

For Corner Clearnace (C) Requirements see General Note 3.

For Additional Information Refer To FDOT Rules Chapters 14-96 And 14-97. SKETCH ILLUSTRATING DEFINITIONS

	URBAN (CURB & GUTTER)		RURAL			
ELEMENT DESCRIPTION	1-20 Trips/Day or 1-5 Trips/Hour –	21-600 Trips/Day or 601-4000 Trips/Day or 6-60 Trips/Hour 61-400 Trips/Hour 2-Way □ 2-Way □	1-20 Trips/Day or	21-600 Trips/Day or 6-60 Trips/Hour	601-4000 Trips/Day ☑ or 61-400 Trips/Hour	
			2-Way 🗆	1-5 Trips/Hour	2-Way 🗆	2-Way 🗆
CONNECTION WIDTH W	12' Min. 24' Max.	24' Min. 36' Max.☆	24' Min. 36' Max. ☆	12' Min. 24' Max.	24' Min. 36' Max. ☆	24' Min. 36' Max. ☆
FLARE (Drop Curb) F	10' Min.	10' Min.	N/A	N/A	N/A	N/A
RETURNS (Radius) R & U	N/A	Δ	25' Min. 50' Std. 75' Max.	15' Min. 25' Std. 50' Max.	25' Min. 50' Std. 75' Max.	25' Min. 50' Std. (Or 3-Centered Curves)
ANGLE OF DRIVE Y		60°-90°	60°-90°		60°-90°	60°-90°
DIVISIONAL ISLAND (Throat Median)		4'-22' Wide	4'-22' Wide		4'-22' Wide	4'-22' Wide
SETBACK G		categories. I Note No. 5.		<u> </u>		

Z Side road intersection design, with possible auxiliary lanes and channelization, may be necessary. Intersection design, with possible auxiliary lanes and channelization, should be considered for connections with more than 4000 trips/days.

□ "2-Way" refers to one "in" movement and one "out" movement i.e., not exclusive left or right turn lanes on the connection.

🔅 When more than 2 lanes in the turnout connection are required, the 36' max. width may be increased to relieve interference between entering and exiting traffic which adversely affects traffic flow. These cases require documented site specific study and design.

 \wedge Small radii may be used in lieu of flares as approved by the Department.

DESIGN NOTE: 1-Way connections will be designed to effectively eliminate unpermitted movements.

NOT INTENDED FOR FULL INTERSECTION DESIGN SUMMARY OF GEOMETRIC REQUIREMENTS FOR TURNOUTS

LAST REVISION 07/01/13

DESCRIPTION:



2016 DESIGN STANDARDS

GENERAL NOTES

- LEGEND -0-Return Radius Point Or Flare Point Buffer Areas F.B. Line Frontage Boundary Line W Driveway Width Y Driveway Angle C Corner Clearance G Setback
 - R Outside Radius
 - U Inside Radius
 - Л Connections F Flare
 - - leaving the highway.

 - turning movements.

DESIGN NOTES

TURNOUTS

1. For definitions and descriptions of access connection "Categories" and access "Classifications" of highway segments, and for other detailed information on access to the State Highway System, refer to FDOT Rule Chapter 14-96, "State Highway Connection Permits Administrative Process" and Rule Chapter 14-97, "State Highway System Access Management Classification System And Standards."

2. For this index the term 'turnout' applies to that portion of driveways or side roads adjoining the outer roadway. For this index the term 'connection' encompasses a driveway or side road and their appurtenant islands, separators, transition tapers, auxiliary lanes, travelway flares, drainage pipes and structures, crossovers, sidewalks, curb cut ramps, signing, pavement marking, required signalization. maintenance of traffic or other means of access to or from controlled access facilities. The turnout requirements set forth in this index do not provide complete intersection design, construction or maintenance requirements.

3. The location, positioning, orientation, spacing and number of connections and median openings shall be in conformance with FDOT Rule Chapter 14-97.

Distance Between 4. On Department construction projects all driveways not shown on the plans shall be reconstructed at their existing location in conformance to these standards, or, in conformance to permits issued during the construction project.

