

GENERAL GRADING NOTES

1. COMPACTION OF ALL MATERIALS AS PER GEOTECHNICAL RECOMMENDATIONS.
2. ALL BARRIER CURB WITHIN THE SITE TO BE CONSTRUCTED AS PER OPSD 600.110, UNLESS OTHERWISE SHOWN. HEIGHT OF CURB TO BE 0.15m UNLESS OTHERWISE INDICATED.
3. ALL CURB CUTS TO BE AS PER OPSD 604.010.
4. STEP JOINTS TO BE UTILIZED WHERE PROPOSED ASPHALT PAVEMENT MEETS EXISTING.
5. ALL CONCRETE SIDEWALKS WITHIN THE LIMITS OF THE SITE SHALL BE CONSTRUCTED IN ACCORDANCE WITH OPSD 351, OPSD 310.010, OPSD 310.020, AND OPSD 310.030 UNLESS OTHERWISE SHOWN.
6. REFER TO ARCHITECTURAL SITE PLAN FOR ALL DIMENSIONS AND SITE DETAILS INCLUDING RAMPS, WALKWAYS, SIDEWALKS, CURBS, CONCRETE PADS, AND ISLANDS.
7. ALL PAVEMENT MARKING, LINE PAINTING, DIRECTIONAL LINES/ARROWS ETC. SHALL BE PLACED IN ACCORDANCE WITH THE SITE PLAN, LINE PAINTING AND DIRECTIONAL SYMBOLS SHALL BE APPLIED WITH A MINIMUM OF TWO COATS OF PAINT.
8. EMBANKMENTS TO BE SLOPED AT MAX 3:1, UNLESS OTHERWISE SPECIFIED.
9. ALL PERFORATED SUBDRAINS AND SUBDRAINS SHALL BE PLACED AT THE SUBGRADE INTERFACED AT LEAST 300mm BELOW THE BOTTOM OF THE UNDERSIDE OF PARKING LOT SUB-BASE AND CONNECTED TO THE CATCHBASIN/MANHOLES TO PROVIDE POSITIVE DRAINAGE. SUBDRAIN PIPE TO BE 100mm PERFORATED, CORRUGATED, POLYETHYLENE ENCASED IN FILTER FABRIC "SOCK" AS PER OPSD 405 AND 1860. BACKFILL WITH 20mm WELL GRADED FREE DRAINING GRANULAR MATERIAL.
10. ALL IMPORT FILL MATERIAL TO BE ENGINEERED FILL OR APPROVED EQUAL PLACED IN 200mm LOOSE LIFTS AND COMPACTED TO MIN. 98% SPND. TOP 100% SPND FOR THE PAVED AND BUILDING AREAS RESPECTIVELY. ALL IMPORT FILL MATERIAL MUST BE APPROVED BY THE OWNER'S ENGINEER PRIOR TO PLACEMENT ON THE SITE.
11. ALL SUBGRADE TO BE INSPECTED BY GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF GRANULAR MATERIAL.
12. ALL DISTURBED GRASSED AREAS OUTSIDE OF PROPERTY LIMITS SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER, WITH SOD ON MINIMUM 100mm TOPSOIL.
13. ALL TREE AND SHRUB RELOCATION SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT.
14. EXISTING MANHOLES, DRAINAGE STRUCTURES, AND VALVES TO BE ADJUSTED AS REQUIRED TO SUIT PROPOSED GRADES.
15. ALL SURFACE DRAINAGE, INCLUDING DOWNSPOUT DISCHARGE, SHALL BE DIRECTED AWAY FROM THE BUILDING(S), INCLUDING ADJACENT EXISTING OR FUTURE BUILDINGS.
16. ALL SIDEWALKS TO HAVE A CROSSFALL OF 2.0% MIN. TO 4.0% MAX.

RETAINING WALL NOTES:

1. UNLESS OTHERWISE NOTED, RETAINING WALL ELEVATIONS INDICATED ARE THE FINISHED GRADE AT THE TOP OR BOTTOM OF THE WALL, TOP AND BOTTOM OF WALL ELEVATIONS MAY DIFFER FROM FINISHED GRADE DEPENDING ON THE WALL DESIGN.
2. FACE OF RETAINING WALL AT PROPERTY LINES SHALL BE SETBACK A MINIMUM OF 100 mm FROM THE PROPERTY LINE UNLESS OTHERWISE NOTED.
3. RETAINING WALLS SHOWN HAVE BEEN DESIGNED FOR GRADING ONLY. WALL DETAILED DESIGN SHALL BE COMPLETED BY THE OWNER'S STRUCTURAL ENGINEER OR CONTRACTOR, AND SHALL BE DESIGNED IN CONFORMANCE WITH APPLICABLE O.B.C. REQUIREMENTS AND GENERAL SITE GRADING.
4. RETAINING WALL DETAILED DESIGN (BY OTHERS) SHALL INCLUDE CONSIDERATION FOR THE FOLLOWING AS DEEMED NECESSARY BY THE DESIGNER:
 - GEOTEXTILE PLACED BEHIND THE WALL,
 - GRANULAR BACKFILL MATERIAL AND COMPACTION,
 - WALL SUBDRAINAGE AND OUTLET LOCATIONS,
 - SOIL BEARING CAPACITY OF THE SUBGRADE,
 - WALL TIEBACKS,
 - O.B.C. GUARD AT TOP OF WALL.
5. PRIOR TO CONSTRUCTION RETAINING WALL SHOP DRAWINGS SHALL BE SUBMITTED TO COUNTERPOINT ENGINEERING FOR REVIEW TO CONFIRM CONFORMANCE TO THE REQUIREMENTS ABOVE.
6. THE PARTY RESPONSIBLE FOR DETAILED DESIGN OF THE RETAINING WALL SHALL ALSO BE RESPONSIBLE FOR FINAL CERTIFICATION OF THE WALL.

PAVEMENT LAYER	COMPACTION REQUIREMENTS	LIGHT DUTY TRAFFIC AND PARKING AREAS	HEAVY DUTY TRAFFIC AREAS AND ACCESS ROADS
SURFACE COURSE: ASPHALTIC CONCRETE HL-3 (OPSS 1150)	92% MRD AS PER OPSS.MUNI 310	40mm*	40mm*
BINDER COURSE: ASPHALTIC CONCRETE HL-8 (OPSS 1150)	92% MRD AS PER OPSS.MUNI 310	55mm	80mm
BASE COURSE: GRANULAR 'A' (OPSS 1010)	100% STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM-D698)	150mm	150mm
BASE COURSE: GRANULAR 'B' TYPE I OR TYPE II (OPSS 1010)	100% STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM-D698)	400mm - TYPE I 350mm - TYPE II	450mm - TYPE I 400mm - TYPE II

NOTE: - PAVEMENT STRUCTURE DESIGN AS PER: FINAL GEOTECHNICAL INVESTIGATION NORTH PORTION OF 3770 MONTROSE ROAD, NIAGARA FALLS, ONTARIO, PREPARED BY PINCHIN DATED JULY 22, 2022.
- * INDICATES THE CITY OF NIAGARA FALLS STANDARD AS PER CONDITION 11

