discharge to grade.

RESTORATION NOTES

- 1) Reinststate roads to previous condition or better, where disturbed by construction activity.
- 2) Contractor to restore driveways and ditch work in areas disturbed by construction to equal or better conditions.
- 3) Minimum gravel driveway restoration to be 150mm, Granular 'A'. Asphalt Driveway restoration to be 50mm of HL3, existing gravel subgrade
- 4) All grassed areas disturbed during construction shall be restored with 100mm topsoil and sod or hydro mulched as per OPSS 507. Maintain until established.
- 5) All restoration work to be completed to the satisfaction of the Engineer.

WATERMAIN NOTES

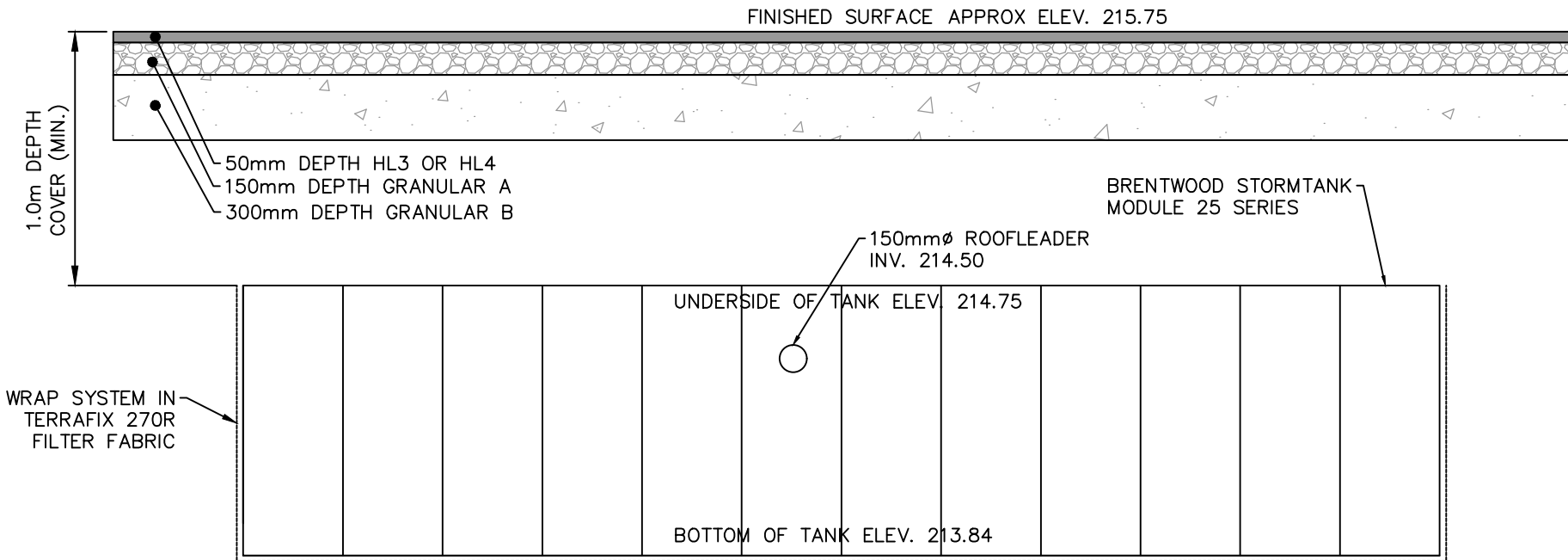
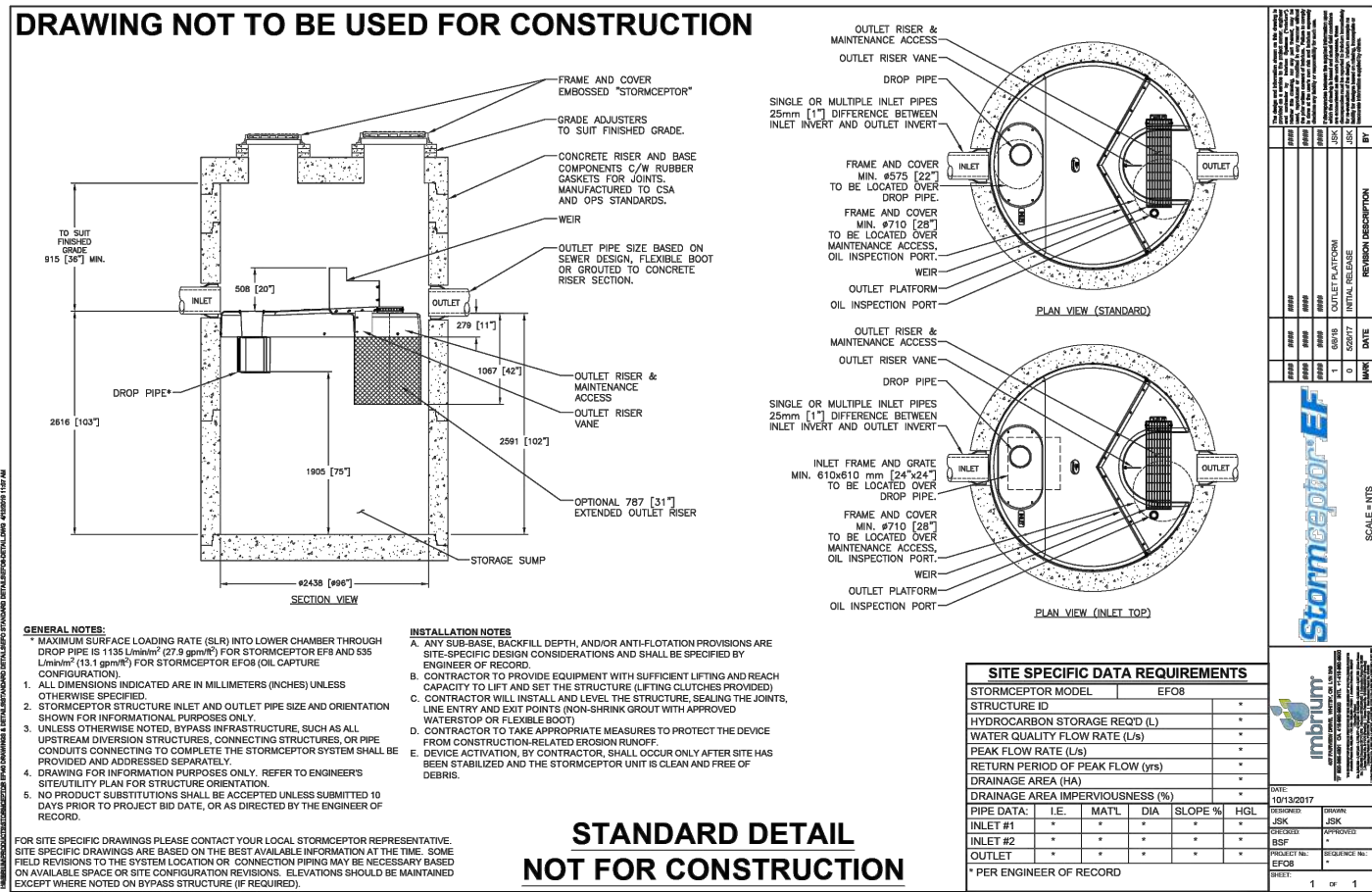
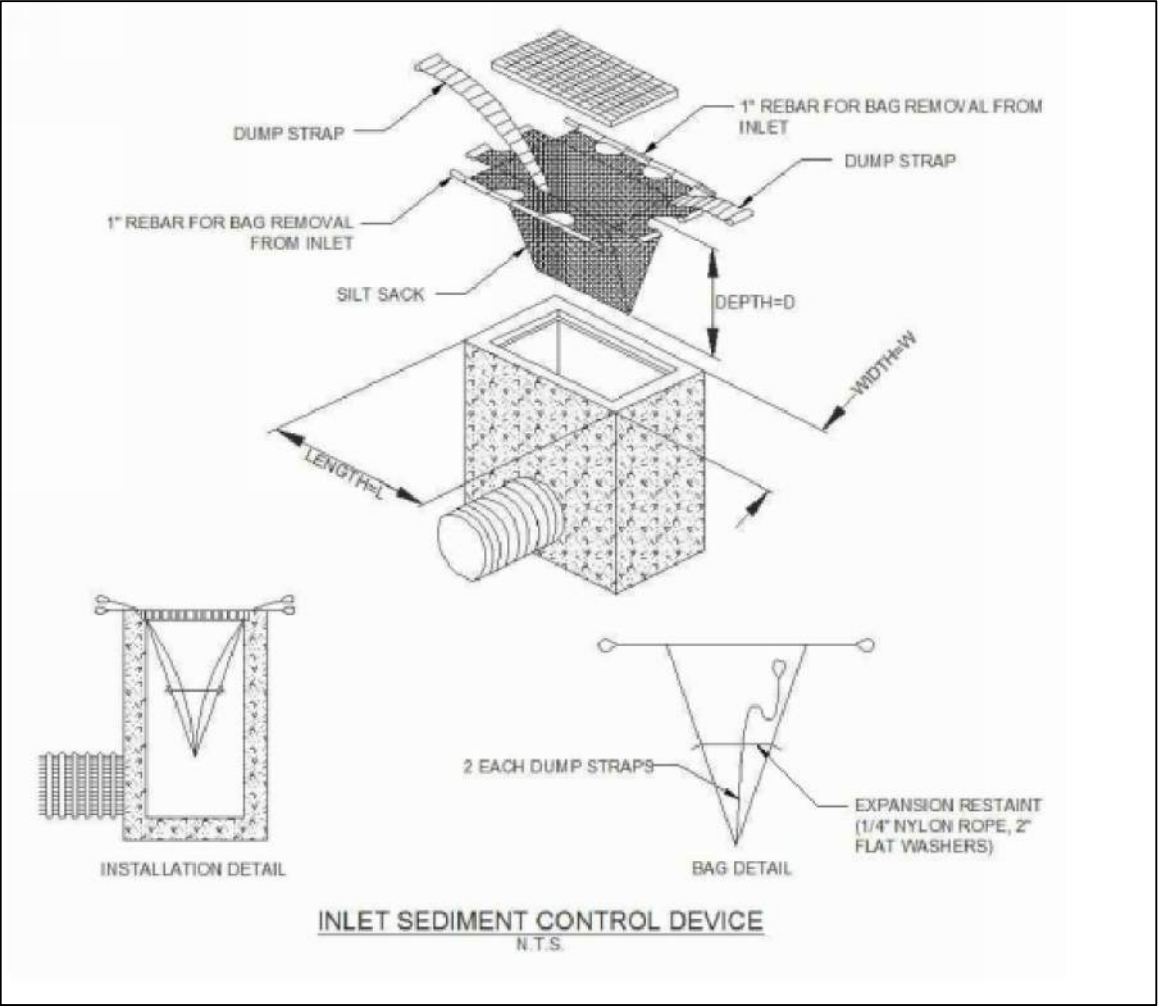
1. Work shall conform to OPSS. 441.
2. Install coated No. 12 TWU stranded copper tracer wire on all watermain as per Town Standards.
3. All watermain to have 1.8m minimum cover as shown on the drawings.
4. Unless noted otherwise, all watermain to be Class 235(DR 18) PVC material in accordance with AWWA C-900 Standard. Exterior of all uncoated D.I. fittings, valves, mechanical joint restraints & associated connections shall have dense petrolatum mastic corrosion protection.
