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S:\20052A\Working\Current\20052A-Grading Plan and Servicing Plan.dwg Plotted: December 19, 2022 3:04:16 PM By: Stephanie Duffin

, 2022 3.04.10 FM By. Stephane Durin

GENERAL NOTES:

- CONSTRUCTION OF SEWERS, AND RELATED APPURTENANCES SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE CURRENT STANDARD DRAWINGS OF THE TOWN OF OAKVILLE, THE REGIONAL MUNICIPALITY OF HALTON AND THE ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD). THE TOWN AND THE REGION'S DRAWINGS SHALL TAKE PRECEDENCE OVER THE OPSD DRAWINGS.
- ONTARIO PROVINCIAL STANDARD DRAWINGS TO BE READ IN CONJUNCTION WITH THE REGION OF HALTON REVISIONS.
- INFORMATION REGARDING ANY EXISTING SERVICES AND/OR UTILITIES SHOWN ON THE APPROVED SET OF CONSTRUCTION DRAWINGS IS FURNISHED AS THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL INTERPRET THIS INFORMATION AS HE SEES FIT WITH THE UNDERSTANDING THAT THE OWNER AND HIS AGENTS DISCLAIM ALL RESPONSIBILITY FOR ITS ACCURACY AND/OR SUFFICIENCY.
- ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION AND HE SHALL REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
- RELOCATION OF EXISTING SERVICES AND/OR UTILITIES SHALL BE CONSTRUCTED AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL OBTAIN ALL PERMITS FOR CONSTRUCTION.
- FOR ALL SEWERS AND WATERMAIN IN FILL SECTIONS, THE COMPACTION SHALL BE VERIFIED PRIOR TO LAYING OF PIPE.
- NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT WRITTEN APPROVAL FROM THE REGIONAL ENGINEER, TOWN OF OAKVILLE OR THE ENGINEER.
- 9. NO BLASTING WILL BE PERMITTED.
- 10. ALL EXCAVATIONS TO BE BACKFILLED WITH SELECT NATIVE MATERIAL, APPROVED BY THE ENGINEER, TO 95% SPD.
- 11. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING SILT CONTROL DEVICES AS SHOWN ON THE DRAWINGS AND AS DIRECTED BY THE ENGINEER.
- 12. TREE PROTECTION PROCEDURES TO BE IMPLEMENTED IN ACCORDANCE WITH TOWN OF OAKVILLE STANDARDS.

ROADWORKS:

- APPROVED FILL, FREE OF DELETERIOUS AND ORGANIC MATERIAL AND BOULDERS SHALL BE COMPACTED TO A DRY DENSITY NOT LESS THAN 95% THAN THE STANDARD PROCTOR DENSITY. AFTER COMPACTION, SOIL DENSITY TESTS SHALL BE CONDUCTED TO ENSURE ADEQUATE COMPACTION AND STABILITY OF THE FILL AND TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER.
- SUBGRADE TO BE PROOF ROLLED PRIOR TO PLACEMENT OF SUB BASE. UNSUITABLE MATERIAL TO BE REMOVED AND REPLACED WITH SELECT FILL OR GRANULAR "B" AND COMPACTED TO 98% SPD.
- ASPHALTIC CONCRETE TO BE COMPACTED TO 97% MARSHALL DENSITY.
- PAVEMENT STRUCTURE FOR INTERNAL ROADS SHALL CONSIST OF COMPACTED THICKNESSES OF (MINIMUM):
 - 40mm HL3 SURFACE ASPHALT 80mm HL8 BASE BINDER ASPHALT 150mm GRANULAR "A" BASE COURSE 300mm GRANULAR "B" SUB-BASE COURSE
- OR AS RECOMMENDED IN GEOTECHNICAL REPORT.
- BOULEVARDS TO BE SODDED WITH #1 NURSERY SOD ON A MINIMUM 100mm OF SELECT TOPSOIL.
- MANHOLE COVERS SHALL BE SET FLUSH WITH BASE COURSE ASPHALT AND ADJUSTED TO GRADE WITH MANHOLE LIFT RINGS PRIOR TO APPLICATION OF TOP LIFT OF ASPHALT.
- TRAFFIC CONTROL SHALL BE MAINTAINED AT ALL TIMES FOR WORKS ON EXISTING ROADWAYS TO THE SATISFACTION OF THE DIRECTOR OF ENGINEERING. THE EXPENSE FOR THE ERECTION OF SIGNS, DELINEATORS AND OTHER TRAFFIC CONTROL DEVICES SHALL BE BORNE BY THE CONTRACTOR.
- STANDARD PARKING SPACES SHALL BE 2.75mx6.0m. HANDICAP PARKING SPACES SHALL BE 4.6mx6.0m.

