
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

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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 | |
|-------------------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Other Standard Plans – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | FDOT Design Manual – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Basis of Estimates Manual – |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Standard Specifications – Daniel Strickland |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Approved Product List – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Construction – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Maintenance – |

Origination Package Includes: (Submit package to Rick Jenkins)

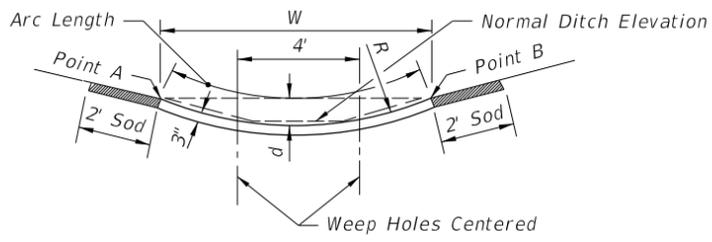
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|-------------------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Redline Mark-ups |
| <input type="checkbox"/> | <input type="checkbox"/> | Revised or Proposed Standard Plan Instruction (SPI) |
| <input type="checkbox"/> | <input type="checkbox"/> | Other Support Documents |

Implementation:

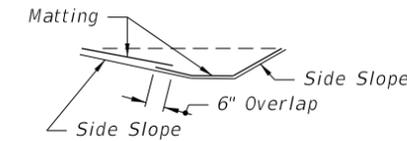
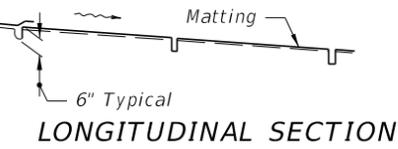
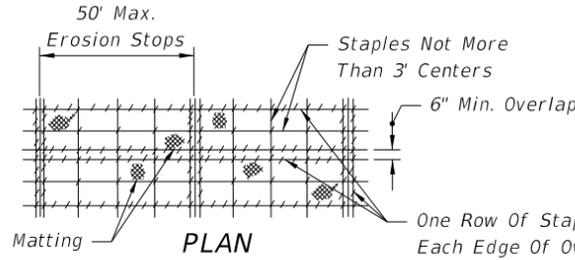
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| <input type="checkbox"/> | DCE Memo |
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| <input checked="" type="checkbox"/> | FY-Standard Plans (Next Release) |

Contact the Roadway Design Office for assistance in completing this form

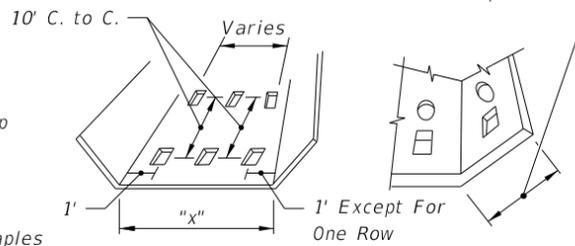
Email to: Rick Jenkins rick.jenkins@dot.state.fl.us and Darren Martin darren.martin@dot.state.fl.us



SHEET 3



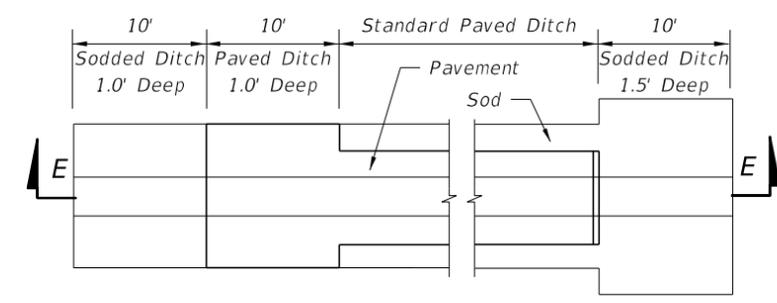
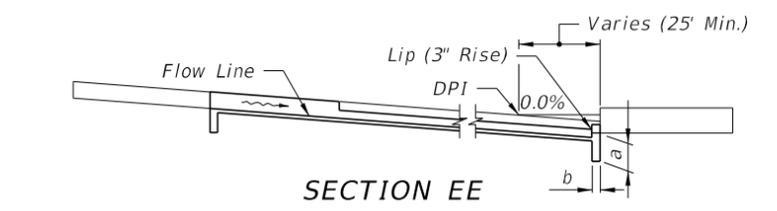
SECTION MATTING FOR DITCH



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. 1/2 cu. ft. (12" x 12" x 6") of No. 6 aggregate to be placed under each hole. 1 sq. ft. of galv. wire mesh (1/4" 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



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.

Specification

Expansion joints with 1/2" preformed joint filler shall be constructed at all inlets, endwalls, and at intervals of not more than 200'.