5. All dimensions are in metres. Pipe sizes are in millimetres unless otherwise noted.
6. Exact horizontal and vertical alignment of existing watermain at point of connection to be determined in the field.
7. Valve and Valve boxes to be installed accordance with OPSS. 441
8. Vertical bend distances are not indicated on drawings and are to be installed as required. All watermain fittings tee's, bends, end caps etc, must comply with approved products list for the Town of Midland. Watermain located in fill shall have mechanically restrained joints and be bedded on compacted Granular 'A' founded on native ground. Granular 'A' to be compacted to 95% SPD.
9. Pressure testing of all new water systems will be completed by the Town's Representative and shall be undertaken in accordance with OPSS 701.07.22.01. Watermain must be pressure tested (1035 kPa), chlorinated, and pigged with foam swabs as directed by the Engineer. Hydrostatic testing as per AWWA standard C651. Bacteriological testing as per AWWA Standard C651.
10. All gate valves shall be resilient seat type to AWWA C-509 Standards.
11. All water services to be 25mm dia. HDPE series 160 unless otherwise noted. Provide 1.8m cover for water services at ditch crossings. Service saddles shall be all stainless steel double bolt, fully galvanized, Robar 2616 Boss Pad, or Cambridge Brass 8403 PG. Pipe embedment and backfill shall conform to OPSD 802.010 and 802.013. Pipe embedment material to springline shall consist of Granular "A" or 19mm diameter clear stone. Embedment from springline to 300mm above pipe shall consist of sand. Trench backfill to road subgrade elevation shall consist of approved native material compacted to 95% SPD.
12. Watermain bedding shall be Granular 'A' to OPSD-802.010.
13. Vertical and horizontal bends in watermain to be achieved by manufactured bends only.
14. Hydrants shall meet the requirements of AWWA standard C-502.
15. Watermain with gradients 4:1 or greater to be anchored. Shop drawings to be submitted for approval.
16. All curb stops shall be ball type with compression joint inlet and outlet, non draining, no lead or brass construction, with blow out proof stainless steel stems and unfilled Teflon seats, rated for 300psi conforming to ANSI/AWWA C800-05 and NSF/ANSI 61, drinking water system components-Health Effects. Connections of newly constructed watermain to existing watermain in accordance with AWWA standard C651.
17. All watermain fittings shall have cathodic protection which includes zinc caps and anodes on each fitting.