WATERMAINS:

- FLEXIBLE WATERMAIN PIPE UP TO 300mm DIAMETER TO BE P.V.C. DR-18 AND CONFORM TO A.W.W.A. C-900 WITH MECHANICAL JOINTS AS PER A.W.W.A. C-110, AND TO BE INSTALLED WITH A 10 GAUGE TRACER WIRE.
- 2. FLEXIBLE PIPE BEDDING TO BE OPSD 802.010 WITH COMPACTED GRANULAR B MATERIAL.
- MINIMUM COVER TO BE 1.7m TO TOP OF PIPE.
- 4. DEFLECTION AT JOINTS NOT TO EXCEED 2.5 DEGREES AND SHALL BE EQUAL AT ALL JOINTS.
- GATE VALVES AND BOXES FOR 150mm DIAMETER WATERMAINS AS PER A.W.W.A. STANDARD C-500 AND ARE TO OPEN TO THE LEFT (COUNTER CLOCKWISE).
- ALL FITTINGS TO HAVE MECHANICAL RESTRAINTS THAT MEET UNI-B-13-92.
- ALL TEMPORARY AND PERMANENT WATERMAIN PLUGS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH OPSD 1103.01.
- TAPPING AT EXISTING WATERMAINS SHALL BE UNDERTAKEN IN ACCORDANCE WITH REGION OF HALTON REQUIREMENTS.
- ALL WATER CUSTOMERS SUPPLIED BY A WATERMAIN TO BE SHUT DOWN SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST 48 HOURS IN ADVANCE OF THE SHUT DOWN AS PER REGION OF HALTON SPECIFICATIONS. NOTIFICATION SHALL TAKE PLACE UNDER THE ENGINEER'S DIRECTION.
- 10. MINIMUM HORIZONTAL SEPARATION BETWEEN WATERMAINS (INCLUDING PRIVATE SERVICES) AND STORM AND SANITARY SEWERS SHALL BE 2.5m. WATERMAINS MUST HAVE A MINIMUM VERTICAL CLEARANCE OF 500mm OVER OR UNDER SEWERS AND ALL OTHER UTILITIES WHEN CROSSING.

SANITARY SEWERS:

- SANITARY SEWERS SHALL BE PVC OR VITRIFIED CLAY PIPE. PVC PIPE IS TO BE BELL AND SPIGOT AND COMPLY TO ASTM D-3034 WITH MINIMUM SDR 35. VITRIFIED CLAY PIPE TO BE BELL AND SPIGOT WITH "O" RING COMPRESSION JOINTS AND SHALL COMPLY TO CSA A60.1, A60.2 AND A60.3.
- MINIMUM BEDDING REQUIREMENTS FOR ALL SANITARY SEWER MAINS AND RELATED 2. CONNECTIONS IN A SINGLE TRENCH SHALL BE CLASS B GRANULAR BEDDING AS PER OPSD 802.010 UNLESS OTHERWISE NOTED.
- SANITARY SEWER MANHOLES FRAME AND COVER AS PER OPSD 401.01. 3.
- SLOPE OF LATERAL TO BE 2.0%.
- 6. DOUBLE SERVICE CONNECTIONS TO BE MINIMUM 150mm DIA PIPE FROM THE MAIN TO THE WYE CONNECTION AND 125mm DIA THEREAFTER.
- TAPPING AT EXISTING SANITARY SEWERS SHALL BE UNDERTAKEN IN ACCORDANCE WITH REGION 7.
- 8. ALL CONNECTIONS TO THE SANITARY SEWER TO BE MADE WITH PRE-MANUFACTURED

OF HALTON REQUIREMENTS.

