

- 1. GENERAL**
- 1.1. THESE PLANS ARE NOT FOR CONSTRUCTION UNTIL SIGNED AND SEALED BY ENGINEER AND APPROVED BY THE TOWN OF ST. MARYS.
- 1.2. THESE PLANS ARE TO BE USED FOR SERVING AND GRADING ONLY; ANY OTHER INFORMATION SHOWN IS FOR ILLUSTRATION PURPOSES ONLY. THESE PLANS MUST NOT BE USED TO SITE THE PROPOSED BUILDING.
- 1.3. NO CHANGES ARE TO BE MADE WITHOUT THE APPROVAL OF THE DESIGN ENGINEER.
- 1.4. THESE PLANS ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE PERMISSION OF MTE CONSULTANTS INC.
- 1.5. PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST:
 - 1.5.1. CHECK AND VERIFY ALL EXISTING CONDITIONS, LOCATIONS AND ELEVATIONS WHICH INCLUDES BUT IS NOT LIMITED TO THE BENCHMARK ELEVATIONS, EXISTING SERVICE CONNECTIONS AND EXISTING INVERTS. REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO PROCEEDING.
 - 1.5.2. OBTAIN ALL UTILITY LOCATES AND REQUIRED PERMITS AND LICENSES.
 - 1.5.3. VERIFY THAT THE FINISHED FLOOR ELEVATIONS AND BASEMENT FLOOR ELEVATIONS (WHICH MAY APPEAR ON THIS PLAN) COMPLY WITH THE FINAL ARCHITECTURAL DRAWINGS.
 - 1.5.4. CONFIRM ALL DRAWINGS USED FOR CONSTRUCTION ARE OF THE MOST RECENT REVISION.
- 1.6. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR ANY DAMAGE TO EXISTING WORKS. THE CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF ALL DAMAGED AND/OR DISTURBED PROPERTY WITHIN THE MUNICIPAL RIGHT-OF-WAY TO THE TOWN OF ST. MARYS' STANDARDS.

- 1.7. ALL WORKS ON A MUNICIPAL RIGHT-OF-WAY WITH THE EXCEPTION OF WATERMAIN TAPPING, TO BE INSTALLED BY THE OWNER'S CONTRACTOR AT OWNER'S EXPENSE IN ACCORDANCE WITH THE TOWN OF ST. MARYS' PROCEDURE FOR OFF-SITE WORKS BY PRIVATE CONTRACTOR. THE OWNER AND CONTRACTOR ARE TO ENSURE OFF-SITE WORKS PERMIT IS IN PLACE PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF ALL AFFECTED PROPERTY TO ORIGINAL CONDITION. ALL BOULEVARD AREAS SHALL BE RESTORED WITH 200mm TOPSOIL AND SOD.
- 1.8. ALL UNDERGROUND SERVICES ARE TO BE CONSTRUCTED IN FULL COMPLIANCE WITH THE ONTARIO PROVINCIAL BUILDING CODE (PART 7, PLUMBING), THE ONTARIO PROVINCIAL STANDARD SPECIFICATIONS (SPSS) AND THE REQUIREMENTS OF THE TOWN OF ST. MARYS; WHICH CODES AND REGULATIONS SHALL SUPERSEDE ALL OTHERS.
- 1.9. CONTRACTOR IS RESPONSIBLE FOR CONTACTING ENGINEER 48 HRS PRIOR TO COMMENCING WORK TO ARRANGE FOR INSPECTION ENGINEER TO DETERMINE DEGREE OF INSPECTION AND TESTING REQUIRED FOR CERTIFICATION OF UNDERGROUND SERVICE INSTALLATION AS MANDATED BY ONTARIO BUILDING CODE, DIVISION C, PART 1, SECTION 1.2.2, GENERAL REVIEW. FAILURE TO NOTIFY ENGINEER WILL RESULT IN EXTENSIVE POST CONSTRUCTION INSPECTION AT CONTRACTORS EXPENSE.
- 1.10. PLAN TO BE READ IN CONJUNCTION WITH SWM REPORT AND DRAWING C2.1 PREPARED BY MTE CONSULTANTS INC.
- 1.11. EXISTING TOPOGRAPHIC INFORMATION TAKEN FROM SURVEY CONDUCTED BY MTE CONSULTANTS INC. ON FEBRUARY 9, 2022.
- 1.12. CONTRACTOR TO OBTAIN WRITTEN PERMISSION FROM ADJACENT PROPERTY OWNER PRIOR TO ENTERING UPON NEIGHBOURING LANDS TO UNDERTAKE ANY WORK. COPIES OF THESE LETTERS OF CONSENT SHALL BE SUBMITTED TO THE DEPARTMENT OF PUBLIC WORKS FOR APPROVAL PRIOR TO ANY WORK BEING PERFORMED. FAILURE TO COMPLY WITH THE ABOVE IS AT CONTRACTOR'S OWN RISK.
- 1.13. SITE SERVICING CONTRACTOR TO TERMINATE ALL SERVICES 1 METRE FROM FOUNDATION WALL.
- 1.14. FILTER FABRIC TO BE TERRAFIX 270R OR APPROVED EQUAL.
- 1.15. MAXIMUM GRASSED SLOPE TO BE 3:1. SLOPES GREATER THAN 3:1 TO BE LANDSCAPED WITH LOW MAINTENANCE GROUND COVER.
- 1.16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC AND SAFETY MEASURES DURING THE CONSTRUCTION PERIOD INCLUDING THE SUPPLY, INSTALLATION AND REMOVAL OF ALL NECESSARY SIGNALS, DELINEATORS, MARKERS, AND BARRIERS. ALL SIGNS, ETC. SHALL CONFORM TO THE STANDARDS OF THE TOWN OF ST. MARYS AND THE MTO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- 1.17. THE POSITION OF POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND, WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.
- 1.18. CONTRACTOR TO MAINTAIN A "CONFINED TRENCH CONDITION" IN ALL SEWER AND SERVICE TRENCHES.
- 1.19. FOLLOWING COMPLETION OF PROPOSED WORKS AND PRIOR TO OCCUPANCY INSPECTION, ALL STORM AND SANITARY SEWERS ARE TO BE FLUSHED AND ALL CATCHBASIN AND CATCHBASIN MANHOLE SUMPS ARE TO BE CLEANED OF DEBRIS AND SILT.

