ORIGINATION FORM

Proposed Revisions to a Standard Plans Index

(Please provide all information — Incomplete forms will be returned)

Contact Information:

Date: April 19, 2022

Originator: Tim Holley

Phone: (850) 414-4117

Email: tim.holley@dot.state.fl.us

Standard Plans:

Index Number: 524-001

Sheet Number (s): All

Index Title: Ditch Pavement and Sodding

Summary of the changes:

Redeveloped and Reorganized Index, moved Specification language to Specifications.

Sheet 1: Ditch Sections and Paved End Treatment. Notes Updated. General Note 2 and 8 moved to Specifications, Note 5 moved to Sheet 3

.

Sheet 2: Ditch Pavement Junction details and Table 1.

Sheet 3: Alternate Ditch Paving, Matting for Ditch, Weep Hole Arrangement, and Filter Fabric Placement at Concrete Structure.

Commentary / Background:

Redeveloped and reorganized the Index for clarity and to reduce clutter.
Moving joint language to Specifications should help clarify construction of joints for slope pavement and ditch pavement.

Other Affected Offices / Documents: **(Provide name of person contacted)**

Yes	No	
☐	☑	Other Standard Plans –
☐	☑	FDOT Design Manual –
☐	☑	Basis of Estimates Manual –
☑	☐	Standard Specifications – Daniel Strickland
☐	☑	Approved Product List –
☐	☑	Construction –
☐	☑	Maintenance –

Origination Package Includes: (Submit package to Rick Jenkins)

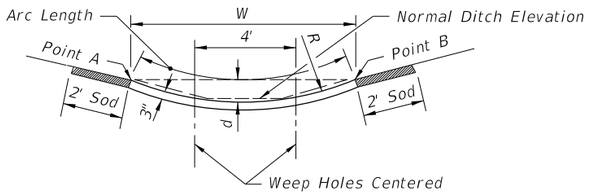
Yes	N/A	
☑	☐	Redline Mark-ups
☐	☐	Revised or Proposed Standard Plan Instruction (SPI)
☐	☐	Other Support Documents

Implementation:

- ☐ Design Bulletin (Interim)
- ☐ DCE Memo
- ☐ Program Mgmt. Bulletin
- ☑ FY-Standard Plans (Next Release)

Contact the Roadway Design Office for assistance in completing this form

Email to: Rick Jenkins rick.jenkins@dot.state.fl.us and Darren Martin darren.martin@dot.state.fl.us

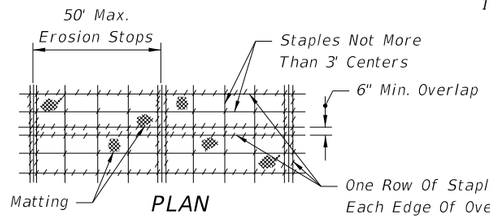


TO REPLACE:	W	d	R	Rows Of Weep Holes	Arc Length
6' Median Swale	6'	0.24'	19'	0	6.0'
1:6 Front Slopes; 1:4 Back Slope					
5' Ditch Bottom Width	10'	0.67'	19'	2	10.1'
4' Ditch Bottom Width	9'	0.54'	19'	2	9.1'
1:4 Front Slopes & Back Slope					
5' Ditch Bottom Width	9'	0.74'	14'	2	9.2'
4' Ditch Bottom Width	8'	0.58'	14'	1 (in center)	8.1'

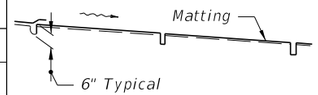
For use only where side slopes are 1:4 or flatter. Point "A" and "B" are to be the same elevation and should be used to locate the paved section.