- "Y" FITTINGS. 9. ALL SANITARY SEWERS TO BE FLUSHED AND CCTV INSPECTED.
- 10. PVC SANITARY SEWERS ARE TO BE TESTED FOR DEFLECTION (MANDREL PASSAGE) AFTER INSTALLATION AND TESTED FOR LEAKAGE (LOW AIR PRESSURE).

STORM SEWERS:

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- 300mm-450mm STORM SEWERS SHALL BE PVC, BELL AND SPIGOT AND SHALL COMPLY 1. TO ASTM D-3034 WITH MINIMUM SDR 35 OR ULTRARIB.
- MINIMUM BEDDING REQUIREMENTS FOR ALL SINGLE STORM SEWER MAINS AND ALL RELATED 2. CONNECTIONS SHALL BE CLASS B GRANULAR BEDDING AS PER OPSD 802.010.
- STORM SEWER MANHOLES SHALL BE IN ACCORDANCE WITH OPSD 701.010. AND 703.010. FRAME ANDCOVER AS PER OPSD 401.01 TYPE A.
- CATCH BASIN AND MANHOLE TOPS SHALL BE INITIALLY SET TO BASE COURSE ASPHALT 4. ELEVATION AND ADJUSTED TO GRADE PRIOR TO PLACEMENT OF TOP LIFT OF ASPHALT.
- 5. FILTER FABRIC TO BE USED AT ALL LEADS IN CATCH BASINS (TERRAFENCE OR APPROVED EQUIVALENT).
- 6. ALL TRENCH EXCAVATIONS ARE TO BE BACKFILLED WITH SELECT NATIVE MATERIAL PLACED IN MAXIMUM 200mm LIFT THICKNESSES WITHIN 3% OF THE OPTIMUM MOISTURE CONTENT AND COMPACTED TO A MINIMUM OF 95% SPD, UNLESS OTHERWISE SPECIFIED.
- INVERTS OF ALL SWALES TO BE SODDED TO A MINIMUM WIDTH OF 3.0m. ALL OTHER DISTURBED AREAS TO BE TOPSOILED AND SEEDED. SOD SHALL BE #1 NURSERY LAID ON A MINIMUM OF 100mm OF TOPSOIL.
- 8. ALL CONNECTIONS TO THE PVC STORM SEWER TO BE MADE WITH PRE-MANUFACTURED "Y" FITTINGS. CONNECTIONS TO CONCRETE STORM SEWER TO BE MADE WITH "TEE" FITTINGS.
- 9. ALL STORM SEWERS TO BE FLUSHED AND CCTV INSPECTED.
- AFTER INSTALLATION.

RESTORATIONS:

- 1. ALL TRENCH EXCAVATIONS WITHIN EXISTING ROAD ALLOWANCES SHALL BE BACKFILLED WITH GRANULAR "A" COMPACTED TO 98% SPD. PAVEMENT RESTORATION SHALL CONSIST OF FULL DEPTH GRANULAR "A" 80mm OF HL8 BASE ASPHALT AND 40mm OF TOP COURSE ASPHALT, COMPACTED TO TOWN OF OAKVILLE STANDARDS.
- EXISTING PRIVATE FENCING IS TO BE MAINTAINED THROUGHOUT CONSTRUCTION. WHERE 2. REMOVAL OR RELOCATION OF FENCING IS NECCESSARY IT SHALL BE RESTORED OR REPLACED TO ORIGINAL CONDITIONS OR BETTER UNDER THE DIRECTION OF THE ENGINEER.
- DAMAGED CURB, GUTTER AND SIDEWALK TO BE REPLACED WITH 28 MPa CONCRETE TO 3. EXISTING CONDITIONS OR BETTER.
- PAVEMENT SURFACE ON EXISTING CORNWALL ROAD TO BE REPAIRED BY CONTRACTOR AT THEIR EXPENSE IF DAMAGED BY CONSTRUCTION TRAFFIC.

