

STORM SEWER NOTES

- BEDDING FOR ALL CONCRETE PIPES SHALL BE AS PER CITY STANDARD DRAWING NO. 2122.080. BEDDING FOR ALL PVC PIPES SHALL BE AS PER CITY STANDARD DRAWING NO. 2112.080. DETAIL A-A WITH THE EXCEPTION OF MATERIAL ABOVE THE PIPE. WILL BE 19mm STONE SEWER BEDDING. NON CONCRETE SEWER BEDDING SHALL CONFORM WITH OPSS 1010 FOR GRANULAR 'A' OR CITY STANDARD DRAWING NO. 2112.110 OR 2112.140 AND SAND COVER SHALL CONFORM WITH CITY STANDARD DRAWING NO. 2110,100. THE COMPACTION OF ALL BEDDING AND COVER MATERIALS SHALL BE A MINIMUM OF 95% STANDARD PROCTOR, MAXIMUM COVER SHALL BE IN ACCORDANCE WITH OPSD 806.04 AND 806.06. SPECIAL CARE MUST BE GIVEN TO CONTOURING THE BEDDING MATERIAL TO CONFORM WITH THE PIPE BOTTOM AND PROJECTING BELLS, ALONG WITH PROPER COMPACTION OF THE HAUNCHES IN ORDER TO PROVIDE EVEN SUPPORT THROUGHOUT THE PIPE. THE USE OF ANY BEDDING MATERIAL OR BACKFILL MATERIAL WITH DIAMETERS LARGER THEN 4cm WILL NOT BE PERMITTED AROUND ANY FLEXIBLE PIPE. BACKFILL OF ALL FLEXIBLE PIPES SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS' SPECIFICATIONS, CITY STANDARDS AND
- 2. SEWER SERVICE CONNECTION SHALL BE IN ACCORDANCE WITH OPSD. 1006.02.
- ALL STORM SEWER PIPES SHALL CONFORM TO THE REQUIREMENTS OF THE CANADIAN STANDARDS ASSOCIATION AND SHALL BE CLASS 65-D CONCRETE UNLESS OTHERWISE SPECIFIED. PVC PIPES SHALL BE DR-35 "ULTRA RIB".
- MANHOLES MAY BE EITHER PRECAST OF POURED IN PLACE AND SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS.
- 5. O.P.S.D. STANDARD MANHOLE DETAILS SHALL BE USED FOR MANHOLE DESIGN.
- WHERE THE DIFFERENCE IN ELEVATION BETWEEN THE OBVERT OF THE INLET AND OUTLET PIPES EXCEED 1.2m. A DROP PIPE AS INDICATED ON CITY STANDARD DRAWING NO. 2113.010 SHALL BE PLACED ON THE INLET PIPE.
- STORM SEWER MANHOLES SHALL BE BENCHED TO THE OBVERT OF THE OUTLET PIPE ON A VERTICAL PROJECTION FROM THE SPRING LINE OF THE SEWER.

- 8. FOR SINGLE CATCHBASINS, THE MINIMUM SIZE OF CONNECTION SHALL BE 250mm AND THE MINIMUM GRADE SHALL BE 1.0% UNLESS OTHERWISE NOTED. FOR DOUBLE CATCHBASINS, THE MINIMUM SIDE OF CONNECTION SHALL BE 300mm AND THE MINIMUM GRADE SHALL BE 1.0%.
- 9. SERVICES TO BUILDING TO BE TERMINATED 1.5m FROM THE OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
- 10. ALL SEWERS TO BE FLUSHED PRIOR TO VIDEO INSPECTION.

CLASS SHALL BE 100-D.

- 11. MANHOLE FRAMES AND COVERS SHALL BE AS PER OPSD 401.010 (STORM-OPEN, SANITARY-CLOSED).
- 12. STORM SEWER (300mm TO 450mm DIA.) SHALL BE PVC PIPE, CSA B182.2, SDR-35. 13. STORM SEWER > 450mm DIA. SHALL BE CONCRETE PIPE, CSA A257.2, CLASS 100D UNLESS OTHERWISE SPECIFIED.
- 14. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED ACCORDINGLY.
- 15. SUB-DRAINS SHALL BE INSTALLED IF DIRECTED BY THE ENGINEER OR AS SHOWN ON
- 16. ALL STORM MANHOLES TO BE AS PER OPSD 701.010-701.014 (SIZE AS SHOWN). 17. CONTRACTOR IS RESPONSIBLE FOR SUPPLYING ADDITIONAL BEDDING AND/OR STRONGER PIPE IF ACTUAL TRENCH WIDTHS EXCEED DESIGN WIDTHS. RIGÍD PIPE REQUIRES CONCRETE ENCASEMENT FOR THE FIRST PIPE LENGTH CONNECTING TO AN

