DARK BAY ROAD BRIDGE REPLACEMENT

TOWNSHIP OF MUSKOKA LAKES, ON

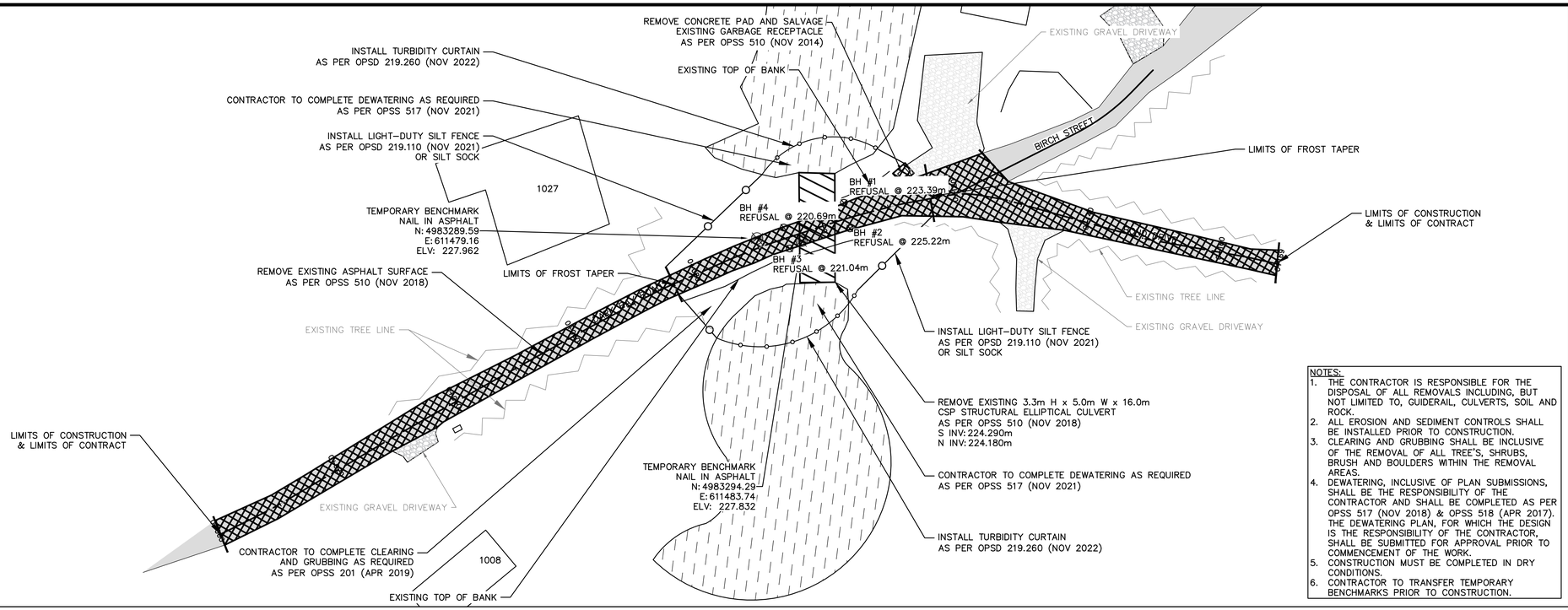
LIST OF DRAWINGS

C0	COVER
C1	REMOVALS PLAN & PROFILE
C2	NEW CONSTRUCTION PLAN & PROFILE
D1	DETAILS

THE GREER GALLOWAY GROUP INC.
CONSULTING ENGINEERS

PETERBOROUGH
BELLEVILLE
KINGSTON

640 CATARAQUI WOODS DRIVE, UNIT 2A
KINGSTON, ONTARIO K7P 2Y5
PHONE: (613) 536-5420



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2. ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO CONSTRUCTION.
