

SITE GRADING NOTES

- ALL GRANULAR BASE AND SUB-BASE MATERIALS SHALL BE GRADED AND COMPACTED TO 98% STD. PROCTOR DENSITY, FREE OF DEPRESSIONS AS PER THE GEOTECHNICAL REPORT.
- ALL DISTURBED GRASS AREAS SHALL BE RESTORED WITH TOPSOIL AND SOO TO ORIGINAL CONDITION OR BETTER.
- 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, AND BE CONSTRUCTED TO A WIDTH AS SPECIFIED ON THE SITE PLAN.
- DEPRESSED CURBS AND CURB RAMPS SHALL CONFORM TO O.B.C. SECTION 3.8, UNLESS OTHERWISE NOTED.
- DRIVEWAYS, TRUCK ACCESS ROUTES, FIRE ROUTES AND LOADING AREAS ARE DEFINED AS "HEAVY DUTY", UNLESS OTHERWISE SHOWN. PARKING ISLES (NON TRUCK ACCESS) AND PARKING SPACES ARE DEFINED AS "LIGHT DUTY", UNLESS OTHERWISE SHOWN.
- PAVEMENT DESIGN AS FOLLOWS OR AS SPECIFIED IN THE GEOTECHNICAL REPORT PREPARED BY THE GEOTECHNICAL CONSULTANT, WHICHEVER IS GREATER:

MATERIAL	DEPTH (mm)	
	LIGHT DUTY	HEAVY DUTY
ASPHALT CONCRETE HL3	50	50
ASPHALT BINDER HL8	50	70
GRANULAR A	150	150
GRANULAR B	250	350

GENERAL EROSION & SEDIMENTATION CONTROL NOTES:

- NO CONSTRUCTION ACTIVITY OR MACHINERY SHALL INTRUDE BEYOND THE SILT FENCE OR LIMIT OF DEVELOPMENT. ALL CONSTRUCTION VEHICLES SHALL LEAVE THE SITE AT DESIGNATED LOCATIONS AS SHOWN ON THE PLANS. ALL MATERIALS AND EQUIPMENT SHALL BE STORED ON SITE IN A DESIGNATED AREA. NO MATERIALS OR EQUIPMENT SHALL BE STORED ON THE MUNICIPAL RIGHT OF WAY. NO CONSTRUCTION VEHICLES WILL PARK ON MUNICIPAL ROADS.
- DUST CONTROL TO BE REVIEWED DAILY TO ENSURE DUST IS CONTROLLED AS PER THE MUNICIPALITY OF CLARINGTON BY-LAWS.
- CONTRACTOR TO ADHERE TO MUNICIPALITY OF CLARINGTON NOISE BY-LAWS.
- SERVICING OF CONSTRUCTION EQUIPMENT ON SITE IS PROHIBITED.
- ALL LITTER AND DEBRIS SHALL BE MONITORED AND DISPOSED OF DAILY OR AS NECESSARY THROUGH REGULAR INSPECTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION, AS DIRECTED BY THE ENGINEER.
- THE LOCATION OF EROSION AND SEDIMENT CONTROL DETAILS ARE SHOWN SCHEMATICALLY ON THIS DRAWING.
- ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED AND SHALL BE DETERMINED BY THE ENGINEER.
- ALL SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES ON-SITE.
- TEMPORARY CONSTRUCTION ACCESS ROAD AND MUD MAT TO BE INSTALLED PRIOR TO CONSTRUCTION TO PREVENT MUD TRACKING ON ADJACENT EXTERNAL ROADS.
- IF CONSTRUCTION ACTIVITY IS INTERRUPTED AND/OR INACTIVITY EXCEEDS 30 DAYS, ALL STRIPPED/BARE AREAS ARE TO BE STABILIZED WITH SEED/MULCH.
- ALL SEDIMENT CONTROL MEASURES ARE TO BE MAINTAINED IN GOOD REPAIR DURING ALL PHASES OF CONSTRUCTION. ALL DEFICIENCIES ARE TO BE RECTIFIED WITHIN 48 HOURS OF INSPECTION.
- ALL SEDIMENT TRAPS ARE TO BE CLEANED PERIODICALLY AS DIRECTED BY THE SITE ENGINEER AND/OR AS REQUIRED BY THE TOWN. TRAPPED SEDIMENT MUST BE CLEANED OUT ONCE THE SEDIMENT ACCUMULATION REACHES 50% OF THEIR HEIGHT.
- SEDIMENT TRAPS MAY REQUIRE DEWATERING DURING CONSTRUCTION OPERATIONS AND DECOMMISSIONING. DISCHARGES FROM DEWATERING OPERATIONS SHALL BE DIRECTED THROUGH ADEQUATELY SIZED SEDIMENT BAGS. SUCH DISCHARGES SHALL BE NO CLOSER THAN 30m TO ANY OPEN WATER COURSE. DISCHARGES MAY BE DIRECTED TO STORM SEWERS ONLY WHERE SUCH DISCHARGES ARE SUBSTANTIALLY CLEAR OF SEDIMENTS.
- STABILIZATION OF DISTURBED AREAS SHALL BE COMPLETED WITHIN FOURTEEN (14) DAYS OF NO WORK ACTIVITY.
- ANY TREES SELECTED BY LANDSCAPE ARCHITECT FOR PRESERVATION TO BE PROTECTED BY TREE PROTECTION FENCING (OPSD 320.010). LANDSCAPE ARCHITECT TO INDICATE ANY TREES THAT ARE TO BE TRANSPLANTED.
- ADDITIONAL EROSION AND SEDIMENT CONTROL MATERIALS (I.E. SILT FENCES, STRAWBALES, CLEAR STONE ETC.) ARE TO BE KEPT ON SITE FOR EMERGENCIES AND REPAIR.
- CONTRACTOR TO CLEAN ROADS ON A REGULAR BASIS OR AS DIRECTED BY THE ENGINEER. THE ROAD SHALL AT A MINIMUM BE SCRAPED DAILY AND FLUSHED ON FRIDAY EVENING OR SATURDAY MORNING.
- ALL ACTIVITIES, INCLUDING MAINTENANCE PROCEDURES, WILL BE CONTROLLED TO PREVENT THE ENTRY OF PETROLEUM PRODUCTS, DEBRIS, RUBBLE, CONCRETE OR OTHER DELETERIOUS SUBSTANCES IN THE WATER. VEHICULAR REFUELLING AND MAINTENANCE WILL BE CONDUCTED A MINIMUM OF 30m FROM ANY WATERCOURSE.
- AN AFTER HOURS CONTACT NUMBER IS TO BE VISIBLY POSTED ON-SITE FOR EMERGENCIES. ALL CONCERNS SHOULD BE DIRECTED TO:
CANDEVCON LIMITED: ANDREW WATSON 289-315-3680
LAND OWNER: ORE ALADE 226-791-1898