ALTERNATE DITCH PAVEMENT

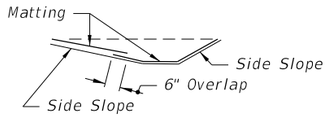
SHEET 3



PLAN

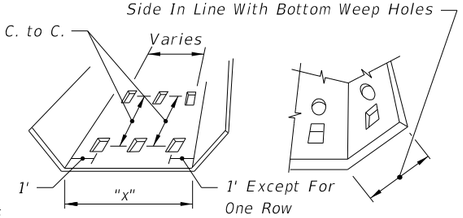


LONGITUDINAL SECTION



SECTION

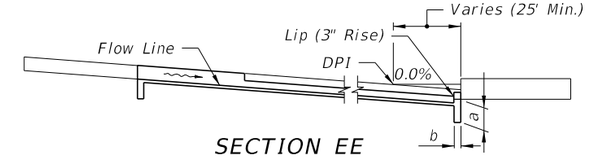
MATTING FOR DITCH



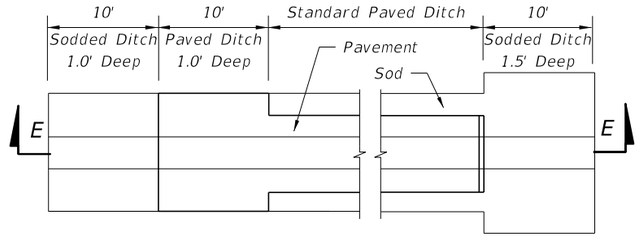
When "x"= 1' To 4' Const. 1 Row (Centered)
"x"= 5' To 7' Const. 2 Rows
"x"= 8' To 12' Const. 3 Rows
"x"= 13' To 17' Const. 4 Rows
"x"= 18' To 22' Const. 5 Rows

Note: *All weep holes to be 3"x4" rectangle or 4" or 5" dia. circle hole. ½ cu. ft. (12" x 12" x 6") of No. 6 aggregate to be placed under each hole. 1 sq. ft. of galv. wire mesh (¼" openings) shall be placed between the aggregate and the ditch pavement. Cost of holes, aggregate and wire mesh to be included in the cost of ditch pavement.*

WEEP HOLE ARRANGEMENT



SECTION EE



PLAN

PAVED DITCH END TREATMENT

GENERAL NOTES

Notes Updated

1. *Type of ditch pavement shall be as shown on plans.*
2. *In concrete ditch pavement, contraction joints are to be spaced at 25' maximum intervals, or as directed by the Engineer. Contraction joints may be either formed (construction joint) or tooled. No open joints will be permitted in concrete ditch pavement.*

   Expansion joints with ½" preformed joint filler shall be constructed at all inlets, endwalls, and at intervals of not more than 200'.

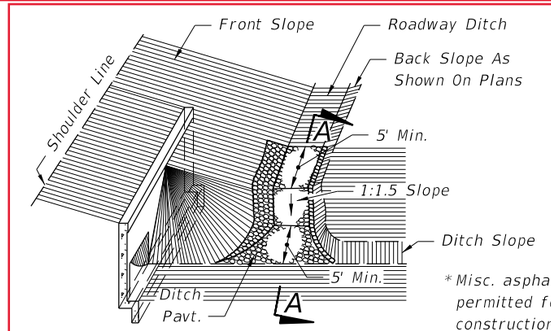
   Specification
3. *Lip at end of ditch pavement shall normally be located downstream of DPI or on flatter grades where there is a decrease in ditch velocity.*
4. *Toewalls are to be used with all ditch paving. A toewall is not required adjacent to drainage structures.*
5. *When directed by the Engineer, weep hole spacing may be reduced to 5' minimum.*

   Moved to Sheet 3
6. *For junction of R/W ditch spillway and lateral ditch, sides of paving to be 1' high minimum.*
7. *Filter fabric is required under all ditch pavement, except for miscellaneous asphalt, regardless of the pavement thickness. Place the filter fabric directly beneath the pavement for the entire length and width of the pavement. See Specification 985 for fabric requirements and application.*
8. *When weep holes with aggregate are used, place filter fabric below the aggregate to form a mat continuous with the pavement filter fabric or underlapping the pavement filter fabric, if present.*

   Specification
9. *Ditch pavement requiring reinforcement shall be detailed in the plans.*
10. *Cost of plastic filter fabric to be included in the contract unit price for ditch pavement.*
11. *Sodding to be paid for under contract unit price for Performance Turf, SY*