3. CLEARING AND GRUBBING SHALL BE INCLUSIVE OF THE REMOVAL OF ALL TREE'S, SHRUBS, BRUSH AND BOULDERS WITHIN THE REMOVAL AREAS.
4. DEWATERING, INCLUSIVE OF PLAN SUBMISSIONS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE COMPLETED AS PER OPSS 517 (NOV 2018) & OPSS 518 (APR 2017). THE DEWATERING PLAN, FOR WHICH THE DESIGN IS THE RESPONSIBILITY OF THE CONTRACTOR, SHALL BE SUBMITTED FOR APPROVAL PRIOR TO COMMENCEMENT OF THE WORK.
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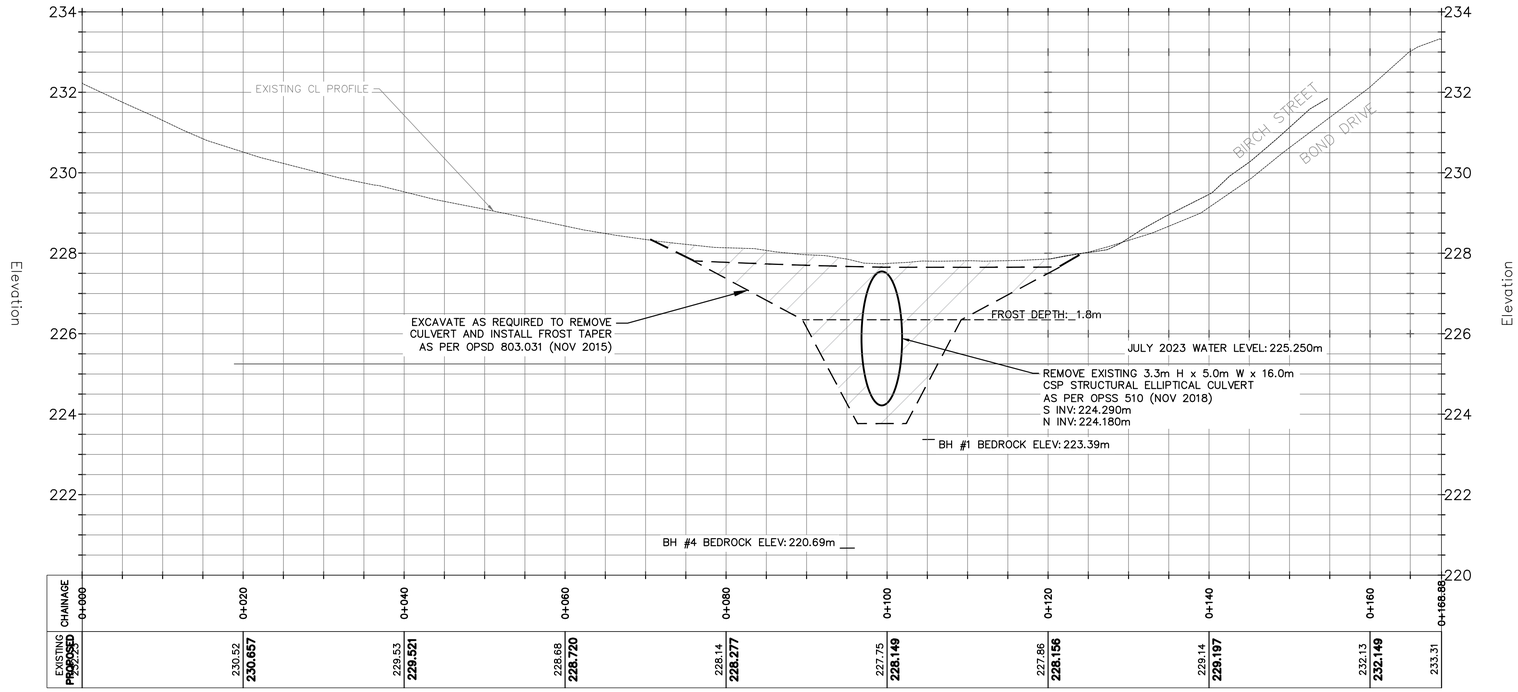
6. CONTRACTOR TO TRANSFER TEMPORARY BENCHMARKS PRIOR TO CONSTRUCTION.



