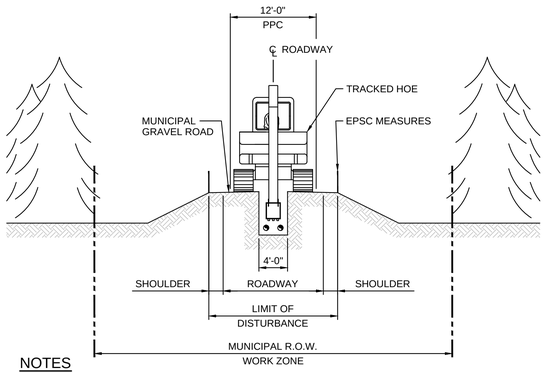
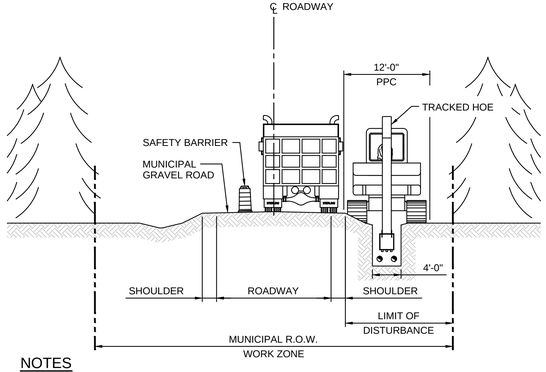


NOTES

1. CONSTRUCTION METHOD 1A REQUIRES ROAD CLOSURE AS THE ROAD WIDTH IS TOO NARROW TO PERMIT ANY PUBLIC USE CONCURRENT WITH CONSTRUCTION ACTIVITIES.
2. CONSTRUCTION METHOD 1A ASSUMES CONSTRUCTION WILL BE CONDUCTED USING LINEAR OR IN-LINE CONSTRUCTION OPERATIONS WITH SPOILS REMOVED AND STOCKPILED AWAY FROM THE IMMEDIATE WORK SITE.
3. ROADWAY WIDTH VARIES FROM 14-18 FEET.
4. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
5. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
6. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
7. THE WORK ZONE IS RESTRICTED TO THE MUNICIPAL R.O.W.
8. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.

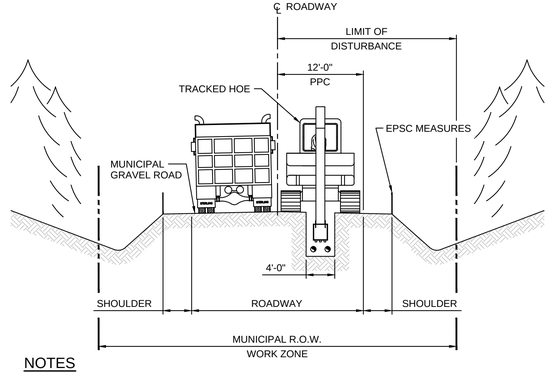
MUNICIPAL GRAVEL ROAD
CONSTRUCTION METHOD 1A
SCALE: 1" = 10'



NOTES

1. CONSTRUCTION METHOD 1B ALLOWS FOR LIMITED LOCAL TRAFFIC FOR INGRESS/EGRESS TO PRIVATE PROPERTY.
2. CONSTRUCTION METHOD 1B ASSUMES MOST ROAD SEGMENTS WILL REQUIRE SPOILS TO BE REMOVED OFF-SITE.
3. ROADWAY WIDTH VARIES FROM 16-20 FEET.
4. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
5. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
6. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
7. THE WORK ZONE INCLUDES THE FULL WIDTH OF THE R.O.W BUT 1/2 THE ROAD WIDTH SHALL BE UTILIZED FOR LOCAL TRAFFIC AND CONSTRUCTION ACCESS.
8. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.

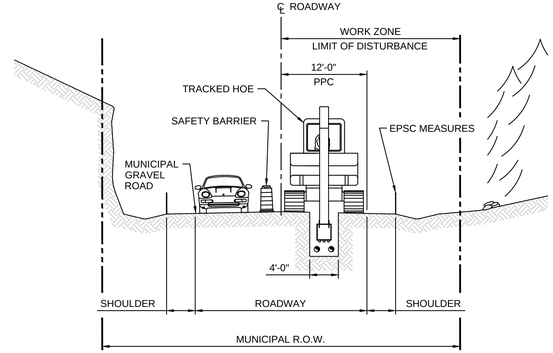
MUNICPAL GRAVEL ROAD
CONSTRUCTION METHOD 1B
SCALE: 1" = 10'



NOTES

1. CONSTRUCTION METHOD 1C REQUIRES ROAD CLOSURE WITH LIMITED LOCAL TRAFFIC FOR INGRESS/EGRESS TO PRIVATE PROPERTY.
2. TOPOGRAPHY, R.O.W. WIDTH AND/OR PROTECTED NATURAL RESOURCES PREVENT CONSTRUCTION USE OF ADJACENT TURFED AREAS.
3. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN APPROVED OFF-SITE LOCATION.
4. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
5. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
6. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
7. THE WORK ZONE INCLUDES THE FULL WIDTH OF THE R.O.W BUT 1/2 THE ROAD WIDTH SHALL BE UTILIZED FOR LOCAL TRAFFIC AND CONSTRUCTION ACCESS.
8. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.

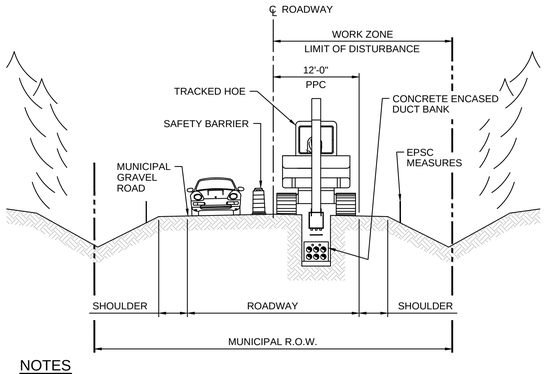
MUNICIPAL GRAVEL ROAD
CONSTRUCTION METHOD 1C
SCALE: 1" = 10'



NOTES

1. CONSTRUCTION METHOD 1D IS SIMILAR TO METHOD 1C EXCEPT THE WIDER ROADWAY PERMITS ONE-WAY TRAFFIC TO BE MAINTAINED.
2. CONSTRUCTION METHOD 1D ASSUMES CONSTRUCTION WILL BE CONDUCTED USING LINEAR OR IN-LINE CONSTRUCTION OPERATIONS.
3. TOPOGRAPHY, R.O.W. WIDTH AND/OR PROTECTED NATURAL RESOURCES PREVENT CONSTRUCTION USE OF ADJACENT TURFED AREAS.
4. ROADWAY WIDTH VARIES FROM 18-24 FEET, OR MORE.
5. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN APPROVED OFF-SITE LOCATION.
6. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
7. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
8. THE WORK ZONE IS RESTRICTED TO 1/2 OF THE ROADWAY AND ADJACENT PROPERTY TO EDGE OF THE R.O.W.
9. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
10. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.

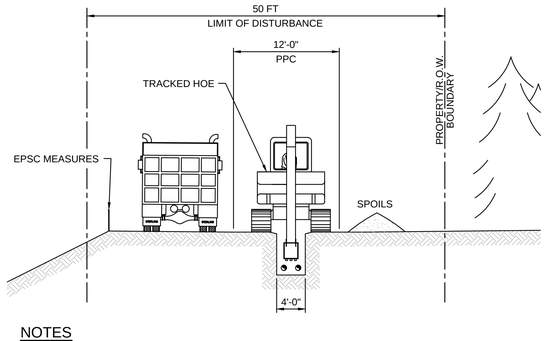
MUNICIPAL GRAVEL ROAD
CONSTRUCTION METHOD 1D
SCALE: 1" = 10'



NOTES

1. CONSTRUCTION METHOD 1E APPLIES TO THAT SECTION OF NELSON ROAD BETWEEN THE PROPOSED CONVERTER STATION SITE AND THE COOLIDGE SUBSTATION.
2. CONSTRUCTION METHOD 1E ASSUMES CONSTRUCTION WILL BE CONDUCTED USING LINEAR OR IN-LINE CONSTRUCTION OPERATIONS.
3. TOPOGRAPHY, R.O.W. WIDTH AND/OR PROTECTED NATURAL RESOURCES PREVENT CONSTRUCTION USE OF ADJACENT TURFED AREAS.
4. ROADWAY WIDTH VARIES FROM 18-24 FEET, ALLOWING ONE-WAY LOCAL TRAFFIC.
5. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN OFF-SITE LOCATION.
6. PROVIDE DEMARKATION OF APPROVED LIMIT TO DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
7. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
8. THE WORK ZONE IS RESTRICTED TO 1/2 OF THE ROADWAY AND ADJACENT PROPERTY TO EDGE OF THE R.O.W.
9. REFER TO DRAWING 209513-TRN-07 ENTITLED MUNICIPAL ROAD 345 kV AC DUCT BANK SECTION FOR DETAILS.
10. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
11. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.OW. FOR CONSTRUCTION OPERATIONS.

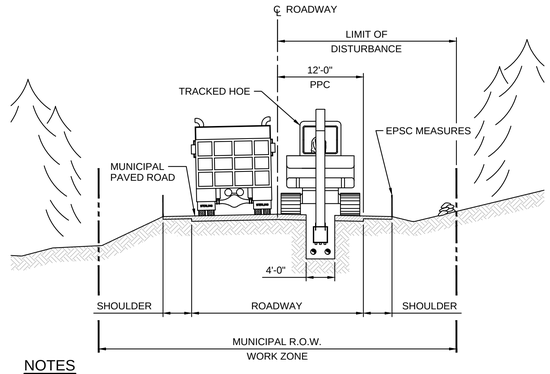
MUNICIPAL GRAVEL ROAD
CONSTRUCTION METHOD 1E
SCALE: 1" = 10'



NOTES

1. CONSTRUCTION METHOD 1F WILL BE UTILIZED ON OPEN TERRAIN SUCH AS COMPANY OWNED PROPERTY IN ALBURGH, BENSON, AND LUDLOW WHERE THE WORK ZONE IS NOT RESTRICTED BY SENSITIVE HABITAT OR PROPERTY BOUNDARIES.
2. CONSTRUCTION SITE ACCESS SHALL ADHERE TO REQUIREMENTS OF THE APPROVED ACCESS AND TRAFFIC CONTROL PLANS.
3. LIMIT OF DISTURBANCE MAY EXTEND TO THE LESSER OF THE EDGE OF R.O.W./PROPERTY LINE OR 50 FEET.
4. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
5. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
6. REFER TO THE GENERAL WORK REQUIREMENTS ON SHEET G-2.
7. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.

OPEN TERRAIN ACCESS ROAD
CONSTRUCTION METHOD 1F
SCALE: 1" = 10'



NOTES

1. CONSTRUCTION METHOD 2A ASSUMES THE CABLE SYSTEM IS INSTALLED WITHIN PAVED TRAVEL LANE.
2. CONSTRUCTION METHOD 2A REQUIRES ROAD CLOSURE WITH LIMITED LOCAL TRAFFIC FOR INGRESS/EGRESS TO PRIVATE PROPERTY.
3. TOPOGRAPHY, R.O.W. WIDTH AND/OR PROTECTED NATURAL RESOURCES PREVENT CONSTRUCTION USE OF ADJACENT TURFED AREAS.
4. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN APPROVED OFF-SITE LOCATION.
5. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
6. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
7. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.
8. THE WORK ZONE IS RESTRICTED TO THE MUNICIPAL R.O.W.
9. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
10. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
11. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.

MUNICIPAL PAVED ROAD
CONSTRUCTION METHOD 2A
SCALE: 1" = 10'

NOTE:

1. CONSTRUCTION METHOD 1 SERIES OF FIGURES ARE APPLICABLE TO UN-PAVED MUNICIPAL ROADS.
2. CONSTRUCTION METHOD 2 SERIES OF FIGURES ARE APPLICABLE TO PAVED MUNICIPAL ROADS.

Designed	TRC
Drawn	TRC
Checked	-
Approved	-
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW		
B	EPSC & PERMITS IFCR	3/6/15	TRC	AMW		

TDI New England
A Blackstone Portfolio Company

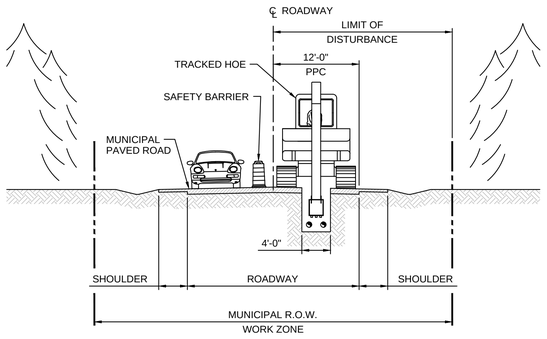
New England Clean Power Link

TDI New England

Construction Methods

CM-1

Prepared by: TRC 09/19/14



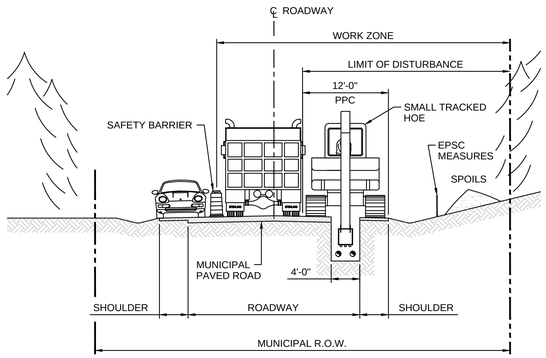
NOTES

1. CONSTRUCTION METHOD 2B ASSUMES THE CABLE SYSTEM IS INSTALLED WITHIN PAVED TRAVEL LANE.
2. CONSTRUCTION METHOD 2B IS SIMILAR TO METHOD 2A EXCEPT THE WIDER ROADWAY PERMITS ONE-WAY TRAFFIC TO BE MAINTAINED.
3. CONSTRUCTION METHOD 2B ASSUMES CONSTRUCTION WILL BE CONDUCTED USING LINEAR OR IN-LINE CONSTRUCTION OPERATIONS.
4. TOPOGRAPHY, R.O.W. WIDTH AND/OR PROTECTED NATURAL RESOURCES PREVENT CONSTRUCTION USE OF ADJACENT TURFED AREAS.
5. ROADWAY WIDTH VARIES FROM 18-24 FEET, OR MORE.
6. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN APPROVED OFF-SITE LOCATION.
7. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
8. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
9. THE WORK ZONE INCLUDES THE FULL WIDTH OF THE R.O.W BUT 1/2 THE ROAD WIDTH SHALL BE UTILIZED FOR LOCAL TRAFFIC AND CONSTRUCTION ACCESS.
10. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
11. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.

MUNICIPAL PAVED ROAD

CONSTRUCTION METHOD 2B

SCALE: 1" = 10'



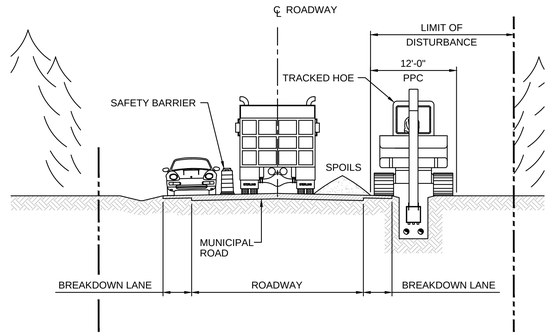
NOTES

1. CONSTRUCTION METHOD 2C ASSUMES THE CABLE SYSTEM IS INSTALLED WITHIN PAVED TRAVEL LANE.
2. CONSTRUCTION METHOD 2C ASSUMES THE R.O.W. IS SUFFICIENTLY WIDE TO PERMIT ONE-WAY TRAFFIC WITH ADJACENT CONSTRUCTION OPERATIONS.
3. TOPOGRAPHY, R.O.W. WIDTH AND/OR PROTECTED NATURAL RESOURCES PREVENT CONSTRUCTION USE OF ADJACENT TURFED AREAS.
4. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN APPROVED OFF-SITE LOCATION.
5. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
6. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
7. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.
8. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
9. WORK ZONE INCLUDES PORTIONS OF THE PAVED ROADWAY AND ADJACENT LAND TO EDGE OF R.O.W. SUFFICIENT PAVED SHOULDER AND TRAVEL LANE SHALL BE RESERVED FOR ONE-WAY TRAFFIC.

MUNICIPAL PAVED ROAD

CONSTRUCTION METHOD 2C

SCALE: 1" = 10'



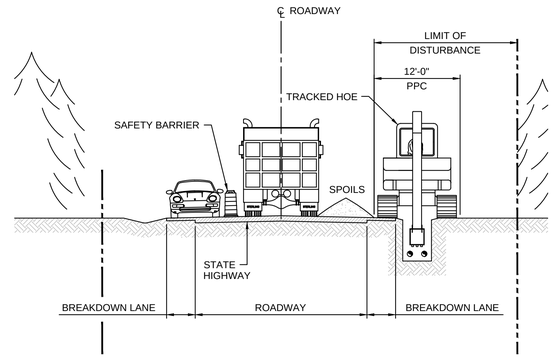
NOTES

1. CONSTRUCTION METHOD 2D WILL BE UTILIZED WHERE THE ROADWAY SIDE-SLOPES AND DRAINAGE DITCH ARE SHALLOW, WITH ADEQUATE ROOM TO THE EDGE OF THE R.O.W.
2. CONSTRUCTION METHOD 2D REQUIRES ONE-WAY TRAFFIC TO BE MAINTAINED ALONG WORK ZONE.
3. PAVED TRAVEL LANES ARE GENERALLY 11 FEET WIDE WITH BREAKDOWN LANES VARYING FROM 2-8 FEET WIDE.
4. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN APPROVED OFF-SITE LOCATION.
5. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
6. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
7. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.
8. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
9. CABLE INSTALLATION WITHIN DITCHLINE INCLUDES REPLACEMENT OF ROADWAY UNDERDRAIN WHERE APPLICABLE.
10. WORK ZONE INCLUDES PORTIONS OF THE PAVED ROADWAY AND ADJACENT LAND TO EDGE OF R.O.W. SUFFICIENT PAVED SHOULDER AND TRAVEL LANE SHALL BE RESERVED FOR ONE-WAY TRAFFIC. REFER TO GENERAL WORK REQUIREMENTS ON SHEET G-2.

MUNICIPAL PAVED ROAD

CONSTRUCTION METHOD 2D

SCALE: 1" = 10'



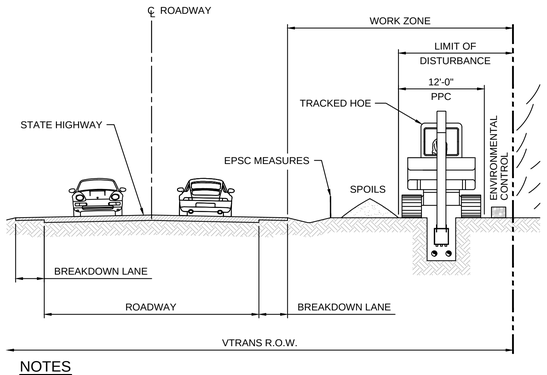
NOTES

1. CONSTRUCTION METHOD 3A WILL BE UTILIZED WHERE THE ROADWAY SIDE-SLOPES AND DRAINAGE DITCH ARE SHALLOW, WITH ADEQUATE ROOM TO THE EDGE OF THE R.O.W.
2. CONSTRUCTION METHOD 3A REQUIRES ONE-WAY TRAFFIC TO BE MAINTAINED ALONG WORK ZONE.
3. PAVED TRAVEL LANES ARE GENERALLY 11 FEET WIDE WITH BREAKDOWN LANES VARYING FROM 2-8 FEET WIDE.
4. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN APPROVED OFF-SITE LOCATION.
5. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
6. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
7. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.
8. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
9. CABLE INSTALLATION WITHIN DITCHLINE INCLUDES REPLACEMENT OF ROADWAY UNDERDRAIN WHERE APPLICABLE.
10. WORK ZONE INCLUDES PORTIONS OF THE PAVED ROADWAY AND ADJACENT LAND TO EDGE OF R.O.W. SUFFICIENT PAVED SHOULDER AND TRAVEL LANE SHALL BE RESERVED FOR ONE-WAY TRAFFIC. REFER TO GENERAL WORK REQUIREMENTS ON SHEET G-2.

STATE HIGHWAY

CONSTRUCTION METHOD 3A

SCALE: 1" = 10'



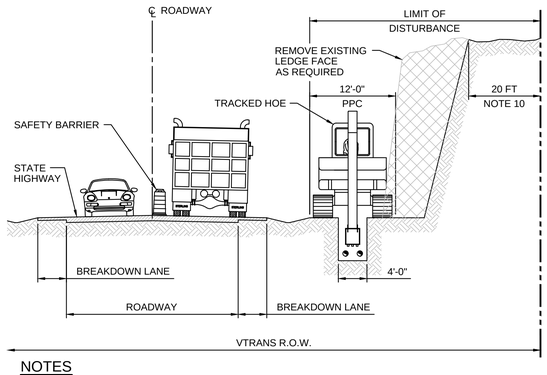
NOTES

1. CONSTRUCTION METHOD 3B WILL BE USED WHERE SUFFICIENT R.O.W. WIDTH EXISTS TO ALLOW INSTALLATION COMPLETELY OFF THE PAVED ROADWAY. THIS METHOD INCLUDES THOSE AREAS WHERE CABLE INSTALLATION MAY BE OVER THE TOP OF ROCK OUTCROPS ADJACENT TO THE VTRANS R.O.W.
2. CONSTRUCTION METHOD 3B PERMITS TWO-WAY TRAFFIC ADJACENT TO THE WORK ZONE.
3. CONSTRUCTION METHOD 3B ASSUMES CONSTRUCTION WILL BE CONDUCTED USING LINEAR OR IN-LINE CONSTRUCTION OPERATIONS TO MINIMIZE IMPACT TO NATURAL ENVIRONMENT IN SENSITIVE OR CHALLENGING CONSTRUCTION LOCATIONS.
4. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN APPROVED OFF-SITE LOCATION.
5. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
6. CABLE INSTALLATION LOCATION WILL BE RESTORED TO NATURAL VEGETATED R.O.W. EXCEPT WETLANDS AND OTHER NATURAL ENVIRONMENTS SPECIFIED TO BE RESTORED TO THEIR ORIGINAL CONDITION.
7. REFER TO GENERAL WORK REQUIREMENTS ON SHEET G-2.
8. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
9. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
10. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.

STATE HIGHWAY

CONSTRUCTION METHOD 3B

SCALE: 1" = 10'



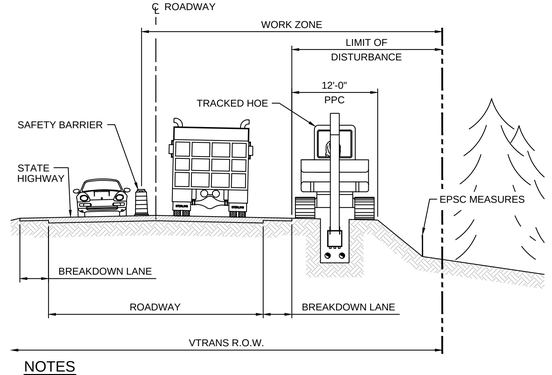
NOTES

1. CONSTRUCTION METHOD 3C ASSUMES ONE-WAY TRAFFIC AND VTRANS R.O.W. IS GENERALLY MUCH WIDER THAN ROADWAY AND PLANNED CONSTRUCTION ZONE.
2. LEDGE FACE REMOVED TO WIDEN HIGHWAY SAFETY ZONE AND PERMIT CABLE INSTALLATION WITHIN EXISTING HIGHWAY CLEAR ZONE. LEDGE REMOVAL SHALL BE BY METHODS NOT REQUIRING EXPLOSIVES, OR WHEN EXPLOSIVES ARE NECESSARY, ONLY APPROVED LICENSED BLASTERS SHALL BE EMPLOYED, FOLLOWING A DETAILED APPROVED BLASTING PLAN.
3. PAVED TRAVEL LANES ARE GENERALLY 11 FEET WIDE WITH BREAKDOWN LANES VARYING FROM 2-8 FEET WIDE.
4. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN APPROVED OFF-SITE LOCATION.
5. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
6. WORK ZONE INCLUDES PORTIONS OF THE PAVED ROADWAY AND ADJACENT LAND TO EDGE OF R.O.W. SUFFICIENT PAVED SHOULDER AND TRAVEL LANE SHALL BE RESERVED FOR ONE-WAY TRAFFIC. REFER TO GENERAL WORK REQUIREMENTS ON SHEET G-2.
7. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
8. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
9. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.
10. LIMIT OF DISTURBANCE MAY EXTEND 20 FT FROM THE PLANNED EDGE OF LEDGE REMOVAL OR TO THE EDGE OF THE R.O.W. WHICHEVER IS LESS.

STATE HIGHWAY

CONSTRUCTION METHOD 3C

SCALE: 1" = 10'



NOTES

1. CONSTRUCTION METHOD 3D WILL BE USED WHERE TOPOGRAPHY OR ADJACENT SENSITIVE ENVIRONMENTS DO NOT PERMIT FULL USE OF THE AVAILABLE R.O.W.
2. CONSTRUCTION METHOD 3D ASSUMES ONE-WAY TRAFFIC WITH CONSTRUCTION TRAFFIC ADJACENT TO THE EXCAVATION.
3. THE AVAILABLE CONSTRUCTION CORRIDOR IS TOO NARROW TO PERMIT SPOILS STOCKPILING WITHIN THE R.O.W. SPOILS WILL BE REMOVED AND STOCKPILED AT AN APPROVED LOCATION AWAY FROM THE IMMEDIATE CONTRUCTION SITE.
4. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
5. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
6. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.
7. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
8. WORK ZONE INCLUDES PORTIONS OF THE PAVED ROADWAY AND ADJACENT LAND TO EDGE OF R.O.W. SUFFICIENT PAVED SHOULDER AND TRAVEL LANE SHALL BE RESERVED FOR ONE-WAY TRAFFIC. REFER TO GENERAL WORK REQUIREMENTS ON SHEET G-2.

STATE HIGHWAY

CONSTRUCTION METHOD 3D

SCALE: 1" = 10'

NOTE:

1. CONSTRUCTION METHOD 2 SERIES OF FIGURES ARE APPLICABLE TO PAVED MUNICIPAL ROADS.
2. CONSTRUCTION METHOD 3 SERIES OF FIGURES ARE APPLICABLE TO STATE ROADS.