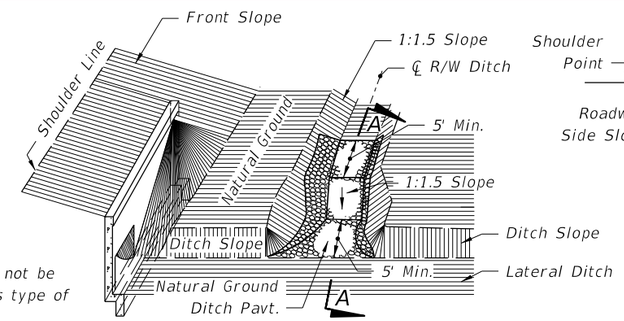
    Covered in Specification

Renumbered Sheets



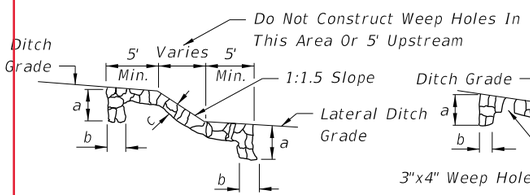
*Misc. asphalt will not be permitted for this type of construction.

JUNCTION OF ROADWAY DITCH* AND LATERAL DITCH

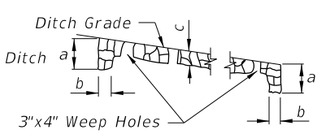


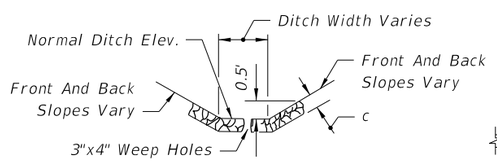
JUNCTION OF R/W DITCH* AND LATERAL DITCH

SHEET 2



SECTION AA



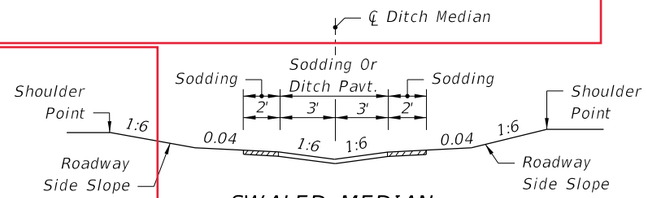


TYPICAL SECTION

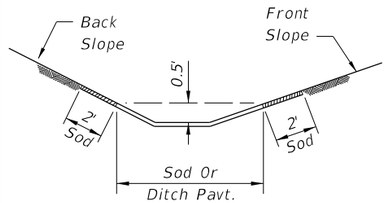
PROFILE OF DITCH PAVEMENT AT LOCATIONS OTHER THAN JUNCTION WITH LATERAL DITCH

TABLE 1: DITCH PAVEMENT

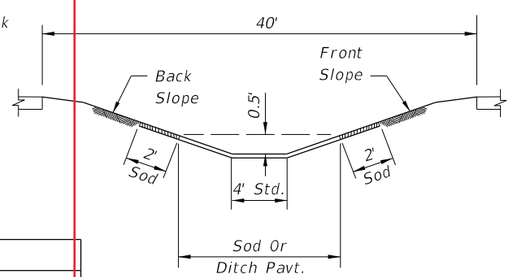
Pavement Type	Dimensions a	b	c	Payment Unit	Basis Of Estimate	Filter Fabric Type	Velocity Range	References & Remarks
Concrete	24"	6"	Varies	SY	SY	D-4	Low-High	Specification 524
Miscellaneous Asphalt	24"	12"	4"	TN	0.2 TN/SY	None	Low-Moderate	Specification 339
Riprap (Sand-Cement)	24"	12"	4"	CY	0.11 CY/SY	D-4	Low-Moderate	Specification 530, Grouting of joints required
Riprap (Ditch Lining)				TN	TN	D-2	Moderate-High	Specification 530



SWALED MEDIAN (No Weep Holes)



