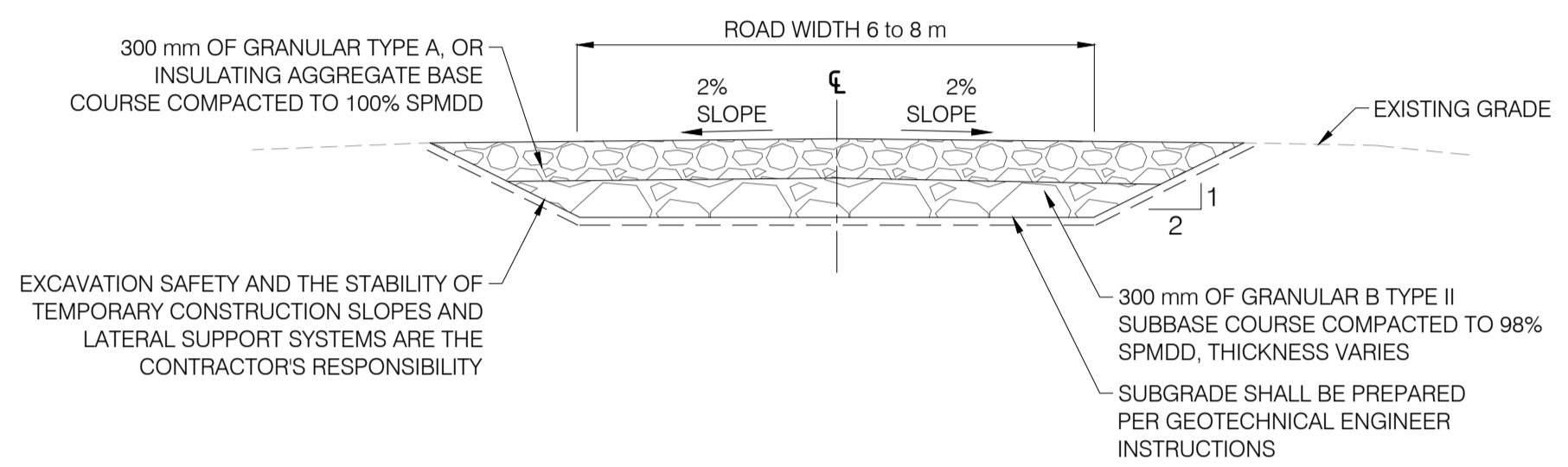
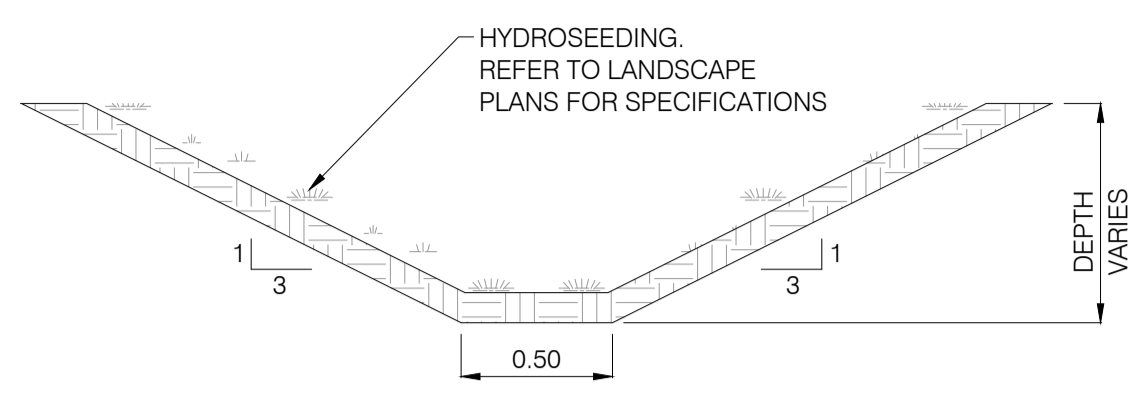