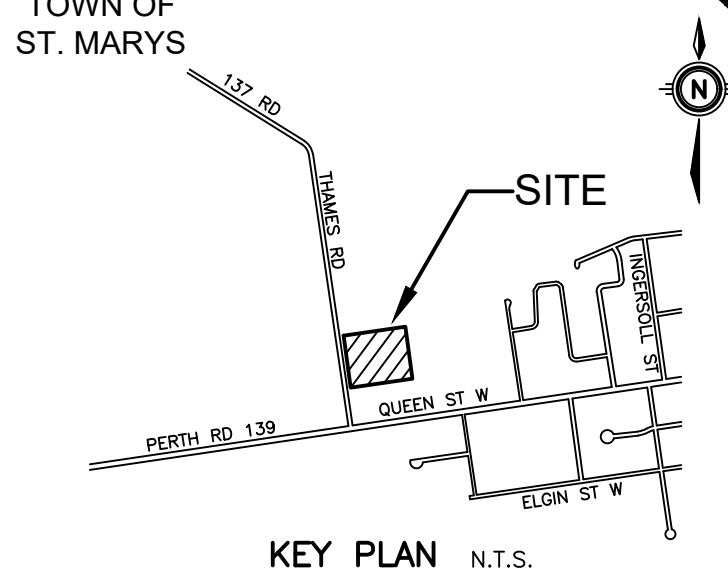
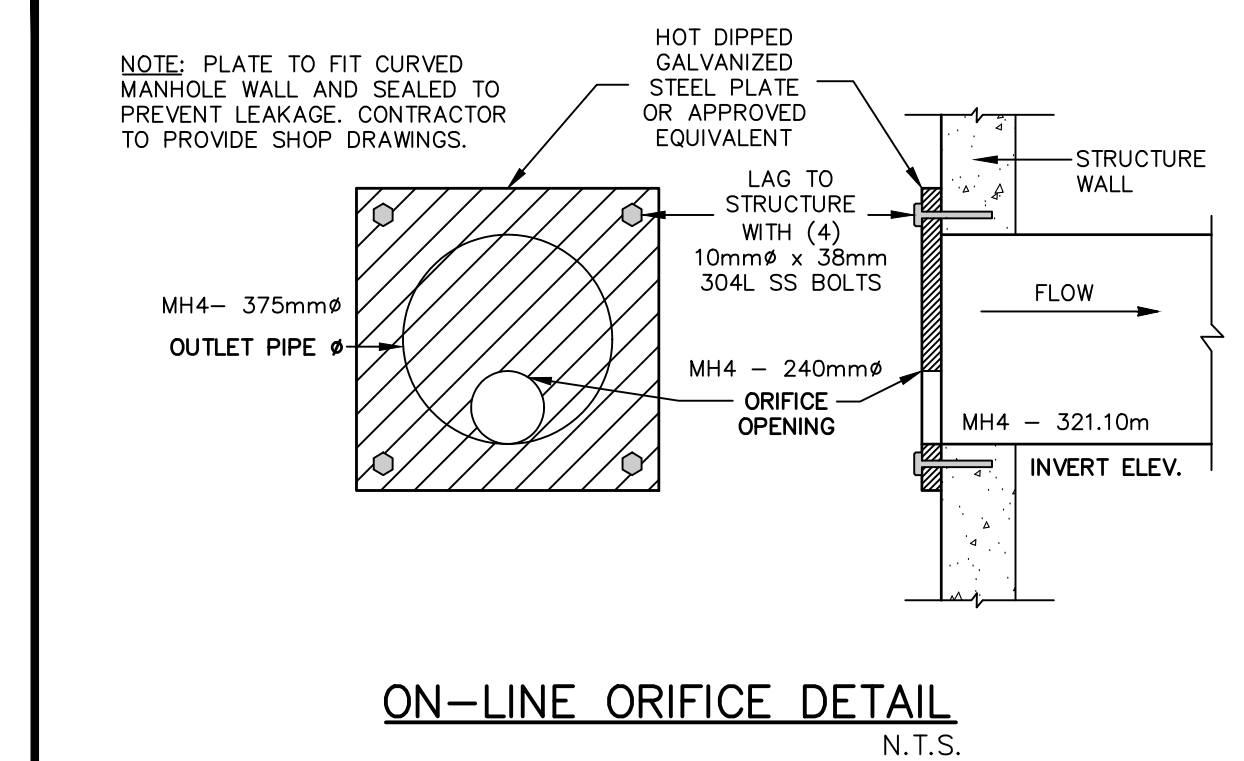
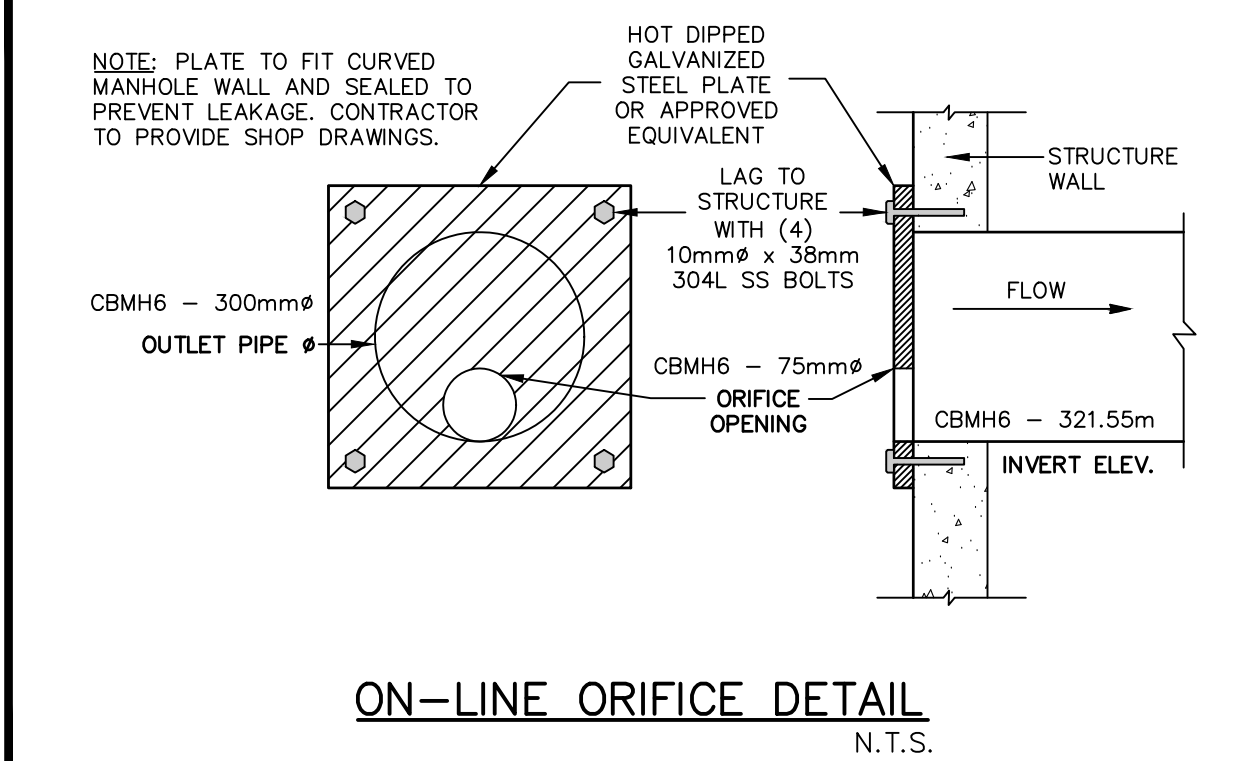
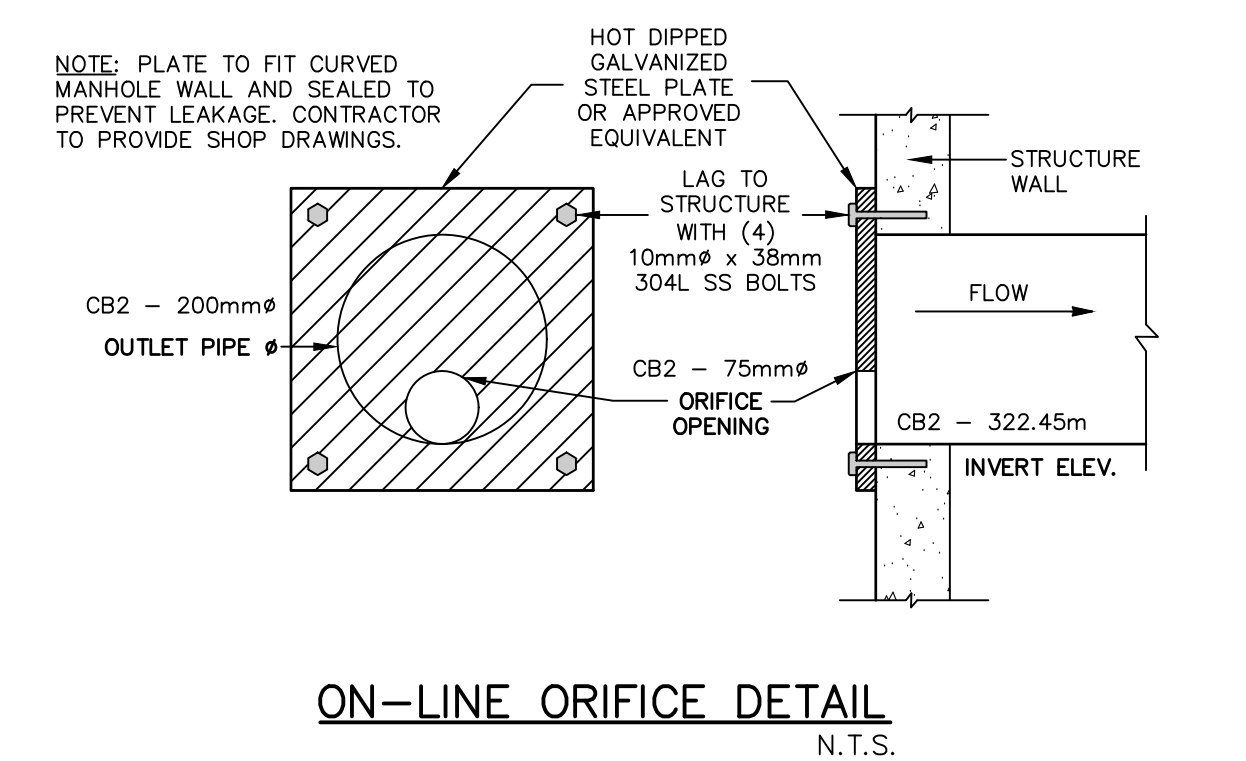
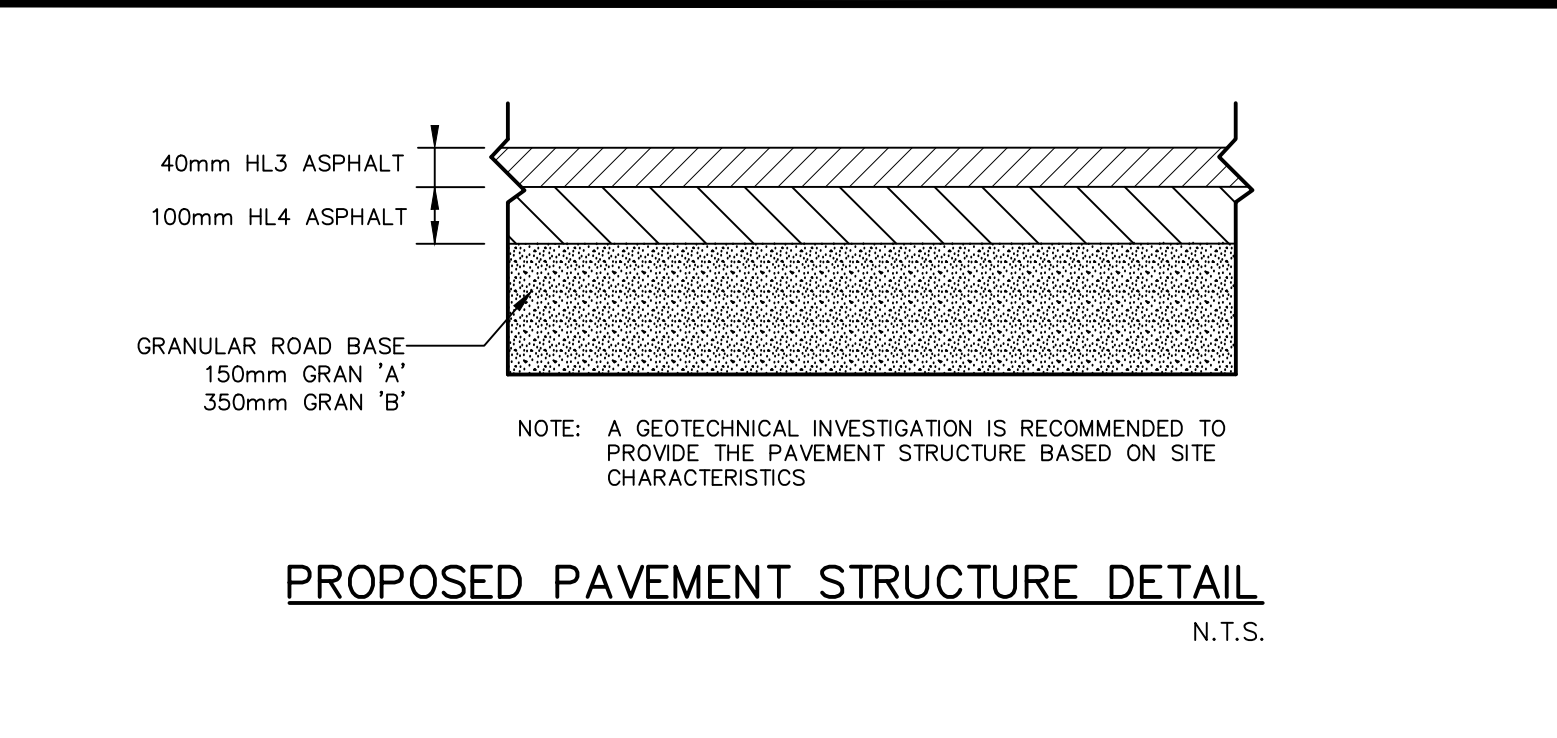
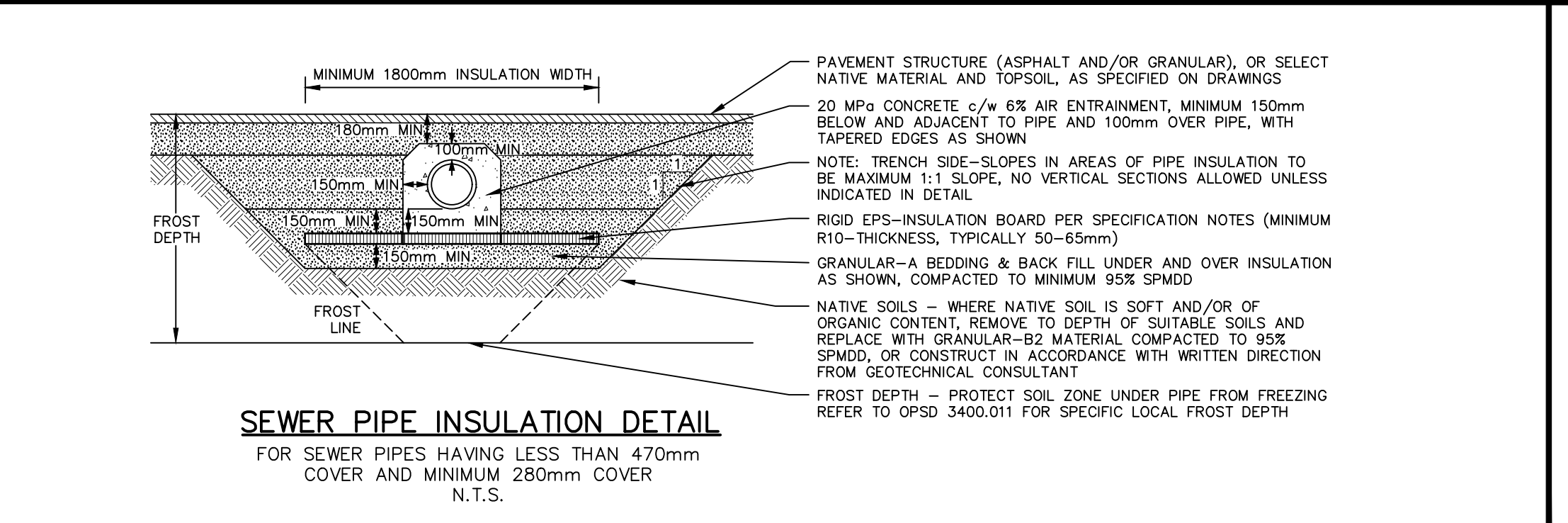