Designed	TRC
Drawn	TRC
Checked	-
Approved	-
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW		
B	EPSC & PERMITS IFCR	3/6/15	TRC	AMW		

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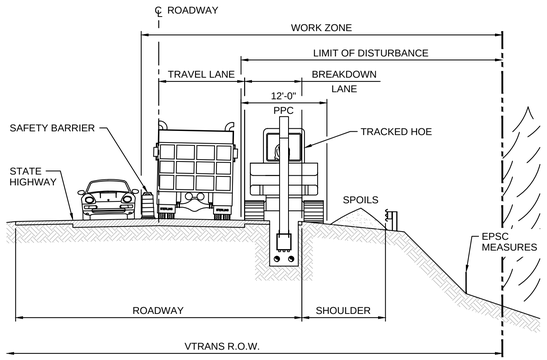
Construction Methods

CM-2

Prepared by: TRC 09/19/14



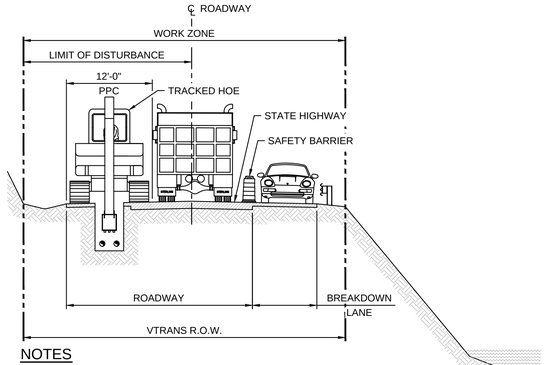
NOTES

1. CONSTRUCTION METHOD 3E INCLUDES THOSE AREAS WHERE INSUFFICIENT R.O.W. EXISTS ADJACENT TO HIGHWAY, ENVIRONMENTALLY SENSITIVE AREAS ARE TO BE AVOIDED OR TOPOGRAPHY PREVENTS INSTALLATION IN NON-PAVED AREAS.
2. CONSTRUCTION METHOD 3E MAY INCLUDE INSTALLATION IN BREAKDOWN LANE, IN SHOULDER, JUST OFF SHOULDER OR IN THE TRAVEL LANE.
3. TRAVEL LANES ARE GENERALLY 10 FT. TO 12 FT. WITH ROAD BREAKDOWN LANES OF 3 FT. TO 8 FT. WIDE.
4. ONE-WAY TRAFFIC SHALL BE MAINTAINED ALONG ROADWAY SEGMENT DURING INSTALLATION.
5. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN APPROVED OFF-SITE LOCATION.
6. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
7. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
8. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.
9. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
10. WORK ZONE INCLUDES PORTIONS OF THE PAVED ROADWAY AND ADJACENT LAND TO EDGE OF R.O.W. SUFFICIENT PAVED SHOULDER AND TRAVEL LANE SHALL BE RESERVED FOR ONE-WAY TRAFFIC. REFER TO GENERAL WORK REQUIREMENTS ON SHEET G-2.

STATE HIGHWAY

CONSTRUCTION METHOD 3E

SCALE: 1" = 10'



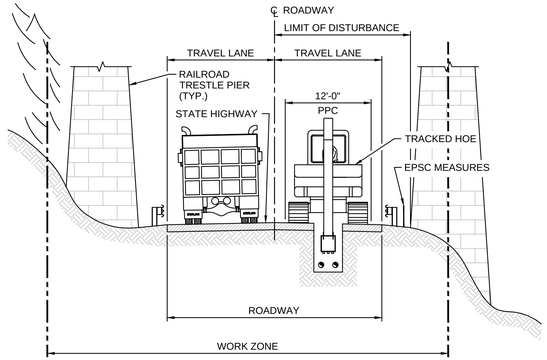
NOTES

1. CONSTRUCTION METHOD 3F INCLUDES THOSE AREAS WHERE INSUFFICIENT R.O.W. EXISTS ADJACENT TO HIGHWAY, ENVIRONMENTALLY SENSITIVE AREAS ARE TO BE AVOIDED OR TOPOGRAPHY PREVENTS USE OF OTHER ALTERNATIVES.
2. CONSTRUCTION METHOD 3F MAY INCLUDE INSTALLATION IN TRAVEL LANE, IN SHOULDER, OR JUST OFF SHOULDER (GENERALLY, NO BREAKDOWN LANE EXISTS WHERE THIS METHOD IS EMPLOYED).
3. ONE-WAY LOCAL TRAFFIC SHALL BE PERMITTED ALONG ROADWAY SEGMENT DURING INSTALLATION. CABLE TRANSPORT AND EQUIPMENT MOVEMENT WILL REQUIRE SHORT-TERM ROADWAY CLOSURE.
4. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN APPROVED OFF-SITE LOCATION.
5. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
6. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
7. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.
8. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
9. THE WORK ZONE SHALL BE RESTRICTED TO A PORTION OF THE PAVED ROADWAY AND ADJACENT LAND TO THE EDGE OF THE R.O.W. SUFFICIENT ROADWAY PAVEMENT SHALL BE RESERVED FOR ONE-WAY LOCAL TRAFFIC AND CONSTRUCTION ACCESS.

STATE HIGHWAY

CONSTRUCTION METHOD 3F

SCALE: 1" = 10'



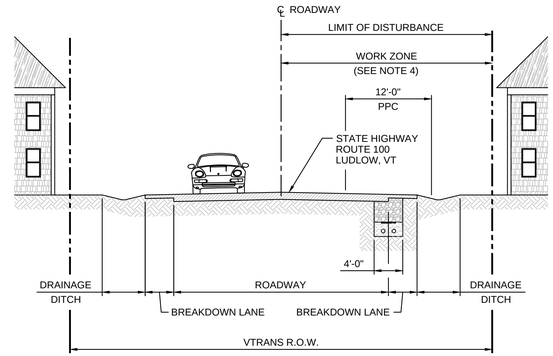
NOTES

1. CONSTRUCTION METHOD 3G INCLUDES THOSE AREAS WHERE EXISTING PHYSICAL RESTRICTIONS REQUIRE INSTALLATION WITHIN ROADWAY.
2. NARROW R.O.W., ALIGNMENT, AND LIMITED TRAVEL LANE WIDTH WILL NOT PERMIT THROUGH-TRAFFIC AND CONCURRENT CONSTRUCTION.
3. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN APPROVED OFF-SITE LOCATION.
4. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
5. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
6. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.
7. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
8. THE WORK ZONE IS RESTRICTED TO THE WIDTH OF THE VTRANS R.O.W.

STATE HIGHWAY

CONSTRUCTION METHOD 3G

SCALE: 1" = 10'



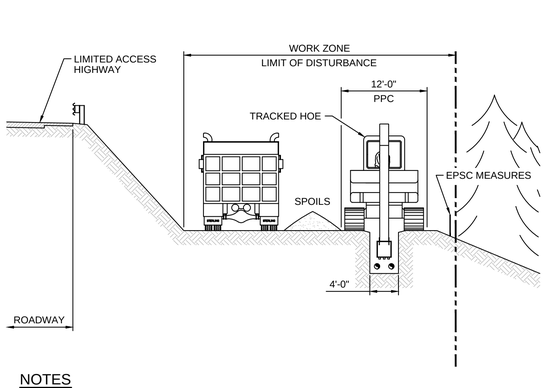
NOTES

1. CONSTRUCTION METHOD 3H APPLIES TO THE PROJECT SEGMENT ALONG ROUTE 100 ONLY.
2. DUCTBANK CONSTRUCTION SHALL BE UNDERTAKEN WITH RESTRICTIONS AND CONTROLS SIMILAR TO CONSTRUCTION METHOD 3E.
3. A CONCRETE ENCASED DUCT BANK AND THREE SPLICE VAULTS WILL BE INSTALLED UNDER THE PAVEMENT. AT SOME TIME FOLLOWING THE DUCT BANK CONSTRUCTION, THE HVDC CABLES WILL BE PULLED INTO THE VAULTS AND SPLICED.
4. DURING THE CABLE PULLING THE WORK ZONE SHALL BE RESTRICTED TO ONE-HALF OF THE PAVED ROADWAY AND ADJACENT LAND AREA TO THE EDGE OF THE VTRANS R.O.W.

STATE HIGHWAY

CONSTRUCTION METHOD 3H

SCALE: 1" = 10'



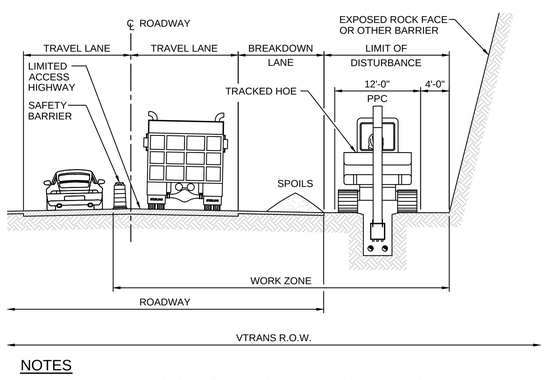
NOTES

1. CONSTRUCTION METHOD 4A WILL BE UTILIZED ALONG THE LIMITED ACCESS HIGHWAY WHERE SUFFICIENT SPACE WITHIN THE CLEAR ZONE PERMITS HVDC SYSTEM INSTALLATION WITHOUT USE OF ROADWAY SURFACES.
2. CONSTRUCTION SITE ACCESS MAY BE VIA THE HIGHWAY TRAVEL LANES OR LOCAL ROADWAYS.
3. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN APPROVED OFF-SITE LOCATION.
4. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
5. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
6. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.
7. CONSTRUCTION SITE ACCESS SHALL ADHERE TO REQUIREMENTS OF THE APPROVED ACCESS AND TRAFFIC CONTROL PLANS.
8. UNLESS OTHERWISE INDICATED THE CONSTRUCTION CORRIDOR/WORK ZONE MAY EXTEND TO THE LESSER OF THE EDGE OF RIGHT-OF-WAY/PROPERTY LINE OR 50 FT.
9. REFER TO THE GENERAL WORK REQUIREMENTS ON SHEET G-2.

LIMITED ACCESS HIGHWAY

CONSTRUCTION METHOD 4A

SCALE: 1" = 10'



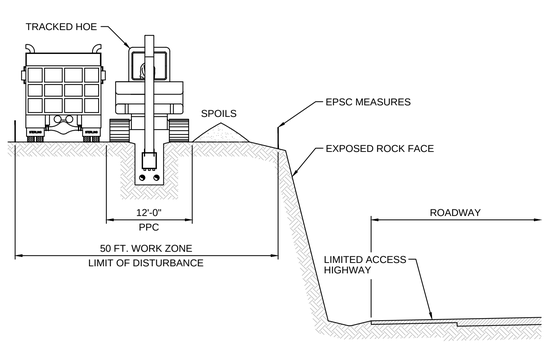
NOTES

1. CONSTRUCTION METHOD 4B WILL BE UTILIZED WHERE STEEP OUTCROP EMBANKMENTS PREVENT HVDC INSTALLATION OUTSIDE THE IMMEDIATE VICINITY OF THE ROADWAY SURFACES. THE VTRANS R.O.W. IS WIDER THAN THE ESTABLISHED WORK ZONE BUT INACCESSIBLE FOR CONSTRUCTION.
2. CONSTRUCTION METHOD 4B ASSUMES SINGLE LANE TRAFFIC ON HIGHWAY. ONE HIGHWAY TRAVEL LANE AND THE BREAKDOWN LANE WILL BE USED FOR CONSTRUCTION ACCESS AND MATERIAL STORAGE.
3. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN APPROVED OFF-SITE LOCATION.
4. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
5. CONSTRUCTION SITE ACCESS SHALL ADHERE TO REQUIREMENTS OF THE APPROVED ACCESS AND TRAFFIC CONTROL PLANS.
6. CONSTRUCTION SITE ACCESS MAY BE VIA THE HIGHWAY TRAVEL LANES OR LOCAL ROADS.
7. WORK ZONE EXTENDS FROM THE ROADWAY CENTERLINE TO THE FACE OF THE ROCK LEDGE.
8. REFER TO SHEET CM-1 FOR WORK ZONE DIAGRAM AND SHEET G-2.
9. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
10. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
11. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.

LIMITED ACCESS HIGHWAY

CONSTRUCTION METHOD 4B

SCALE: 1" = 10'



NOTES

1. CONSTRUCTION METHOD 4C WILL BE UTILIZED WHERE ROCK OUTCROP ADJACENT TO THE HIGHWAY PERMITS CONSTRUCTION ACCESS OVER ITS SLOPE. THE RIGHT-OF-WAY IS SUFFICIENT FOR HVDC INSTALLATION AND ROADWAY CONFIGURATION WOULD OTHERWISE REQUIRE INSTALLATION USING THE HIGHWAY SURFACES.
2. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN APPROVED OFF-SITE LOCATION.
3. CONSTRUCTION SITE ACCESS SHALL ADHERE TO REQUIREMENTS OF THE APPROVED ACCESS AND TRAFFIC CONTROL PLANS.
4. CONSTRUCTION SITE ACCESS MAY BE VIA THE HIGHWAY TRAVEL LANES OR LOCAL ROADS.
5. RIGHT-OF-WAY LIMIT EXTENDS BEYOND CONSTRUCTION LIMITS DEPICTED.
6. REFER TO GENERAL WORK REQUIREMENTS ON SHEET G-2.
7. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
8. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
9. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.

LIMITED ACCESS HIGHWAY

CONSTRUCTION METHOD 4C

SCALE: 1" = 10'

NOTE:

1. CONSTRUCTION METHOD 3 SERIES OF FIGURES ARE APPLICABLE TO STATE ROADS.
2. CONSTRUCTION METHOD 4 SERIES OF FIGURES ARE APPLICABLE TO LIMITED ACCESS HIGHWAY.

Designed	TRC
Drawn	TRC
Checked	-
Approved	-
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW		
B	EPSC & PERMITS IFCR	3/6/15	TRC	AMW		

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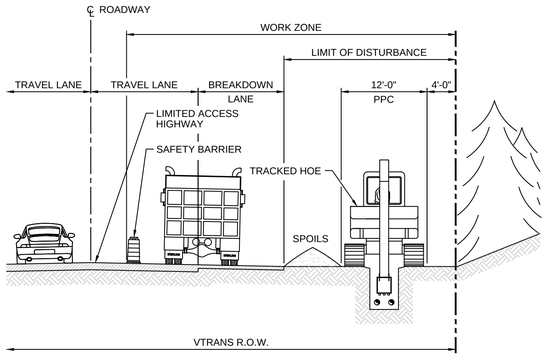
Construction Methods

CM-3

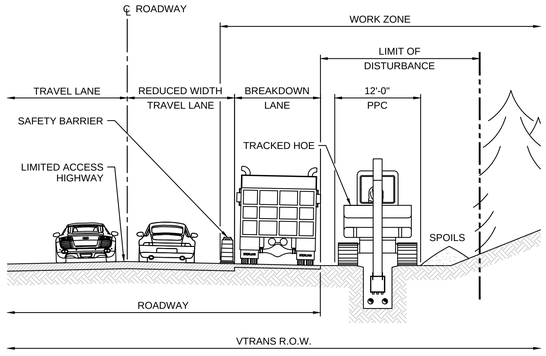
Prepared by: TRC 09/19/14



NOTES

1. CONSTRUCTION METHOD 4D WILL BE UTILIZED WHERE THE RIGHT-OF-WAY IS TOO NARROW FOR ALL CONSTRUCTION ACTIVITY WITHIN THE HIGHWAY SAFETY ZONE, IS AGAINST NATURAL BARRIER OR SENSITIVE NATURAL HABITAT TO BE PROTECTED.
2. CONSTRUCTION METHOD 4D ASSUMES ONE LANE OF HIGHWAY AND BREAKDOWN LANE WILL BE USED FOR CONSTRUCTION TRAFFIC.
3. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
4. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN APPROVED OFF-SITE LOCATION.
5. WORK ZONE INCLUDES PORTIONS OF THE PAVED ROADWAY AND ADJACENT LAND TO EDGE OF R.O.W. SUFFICIENT PAVED SHOULDER AND TRAVEL LANE SHALL BE RESERVED FOR ONE-WAY TRAFFIC. REFER TO GENERAL WORK REQUIREMENTS ON SHEET G-2.
6. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
7. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
8. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.

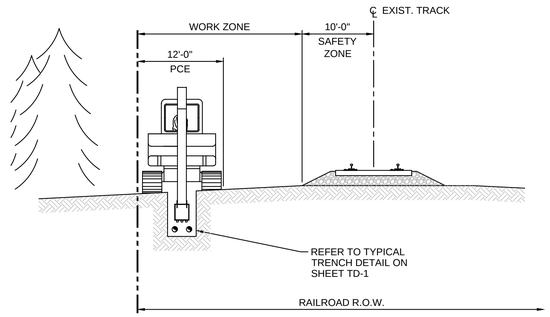
LIMITED ACCESS HIGHWAY
CONSTRUCTION METHOD 4D
SCALE: 1" = 10'



NOTES

1. CONSTRUCTION METHOD 4E WILL BE UTILIZED WHERE THE R.O.W. IS NOT SUITABLE, REQUIRING CONSTRUCTION TRAFFIC TO OCCUPY A PORTION OF THE HIGHWAY SURFACE.
2. CONSTRUCTION METHOD 4E REQUIRES THAT THE ADJACENT TRAVEL LANE WIDTH IS REDUCED TO ACCOMODATE CONSTRUCTION TRAFFIC.
3. FOR CONSTRUCTION METHOD 4E, THE TRENCH WILL BE EXCAVATED WITHIN R.O.W. THE R.O.W. HAS SUFFICIENT ROOM OPPOSITE ROADWAY FOR SPOILS BUT THE TOPOGRAPHY IS NOT SUITABLE FOR CONSTRUCTION OPERATIONS AND/OR IS OTHERWISE UNSUITABLE TO PROVIDE EFFICIENT OPERATION.
4. SAFETY BARRIERS, TRAFFIC CONTROL AND SIGNAGE TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLANS.
5. WITH PROPER EPSC MEASURES SPOILS MAY BE STOCKPILED WITHIN R.O.W. AS SPACE PERMITS OR REMOVED AND STOCKPILED AT AN APPROVED OFF-SITE LOCATION.
6. PROVIDE DEMARKATION OF APPROVED LIMIT OF DISTURBANCE (LOD). SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
7. INSTALL PERIMETER CONTROLS (E.G. SILTFENCE) ON DOWNSLOPE SIDE OF EARTH DISTURBANCE WHERE POTENTIAL FOR EROSION EXISTS. SEE EPSC PLAN NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS.
8. SENSITIVE HABITAT MAY FURTHER RESTRICT AVAILABLE WORK ZONE/R.O.W. FOR CONSTRUCTION OPERATIONS.
9. WORK ZONE SHALL BE RESTRICTED TO A PORTION OF THE NEAREST TRAVEL LANE, BREAKDOWN LANE AND SHOULDER OUT TO THE EDGE OF THE R.O.W. REFER TO GENERAL WORK REQUIREMENTS ON SHEET G-2.
10. LIMIT OF DISTURBANCE SHALL BE LIMITED TO A WIDTH OF 50 FT.

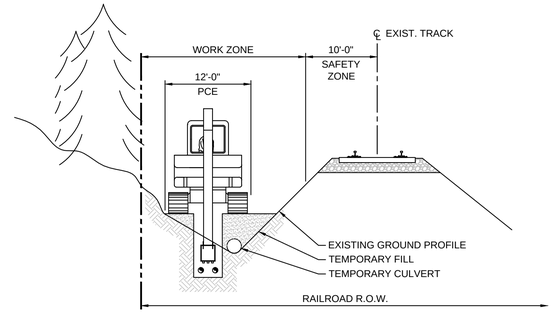
LIMITED ACCESS HIGHWAY
CONSTRUCTION METHOD 4E
SCALE: 1" = 10'



NOTES

1. CONSTRUCTION METHOD 5A WILL BE USED IN AREAS WHERE THE WORK ZONE IS APPROXIMATELY THE SAME ELEVATION AS THE ADJACENT TRACK. THIS CONSTRUCTION METHOD MAY USE IN-LINE CONSTRUCTION METHODS OR LOAD SPOILS DIRECTLY INTO RAIL CARS. SPOILS MAY BE STOCKPILED WITHIN THE R.O.W. AS SPACE PERMITS.
2. WORK ZONE IS APPROXIMATELY 23 FEET WIDE (½ R.O.W. - 10 FT SAFETY ZONE). REFER TO WORK ZONE DIAGRAM ON SHEET CM-1.
3. TREE CLEARING SHALL BE LIMITED TO THE AREA BETWEEN THE TRACK CENTERLINE AND EDGE OF R.O.W. UNLESS ADDITIONAL EASEMENT FROM ADJACENT PROPERTY OWNERS IS OBTAINED. LIMIT TREE CLEARING TO THE MINIMUM NECESSARY FOR SYSTEM INSTALLATION.
4. PROVIDE EROSION CONTROL DEVICES PER THE APPROVED PERMITS AND/OR AS DIRECTED.

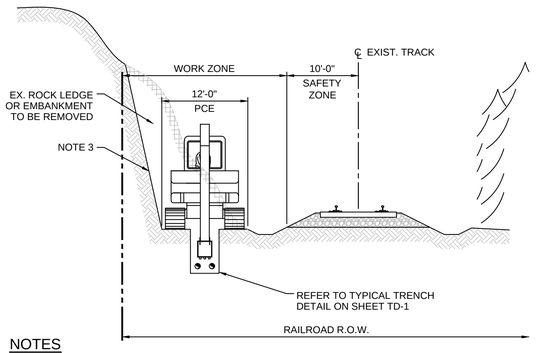
RAILROAD ADJACENT
CONSTRUCTION METHOD 5A
SCALE: 1" = 10'



NOTES

1. CONSTRUCTION METHOD 5B WILL BE USED IN AREAS HAVING STEEP SIDE SLOPES AND LIMITED R.O.W. AVAILABLE FOR CABLE INSTALLATION.
2. CONSTRUCTION METHOD 5B USES IN-LINE CONSTRUCTION METHODS. ACCESS TO THE WORK SITE IS ALONG THE PLANNED TRENCH ALIGNMENT.
3. CONSTRUCTION METHOD 5B UTILIZES TEMPORARY FILL TO CREATE A ROADWAY AND WORK PLATFORM SUFFICIENT FOR WORK SITE ACCESS AND EXCAVATOR OPERATION. PLATFORM AND WORK ZONE WIDTH VARIES WITH SITE TOPOGRAPHY. FOR PERMITTING PURPOSES, A MINIMUM PLATFORM WIDTH OF 12 FEET IS ASSUMED.
4. TREE REMOVAL SHALL BE LIMITED TO THE AREA FROM THE RAILROAD CENTERLINE TO THE EDGE OF THE R.O.W. UNLESS EASEMENTS ON ADJACENT PROPERTY HAVE BEEN OBTAINED. LIMIT TREE CLEARING TO THE MINIMUM NECESSARY FOR SYSTEM INSTALLATION.
5. PROVIDE EROSION CONTROL DEVICES PER THE APPROVED PERMITS AND/OR AS DIRECTED.
6. PROVIDE TEMPORARY PERFORATED PIPE CULVERTS ALONG DITCHLINE TO COLLECT GROUNDWATER AND DIRECT IT TO EXISTING DRAINAGE STRUCTURES.
7. SHORE EXCAVATION AS REQUIRED PER 29 CFR 1926. EXCAVATORS PENETRATING THE THEORETICAL EMBANKMENT SHALL BE SHORED AS DEFINED IN THE RAILROAD STANDARD TRENCH DETAIL.
8. AT THE COMPLETION OF THE WORK THE TEMPORARY FILL AND CULVERTS SHALL BE REMOVED AND THE DITCHLINE RESTORED TO ITS PREVIOUS CONDITION.

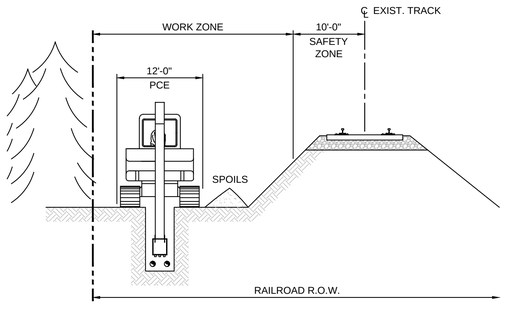
RAILROAD ADJACENT
CONSTRUCTION METHOD 5B
SCALE: 1" = 10'



NOTES

1. CONSTRUCTION METHOD 5C WILL BE USED IN AREAS HAVING STEEP CUT SLOPES ADJACENT TO THE RAILROAD. THIS CONSTRUCTION METHOD WILL USE IN-LINE CONSTRUCTION METHODS OR LOAD SPOILS DIRECTLY INTO RAIL CARS. SPOILS MAY BE STOCKPILED WITHIN THE R.O.W. AS SPACE PERMITS.
2. CONSTRUCTION METHOD 5C REQUIRES EXISTING RAILROAD CUTS THROUGH ROCK AND SOIL BE WIDENED TO CREATE A WORK PLATFORM AND ROADWAY SUFFICIENT FOR WORK SITE ACCESS AND EQUIPMENT OPERATION. PLATFORM AND WORK ZONE WIDTH VARIES WITH SITE TOPOGRAPHY. FOR PERMITTING PURPOSES A WORK PLATFORM WIDTH OF 12 FEET IS ASSUMED.
3. THE PROPOSED WORK ZONE WILL BE LEVELED BY BLASTING OR RIPPING THE EXISTING RAILROAD CUT. CUT ROCK/SOIL FACE SHALL BE LAID BACK AT A STABLE SLOPE. UNSTABLE SOILS SHALL BE SECURED BY ROCK BOLTS, PINS, WIRE NETS, RETAINING WALLS OR OTHER SUITABLE MEANS.
4. WORK ZONE IS APPROXIMATELY 23 FEET (½ R.O.W. - 10-FOOT SAFETY ZONE).
5. TREE CLEARING SHALL BE LIMITED TO THE AREA BETWEEN THE TRACK CENTERLINE AND EDGE OF R.O.W. UNLESS ADDITIONAL EASEMENTS FROM ADJACENT PROPERTY OWNERS ARE OBTAINED. LIMIT TREE CLEARING TO THE MINIMUM NECESSARY FOR SYSTEM INSTALLATION.
6. PROVIDE EROSION CONTROL DEVICES PER THE APPROVED PERMITS AND/OR AS DIRECTED.
7. BLASTING SHALL BE PERFORMED USING APPROVED LICENSED BLASTERS WORKING IN ACCORDANCE WITH AN APPROVED BLASTING PLAN.

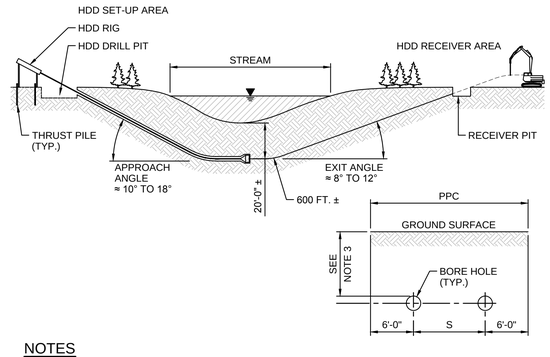
RAILROAD ADJACENT
CONSTRUCTION METHOD 5C
SCALE: 1" = 10'



NOTES

1. CONSTRUCTION METHOD 5D WILL BE USED IN AREAS WHERE THE CONSTRUCTION OPERATION TAKES PLACE SIGNIFICANTLY BELOW THE RAILROAD BED ELEVATION.
2. CONSTRUCTION METHOD 5D WILL BE USED IN AREAS WITH SUFFICIENT R.O.W. WIDTH AT THE BASE OF THE RAILROAD BED OR ADDITIONAL EASEMENT HAS BEEN OBTAINED.
3. THE WORK ZONE WILL EXTEND FROM THE EDGE OF THE SAFETY ZONE TO THE EDGE OF THE R.O.W.
4. CONSTRUCTION METHOD 5D UTILIZES IN-LINE CONSTRUCTION METHODS. ACCESS TO THE WORK AREA IS ALONG THE PLANNED TRENCH ALIGNMENT. SPOILS MAY BE STOCKPILED WITHIN THE WORK ZONE AS SPACE PERMITS.
5. TREE CLEARING SHALL BE LIMITED TO THE AREA BETWEEN THE TRACK CENTERLINE AND THE EDGE OF THE R.O.W. UNLESS ADDITIONAL EASEMENT HAS BEEN OBTAINED. CLEARING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO PERFORM THE WORK.
6. PROVIDE EROSION CONTROL MEASURES PER THE APPROVED PERMITS AND/OR AS DIRECTED.