CONSTRUCTION STAGING & REQUIRED MEASURES

- CLEARING AND GRUBBING
- SILT/SNOW FENCE
 - MUD MAT
 - TOPSOIL STRIPPING/STOCKPILING/REMOVAL
 - SILT/SNOW FENCE
 - MUD MAT
 - EARTHWORKS
 - SILT/SNOW FENCE
 - MUD MAT
 - ROADWORKS
 - SILT/SNOW FENCE
 - MUD MAT
 - BUILDING CONSTRUCTION
 - SILT/SNOW FENCE
 - MUD MAT
 - BUILDING COMPLETION
 - DECOMMISSION ALL SEDIMENT CONTROL MEASURES
 - RESTORE ALL DISTURBED AREAS

PROPOSED WORK SCHEDULE

- CONSTRUCT MUD MAT - 1 DAY
- PLACE SILT FENCE - 1 DAY
- CLEARING & GRUBBING - 1 DAY
- TOPSOIL STRIPPING/STOCKPILING/REMOVAL - 1 DAY
- EARTHWORKS - 2 DAYS
- ROADWORKS - 5 DAYS
- BUILDING CONSTRUCTION - 1 MONTH

DRY MEADOW SEED MIX

- APPLY THE FOLLOWING SEED MIX AT A MINIMUM RATE OF 15kg/Ha, SIMULTANEOUSLY SOWING A COVER CROP OF ANNUAL OATS FOR EROSION CONTROL (RATE OF 30 kg/Ha)
- 20% FOWL MEADOW GRASS (POA PALUSTRIS)
 - 15% LITTLE BLUESTEM (ANDROPOGON SCOPARIUS)
 - 15% INDIAN GRASS (SORGHASTRUM NUTANS)
 - 15% VIRGINIA WILD RYE (ELYMUS VIRGINICUS)
 - 10% SIDEOATS GRAMMA (BOULTELLOJA CURTIPENDULA)
 - 5% WILD LUPINE (LUPINUS PERENNIS)
 - 4% WHITE ASTER (ASTER UMBELLATUS)
 - 4% BUTTERFLY MILKWEED (ASOLEPIAS TUBEROSA)
 - 3% HEATH ASTER (ASTER FILIOSUS)
 - 3% BLACK EYED SUSAN (RUBICECKIA HIRTA)
 - 2% SHOWY TICK-TREFOIL (DESMODIUM CANADENSE)