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

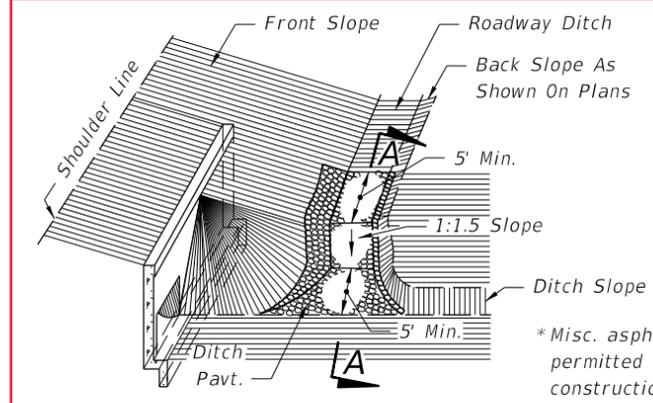
Covered in Specification

Renumbered Sheets

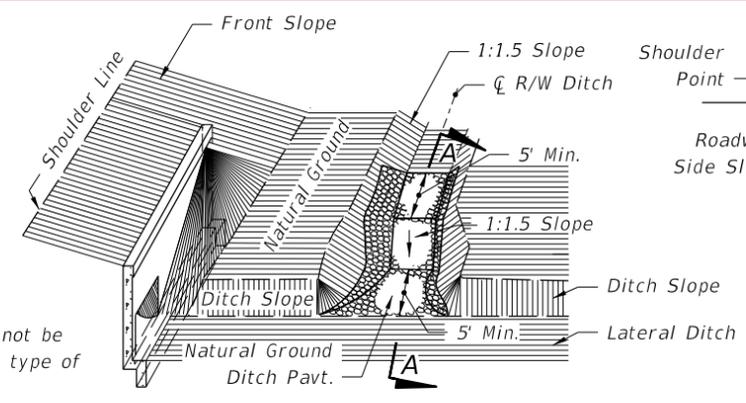
TO REPLACE:	W	d	R	Rows Of Weep Holes	Arc Length
6' Median Swale	6'	0.24'	19'	0	6.0'
1:6 Front Slopes; 1:4 Back Slope					
5' Ditch Bottom Width	10'	0.67'	19'	2	10.1'
4' Ditch Bottom Width	9'	0.54'	19'	2	9.1'
1:4 Front Slopes & Back Slope					
5' Ditch Bottom Width	9'	0.74'	14'	2	9.2'
4' Ditch Bottom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

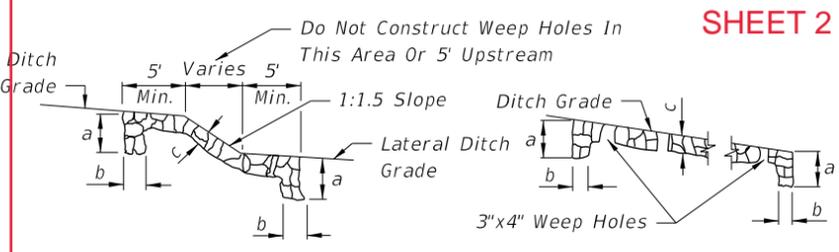
ALTERNATE DITCH PAVEMENT



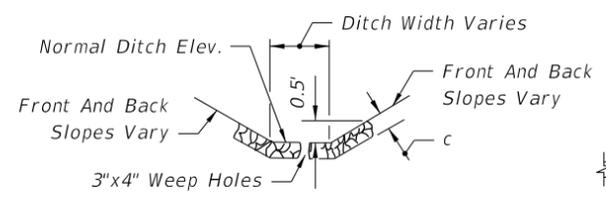
JUNCTION OF ROADWAY DITCH* AND LATERAL DITCH



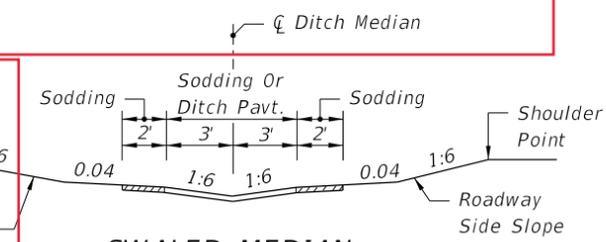
JUNCTION OF R/W DITCH* AND LATERAL DITCH



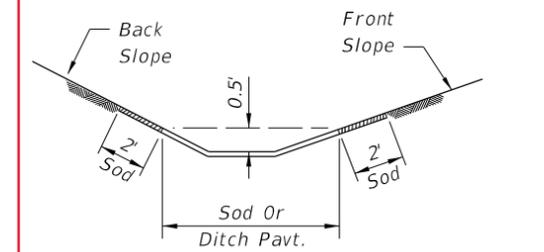
SECTION AA PROFILE OF DITCH PAVEMENT AT LOCATIONS OTHER THAN JUNCTION WITH LATERAL DITCH



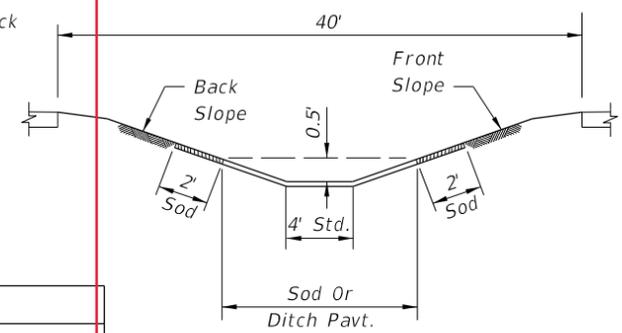
TYPICAL SECTION



SWALED MEDIAN (No Weep Holes)