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A/B A DETAIL NO. B DRAWING NO. – WHERE DETAILED

LEGEND
- ASPHALT
- REMOVALS
- CULVERT
- WATER
- TREE LINE
- SILT FENCE
- TURBIDITY CURTAIN
- CONSTRUCTION LIMITS

NORTH

STAMP: LICENSED PROFESSIONAL ENGINEER — K.T. HAWLEY — 100149851 — MAY 6/24 — PROVINCE OF ONTARIO

PROJECT
DARK BAY ROAD
BRIDGE REPLACEMENT

MUSKOKA, ON

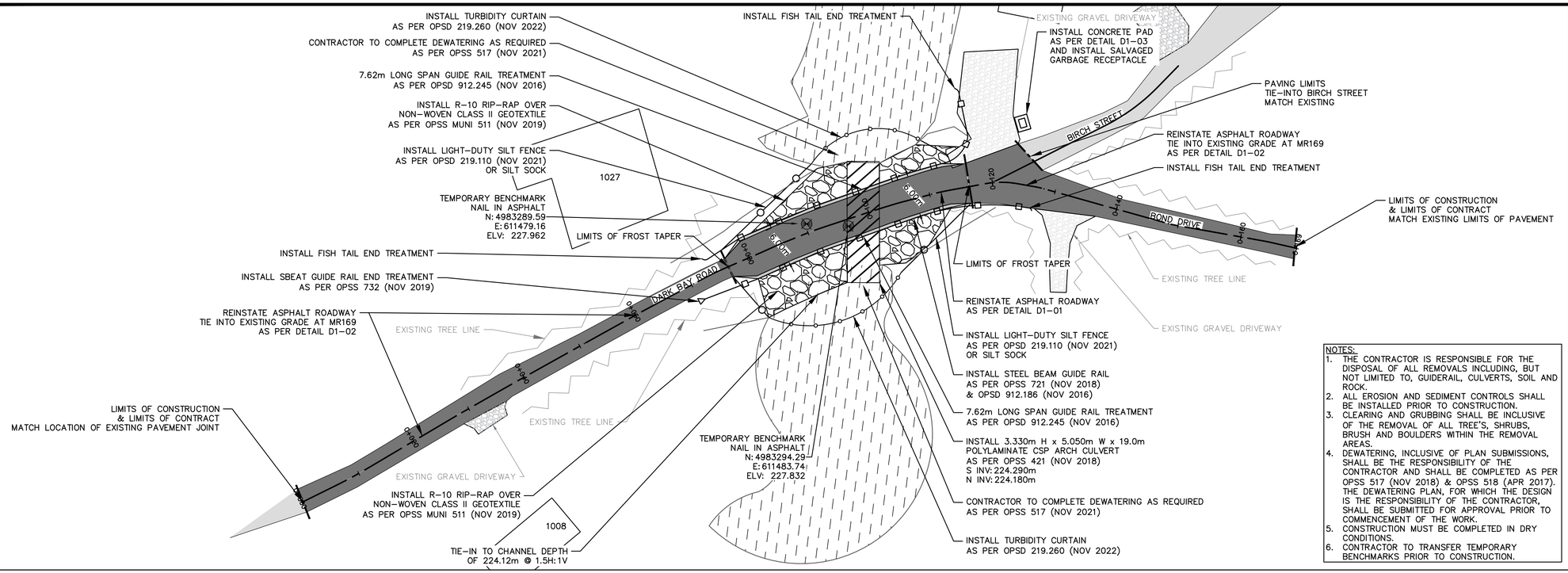
DRAWING TITLE
REMOVALS
PLAN & PROFILE

05		
04	ISSUED FOR TENDER	06/05/24
03	ISSUED FOR 100% REVIEW	27/11/23
02	ISSUED FOR 80% REVIEW	11/10/23
01	ISSUED FOR 30% REVIEW	28/08/23
REVISION		DATE

DESIGNED BY: R. ASSELSTINE
DRAWN BY: S. HIGH
REVIEWED BY: R. ASSELSTINE
APPROVED BY: K. HAWLEY
PROJECT DATE: 07/11/2023 (DD/MM/YYYY)
PROJECT #: 23-5-5361
SCALE: HOR: 1:350 VER: 1:70
DRAWING #: C1

CAD OPERATOR: Shigh
CAD FILE: X:\Kingston Archives\5000 – Municipal\2023\2355361 – Dark Bay Road Bridge Replacement\Drawings\Working Drawings\DARK BAY BRIDGE REPLACEMENT – IFT.dwg
PLOT SCALE: AS NOTED
DATE PLOTTED: DD/MM/YYYY
GSG-A1