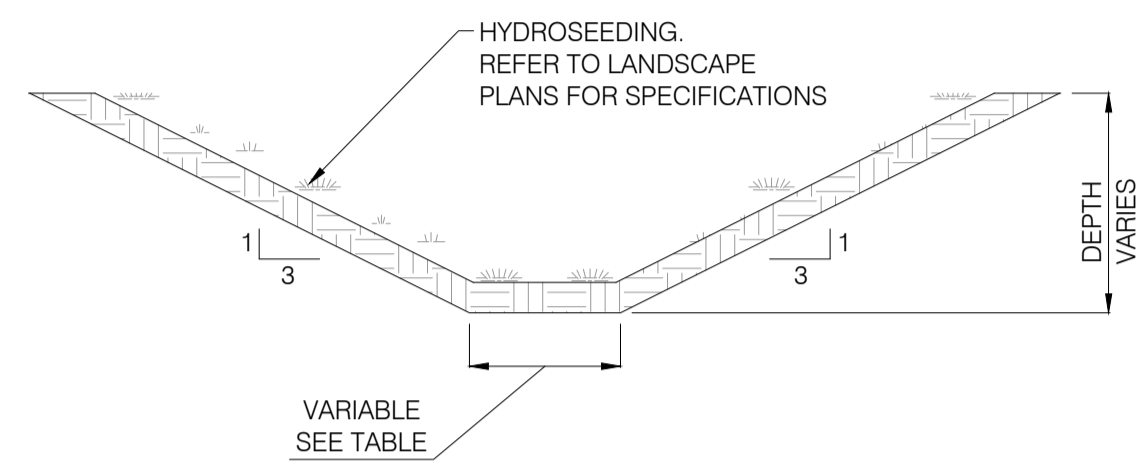
TYPICAL ROAD SECTION IN FILL - FOR MAIN ACCESS TO THE SITE
SCALE: N.T.S.



TYPICAL ROAD SECTION IN CUT - FOR MAIN ACCESS ROAD TO THE SITE
SCALE: N.T.S.



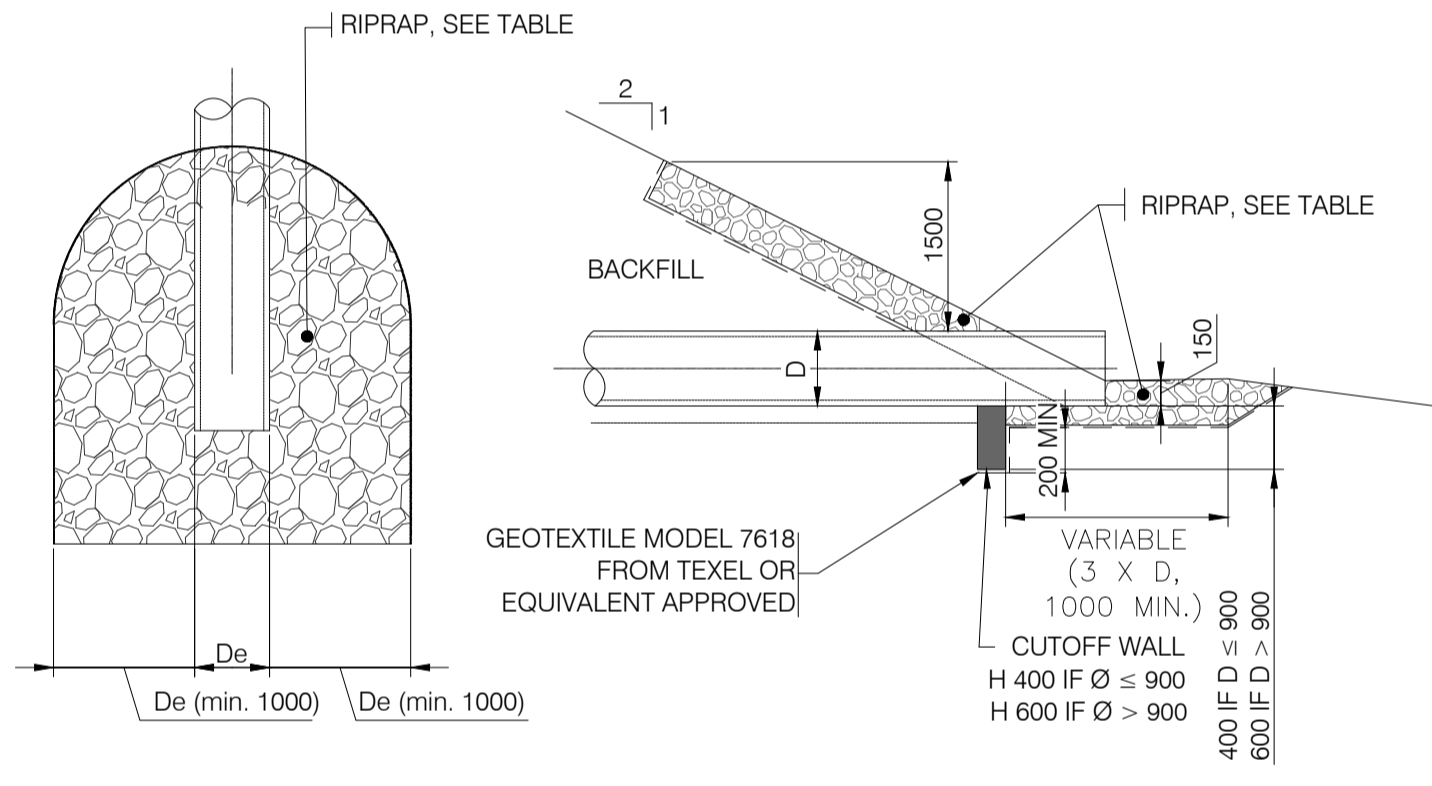
TYPICAL SECTION - POND OUTLET DITCH
SCALE: N.T.S.



