**NOTES:**

1. **Critical Root Zone:** Extends in all directions from trunk of tree to a distance equal to one foot per inch of trunk diameter at breast height.

2. Staging, storage, dumping, washing and operation of equipment is not permitted within the limits of the tree protection barrier, including during barrier installation.

3. Install all tree protection prior to commencement of construction and remove when directed by the Engineer. Maintain protection at all times.

4. For closely spaced groups of trees, place the tree protection barrier around the entire group.

5. Inspect tree protection and tree quarterly to prevent girdling. Adjust bands to allow tree growth as needed.

6. See plans for any additional requirements or modifications within the tree protection area.

7. Place weather resistant sign every 50' along the barrier, with 6'' minimum text height and provide text in English and Spanish. Sign should read "Keep Out Tree Protection Area".

8. Alternate tree protection systems approved by the Engineer may be used in lieu of the tree protection barrier detailed on this Index as long as the critical root zone is protected.

9. The Critical Root Zone may be reduced, in the field, by a certified Arborist or Landscape Architect.

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**TRUNK PROTECTION**

**TREE PROTECTION BARRIER**

- Install at depth sufficient to maintain root barrier.
- No open trenching under the critical root zone of the tree.
- Maintain existing grade within the tree protection barrier.
- Post (2' x 4' Nominal @ 4'-0" O.C. Typ.)
- Tree Protection Barrier
- Tree Trunk
- Post (See Note 1)
- Tree Protection Barrier
- Critical Root Zone

**PROTECTION BARRIER FOR TREE GROUPINGS**

- Place Burlap Between the Boards and the Trunk
- 2" x 4" Nominal Boards to Form a Continuous Protective Barrier (Do Not Fasten Boards Into Tree)
- 6" Minimum Height Or To Lowest Branch

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**NOTES:**

1. Trunk protection may be used when Tree Protection Barrier can not be reasonably erected when approved by Engineer.

2. See Selective Clearing and Grubbing Plan for location of trunk protection, when applicable.

3. Adjust bands to allow tree growth (inspect quarterly to prevent girdling).
GENERAL NOTES

1. Mailboxes shall be light sheet metal or plastic construction, in traditional style.

2. Mailboxes will not be permitted on Interstate highways, freeways, or other highways where prohibited by law or regulation.

3. The Contractor shall coordinate removal of the patrons existing mailboxes. The Contractor shall furnish and install one mailbox in accordance with this Index at each mail patron delivery location and maintain the box throughout the contract period. The Contractor shall apply box numbers to each patron box in accordance with identification specifications of the Domestics Mail Manual of the U. S. Postal Service, where local street names and house numbers are authorized by the Postmaster as a postal address, the Contractor shall inscribe the house number on the box. If the box is located on a different street from the patron's residence, the Contractor shall inscribe the street name and house number on the box.

4. Mailboxes shall be located on the right-hand side of the roadway in the direction of the delivery route, except on one-way roads and streets where they may be placed on the left-hand side.

5. Mailboxes shall be set with the bottom of the box between 42” and 48” above the sidewalk, where they can be served by the carrier from the sidewalk.

6. Mailboxes shall be located on the right-hand side of the roadway in the direction of the delivery route, with the distance increased to 200’ when the route volume exceeds 400 vehicles per day.

7. Mailboxes on rural highways shall be set with the roadside face of the box 10' to 12' from the edge of the traveled way.

8. Mailboxes shall be located 100’ or more from the centerline of the intersecting road on the far side in the direction of the delivery route. Mailboxes shall be located 200’ from the centerline of the intersecting road on the near side in the direction of the delivery route.

9. Wood and steel support posts for both single and double mailbox mountings shall be embedded no more than 24” into the ground. Concrete, block, brick, stone or other rigid foundation structure or encasement, either above or below the shoulder ground line, will not be permitted for mailboxes on rural highways. On urban roads and streets where mailbox support posts are set within rigid pavement back of curb, the support posts shall be separated from the pavement by a minimum of 1” of expansion material.

10. Support posts shall not be fitted nor installed with surface mount base plates.

11. Mailboxes shall be located 100’ or more from the centerline of the intersecting road on the far side in the direction of the delivery route. At intersecting roads mailboxes shall be located 100’ or more from the centerline of the intersecting road on the far side in the direction of the delivery route, with the distance increased to 200’ when the route volume exceeds 400 vehicles per day.

12. Mailboxes shall be paid for under the contract unit price for Mailboxes. Each. Mounting brackets, plates, platforms, shelves and accessory hardware surface finishes are to be suited to support post finish.