(METRIC SCALE – ALL DIMS IN METERS UNLESS OTHERWISE SPECIFIED)



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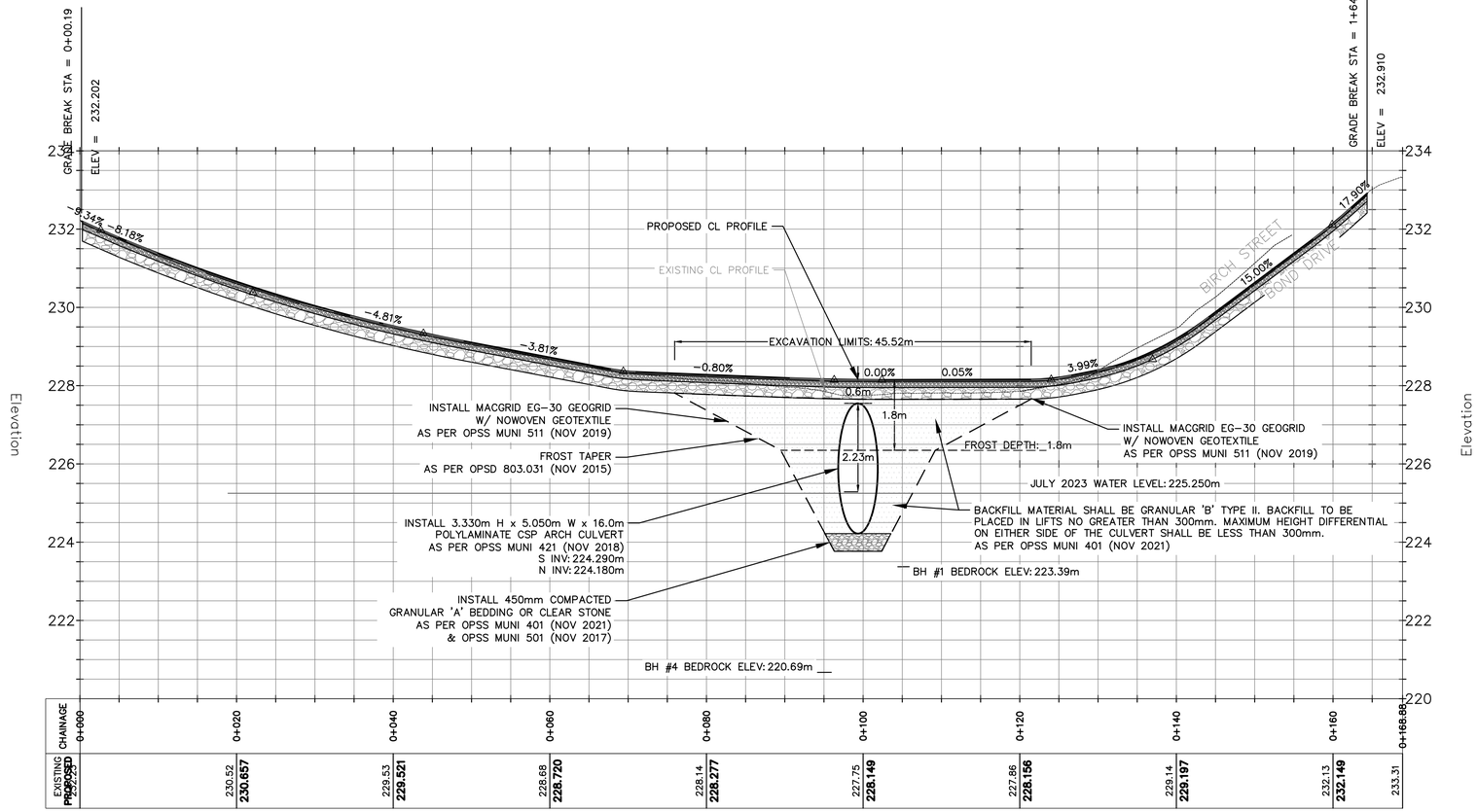