> 5. Driveways shall have sufficient length and size for all vehicular queueing, stacking, maneuvering, standing and parking to be carried out completely beyond the right of way line. Except for vehicles stopping to enter the highway, the turnout areas and drives within the right of way shall be used only for moving vehicles entering or

6. Connections with expected daily traffic over 4000 vpd shall be constructed as intersecting side roads. The design requirement of this index and that of the local government will be used to select appropriate connection widths, radii and intersection design, subject to the approval of the Department. For connections with expected daily traffic less than 4000 vpd, the Department will determine if a drop curb or radius returns are required in accordance with existing or planned connections. Where radius returns apply, the design requirements of this index and that of the local government will be used to select appropriate connection widths. radii and intersection design, subject to the approval of the Department.

For connections that are intended to daily accommodate either multi-unit vehicles or single unit vehicles exceeding 30' in length, returns with 50' radii shall be used, unless otherwise called for in the plans or otherwise stipulated by permit. Where large numbers of multi-unit vehicles will use the connection, the connection width and radii shall be increased and auxiliary lanes, tapers, lane flares, separators and/or islands constructed, as determined by the Department to be necessary for safe

7. Any connection requiring or having a specified median opening with left turn storage and served directly by that opening shall have radial returns.

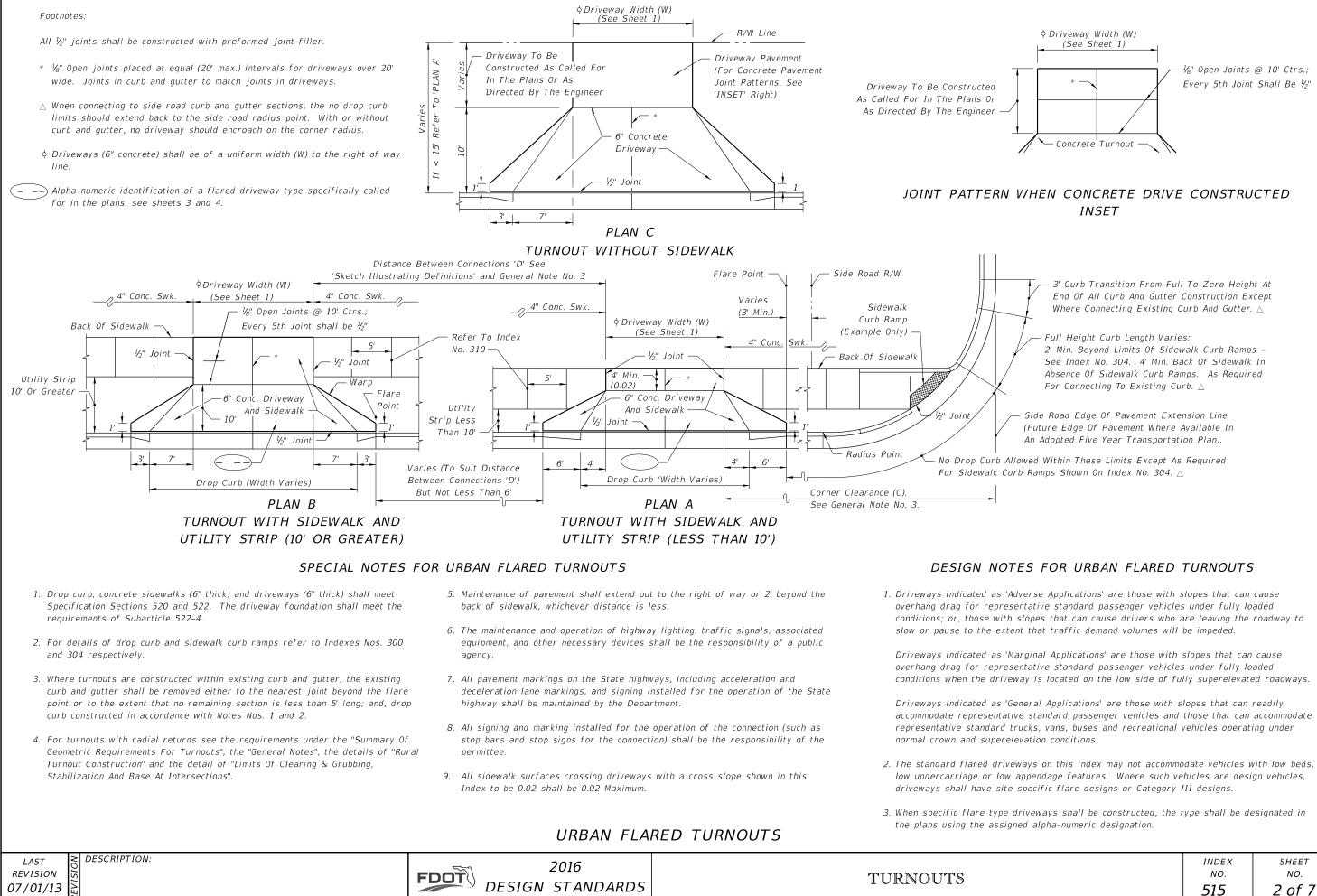
8. Where a connection is intended to align with a connection across the highway, the through lanes shall align directly with the corresponding through lanes.