RAILROAD ADJACENT
CONSTRUCTION METHOD 5D
SCALE: 1" = 10'



NOTES

1. HDD SET-UP AREA IS APPROXIMATELY 50 FT. x 250 FT. FOR LARGE HDD OPERATIONS. THIS STAGING AREA MAY BE REDUCED FOR SMALLER BORING OPERATIONS OR SOME EQUIPMENT ASSOCIATED WITH LARGE HDD OPERATIONS MAY BE STAGED AT OTHER LOCATIONS.
2. DRILL PIT MAY BE ELIMINATED IN TOTAL IF ALTERNATE MEANS FOR DRILL MUD CONTAINMENT IS PROVIDED. TYPICAL DRILL PIT FOR LARGE HDD OPERATIONS IS 6 FT. DEEP x 8 FT. x 20 FT.
3. HDD SHALL PASS NOT LESS THAN 20 FT. UNDER STREAMS NOR LESS THAN 15 FT. BELOW ROADWAYS AND OTHER GROUND SURFACES.
4. RECEIVER PIT MAY BE ELIMINATED IF ALTERNATE DRILL MUD CONTROL METHOD IS PROVIDED. RECEIVER PIT IS TYPICALLY 5 FT. DEEP x 10 FT. x 10 FT. FOR LARGE DRILL OPERATIONS.
5. FOR CASING AND CABLE PULL-BACK, CASING MAY BE SUSPENDED ABOVE R.O.W. TO FACILITATE INSTALLATION.
6. TWO BORE HOLES PER CROSSING ARE REQUIRED. FOR PLANNING PURPOSES, BORE HOLE SPACING SHALL BE 15-25 FEET. LESSER SPACING MAY BE USED IN CERTAIN SOIL CONDITIONS AND/OR BORE OPERATIONS.

CONSTRUCTION METHOD HDD
SCALE: N.T.S.

NOTE:

1. CONSTRUCTION METHOD 4 SERIES OF FIGURES ARE APPLICABLE TO LIMITED ACCESS HIGHWAY.
2. CONSTRUCTION METHOD 5 SERIES OF FIGURES ARE APPLICABLE TO CONSTRUCTION ALONG THE RAILROAD.

Designed	TRC
Drawn	TRC
Checked	-
Approved	-
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW		
B	EPSC & PERMITS IFCR	3/6/15	TRC	AMW		

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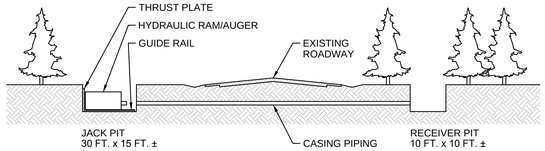
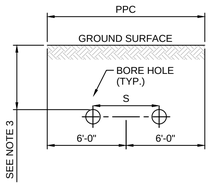
Construction Methods

CM-4

Prepared by: TRC 09/19/14





NOTES

1. ABOVE INSTALLATION METHOD PRESENTED FOR CONCEPT ONLY. ACTUAL INSTALLATION METHOD EMPLOYED WILL BE BASED UPON FURTHER GEOTECHNICAL INVESTIGATION.
2. SHOULD JACK & BORE (J&B) PROVE INFEASIBLE, HORIZONTAL DIRECTIONAL DRILL (HDD) OR OTHER MEANS MAY BE USED.
3. CASING PIPE SHALL BE INSTALLED NOT LESS THAN 5 FEET BELOW EXISTING PAVEMENT NOR LESS THAN 4 FEET BELOW EXISTING DITCH INVERT.
4. FOR PLANNING PURPOSES, A SINGLE 24-INCH BORE HOLE PER CROSSING SHALL BE USED.
5. WHERE FEASIBLE A SINGLE, LARGER BORE MAY BE USED IN LIEU OF TWO SMALLER ONES.

CONSTRUCTION METHOD J&B

SCALE: N.T.S.

Designed	TRC
Drawn	TRC
Checked	-
Approved	-
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW		
B	EFSC & PERMITS IFCR	3/6/15	TRC	AMW		

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Construction Methods

CM-5

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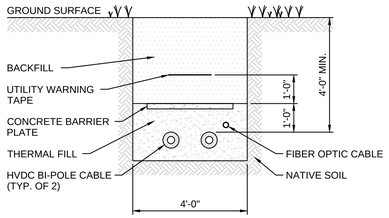
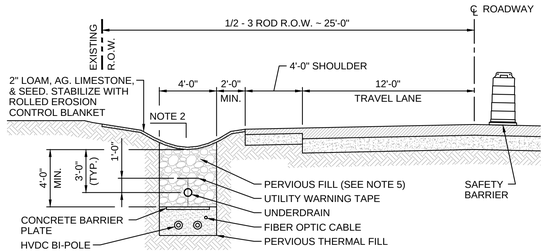


NOTES

1. CABLE SPACING MAY VARY BASED UPON CONTRACTOR INSTALLATION PREFERENCE AND LOCATION. A TYPICAL SPACING OF UP TO 3 FEET IS ANTICIPATED.
2. CABLES SHALL BE BEDDED IN SCREENED SAND, NATIVE SOIL OR THERMAL FILL. THERMAL FILL SHALL BE USED WHERE NATIVE MATERIAL OR SCREENED SAND DO NOT MEET MINIMUM THERMAL PROPERTIES (100°C-CM/WATT). DEPTH OF THERMAL SAND OVER CABLE SHALL BE FIELD DETERMINED FOLLOWING TESTING OF NATIVE SOILS.
3. CONCRETE PROTECTIVE PLATES SHALL BE PROVIDED OVER CABLES.
4. EXCAVATION MAY BE VERTICAL SHORED OR SLOPED BACK PER OSHA REQUIREMENTS WHERE NECESSARY.
5. PRIOR TO EXCAVATION INSTALL EPSC MEASURES PER THE EPSC PLAN. AT THE COMPLETION OF THE WORK, CONDUCT STABILIZATION AND REMOVE EPSC MEASURES PER THE EPSC PLAN.
6. ABOVE SKETCH IS TO PRESENT CONCEPTS. MORE RESTRICTIVE REQUIREMENTS OF THE RAILROAD, STATE OR OTHER AUTHORITY WILL BE REFLECTED IN THE DETAILED DESIGN.

TYPICAL TRENCH CROSS SECTION

SCALE: N.T.S.

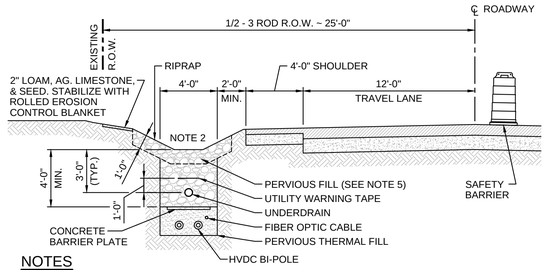


NOTES

1. DRAWING DEVELOPED TO DEPICT TYPICAL INSTALLATION WITHIN DITCHLINE OF ROAD SEGMENTS UPGRADED PER THE "RECLAIM" STANDARD DESIGN.
2. DITCH SIDE SLOPE VARIES. SIDE SLOPE AND GRADE TO BE RECONSTRUCTED PER VTRANS STANDARD DESIGN DETAILS UNLESS OTHERWISE DIRECTED OR APPROVED. DITCH BOTTOM SHALL BE NOT LESS THAN 2'-0" WIDE.
3. EDGE OF PLANNED TRENCH EXCAVATION TO BE NOT LESS THAN 2'-0" FROM EXISTING EDGE OF PAVEMENT.
4. TRENCH FILL SHALL BE PERVIOUS ($P = 1X10^{-3}$ CM/SEC OR GREATER) WITH THERMAL RHO AS SPECIFIED.
5. THERMAL FILL SHALL HAVE PERMEABILITY ($P = 1X10^{-3}$ CM/SEC OR GREATER) AND A THERMAL RHO NOT TO EXCEED 100°C-CM/WATT UNLESS A LESSER VALUE IS SPECIFIED.
6. TRENCH BACKFILL AND THERMAL FILL SHALL BE COMPACTED TO AT LEAST 95% ASTM D1557, MODIFIED PROCTOR, UNLESS OTHERWISE SPECIFIED.
7. INSTALL EPSC MEASURES IN ACCORDANCE WITH ISSUED PERMITS AND VT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.
8. TREE REMOVAL AND TRIMMING SHALL BE LIMITED TO VTRANS R.O.W. AND THE MINIMUM NECESSARY FOR PERFORMANCE OF THE WORK.
9. EARTH DISTURBANCE SHALL BE LIMITED TO AREAS WITHIN LIMITS OF DISTURBANCE (LOD). DIRECT DISCHARGE TO SURFACE WATERS SHALL BE AVOIDED. DITCH OUTFALLS SHALL BE STABILIZED WITH STONE.
10. DISTURBED AREAS SHALL BE RE-LOAMED, SEEDED AND AGRICULTURAL LIMESTONE APPLIED. STABILIZE DISTURBED AREAS WITH EROSION CONTROL MATTING AND OTHER MEASURES AS MAY BE REQUIRED BY THE EPSC PLAN.

ROADWAY DITCHLINE INSTALLATION

SCALE: N.T.S.

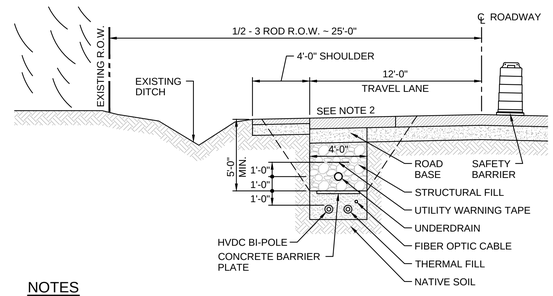


NOTES

1. DRAWING DEVELOPED TO DEPICT TYPICAL INSTALLATION WITHIN DITCHLINE OF ROAD SEGMENTS UPGRADED PER THE "RECLAIM" AND "DITCH CLEANING" STANDARD DESIGNS.
2. PROVIDE RIPRAP DITCH LINING FOR DITCH SECTIONS WHERE RIPRAP LINING CURRENTLY EXISTS AND OTHER LOCATIONS WHERE EROSION IS EVIDENT WITHIN THE CHANNEL. PROFILE DITCH PER VTRANS STANDARD DESIGN DETAILS WITH MINIMUM 2'-0" WIDE DITCH BOTTOM.
3. EDGE OF PLANNED TRENCH EXCAVATION TO BE NOT LESS THAN 2'-0" FROM EXISTING EDGE OF PAVEMENT.
4. TRENCH FILL SHALL BE PERVIOUS ($P = 1X10^{-3}$ CM/SEC OR GREATER) WITH THERMAL RHO AS SPECIFIED.
5. THERMAL FILL SHALL HAVE PERMEABILITY ($P = 1X10^{-3}$ CM/SEC OR GREATER) AND A THERMAL RHO NOT TO EXCEED 100°C-CM/WATT UNLESS A LESSER VALUE IS SPECIFIED.
6. TRENCH BACKFILL AND THERMAL FILL SHALL BE COMPACTED TO AT LEAST 95% ASTM D1557, MODIFIED PROCTOR, UNLESS OTHERWISE SPECIFIED.
7. INSTALL EPSC MEASURES IN ACCORDANCE WITH ISSUED PERMITS AND VT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.
8. TREE REMOVAL AND TRIMMING SHALL BE LIMITED TO VTRANS R.O.W. AND THE MINIMUM NECESSARY FOR PERFORMANCE OF THE WORK.
9. EARTH DISTURBANCE SHALL BE LIMITED TO AREAS WITHIN LIMITS OF DISTURBANCE (LOD). DIRECT DISCHARGE TO SURFACE WATERS SHALL BE AVOIDED. DITCH OUTFALLS SHALL BE STABILIZED WITH STONE.
10. DISTURBED AREAS SHALL BE RE-LOAMED, SEEDED AND AGRICULTURAL LIMESTONE APPLIED. STABILIZE DISTURBED AREAS WITH EROSION CONTROL MATTING AND OTHER MEASURES AS MAY BE REQUIRED BY THE EPSC PLAN.

ROADWAY DITCHLINE INSTALLATION W/ IMPROVED DITCH

SCALE: N.T.S.

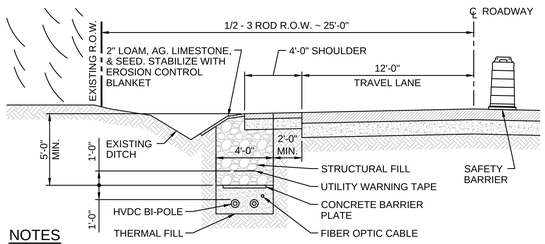


NOTES

1. DIMENSIONS AND DETAILS ARE CONCEPT ONLY AND SUBJECT TO MODIFICATION TO MEET MUNICIPAL, STATE AND FEDERAL REQUIREMENTS.
2. DRAWING DEVELOPED TO DEPICT TYPICAL INSTALLATION WITHIN PAVED TRAVEL LANE. LOCATE TRENCH AT EDGE OF TRAVEL LANE UNLESS NOTED OTHERWISE.
3. ROADWAY PAVEMENT REPLACEMENT TO BE KEYED BY COLD MILLING A MINIMUM OF 1'-0" PER PAVEMENT COURSE. OVERALL PAVEMENT THICKNESS TO MATCH EXISTING. ALL PAVEMENT MATERIAL PER VERMONT AOT SPECIFICATIONS.
4. TRENCH DEPTH 5'-0" MIN. TO TOP OF CONCRETE BARRIER. OVERALL TRENCH DEPTH VARIES BASED ON THERMAL SOIL PROPERTIES AND VTRANS REQUIREMENTS.
5. STRUCTURAL FILL SHALL BE PER VERMONT AOT SPECIFICATION EXCEPT THERMAL RESISTIVITY SHALL BE 100°C-CM/WATT OR LESS UNLESS OTHERWISE SPECIFIED. NATIVE MATERIAL MAY BE USED PROVIDED IT MEETS THE SPECIFIED THERMAL RESISTIVITY.
6. TRENCH SHORING IS NOT SHOWN. CONTRACTOR SHALL SHORE OR BENCH EXCAVATION TO MEET FEDERAL AND STATE SAFETY REQUIREMENTS.
7. INSTALL EPSC MEASURES IN ACCORDANCE WITH ISSUED PERMITS AND VT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.
8. EARTH DISTURBANCE SHALL BE LIMITED TO AREAS WITHIN LIMITS OF DISTURBANCE (LOD). DIRECT DISCHARGE TO SURFACE WATERS SHALL BE AVOIDED. DITCH OUTFALLS SHALL BE STABILIZED WITH STONE.
9. DISTURBED AREAS SHALL BE RE-LOAMED, SEEDED AND AGRICULTURAL LIMESTONE APPLIED. STABILIZE DISTURBED AREAS WITH EROSION CONTROL MATTING AND OTHER MEASURES AS MAY BE REQUIRED BY THE EPSC PLAN.

ROADWAY TRENCH SECTION IN PAVEMENT

SCALE: N.T.S.



NOTES

1. DIMENSIONS AND DETAILS ARE CONCEPT ONLY AND SUBJECT TO MODIFICATION TO MEET MUNICIPAL, STATE AND FEDERAL REQUIREMENTS.
2. CABLE TO BE LOCATED AT EDGE OF CLEARED R.O.W. WITH SUFFICIENT SPACE TO ERECT REQUIRED SAFETY AND ENVIRONMENTAL CONTROLS UNLESS OTHERWISE APPROVED BY VTRANS.
3. PROVIDE THERMAL FILL AS REQUIRED.
4. TRENCH GENERAL BACKFILL SHALL BE NATIVE SOIL COMPACTED TO MATCH IN-SITU SOIL DENSITY UNLESS OTHERWISE SPECIFIED. NATIVE SOIL EXCEEDING THERMAL RESISTIVITY OF 100°C-CM/WATT SHALL BE REPLACED WITH MORE SUITABLE MATERIAL.
5. TRENCH SHORING IS NOT SHOWN. CONTRACTOR SHALL SHORE OR BENCH EXCAVATION TO MEET FEDERAL AND STATE SAFETY REQUIREMENTS.
6. INSTALL EPSC MEASURES IN ACCORDANCE WITH ISSUED PERMITS AND VT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.
7. TREE REMOVAL AND TRIMMING SHALL BE LIMITED TO VTRANS R.O.W. AND THE MINIMUM NECESSARY FOR PERFORMANCE OF THE WORK.
8. EARTH DISTURBANCE SHALL BE LIMITED TO AREAS WITHIN LIMITS OF DISTURBANCE (LOD). DIRECT DISCHARGE TO SURFACE WATERS SHALL BE AVOIDED. DITCH OUTFALLS SHALL BE STABILIZED WITH STONE.
9. DISTURBED AREAS SHALL BE RE-LOAMED, SEEDED AND AGRICULTURAL LIMESTONE APPLIED. STABILIZE DISTURBED AREAS WITH EROSION CONTROL MATTING AND OTHER MEASURES AS MAY BE REQUIRED BY THE EPSC PLAN.
10. AT COMPLETION OF THE WORK, RESTORE CONSTRUCTION SITE TO MATCH SURROUNDING TURFED SURFACES.

ROADWAY TRENCH SECTION IN TURFED AREA

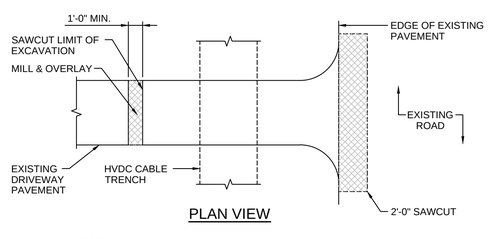
SCALE: N.T.S.

NOTES

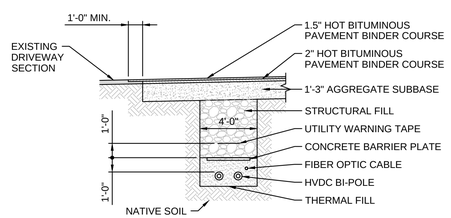
1. DIMENSIONS AND DETAILS ARE CONCEPT ONLY AND SUBJECT TO MODIFICATION TO MEET MUNICIPAL, STATE AND FEDERAL REQUIREMENTS.
2. DRAWING DEVELOPED TO DEPICT TYPICAL INSTALLATION WITHIN ROAD SHOULDER/BREAKDOWN LANE.
3. ROADWAY SHOULDER/BREAKDOWN LANE PAVEMENT REPLACEMENT TO BE KEYED BY COLD MILLING OF A MINIMUM OF 1'-0" PER PAVEMENT COURSE. OVERALL PAVEMENT THICKNESS TO MATCH EXISTING. ALL PAVEMENT MATERIAL PER VERMONT AOT SPECIFICATIONS.
4. EDGE OF PLANNED TRENCH EXCAVATION TO BE NOT LESS THAN 2'-0" FROM EXISTING EDGE OF TRAVEL LANE PAVEMENT.
5. TRENCH DEPTH 5-0" MIN. TO TOP OF CONCRETE BARRIER. OVERALL TRENCH DEPTH VARIES BASED ON THERMAL SOIL PROPERTIES AND VTRANS REQUIREMENTS.
6. STRUCTURAL FILL SHALL BE PER VERMONT AOT SPECIFICATION EXCEPT THERMAL RESISTIVITY SHALL BE 100°C-CM/WATT OR LESS UNLESS OTHERWISE SPECIFIED. NATIVE MATERIAL MAY BE USED PROVIDED IT MEETS THE SPECIFIED THERMAL RESISTIVITY.
7. TRENCH SHORING IS NOT SHOWN. CONTRACTOR SHALL SHORE OR BENCH EXCAVATION TO MEET FEDERAL AND STATE SAFETY REQUIREMENTS.
8. INSTALL EPSC MEASURES IN ACCORDANCE WITH ISSUED PERMITS AND VT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.
9. TREE REMOVAL AND TRIMMING SHALL BE LIMITED TO VTRANS R.O.W. AND THE MINIMUM NECESSARY FOR PERFORMANCE OF THE WORK.
10. EARTH DISTURBANCE SHALL BE LIMITED TO AREAS WITHIN LIMITS OF DISTURBANCE (LOD). DIRECT DISCHARGE TO SURFACE WATERS SHALL BE AVOIDED. DITCH OUTFALLS SHALL BE STABILIZED WITH STONE.
11. DISTURBED AREAS SHALL BE RE-LOAMED, SEEDED AND AGRICULTURAL LIMESTONE APPLIED. STABILIZE DISTURBED AREAS WITH EROSION CONTROL MATTING AND OTHER MEASURES AS MAY BE REQUIRED BY THE EPSC PLAN

ROADWAY TRENCH SECTION IN SHOULDER

SCALE: N.T.S.



PLAN VIEW



SECTION VIEW

NOTES

1. DIMENSIONS AND DETAILS ARE CONCEPT ONLY AND SUBJECT TO MODIFICATION TO MEET MUNICIPAL, STATE AND FEDERAL REQUIREMENTS.
2. WHERE HVDC BI-POLE IS INSTALLED IN ROAD SHOULDERS OR OTHERWISE IMPACTS EXISTING PAVED DRIVEWAYS, THE ENTIRE DRIVEWAY APRON SHALL BE REMOVED AND REPLACED.
3. DRIVEWAY MATERIALS SHALL MEET THE CURRENT MUNICIPAL STANDARDS.
4. CULVERTS WITHIN THE EXISTING R.O.W. IMPACTED BY THE CABLE INSTALLATION SHALL BE INSPECTED AND, WHERE APPROPRIATE, REPLACED.

DRIVEWAY APRON PATCH

SCALE: N.T.S.

Designed	TRC
Drawn	TRC
Checked	-
Approved	-
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW		
B	EPSC & PERMITS IFCR	3/6/15	TRC	AMW		

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Typical Details

TD-1

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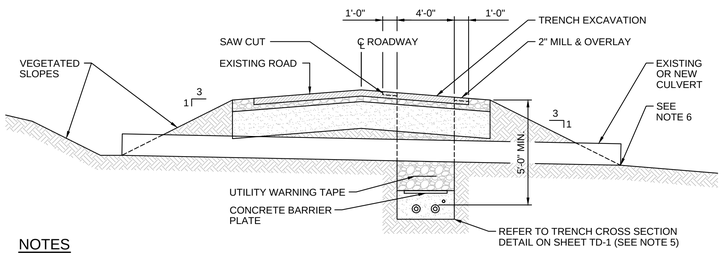
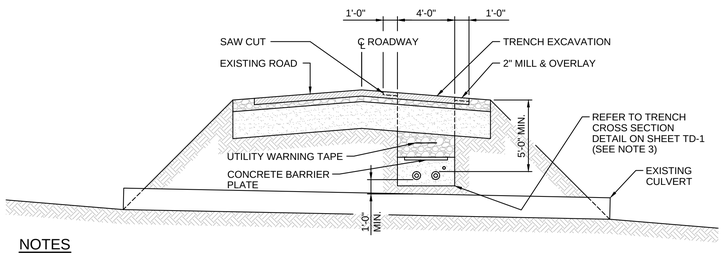


NOTES

1. DIMENSIONS AND DETAILS ARE CONCEPT ONLY AND SUBJECT TO MODIFICATION FOR CONFORMANCE WITH STATE AND FEDERAL REQUIREMENTS.
2. CULVERTS ALONG THE ROUTE MAY BE DISASSEMBLED OR TEMPORARILY REMOVED TO FACILITATE CABLE INSTALLATION.
3. CULVERTS DETERMINED TO BE UNDERSIZED OR DETERIORATED MAY BE REPLACED.
4. CULVERT BEDDING AND BACKFILL SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE STATE ROAD SPECIFICATIONS.
5. CABLE TRENCH DESIGN SHALL BE COORDINATED WITH CULVERT INSTALLATION TO ENSURE NOT LESS THAN 1'-0" OF SEPARATION BETWEEN CULVERT AND HVDC CABLES.
6. UNLESS DETERMINED NECESSARY TO COMPLY WITH THE STREAM ALTERATION PERMIT, CULVERT INVERTS SHALL MATCH EXISTING.
7. CULVERTS CARRYING PERENNIAL STREAMS SHALL COMPLY WITH THE REQUIREMENTS OF THE VT STREAM ALTERATION GENERAL PERMIT.

STATE HIGHWAY CULVERT CROSSING (UNDER)

SCALE: N.T.S.

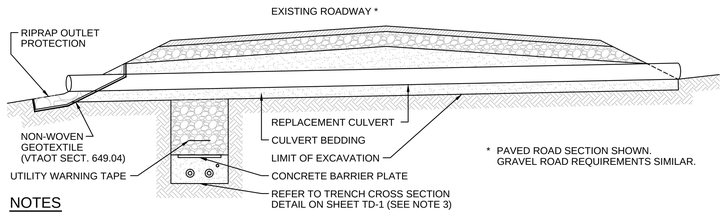


NOTES

1. DIMENSIONS AND DETAILS ARE CONCEPT ONLY AND SUBJECT TO MODIFICATION FOR CONFORMANCE WITH STATE AND FEDERAL REQUIREMENTS.
2. CULVERT BEDDING AND BACKFILL SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE MUNICIPAL OR STATE SPECIFICATIONS.
3. CABLE TRENCH DESIGN SHALL BE COORDINATED WITH CULVERT INSTALLATION TO ENSURE NOT LESS THAN 1'-0" SEPARATION BETWEEN CULVERT AND BOTTOM OF HVDC CABLE.

TYPICAL CULVERT CROSSING (OVER)

SCALE: N.T.S.

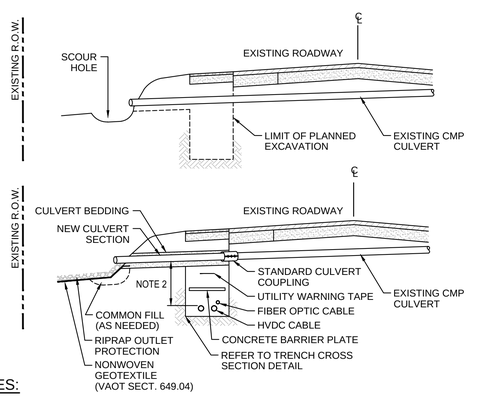


NOTES

1. CULVERTS MAY BE REPLACED WHEN EXISTING CULVERT IS DETERMINED TO BE UNDERSIZED OR DETERIORATED BEYOND REPAIR.
2. NEW CULVERTS SHALL MATCH EXISTING CULVERTS IN DIAMETER UNLESS A LARGER DIAMETER CULVERT IS WARRANTED.
3. UNLESS DETERMINED NECESSARY TO COMPLY WITH THE STREAM ALTERATION PERMIT, NEW CULVERT INVERTS SHALL MATCH EXISTING.
4. CULVERTS CARRYING PERENNIAL STREAMS SHALL COMPLY WITH THE REQUIREMENTS OF THE VT STREAM ALTERATION GENERAL PERMIT.
5. PROVIDE EROSION REPAIR, RIPRAP, AND GEOTEXTILE AS REQUIRED TO MATCH EXISTING INSTALLATION.
6. ALL CULVERT INSTALLATIONS AND EROSION REPAIR SHALL BE CONFINED TO ROADWAY R.O.W. UNLESS EASEMENTS OUTSIDE THE R.O.W. HAVE BEEN OBTAINED.
7. RIPRAP SHALL BE IN ACCORDANCE WITH VTAOT SECT. 613.
8. REFER TO DETAIL TYPICAL ROADWAY DETAILS FOR CABLE TRENCH PROPERTIES AND DIMENSIONS ASSOCIATED WITH CABLE INSTALLATION UNDER PAVEMENT AND SHOULDER OF STATE HIGHWAYS.
9. CABLE TRENCH DESIGN SHALL BE COORDINATED WITH CULVERT INSTALLATION TO ENSURE NOT LESS THAN 1'-0" OF SEPARATION BETWEEN CULVERT AND HVDC CABLES.
10. REFER TO DETAIL PERENNIAL STREAM AT CULVERT FOR SEPARATION REQUIREMENTS AT CULVERTS THAT CARRY PERENNIAL STREAMS.