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CONSTRUCTION LIMITS

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SCALE HOR: 1:350 VER: 1:70
DRAWING # C2

GENERAL

1. All works to be installed in accordance with current Township of Muskoka Guidelines, Canadian Highway Bridge Design code, and Ontario Provincial Standard Specifications and Drawings unless specified otherwise.
2. Prior to construction, Contractor to verify all dimensions, culvert inverts and utility locates and identify possible conflicts.
3. All environmental protection measures are the responsibility of the contractor.
4. Any traffic signs or information signs removed/damaged during construction are to be replaced at the contractors costs.
5. All utility poles to be braced as necessary.
6. The location of utilities is approximate only, and the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage during construction.

TRAFFIC CONTROL

1. All traffic control/pedestrian signing as per OTM.
2. A full road closure is acceptable during weekends in accordance with SP.

GRADING

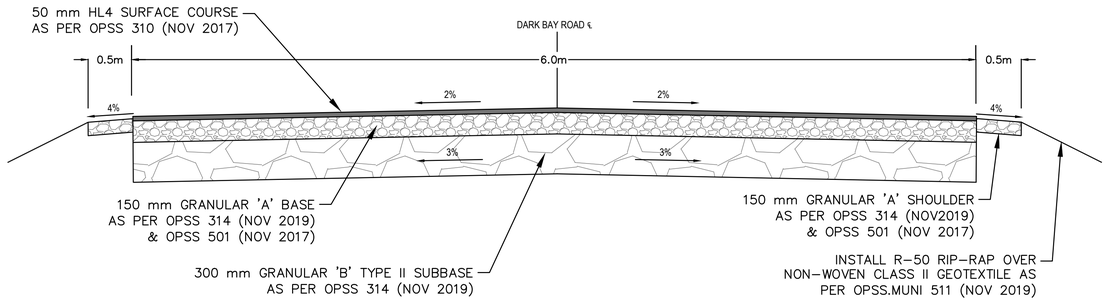
1. Finished surfaces shall be at a minimum grade of 2% unless otherwise noted.
2. Slopes in landscaped areas shall not exceed 3H:1V.
3. All existing elevations and grades are to be verified by the contractor prior to grading
4. Utilities are to be located prior to construction
5. All ground surfaces shall be graded to prevent ponding and without low areas except where approved swale or catchbasin outlets are provided.
6. The contractor is responsible for reviewing proposed grades with conflicts regarding the proposed structures.
7. Sub-grade shall be graded at a minimum of 3%, until a lower ditch is encountered an existing surface that has positive drainage away from the roadway.

SITE WORKS

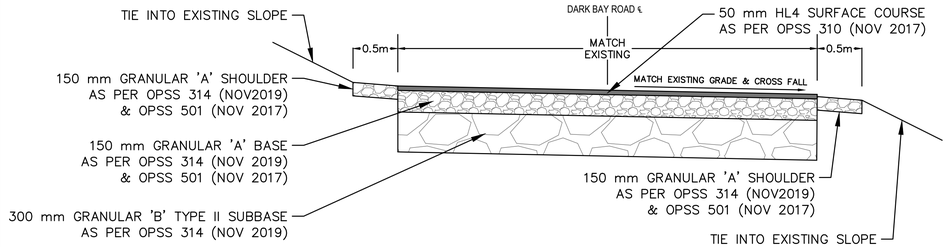
1. Where in earth subgrade compacted granular depths to be 150 mm Granular A and 300mm Granular B. Provide 3% crossfall on subgrade.
2. All disturbed areas to be remediated with 100 mm topsoil and seed as per OPSS 802 & OPSS 804.

