### Site Notes

1. Refer to Sheet #PTTD-G301 for additional general notes, abbreviations, and legends.

2. The Substation electrical equipment, enclosures, foundations, other Substation appurtenances, Overhead Transmission, and underground transmission are shown for reference only.

3. This drawing is intended to depict Site Layout only.

4. Refer to Substation physical drawings for fence and gatet details.

5. Contractor shall take precautions to ensure no disturbance beyond depicted limit of interference.


7. Upon completion of site clearing, the contractor shall furnish and install permanent benchmarks in the locations depicted on the plans in accordance with the State of New Hampshire. These permanent benchmarks shall be set in field and verified prior to start of construction.

8. Contractor shall install guardrail systems as depicted in accordance with New Hampshire Department of Transportation Standard Specifications and Standards Plans for Three Beam Single Faced Guardrail. Steel post settings and terminal unit type D-2. This end section is not crash worthy. It is intended for use primarily on low speed access roads where it cannot be hit.

9. Offsite roadway (town and/or state) improvements as a result of the station development are not anticipated.

#### Site Layout Point Table

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**FOR PERMITTING PURPOSES ONLY**

**NOT FOR CONSTRUCTION**
GRADING NOTES:

1. REFER TO SHEET NPTT402-C001 FOR ADDITIONAL GENERAL NOTES, ABBREVIATIONS, AND LEGENDS.
2. REFER TO SHEETS NPTT419-C00 & NPTT140-C001 FOR GRADING CROSS SECTIONS.
3. NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM
   HORIZONTAL DATUM - NAVD88
   VERTICAL DATUM - NAVD88
4. PROPRIETARY CONTURS AND SPOT ELEVATIONS INDICATED REFER TO TOP OF FINISH SURFACE.
5. ALL fill and cut slopes are 3:1 horizontal TO 1:1 vertical (3:1) UNLESS NOTED OTHERWISE.
6. CONTRACTOR SHALL PLACE 6' TOPSOIL AND SEED ON ALL CUT AND FILL SLOPES AS SPECIFIED UNLESS ANOTHER SURFACE MATERIAL IS INDICATED. EROSION CONTROL BLANKETS NORTH AMERICAN GREEN SIGNS OR ENGINEER APPROVED EQUAL SHALL BE PLACED OVER ALL SLOPED SIDE SLOPES.
7. AFTER COMPLETION OF VARY SUBGRADE WORK, THE SURFACE COURSE FOR THE SUBGRADE (INSIDE THE FENCE, 6' OUTSIDE THE FENCE, AND WHERE INDICATED ON THE PLAN) SHALL CONSISTS OF A 4-INCH LAYER OF CRUSHED BASALT (ANGULAR STONE) STONE MEETING TRANSITION REQUIREMENTS EXPLAINED IN THE SPECIFICATIONS.
8. CONTRACTOR SHALL PROTECT/REPAIR ALL SLOPES UNTIL FINISH VEGETATIVE OR STABILIZATION.
9. ALL EXCAVATIONS SHALL BE THROUGHLY SECURED AND STABILIZED ON A DAILY BASIS BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS.
10. STABILIZE ALL BITES, SHALES, AND PONDS PRIOR TO DIRECTING STORMWATER RUNOFF TO THEM.
11. TURF REINFORCEMENT MAT (TRM) SHALL BE INSTALLED ON ALL 3 FT HORIZONTAL TO 1:1 VERTICAL SLOPES (2) OR STEEPER, AND BE NORTH AMERICAN GREEN SIGNS OR APPROVED EQUAL.
12. EROSION CONTROL BLANKET (ECB) SHALL BE INSTALLED ON SWALES (A1 & A2) BOTTOM AND SIDE SLOPES UP TO A 1:2 FOOT DEPTH AND SHALL BE NORTH AMERICAN GREEN SIGNS OR APPROVED EQUAL.
13. EARTHWORK AND COMPACTION SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE GEOTECHNICAL ENGINEERING REPORT BY OTHERS.