SANITARY SEWERS

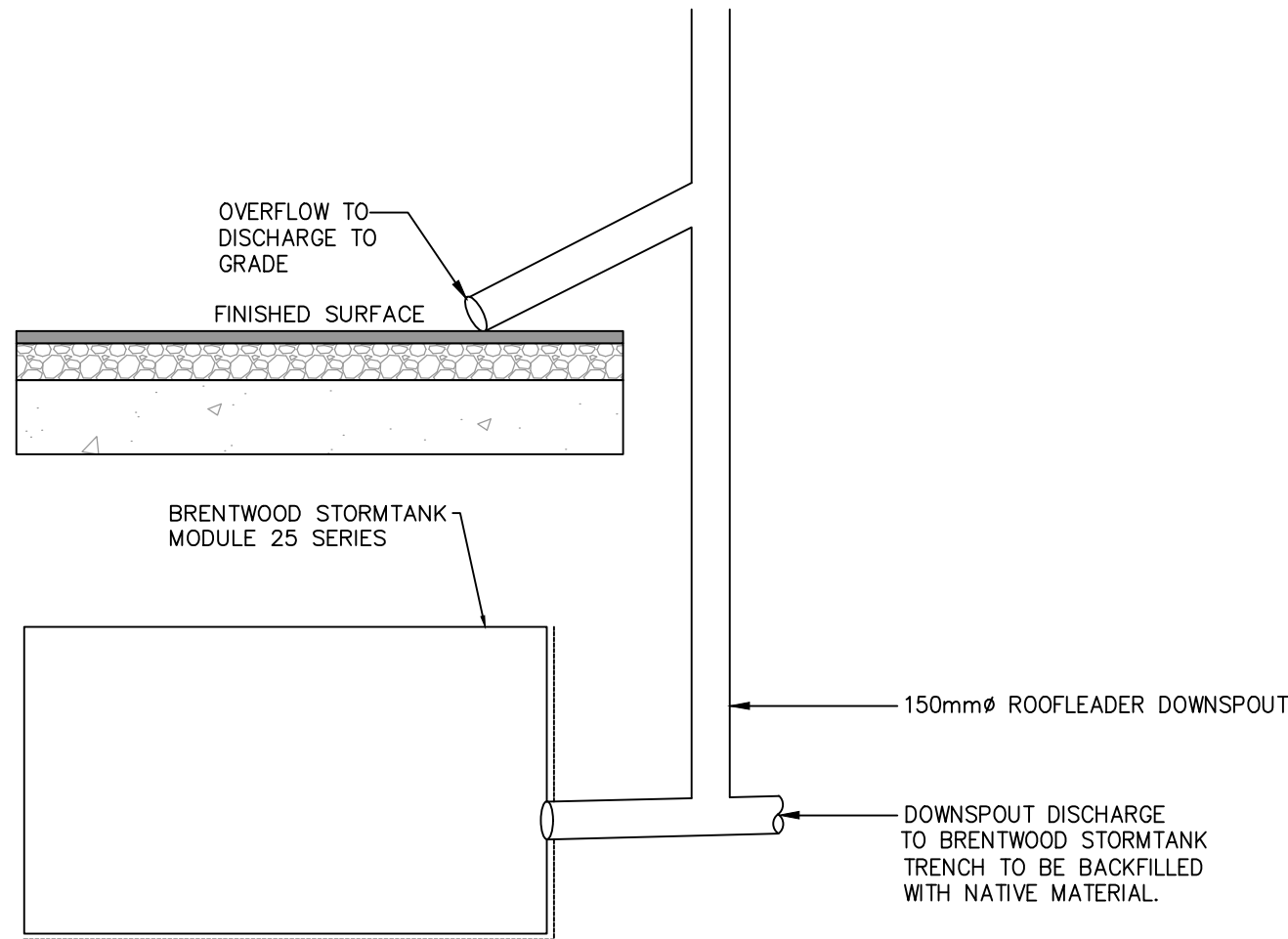
1. Work shall conform to OPSS.410 and the Ontario Building Code. Pipe embedment and backfill shall conform to OPSD 802.010 and 802.013. Pipe embedment material to springline shall consist of Granular "A" or 19mm diameter clear stone. Embedment from springline to 300mm above pipe shall consist of sand. Backfill to be approved native material or select material.
2. Sanitary sewer to be PVC SDR 35 200mmø. Trench backfill to road subgrade elevation shall consist of approved native material compacted to 95% SPD.
3. Sanitary sewer services to be PVC SDR 28 125mmø.
4. All manholes to be minimum 1200mm dia. precast with aluminum rungs at 300mm centers per OPSD.701.010
5. Provide water tight boot pipe-to-manholes connectors in sanitary manholes.
6. All manholes to be benched per OPSD 701.021
7. Manhole at property line shall have waterproofing membrane (mel-rol or approved equivalent) at a minimum of 300mmø at each section of the manhole.
8. Sanitary sewers to be tested in accordance with OPSS 409 & 411. Pipes to be cleaned and flushed prior to the video inspection.
9. All frames/lids for manhole in roadways shall be 3 piece adjustable units such as Bibby(Autostable) C-50M-ONT, Mueller adjustable AJ633 or approved equivalent.
10. Sanitary sewers to be video inspected providing dvd recording copy in triplicate (3) and report of inspection to the Engineer. Sewers are to be inspected once at initial acceptance and once at final assumption without defect.
11. Frost straps to be installed as per OPSD 701.100.
12. The complete sewer system including service connection to the property line and manholes shall be tested in accordance with OPS. Approximately one year prior to the expiration of the maintenance period the complete system shall be inspected by an approved video camera testing company and the Director of Public Works shall be provided with a copy of the appropriate data prior to final approval.