9. For new connections and for connections on all new construction and reconstruction projects, pavement materials and thicknesses shall meet the requirements applicable to either that detailed for "Urban Flared Turnouts", or, that described in "Table 515-1" for connections with radial returns and/or auxiliary lanes.

10. The responsibility for the cost of construction or alteration to an access connection shall be in accordance with FDOT Rule Chapter 14-96.

1. Prior to the adoption of FDOT Rules Chapters 14-96 and 14-97, connections to the State Highway System were defined and permitted by Classes. Connections have been redfined by Categories under Rule 14–96: and, the term "Class" has been applied to highway segments of the State Highway System as defined under Rule 14-97.

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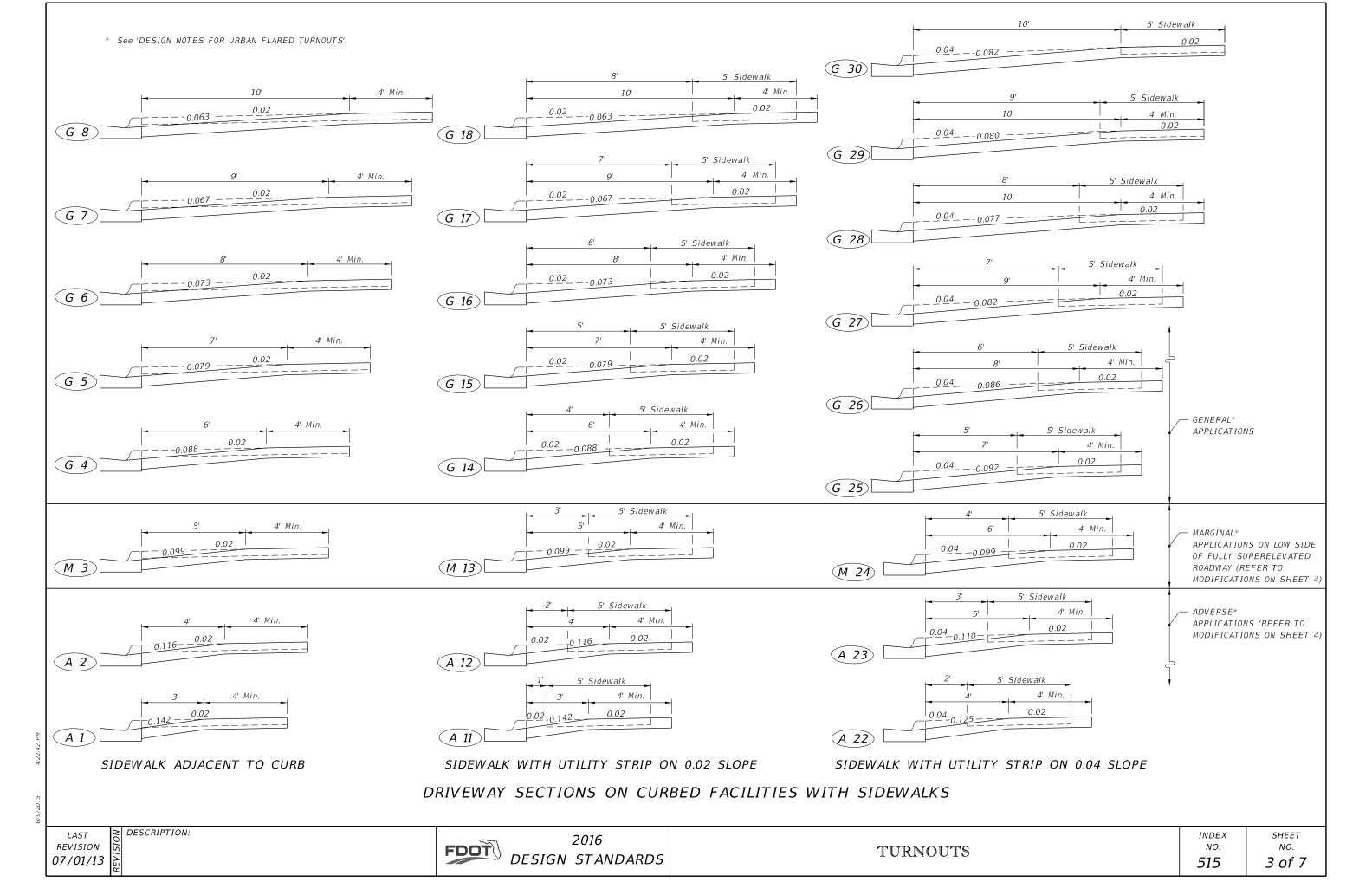