EROSION AND SEDIMENT CONTROL NOTES:

- 1. ALL EROSION AND SEDIMENT CONTROLS ARE TO BE INSTALLED ACCORDING TO THE APPROVED PLANS PRIOR TO COMMENCEMENT OF ANY EARTH MOVING WORK ON THE SITE AND SHALL REMAIN IN PLACE
- 2. EROSION AND SEDIMENT CONTROLS SHALL BE INSPECTED BY THE BUILDER/DEVELOPER:
 - a. WEEKLY b. BEFORE AND AFTER ANY PREDICTED RAINFALL EVENT c. FOLLOWING AN UNPREDICTED RAINFALL EVENT
 - d. DAILY. DURING EXTENDED DURATION RAINFALL EVENTS e. AFTER SIGNIFICANT SNOW MELT
- 3. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED IN PROPER WORKING ORDER AT ALL TIMES. DAMAGED OR CLOGGED DEVICES SHALL BE REPAIRED WITHIN 48 HOURS.
- 4. WHERE A SITE REQUIRES DEWATERING AND WHERE THE EXPELLED WATER CAN BE FREELY RELEASED TO A SUITABLE RECEIVER, THE EXPELLED WATER SHALL BE TREATED TO CAPTURE SUSPENDED PARTICLES GREATER THAN 40 MICRON IN SIZE. THE CAPTURED SEDIMENT SHALL BE DISPOSED OF PROPERLY PER MOECC GUIDELINES. THE CLEAN EXPELLED WATER SHALL FREELY RELEASE TO A SUITABLE RECEIVER THAT DOES NOT CREATE DOWNSTREAM ISSUES INCLUDING BUT NOT LIMITED TO EROSION, FLOODING - NUISANCE OR OTHERWISE, INTERFERENCE ISSUES, ETC.
- 5. EXISTING STORM SEWER AND DRAINAGE DITCHES ADJACENT TO THE WORKS SHALL BE PROTECTED AT ALL TIMES FROM THE ENTRY OF SEDIMENT/SILT THAT MAY MIGRATE FROM THE SITE. FOR STORM SEWERS: ALL INLETS (REAR LOT CATCHBASINS, ROAD CATCHBASINS, PIPE INLETS, ETC.) MUST BE SECURED/FITTED WITH SILTATION CONTROL MEASURES. FOR DRAINAGE DITCHES: THE INSTALLATION OF ROCK CHECK DAMS, SILTATION FENCES, SEDIMENT CONTAINMENT DEVICES MUST BE INSTALLED TO TRAP AND CONTAIN SEDIMENT. THESE SILTATION CONTROL DEVICES SHALL BE INSPECTED AND MAINTAINED PER ITEMS B AND C ABOVE.
- 6. IN THE EVENT OF A SPILL (RELEASE OF DELETERIOUS MATERIALS) ON OR EMANATING FROM THE SITE, THE OWNER OR OWNER'S AGENT SHALL IMMEDIATELY NOTIFY THE MOECC AND FOLLOW ANY PRESCRIBED CLEAN UP PROCEDURE. THE OWNER OR OWNERS AGENT WILL ADDITIONALLY IMMEDIATELY NOTIFY THE TOWN.



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ALL PVC LATERALS TO BE SDR 28 AND SHALL BE ANY COLOUR EXCEPT WHITE. MINIMUM

SINGLE SERVICE CONNECTIONS TO BE MINIMUM 125mm DIA PIPE.

10. PVC STORM SEWERS ARE TO BE TESTED FOR DEFLECTION (MANDREL PASSAGE)

UNTIL ALL DISTURBED AREAS ARE STABILIZED WITH THE INTENDED GROUND COVER.











BENCH MARK NOTE: ELEVATIONS ARE REFERRED TO THE TOWN OF OAKVILLE BENCHMARK NO. 110, HAVING AN ELEVATION OF 107.1723 M.

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