SEDIMENT AND EROSION CONTROL NOTES

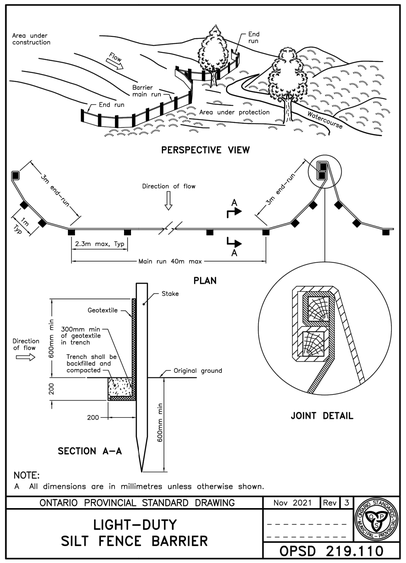
1. All erosion and sediment controls shall be installed prior to construction and monitored and maintained by the Contractor throughout the construction process, until all disturbed areas have been re-vegetated then the temporary sediment and erosion control measures must be removed once the site has been stabilized/completed of site works.
2. All erosion and sediment control measures shall be inspected after prior to and after each rainfall to the satisfaction of the Contract Administrator.
3. Any disturbed areas not scheduled for further construction within forty-five (45) days will be provided with a suitable temporary mulch and seed cover within seven (7) days of completion.
4. Regardless of site specific items detailed on the plans, the Contractor shall install erosion control measures to suit the proposed work methods to control sediment from running off the site prior to any disturbance.
5. Following construction, disturbed areas, as well as proposed grassed and vegetated surfaces, shall be reinstated as soon as practical.
6. All roads used to access the site shall be kept clean to the satisfaction of the Director of Public Works.
7. Dewatering shall be completed as per OPSS 517. The Contractor shall submit a plan for approval by the Contract Administrator prior to dewatering. Any permits required for dewatering shall be obtained by the Contractor prior to proceeding with the work.



01 D1 'TYPICAL' ROAD REINSTATEMENT STA 0+075 TO STA 0+120
SCALE: NTS



02 D1 'TYPICAL' ROAD REINSTATEMENT STA 0+000 TO STA 0+075 & STA 0+120 TO STA 0+169
SCALE: NTS



NOTE:
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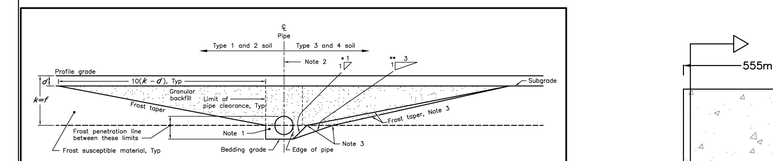
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2021	Rev 3
LIGHT-DUTY SILT FENCE BARRIER		OPSD 219.110

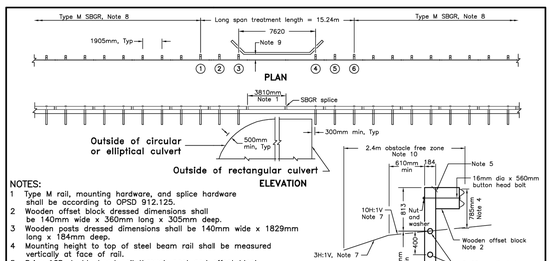


FROST TREATMENT
RIGID AND FLEXIBLE PIPE

NOTES:
1 Pipe embedment or bedding, cover, and backfill shall be according to:
a) Flexible OPSD 802.010, 802.013, 802.014, 802.020, 802.023, and 802.024.
b) Rigid – OPSD 802.030, 802.031, 802.032, 802.033, 802.034, 802.050, 802.051, 802.052, 802.053, and 802.054.
2 Condition of frost treatment symmetrical about centreline of pipe.
3 Frost tapers shall start at the intersection of the 1H:1V or 3H:1V slope and the frost penetration line.
A Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.

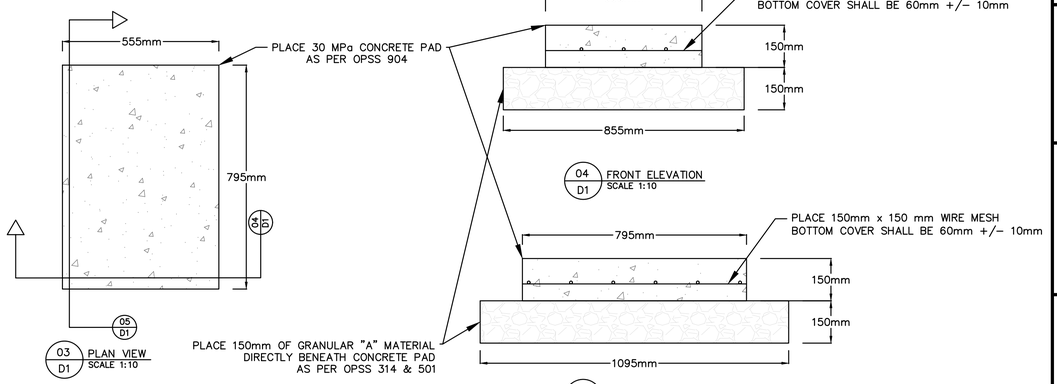
LEGEND:
d – depth of roadbed granular
K – depth of frost treatment below profile grade
f – depth of frost penetration below profile grade
* – Type 3 soil
** – Type 4 soil