TYPICAL CULVERT REPLACEMENT

SCALE: N.T.S.

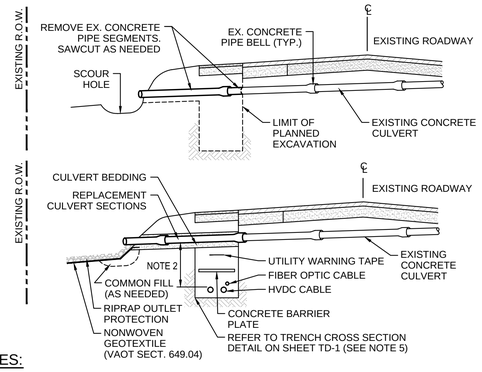


NOTES:

1. CULVERT MODIFICATION TO BE EMPLOYED WHERE EXISTING CULVERT IS OF GOOD SERVICEABLE CONDITION, DEPTH OF CULVERT BURIAL IS 7 FEET OR LESS, AND IT IS DETERMINED FULL REMOVAL IS NOT WARRANTED.
2. NEW CULVERT SECTION SHALL MATCH EXISTING CULVERT DIAMETER AND MATERIAL. JOIN CULVERT SECTIONS WITH STANDARD GALVANIZED STEEL TWO-PIECE CLAMP TYPE COUPLING.
3. PROVIDE EROSION REPAIR, RIPRAP, AND GEOTEXTILE AS REQUIRED.
4. ALL CULVERT MODIFICATION AND EROSION REPAIR TO BE CONFINED TO ROADWAY R.O.W. UNLESS EASEMENTS OUTSIDE THE R.O.W. HAVE BEEN OBTAINED.
5. RIPRAP SHALL BE IN ACCORDANCE WITH VAOT SECT. 613.
6. CABLE TRENCH DESIGN SHALL BE COORDINATED WITH CULVERT INSTALLATION TO ENSURE NOT LESS THAN 1'-0" OF SEPARATION BETWEEN CULVERT AND HVDC CABLES.
7. REFER TO DETAIL PERENNIAL STREAM AT CULVERT CROSSING FOR SEPARATION REQUIREMENTS AT CULVERTS THAT CARRY PERENNIAL STREAMS.

EXISTING CULVERT MODIFICATION - CMP

SCALE: N.T.S.

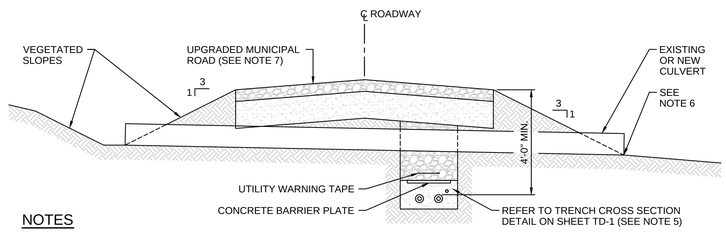


NOTES:

1. CULVERT MODIFICATION TO BE EMPLOYED WHERE EXISTING CULVERT IS OF GOOD SERVICEABLE CONDITION, DEPTH OF CULVERT BURIAL IS 7 FEET OR LESS, AND IT IS DETERMINED FULL REMOVAL IS NOT WARRANTED.
2. PROVIDE NEW CULVERT SECTION OR REINSTALL SERVICEABLE SECTIONS. NEW CULVERT SECTIONS SHALL MATCH EXISTING CULVERT DIAMETER AND MATERIAL. PROVIDE NEW CULVERT GASKETS AT EACH BELL.
3. CULVERT SECTION LENGTH MAY VARY. CONCEPT DESIGN ASSUMES SECTIONS ARE 10 FEET.
4. PROVIDE EROSION REPAIR, RIPRAP, AND GEOTEXTILE AS REQUIRED.
5. ALL CULVERT MODIFICATION AND EROSION REPAIR TO BE CONFINED TO ROADWAY R.O.W. UNLESS EASEMENTS OUTSIDE THE R.O.W. HAVE BEEN OBTAINED.
6. RIPRAP SHALL BE IN ACCORDANCE WITH VAOT SECT. 613.
7. CABLE TRENCH DESIGN SHALL BE COORDINATED WITH CULVERT INSTALLATION TO ENSURE NOT LESS THAN 1'-0" OF SEPARATION BETWEEN CULVERT AND HVDC CABLES.
8. REFER TO DETAIL PERENNIAL STREAM AT CULVERT CROSSING FOR SEPARATION REQUIREMENTS AT CULVERTS THAT CARRY PERENNIAL STREAMS.

EXISTING CULVERT MODIFICATION - CONCRETE

SCALE: N.T.S.



NOTES

1. DIMENSIONS AND DETAILS ARE CONCEPT ONLY AND SUBJECT TO MODIFICATION TO MEET MUNICIPAL, STATE AND FEDERAL REQUIREMENTS.
2. CULVERTS ALONG THE ROUTE MAY BE DISASSEMBLED OR TEMPORARILY REMOVED TO FACILITATE CABLE INSTALLATION.
3. CULVERTS DETERMINED TO BE UNDERSIZED OR DETERIORATED MAY BE REPLACED.
4. CULVERT BEDDING AND BACKFILL SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE MUNICIPAL ROAD SPECIFICATIONS.
5. CABLE TRENCH DESIGN SHALL BE COORDINATED WITH CULVERT INSTALLATION TO ENSURE NOT LESS THAN 1'-0" OF SEPARATION BETWEEN CULVERT AND HVDC CABLES.
6. UNLESS DETERMINED NECESSARY TO COMPLY WITH THE STREAM ALTERATION PERMIT, CULVERT INVERTS SHALL MATCH EXISTING.
7. EXISTING MUNICIPAL DIRT ROADS SHALL BE UPGRADED TO MEET CURRENT MUNICIPAL ROAD STANDARDS. ROAD WIDENING TO CURRENT MUNICIPAL STANDARDS SHALL BE PROVIDED WHERE PRACTICAL.
8. REFER TO DETAIL PERENNIAL STREAM AT CULVERT CROSSING FOR SEPARATION REQUIREMENTS AT CULVERTS THAT CARRY PERENNIAL STREAMS.

TYPICAL MUNICIPAL CULVERT CROSSING

SCALE: N.T.S.

Designed	TRC
Drawn	TRC
Checked	-
Approved	-
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW		
B	EPSC & PERMITS IFCR	3/6/15	TRC	AMW		

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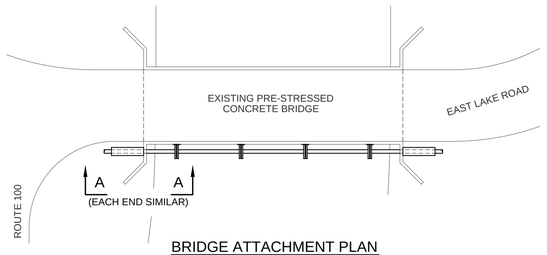
Typical Details

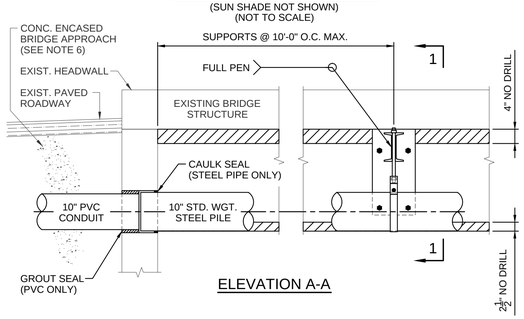
TD-2

Prepared by: TRC 10/09/14



BRIDGE ATTACHMENT PLAN

(SUN SHADE NOT SHOWN)
(NOT TO SCALE)



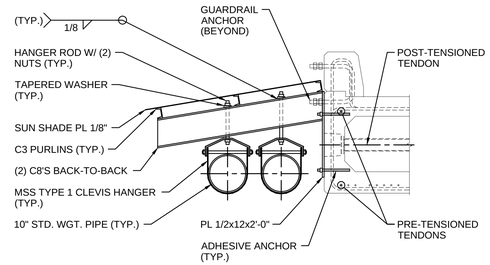
ELEVATION A-A

NOTE:

GUARDRAIL AND SUN SHADE NOT SHOWN FOR CLARITY.

EAST LAKE ROAD BRIDGE ATTACHMENT DETAIL 1

SCALE: 1" = 20'



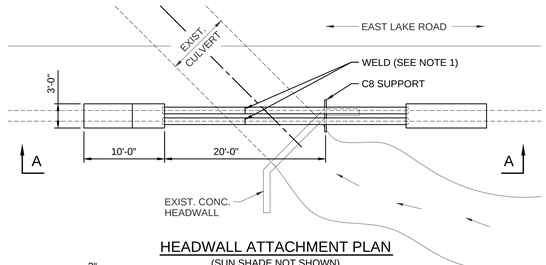
SECTION 1-1

NOTES

1. REFER TO W.E. DAILEY DESIGN DRAWINGS FOR COORDINATION WITH BRIDGE REINFORCEMENT, PRE- AND POST-TENSIONED TENDONS.
2. CONTRACTOR SHALL AVOID BORING ANCHOR HOLES WITHIN ONE INCH OF PRE- OR POST-TENSIONED TENDONS.
3. CONTRACTOR SHALL AVOID PENETRATING PRE-STRESSED BOX BEAM IN AREAS MARKED "NO DRILL". COORDINATE ANCHOR LOCATIONS WITH REFERENCED W.E. DAILEY DRAWINGS.
4. ALL COMPONENTS OF CONDUIT AND SUPPORTS TO BE GALVANIZED AFTER FABRICATION. FIELD WELD PIPE AFTER FITTING INTO HEADWALL PENETRATIONS. ROOT WELD SHALL BE TIG WELDED WITHOUT BACKER RING. GALVANIZE COMPLETED WELD USING ZINC RICH GALVANIZING PAINT.
5. COORDINATE SUPPORT LOCATION AND SUN SHADE WITH GUARDRAIL ATTACHMENTS. TRIM SUN SHADE PLATE AROUND GUARDRAIL POSTS.
6. CONDUIT APPROACH TO BRIDGE SHALL BE EMBEDDED IN CONCRETE MIN. 6" ALL AROUND CONDUIT.

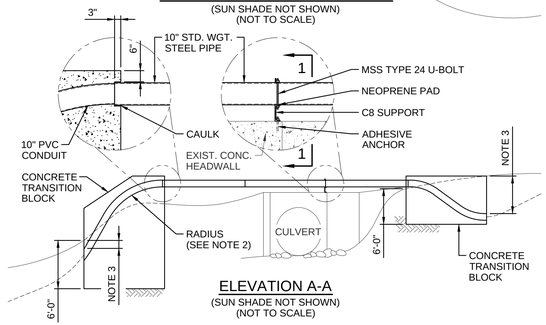
EAST LAKE ROAD BRIDGE ATTACHMENT DETAIL 2

SCALE: 1" = 20'



HEADWALL ATTACHMENT PLAN

(SUN SHADE NOT SHOWN)
(NOT TO SCALE)

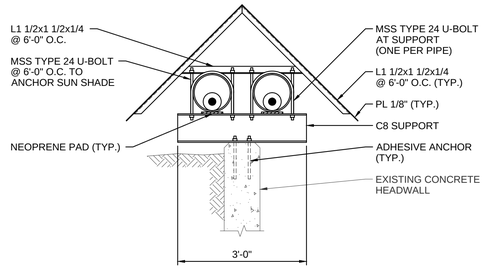


ELEVATION A-A

(SUN SHADE NOT SHOWN)
(NOT TO SCALE)

EAST LAKE ROAD HEADWALL ATTACHMENT DETAIL 1

SCALE: N.T.S.



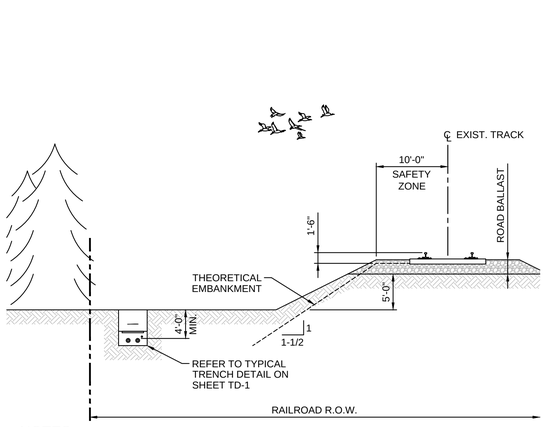
SECTION 1-1
(SUN SHADE)

NOTES

1. ALL COMPONENTS TO BE GALVANIZED AFTER FABRICATION. FIELD WELD PIPE AFTER FITTING INTO TRANSITION BLOCKS. ROOT WELD SHALL BE TIG WELDED WITHOUT BACKER RING. GALVANIZE COMPLETED WELD USING ZINC RICH GALVANIZING PAINT.
2. PVC ENCASED WITHIN CONCRETE SHALL BE BENT AT A 12 FT. RADIUS UNLESS A LARGER RADIUS IS REQUIRED BY THE CABLE MANUFACTURER.
3. CONDUIT BEND RADIUS AND CONCRETE TRANSITION BLOCK LENGTHS SHALL BE COORDINATED TO PROVIDE 4 FEET MINIMUM COVER OVER CABLE AT EXIT FROM BLOCK.

EAST LAKE ROAD HEADWALL ATTACHMENT DETAIL 2

SCALE: 1" = 20'

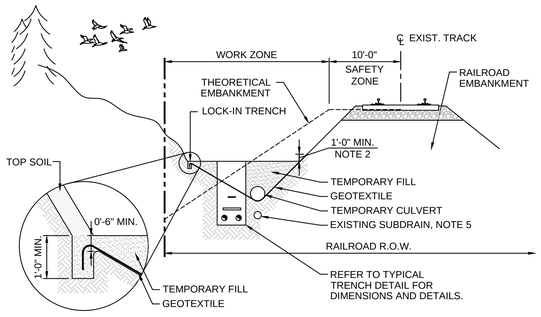


NOTES

1. THE THEORETICAL EMBANKMENT IS THE THEORETICAL LIMIT OF THE RAILROAD FOUNDATION CARRYING THE DYNAMIC TRACK LOADING. THE EMBANKMENT STARTS AT A DEPTH OF 1-1/2 FT. BELOW THE TOP OF THE RAILS AND 10 FT. FROM THE TRACK CENTERLINE, EXTENDING AT A SLOPE OF 1-1/2H:1V TO A DEPTH OF AT LEAST 5 FT. BELOW THE ROAD BALLAST.
2. ANY EXCAVATION PENETRATING THE THEORETICAL EMBANKMENT SHALL BE SHORED. SHORING SHALL BE DEVELOPED TO CARRY E-30 LOADING FOLLOWING PROCEDURES ESTABLISHED BY AREMA CHAPTER 8, SECTION 20 AND 28.
3. DURING TRAIN MOVEMENT, ALL PERSONNEL AND EQUIPMENT SHALL BE OUTSIDE THE SAFETY ZONE, AND ALL EQUIPMENT WITHIN 50 FT. OF THE TRACK SHALL BE SHUT DOWN AND OPERATORS OUT OF THE VEHICLES.
4. THE TYPICAL SECTION AND REQUIREMENTS ARE PRESENTED FOR CONCEPT ONLY. ADDITIONAL AND MORE STRINGENT REQUIREMENTS MAY BE REQUIRED BY THE OPERATING RAILROAD, FEDERAL, STATE AND LOCAL REGULATIONS.
5. PROVIDE EROSION AND SEDIMENT CONTROLS AS REQUIRED BY APPROVED PERMITS, VT. STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL, AND AS DIRECTED.

TYPICAL RAILROAD SECTION

SCALE: 1" = 10'



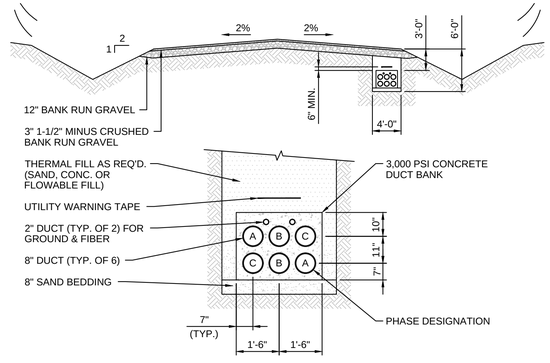
LOCK-IN TRENCH DETAIL

NOTES

1. AFTER CLEARING WORK ZONE, AREAS TO RECEIVE TEMPORARY FILL SHALL BE STRIPPED OF TOPSOIL PRIOR TO PLACING GEOTEXTILE OVER THE EXPOSED SUBGRADE.
2. EDGE OF GEOTEXTILE SHALL BE ANCHORED IN A LOCK-IN TRENCH ON THE OUTER EDGE OF THE R.O.W. AND SURFACE LAID AGAINST THE RAILROAD EMBANKMENT.
3. WIDTH OF FILL AREA VARIES WITH SITE TOPOGRAPHY.
4. PROVIDE TEMPORARY PERFORATED CULVERT TO COLLECT AND DIRECT GROUNDWATER TO ESTABLISHED DRAINAGE STRUCTURES.
5. CONTRACTOR SHALL BE AWARE DRAINAGE DITCHES ALONG THE RAILROAD MAY BE UNDERLAIN WITH EXISTING PERFORATED PIPE SUBDRAINS. CABLE TRENCH SHALL EITHER AVOID THE EXISTING OR REMOVE AND REPLACE THEM AS THE WORK PROGRESSES.
6. EXISTING SUBGRADE SHALL BE PROTECTED BY A WOVEN GEOTEXTILE. THE GEOTEXTILE IS INTENDED TO PROVIDE STABILITY AND SEPARATION OF THE EXISTING SOIL AND TEMPORARY FILL.
7. TEMPORARY FILL SHALL BE GRANULAR, FREE DRAINING BANK RUN GRAVEL, CRUSHED GRAVEL, OR SAND.
8. UPON COMPLETION OF THE WORK, REMOVE THE TEMPORARY FILL, CULVERT, AND GOETEXTILE. RESTORE THE SITE TO ITS ORIGINAL CONDITION.

RAILROAD ADJACENT TEMPORARY FILL DETAIL

SCALE: 1" = 10'



HVAC FLAT CONFIGURATION

NOTES

1. DIMENSIONS AND DETAILS ARE CONCEPT ONLY AND SUBJECT TO MODIFICATION TO MEET TOWN OF LUDLOW, STATE AND FEDERAL REQUIREMENTS.
2. ROADWAY WIDTH VARIES.
3. ROADWAY GRAVEL SHALL MEET THE MINIMUM STANDARDS OF THE TOWN OF LUDLOW, VERMONT TOWN ROAD & BRIDGE STANDARDS.
4. TRENCH BACKFILL SHALL BE THERMAL FILL AS REQUIRED TO MEET CALCULATED THERMAL CONDUCTIVITY REQUIREMENTS OF THE DESIGN.
5. UTILITY WARNING TAPE SHALL BE PLACED NOT LESS THAN 6 INCHES ABOVE THE DUCT BANK CONCRETE.

MUNICIPAL ROADWAY HVAC SECTION

SCALE: N.T.S.

Designed	TRC
Drawn	TRC
Checked	-
Approved	-
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW		
B	EPSC & PERMITS IFCR	3/6/15	TRC	AMW		

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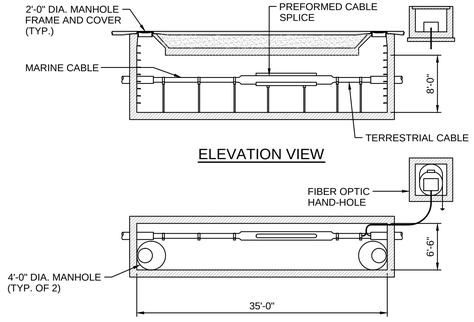
Typical Details

TD-3

Prepared by: TRC 10/09/14

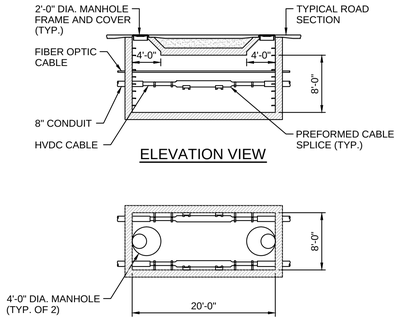


NOTES

1. SPLICE VAULTS TO BE CONSTRUCTED IN IMMEDIATE VICINITY OF MARINE CABLE LANDFALL LOCATION. ONE SPLICE VAULT PER BI-POLE CONDUCTOR WILL BE REQUIRED.
2. ONLY ONE FIBER CABLE SPLICE HAND-HOLE WILL BE REQUIRED.
3. SPLICE VAULT DESIGN AND DIMENSIONS ARE CONCEPT ONLY. ACTUAL INSTALLED DIMENSIONS AND CONFIGUATION MAY DIFFER.

TYPICAL TRANSITION SPLICE VAULT

SCALE: 1" = 10'

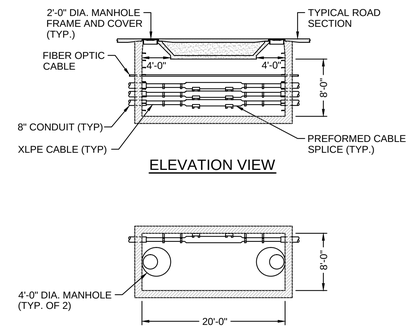


NOTES

1. SPLICE MANHOLE FRAMES AND COVERS SHALL BE RATED FOR H-20 VEHICLE LOADING.
2. SPLICE MANHOLE DESIGN AND DIMENSIONS ARE CONCEPT ONLY. INSTALLED LOCATION, DIMENSIONS AND DESIGN MAY DIFFER FROM THAT PRESENTED HEREIN.

TYPICAL HVDC SPLICE MANHOLE

SCALE: 1" = 10'

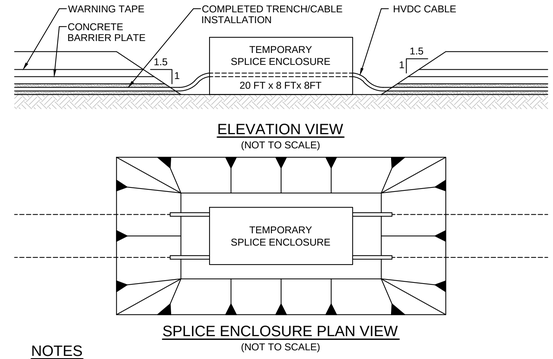


NOTES

1. 345 KV HVAC SPLICE MANHOLE SHALL BE USED FOR THE ROUTE SEGMENT BETWEEN THE NECP CONVERTER STATION AND THE EXISTING COOLIDGE SUBSTATION.
2. ONE OR MORE SPLICE MANHOLES WILL BE INSTALLED WITHIN THE CONVERTER STATION ACCESS ROAD AND NELSON ROAD.
3. SPLICE MANHOLE, FRAMES AND COVERS SHALL BE RATED FOR H-20 VEHICLE LOADING.
4. SPLICE MANHOLE DESIGN AND DIMENSIONS ARE CONCEPT ONLY. INSTALLED LOCATION, DIMENSIONS AND DESIGN MAY DIFFER FROM THAT PRESENTED HEREIN.

HVAC SPLICE MANHOLE

SCALE: 1" = 10'

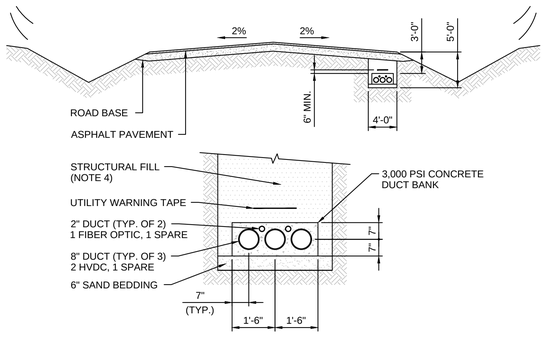


NOTES

1. HVDC CABLE SHALL BE DIRECT BURIED AFTER SPLICING. WORK SEQUENCE INCLUDES:
   - A. LAY CABLES WITH APPROXIMATELY 20 FEET OF OVERLAP AT PLANNED SPLICE LOCATIONS.
   - B. BACKFILL OR PLATE OVER TRENCH UNTIL SPLICING OPERATION REACHES THIS LOCATION.
   - C. EXPOSE LAPPED CABLES AND EXCAVATE TEMPORARY SPLICE PIT WITH BOTTOM DIMENSION OF APPROXIMATELY 28 FEET X 10 FEET.
   - D. INSTALL TEMPORARY CLIMATE CONTROLLED SPLICE ENCLOSURE WITHIN PIT.
   - E. LIFT CABLES INTO ENCLOSURE USING FLOOR ACCESS HATCH AND PERFORM SPLICES.
   - F. WHEN SPLICE IS COMPLETE RETURN CABLE TO FLOOR OF EXCAVATION AND REMOVE SPLICE ENCLOSURE.
   - G. BACKFILL EXCAVATION, INCLUDING PLACEMENT OF CONCRETE BARRIER AND WARNING TAPE OVER CABLES.
2. SPLICE PIT SHOWN IS FOR CONCEPT ONLY. ACTUAL DIMENSIONS AND DEPTH MAY VARY BASED ON SPECIFIC SPLICE LOCATION AND ENCLOSURE.
3. EXCAVATION DEPICTED USES SIDES SLOPED AT 1½ : 1. IN LIEU OF SLOPED EXCAVATION, SHORING AND OTHER MEANS MAY BE USED TO LIMIT SIZE OF EXCAVATION.

HVDC SPLICE SEQUENCE

SCALE: N.T.S.



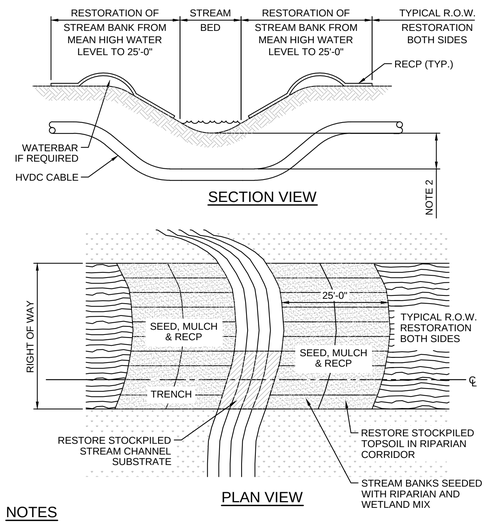
HVDC CONFIGURATION

NOTES

1. DIMENSIONS AND DETAILS ARE CONCEPT ONLY AND SUBJECT TO MODIFICATION TO MEET STATE AND FEDERAL REQUIREMENTS.
2. UTILITY WARNING TAPE SHALL BE PLACED NOT LESS THAN 6 INCHES ABOVE THE TOP OF THE DUCT BANK CONCRETE.
3. DUCTBANK BURIAL DEPTH VARIES ALONG THE ROUTE. MINIMUM BURIAL DEPTH TO TOP OF DUCTBANK CONCRETE SHALL BE 3 FEET.
4. STRUCTURAL FILL SHALL BE PER VERMONT AOT SPECIFICATIONS EXCEPT THERMAL RESISTIVITY SHALL BE 100° C-CM/WATT OR LESS. EXISTING ROAD MATERIAL MAY BE USED PROVIDED IT MEETS THE SPECIFIED THERMAL RESISTIVITY.

