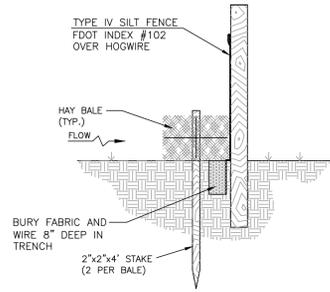


NOTES:

THE TREE PROTECTION BARRICADE IS TO PREVENT DISTURBANCE OF THE CRITICAL PROTECTION ZONE (CPZ). THE CPZ IS THAT AREA SURROUNDING A TREE WITH A CIRCLE DESCRIBED BY A RADIUS OF ONE FOOT FOR EACH INCH OF THE TREE'S DIAMETER AT BREAST HEIGHT. ANY ACTIVITY THAT ENCROACHES WITHIN THE CPZ OF ANY TREE WILL REQUIRE DEBITS OR AN ARBORICULTURAL MITIGATION PLAN.

THE AREA WITHIN BARRICADE IS NOT TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT.

1 TREE PROTECTION BARRICADE
7 NTS

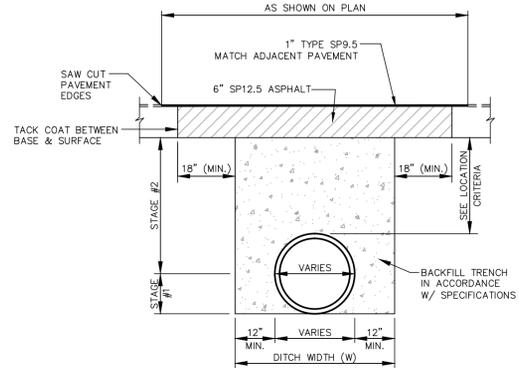


MAINTENANCE NOTES:

- SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEED.
- NO TRENCHING SHALL OCCUR WITHIN THE CRITICAL PROTECTION ZONE OF ANY PROTECTED OR DESIRABLE TREE.

2 STAKED TYPE IV SILT FENCE WITH HAY BALES
7 NTS

- SHEET FLOW APPLICATION: SILT FENCE
- GENERAL NOTES:
- THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36 INCHES. HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.
 - THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED AS DESCRIBED IN ITEM NO. 8 BELOW.
 - POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 12 INCHES. WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET.
 - A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER. TRENCHING SHALL NOT BE ALLOWED WITHIN THE CPZ OF TREES TO REMAIN.
 - WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH LONG. THE WIRES, OR HOG RINGS, THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
 - THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
 - WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF ITEM NO. 6 APPLYING.
 - WHEN ATTACHING TWO SILT FENCES TOGETHER, PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE. ROTATE BOTH POSTS AT LEAST 180 DEGREES ON A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FILTER FABRIC. DRIVE BOTH POSTS INTO THE GROUND AND BURY THE FLAP.
 - THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
 - WHEN USED TO CONTROL SEDIMENTS FROM A STEEP SLOPE, SILT FENCES SHOULD BE PLACED AWAY FROM THE TOE OF THE SLOPE FOR INCREASED HOLDING CAPACITY.
 - SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.



DENSITY PROCEDURES:

THE BACKFILL FOR THE FIRST AND SECOND STAGES SHALL BE PLACED IN 6" LAYERS (COMPACTED THICKNESS) AND SHALL BE COMPACTED TO 100% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.

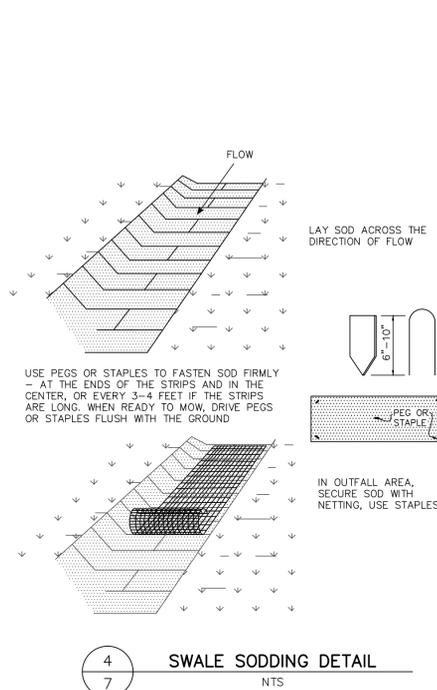
STAGE #1

THE CONTRACTOR SHALL PROVIDE ADEQUATE 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 REQUIRED.

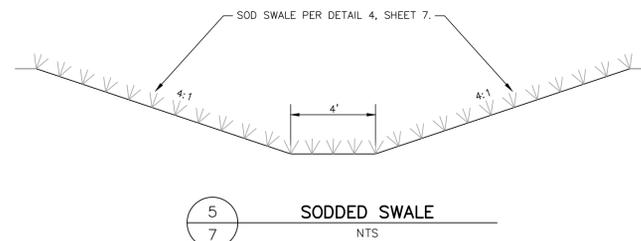
STAGE #2

THE CONTRACTOR SHALL OBTAIN A WELL-COMPACTED BED AND FILL ALONG THE SIDES OF THE PIPE AND TO A POINT INDICATING THE TOP OF SUB-GRADE MATERIAL.