TYPICAL SECTION - REALIGNED WATERCOURSE
SCALE: N.T.S.

STATIONS	WIDTH
0+000 @ 0+539	2 m
0+539 @ 0+600	3 m

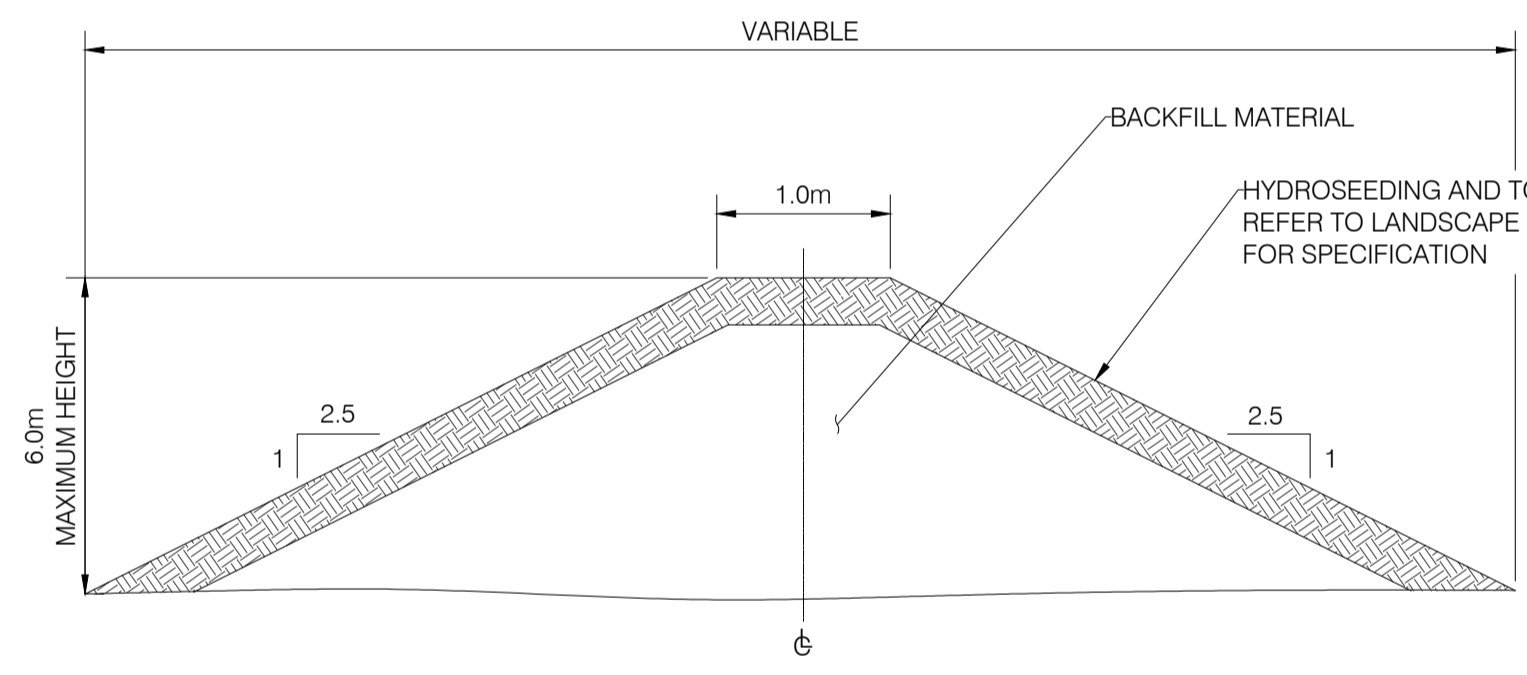
- NOTES:**
- PROJECT COORDINATES ARE SET IN NAD83 (CSRS) MTM ZONE 9 PROJECTION.
 - COORDINATES ARE IN METERS AND ELEVATIONS ARE GEODETIC AND IN METERS.
 - THE DEVELOPER SHALL EMPLOY A PROFESSIONAL GEOTECHNICAL ENGINEER WITH EXPERIENCE IN IN-SITU COMPACTION AND DENSITY TESTING DURING THE PREPARATION OF THE SUB-GRADE AND CONSTRUCTION OF THE ROAD STRUCTURE TO VERIFY THE ADEQUACY OF THE PROPOSED AND EXISTING ROAD STRUCTURE AND SUB-GRADE.
 - PREPARATION AND CONSTRUCTION OF THE PROPOSED ACCESS ROAD INCLUDING MATERIAL TYPE, THICKNESSES AND COMPACTION EFFORTS SHALL BE COMPLETED IN ACCORDANCE WITH THE GEOTECHNICAL RECOMMENDATIONS PROVIDED BY HATCH IN THE REPORT "SOUTH MARCH ROAD BATTERY ENERGY STORAGE SYSTEM (BESS) PRELIMINARY GEOTECHNICAL INVESTIGATION", PROJECT #H375142-0000-2A0-230-0001, REV. A, DATED FEBRUARY 28, 2025.
 - PROPOSED MANHOLES WITHIN THE ROAD ALLOWANCE MUST BE ADJUSTED TO SUIT THE PROPOSED FINISHED GRADE.
 - ALL LOOSE, ORGANIC, DELETERIOUS MATERIALS, OR SOFT SPOTS MUST BE EXCAVATED AND REMOVED FROM THE ROADWAY AND UTILITY TRENCHES WITHIN THE ROADWAY. THESE AREAS SHALL BE REPLACED WITH ADEQUATE ENGINEERED FILL IN ACCORDANCE WITH THE GEOTECHNICAL CONSULTANT'S REPORT OR AS DIRECTED BY THE CITY.
 - PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES, AND ADVISE THE ENGINEER OF ANY POTENTIAL CONFLICTS. EXISTING UTILITIES SHOWN ARE BASED ON SURVEY PROVIDED BY TULLOCH GEOMATICS INC., "241451-FITZROY_BESS-MTM9-REV0.DWG BY TULLOCH GEOMATICS INC, DATED MARCH 11, 2025.
 - ROAD DIMENSIONS AND TURNING RADIUS HAVE BEEN DESIGNED TO ACCOMMODATE A TRIDEM DRIVE TRACTOR SEMITRAILER TRUCK AND THE LR 1300.1 SX CRAWLER CRANE. IN ADDITION, ROAD GEOMETRY HAS BEEN DESIGNED TO ACCOMMODATE A LOWBOY SEMI-TRAILER DURING THE CONSTRUCTION PHASE. REVIEW OF ACCESS FOR DELIVERY AND INSTALLATION OF EQUIPMENT/STRUCTURES IS THE RESPONSIBILITY OF THE CONTRACTOR.
 - ALL REQUIRED PERMITS MUST BE IN PLACE BEFORE START OF CONSTRUCTION.
 - SITE FROST DEPTH IS 1.8 m PER GEOTECHNICAL INVESTIGATION REPORT.
 - BASED ON THE GEOTECHNICAL INFORMATION PROVIDED BY HATCH, AVERAGE TOPSOIL THICKNESS RANGED ON SITE BETWEEN 100 AND 600 mm.
 - THE MATERIAL FROM TEXEL (TM240 AND 7612) MEETS THE REQUIRED FUNCTION NEEDED. TM240 IS A GEOMEMBRANE THAT IS IMPERMEABLE AND THE TM7612 IS A GEOTEXTILE USED TO SEPARATE THE GRANULAR MATERIAL LAYERS. THIS PREVENTS THE SAND TO MIGRATE INTO THE COARSE MATERIAL BELOW. APPROVED EQUIVALENT MEANS ANY OTHER SUPPLIER WITH A GEOMEMBRANE OR GEOTEXTILE THAT MEETS THE SAME CRITERIA COULD BE USED ONCE APPROVED BY THE CLIENT OR THE ENGINEER IN CHARGE.