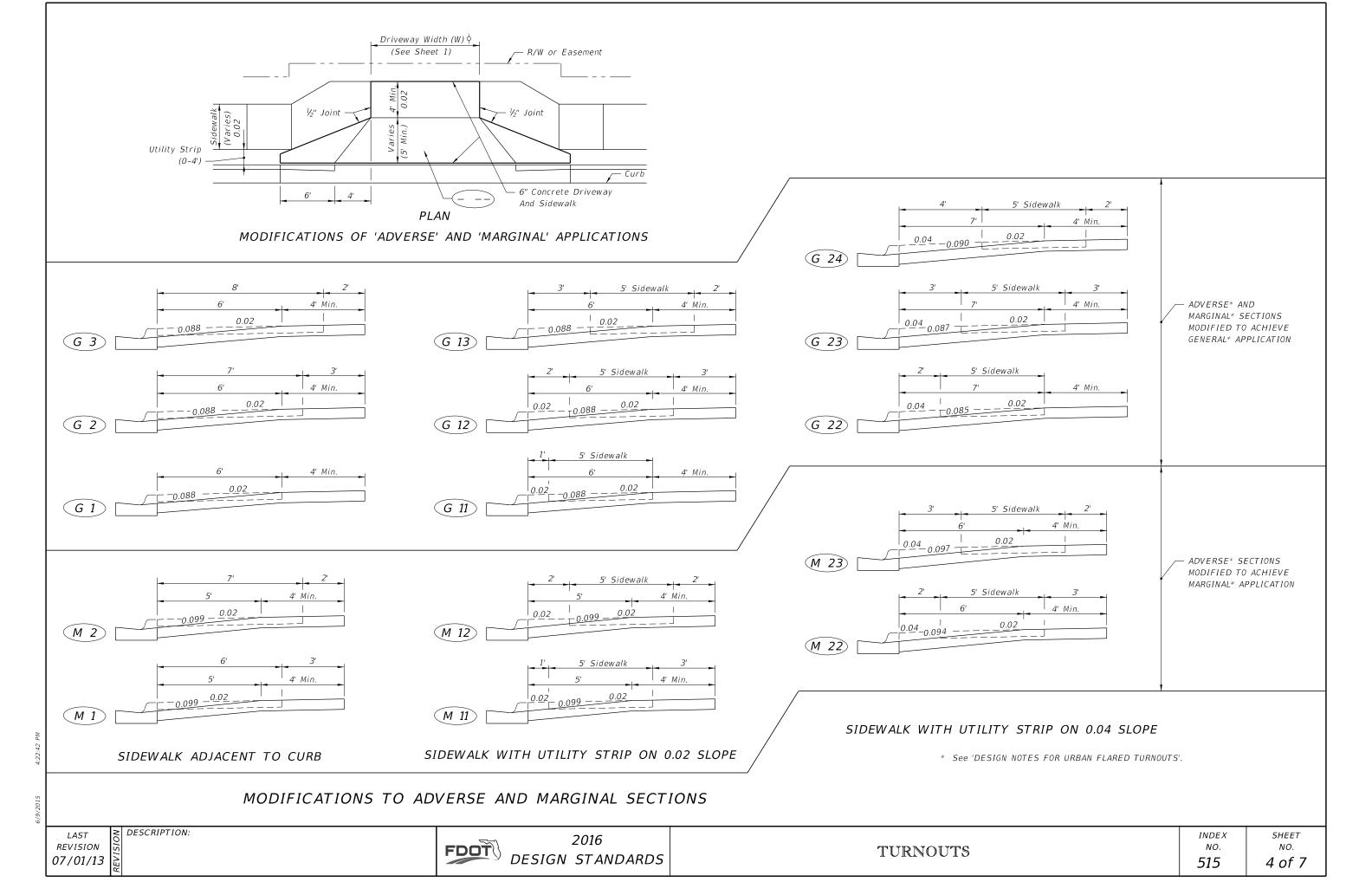
1/8" Open Joints @ 10' Ctrs.; Every 5th Joint Shall Be 1/3"