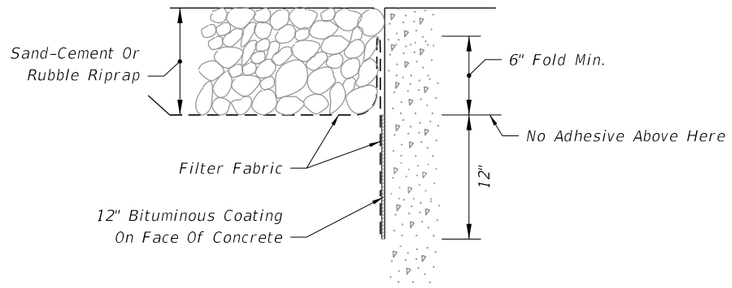
ROADWAY SIDE DITCH



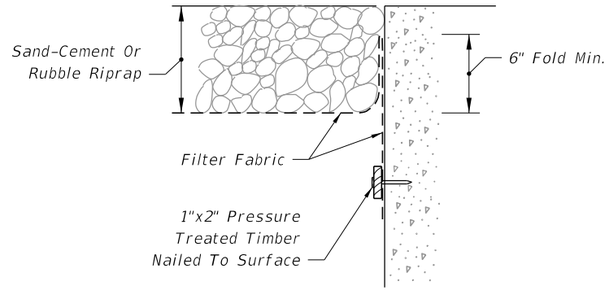
40' MEDIAN

SHEET 1 REORGANIZED

Moved to Sheet 3



BONDED OPTION



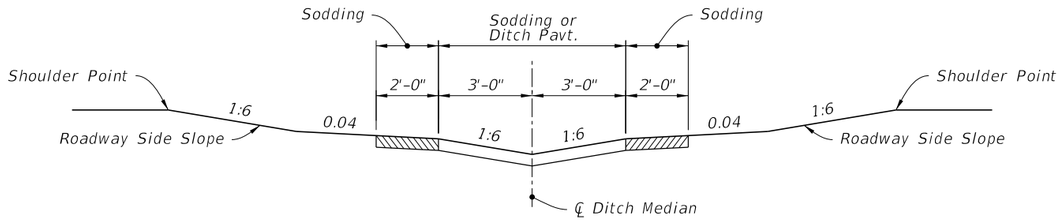
NAILED OPTION

Note: Either option may be used unless otherwise called for in the plans.

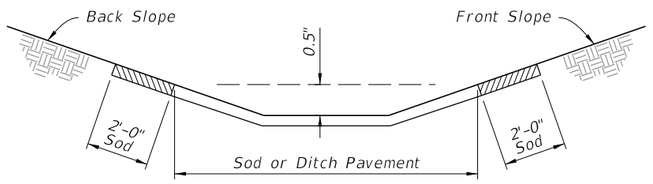
FILTER FABRIC PLACEMENT AT CONCRETE STRUCTURE

9/22/2021 8:52:28 AM

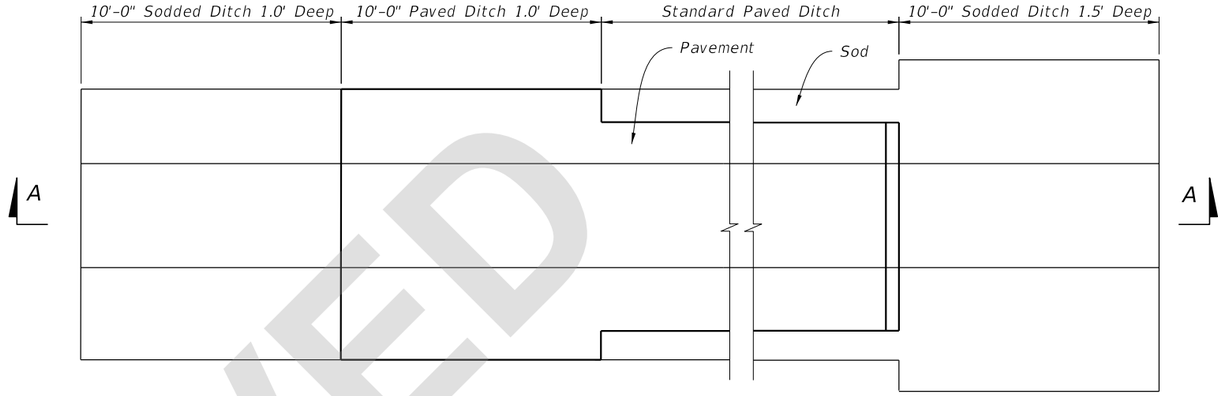
LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2022-23 STANDARD PLANS	DITCH PAVEMENT AND SODDING	INDEX	SHEET
~~11/01/19~~		11/01/22			Renumbered Sheets	524-001	~~2~~ 2 of 2