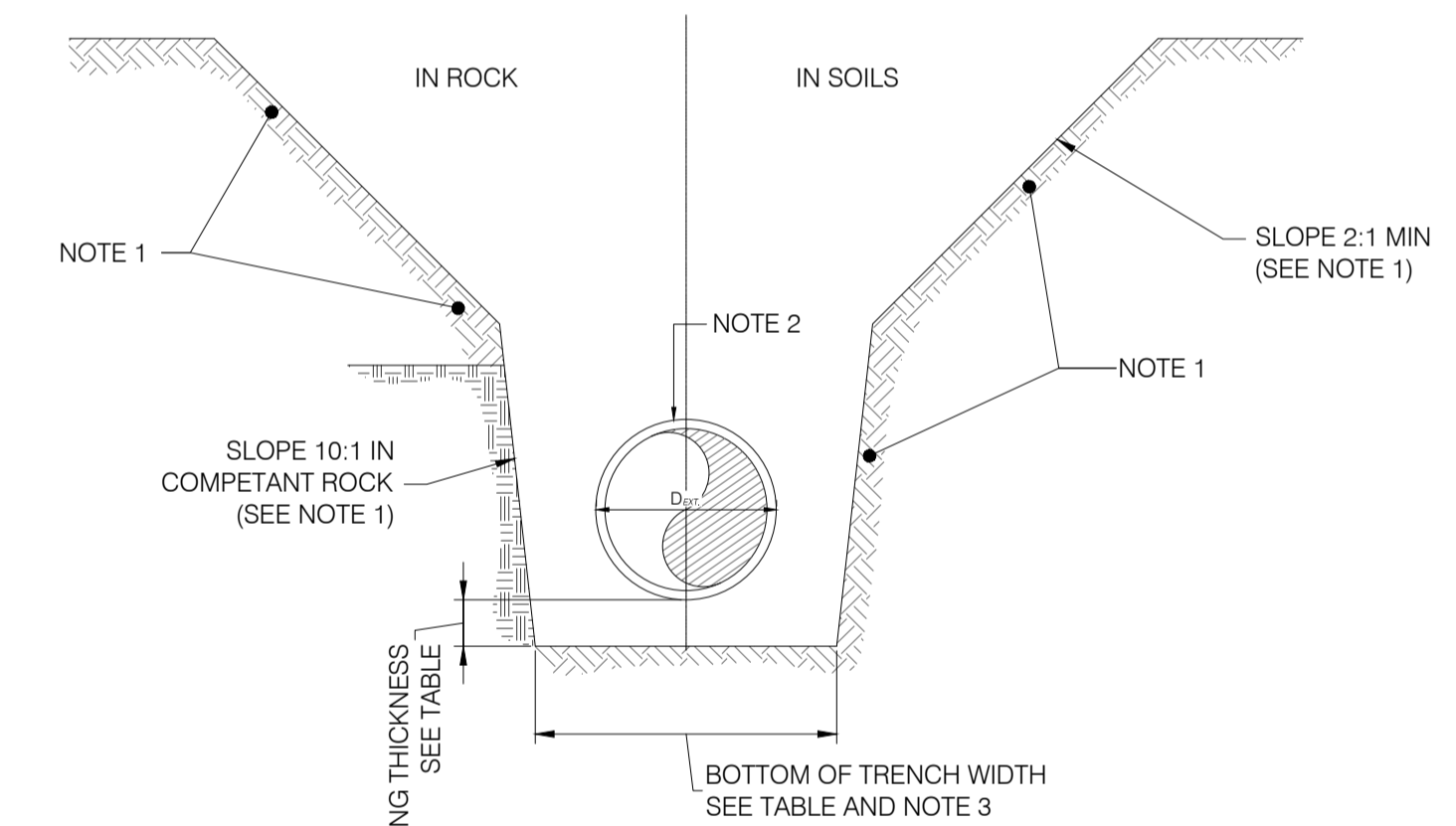
DETAIL 1: INLET/OUTLET EROSION PROTECTION FOR CULVERTS
SCALE: N.T.S.