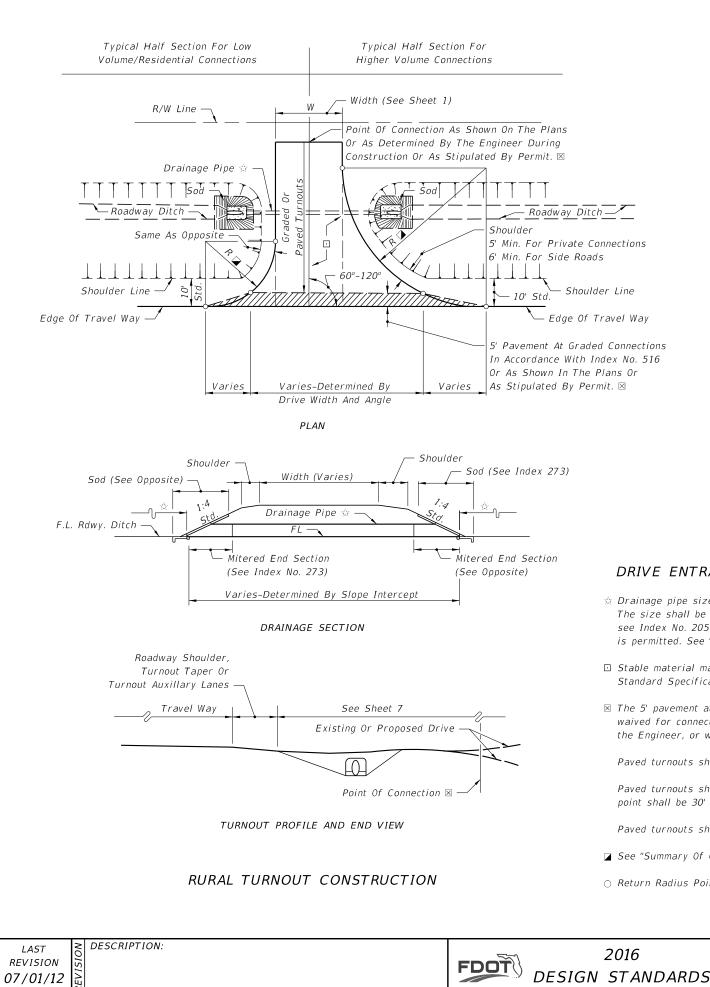
- 3' Curb Transition From Full To Zero Height At End Of All Curb And Gutter Construction Except Where Connecting Existing Curb And Gutter. \triangle
- 2' Min. Beyond Limits Of Sidewalk Curb Ramps -See Index No. 304. 4' Min. Back Of Sidewalk In Absence Of Sidewalk Curb Ramps. As Required For Connecting To Existing Curb. \triangle