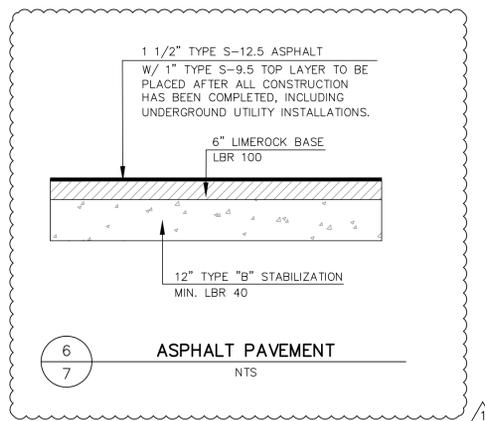
3 PAVEMENT REPLACEMENT FOR PIPE INSTALLATION & PIPE REMOVAL
7 NTS



4 SWALE SODDING DETAIL
7 NTS



5 SODDED SWALE
7 NTS



6 ASPHALT PAVEMENT
7 NTS

ARBORICULTURAL MITIGATION PLAN:

- SITE MONITORING**
- All tree protection procedures and activities shall be monitored and approved throughout the construction period by a Certified Arborist.
- SOIL TESTING**
- The Critical Protection Zone (CPZ) of the designated trees shall be soil tested for existing nutrient content to determine the necessity of fertilizer application and recommended percentages and rates. The soil samples shall be taken within the CPZ; multiple samples shall be taken if locations of obvious change in soil texture and color exist within the CPZ. Samples shall be submitted to IFAS Extension Soil Testing Laboratory or approved soil testing service for analysis and recommendations.
- Percolation tests shall be performed within the CPZ of each designated tree (or as deemed necessary by the Arborist) to determine the necessity of soil aeration. Multiple samples shall be taken if locations of obvious change in soil texture and color exist within the CPZ.
- The Certified Arborist shall be responsible for all soil testing. Submittals of samples shall be made to the Owner's Agent and the Landscape Architect for review.
- WATERING**
- All protected trees shall be watered as necessary to deliver a minimum rate equivalent to 1" of rainfall per week. Application rate shall be dependent upon soil type and weather conditions. A tensiometer shall be required for verification of application rates. Care shall be taken to prevent water from soaking the base of trees and root collars. Irrigation shall commence as far in advance as possible to development activity and shall continue through the completion of the project. All watering shall be under the direction and supervision of the Certified Arborist.
- ROOT PRUNING**
- Root pruning shall occur prior to site grading, earthwork, excavation or any other activity which may damage the roots of a tree proposed for mitigation in all areas of demolition or new construction requiring removal of existing roots: i.e. excavation, construction of footings, retaining walls, curbs paving and base. Roots shall be cut with a mechanical trenching device to a minimum depth of 18" followed immediately by a clean-cut hand pruning of all roots of greater than 3/4" diameter. Root pruning shall occur in advance of site clearing or excavation or construction. All exposed pruned or cut roots shall be covered immediately with topsoil, mulch or other organic medium. When it is not possible to back fill within an hour (in sun) or two hours (in shade) the exposed roots shall be covered with burlap and the burlap kept moist until back filling occurs.
- PRUNING**
- Pruning shall be performed by a Certified Arborist in accordance with the ANSI A300 standards as directed on site by the Landscape Architect or determined by the Certified Arborist. Pruning and crown thinning shall be done to all dead and diseased limbs that harbor decay and all heavy concentrations of moss and vines shall be removed that compete with crown foliage. All branch removal for the clearance or raising of larger limbs for traffic or structures shall be done by the Certified Arborist. All limbs larger than 6" diameter that are proposed to be cut shall first be approved by the Certified Arborist and work performed by the Certified Arborist.
- Removal of competing understory trees, shrubs and vines shall be done by the Certified Arborist. Any propagules of exotic invasive plants shall be removed from the site and destroyed in a manner that prevents the spread of invasive infestation.
- SOIL AERATION**
- Soil aeration shall be performed by the Certified Arborist upon his recommendation based on results of percolation tests within the CPZ. If required, use a 1 1/2 - 1 3/4" diameter soil auger to drill holes to a depth of 12" every 24" apart, starting three feet from the trunk collar outward to five feet past the drip line of the tree. The entire area within the CPZ of the tree should be aerated.
- MULCHING**
- Mulching shall be used throughout the project within the CPZ of the protected trees to the greatest extent possible. A 2-3" layer of mulch, preferably wood chips, shall be placed over the entire CPZ of the protected tree. Where heavy construction traffic will be located within a portion of the CPZ, a layer of 4-6" of wood chips, covered with 3/4" plywood placed over the mulch shall be placed down to lessen soil compaction and damage to the tree roots.
- FERTILIZING**
- Fertilizing and pH adjustment should be in response to the soil test. Fertilize with a complete fertilizer, containing at least 5% nitrogen in organic form, including minor elements. Apply in the spring at a rate recommended by soil testing service. Fertilizer proposed for soil injection and/or liquid fertilization should be in a ratio of elements as determined by soil tests and the Certified Arborist as well as application method. Water soil immediately after initial application of fertilizer at a rate equivalent to 1" of rainfall.

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2639 N. Monroe St. Building C - Tallahassee, Florida 32303 - 850.575.1800
FBPR Certificate of Authorization No. 24

CLIENT



PROJECT

DEER LANE ROAD
DRAINAGE IMPROVEMENTS

TASK

CONSTRUCTION
DETAILS

ORIGINAL	OCTOBER 2013	6
REVISIONS:		7
1	2/12/14 ADDED ASPH. PAVMT DET	8
2		9
3		10
4		11
5		12



JOB NO. 100026698
DRAWN WD / MR
DESIGNED CH / WKJ
CHECKED _____
QC _____
SHEET 7