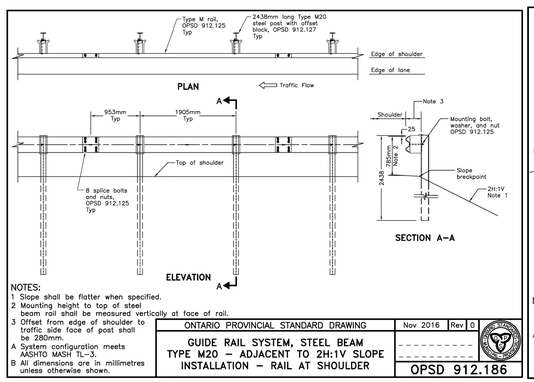
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 4
FROST TREATMENT – PIPE CULVERTS FROST PENETRATION LINE BETWEEN TOP OF PIPE AND BEDDING GRADE		OPSD 803.031



NOTES:
1 Type M rail, mounting hardware, and splice hardware shall be according to OPSD 912.125.
2 Wooden offset block dressed dimensions shall be 140mm wide x 360mm long x 305mm deep.
3 Wooden posts dressed dimensions shall be 140mm wide x 1829mm long x 184mm deep.
4 Mounting height to top of steel beam rail shall be measured vertically at face of rail.
5 Drive 16D double head nail through post and offset block.
6 The centre of the top hole shall be in line with the ground surface.
7 Slope shall be flatter when specified.
8 Type M SBGR includes Type M20 and Type M30. The minimum length of Type M SBGR to be installed upstream and downstream of the long span treatment shall be 19.05m.
9 Distance from face of rail to inside face of culvert headwall shall not be less than 900mm.
10 Obstacles shall not protrude more than 50mm above the finished grade.
A System configuration meets AASHTO MASH TL-3.
B All dimensions are in millimetres unless otherwise shown.

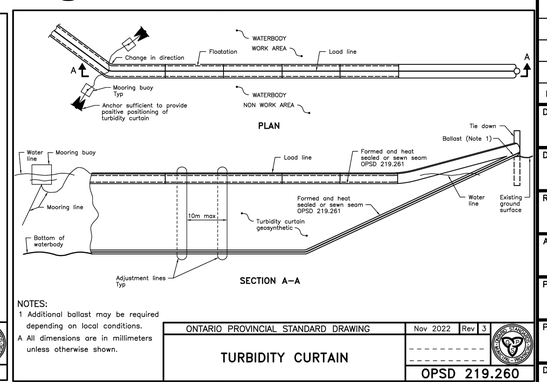
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2016	Rev 0
GUIDE RAIL SYSTEM, STEEL BEAM TYPE M – 7.62m LONG SPAN TREATMENT INSTALLATION		OPSD 912.245





NOTES:
1 Slope shall be flatter when specified.
2 Mounting height to top of steel beam rail shall be measured vertically at face of rail.
3 Offset from edge of shoulder to traffic side face of post shall be 280mm.
A System configuration meets AASHTO MASH TL-3.
B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2016	Rev 0
GUIDE RAIL SYSTEM, STEEL BEAM TYPE M20 – ADJACENT TO 2H:1V SLOPE INSTALLATION – RAIL AT SHOULDER		OPSD 912.186



NOTES:
1 Additional ballast may be required depending on local conditions.
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ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2022	Rev 3
TURBIDITY CURTAIN		OPSD 219.260

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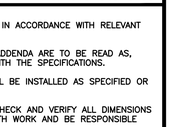
STAMP



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DRAWING # D1

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