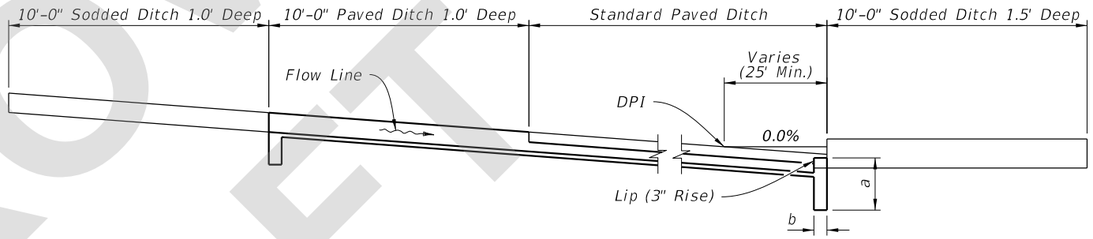
SWALED MEDIAN
(No Weep Holes)



ROADWAY SIDE DITCH

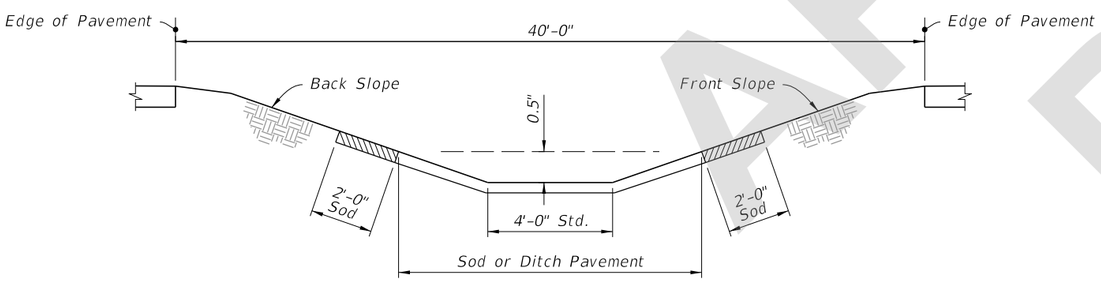


PLAN



SECTION A-A

PAVED DITCH END TREATMENT



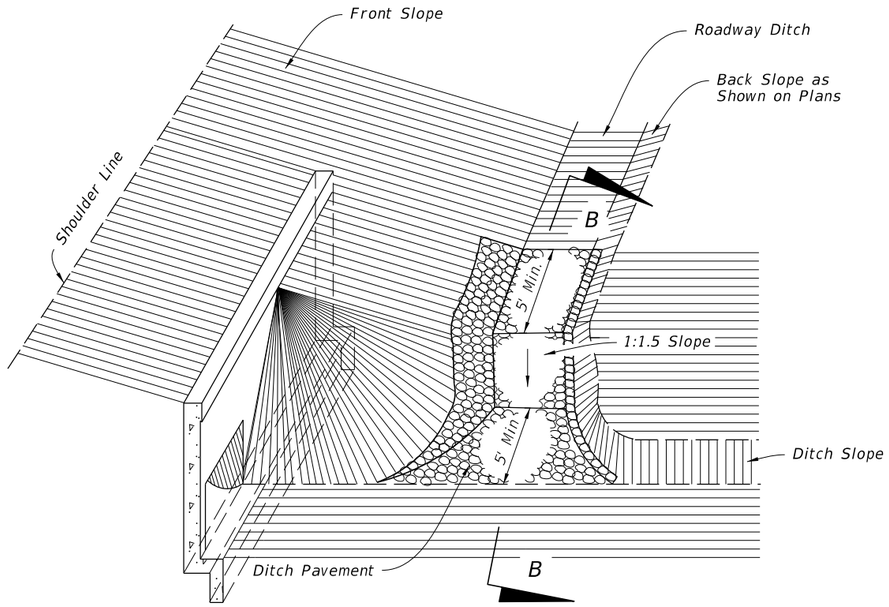
40' MEDIAN

GENERAL NOTES:

1. Install type of ditch pavement shown on Plans.
2. Construct lip at the end of ditch pavement downstream of DPI or on flatter grades where there is a decrease in ditch velocity.
3. Use toewalls with all ditch paving, except adjacent to drainage structures.
4. Construct sides of paving with 1' minimum height for junction of R/W ditch spillway and lateral ditch.
5. Install filter fabric under all ditch pavement except for miscellaneous asphalt.
6. Install ditch pavement requiring reinforcement as detailed in Plans.