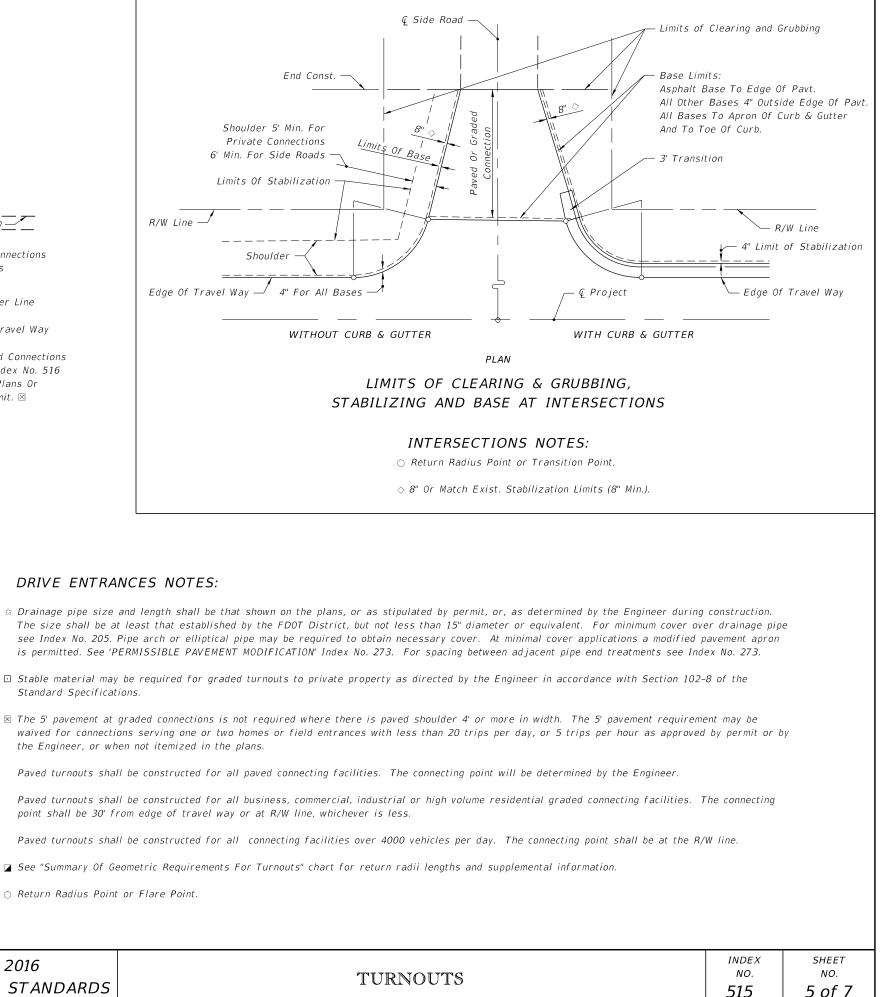
Side Road Edge Of Pavement Extension Line (Future Edge Of Pavement Where Available In An Adopted Five Year Transportation Plan).

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DRIVE ENTRANCES NOTES:

- Standard Specifications.
- the Engineer, or when not itemized in the plans.

point shall be 30' from edge of travel way or at R/W line, whichever is less.

🛛 See "Summary Of Geometric Requirements For Turnouts" chart for return radii lengths and supplemental information.

○ Return Radius Point or Flare Point.



MATERIAL TYPES AND THICKNESSES IN DRIVING AREAS FOR RURAL AND URBAN CONNECTIONS

Courses	Matariala (2)	s 2 Thickness (in.) 1 Connections 3 Roadway 4	
Course	Materials 2		
Structural	Asphaltic Concrete	1''	1 1/2"
Bases	Optional Base (See Index No. 514)	0.B.G. 1	0.B.G. 3

1 Minimum thickness.

② All materials shall be approved by the Department prior to being placed.