13. Mailboxes shall be located 100’ or more from the centerline of the intersecting road on the far side in the direction of the delivery route. At intersecting roads mailboxes shall be located 100’ or more from the centerline of the intersecting road on the far side in the direction of the delivery route, with the distance increased to 200’ when the route volume exceeds 400 vehicles per day.
GENERAL NOTES:
1. Roadway dimensions are representative. Subgrade dimensions and control lines are standard. The details shown on this Index do not supersede the details shown in the Plans or Indexes 120-002 and 120-006.
2. Plastic (P) soils may be placed above the existing water level (at the time of construction) to within 4 feet of the proposed base. It should be placed uniformly in the lower portion of the embankment for some distance along the project rather than full depth for short distances.
3. High Plastic (H) soils excavated within the project limits may be used in embankment construction as indicated on this Index. High Plastic soils are not to be used for embankment construction when obtained from outside the project limits.
4. Select (S) soils having an average organic content of more than two and one-half (2.5) percent, or having an individual test value which exceeds four (4) percent, are not permitted in the subgrade portion of the roadway. Select (S), Plastic (P), or High Plastic (H) soils having an average organic content of more than five (5) percent, or an organic content individual test result which exceeds seven (7) percent, are not permitted in the portion of embankment inside the control line, unless written authorization is provided by the District Geotechnical Engineer; these soils may be used for embankment construction outside the control line, unless restricted by the Plans or otherwise specified in the Plans, provided they can be compacted sufficiently to sustain a driveable surface for operational vehicles as approved by the Engineer. Determine average organic content from the test results from a minimum of three randomly selected samples from each stratum or stockpile of a particular material. Perform tests in accordance with AASHTO T 267 on the portion of a sample passing the No. 4 sieve. For cut sections this dimension may be reduced to 24'; see Index 120-002. For minor collectors and local facilities this dimension may be reduced to 18". For cut sections this dimension may be reduced to 24"; see Index 120-002.
5. Highly organic soils, composed primarily of partially decayed organic matter, often dark brown or black in color with an odor of decay, and sometimes fibrous, are designated as muck. Further, any stratum or stockpile of soil which contains pockets of highly organic material may be designated as Muck (M). Highly organic soils are not permitted within the subgrade or embankment portion of the roadway.

NOTES:
1. All material in the shaded area is excess base to be removed.
2. There is no additional payment for removal of excess base material.

REMOVAL OF EXCESS BASE MATERIAL
**SYMBOL\**

- S: Select
- P: Plastic
- H: High Plastic
- M: Muck

**CLASSIFICATION (AASHTO M 145)**

- Select: A-1, A-3, A-2-4 **
- Muck: A-8

Classification listed left to right in order of preference.

**NOTE:** See General Notes Nos. 4 & 5 for utilization of soils classified as organic material or muck.

**NOTE:** Certain types of A-2-4 material are likely to retain excess moisture and may be difficult to dry and compact. They should be used in the embankment above the water level existing at time of construction. They may be used in the subgrade portion of the roadbed when approved by the District Materials Engineer. A-2-4 material placed below the existing water level must be nonplastic and contain less than 15% passing the No. 200 U.S. Standard sieve.

**NOTE:** For cut sections this dimension may be reduced to 24"; see Index 120-002. For minor collectors and local facilities this dimension may be reduced to 18".

**RIGID PAVEMENT - ASPHALT BASE OPTION**

**UNDIVIDED ROADWAY**

**DIVIDED ROADWAYS**
**UNDIVIDED ROADWAY**

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>SOIL</th>
<th>CLASSIFICATION (AASHTO M 145)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Select</td>
<td>A-1, A-3, A-2-4 **</td>
</tr>
<tr>
<td>S+</td>
<td>Special Select</td>
<td>A-3 *** with Minimum Average Lab Permeability of 5x10^{-3} cm/sec (0.14 ft./day) as per AASHTO T 215</td>
</tr>
<tr>
<td>H</td>
<td>High Plastic</td>
<td>A-2-5, A-2-7, A-5 or A-7 (ALL WITH LL&lt;50)</td>
</tr>
<tr>
<td>M</td>
<td>Muck</td>
<td>A-8</td>
</tr>
</tbody>
</table>

Classification listed left to right in order of preference.

See General Notes Nos. 4 & 5 for utilization of soils classified as organic material or muck.

*** When called for in the Plans, some types of A-2-4 material may be approved in writing by the District Materials Engineer. This material must meet the minimum lab permeability requirement, be nonplastic, and not exceed 12% passing the No. 200 U.S. Standard sieve.

** Certain types of A-2-4 material are likely to retain excess moisture and may be difficult to dry and compact. They should be used in the embankment above the water level existing at time of construction. A-2-4 material placed below the existing water level must be nonplastic and contain less than 10% passing the No. 200 U.S. Standard sieve.