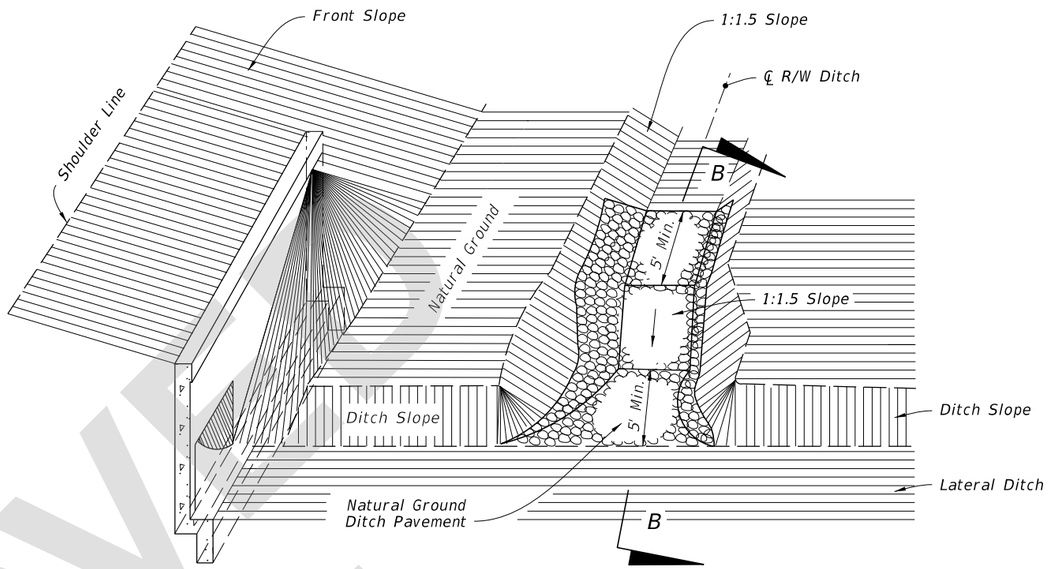
7/26/2022 8:53:58 AM

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2023-24 STANDARD PLANS	DITCH PAVEMENT AND SODDING	INDEX	SHEET
11/01/22					524-001	1 of 3



NOTE:
Miscellaneous asphalt will not be permitted for this type of construction.

JUNCTION OF ROADWAY DITCH AND LATERAL DITCH



NOTE:
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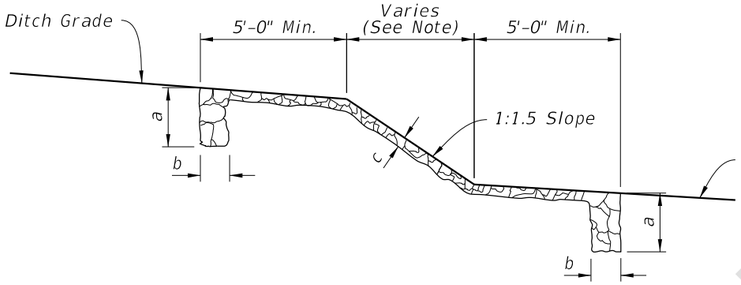
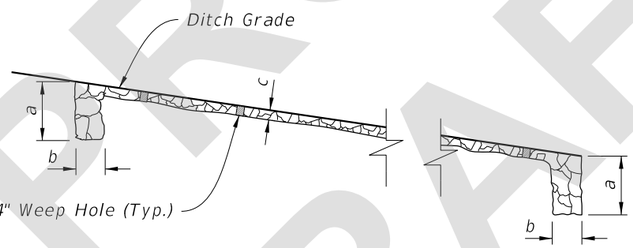
JUNCTION OF R/W DITCH AND LATERAL DITCH