STATE ROUTE 100 HVDC DUCTBANK SECTION

SCALE: N.T.S.

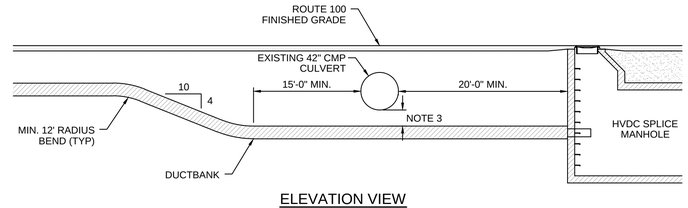


NOTES

1. STREAM CROSSING SHALL BE CONDUCTED IN ACCORDANCE WITH ESTABLISHED EPSC PLANS, APPROVED PROJECT PERMITS AND AS DIRECTED BY THE ON-SITE ENVIRONMENTAL SPECIALIST.
2. CABLE DEPTH UNDER STREAM SHALL BE IN ACCORDANCE WITH THE EPSC PLAN REQUIREMENTS.

STREAM BANK RESTORATION WITH RECP

SCALE: N.T.S.



NOTES

1. DIMENSIONS AND DETAILS ARE CONCEPT ONLY AND SUBJECT TO MODIFICATION FOR CONFORMANCE WITH STATE AND FEDERAL REQUIREMENTS.
2. DUCTBANK ELEVATION TRANSITION SHALL SLOPE AT APPROXIMATELY 10H:2V UNLESS OTHERWISE APPROVED.
3. DUCTBANK SHALL PASS NOT LESS THAN 5 FEET BELOW THE EXISTING CULVERT. THE 5 FOOT DEPTH IS REQUIRED TO ACCOMMODATE FUTURE CULVERT UPGRADES.
4. LOCATE HVDC SPLICE MANHOLE APPROXIMATELY AS INDICATED BUT NOT LESS THAN 20 FEET FROM THE EXISTING CULVERT.
5. DUCTBANK BETWEEN CULVERT AND MANHOLE SHALL BE STRAIGHT WITH NO CHANGES OF ELEVATION OR DIRECTION.
6. DUCTBANK SHALL BE INSTALLED WITHOUT MODIFICATION OF THE EXISTING CULVERT. PROVIDE CULVERT BRACING AND OTHER TEMPORARY SUPPORTS AS NECESSARY.

STATE ROUTE 100 HVDC DUCTBANK STREAM CROSSING

SCALE: N.T.S.

Designed	TRC
Drawn	TRC
Checked	-
Approved	-
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW		
B	EPSC & PERMITS IFCR	3/6/15	TRC	AMW		

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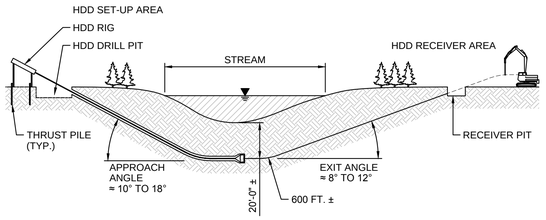
Typical Details

TD-4

Prepared by: TRC 10/09/14

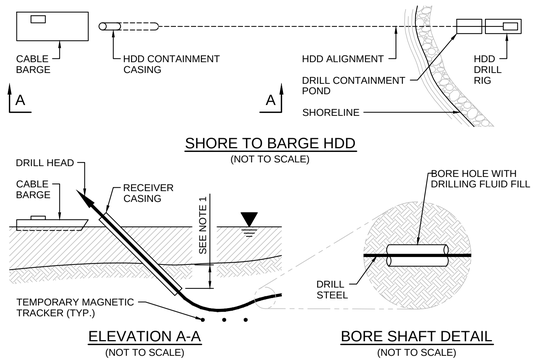


NOTES

1. HDD SET-UP AREA IS APPROXIMATELY 50 FT. x 250 FT. FOR LARGE HDD OPERATIONS. THIS STAGING AREA MAY BE REDUCED FOR SMALLER BORING OPERATIONS OR SOME EQUIPMENT ASSOCIATED WITH LARGE HDD OPERATIONS MAY BE STAGED AT OTHER LOCATIONS.
2. DRILL PIT MAY BE ELIMINATED IN TOTAL IF ALTERNATE MEANS FOR DRILL MUD CONTAINMENT IS PROVIDED. TYPICAL DRILL PIT FOR LARGE HDD OPERATIONS IS 6 FT. DEEP x 8 FT. x 20 FT.
3. HDD SHALL PASS NOT LESS THAN 20 FT. UNDER STREAMS NOR LESS THAN 15 FT. BELOW ROADWAYS AND OTHER GROUND SURFACES.
4. RECEIVER PIT MAY BE ELIMINATED IF ALTERNATE DRILL MUD CONTROL METHOD IS PROVIDED. RECEIVER PIT IS TYPICALLY 5 FT. DEEP x 10 FT. x 10 FT. FOR LARGE DRILL OPERATIONS.
5. FOR CASING AND CABLE PULL-BACK, CASING MAY BE SUSPENDED ABOVE R.O.W. TO FACILITATE INSTALLATION.
6. TWO BORE HOLES PER CROSSING ARE REQUIRED. FOR PLANNING PURPOSES, BORE HOLE SPACING SHALL BE 15-25 FEET. LESSER SPACING MAY BE USED IN CERTAIN SOIL CONDITIONS AND/OR BORE OPERATIONS.

TYPICAL HDD STREAM CROSSING

SCALE: N.T.S.



SHORE TO BARGE HDD

(NOT TO SCALE)

ELEVATION A-A

(NOT TO SCALE)

BORE SHAFT DETAIL

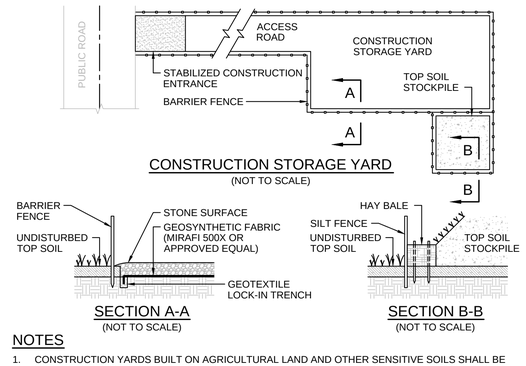
(NOT TO SCALE)

NOTES

1. RECEIVER CASING SHALL BE DRIVEN INTO THE LAKE BOTTOM AT SUFFICIENT DEPTH TO ENSURE ADEQUATE EARTH COVER TO CONTAIN DRILL FLUID.
2. RECEIVER CASING SHALL BE 48 INCH OR LARGER STEEL PIPE DRIVEN INTO THE LAKE BOTTOM AND USED TO CONTAIN DRILL CUTTINGS AND DRILLING FLUID AT BREAK-OUT.
3. SUITABLE MAGNETIC TRACKING DEVICES OR SIMILAR SHALL BE USED TO GUIDE THE DRILL LEAD INTO THE RECEIVER CASING.
4. RECEIVER CASING AND TRACKING DEVICES SHALL BE REMOVED AT THE COMPLETION OF THE HDD OPERATION.
5. CABLE BARGE WILL BE USED FOR HDD TOOL INSTALLATION/REMOVAL, CASING PULL-IN, AND CABLE PULLING.
6. COFFER DAM MAY BE USED IN LIEU OF RECEIVER CASING SHOULD BOTTOM CONDITIONS OR OTHER FACTORS NOT BE CONDUCIVE TO RECEIVER INSTALLATION OR USE. REFER TO COFFERDAM DETAIL.
7. DRILLING FLUID IS TYPICALLY BENTONITE DRILLING MUD. WATER MAY BE USED UNDER SOME CIRCUMSTANCES.

HDD RECEIVER CASING

SCALE: N.T.S.



CONSTRUCTION STORAGE YARD

(NOT TO SCALE)

SECTION A-A

(NOT TO SCALE)

SECTION B-B

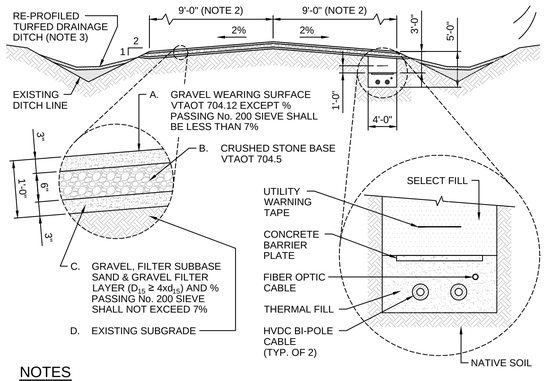
(NOT TO SCALE)

NOTES

1. CONSTRUCTION YARDS BUILT ON AGRICULTURAL LAND AND OTHER SENSITIVE SOILS SHALL BE STRIPPED OF TOP SOIL AND STOCKPILED FOR LATER RESTORATION OF AREA. STOCKPILED TOP SOIL SHALL BE PROTECTED BY SILT FENCE OR OTHER MEASURES TO LIMIT EROSION AND CONTROL SEDIMENT. STOCKPILES SHALL BE SEEDED AND MULCHED FOR LONG-TERM PROTECTION.
2. STORAGE YARD AND ACCESS ROAD SHALL BE BUILT UPON A GEOSYNTHETIC STABILIZATION/SEGREGATION FABRIC ANCHORED AT ITS EDGES USING A LOCK IN TRENCH OR SIMILAR MEANS. THE ACTIVE YARD WILL BE TOPPED WITH NOT LESS THAN 6 INCHES OF CRUSHED STONE OR GRAVEL. ENTIRE YARD PERIMETER AND ACCESS ROAD SHALL BE DEMARKED WITH ORANGE FENCE OR FLAGGING PER THE EPSC PLAN. PERIMETER CONTROLS (E.G. SILTFENCE) SHALL BE INSTALLED PER THE EPSC PLAN.
3. PUBLIC ROAD END OF ACCESS ROAD SHALL INCLUDE A STABILIZED CONSTRUCTION ENTRANCE. STABILIZED CONSTRUCTION ENTRANCE SHALL MEET PERMIT REQUIREMENTS AND VERMONT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.
4. AT THE COMPLETION OF THE WORK, UNLESS OTHERWISE DIRECTED, THE CONSTRUCTION STORAGE YARD SHALL BE RESTORED TO ITS ORIGINAL CONDITION. RESTORATION SHALL INCLUDE LOOSENING THE TOP 6 IN. OF YARD SUBGRADE TO UNCOMPACT SOILS. SPREAD STOCKPILED TOP SOIL, SEED AND MULCH. ALL YARD GRAVEL, GEOSYNTHETICS, EPSC MATERIALS,WASTE AND DEBRIS SHALL BE REMOVED AND PROPERLY DISPOSED OF.

CONSTRUCTION STORAGE AREAS

SCALE: N.T.S.

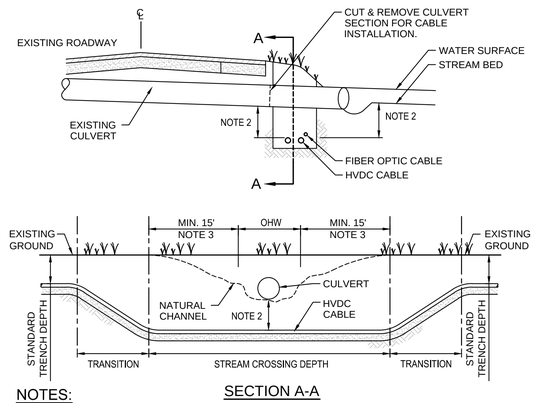


NOTES

1. DRAWING DEVELOPED TO DEPICT PROPOSED GRAVEL ROAD IMPROVEMENTS ALONG PROJECT ROUTE IN BENSON. ROADS INCLUDE NORTH LAKE ROAD, STONY POINT ROAD AND OLD NORTH LAKE ROAD.
2. ROAD GRAVEL TO BE APPLIED OVER THE LESSER OF THE ENTIRE LANE WIDTH INDICATED OR TO EDGE OF EXISTING ROADWAY.
3. PROVIDE ROAD DITCH CLEANING AND PROFILING WHERE GRADES PERMIT SUCH ALTERATIONS.
4. EXISTING ROAD SURFACE SHALL BE GRADED TO PROVIDE UNIFORM CROSS-SLOPE TO MATCH FINISHED ROAD CROWN. COMPACT TOP SIX INCHES OF SUBGRADE TO NOT LESS THAN 95% ASTM 1557 PRIOR TO SUBBASE APPLICATION.
5. SUBBASE, BASE, WEARING SURFACE AND TRENCH BACKFILL SHALL BE COMPACTED TO 95% ASTM 1557, THEORETICAL MAXIMUM DENSITY.
6. EXISTING DRIVEWAY APRON SHALL BE ADJUSTED TO MATCH RE-BUILT ROAD ELEVATION.

TYPICAL BENSON ROADWAY SECTION

SCALE: N.T.S.



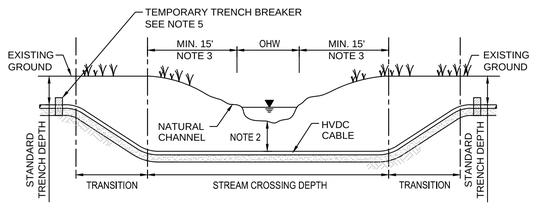
NOTES:

1. PROVIDE ENVIRONMENTAL CONTROLS AS SPECIFIED OR DIRECTED PRIOR TO THE START OF "AT CULVERT" CABLE INSTALLATION.
2. CABLE SHALL BE INSTALLED NOT LESS THAN 5 FEET BELOW EXISTING CULVERT OR 5 FEET BELOW THE NATURAL STREAM BOTTOM, WHICHEVER IS GREATER.
3. CABLE INSTALLATION DEPTH SHALL EXTEND NOT LESS THAN 15 FEET BEYOND THE ORDINARY HIGH WATER (OHW) EMBANKMENT.
4. AT COMPLETION OF CABLE INSTALLATION, RESTORE CULVERT TO PRE-EXISTING LINES AND GRADES USING NEW OR SUITABLE SALVAGED CULVERT SECTION(S). SECTIONS SHALL BE PERMANENTLY JOINED USING STANDARD CULVERT COUPLINGS OR BELL & SPIGOT GASKET JOINTS AS APPROPRIATE.
5. SEE CULVERT MODIFICATION DETAILS.
6. RESTORE CULVERT AND EMBANKMENT FOLLOWING CABLE INSTALLATION.

SECTION A-A

PERENNIAL STREAM AT CULVERT CROSSING

SCALE: N.T.S.

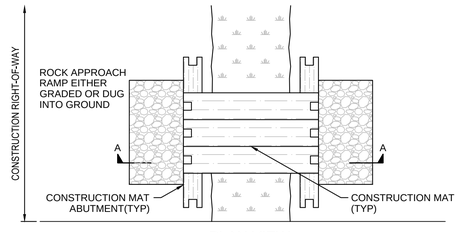


NOTES:

1. OPEN TRENCH EXCAVATION OF PERENNIAL STREAMS SHALL BE PERFORMED AFTER ESTABLISHING APPROPRIATE ENVIRONMENTAL CONTROLS AS SPECIFIED AND/OR DIRECTED.
2. CABLE SHALL BE INSTALLED NOT LESS THAN 5 FEET BELOW THE EXISTING NATURAL STREAM CHANNEL BOTTOM UNLESS OTHERWISE SPECIFIED OR DIRECTED.
3. THE DEPTH OF INSTALLATION SHALL CONTINUE FOR A DISTANCE OF 15 FEET BEYOND THE EDGE OF THE ORDINARY HIGH WATER (OHW) EMBANKMENT.
4. STREAM BANKS AND BOTTOM SHALL BE RESTORED TO MATCH PRE-CONSTRUCTION CONDITION UNLESS OTHERWISE DIRECTED.
5. SEGREGATE AND STOCKPILE STREAM BED AND BANK MATERIALS SEPARATELY FROM SUBSURFACE MATERIAL SOILS. RESTORE SOIL HORIZONS TO THE EXTENT PRACTICABLE WHEN BACKFILLING DISTURBED SECTIONS OF BED AND BANK.
6. TEMPORARY TRENCH BREAKER SHALL BE INSTALLED UPGRADIENT FROM THE TRANSITION ZONE ON EACH SIDE OF THE CHANNEL AND REMOVED AS WORK PROGRESSES.

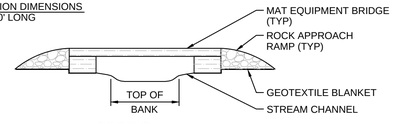
PERENNIAL STREAM AT OPEN TRENCH CROSSING

SCALE: N.T.S.



PLAN VIEW

TYPICAL MAT SECTION DIMENSIONS
3' WIDE, 1' THICK, 20' LONG



SECTION A-A

NOTES

1. ADDITIONAL MATS CAN BE PUT SIDE BY SIDE IF EXTRA WIDTH IS REQUIRED.
2. EQUIPMENT MATS SHALL ACCOMMODATE LARGEST EQUIPMENT USED. MATS MAY BE OF NATURAL HARDWOOD OR SUITABLE, APPROVED MAN-MADE MATERIALS.
3. ROCK APPROACH RAMPS SHALL BE USED AT ENTRANCE TO THE EQUIPMENT BRIDGE. SEGREGATE IN-SITU SOIL FROM ROCK APPROACH RAMP USING GEOTEXTILE BLANKET.
4. INSTALL EPSC MEASURES IN ACCORDANCE WITH ISSUED PERMITS AND VT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.
5. RESTORE RIPARIAN AREAS FOLLOWING REMOVAL OF TEMPORARY BRIDGE. REPAIR METHODS AND MATERIAL SHALL BE PER THE EPSC PLAN AND APPROVED PERMITS.
6. ADJUST CONSTRUCTION MAT LENGTH FOR WIDER STREAM CROSSINGS.

TEMPORARY EQUIPMENT BRIDGE

SCALE: N.T.S.

Designed	TRC
Drawn	TRC
Checked	-
Approved	-
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW		
B	EPSC & PERMITS IFCR	3/6/15	TRC	AMW		

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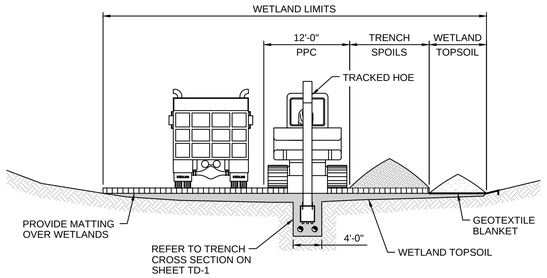
Typical Details

TD-5

Prepared by: TRC 10/09/14

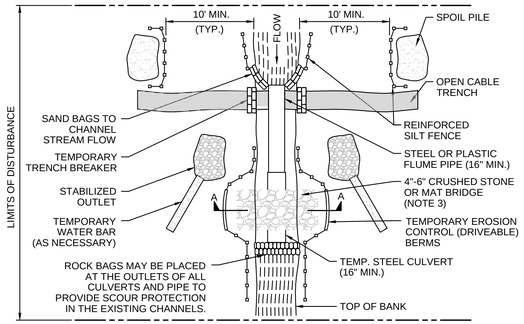


NOTES

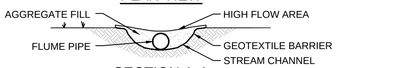
1. EQUIPMENT ACCESS SHALL BE UNDER DRY OR FROZEN CONDITIONS, OR BY USE OF CONSTRUCTION MATS.
2. PROVIDE TEMPORARY TRENCH BREAKER AT EACH EDGE OF STREAM AND WETLAND EXCAVATION.
3. TOPSOIL AND TRENCH SPOILS SHALL BE SEGREGATED AND STOCKPILED ON CONSTRUCTION MATS OR GEOTEXTILE FABRIC WITHIN WETLAND AREAS.
4. TRENCH SHALL BE BACKFILLED WITH SOILS PLACED IN REVERSE ORDER OF HOW THEY WERE REMOVED. UPPER LAYER FILL SHALL BE WETLAND TOPSOIL PLACED TO A DEPTH EQUAL TO THAT OF THE ADJACENT IN-SITU NATIVE TOPSOIL.
5. AT COMPLETION OF THE WORK REMOVE GEOTEXTILE AND CONSTRUCTION MATTING. CONSTRUCTION MATS SHALL BE THOROUGHLY CLEANED IN ACCORDANCE WITH THE EPSC PLAN AND PROJECT PERMITS PRIOR TO USE AT OTHER LOCATIONS.
6. IMPLEMENT EPSC MEASURES IN ACCORDANCE WITH THE EPSC PLAN.

TYPICAL WETLAND CONSTRUCTION

SCALE: 1" = 10'



PLAN VIEW



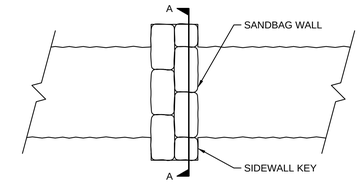
SECTION A-A

NOTES

1. DIMENSIONS ARE CONCEPT ONLY AND SUBJECT TO MODIFICATION TO MEET MUNICIPAL, STATE AND FEDERAL REQUIREMENTS.
2. CULVERT PIPE SIZE AND NUMBER SHALL BE INCREASED TO ACCOMMODATE ANTICIPATED STREAM FLOW.
3. AGGREGATE FILL CROSSING SHOWN IN THE DETAIL. CONSTRUCTION MAT BRIDGE SHALL BE USED WHERE FEASIBLE.
4. INSTALL EPSC MEASURES IN ACCORDANCE WITH ISSUED PERMITS AND VT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.
5. FOR MINOR WATERBODIES (< 10 FT. WIDE) TRENCHING AND BACKFILL IN THE WATERBODY SHALL BE COMPLETED WITHIN 24 CONTINUOUS HOURS AFTER INITIATING THE EXCAVATION. IF AUTHORIZED BY THE OSPC OR EPSC SPECIALIST, WORK IN INTERMEDIATE WATERBODIES (10 FT. TO 100 FT. WIDE) SHALL BE COMPLETED WITHIN 48 HOURS.

TYPICAL STREAM FLUME CROSSING

SCALE: N.T.S.



PLAN VIEW

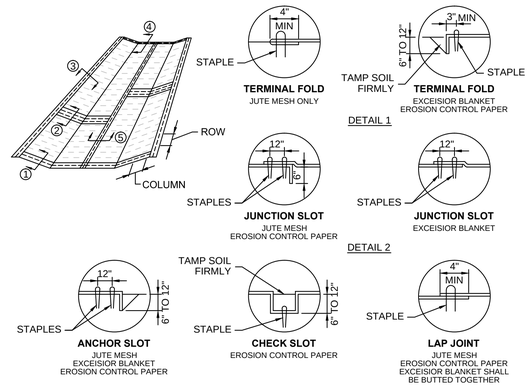
SECTION A

NOTES

1. AFTER TRENCH EXCAVATION TO EDGE OF STREAM AND WETLAND, HAND DRESS BOTTOM OF TRENCH IN VICINITY OF PLANNED TRENCH BREAKER CONSTRUCTION.
2. EXCAVATE KEY INTO TRENCH SIDEWALL. EXCAVATE TO PROVIDE VERICAL SURFACE NOT LESS THAN 6" INTO BANK.
3. CONSTRUCT SANDBAG TRENCH BREAKER USING SANDBAGS FILLED WITH CLEAN, FINE SAND. BUILD SANDBAG WALL TO FULL HEIGHT OF NORMAL HIGH WATER.
4. BACKFILL KEY WAY TO PROVIDE COMPACTED NATIVE SOIL AGAINST SANDBAGS.
5. BACKFILL TRENCH CONCURRENT WITH CABLE PLACEMENT. REMOVE TRENCH BREAKER AS CABLE IS PLACED.
6. PROVIDE STREAMBED AND EMBANKMENT PROTECTION PER "VERMONT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL".

TEMPORARY TRENCH BREAKER

SCALE: N.T.S.

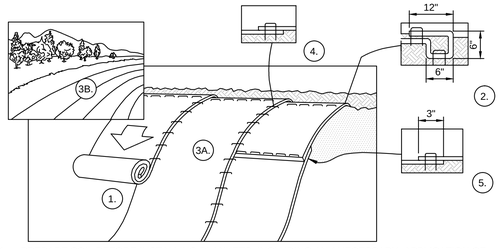


NOTES

1. INSTALL ROLLED EROSION CONTROL PRODUCT (RECP) EVERY 50' WHERE 4%< SLOPE <6%. ON SLOPES OF 6% OR MORE SPACE AT 25' INTERVALS.
2. STAPLES SHALL BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART.
3. DISTURBED AREA SHALL BE GRADED SMOOTH WITH CLOSE CONTACT BETWEEN RECP AND GROUND.
4. PLACE EROSION CONTROL MATERIAL LOOSLEY WITHOUT STRETCHING.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12 INCH INTERVALS.
6. STAPLES SHALL BE A MINIMUM OF 1 INCH WIDE WITH LEGS OF 6 TO 12 INCHES LONG.

ROLLED EROSION CONTROL PRODUCT (RECP)

SCALE: N.T.S.



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.

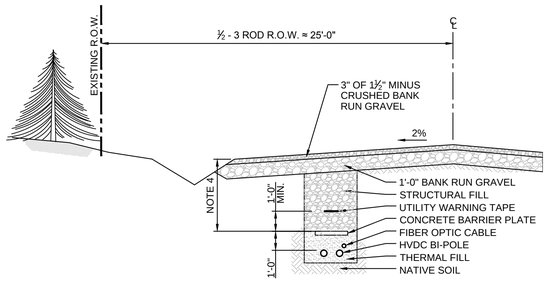
NOTES

A. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6 INCHES MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

B. EROSION CONTROL BLANKET SHALL MEET THE REQUIREMENTS OF VTRANS STANDARD SPECIFICATIONS SECTION 653.05 AND 755.11.

ROLLED EROSION CONTROL PRODUCT (RECP) - SLOPE INSTALLATION

SCALE: N.T.S.

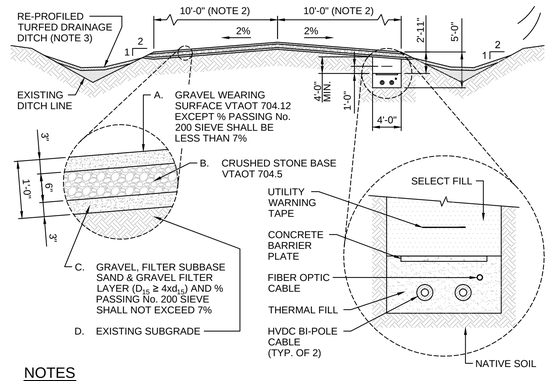


NOTES

1. DIMENSIONS AND DETAILS ARE CONCEPT ONLY AND SUBJECT TO MODIFICATION TO MEET TOWN OF LUDLOW, STATE AND FEDERAL REQUIREMENTS.
2. ROADWAY WIDTH VARIES.
3. ROADWAY GRAVEL SHALL MEET THE MINIMUM STANDARDS OF THE TOWN OF LUDLOW, VERMONT TOWN ROAD & BRIDGE STANDARDS.
4. TRENCH DEPTH 3'-0" TO CONCRETE BARRIER. 4'-0" TO TOP OF DC CABLE. OVERALL TRENCH DEPTH VARIES BASED ON THERMAL SOIL PROPERTIES.
5. STRUCTURAL FILL SHALL BE PER VERMONT AOT SPECIFICATION EXCEPT THERMAL RESISTIVITY SHALL BE 100°C-CM/WATT OR LESS UNLESS OTHERWISE SPECIFIED.
6. TRENCH BACKFILL SHALL BE THERMAL FILL AS REQUIRED TO MEET CALCULATED THERMAL CONDUCTIVITY REQUIREMENTS OF THE DESIGN.
7. UTILITY WARNING TAPE SHALL BE PLACED NOT LESS THAN 1'-0" ABOVE THE CONCRETE BARRIER PLATE.