ROADWAY SIDE DITCH



40' MEDIAN

SHEET 1 REORGANIZED

SHEET 2

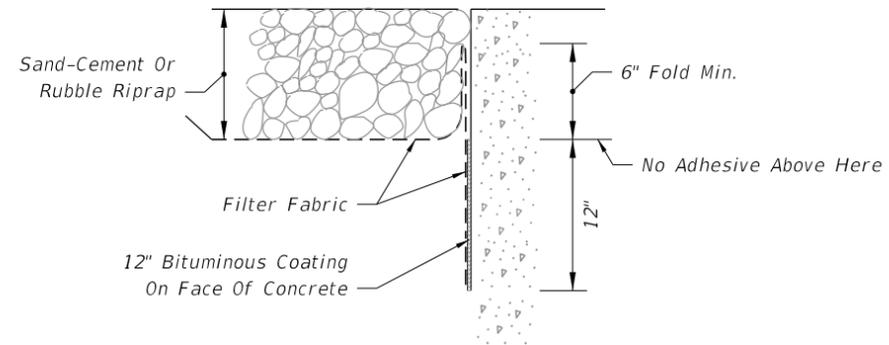
TABLE 1: DITCH PAVEMENT

Pavement Type	Dimensions			Payment Unit	Basis Of Estimate	Filter Fabric Type	Velocity Range	References & Remarks
	a	b	c					
Concrete	24"	6"	Varies	SY	SY	D-4	Low-High	Specification 524
Miscellaneous Asphalt	24"	12"	4"	TN	6.2 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

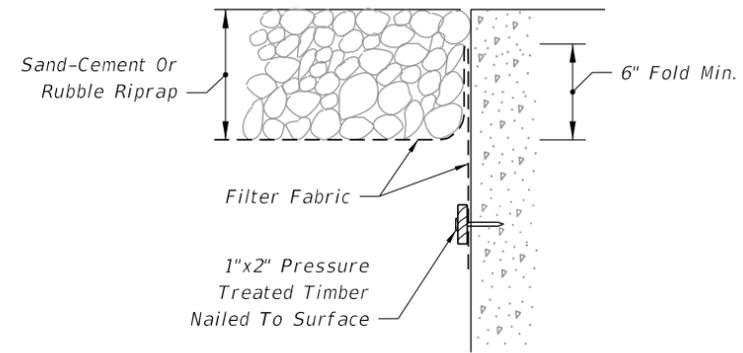
9/22/2021 8:52:25 AM

LAST REVISION	DESCRIPTION:
11/01/19	11/01/22
	Covered in Specifications or SPI

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

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LAST REVISION	DESCRIPTION:
11/01/19	11/01/19
11/01/22	