Special Stabilized Subbase: 3" of No. 89 Coarse Aggregate Mixed Into Top 6".
Whether or not shoulder gutter is used, control line set by normal shoulder point for minimum removal of bottom of organic material.

With overburden - half section

Construction of flush shoulder roadway

Without overburden - half section

Construction of curbed roadway

*Remove overlying material and organic material within the limits shown and backfill in accordance with index 120-001, unless approved otherwise by the District Geotechnical Engineer. The limits include full median width when applied to divided facilities with median widths up to 64'; when median width is greater than 64' and for bifurcated roadways the organic material removal limits will be set by a 1:2 control line complimentary to the outer roadway that will accommodate one future median lane on each roadway unless specified otherwise by the plans.

General Notes:
1. All details shown on this Index for removal of organic and plastic materials apply unless otherwise shown on the plans.
2. Utilize excavated materials in accordance with Index 120-001.
3. Where organic or plastic material is undercut, backfill with suitable material in accordance with Index 120-001, unless otherwise shown on the plans.
4. The term "Plastic Material" used in this Index in conjunction with removal of plastic soil is as defined under soil classifications for Plastic (P) and High Plastic (H) on Index 120-001.
5. See Index 160-003 for miscellaneous earthwork details.

General Notes and Removal of Organic Material

6. The term "Organic Material" as used on this Index is defined as any soil which has an average organic content greater than five (5.0) percent, or an individual organic content test result which exceeds seven (7.0) percent. Remove organic material as shown on this Index and the plans unless directed otherwise by the District Geotechnical Engineer. Determine the average organic content from the test results from a minimum of three randomly selected samples from each stratum. Perform tests in accordance with AASHTO T267 on the portion of a sample passing the No. 4 sieve.

7. In areas of curbed roadway, where underdrain is to be constructed beneath the proposed pavement, the grade of the underdrain filter material will not extend above the bottom of the stabilized portion of the subgrade. Gradation of the filter material must conform to Standard Specifications. The minimum grade of underdrain pipe is 0.5%.
DIVIDED FREEWAYS, ARTERIALS, MAJOR COLLECTORS HAVING FLUSH MEDIANS, ON UNDIVIDED ARTERIALS AND MAJOR COLLECTORS

INTERSTATE FACILITIES, FREEWAYS, DIVIDED ARTERIALS AND MAJOR COLLECTORS HAVING DEPRESSED MEDIANS

NOTES:
1. See Sheet 1 for the GENERAL NOTES.
2. When the typical cut details are applied to minor collectors and local facilities, the undercut may be reduced from 24" to 18".
3. Where frequency of median breaks indicates that it is impractical to leave plastic material in the median, the designer may elect to indicate total removal of this material. If during construction it becomes apparent, due to normal required construction procedures, that it is impractical to leave the plastic material in the median, total removal of this material shall be approved by the Engineer.
4. Refer to roadway cross sections to determine whether minimum or preferable removal is used.
5. Where the Preferable Removal method is shown in the plans and it is impossible to place the underdrain at the Outer Cut Limit due to conflict with storm drain trunk lines, remove to Inner Cut Limit and place underdrain at location shown for Minimum Removal. (See Special Removal Detail)
6. Cross slopes of 0.02 shown above are minimums. Follow the cross slope of the pavement to the extent possible.

CONSTRUCTION AND LOCATION OF UNDERDRAIN IN CURBED ROADWAY

(See Note 4)
### General Notes

1. The details provided in this Index apply to cases in which jack and bore or directional boring methods are not required by the Engineer.
2. Flowable fill shall not be placed directly over loose, or high plastic, or muck material (see Index 120-001) which will cause settlement due to fill weight. Where highly compressible material exists, the amount, shape and depth of flowable fill must be engineered to prevent pavement settlement.
3. These details do not apply to utility cuts longitudinal to the centerline of the roadway which may require the additional use of geotextiles, special bedding and backfill, or other special requirements.
4. Method of construction must be approved by the Engineer.
5. Some pipe may require special granular backfill up to 8" above top of pipe. Geotextiles may be required to encapsulate the special granular material.

### Flexible Pavement Cut

- **NOTES:**
  - **Pavement Removal and Replacement**
  - 1. Pavement shall be mechanically sawed.
  - 2. The replacement asphalt shall match the existing structural and friction courses for type and thickness in accordance with current FDOT asphalt mix specifications.
  - 3. The new base materials shall be either of the same type and composition as the materials removed or of equal or greater structural adequacy.