RIPRAP		
TYPE	RIPRAP THICKNESS	DIAMETER (mm)
1	300	0-200
2	300	100-200
3	500	200-300
4	700	300-400
5	800	300-500

- NOTES:**
- D = DIAMETER OF PIPE.
 - DIMENSIONS ARE IN MILLIMETERS



TYPICAL SECTION - BERM
SCALE: N.T.S.

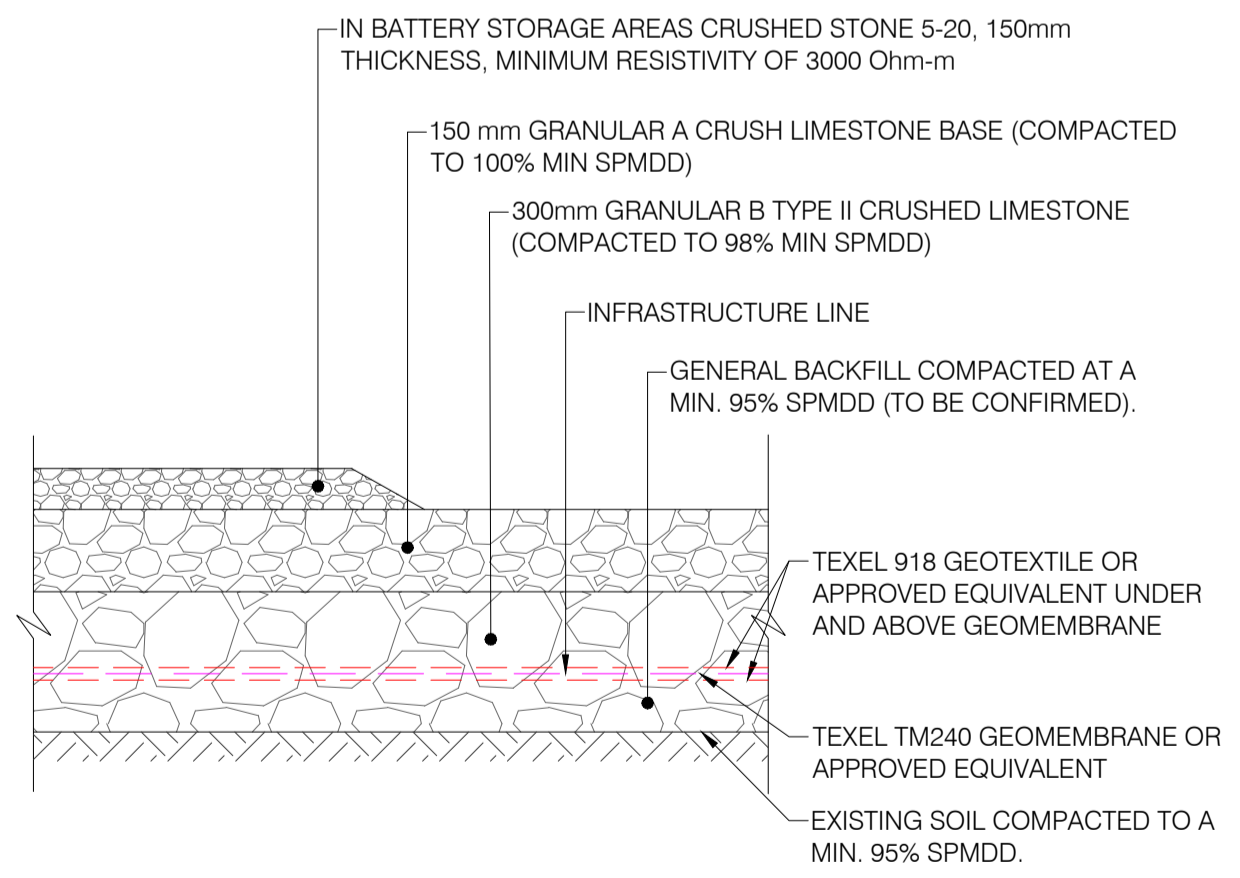


- NOTES:**
- EXCAVATION SLOPES ARE NOT RESTRICTED TO SLOPES SHOWN ON DRAWING. THE EXCAVATION MUST MEET THE REQUIREMENTS OF THE "OCCUPATIONAL HEALTH AND SAFETY ACT", NAMELY THE REQUIREMENTS FOR MATERIAL STORAGE, CIRCULATION OF VEHICLES NEAR THE EXCAVATION AND STABILITY OF THE SLOPES.
 - THE PIPE MUST BE CENTERED AT THE BOTTOM OF THE TRENCH. D_{EXT} IS THE OUTSIDE DIAMETER OF THE PIPE, MEASURED IN MILLIMETERS.
 - BOTTOM OF TRENCH WIDTH CORRESPONDS TO THE DISTANCE BETWEEN SHORING WALLS, IF EXCAVATION IS SUPPORTED.