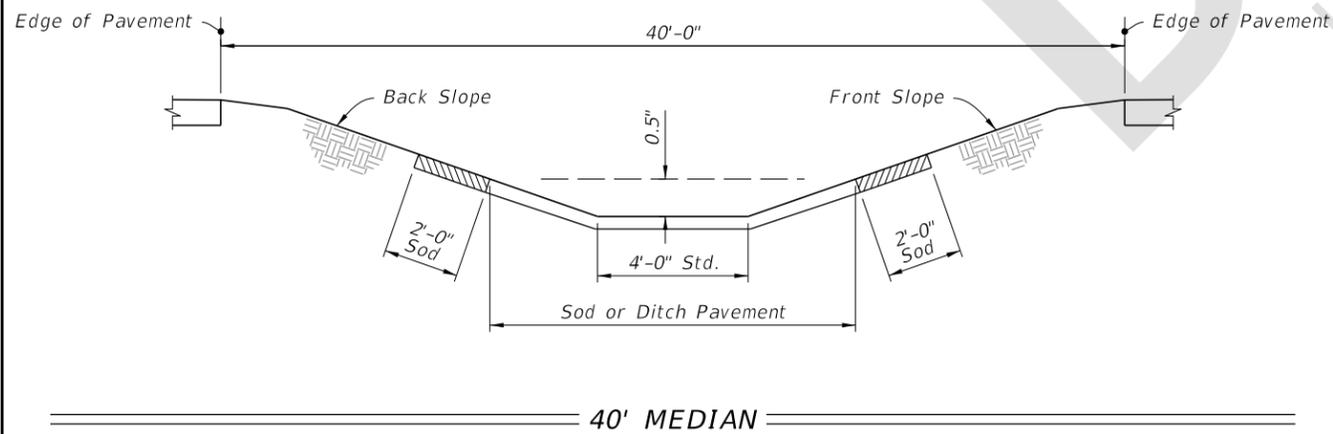
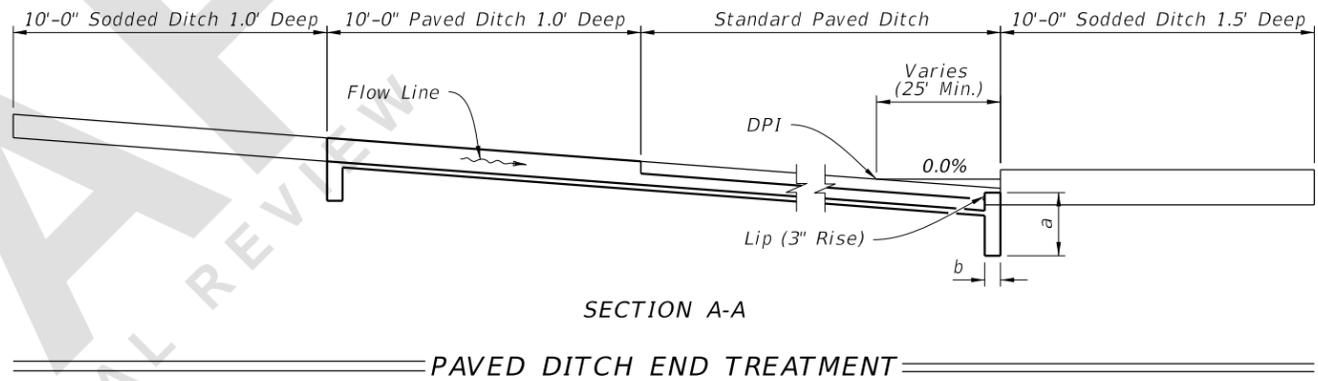
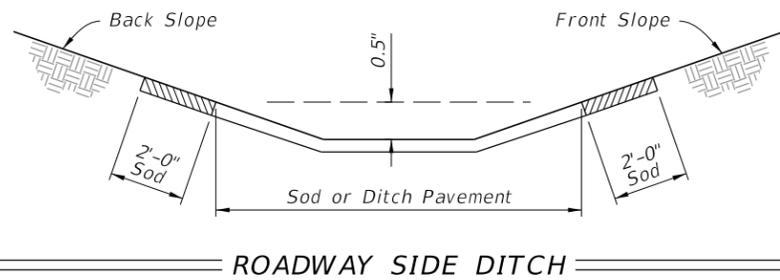
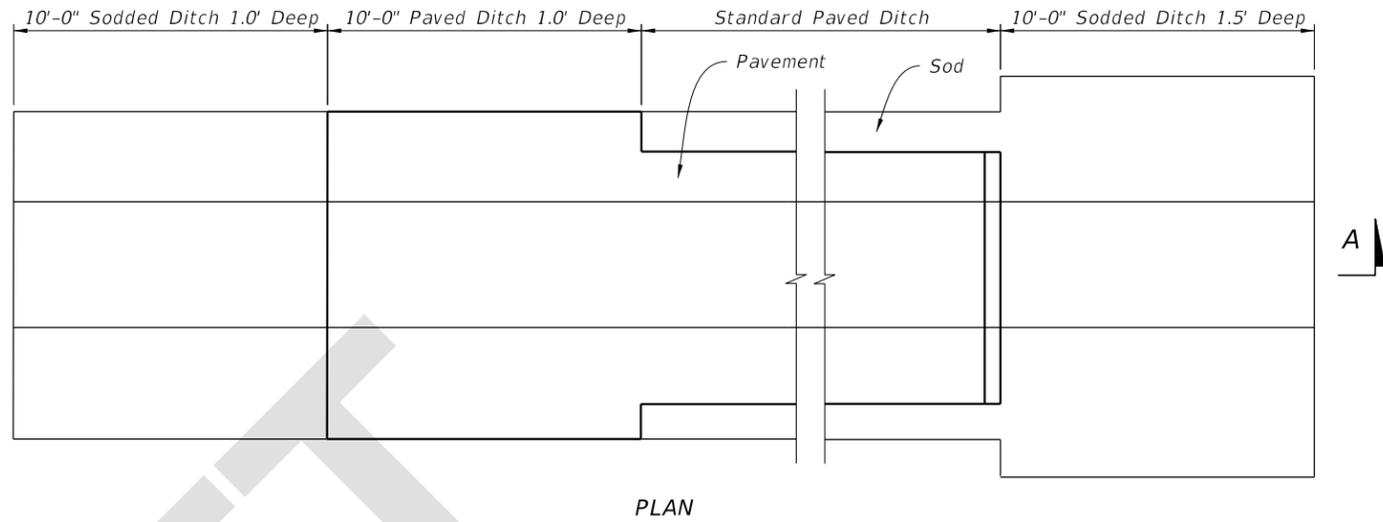
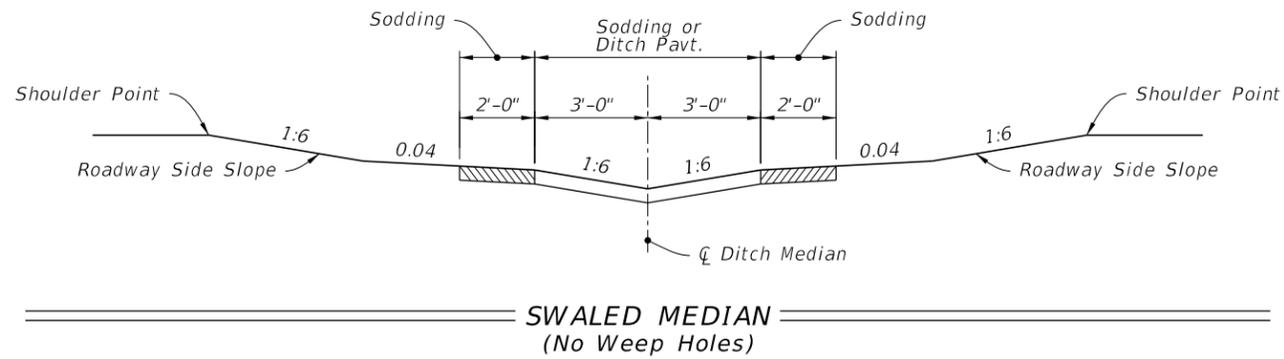
FY 2022-23
STANDARD PLANS