- **Backfill Option**
  - **1. Compacted and Stabilized Fill**
    - A. Place backfill material in accordance with Specifications 125.
    - B. In Stage #1, construct compacted fill beneath the haunches of the pipe, using mechanical tamps suitable for this purpose. This compaction applies to the material placed beneath the haunches of the pipe and above any bedding.
    - C. In Stage #2, construct compacted fill along the sides of the pipe and up to the bottom of the base, with the upper 12" receiving Type B Stabilization. In lieu of Type B Stabilization, the Contractor may construct using Optional Base Group 3.
  - **2. Flowable Fill**
    - A. If compaction cannot be achieved through normal mechanical methods then flowable fill may be used.
    - B. Flowable fill is to be placed in accordance with Section 121 of the Specifications, as approved by the Engineer.
    - C. Do not allow the utility being installed to float. If a method is provided to prevent flotation from occurring, Stages #1 and #2 can be combined, if approved by the Engineer.
    - D. In Stage #1, place flowable fill midway up on both sides of the utility. Allow to harden before placing Stage #2.
    - E. In Stage #2, place flowable fill to the bottom of the existing base course.

### Rigid Pavement Cut

- **NOTES:**
  - **Pavement Removal and Replacement**
  - 1. High early strength cement concrete (3000 psi) meeting the requirements of Standard Specification 346 shall be used for rigid pavement replacement.
  - 2. Pavement shall be mechanically sawed and restored to conform with existing pavement joints within 12 hours.

- **Backfill Option**
  - **1. Granular Backfill**
    - A. Any edgedrain system that is removed shall be replaced with the same type materials. Any edgedrain system that is damaged shall be repaired with methods approved by the Engineer.
    - B. Fill material shall be placed in accordance with the Standard Specifications. Fill material shall be special select soil in accordance with Index 350-001.
  - **2. Flowable Fill**
    - A. If mechanical compaction cannot be achieved through normal mechanical methods then flowable fill may be used.
    - B. Flowable fill is to be placed in accordance with Section 121 of the Specifications, as approved by the Engineer.
    - C. Do not allow the utility being installed to float. If a method is provided to prevent flotation from occurring, Stages #1 and #2 can be combined, if approved by the Engineer.
    - D. In Stage #1, place flowable fill midway up on both sides of the utility. Allow to harden before placing Stage #2.
    - E. In Stage #2, place flowable fill to the bottom of the stone layer.

- **NOTES:**
  - **UTILITY ADJUSTMENTS THRU EXISTING PAVEMENT**
  - **INDEX**
  - **SHEET**
  - **TRENCH CUTS AND RESTORATIONS ACROSS ROADWAYS**
NOTES

1. Cut-Lines must be straight and cleanly sawed.
2. See Sheet 1 for replacement pavement.
3. Adjust manholes prior to placing friction course when pavement resurfacing is occurring in the area adjacent to the manhole.
4. Align longituindal Cut-Lines with pavement joint or center of traffic lane to avoid wheel path.
5. For rigid pavement, align Transverse Cut-Lines with nearest existing joint.
Threaded or Socket Type Cap. Stamp or label with Installation Date, Location and Identification Number. (when Socket Type Cap is used drill 3/8" diameter holes and secure with wire. Threaded Type Caps to be hand tightened.)

2½" Steel or PVC Schedule 40 Pipe (Casing). Casing to be installed in 5' sections, as required. Threaded or Socket Type Fittings (PVC Socket Type shown) PVC casing sections not permitted below steel sections.

Coupling (As Required)
Cement when Socket Type Coupling used

Iron Coupling (As Required)

1" Iron Pipe (Marker)
lower pipe section to be 4'-6" in length. Added pipe sections to be 5'-0" in length.

Threaded or Socket Type Cap. Stamp or label with Installation Date, Location and Identification Number. (when Socket Type Cap is used drill 3/8" diameter holes and secure with wire. Threaded Type Caps to be hand tightened.)

1/2" Dia. x 1½" Hex Head Bolt, Nut & Washer, Deform thread or use Jam Nut

1/2" Dia. Bolt, Nut & Washer (Bolt thread end up)
MEDIAN STABILIZING DETAILS

NOTES:
1. When the median has curb or curb and gutter, stabilize 4" back of curb.
2. When the median has shoulder with no curb or curb and gutter, stabilize to normal shoulder width.
3. See the details above for stabilizing requirements at crossroads.
4. Stabilize entire area under all paved traffic islands.
5. Stabilize full width under all traffic separators.
6. Provide select soil where shown above and as defined on Index 120-001. For minor collectors and local facilities, the depth of select material thickness may be reduced from 24" to 18".
7. Limits of Stabilization for Intermediate U-Turn Crossovers and, unless otherwise specified in the Plans, at paved and unpaved private roads and unpaved public roads.