MONITORING OF SEDIMENT CONTROL MEASURES

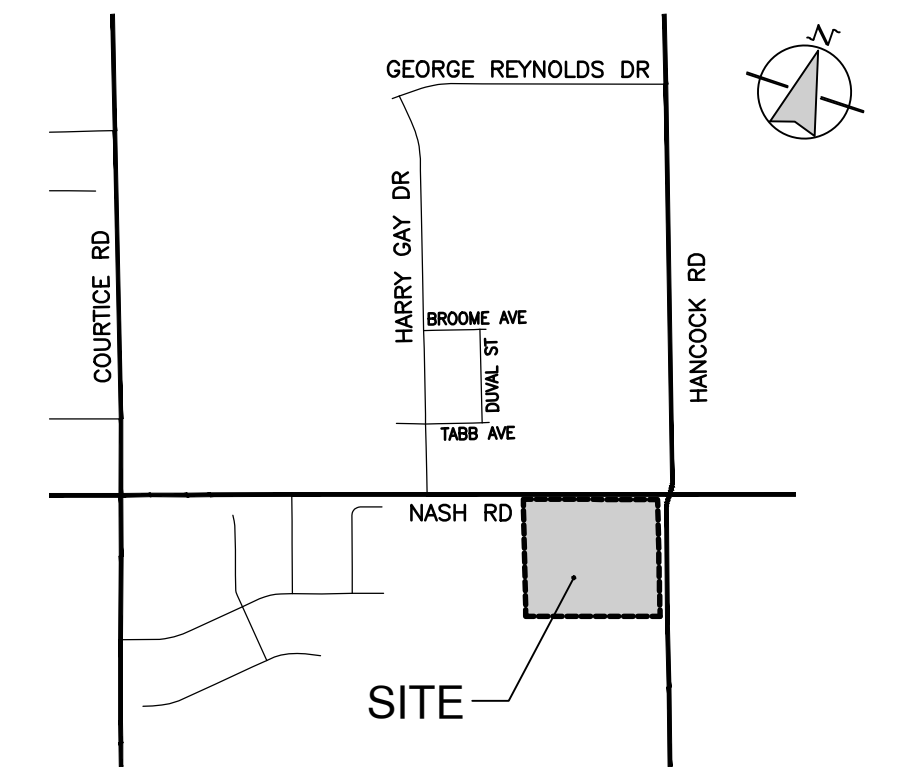
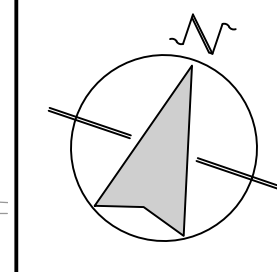
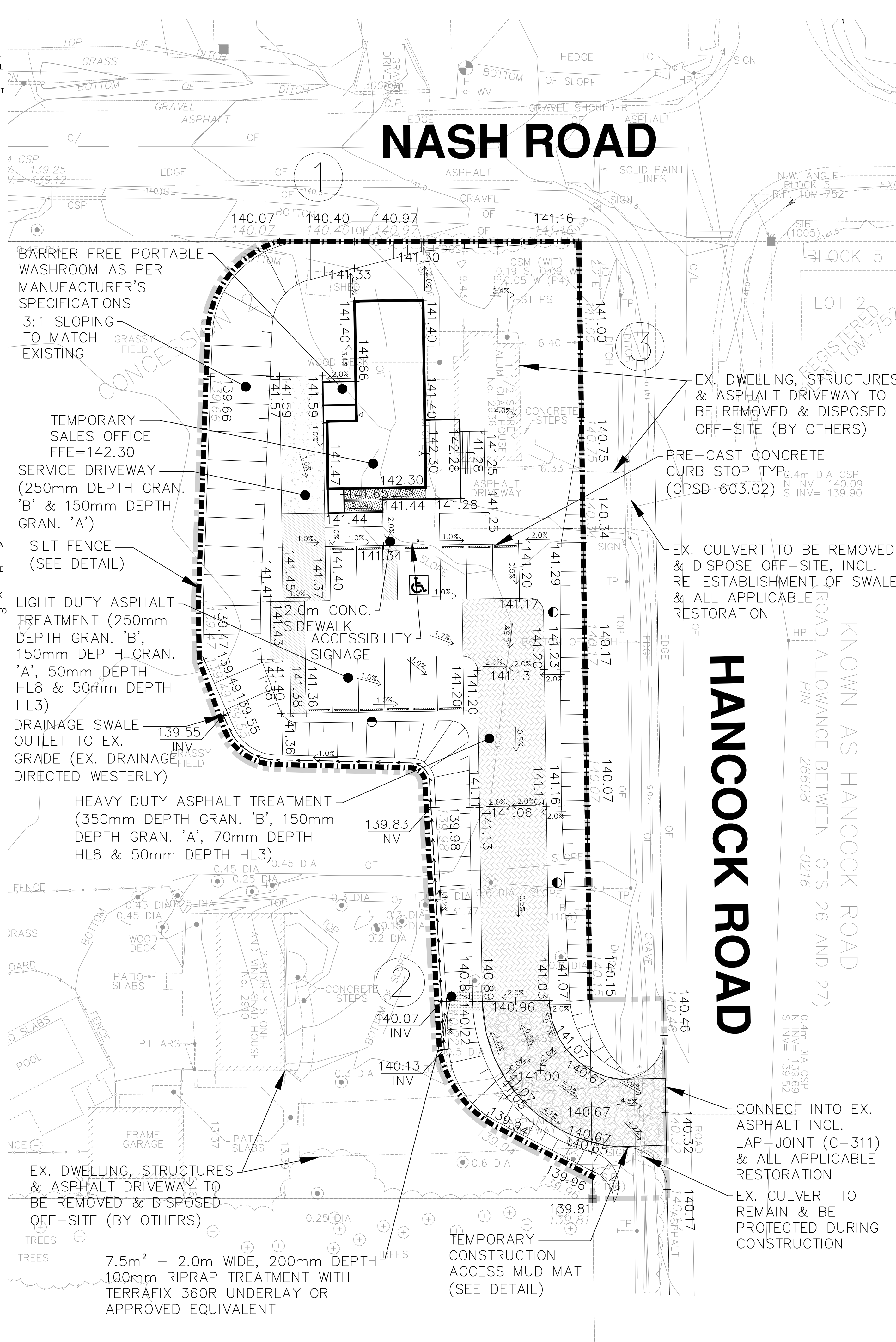
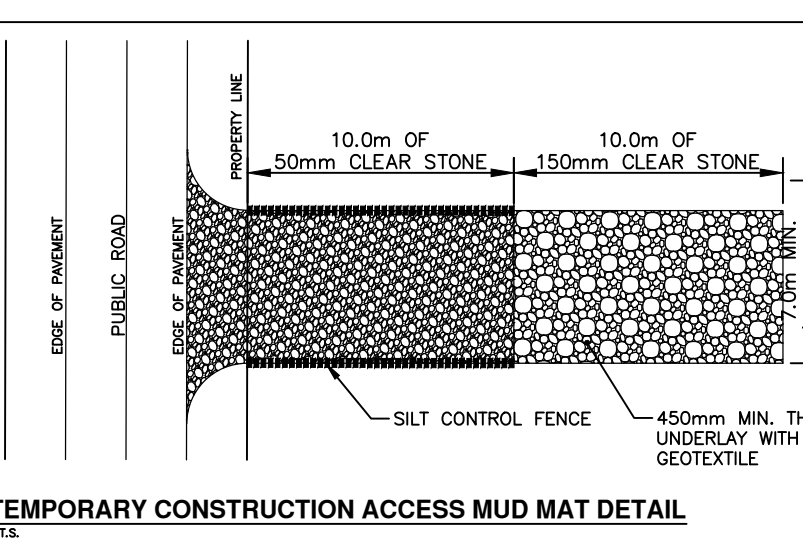
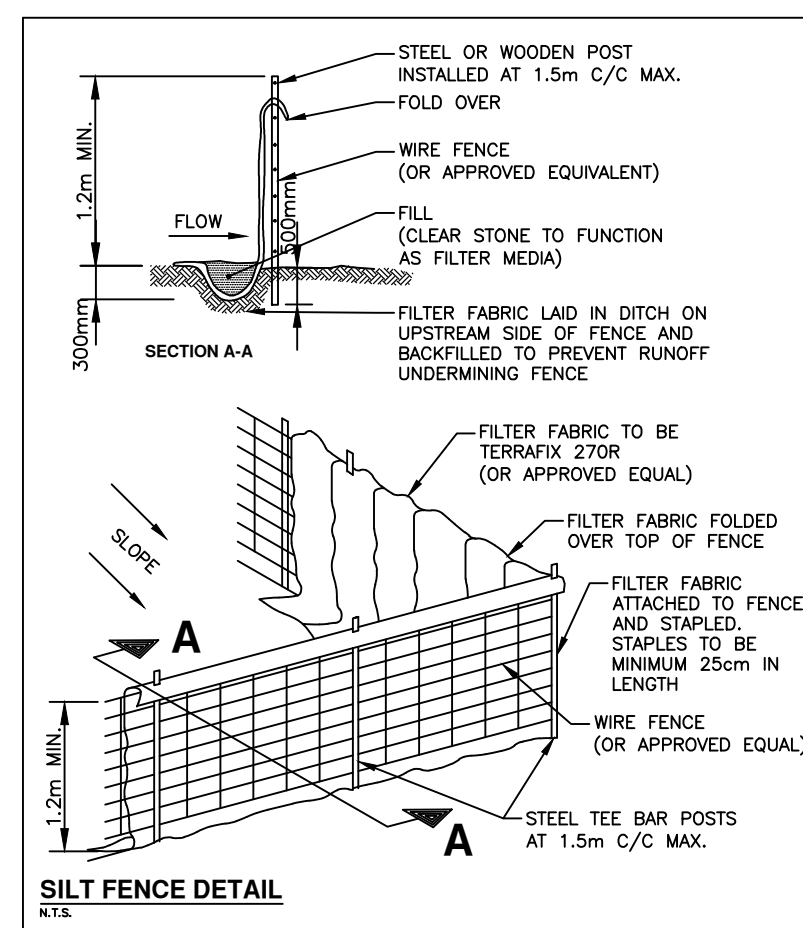
- AFTER THE CONTRACTOR HAS INSTALLED THE SEDIMENT CONTROLS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR A REVIEW OF THE INSTALLED MEASURES BEFORE ANY EARTHWORKS CAN BEGIN.