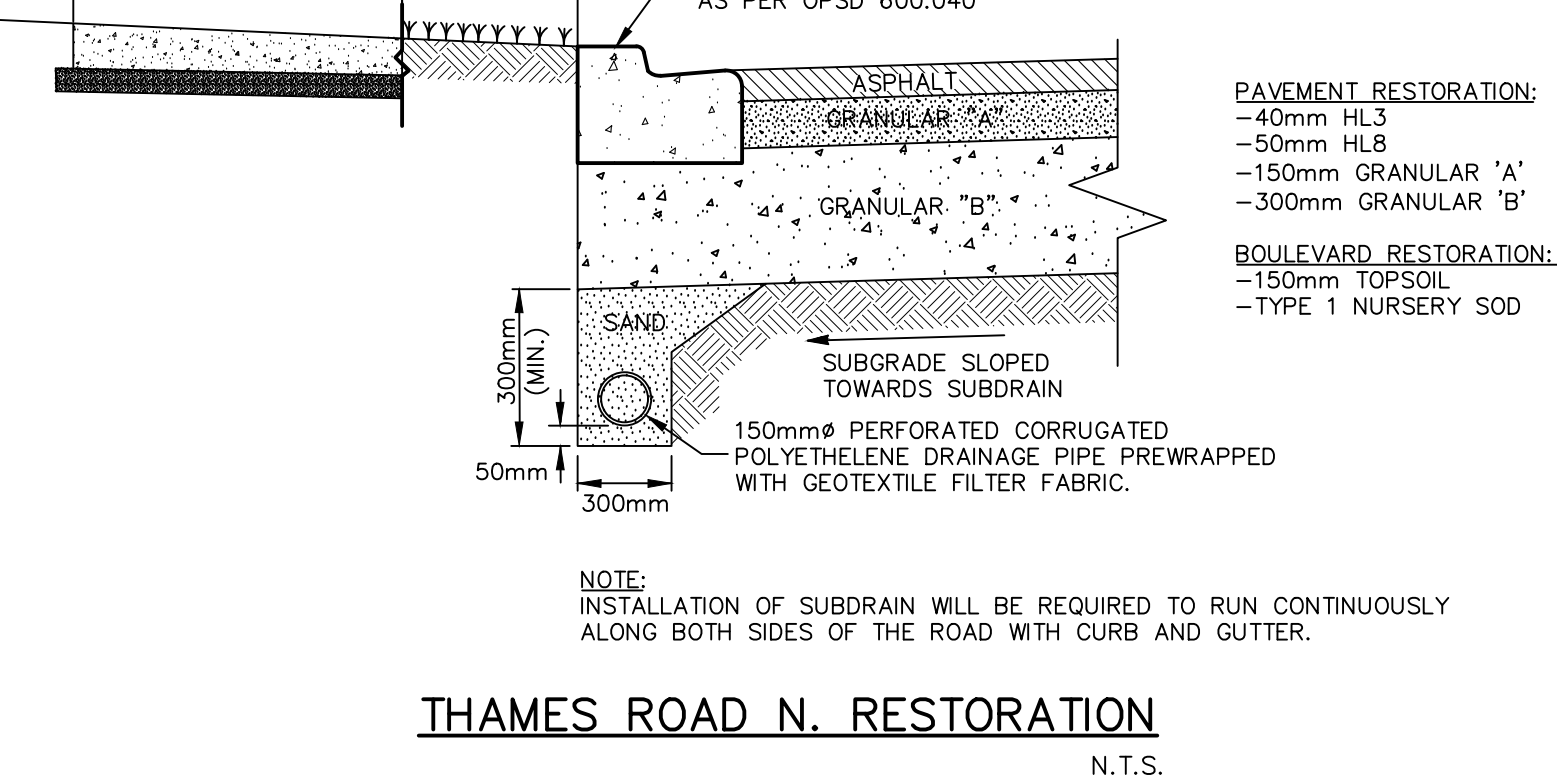
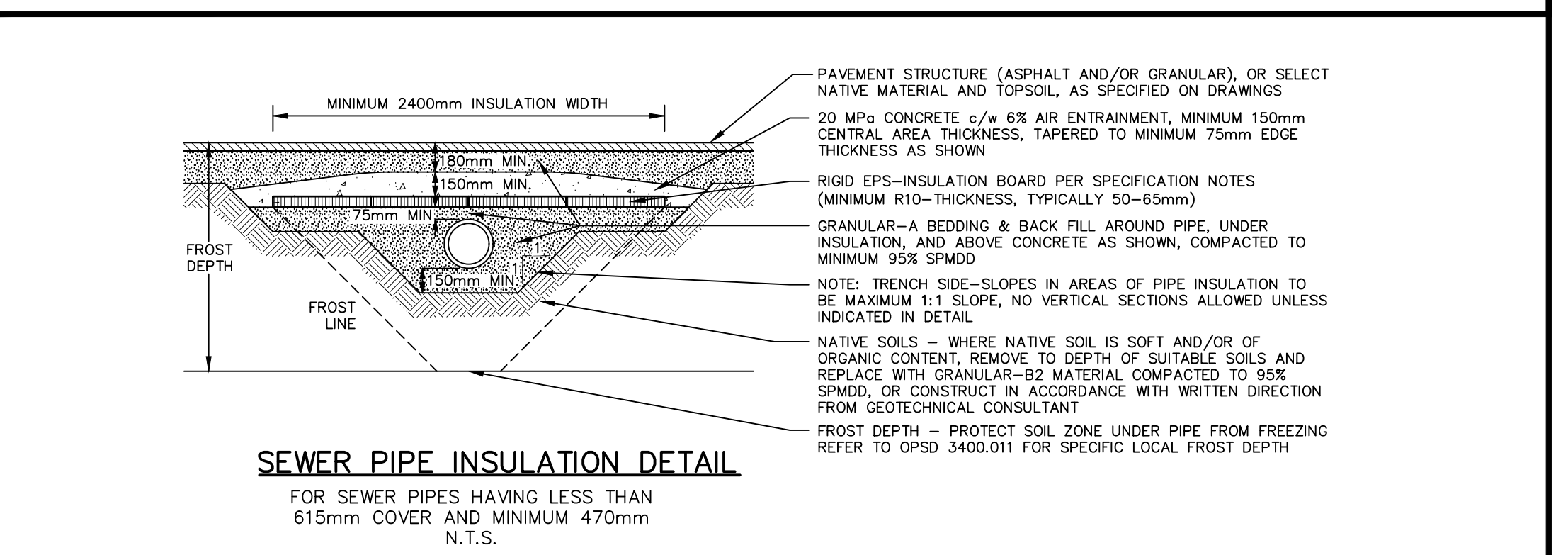
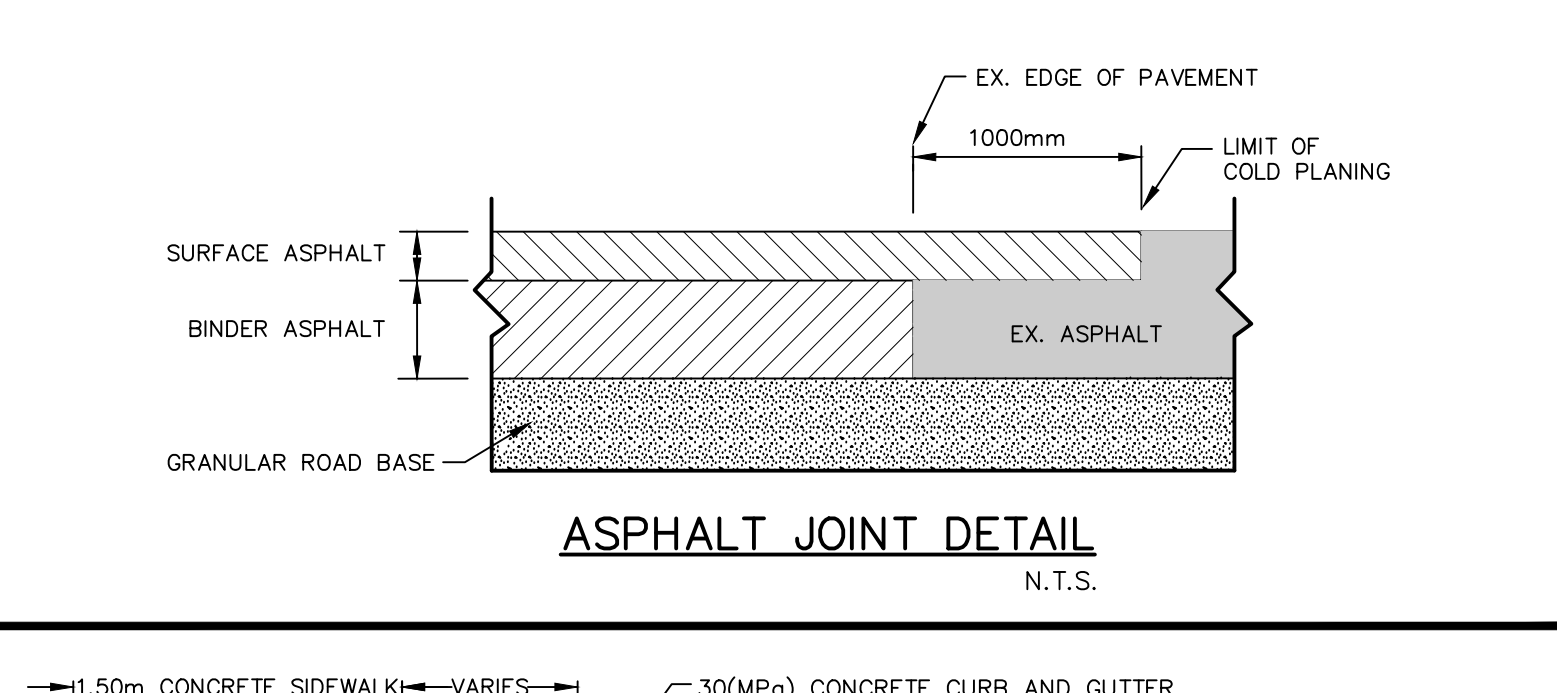
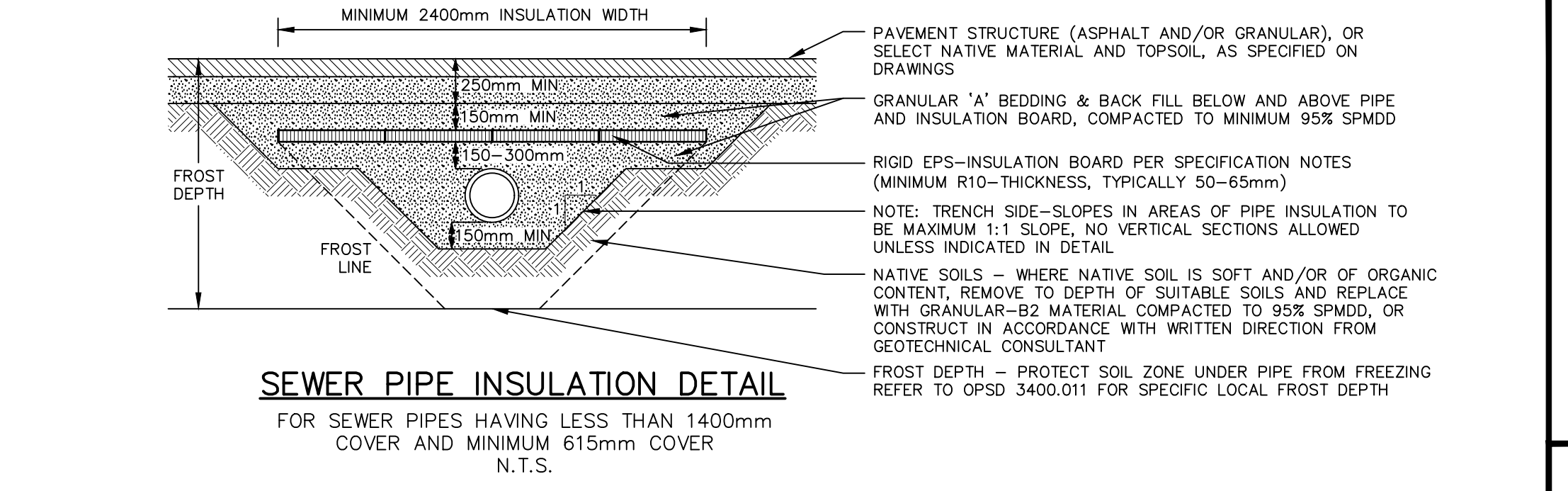
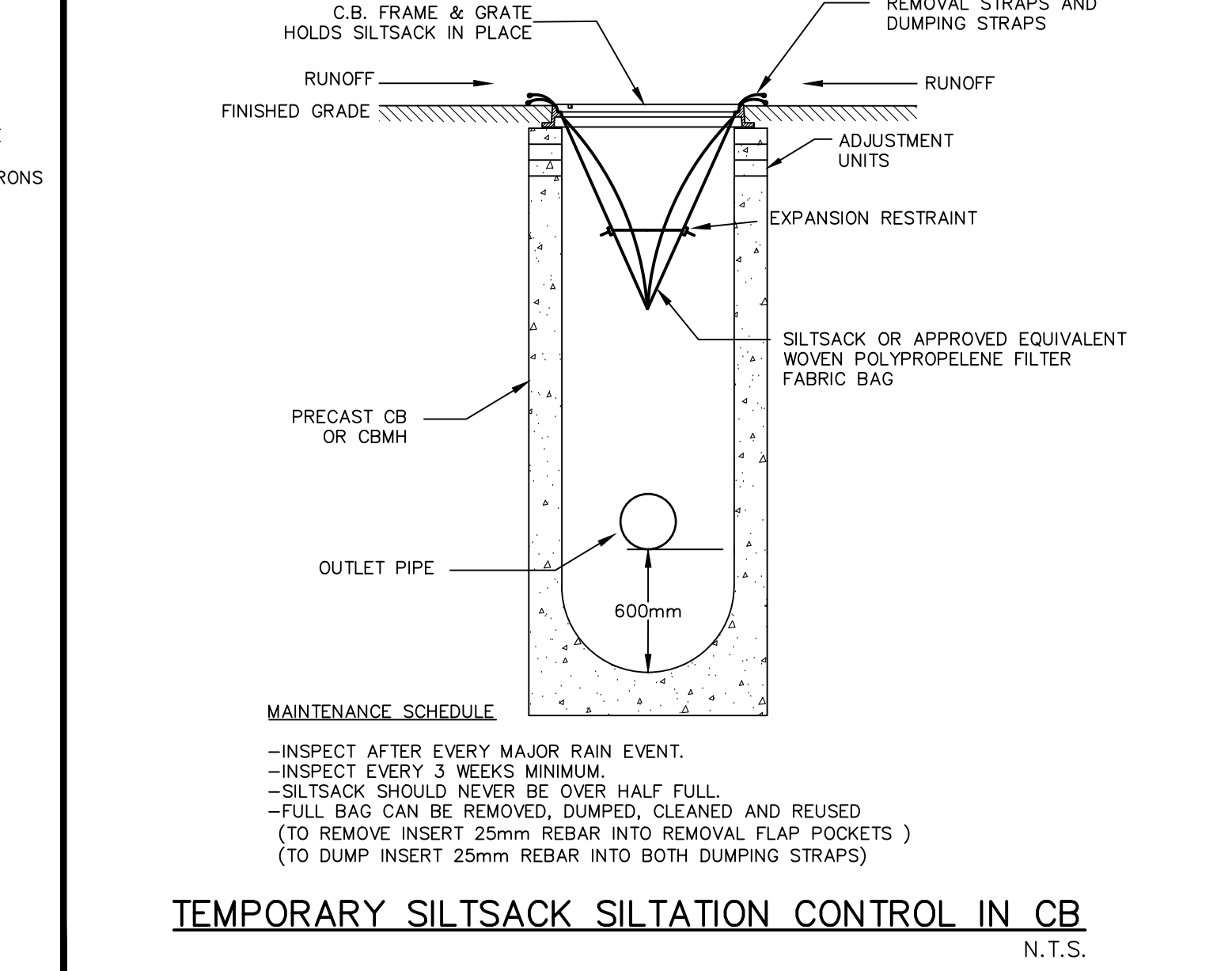
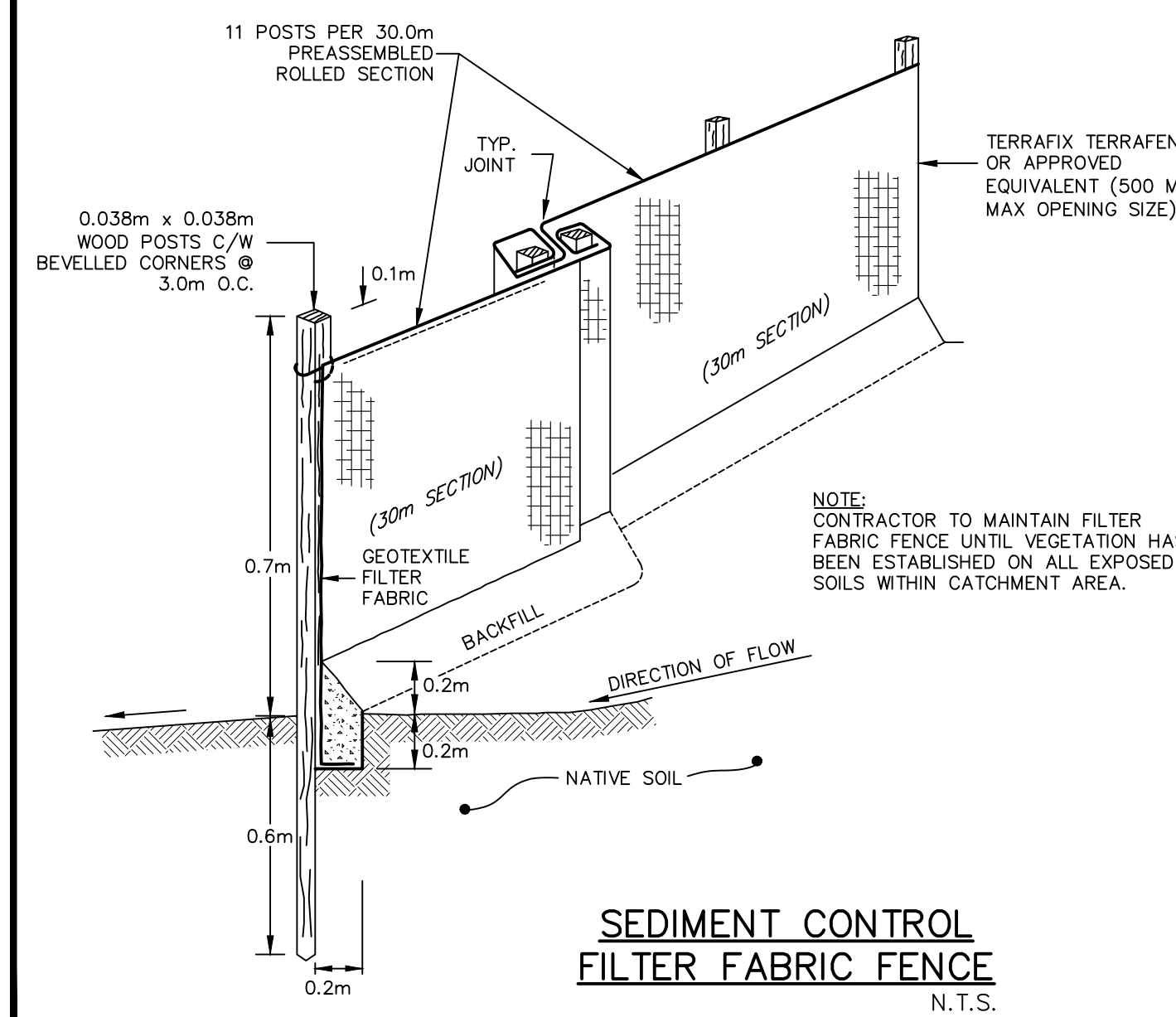
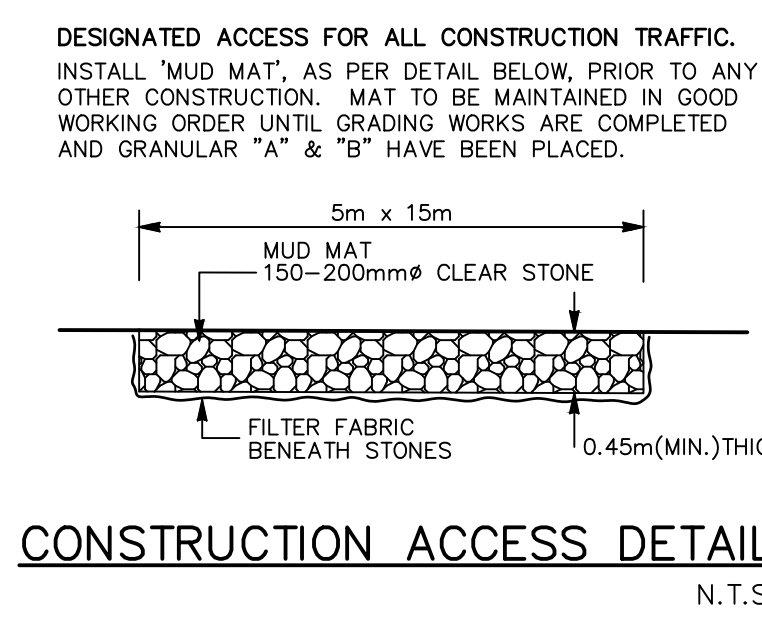
- 1.20. CATCHBASIN MANHOLES AND CATCHBASINS TO HAVE A MINIMUM 600mm DEEP SUMP.
- 1.21. MANHOLE AND CATCHBASIN, FRAMES, GRATES, CASTINGS AND LIDS TO BE QUALITY GREY IRON ASTM A48 CLASS 30B.
- 1.22. STORM MANHOLE LIDS TO BE PER OPSD 401.010 - TYPE 'B' CATCHBASIN AND CATCHBASIN MANHOLE GRATES TO BE PER OPSD 400.100.
- 1.23. UNDER NO CIRCUMSTANCES SHALL THE BUILDING FOUNDATION DRAINS BE CONNECTED DIRECTLY TO THE STORM SEWER SYSTEM.
- 1.24. ALL WEEPING TIE DRAINAGE TO BE PUMPED TO THE STORM SEWER SYSTEM.