STORM SEWERS, CULVERTS, AND SUBDRAINS

1. Storm sewers shall be smooth wall 320KPa HDPE per BOSS 2000 with bell & spigot joint or PVC Ultra Rib. Pipe embedment and backfill shall conform to OPSD 802.010 and 802.013. Pipe embedment material to springline shall consist of Granular "A" or 19mm diameter clear stone. Embedment from springline to 300mm above pipe shall consist of sand. Trench backfill to road subgrade elevation shall consist of approved native material compacted to 95% SPD.
2. All catch basin manholes to be precast with aluminum rungs at 300mm centers per OPSD.701.010 AND 701.011.
3. Frost tapers at culverts to be per OPSD 803.030.
4. Pipe subdrain shall be 150mmø corrugated HDPE pipe, 210 kpa pipe stiffness, c/w filter sock and shall be connected to storm structures.
5. Storm sewers to be video inspected providing dvd Sewers are to be inspected once at initial acceptance and once at final assumption without defect.
6. Frost straps to be installed as per OPSD 701.100.
7. 30 days prior to both initial and final inspection, a video inspection and report shall be completed and presented to town staff.
8. Catchbasin and Catchbasin Manholes frame and grate to be per OPSD 400.100.



BRENTWOOD STORMTANK DETAIL  
N.T.S.



ROOF DOWNSPOUT DETAIL  
N.T.S.



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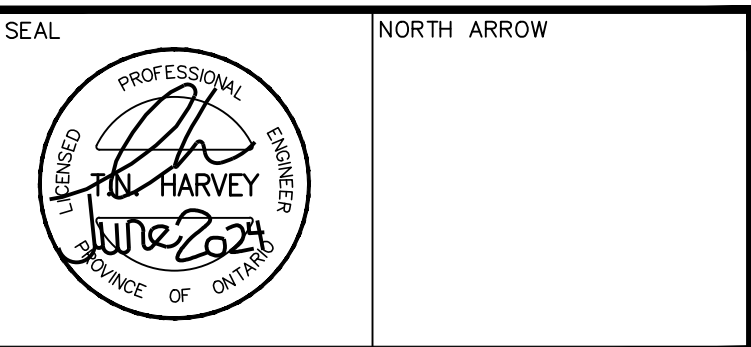
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	DRAWN BY:	M.B.
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