- THE CONTRACTOR SHALL, ON A DAILY BASIS, INSPECT EROSION AND SEDIMENT CONTROL MEASURES IN PLACE. ANY DAMAGED OR INEFFECTIVE MEASURE SHALL BE RECTIFIED WITHIN 48 HOURS.
- DURING EARTHWORKS AND SERVING OPERATIONS, THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED ON THE FOLLOWING FREQUENCY:
 - ON A WEEKLY BASIS
 - BEFORE AND AFTER ALL SIGNIFICANT RAINFALL EVENTS.
 - AFTER ALL SIGNIFICANT SNOWMELT EVENTS.
 - DAILY DURING EXTENDED RAIN OR SNOWMELT EVENTS.
- ANY SPILLAGE OR MATERIAL TRACKED OUT ONTO THE ROAD TO BE CLEANED USING MECHANICAL STREET SWEEPERS OR FLUSHER TRUCK.
- THE ENGINEER REPRESENTATIVE SHALL REVIEW THE EROSION AND SEDIMENT MEASURES DAILY, WHEN ON SITE AND SHALL COORDINATE WITH THE ALL PARTIES DURING THEIR WEEKLY REVIEWS.
- DURING INACTIVE CONSTRUCTION PERIODS (FOR EARTHWORKS AND SERVING), THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED ON A MONTHLY SCHEDULE AND BEFORE AND AFTER SIGNIFICANT RAINFALL EVENTS.