FOR PERMITTING PURPOSES ONLY
NOT FOR CONSTRUCTION
NOTES:
1. SEE SHEET NPTT411-C500 FOR EROSION AND SEGMENTATION NOTES.
2. TOTAL LIMIT OF DISTURBANCE = 136,963 SF = 3.14 ACRES
PLANTING PLAN NOTES:

1. REFER TO SHEET NPTT406-G001 FOR ADDITIONAL GENERAL NOTES, ABBREVIATIONS, AND LEGENDS.

2. THIS DRAWING IS INTENDED TO DESCRIBE LANDSCAPE INFORMATION ONLY.

3. ALL DISTURBED AREAS NOT OTHERWISE DEVELOPED SHALL HAVE A MINIMUM OF 4' OF LOAM AND THE FOLLOWING SEED MIXTURE:
   - 38% PERSONAL RYEGRASS (MIN. 30 LBS/ACRE)
   - 6% REDTOP (MIN. 5 LBS/ACRE)
   - 6% RED CLOVER (MIN. 5 LBS/ACRE)
   - 6% BROADLEAF TREFOIL (MIN. 5 LBS/ACRE)


5. NO SEEDING SHALL BE PLACED BEFORE ROUGH GRADING HAS BEEN PROPERLY COMPLETED.

6. TOPSOIL SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4". CONTRACTOR SHALL SUMMEE SAMPLES FROM EACH PROPOSED TOPSOIL SOURCE TO A CERTIFIED TESTING LABORATORY TO DETERMINE pH, FERTILITY, ORGANIC CONTENT AND MECHANICAL COMPOSITION. CONTRACTOR SHALL SUMMEE THE TEST RESULTS TO OWNER OR LANDSCAPE ARCHITECT FOR REVIEW. CONTRACTOR SHALL INCORPORATE AMENDMENTS FOR PROPER SOIL pH AND PLANT GROWTH AS RECOMMENDED BY TEST REPORTS AT NO INCREASE IN CONTRACT PRICE.

7. TEMPORARY AND PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH THE PLANTING PLAN. NH DES STORMWATER MANUAL, VOLUME 3, AND NH DOT STANDARD SPECIFICATIONS SECTION 644.

8. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES -- 6 TO 12 INCHES ON COMPACTED SOILS -- PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING.

9. ALL SUBGRADE ELEVATIONS SHOULD BE UNIFORMLY GRADED TO RECEIVE LOAM AND SHALL BE INSPECTED AND APPROVED BY THE GENERAL CONTRACTOR PRIOR TO PLACEMENT OF LOAM. PLACE LOAM TO FORM A MINIMUM DEPTH OF 4 INCHES UNLESS OTHERWISE INDICATED. ALL DEPRESSIONS EXPOSED DURING THE ROLLING SHALL BE FILLED WITH ADDITIONAL LOAM.

10. SEED BED PREPARATION: AFTER FASH GRADING AND JUST BEFORE SEEDING, THE AREAS TO BE SEEDED SHALL BE LOOSENED TO PROVIDE A ROUGH, FIRM BUT FINELY PULVERIZED SEEDBED. THE INTENT IS A Texture CAPABLE OF RETAINING WATER, SEED AND FERTILIZER WHILE REMAINING STABLE AND ALLOWING SEED TO GERMINATE. SEED SHALL BE APPLIED TO THE CONDITIONED SEEDBED NOT MORE THAN 48 HOURS AFTER THE SEED HAS BEEN PREPARED.

11. LINE AND FERTILIZER SHALL BE INCORPORATED INTO THE SOIL PRIOR TO OR AT THE TIME OF SEEDING. A MINIMUM OF 1 TONS PER ACRE OF AGRICULTURAL LIMESTONE AND 500 LBS. PER ACRE OF 15-0-0 FERTILIZER SHALL BE APPLIED. SEEDING PRACTICES SHALL COMPLY WITH LOCAL USDA SOIL CONSERVATION SERVICES RECOMMENDATIONS.