APPURTENANCE. WHERE CONCRETE PIPE SMALLER THAN 600mmØ IS SPECIFIED

18. ALL SINGLE CATCH BASINS TO BE PRECAST AS PER OPSD 705.010 WITH FRAME AND GRATE AS PER DETAILS. ALL DOUBLE CATCH BASINS TO BE PRECAST AS PER

GENERAL NOTES

- 1. ALL WORK SHALL BE CARRIED OUT IN COMPLIANCE WITH THE APPLICABLE HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
- 2. THE POSITION OF POLE, LINES, CONDUITS, WATERMAINS, SEWER AND OTHER UNDERGROUND AND ABOVE GROUND UTILITIES AND STRUCTURES ARE NOT NECESSARILY SHOWN ON THE CONTRACT DRAWING AND WHERE SHOWN. THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURE 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 LIABILTY FOR DAMAGE TO THEM. ANY VARIANCE IS TO BE IMMEDIATELY REPORTED TO THE ENGINEER. LOST TIME DUE TO FAILURE OF THE CONTRACTOR TO CONFIRM UTILITY LOCATIONS AND NOTIFY THE ENGINEER OF POSSIBLE CONFLICTS PRIOR TO CONSTRUCTION WILL BE AT THE CONTRACTOR'S
- 3. ALL SERVICES TO BE INSTALLED AS PER CITY STANDARDS, MINISTRY OF THE ENVIRONMENT (MOE) GUIDELINES, AND ONTARIO BUILDING CODE (OBC) (LATEST EDITION).
- 4. ALL WORK MATERIAL AND CONSTRUCTION METHODS TO CONFORM WITH THE LATEST STANDARDS, SPECIFICATIONS, POLICIES, REGULATIONS, GUIDELINES AND LAWS FOR THE CITY OF MISSISSAUGA, ONTARIO BUILDING CODE (OBC), MINISTRY OF THE ENVIRONMENT (MOE), ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS (OPSD AND OPSS), THE ENVIRONMENTAL PROTECTION ACT AND THE WATER RESOURCES ACT. WHERE A CITY STANDARD EXISTS IT SHALL BE USED IN PLACE OF THE OPSD/OPSS STANDARDS.
- 5. CONTRACTOR IS RESPONSIBLE FOR ANY MATERIAL TRACKED ONTO ADJACENT MUNICIPAL ROADS AND SHOULD PROVIDE CLEANING DAILY AND/OR AS MAY BE DIRECTED BY THE CITY OF MISSISSAUGA.
- 6. THIS PLAN SHOULD BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS' PLANS. ANY DISCREPANCIES SHALL BE CLARIFIED PRIOR TO CONSTRUCTION. INFORMATION RELATED TO DIMENSIONS FOR PRIVATE ROAD, PARKING CURBING, BUILDING LOCATIONS AND SETBACK'S SHALL BE TAKEN FROM THE SITE PLAN.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS RELATED TO SERVICE CONNECTIONS INCLUDING ROAD CUT PERMITS AND THIRD PARTY UTILITY COSTS.