- 2. STORM SEWERS**
- 2.1. PIPE BEDDING FOR RIGID PIPE TO BE CLASS "B" AS PER OPSD 802.030, 802.031, OR 802.032. PIPE BEDDING FOR FLEXIBLE PIPE TO BE AS PER OPSD 802.010. BEDDING MATERIAL AND COVER MATERIAL TO BE GRANULAR "A". TRENCH BACKFILL TO BE NATIVE MATERIAL REPLACED IN 300mm LIFTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
- 2.2. STORM SEWERS, 150mmφ AND SMALLER, SHALL BE POLYVINYL CHLORIDE (PVC) PIPE DR35 ASTM-D3034 WITH INTEGRAL BELL AND SPIGOT UTILIZING FLEXIBLE ELASTOMERIC SEALS.
- 2.3. UNLESS OTHERWISE NOTED, STORM SEWERS 200mmφ TO 375mmφ SHALL BE POLYVINYL CHLORIDE (PVC) PIPE DR35 ASTM-D3034 OR RIBBED PVC SEWER PIPE CSA B182.4-M90 ASTM-F794 WITH INTEGRAL BELL AND SPIGOT UTILIZING FLEXIBLE ELASTOMERIC SEALS. RIBBED PVC NOT TO BE USED WITHIN RIGHT-OF-WAY.
- 2.4. STORM SEWERS, 450mmφ AND LARGER, SHALL BE CONCRETE PIPE, CSA-A257.2 65-9 WITH RUBBER GASKET JOINT OR RIBBED PVC SEWER PIPE CSA B182.4-M90 ASTM-F794 WITH INTEGRAL BELL AND SPIGOT UTILIZING FLEXIBLE ELASTOMERIC RIBBED PVC NOT TO BE USED WITHIN RIGHT-OF-WAY.
- 2.5. STORM SEWERS AND SERVICES TO HAVE MINIMUM 1.4m COVER TO TOP OF PIPE. WHERE COVER TO TOP OF PIPE IS DEFICIENT, CONTRACTOR SHALL INSTALL SHALLOW BURIED SEWER PIPE IN ACCORDANCE WITH APPLICABLE "SEWER PIPE INSULATION DETAIL" INDICATED IN DRAWING DETAILS. INSULATION SHALL BE RIGID EXTRUDED POLYSTYRENE (EPS) BOARD WITH A THICKNESS SUFFICIENT TO PROVIDE AN RSI-1.76 (R10) INSULATING FACTOR (TYPICALLY 50-65mm). INSULATION BOARD WIDTH SHALL BE 1.8m FOR UP TO 200mm NOMINAL PIPE DIAMETER AND 2.4m FOR 201mm-800mm DIAMETER. ALL JOINTS SHALL BE TIGHTLY BUTTED TOGETHER (TAPE OR OTHERWISE SECURE JOINTS TO RESIST MOVEMENT DURING BACKFILL PLACEMENT). RIGID EPS BOARD SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 140kPa (20psi), AND A MAXIMUM WATER ABSORPTION RATE OF 2.0% BY VOLUME. ACCEPTABLE PRODUCTS ARE DOW STYROFOAM-SM OR -HI (FULL LINE), OWENS CORNING FOAMULAR (200, 250, OR HIGHER), PLASTISPAN HD-M28 OR OTHER ENGINEER-APPROVED EQUIVALENT.
- 2.6. FACTORY FABRICATED WYES SHALL BE USED FOR ALL SERVICE CONNECTIONS.
- 2.7. MANHOLES AND CATCHBASIN TO BE 1200mmφ PRECAST WITH ALUMINIUM STEPS AT 300mm CENTRES AS PER OPSD 701.010 UNLESS OTHERWISE SPECIFIED.
- 2.8. MANHOLES TO BE BENCHED PER OPSD 701.021.
- 2.9. CATCHBASINS TO BE 600mm SQUARE PRECAST AS PER OPSD 705.010.
- 2.10. CATCHBASIN MANHOLES AND CATCHBASINS TO HAVE A MINIMUM 600mm DEEP SUMP.
- 2.11. MANHOLE AND CATCHBASIN, FRAMES, GRATES, CASTINGS AND LIDS TO BE QUALITY GREY IRON ASTM A48 CLASS 30B.