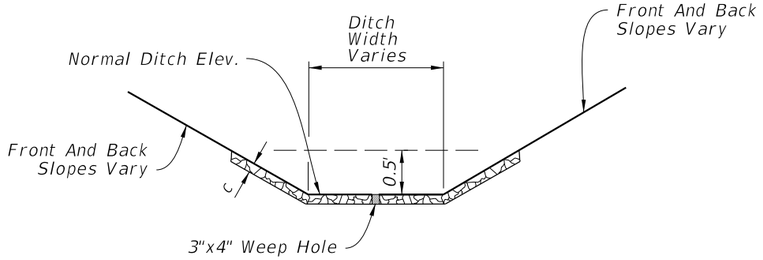


NOTE:
Do not construct weep holes in this area or 5' upstream

SECTION B-B
(As Shown)



SECTION B-B
(Locations Other Than Junction with Lateral Ditch)



TYPICAL SECTION

TABLE 1: DITCH PAVEMENT

Pavement Type	Dimensions			Filter Fabric Type	References & Remarks
	a	b	c		
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Riprap (Ditch Lining)	--	--	--	D-2	Specification 530

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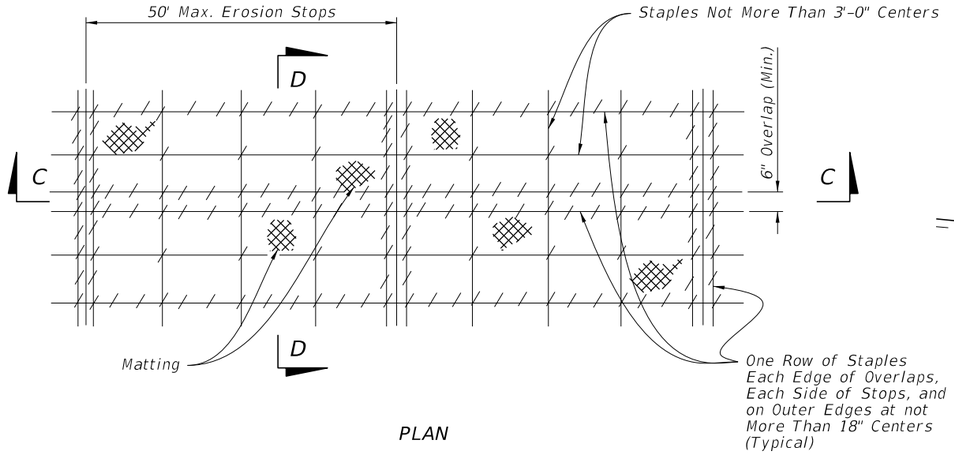
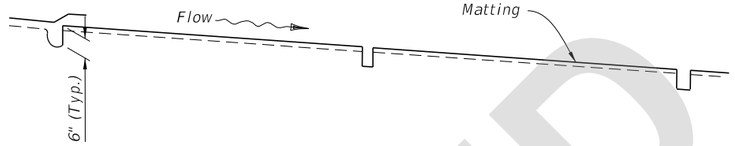
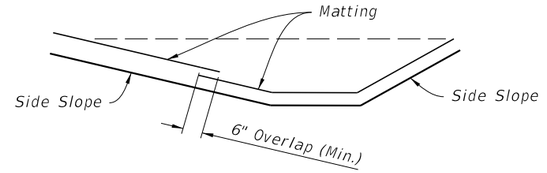