LUDLOW ROADWAY SECTION

SCALE: N.T.S.



NOTES

1. DRAWING DEVELOPED TO DEPICT PROPOSED GRAVEL ROAD IMPROVEMENTS ALONG PROJECT ROUTE IN ALBURG.
2. ROAD GRAVEL TO BE APPLIED OVER THE LESSER OF THE ENTIRE LANE WIDTH INDICATED OR TO EDGE OF EXISTING ROADWAY.
3. PROVIDE ROAD DITCH CLEANING AND PROFILING WHERE GRADES PERMIT SUCH ALTERATIONS.
4. EXISTING ROAD SURFACE SHALL BE GRADED TO PROVIDE UNIFORM CROSS-SLOPE TO MATCH FINISHED ROAD CROWN. COMPACT TOP SIX INCHES OF SUBGRADE TO NOT LESS THAN 95% ASTM 1557 PRIOR TO SUBBASE APPLICATION.
5. SUBBASE, BASE, WEARING SURFACE AND TRENCH BACKFILL SHALL BE COMPACTED TO 95% ASTM 1557, THEORETICAL MAXIMUM DENSITY.
6. EXISTING DRIVEWAY APRON SHALL BE ADJUSTED TO MATCH RE-BUILT ROAD ELEVATION.

ALBURG ROADWAY SECTION

SCALE: N.T.S.

Designed	TRC
Drawn	TRC
Checked	-
Approved	-
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW		
B	EPSC & PERMITS IFCR	3/6/15	TRC	AMW		

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Typical Details

TD-6

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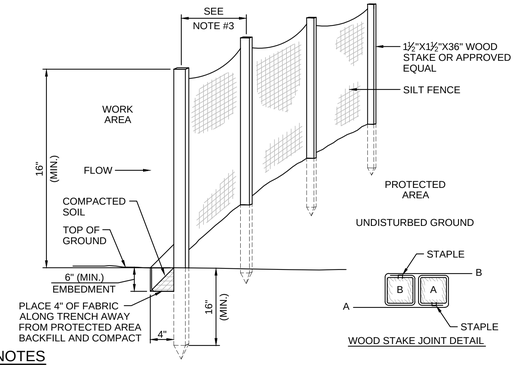
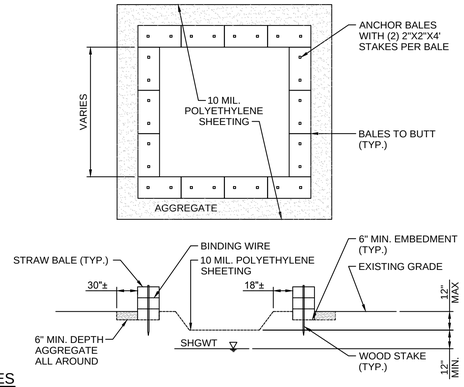


NOTES

1. FILTER CLOTH SHALL BE EITHER FILER X, MIRAFI 100X, STABLINKA T140N OR APPROVED EQUIVALENT. MANUFACTURED SILT FENCE SHALL CONFORM TO THE MOST CURRENT VERMONT DEPARTMENT OF TRANSPORTATION (VTRANS OR VAOT) STANDARDS.
2. FOR FILTER CLOTH FENCE WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4 FEET. FOR FILTER CLOTH FENCE WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6 FEET.
3. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE OR APPROVED EQUIVALENT.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT. DISPOSE OF ACCUMULATED SOIL IN AN UPLAND AREA.
5. PERIMETER CONTROLS HALL NOT CROSS ACTIVE ROUTES (E.G., ROADS) OR ACTIVE FLOW PATHS (E.G., LARGER STREAMS OR RIVERS).
6. PERIMETER CONTROLS SHALL REMAIN IN PLACE AND BE MAINTAINED/REPLACED AS NEEDED UNTIL FINAL STABILIZATION IN THE AREA HAS BEEN ACHIEVED.
7. WITHIN 50 FEET OF OPEN WATER, PERIMETER CONTROLS SHALL INCLUDE REINFORCED SILT FENCE.

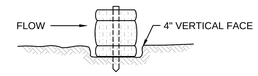
SILT FENCE
SCALE: N.T.S.



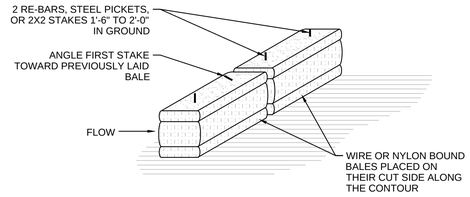
NOTES

1. CONTAINMENT SHALL BE STRUCTURALLY SOUND, LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES SHALL BE OF SUFFICIENT VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT SHALL BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRANSIT-MIX TRUCK AND NO CLOSER THAN 50 FEET FROM RIVERS OR STREAMS.
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
6. REMOVE ACCUMULATION OF SAND AND AGGREGATE WEEKLY OR MORE FREQUENTLY AND DISPOSE OF PROPERLY.

CONCRETE WASHOUT AREA
SCALE: N.T.S.



EMBEDDING DETAIL

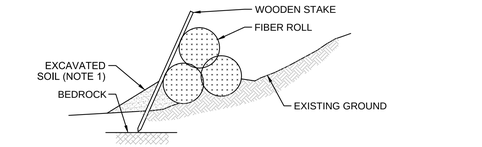


ANCHORING DETAIL

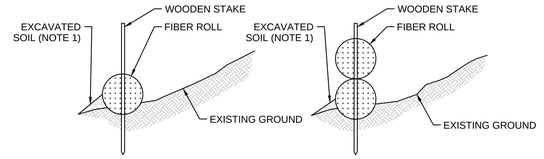
NOTES

1. REINFORCE SILT FENCE USING STRAW BALE DIKES AT STOCKPILES AND WHERE DIRECTED.
2. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES ½ THE HEIGHT OF THE DIKE.
3. EROSION CONTROL MEASURES SHALL BE REMOVED AT THE COMPLETION OF THE WORK AND SURFACES RESTORED TO THEIR ORIGINAL CONDITION UNLESS OTHERWISE DIRECTED.

STRAW BALE DIKE
SCALE: N.T.S.



SHALLOW BEDROCK / PYRAMID FIBER ROLL



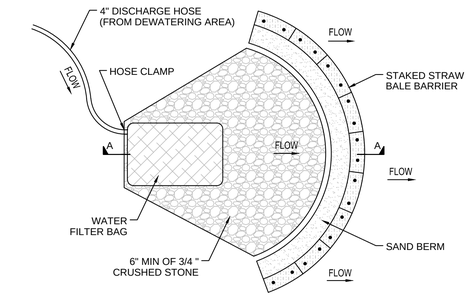
SINGLE STAKED FIBER ROLL

STACKED STAKED FIBER ROLL

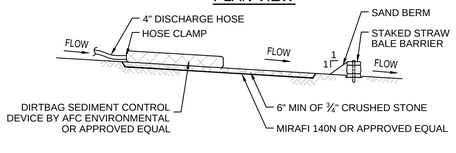
NOTES

1. FIBER ROLL SHALL BE PLACED IN SHALLOW TRENCH UP TO 4 INCHES, WHERE FEASIBLE, PLACING SOIL REMOVED FROM TRENCH BEHIND THE ROLL.
2. FIBER ROLLS SHALL BE ANCHORED WITH 2 INCH X 2 INCH WOODEN STAKES (36 INCHES LONG), EITHER INSTALLED THROUGH CENTER OF ROLL (AS SHOWN) OR PLACED ON BOTH SIDES OF ROLL.
3. STAKES SHALL BE A MAXIMUM OF 4 FEET ON CENTER.
4. SINGLE OR DOUBLE STACKED STAKED FIBER ROLLS TO BE INSTALLED WHERE SOIL DEPTH ALLOWS. WHERE SHALLOW TO BEDROCK, PYRAMID FIBER ROLLS TO BE UTILIZED WITH STAKES, AS FEASIBLE.
5. FIBER ROLLS TO BE REPLACED OR REPLENISHED AS NEEDED DURING ACTIVE EARTH WORK.
6. PERIMETER CONTROLS SHALL NOT CROSS ACTIVE ROUTES (E.G., ROADS) OR ACTIVE FLOW PATHS (E.G., LARGER STREAMS OR RIVERS).
7. PERIMETER CONTROLS SHALL REMAIN IN PLACE AND BE MAINTAINED/REPLACED AS NEEDED UNTIL FINAL STABILIZATION IN THE AREA HAS BEEN ACHIEVED.

STACKED FIBER ROLL
SCALE: N.T.S.

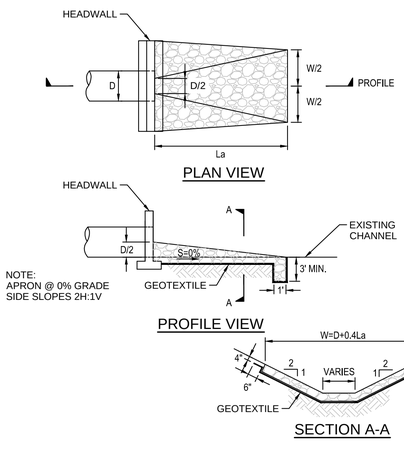


PLAN VIEW



SECTION A-A

TYPICAL WATER FILTER BAG
SCALE: N.T.S.



PLAN VIEW

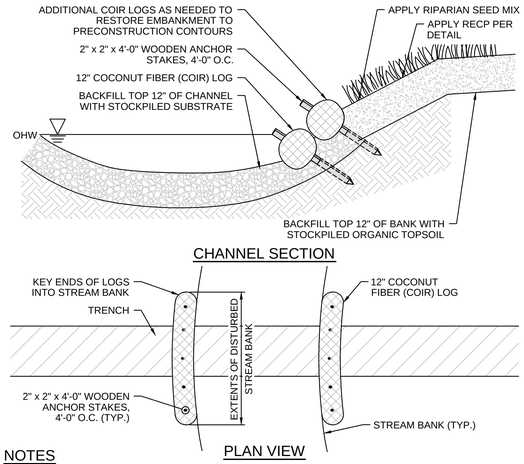
PROFILE VIEW

SECTION A-A

NOTES

1. RIPRAP OUTLET PROTECTION DIMENSIONS SHALL BE MODIFIED AS REQUIRED TO ENSURE IT DOES NOT EXTEND OUTSIDE THE ESTABLISHED RIGHT-OF-WAY. MODIFICATION OF OUTLET PROTECTION DESIGN IS SUBJECT TO OWNER AND VTRANS APPROVAL.
2. RIP-RAP SHALL BE IN ACCORDANCE WITH VAOT SPECIFICATION 706.03, LIGHT TYPE RIP-RAP. PLACE MATERIAL ON NON-WOVEN GEOTEXTILE BLANKET (MIRAFI 140N OR EQUAL).

RIPRAP OUTLET PROTECTION
SCALE: N.T.S.



CHANNEL SECTION

PLAN VIEW

NOTES

1. APPLY COIR LOG DETAIL TO SITES WHERE STREAM BANK IS DISTURBED OR TRENCHED THROUGH DURING CABLE INSTALLATION AND BANK COMPOSITION PERMITS STAKES TO BE DRIVEN.
2. INSTALL ROLLED EROSION CONTROL PRODUCT (RECP) PRIOR TO INSTALLATION OF COIR LOGS.
3. PLACE COIR LOG IN 2 INCH DEEP TRENCH ALONG SLOPE OF EMBANKMENT AND STAKE INTO PLACE THROUGH RECP.
4. KEY-IN COIR LOG BOTH UPSTREAM AND DOWNSTREAM FROM CABLE TRENCH TO MAKE COIR LOG FLUSH WITH STREAM BANK IN ORDER TO PREVENT UNRAVELING OF BANK DURING HIGH FLOW EVENTS.
5. COIR LOG MESH TO CONSIST OF BIODEGRADABLE MATERIAL.

STREAM BANK RESTORATION WITH COIR LOGS
SCALE: N.T.S.

Designed	TRC
Drawn	TRC
Checked	-
Approved	-
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW		
B	EPSC & PERMITS IFCR	3/6/15	TRC	AMW		

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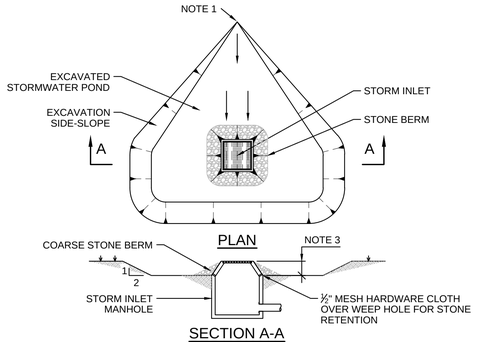
Typical Details

TD-7

Prepared by: TRC 10/09/14

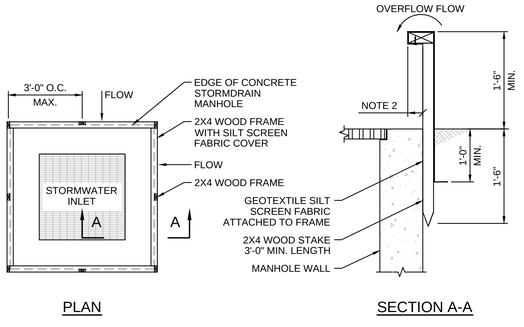


EXCAVATED INLET PROTECTION

NOTES

1. SHAPE INLET EXCAVATION TO FIT CONSTRUCTION SITE. ORIENT EXCAVATION WITH LONGEST SIDE IN DIRECTION OF HIGHEST ANTICIPATED FLOW.
2. EXCAVATED POND TRIBUTARY AREA SHALL BE LIMITED TO ONE ACRE OR LESS.
3. POND DEPTH SHALL BE NOT LESS THAN 1'-0" NOR GREATER THAN 2'-0". DESIGN FOR A CAPACITY OF 900 CUBIC FEET PER ACRE.
4. BASIN STORMWATER PROTECTION SHALL BE EMPLOYED IN CONJUNCTION WITH OTHER EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH EPSC PLAN.
5. PROVIDE MIN. 4 EACH, 2 INCH DIAMETER WEEP HOLES FOR STORMWATER POND DRAINAGE. NUMBER OF WEEP HOLES SHALL BE FIELD DETERMINED.
6. STORMWATER POND EXCAVATED SIDE-SLOPE SHALL BE GRADED AT A MAXIMUM SLOPE OF 2 H:1 V PROVIDE SOIL STABILIZATION IN ACCORDANCE WITH EPSC PLAN.
7. UPON STABILIZATION OF THE TRIBUTARY AREA, PLUG WEEP HOLES, PROPERLY FILL BASIN EXCAVATION AND STABILIZE THE SOIL PER THE EPSC REQUIREMENTS.

STORMWATER INLET PROTECTION
SCALE: N.T.S.

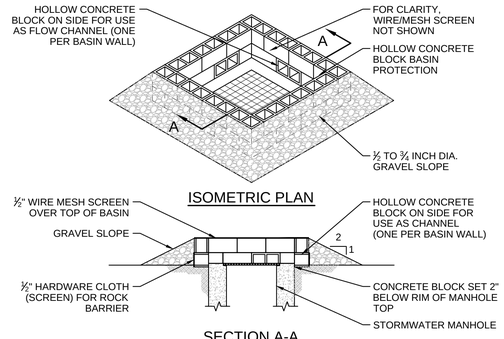


FABRIC INLET PROTECTION

NOTES

1. STORM INLET PROTECTION SHALL BE EMPLOYED WITH OTHER EPSC MEASURES IN ACCORDANCE WITH THE EPSC PLAN.
2. STORMWATER INLET SHALL BE CONSTRUCTED TO ENSURE OVERFLOW WATER DROP TO INLET GRATE OR CONCRETE.
3. WOOD STAKES SHALL BE MIN. 3'-0" LONG @ 3'-0" MAX. O.C., SPACED EVENLY AROUND PERIMETER. DRIVE STAKES NOT LESS THAN 1'-6".
4. EMBED SILT SCREEN AT LEAST 1'-0" INTO GROUND AND EXTEND AT LEAST 1'-6" ABOVE GRADE, SUPPORTED ON WOOD FRAME.
5. REMOVE BASIN PROTECTION AFTER TRIBUTARY AREA HAS BEEN PERMANENTLY STABILIZED IN ACCORDANCE WITH THE EPSC PLAN.
6. TRIBUTARY AREA SHALL NOT EXCEED 1 ACRE.

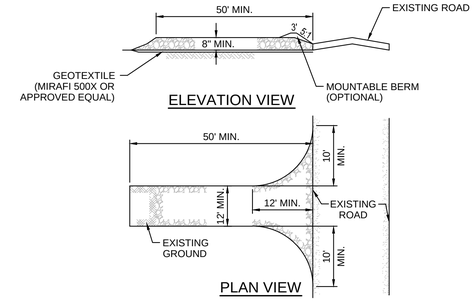
STORMWATER INLET PROTECTION
SCALE: N.T.S.



NOTES

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE TO SERVE AS A DEWATERING CHANNEL. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW THE REST OF THE INLET AND BLOCKS SHALL BE PLACED AGAINST THE INLET FOR SUPPORT.
2. CONCRETE BLOCKS SHALL BE PLACED LENGTHWISE IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET. THE ENDS OF EACH BLOCK SHALL BE ABUTTING. THE HEIGHT OF THE BARRIER MAY BE VARIED BY STACKING VARIOUS COMBINATIONS OF DIFFERENT SIZED BLOCKS. THE BARRIER SHALL BE A MINIMUM OF 12 INCHES HIGH AND A MAXIMUM OF 16 INCHES HIGH.
3. HARDWARE CLOTH OR ½ INCH WIRE MESH SHALL BE PLACED OVER THE OPENINGS OF THE CONCRETE BLOCKS AND EXTENDED AT LEAST 12 INCHES AROUND THE OPENINGS TO PREVENT AGGREGATE FROM BEING TRANSPORTED THROUGH THE OPENINGS IN THE BLOCK.
4. USE CLEAN STONE OR GRAVEL ½ INCH TO ¾ INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2H:1V SLOPE OR FLATTER.
5. A 1 FOOT LAYER OF FILTER STONE SHALL BE PLACED AGAINST THE 3 INCH STONE.
6. MAXIMUM DRAINAGE AREA PER SEDIMENT TRAP IS 1 ACRE.
7. BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER SHALL BE CONSTRUCTED IN PAVED AREAS.

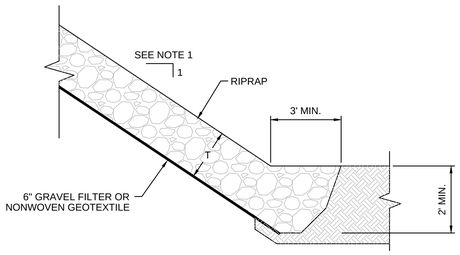
STORMWATER INLET PROTECTION
SCALE: N.T.S.



NOTES

1. STONE SIZE - USE 1"-4" STONE, RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH APPLIES).
3. THICKNESS - NOT LESS THAN 8 INCHES.
4. WIDTH - 12-FOOT MIN. BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. GEOTEXTILE - COVER ENTIRE AREA PRIOR TO PLACING STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5H:1V SLOPES SHALL BE USED IN LIEU OF A PIPE.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.
8. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED IN ACCORDANCE WITH PERMIT CONDITIONS.

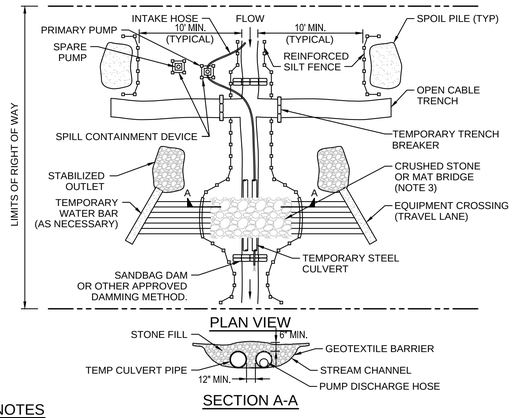
STABILIZED CONSTRUCTION ENTRANCE
SCALE: N.T.S.



NOTES

1. ALL SLOPES SUBJECT TO CONCENTRATED RUN-OFF OR CHANNELIZED FLOW STEEPER THAN 3H:1V SHALL BE STABILIZED WITH RIPRAP.
2. UNLESS OTHERWISE NOTED, RIPRAP GRADATION SHALL BE D_{50} = 6".
3. MINIMUM THICKNESS OF RIPRAP COVER SHALL BE THE GREATER OF 15" OR 2.25 * D_{50}.
4. GEOTEXTILE SHALL BE MIRAFI 140NL OR APPROVED EQUAL.
5. WHEN APPLIED TO A STREAM BANK, RIPRAP SLOPE PROTECTION SHALL BE GRADED FLUSH WITH UNDISTURBED BANKS UPSTREAM AND DOWNSTREAM FROM THE STABILIZATION SITE AND SHALL NOT ENCROACH INTO THE WATERWAY.

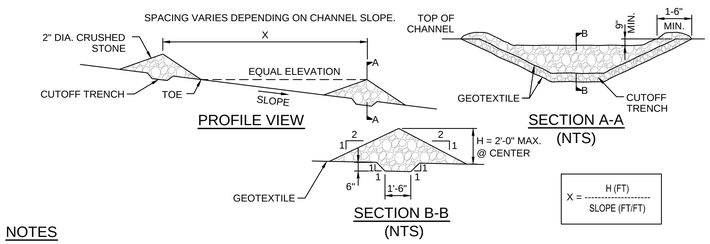
RIPRAP SLOPE PROTECTION
SCALE: N.T.S.



NOTES

1. DIMENSIONS ARE CONCEPT ONLY AND SUBJECT TO MODIFICATION TO MEET MUNICIPAL, STATE AND FEDERAL REQUIREMENTS.
2. PUMP DISCHARGE HOSE, CULVERT PIPE SIZE AND NUMBER SHALL BE INCREASED TO ACCOMMODATE ANTICIPATED STREAM FLOW.
3. AGGREGATE FILL CROSSING SHOWN IN THE DETAIL. CONSTRUCTION MAT BRIDGE SHALL BE USED WHERE FEASIBLE.
4. INSTALL EPSC MEASURES IN ACCORDANCE WITH ISSUED PERMITS AND VT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.
5. FOR MINOR WATERBODIES (< 10 FT. WIDE) TRENCHING AND BACKFILL IN THE WATERBODY SHALL BE COMPLETED WITHIN 24 CONTINUOUS HOURS AFTER INITIATING THE EXCAVATION. IF AUTHORIZED BY THE OSPC OR EPSC SPECIALIST, WORK IN INTERMEDIATE WATERBODIES (10 FT. TO 100 FT. WIDE) SHALL BE COMPLETED WITHIN 48 HOURS.
6. UTILIZE INLET SCREEN ON INTAKE HOSE AND ELEVATE INTAKE ABOVE STREAMBED SEDIMENT TO THE EXTENT PRACTICABLE. PREVENT STREAMBED SCOUR AT PUMP DISCHARGE AND CONTINUOUSLY MONITOR DAM AND PUMPS TO ENSURE PROPER OPERATION THROUGHOUT THE CROSSING PROCEDURE.

TYPICAL DAM & PUMP STREAM CROSSING
SCALE: N.T.S.



NOTES

1. STONE SHALL BE PLACED ON A GEOTEXTILE FOUNDATION TO THE LINES, GRADES, AND LOCATIONS INDICATED OR DIRECTED.
2. GEOTEXTILE SHALL BE MIRAFI 140N OR APPROVED EQUAL.
3. SPACING OF CHECK DAMS SHALL BE SUCH THAT THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM. SPACING WILL VARY WITH CHANNEL SLOPE.
4. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
5. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR GEOTEXTILE LINER AS APPROPRIATE.
6. ENSURE THAT CHANNEL APPURTENANCES (SUCH AS CULVERT INLETS) BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
7. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES ½ THE HEIGHT OF THE CHECK DAMS.
8. UNLESS OTHERWISE DIRECTED, CHECK DAMS SHALL BE REMOVED AT THE COMPLETION OF THE WORK, AND THE SITE RESTORED TO ITS ORIGINAL CONDITION.
9. MAXIMUM DRAINAGE AREA; 2 ACRES.

TYP. CHECK DAM
SCALE: N.T.S.