- 2.12. STORM SEWERS AND SERVICES TO HAVE MINIMUM 1.4m COVER ON TOP OF PIPE. WHERE COVER TO TOP OF PIPE IS DEFICIENT, CONTRACTOR SHALL INSTALL SHALLOW BURIED PIPE IN ACCORDANCE WITH APPLICABLE "SEWER PIPE INSULATION DETAIL" INDICATED IN DRAWING DETAILS. INSULATION SHALL BE RIGID EXTRUDED POLYSTYRENE (EPS) BOARD WITH A THICKNESS SUFFICIENT TO PROVIDE AN RSI-1.76 (R10) INSULATING FACTOR (TYPICALLY 50-65mm). INSULATION BOARD WIDTH SHALL BE 1.8m FOR UP TO 200mm NOMINAL PIPE DIAMETER AND 2.4m FOR 201mm-800mm DIAMETER. ALL JOINTS SHALL BE TIGHTLY BUTTED TOGETHER (TAPE OR OTHERWISE SECURE JOINTS TO RESIST MOVEMENT DURING BACKFILL PLACEMENT). RIGID EPS BOARD SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 140kPa (20psi), AND A MAXIMUM WATER ABSORPTION RATE OF 2.0% BY VOLUME. ACCEPTABLE PRODUCTS ARE DOW STYROFOAM-SM OR -HI (FULL LINE), OWENS CORNING FOAMULAR (200, 250, OR HIGHER), PLASTISPAN HD-M28 OR OTHER ENGINEER-APPROVED EQUIVALENT.
- 2.13. CONTRACTOR RESPONSIBLE FOR TESTING OF SANITARY SEWERS IN ACCORDANCE WITH OPSD 410.
- 4. EROSION AND SEDIMENT CONTROL**
- 4.1. CONTRACTOR TO INSTALL EROSION CONTROL MEASURES AS SHOWN PRIOR TO CONSTRUCTION AND MAINTAIN IN GOOD CONDITION UNTIL CONSTRUCTION IS COMPLETED AND ALL DISTURBED GROUND SURFACES HAVE BEEN RESTABILIZED EITHER BY PAVING OR RESTORATION OF VEGETATIVE COVER.
- 4.2. ALL SEDIMENT CONTROL FENCING TO BE INSTALLED PRIOR TO ANY AREA GRADING, EXCAVATING OR DEMOLITION COMMENCING.
- 4.3. EROSION CONTROL FENCING TO BE INSTALLED AROUND BASE OF ALL STOCKPILES. ALL STOCKPILES TO BE KEPT 2.5m MINIMUM FROM PROPERTY LINE.
- 4.4. EROSION PROTECTION TO BE PROVIDED AROUND ALL STORM AND SANITARY MHS AND CBS.
- 4.5. CONSTRUCTION ACCESS (STONE PAD) TO BE PROVIDED ON-SITE AT ALL LOCATIONS WHERE CONSTRUCTION VEHICLES EXIT THE SITE. CONSTRUCTION ACCESS (STONE PAD) SHALL BE A MINIMUM OF 5.0m WIDE, 15.0m LONG AND 0.45m MIN. DEEP AND SHALL CONSIST OF 50mm CLEAR STONE MATERIAL FOR THE FIRST 7.5m AND 150mm RIP-RAP MATERIAL FOR THE REMAINING 7.5m. CONTRACTOR TO ENSURE ALL VEHICLES LEAVE THE SITE VIA THE MUD MAT AND THAT THE MAT IS MAINTAINED IN A MANNER TO MAXIMIZE EFFECTIVENESS AT ALL TIMES.
- 4.6. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS SITE DEVELOPMENT PROGRESSES. CONTRACTOR TO PROVIDE ALL ADDITIONAL EROSION CONTROL STRUCTURES.
- 4.7. EROSION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL ALL DISTURBED GROUND SURFACES HAVE BEEN RESTABILIZED.
- 4.8. NO ALTERNATE METHODS OF EROSION PROTECTION SHALL BE PERMITTED UNLESS APPROVED BY THE ENGINEER AND THE TOWN OF ST. MARYS' DEPARTMENT OF PUBLIC WORKS.
- 4.9. CONTRACTOR TO CLEAN ROADWAY AND SIDEWALKS OF SEDIMENTS RESULTING FROM CONSTRUCTION TRAFFIC FROM THE SITE EACH DAY.
- 4.10. CONTRACTOR MUST REMOVE EROSION AND SEDIMENTATION FENCING PRIOR TO COMPLETION OF PROJECT. CONTRACTOR TO HAVE EROSION AND SEDIMENTATION FENCING INSPECTED WHEN VEGETATION HAS ESTABLISHED, BUT PRIOR TO FENCE BECOMING OVERGROWN. ENGINEER'S REPRESENTATIVE TO DETERMINE IF VEGETATION HAS REACHED THE CRITICAL POINT AND WILL THEN INSTRUCT CONTRACTOR TO REMOVE FENCE.