- 8. THE APPLICANT WILL BE RESPONSIBLE FOR THE COST OF ANY UTILITY RELOCATIONS NECESSITATED BY THE SITE PLAN.
- PERIOD OF THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ALL OTHER CONTRACTORS AND PREVENT CONSTRUCTION CONFLICTS.
- 10. FOR DETAILS NOT SHOWN ON THESE DRAWINGS REFERENCE SHOULD BE MADE TO THE DESIGN STANDARDS OF THE CITY OF MISSISSAUGA AND TO ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS.
- 11. CITY OF MISSISSAUGA AND REGION OF PEEL STANDARD DRAWINGS AND O.P.S.D. WITH REGIONAL AMENDMENTS FOR SANITARY SEWERS AND WATERMAINS SHALL CONSTITUTE PART OF THE ENGINEERING DESIGN AND 12. CONSTRUCTION CONTRACT.
- 13. PROVIDE SEWER VIDEO INSPECTION UPON COMPLETION OF UNDERGROUND SERVICING, 2 DVDS OR VIDEOTAPES REQUIRED. CONTRACTOR TO SUPPLY CONSULTANT WITH ALL TOPOGRAPHICAL AND ASBUILT INFORMATION IN ORDER TO VERIFY THE THOROUGHNESS OF
- 14. LOCATION OF ALL EXISTING UTILITIES IN THE FIELD TO BE ESTABLISHED BY THE
- 15. THE CONTRACTOR(S) SHALL BE SOLELY RESPONSIBLE FOR LOCATES, EXPOSING, RESULTING FROM DAMAGE TO SAME.
- 16. THE CONTRACTOR(S) SHALL BE SOLELY RESPONSIBLE TO GIVE 72 HOURS WRITTEN NOTICE TO THE UTILITIES PRIOR TO CROSSING SUCH UTILITIES, FOR THE PURPOSE OF INSPECTION BY THE CONCERNED UTILITY. THE INSPECTION WILL BE FOR THE DURATION OF THE CONSTRUCTION, WITH THE CONTRACTOR RESPONSIBLE FOR ALL COSTS ARISING FROM SUCH INSPECTION.

REGION OF PEEL NOTES:

STANDARDS AND SPECIFICATIONS.

DIAMETER MINIMUM ON A HYDRANT.

(3') AND TO HAVE PUMPER NOZZLE.

PEEL STANDARDS 1-7-7 OR 1-7-8.

SEWERS AND ALL OTHER UTILITIES WHEN CROSSING.

1. ALL MATERIALS AND CONSTRUCTION METHODS MUST CORRESPOND TO THE CURRENT PEEL PUBLIC WORKS

CURRENT MATERIAL SPECS AND INDICATE THE PIPE TO BE USED). SIZE 50MM (2") AND SMALLER MUST

4. PROVISIONS FOR FLUSHING WATER LINE PRIOR TO TESTING, ETC. MUST BE PROVIDED WITH AT LEAST A 50

6. HYDRANT AND VALVE SET TO REGION STANDARD 1 - 6 - 1 DIMENSION A AND B, 0.7 M (2') AND 0.9 M

7. WATERMAINS TO BE INSTALLED TO GRADES AS SHOWN ON APPROVED SITE PLAN. COPY OF GRADE SHEET

8. WATERMAINS MUST HAVE A MINIMUM VERTICAL CLEARANCE OF 0.3 M (12") OVER / 0.5 M (20") UNDER

MM (2") OUTLET ON 100 MM (4") AND LARGER LINES. COPPER LINES ARE TO HAVE FLUSHING POINTS AT

THE END, THE SAME SIZE AS THE LINE. THEY MUST ALSO BE HOSED OR PIPED TO ALLOW THE WATER TO DRAIN ONTO A PARKING LOT OR DOWN A DRAIN. ON FIRE LINES, FLUSHING OUTLET TO BE 100 MM (4")

2. WATERMAIN AND / OR WATER SERVICE MATERIALS 100 MM (4") AND LARGER MUST BE (REFER TO

3. WATERMAINS AND / OR WATER SERVICES ARE TO HAVE A MINIMUM COVER OF 1.7 M (5'6") WITH A MINIMUM HORIZONTAL SPACING OF 1.2 M (4") FROM THEMSELVES AND ALL OTHER UTILITIES.

5. ALL CURB STOPS TO BE 3.0 M (10') OFF THE FACE OF THE BUILDING UNLESS OTHERWISE NOTED.

MUST BE SUPPLIED TO INSPECTOR PRIOR TO COMMENCEMENT OF WORK, WHERE REQUESTED BY

10. ALL LIVE TAPPING AND OPERATION OF REGION WATER VALVES SHALL BE ARRANGED THROUGH THE

REGIONAL INSPECTOR ASSIGNED OR BY CONTACTING THE OPERATIONS AND MAINTENANCE DIVISION.