Designed	TRC
Drawn	TRC
Checked	-
Approved	-
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW		
B	EPSC & PERMITS IFCR	3/6/15	TRC	AMW		

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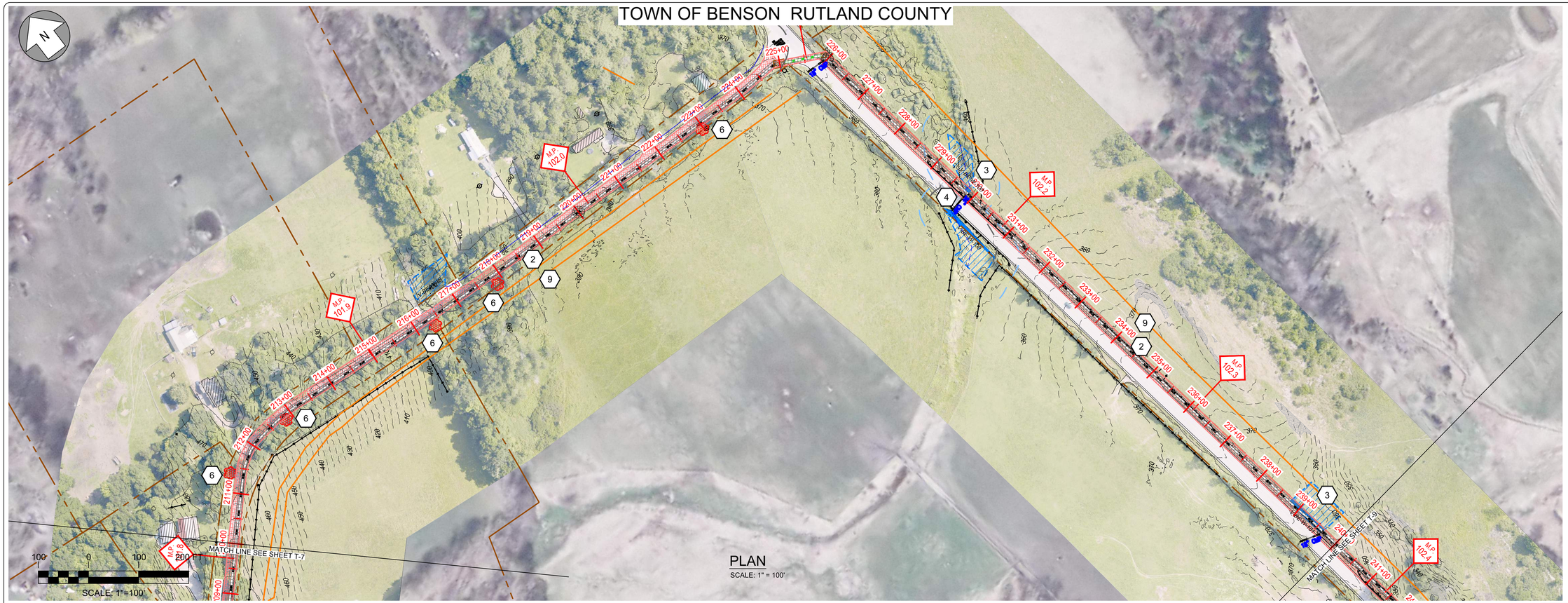
Typical Details

TD-8

Prepared by: TRC 10/09/14

TOWN OF BENSON RUTLAND COUNTY



PLAN
SCALE: 1" = 100'

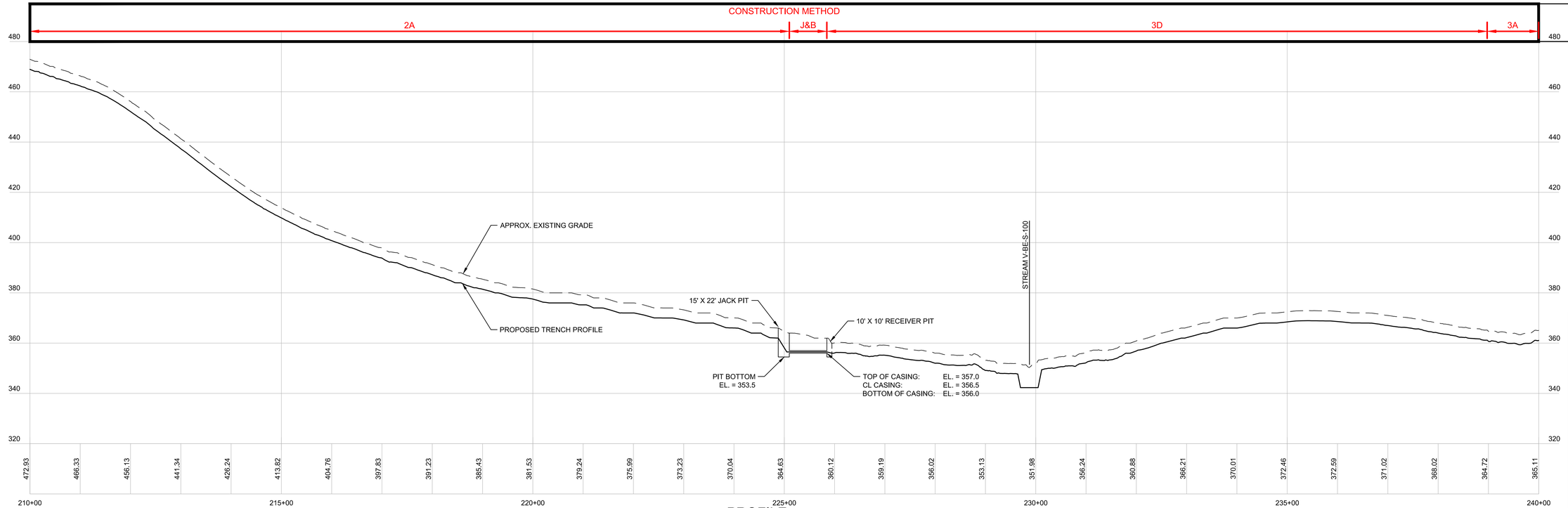
EPSC WORK NOTES

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE. SEE TYPICAL DETAIL ON SHEET XX.
2. DEMARCATE LIMIT OF DISTURBANCE AND INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH GENERAL EPSC NOTES AND CONSTRUCTION METHOD TYPICAL DETAILS ON SHEETS XX.
3. WETLAND CROSSING. INSTALL CONSTRUCTION MATTING. SEE "TYPICAL WETLAND CONSTRUCTION" ON SHEET TD-6.
4. OPEN TRENCH EXCAVATION OR AT-CULVERT STREAM CROSSING TO BE COMPLETED IN ACCORDANCE WITH TYPICAL DETAILS ON SHEETS TD-5 AND TD-6.
5. REPLACE STREAM CULVERT IN ACCORDANCE WITH TYPICAL DETAILS ON SHEETS XX.
6. DEMARCATE AND AVOID POTENTIAL ROOSTING TREE.
7. DEMARCATE AND AVOID RTE POPULATION.
8. IMPLEMENT RTE PLANT PROTECTION PLAN.
9. IMPLEMENT RTE ANIMAL PROTECTION PLAN.

CONSTRUCTION METHOD

2A | J&B | 3D | 3A

REFER TO SHEETS CM-1 THROUGH CM-5 FOR CONSTRUCTION METHOD DETAILS.



PROFILE
SCALE: HORIZ: 1" = 100'
VERT: 1" = 25'

Designed	.
Drawn	.
Checked	.
Approved	.
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW	.	.

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NEW ENGLAND CLEAN POWER LINK

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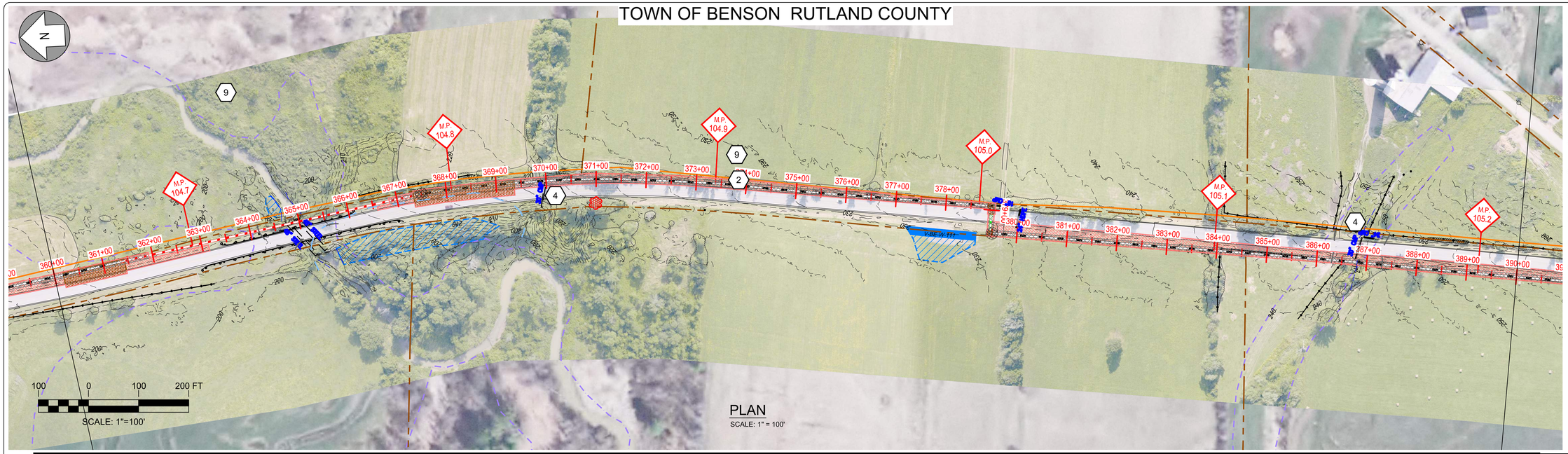
Plan & Profile - Overland Route

T-8

Prepared by: TRC 9/19/14

TOWN OF BENSON RUTLAND COUNTY



PLAN

SCALE: 1" = 100'

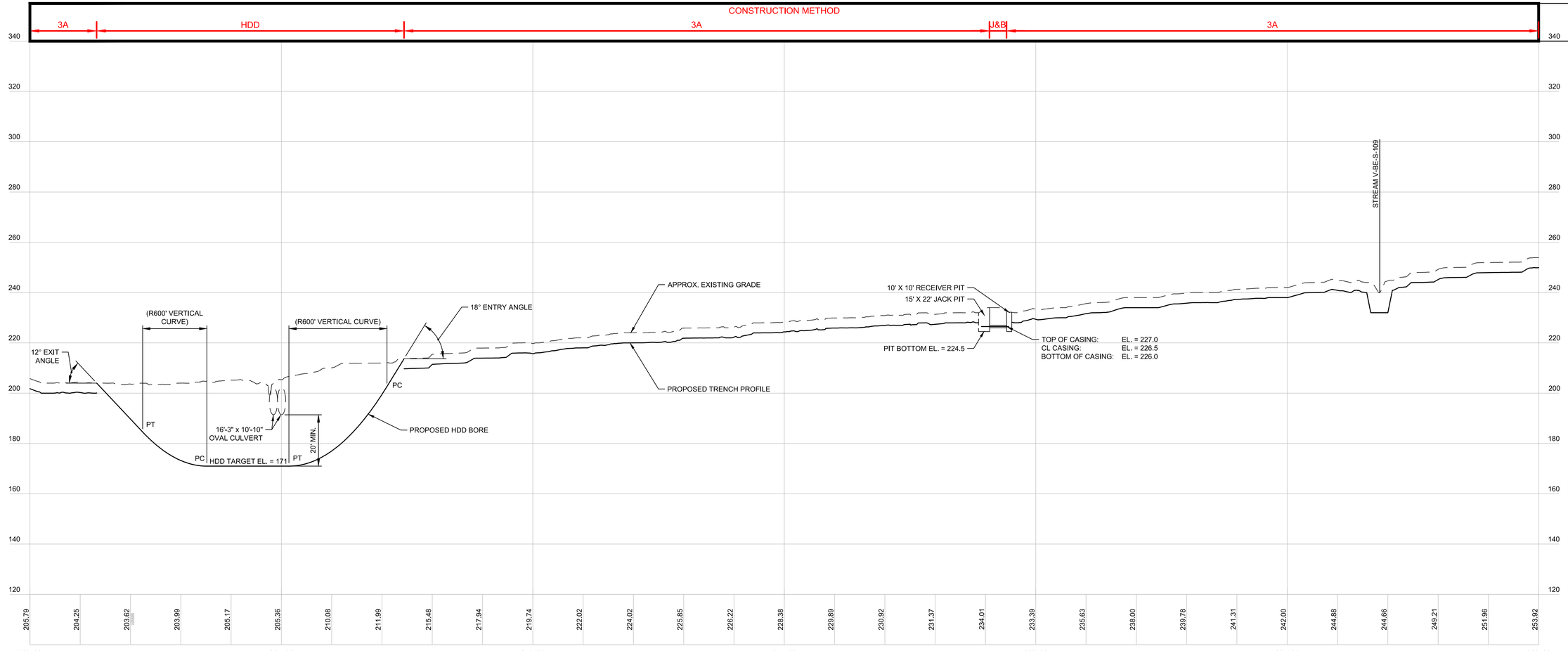
EPSC WORK NOTES

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE. SEE TYPICAL DETAIL ON SHEET XX.
2. DEMARCATE LIMIT OF DISTURBANCE AND INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH GENERAL EPSC NOTES AND CONSTRUCTION METHOD TYPICAL DETAILS ON SHEETS XX.
3. WETLAND CROSSING. INSTALL CONSTRUCTION MATTING. SEE "TYPICAL WETLAND CONSTRUCTION" ON SHEET TD-6.
4. OPEN TRENCH EXCAVATION OR AT-CULVERT STREAM CROSSING TO BE COMPLETED IN ACCORDANCE WITH TYPICAL DETAILS ON SHEETS TD-5 AND TD-6.
5. REPLACE STREAM CULVERT IN ACCORDANCE WITH TYPICAL DETAILS ON SHEETS XX.
6. DEMARCATE AND AVOID POTENTIAL ROOSTING TREE.
7. DEMARCATE AND AVOID RTE POPULATION.
8. IMPLEMENT RTE PLANT PROTECTION PLAN.
9. IMPLEMENT RTE ANIMAL PROTECTION PLAN.

CONSTRUCTION METHOD

3A | HDD | 3A | J&B | 3A

REFER TO SHEETS CM-1 THROUGH CM-5 FOR CONSTRUCTION METHOD DETAILS.



PROFILE

SCALE: HORIZ: 1" = 100'
VERT: 1" = 25'

Designed	.
Drawn	.
Checked	.
Approved	.
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW	.	.

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NEW ENGLAND CLEAN POWER LINK

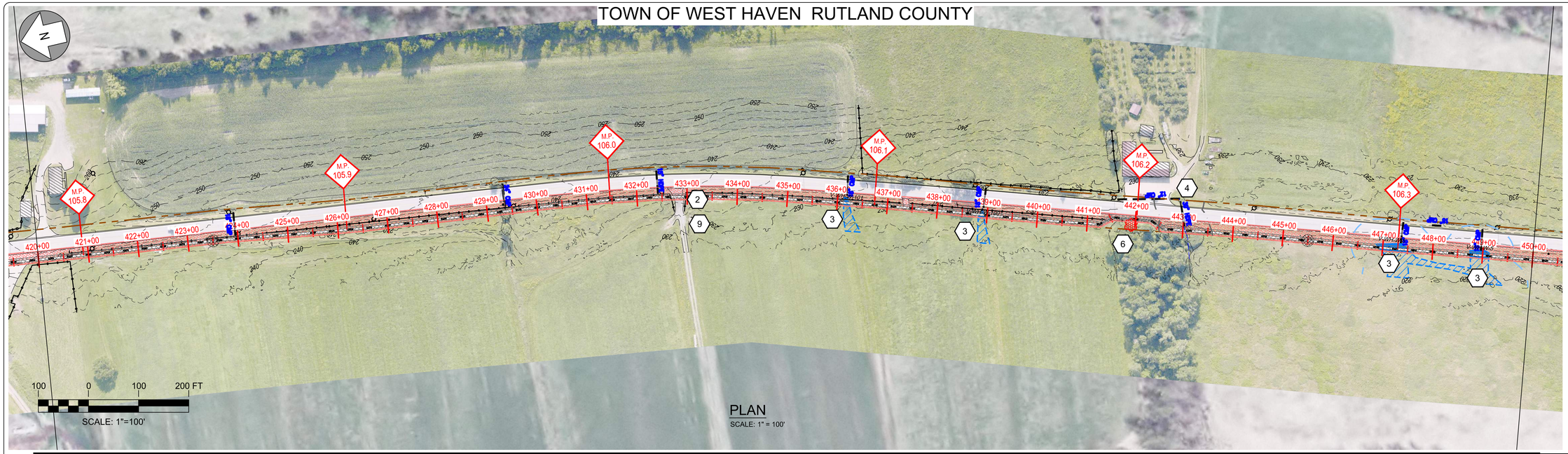
TDI New England

Plan & Profile - Overland Route

T-13

Prepared by: TRC 9/19/14

TOWN OF WEST HAVEN RUTLAND COUNTY



PLAN
SCALE: 1" = 100'

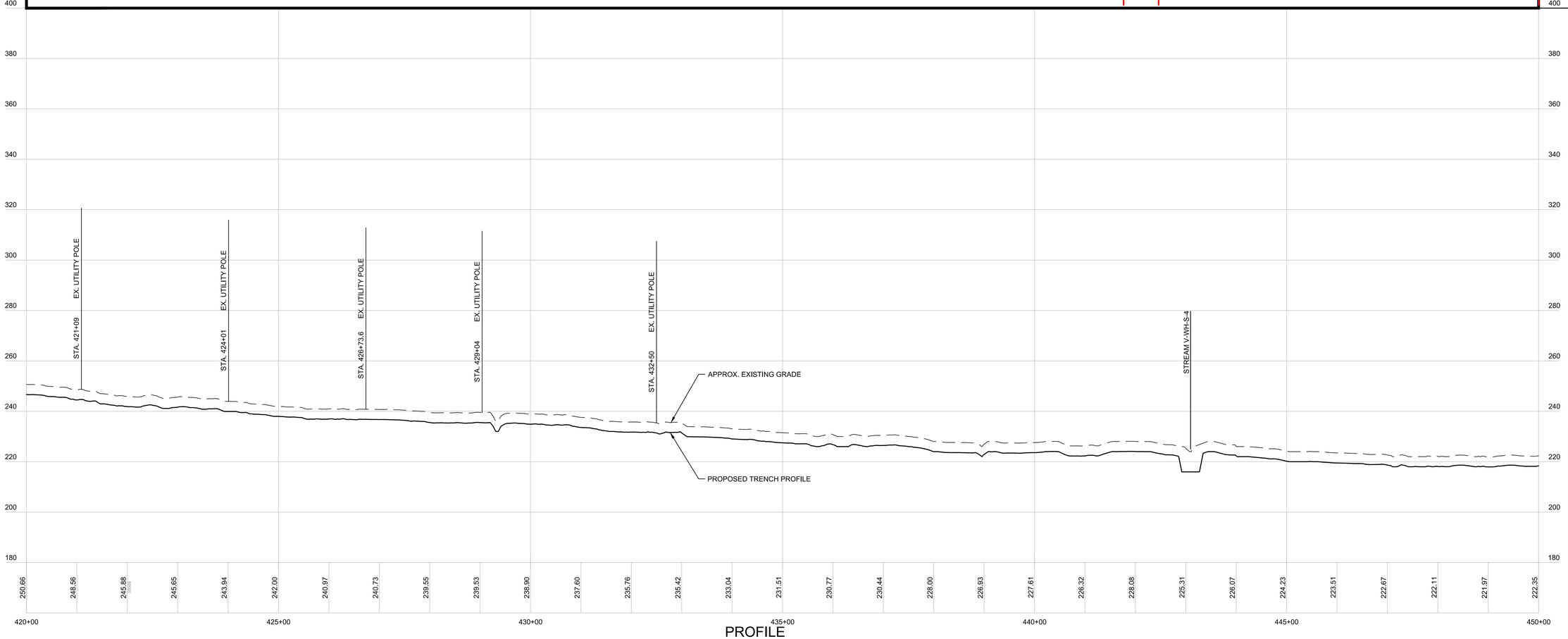
EPSC WORK NOTES

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE. SEE TYPICAL DETAIL ON SHEET XX.
2. DEMARCATE LIMIT OF DISTURBANCE AND INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH GENERAL EPSC NOTES AND CONSTRUCTION METHOD TYPICAL DETAILS ON SHEETS XX.
3. WETLAND CROSSING. INSTALL CONSTRUCTION MATTING. SEE "TYPICAL WETLAND CONSTRUCTION" ON SHEET TD-6.
4. OPEN TRENCH EXCAVATION OR AT-CULVERT STREAM CROSSING TO BE COMPLETED IN ACCORDANCE WITH TYPICAL DETAILS ON SHEETS TD-5 AND TD-6.
5. REPLACE STREAM CULVERT IN ACCORDANCE WITH TYPICAL DETAILS ON SHEETS XX.
6. DEMARCATE AND AVOID POTENTIAL ROOSTING TREE.
7. DEMARCATE AND AVOID RTE POPULATION.
8. IMPLEMENT RTE PLANT PROTECTION PLAN.
9. IMPLEMENT RTE ANIMAL PROTECTION PLAN.

CONSTRUCTION METHOD

3A | 3D | 3A

REFER TO SHEETS CM-1 THROUGH CM-5 FOR CONSTRUCTION METHOD DETAILS.



PROFILE
SCALE: HORIZ: 1" = 100'
VERT: 1" = 25'

Designed	.
Drawn	.
Checked	.
Approved	.
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW	.	.

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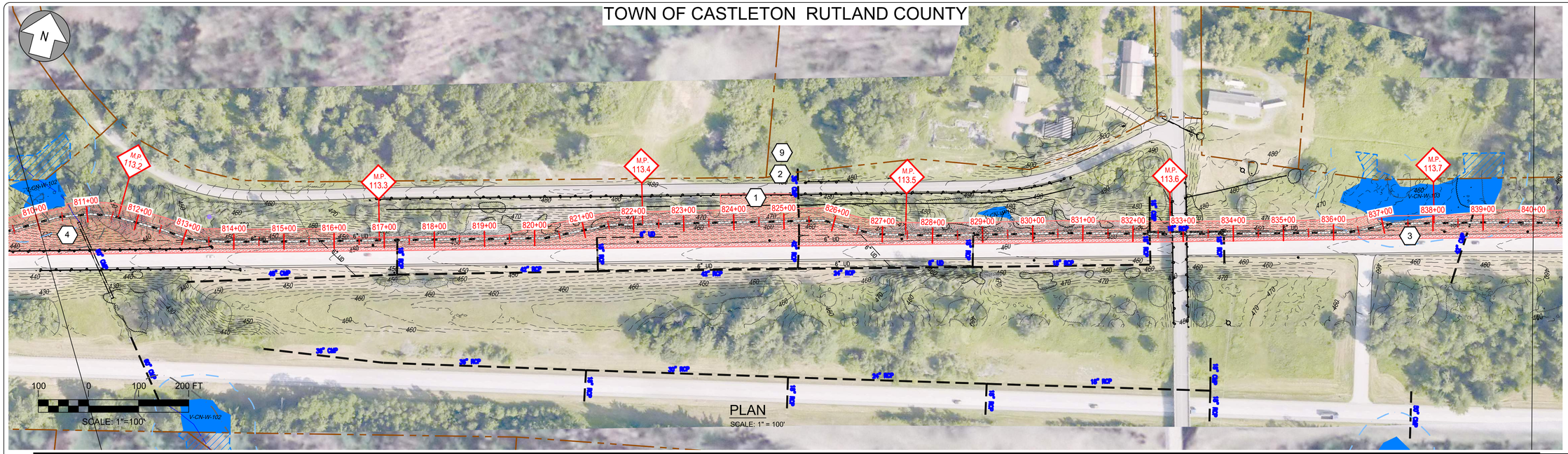
Plan & Profile - Overland Route

T-15

Prepared by: TRC 9/19/14

TOWN OF CASTLETON RUTLAND COUNTY



PLAN

SCALE: 1" = 100'

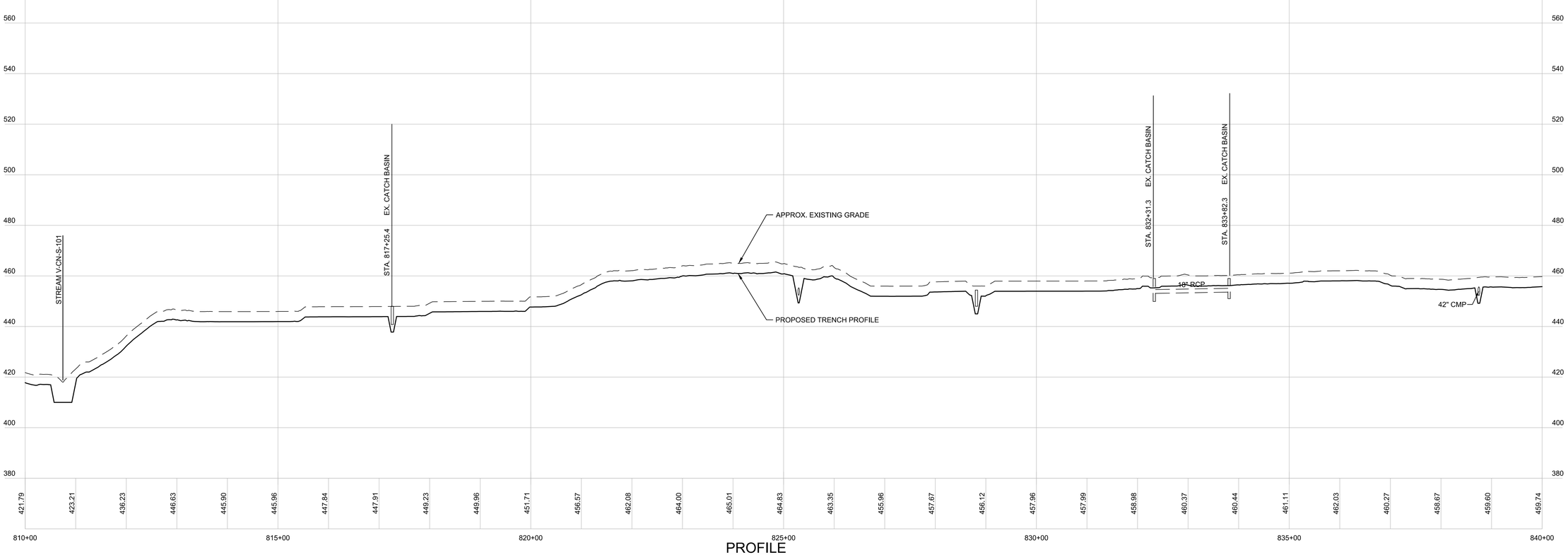
EPSC WORK NOTES

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE. SEE TYPICAL DETAIL ON SHEET XX.
2. DEMARCATE LIMIT OF DISTURBANCE AND INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH GENERAL EPSC NOTES AND CONSTRUCTION METHOD TYPICAL DETAILS ON SHEETS XX.
3. WETLAND CROSSING. INSTALL CONSTRUCTION MATTING. SEE "TYPICAL WETLAND CONSTRUCTION" ON SHEET TD-6.
4. OPEN TRENCH EXCAVATION OR AT-CULVERT STREAM CROSSING TO BE COMPLETED IN ACCORDANCE WITH TYPICAL DETAILS ON SHEETS TD-5 AND TD-6.
5. REPLACE STREAM CULVERT IN ACCORDANCE WITH TYPICAL DETAILS ON SHEETS XX.
6. DEMARCATE AND AVOID POTENTIAL ROOSTING TREE.
7. DEMARCATE AND AVOID RTE POPULATION.
8. IMPLEMENT RTE PLANT PROTECTION PLAN.
9. IMPLEMENT RTE ANIMAL PROTECTION PLAN.

CONSTRUCTION METHOD

4D

REFER TO SHEETS CM-1 THROUGH CM-5 FOR CONSTRUCTION METHOD DETAILS.



PROFILE

SCALE: HORIZ: 1" = 100'
VERT: 1" = 25'

Designed	.
Drawn	.
Checked	.
Approved	.
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW	.	.