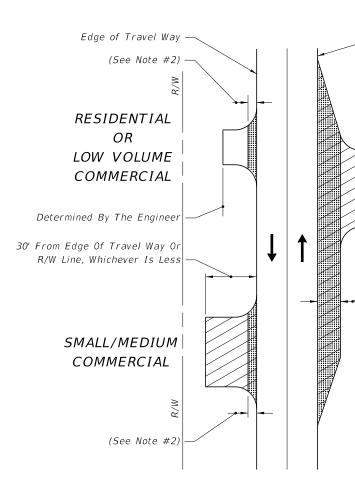
- ③ Connection structure other than traffic lanes. See Notes 1 and 2 below.
- ④ Travel way flares (bypass lanes), auxiliary lanes serving more than a single connection, and all median crossovers including their auxiliary lanes and/or transition tapers. See Notes 1 and 2 below.

NOTES

- 1. The pavement should be structurally adequate to meet the expected traffic loads and should not be less than that shown above, except as approved by the Department for graded connections. Other Department-approved equivalent pavements may be used at the discretion of the Engineer. For additional information see Index No. 514.
- 2. Auxiliary lanes and their transition tapers shall be the same structure as the abutting travel way pavement thickness or any of the roadway structures tabulated above, whichever is thicker.
- 3. If an asphalt base course is used for a turnout, its thickness may be increased to match the edge of travel way pavement thickness in lieu of a separate structural course. 6" of Portland cement concrete will be acceptable in lieu of the asphalt base and structural courses. See Notes 4 and 5 below.
- 4. A structural course is required for flexible pavements when they are used for auxiliary lanes serving more than a single connection.
- 5. Connections paved with Portland cement concrete shall be Class NS concrete at least 6" thick. The Department may require greater thickness when called for in the plans or stipulated by permit. Materials and construction shall conform with FDOT Standard Specifications Sections 347, 350 and 522.

6. The Department may require other pavement criteria where local conditions warrant.

PAVEMENT STRUCTURE FOR TURNOUTS AND AUXILIARY LANES TABLE 515-1



NOTES

1. Auxiliary lane pavements and crossover pavements shall be

- 2. Department maintenance of turnout pavement extends 5' from the edge of paved shoulder, whichever is greater. The rem area on the right of way shall be maintained by the owner of function of routinely reworking shoulders, the Department n material on nonpaved areas beyond the maintained pavement
- 3. Control and maintenance of drainage facilities within the rig responsibility of the Department, unless specified different
- 4. The maintenance and operation of highway lighting, traffic and other necessary devices shall be the responsibility of
- All pavement markings on the State highways, including acce markings, and signing installed for the operation of the Sta by the Department.
- 6. All signing and marking installed for the operation of the co and stop signs for the connection) shall be the responsibilit

LIMITS OF CONSTRUCTION AND MAINT FOR RURAL CONNECTIO

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LAST REVISION **07/01/15**

T Z DESCRIPTION:



2016 DESIGN STANDARDS

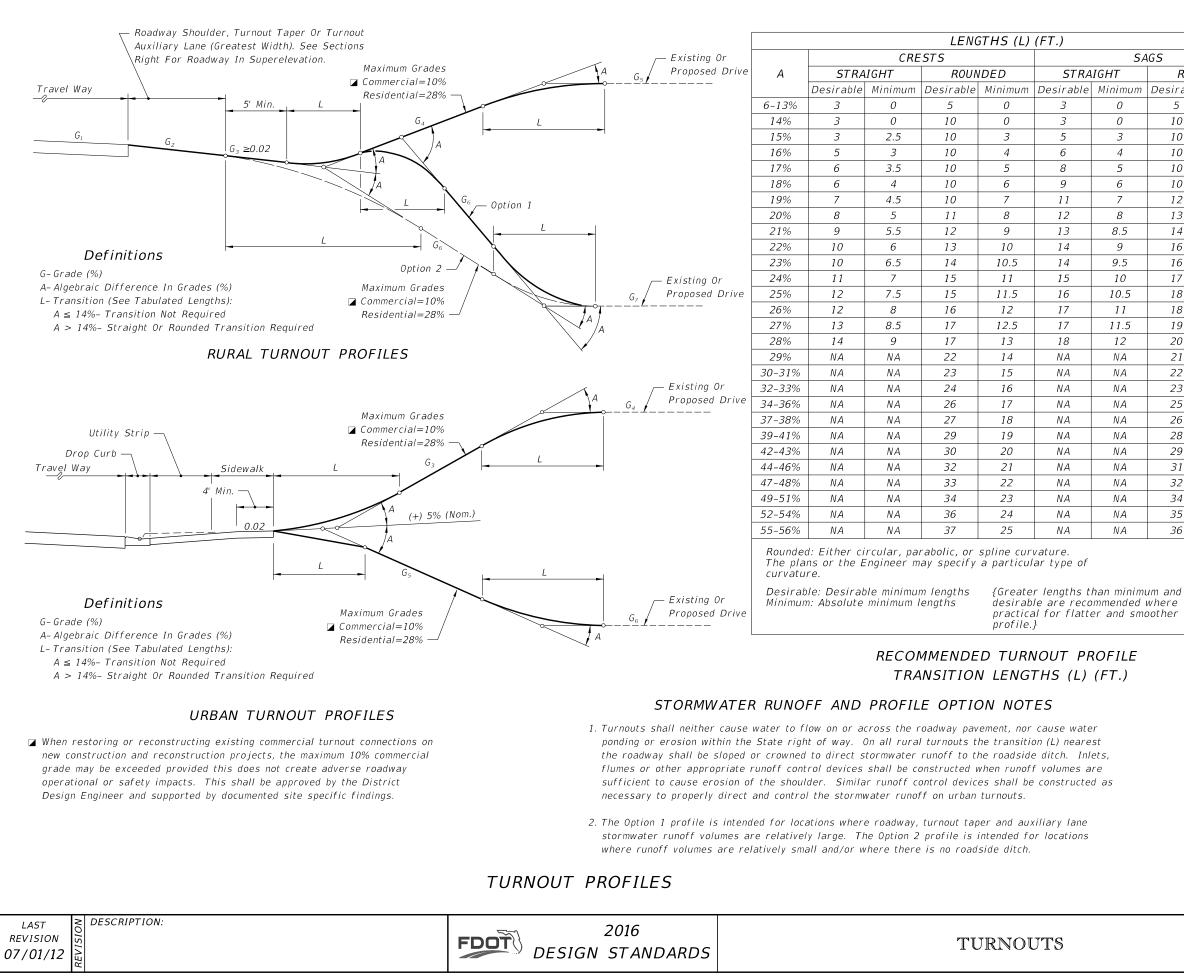
TURNOUTS

Edge of Travel Way

R/W		
	SIDE ROAD OR LARGE COMMERCIAL DRIVEWAY	_
	- Auxiliary Lane Width (See Note #1) 	
R/W	LEGEND Graded Or Paved Required Paving Limits Of Departmen	t Maintenance
maint	Lane Identification a tained by the Department.	and Direction of Traffic
om edg nainder or his	ge of the travel way or to er of any turnout paved s authorized agent. As a grade and shape existing	
-	f way shall be solely the Department permit.	
-	ls, associated equipment, lic agency.	
	tion and deceleration lane ighway shall be maintained	
	ction (such as stop bars the permittee.	

TENANCE
ONS

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GS		
ROUNDED		
Desirable	Minimum	
5	0	
10	0	
10	5	
10		
10	6 7	
10	8	
12	9	
13	10	
14	11	
16	12	
16	12.5	
17	13	
18	13.5	
18	14	
19	14.5	
20	15	
21	17	
22	18	
23	20	
25	21	
26	22	
28	24	
29	25	
31	26	
32	27	
34	28	
35	30	
36	31	

G, Slopes (See Rural Turnout Profile, Left) -0.03 0.03 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.07 0.02 =0.05 $G_1 = 0.04$ 0.03 $G_1 = 0.03$ 0.04 $G_1 = 0.02$ 0.05 $G_1 = 0.01$ 0.06 $G_1 = 0.00$ 0.06 $G_1 = 0.01$ 0.06 $G_1 = 0.02$ 0.06 $G_{I} = 0.03$ 0.06 $G_1 = 0.04$ 0.06 $G_{1} = 0.05$ $G_{1} = 0.06$ 0.06 0.06 =0.07 0.07 0_{.09} 0.10

ROADWAY PAVEMENT SLOPES AND SLOPES OF ABUTTING RURAL TURNOUT SURFACES (G_2)

SUPERELEVATION SECTIONS

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