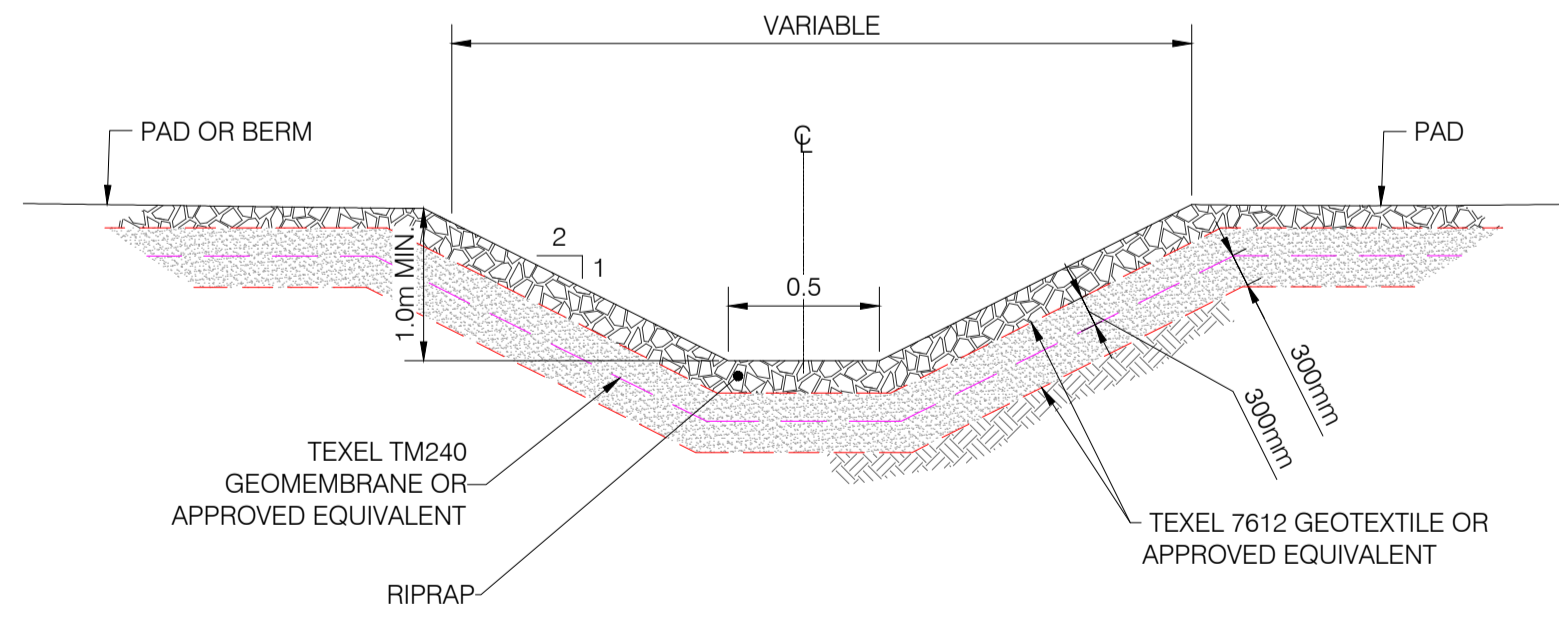
NOMINAL DIAMETER OF THE PIPE mm	MIN. BEDDING THICKNESS (mm)	BOTTOM OF TRENCH WIDTH mm
300 AND LESS	150	D _{EXT} + 900
350 TO 600	150	D _{EXT} + 900
750 TO 1200	200	D _{EXT} + 1200
1350 TO 1500	250	D _{EXT} + 1200
1800 AND MORE	300	A) D _{EXT} + 1200 TRENCH IS SHORED B) D _{EXT} + 900 TRENCH IS NOT SHORED

TRENCH SECTION
N.T.S.

FOR PERMITTING



BATTERY AREA AND PAD STRUCTURE
SCALE: N.T.S.



TYPICAL SECTION - PAD DITCH
SCALE: N.T.S.

DRAWING No.	DESCRIPTION	REV	DESCRIPTION	PREPARED BY	CHECKED BY	DATE
AD	FOR PERMITTING			B. THOMAS	V. BRUNELLE	2025-01-23
AC	FOR PERMITTING			B. THOMAS	V. BRUNELLE	2025-11-05
AB	FOR PERMITTING			E. AMELI	M. SHAHRAKI	2025-06-19
AA	FOR COMMENTS			E. AMELI	M. SHAHRAKI	2025-03-03
REFERENCE DRAWINGS		REVISIONS				

SEAL:

APPLICATION FILE NUMBER : D07-12-25-0096
PLAN NUMBER : 19401

CLIENT:

PROJECT: SOUTH MARCH BESS
2555 AND 2625 MARCHURST ROAD, OTTAWA

TITLE: CIVIL ROAD AND DRAINAGE DETAILS

DESIGNED BY: B. THOMAS	DRAFTED BY: G. NORMAND
PREPARED BY: V. BRUNELLE	CHECKED BY: V. BRUNELLE
SCALE: NTS	DATE: 2025-03-03

DRAWING No.: 7154023-100000-41-D50-0002

SHEET: 01	SIZE: A1	REV: AD
-----------	----------	---------