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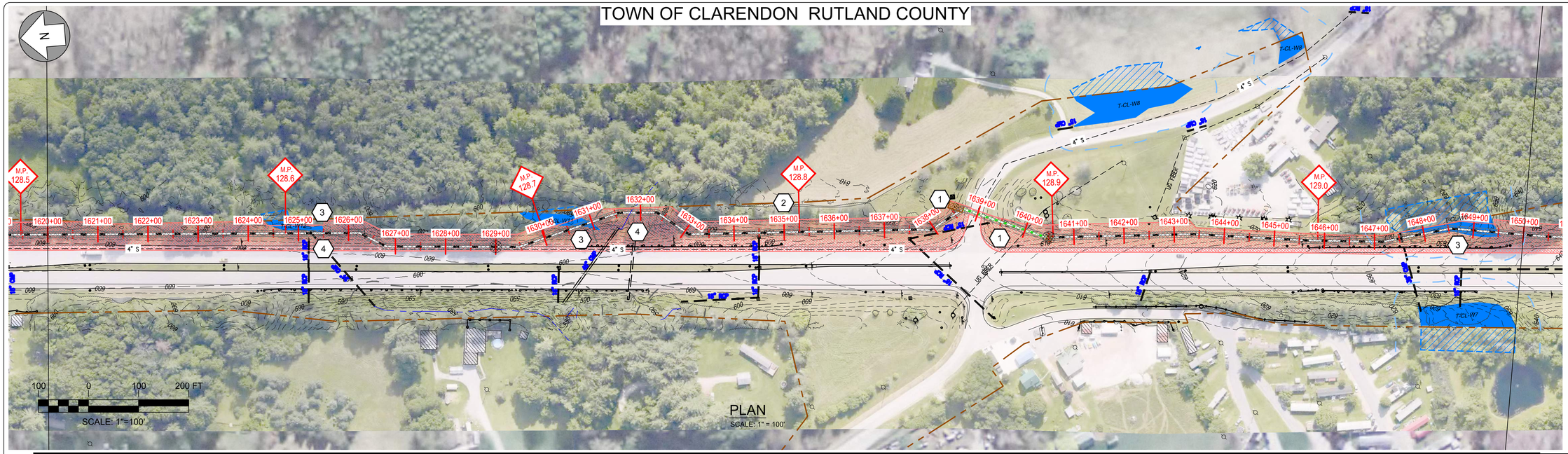
Prepared by: TRC 9/19/14

TOWN OF CLARENDON RUTLAND COUNTY



PLAN
SCALE: 1" = 100'

EPSC WORK NOTES

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE. SEE TYPICAL DETAIL ON SHEET XX.
2. DEMARCATE LIMIT OF DISTURBANCE AND INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH GENERAL EPSC NOTES AND CONSTRUCTION METHOD TYPICAL DETAILS ON SHEETS XX.
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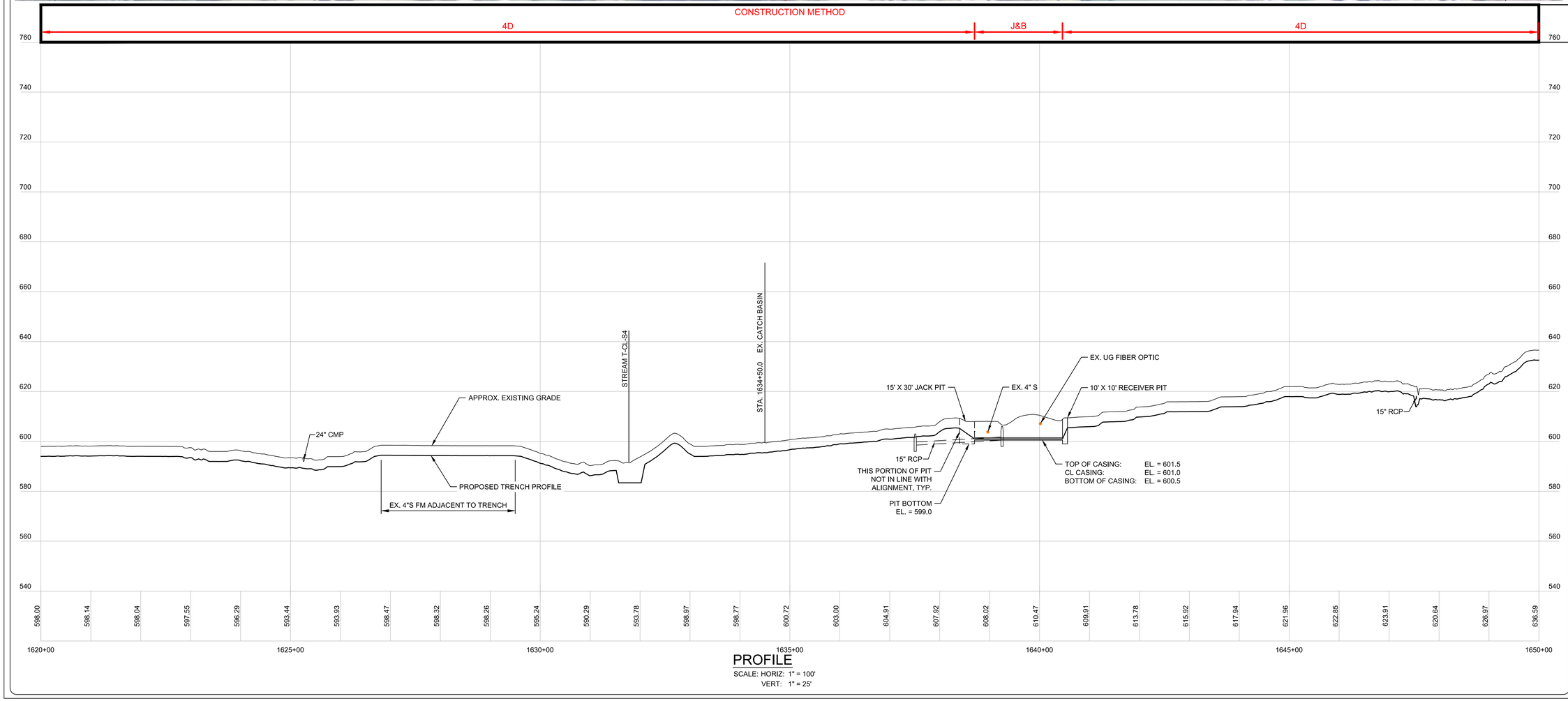
9. IMPLEMENT RTE ANIMAL PROTECTION PLAN.

CONSTRUCTION METHOD: 4D | J&B | 4D

REFER TO SHEETS CM-1 THROUGH CM-5 FOR CONSTRUCTION METHOD DETAILS.



PROFILE
SCALE: HORIZ: 1" = 100'
VERT: 1" = 25'

Designed	.
Drawn	.
Checked	.
Approved	.
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW	.	.

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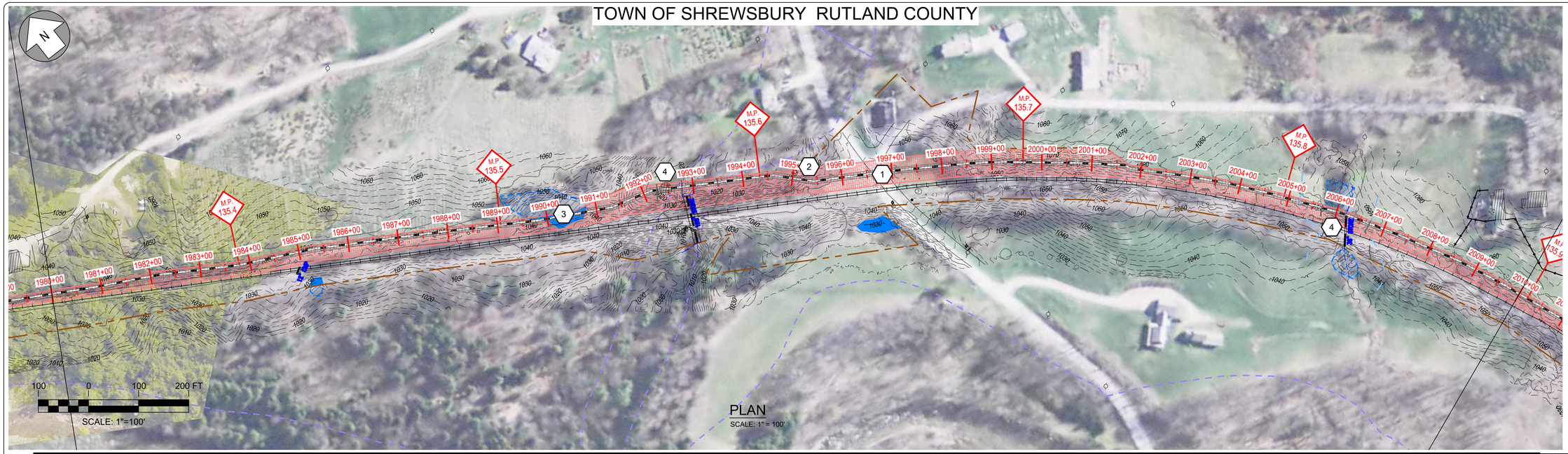
TOWN OF SHREWSBURY RUTLAND COUNTY



PLAN

SCALE: 1" = 100'

EPSC WORK NOTES

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2. DEMARCATE LIMIT OF DISTURBANCE AND INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH GENERAL EPSC NOTES AND CONSTRUCTION METHOD TYPICAL DETAILS ON SHEETS XX.
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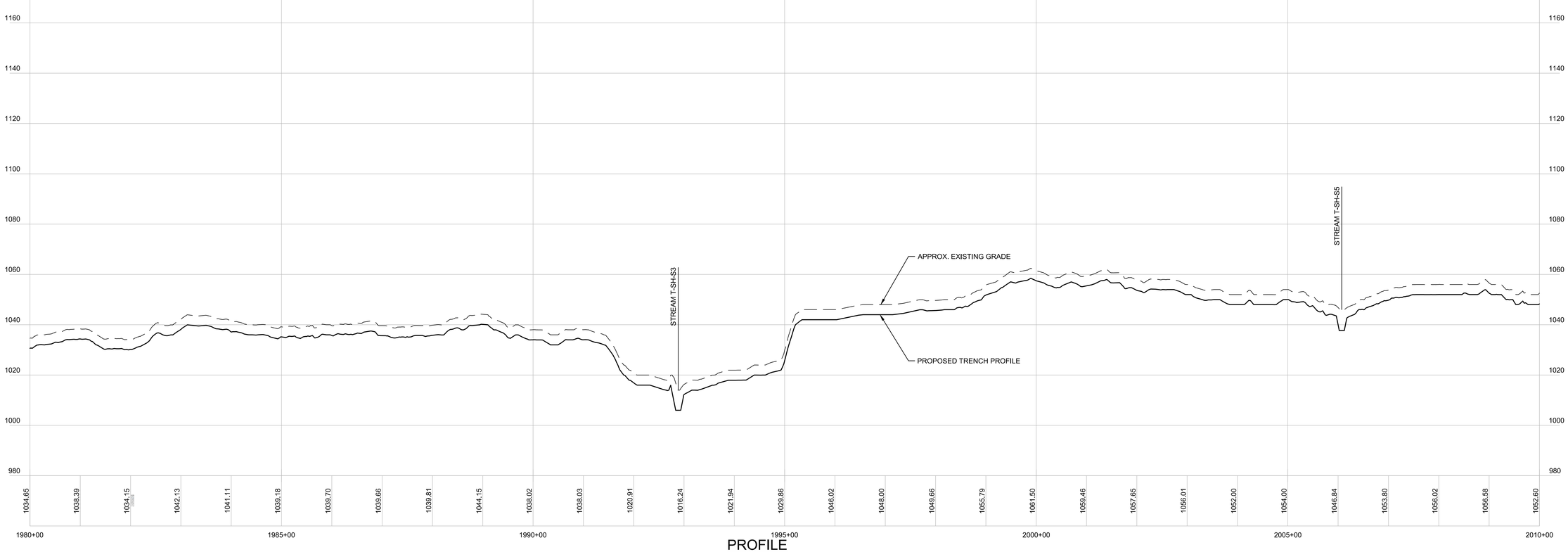
CONSTRUCTION METHOD
5A

REFER TO SHEETS CM-1 THROUGH CM-5 FOR CONSTRUCTION METHOD DETAILS.



PROFILE

SCALE: HORIZ: 1" = 100'
VERT: 1" = 25'

Designed	.
Drawn	.
Checked	.
Approved	.
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW	.	.

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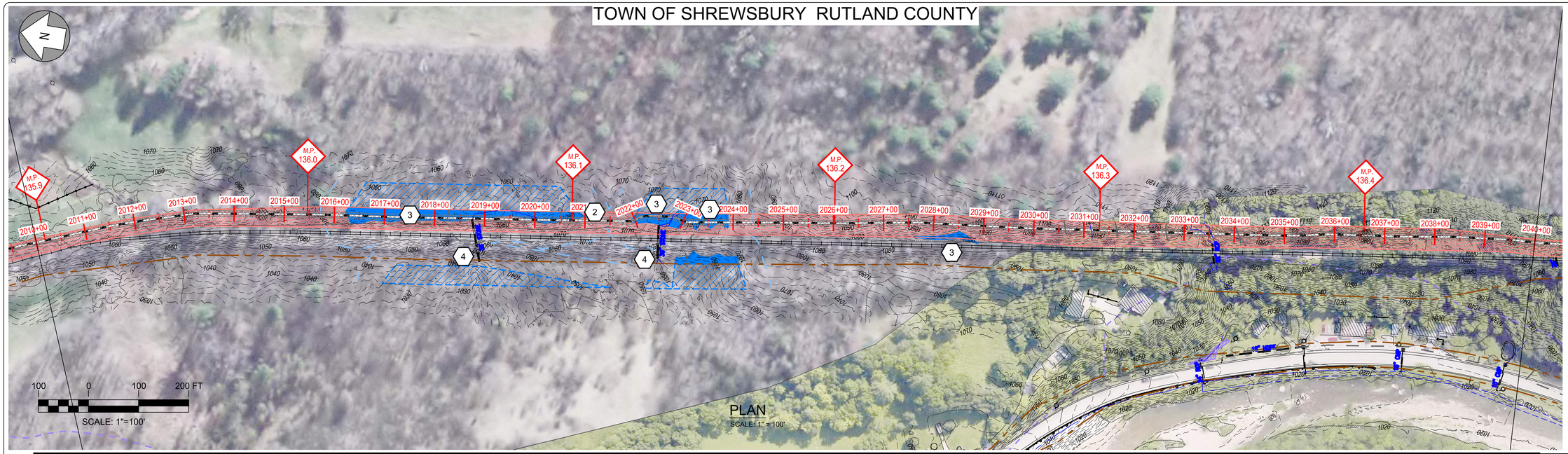
TOWN OF SHREWSBURY RUTLAND COUNTY



PLAN
SCALE: 1" = 100'

EPSC WORK NOTES

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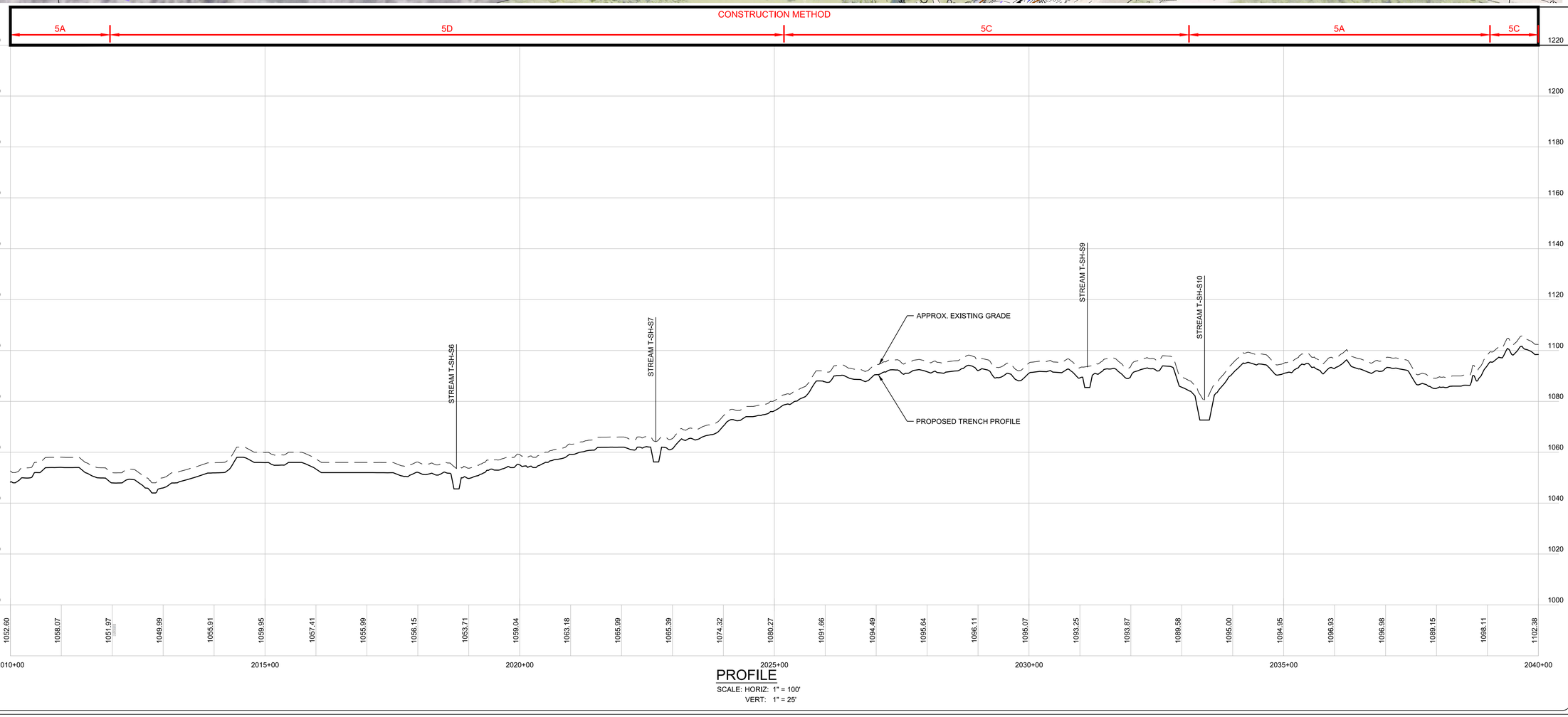

PROFILE
SCALE: HORIZ: 1" = 100'
VERT: 1" = 25'

Designed	.
Drawn	.
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Approved	.
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW	.	.

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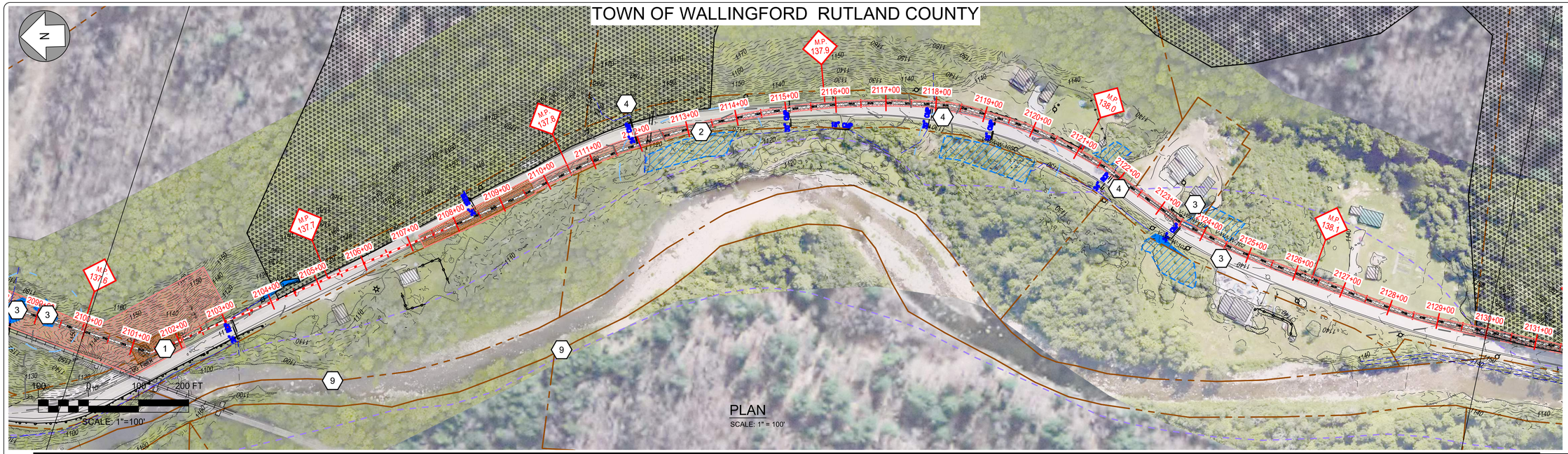
TOWN OF WALLINGFORD RUTLAND COUNTY



PLAN
SCALE: 1" = 100'

EPSC WORK NOTES

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE. SEE TYPICAL DETAIL ON SHEET XX.
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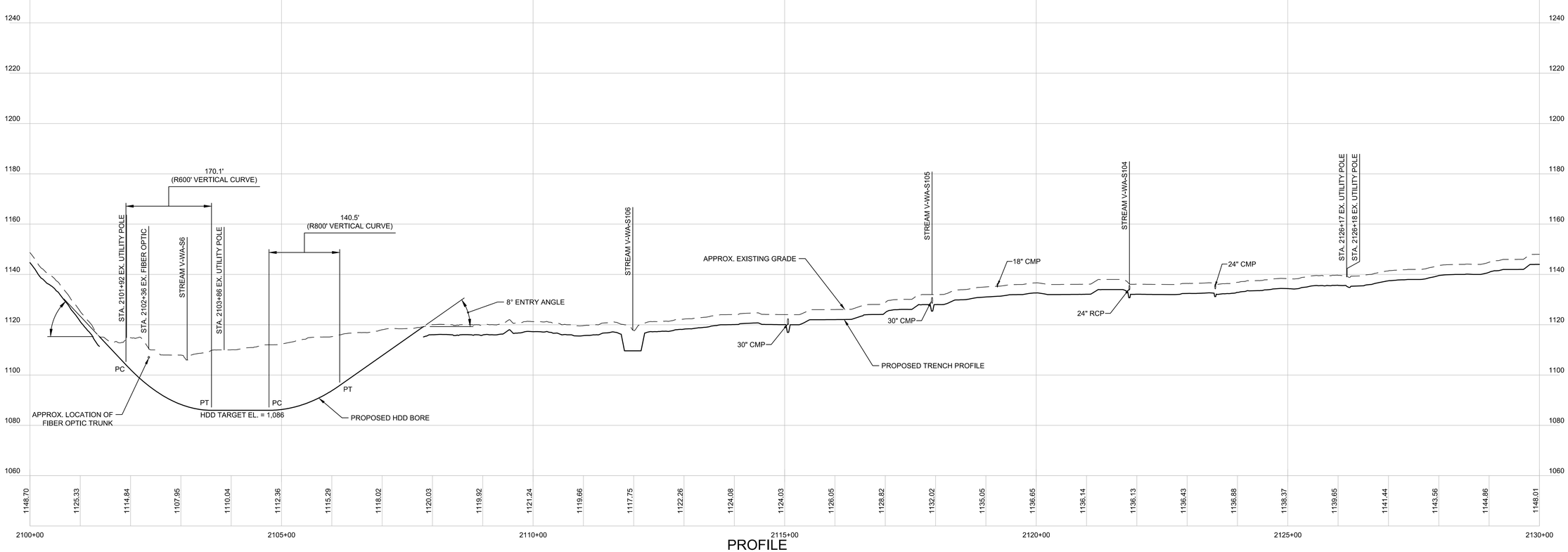
CONSTRUCTION METHOD

5D | HDD | 3E | 3G | 3F

REFER TO SHEETS CM-1 THROUGH CM-5 FOR CONSTRUCTION METHOD DETAILS.



PROFILE
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VERT: 1" = 25'

Designed	.
Drawn	.
Checked	.
Approved	.
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW	.	.

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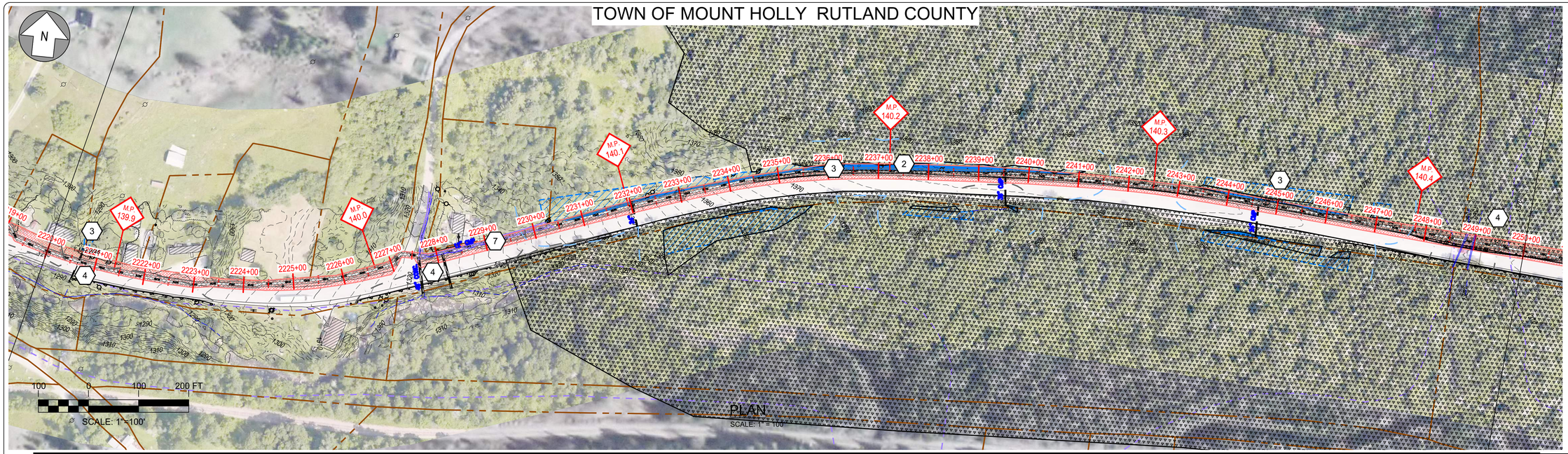
TOWN OF MOUNT HOLLY RUTLAND COUNTY



PLAN
SCALE: 1" = 100'

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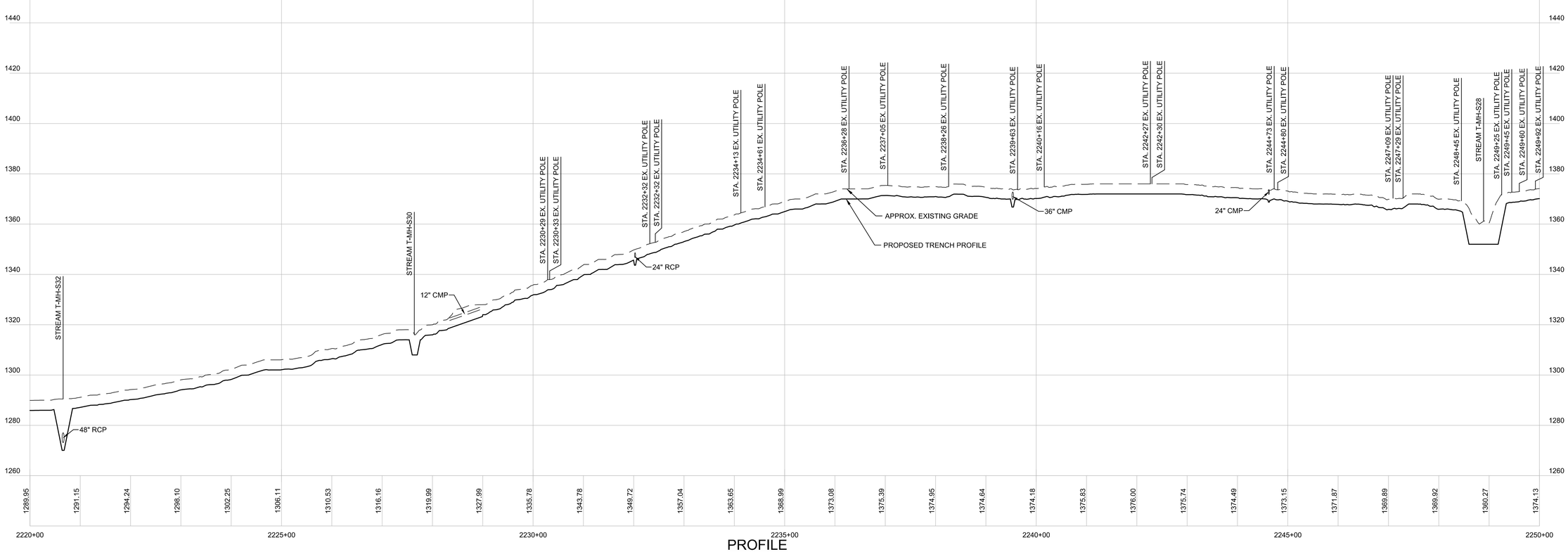
CONSTRUCTION METHOD
3E

REFER TO SHEETS CM-1 THROUGH CM-5 FOR CONSTRUCTION METHOD DETAILS.



PROFILE
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VERT: 1" = 25'

Designed	.
Drawn	.
Checked	.
Approved	.
Scale	AS NOTED

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW	.	.

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