DITCH PAVEMENT AND SODDING

Renumbered Sheets

~~INDEX~~
524-001

SHEET
~~2 of 2~~

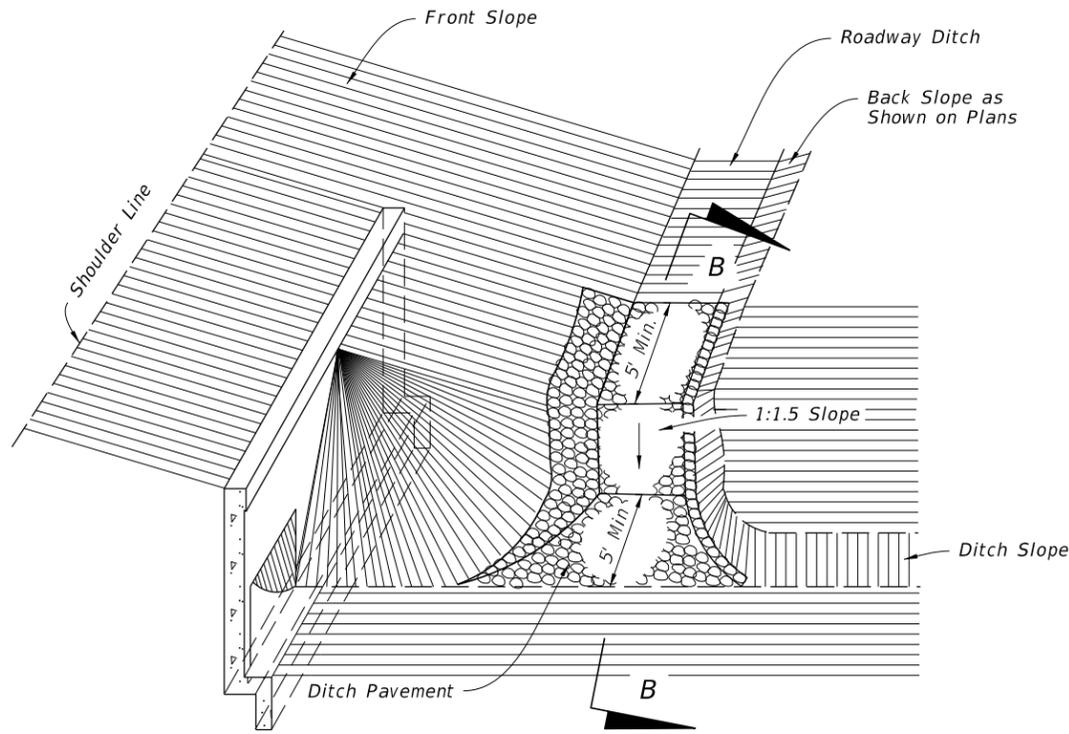


GENERAL NOTES:

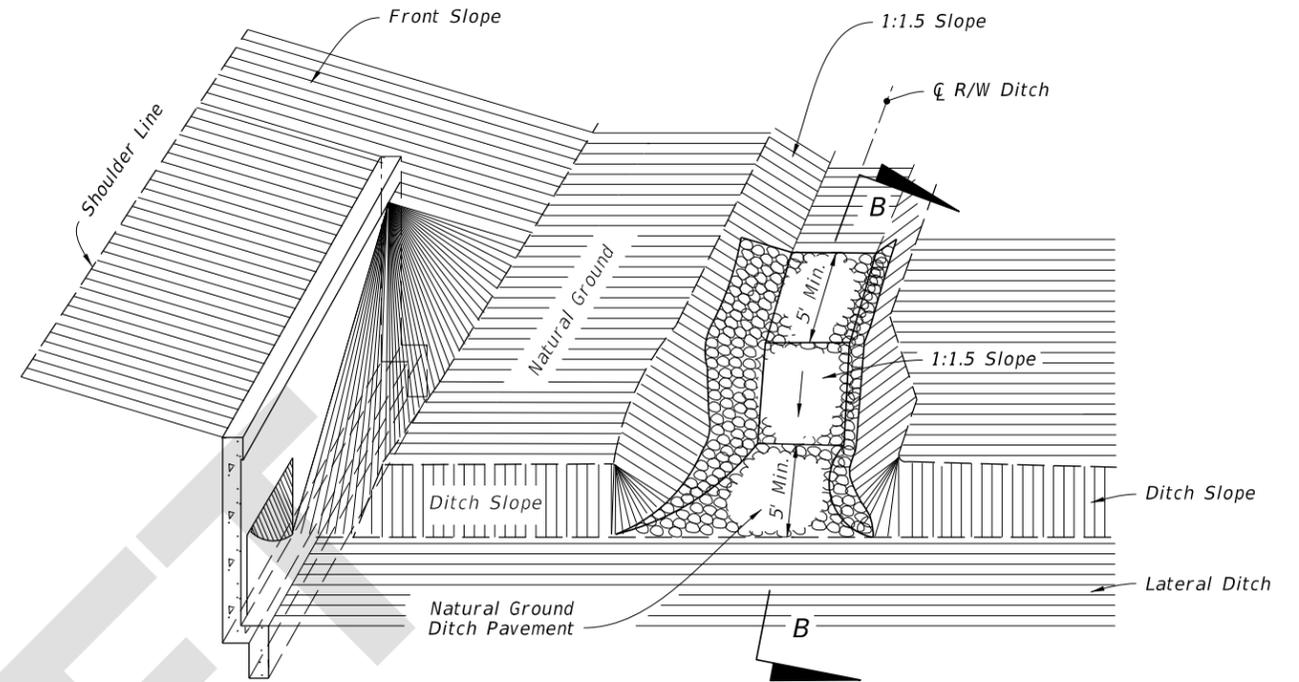
1. Install type of ditch pavement shown on Plans.
2. Construct lip at the end of ditch pavement downstream of DPI or on flatter grades where there is a decrease in ditch velocity.
3. Use toewalls with all ditch paving, except adjacent to drainage structures.
4. Construct sides of paving with 1' minimum 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.