PROTECTING OF ALL UNDERGROUND AND OVERHEAD UTILITIES AND STRUCTURES EXISTING AT THE TIME OF

CONSTRUCTION IN THE AREA OF THEIR WORK. WHETHER SHOWN ON THE PLANS OR NOT AND FOR ALL

UTILITIES PRIOR TO CROSSING SUCH UTILITIES, FOR THE PURPOSE OF INSPECTION BY THE CONCERNED

UTILITY. THIS INSPECTION WILL BE FOR THE DURATION OF THE CONSTRUCTION, WITH THE CONTRACTOR

9. ALL PROPOSED WATER PIPING MUST BE ISOLATED FROM EXISTING LINES IN ORDER TO ALLOW

11. LOCATION OF ALL EXISTING UTILITIES IN THE FIELD TO BE ESTABLISHED BY THE CONTRACTOR.

12. THE CONTRACTOR(S) SHALL BE SOLELY RESPONSIBLE FOR LOCATES, EXPOSING, SUPPORTING AND

13. THE CONTRACTOR(S) SHALL BE SOLELY RESPONSIBLE TO GIVE 72 HOURS WRITTEN NOTICE TO THE

14. ALL PROPOSED WATER PIPING MUST BE ISOLATED THROUGH A TEMPORARY CONNECTION THAT SHALL

INCLUDE AN APPROPRIATE CROSS-CONNECTION CONTROL DEVICE, CONSISTENT WITH THE DEGREE OF

HAZARD, FOR BACKFLOW PREVENTION OF THE ACTIVE DISTRIBUTION SYSTEM, CONFORMING TO REGION OF

INDEPENDENT PRESSURE TESTING AND CHLORINATING FROM EXISTING SYSTEMS.

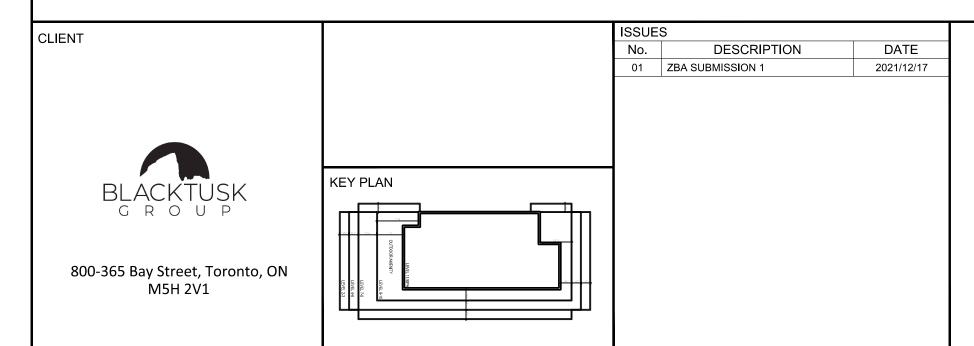
REPAIRS AND CONSEQUENCES RESULTING FROM DAMAGE TO SAME.

RESPONSIBLE FOR ALL COSTS ARISING FROM SUCH INSPECTION.

BE (REFER TO CURRENT MATERIAL SPECS AND INDICATE THE PIPE TO BE USED).

- 9. THE CONTRACTOR IS ADVISED THAT WORKS BY OTHERS MAY BE ONGOING DURING THE

- SUPPORTING AND PROTECTING OF ALL UNDERGROUND AND OVERHEAD UTILITIES AND STRUCTURES EXISTING AT THE TIME OF CONSTRUCTION IN THE AREA OF THEIR WORK, WHETHER SHOWN ON THE PLANS OR NOT AND FOR ALL REPAIRS AND CONSEQUENCES



C. H. GROEN 100157765 DEC.17,2021

SEAL

128 Lakeshore

ROJECT

200 CACHET WOODS COURT, SUITE 204 MARKHAM, ON L6C 0Z8 HUSSON.CA

SHEET TITLE

PROPOSED STORM MANHOLE

PROPOSED STORM OGS

PROPOSED SANITARY

HYDRANT AND VALVE

EXISTING STORM CATCHBASIN

EXISTING STORM MANHOLE

EXISTING SANITARY MANHOLE

PROPOSED WATER METER

PROPOSED BACKFLOW PREVENTOR

EXISTING VALVE

PROPOSED STORM SEWER

PROPOSED SANITARY SEWER

PROPOSED WATERMAIN

EXISTING STORM SEWER

———— EXISTING SANITARY SEWER

EXISTING HYDRANT

PROPOSED STORM CATCHBASIN

PROPOSED AREA DRAIN/ROOF DRAIN

SERVICING PLAN

ISSUE

PROJECT NO: 211246 DRAWN BY: CHECKED BY CHG SCALE: APPROVED BY CHG

SHEET NUMBER