PLAN



SECTION C-C



SECTION D-D

MATTING FOR DITCH

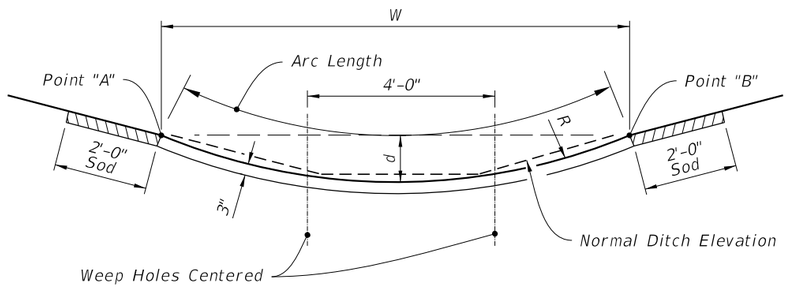


TABLE 2: ALTERNATE DITCH PAVEMENT					
TO REPLACE:	W	d	R	Rows Of Weep Holes	Arc Length
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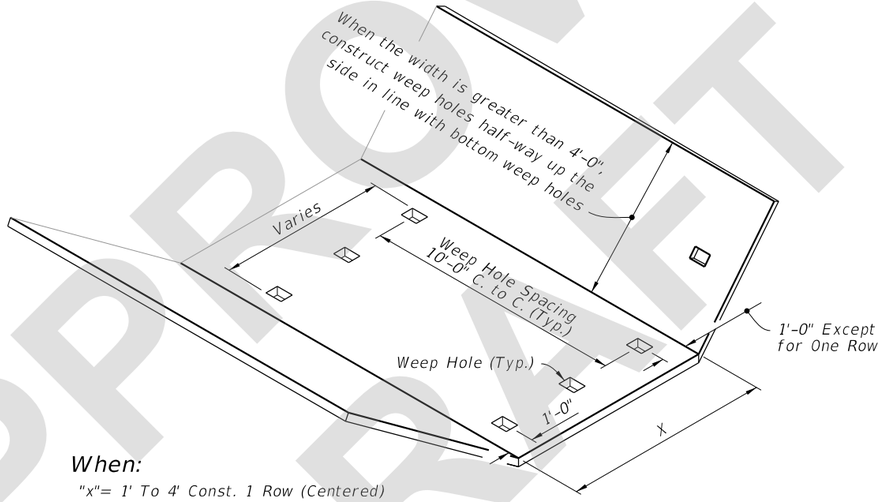
NOTE:

For use only where side slopes are 1:4 or flatter. Point "A" and "B" are at the same elevation and should be used to locate the paved section.

ALTERNATE DITCH PAVEMENT



When:

"x"= 1' To 4' Const. 1 Row (Centered)
"x"= 5' To 7' Const. 2 Rows
"x"= 8' To 12' Const. 3 Rows
"x"= 13' To 17' Const. 4 Rows
"x"= 18' To 22' Const. 5 Rows

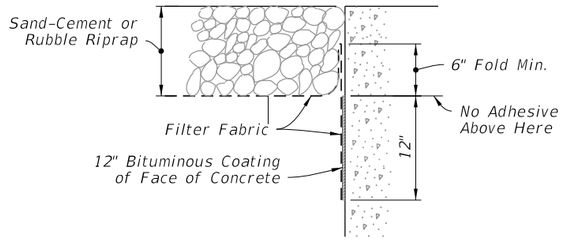
NOTES:

1. Construct all weep holes 3"x4" rectangle or 4" or 5" diameter circle hole. Place ½ cu. ft. (12" x 12" x 6") of No. 57 aggregate under each hole with 1 sq. ft. of galvanized wire mesh (¼" openings) placed between the aggregate and the ditch pavement.

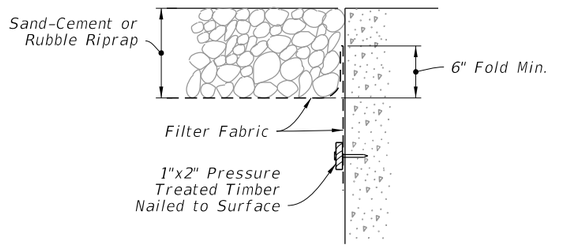
2. Rectangle weep holes shown, round weep holes similar.

3. Weep hole spacing may be reduced to 5' minimum when directed by the Engineer.

WEEP HOLE ARRANGEMENT



BONDED OPTION



NAILED OPTION

NOTE:

Either option may be used, unless called for in the plans.

FILTER FABRIC PLACEMENT AT CONCRETE STRUCTURE

7/26/2022 8:54:01 AM

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2023-24 STANDARD PLANS	DITCH PAVEMENT AND SODDING	INDEX	SHEET
11/01/22						524-001	3 of 3