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LAST REVISION 11/01/22	REVISION	DESCRIPTION:		FY 2023-24 STANDARD PLANS	DITCH PAVEMENT AND SODDING	INDEX 524-001	SHEET 1 of 3
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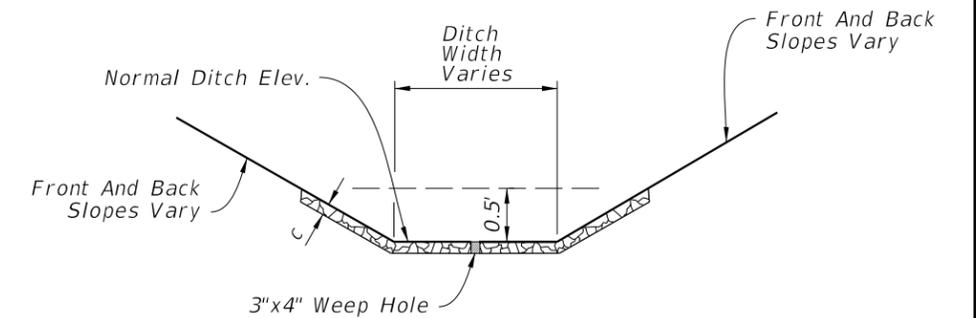
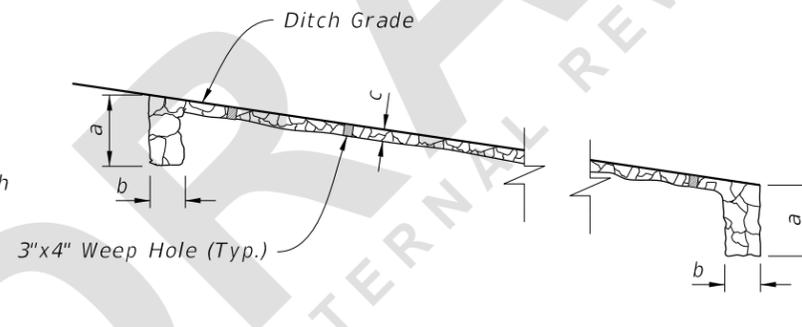
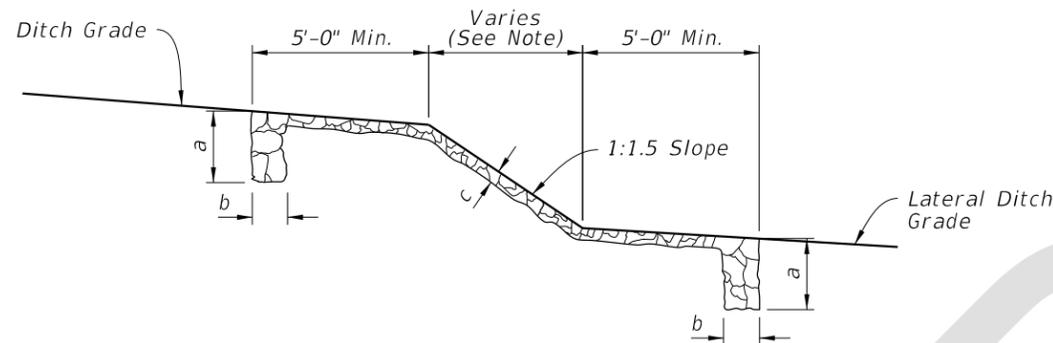
NOTE:
Miscellaneous asphalt will not be permitted for this type of construction.



