

## 8.0 Enhanced Tree Pit

### **8.5 ENHANCED TREE PIT SPECIFICATIONS**

#### **CONSTRUCTION NOTES**

1. The contractor shall verify all information prior to excavation including elevations and locations of existing utilities.
2. The contractor shall notify the engineer immediately if any field conditions differ materially from those represented on these drawings and the specifications or if, in the contractor's opinion, said conditions conflict with the designs shown herein.
3. The engineer shall inspect all planting bed areas before planting to insure that adequate drainage exists. If any areas to be planted show evidence of poor drainage, the contractor shall take corrective action.
4. The contractor shall have all utilities marked before any excavation. If any utilities interfere with the project, the contractor shall notify the engineer.
5. The entire continuous tree pit and/or enhanced tree pit shall be excavated, the contractor shall dispose of any excess materials.
6. The contractor shall avoid over compacting the existing soils to avoid poor infiltration.
7. The contractor shall establish all elevations and lines as shown in the site plan for review by the engineer prior to construction.
8. The contractor shall verify that the subgrade is consistent with line, grade, and elevations as indicated in the site plan. Any areas showing erosion or potential ponding shall be regraded before subbase installation.
9. Immediately after the subgrade is approved by the engineer, the contractor shall begin subbase construction which includes all materials below the pavement and above the existing subgrade.
10. The contractor shall place geotextile fabric in compliance with manufacturer's specification. All adjacent fabric shall be overlapped by at least 16 inches. The fabric shall be secured at least four feet outside of the excavated base. The entire pit perimeter shall be lined with geotextile fabric.
11. The storage layer (No. 2) Shall be installed evenly over the existing subgrade and permeable fabric. The storage layer aggregate shall be installed to a maximum of 95% standard proctor compaction. Permeable soil separation fabric shall be installed on top of storage layer prior to installing bioretention media.
12. The bioretention media layer shall be installed evenly over the storage layer and fabric.
13. The infiltration rate shall be at least 5-30 ft/day or 50% of the hydraulic conductivity (D2434).
14. After the subbase aggregate installation, the geotextile fabric shall be folded back along all bed edges. The fabric shall remain secure until adjacent soils establish vegetation. Any necessary measures shall be taken to prevent sediment from washing into beds.
15. Concrete shall be installed in conformance with NJDOT Standard Specifications for Road and Bridge Construction, 2007 or latest version.

#### **SPECIFICATIONS**

1. The tree gates shall be the retrofit collection grates (r-9002) from NEENAH foundry. Grates shall be 48 inches on each side with a 16-inch diameter expandable tree opening or approved alternative for continuous tree pit. For the enhanced tree pit, the grate shall be 48 - 72 inches on each side with a 16-inch diameter expandable tree opening or approved alternative. See site plan for grate dimensions for enhanced tree pits.

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2. The bioretention layer shall be comprised of 70% sand and 30% compost mixture.
3. The coarse storage layer shall be comprised of No. 2 washed stone. The layer shall be compacted multiple times.  
All other storage layers shall be comprised of No. 57 washed stone.