12. STRAW MULCH OR JUTE MATTING SHALL BE USED WHERE INDICATED ON THE PLANS. A MINIMUM OF 1 TONS OF MULCH PER ACRE SHALL BE APPLIED. MULCH SHALL BE ANCHORED IN PLACE WHERE NEEDED. JUTE MATTING SHALL BE Laid IN THE DIRECTION OF RUNOFF FLOW AND APPLIED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

13. PERMANENT OR TEMPORARY COVER MUST BE IN PLACE PRIOR TO THE GROWING SEASON ENDS. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDED AREAS AREA NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 15 TO SEPTEMBER 15. NO DISTURBED AREA SHALL BE LEFT EXPOSED DURING WINTER MONTHS.
GRADING CROSS SECTION NOTES:
1. REFER TO SHEET NPTT402-G001 FOR ADDITIONAL GENERAL NOTES, ABBREVIATIONS, AND LEGENDS.
2. THIS DRAWING IS INTENDED TO DESCRIBE THE GRADING CROSS SECTION ONLY.
3. NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM
   HORIZONTAL DATUM - NAD83
   VERTICAL DATUM - NAVD88
4. PROPOSED CONTOURS AND SPOT ELEVATIONS INDICATED REFER TO TOP OF FINISH SURFACE.
5. CONTRACTOR SHALL PLACE 4" TOPSOIL AND SEED ON ALL CUT AND FILL SLOPES AS SPECIFIED UNLESS ANOTHER SURFACE MATERIAL IS INDICATED.
6. EARTHWORK AND COMPACTION SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE GEOTECHNICAL ENGINEERING RECOMMENDATIONS REPORT BY OTHERS.
7. STRIP AND STOCKPILE EXISTING TOPSOIL IN AREAS OF PROPOSED GRADING AND EARTHWORK.
1. Design of end section shall conform to standards reinforced concrete pipe (RP). 
2. Cut off wall to be poured in field, if necessary. As directed by the engineer. 
3. Paymen for the cut off wall shall be made under the appropriate contract (items). 

**CONSTRUCTION SPECIFICATIONS**

**PREPARE BEDDING**
Backfill material around the end section may be the same as the material around the pipe. Place a few inches of backfill material in the trench or cut where the end section will be placed. Compact and condition the bedding material to generally match the end section. Excavate an area in the bedding where the trough will seat so that the end section will be level with the bottom of the trench or ditch in the finished installation.

Place end section of pipe. Open the end section collar and seat it over the two pipe connections. Place a washer on either end of the rod. Place a nut on either end of the rod and tighten with a wrench.

**SECURE THE END SECTION**
Slip the stainless steel rod through the pre-drilled holes at the top of the collar. The rod should be between the crowns of the two pipe connections. Place a washer on either end of the rod. Place a nut on either end of the rod and tighten with a wrench.

**SECURE THE TOE TROUGH**
To prevent washouts from high velocity flow, it is recommended that the trough be secured with concrete. Pour concrete in the trough up to the level of the trench or ditch bottom and along the entire length of the trough.

**FINISH BACKFILL**
Shovel backfill around the end section in 4 to 9 inch layers equally on both sides, knifing it to eliminate voids. Tamp with a small-faced compactor or other equipment suitable for small areas. Continue placing, knifing, and compacting backfill layers to the top of the end section to seat it well into the backfill.

**FINISH BACKFILL**
Entire length of the trough. Placing, knifing, and compacting backfill layers to the top of the end section to seat it well into the backfill. 

**STAPLE**
1" Min.

**END SECTION TO SEAT IT WELL INTO THE BACKFILL**
Finish backfill:

- **Structure Invert and Location Point**
- **Cross-section**
- **End View**
- **Plan View**
- **Plan View**

**NOTE:**
1. The subgrade for geotextile fabric and rip-rap shall be prepared to the lines and grades shown.
2. The pipe used for rip-rap shall conform to INDOT Standard C stone.
3. Geotextile fabrics shall be protected from puncturing or tearing during the placement of the rock rip-rap. Damaged areas in the fabric shall be repaired by placing a piece of fabric over the damaged area or by complete replacement of the fabric. All overlaps required for repairs or joining two pieces of fabric shall be a minimum of 12 inches.
4. Stone for the rip-rap may be placed by equipment and shall be constructed to the full layer thickness in one operation and in such manner as to prevent segregation of the stone sizes.