NOTE:
Miscellaneous 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



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)

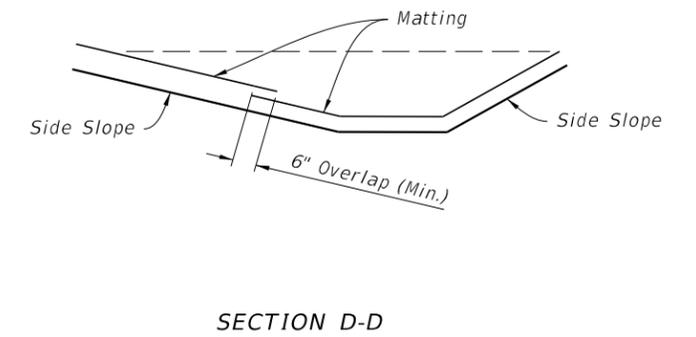
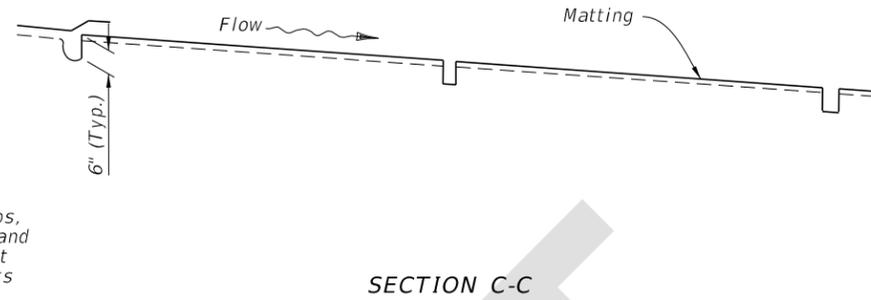
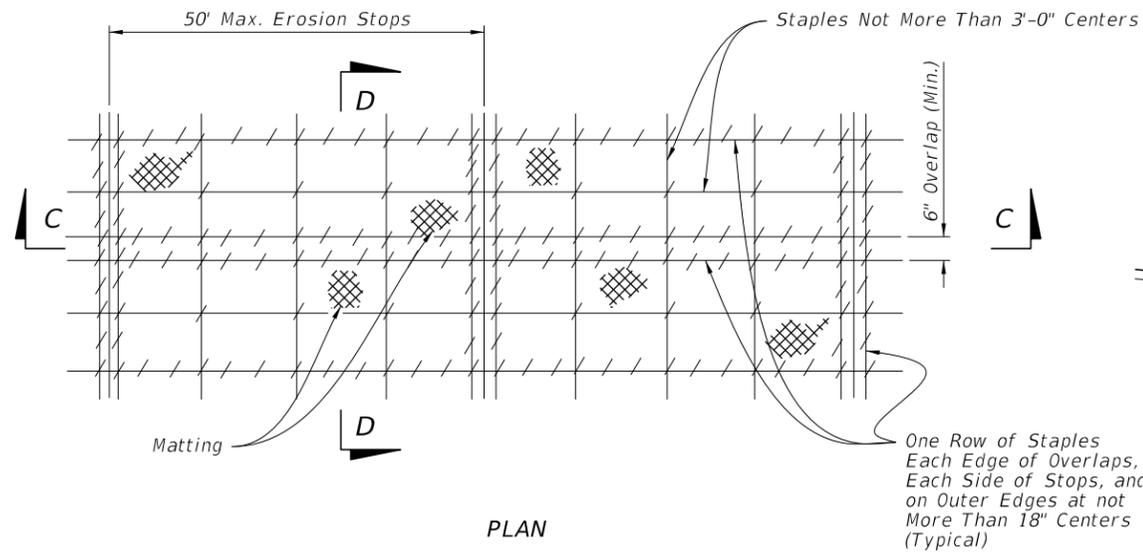
TYPICAL SECTION

TABLE 1: DITCH PAVEMENT

Pavement Type	Dimensions			Filter Fabric Type	References & Remarks
	a	b	c		
Concrete	24"	6"	Varies	D-4	Specification 524
Miscellaneous Asphalt	24"	12"	4"	None	Specification 339
Riprap (Sand-Cement)	24"	12"	4"	D-4	Specification 530, Grouting of joints required
Riprap (Ditch Lining)	--	--	--	D-2	Specification 530

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LAST REVISION 11/01/22	DESCRIPTION:
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MATTING FOR DITCH