DUST CONTROL MEASURES:

- CONTRACTOR TO ENSURE ALL CONSTRUCTION VEHICLES SHALL LEAVE THE SITE AT DESIGNATED POINTS AND DURING PERIODS OF HIGH WIND LIMIT ENTRY/EGRESS TO THE SITE DURING THESE PERIODS.
- PROPER EROSION CONTROL/WIND FENCING WITH A MINIMUM HEIGHT OF 1.2M IS TO BE INSTALLED ALONG THE PERIMETER OF THE WORK SITE PRIOR TO COMMENCING CONSTRUCTION OPERATIONS. ADDITIONAL WIND FENCING INTERNAL TO THE WORK AREAS WILL BE INSTALLED ON AN AS NEEDED BASIS TO MINIMIZE DUST CIRCULATION, AS DIRECTED BY THE ENGINEER.
- PRIOR TO ANTICIPATED PERIODS OF HIGH WINDS ANY EXPOSED AREAS ARE TO BE INSPECTED BY THE CONTRACTOR AND WATER APPLIED AT SUFFICIENT FREQUENCY AND QUANTITY TO ENSURE SURFACES ARE MOIST TO REDUCE THE RISK DURING PERIODS OF HIGH WINDS FOR DUST CIRCULATION.
- DURING PERIODS OF HIGH WIND, THE CONTRACTOR IS TO MINIMIZE CONSTRUCTION ACTIVITIES UNTIL SUCH TIME WHERE WINDS HAVE DECREASED TO ALLOW FOR LESS DUST TO BE CIRCULATED.
- SUITABLE CHEMICAL STABILIZATION METHODS THAT MAY INCLUDE SODIUM CHLORIDE SOLUTIONS, OIL BASED BRINE SOLUTIONS, OR CANOLA OIL BASED SOLUTIONS MAY BE APPLIED BY THE CONTRACTOR IN CONSULTATION WITH THE ENGINEER.
- ANY CHEMICAL STABILIZATION METHODS EMPLOYED BY THE CONTRACTOR MUST CONFORM TO THE MINISTRY OF ENVIRONMENT AND CLIMATE CHANGE POLICIES WITH REGARDS TO CONTROLLED SUBSTANCES AND UTILIZED AS PER MANUFACTURERS RECOMMENDATIONS.

SPILL RESPONSE METHODOLOGY

- IN THE EVENT OF A PETROLEUM OR MACHINE FLUID SPILL OCCURRING ON SITE THE FOLLOWING RESPONSE METHODOLOGY IS TO BE IMPLEMENTED BY THE CONTRACTOR:
 - ROUGH GRADING ACTIVITIES IN THE GENERAL AREA ARE TO STOP IMMEDIATELY UPON THE DISCOVERY OF A SPILL.
 - THE CONTRACTOR IS TO NOTIFY THE ENGINEER UPON DISCOVERY OF A SPILL AND COMMENCE EMERGENCY CONTAINMENT AND RESTORATION REQUIREMENTS.
 - IN THE EVENT OF A SPILL THE CONTRACTOR IS TO CONTAIN/LIMIT THE SPILL AREA THROUGH THE USE OF HEAVY DUTY TARPS AND/OR BUCKETS.
 - ONCE THE SPILL HAS BEEN CONTAINED AND/OR THE EQUIPMENT LEAK REPAIRED ALL CONTAMINATED MATERIALS AND EARTH MATERIAL ARE TO BE PLACED IN SEALED BUCKET OR BIN AND DISPOSED OFF-SITE TO AN APPROVED RECEIVER SITE.
 - CONTRACTOR TO REPORT THE SPILL TO ALL GOVERNING AUTHORITIES AS REQUIRED.



KEY PLAN
N.T.S.

NOTES:
1. ALL MEASUREMENTS IN METRES, PIPE SIZES IN MILLIMETERS, UNLESS OTHERWISE SPECIFIED.

LEGEND

	EXISTING GROUND CONTOUR
	PROPOSED FINISHED GRADE
	EXISTING GROUND GRADE
	LIMIT OF CONSTRUCTION
	SILT FENCE (SEE DETAIL)
	TEMPORARY CONSTRUCTION ACCESS MUD MAT (SEE DETAIL)
	OUTLET ID

BENCHMARK INFO:
ELEVATIONS HEREON ARE GEODETIC AND ARE REFERRED TO THE MTO CONTROL STATION NO. 00820058018, HAVING A PUBLISHED ELEVATION OF 144.719M (CGVD-1928:1978).
SITE BENCHMARK
TOP NUT OF FIRE HYDRANT LOCATED AT THE NORTHWEST CORNER OF NASH ROAD AND HANCOCK ROAD. ELEVATION = 142.03M

REVISIONS

No.	BY	DATE	DESCRIPTION	APPROVED
1	A.W.	08.31.22	1st SPA SUBMISSION	

THE CORPORATION OF THE MUNICIPALITY OF CLARINGTON
Engineering Services Department

NASH ROAD & HANCOCK ROAD
SALES OFFICE

SITE GRADING & TEMP. EROSION CONTROL PLAN

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SCALE : 1:250	PROJECT No.
DRAWN BY : J.R.	E17041B
DESIGNED BY : D.B.	DRAWING No.
CHECKED BY : A.W.	SGERS
REVISION DATE: Aug. 31, 2022	