STORMWATER MANAGEMENT (SWM) SUMMARY FOR THE CONTROLLED PART OF THE SITE

SITE DRAINAGE SYSTEM - CB2	
TYPE: SURFACE STORAGE	
ORIFICE SIZE	0.075m
ORIFICE INVERT	322.45m
(REFER TO ON-LINE ORIFICE DETAIL THIS SHEET)	
MAX. STORAGE DEPTH (AT CB2)	0.22m
MAX. PONDING ELEVATION	323.32m
MAX. USED SITE STORAGE	18m³
AVAILABLE SITE STORAGE	42m³
SITE DRAINAGE SYSTEM - CBM6H6	
TYPE: SURFACE STORAGE	
ORIFICE SIZE	0.075m
ORIFICE INVERT	321.55m
(REFER TO ON-LINE ORIFICE DETAIL THIS SHEET)	
MAX. STORAGE DEPTH (AT CBM6H6)	0.21m
MAX. PONDING ELEVATION	322.61m
MAX. USED SITE STORAGE	24m³
AVAILABLE SITE STORAGE	85m³
SITE DRAINAGE SYSTEM - MH4	
TYPE: SURFACE STORAGE	
ORIFICE SIZE	0.240m
ORIFICE INVERT	321.10m
(REFER TO ON-LINE ORIFICE DETAIL THIS SHEET)	
MAX. STORAGE DEPTH (AT CB5)	0.325m
MAX. PONDING ELEVATION	322.225m
MAX. USED SITE STORAGE	90m³
AVAILABLE SITE STORAGE	208m³



GEODETIK BM ELEV. = 321.731m
BM 01019890457, BC IN CURB, FLUSH WITH GRADE. MONUMENT ON QUEEN STREET WEST, 40.0M EAST OF CENTRELINE OF WILLIAM STREET NORTH, 4.7M SOUTH OF THE CENTRELINE OF QUEEN STREET, IN THE TOWN OF ST. MARYS.

SITE BENCHMARK ELEV. = 323.007m
FIRE HYDRANT TOP OF NUT ON THE WEST SIDE OF THE SITE. LOCATED BETWEEN BOTH ENTRANCES INTO THE PROPERTY, PERPENDICULAR TO THE THAMES ROAD TRAILER PARK ENTRANCE.

NOTE TO CONTRACTOR :
DO NOT SCALE DRAWINGS.
CONTRACTORS MUST CHECK AND VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
ALL DRAWINGS REMAIN THE PROPERTY OF THE ENGINEER AND SHALL NOT BE REPRODUCED OR REUSED WITHOUT THE ENGINEER'S WRITTEN PERMISSION.

THE OWNER/ARCHITECT/CONTRACTOR IS ADVISED THAT M.T.E. CONSULTANTS INC. CANNOT CERTIFY ANY COMPONENT OF THE SITE WORKS NOT INSPECTED DURING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO NOTIFY M.T.E. CONSULTANTS INC. PRIOR TO COMMENCEMENT OF CONSTRUCTION TO ARRANGE FOR INSPECTION.

No.	REVISION	BY	DATE
8.			
7.			
6.			
5.			
4.	ISSUED FOR APPROVAL	MEW	2023-01-12
3.	ISSUED FOR CLIENT REVIEW	MEW	2022-12-12
2.	ISSUED FOR APPROVAL	MEW	2022-09-24
1.	ISSUED FOR CLIENT REVIEW	MEW	2022-09-08
No.	REVISION	BY	DATE

MTE
Engineers, Scientists, Surveyors
519-271-7952

PROFESSIONAL ENGINEER
S. ANTHOULAKIS
100516499
PROVINCE OF ONTARIO

OWNER: **PERTH COUNTY INGREDIENTS**
20 THAMES ROAD ST. MARYS, ONTARIO
PROJECT: **2022 BUILDING ADDITIONS**
DRAWING: **CONSTRUCTION NOTES AND DETAILS**

Project Manager	M.WHITTEMORE	Project No.	44357-112
Design By	XSP	Checked By	JMD
Drawn By	MRB	Checked By	MEW
Surveyed By	MTE OLS	Drawing No.	
Date	Jan.12/23	C2.2	
Scale	AS NOTED	Sheet	5 of 5