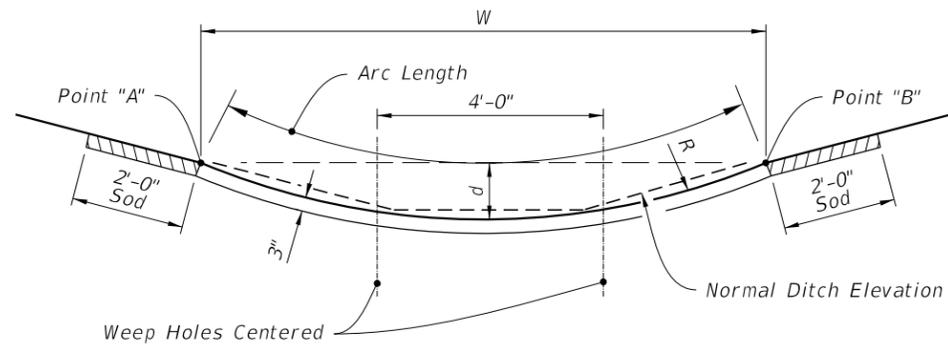
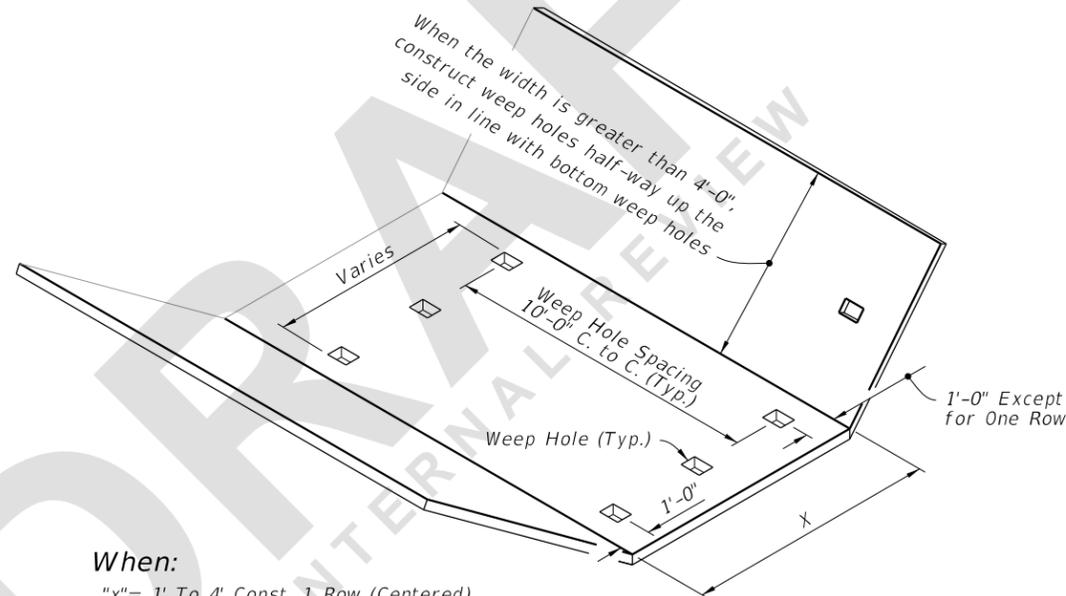


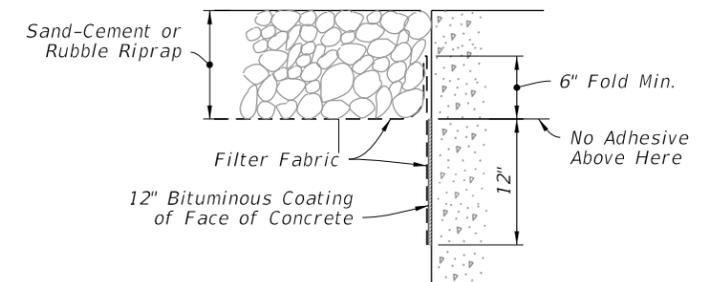
TABLE 2: ALTERNATE DITCH PAVEMENT					
TO REPLACE:	W	d	R	Rows Of Weep Holes	Arc Length
6' Median Swale	6'	0.24'	19'	0	6.0'
1:6 Front Slopes; 1:4 Back Slope					
5' Ditch Bottom Width	10'	0.67'	19'	2	10.1'
4' Ditch Bottom Width	9'	0.54'	19'	2	9.1'
1:4 Front Slopes & Back Slope					
5' Ditch Bottom Width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

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.

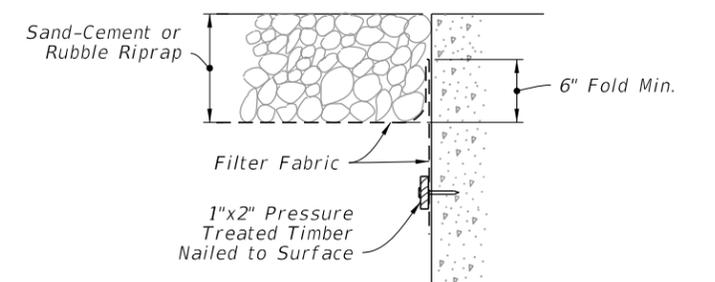


When:
"x" = 1' To 4' Const. 1 Row (Centered)
"x" = 5' To 7' Const. 2 Rows
"x" = 8' To 12' Const. 3 Rows
"x" = 13' To 17' Const. 4 Rows
"x" = 18' To 22' Const. 5 Rows

- NOTES:**
- Construct all weep holes 3"x4" rectangle or 4" or 5" diameter circle hole. Place 1/2 cu. ft. (12" x 12" x 6") of No. 57 aggregate under each hole with 1 sq. ft. of galvanized wire mesh (1/4" openings) placed between the aggregate and the ditch pavement.
 - Rectangle weep holes shown, round weep holes similar.
 - Weep hole spacing may be reduced to 5' minimum when directed by the Engineer.



BONDED OPTION



NAILED OPTION

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

ALTERNATE DITCH PAVEMENT

WEEP HOLE ARRANGEMENT

FILTER FABRIC PLACEMENT AT CONCRETE STRUCTURE

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