

DIVISION 7. - PUBLIC TRANSIT^[8]

Exhibit "C"

Sec. 10-441. - Applicability of division.

Except as provided in section 10-443, all proposed developments which are wholly or partially within one-half mile of a public transit route, as shown in the Lee Plan Map 3C, and which meet or exceed one of the thresholds set forth in this division, are required to provide public transit facilities meeting requirements of section 10-296, as set out in this division as site related improvements.

(Ord. No. 92-44, § 14(A), 10-14-92; Ord. No. 94-07, § 13, 2-16-94; Ord. No. 17-11, § 1, 9-5-17)

Sec. 10-442. - Required facilities.

- (a) Residential developments exceeding 100 living units and commercial or industrial establishments with less than 30,000 square feet of total floor area are subject to the following:
 - (1) A paved walkway to the nearest bus stop must be provided if the bus stop is within one-fourth mile of the vehicular entrance to the property, the developer must install signage, a landing pad and bicycle storage rack within the road right-of-way or dedicated easement if the bus stop is not so equipped.
 - (2) If there is no bus stop within one-fourth mile of the property and the property abuts the bus route, the developer must provide signage, a bicycle storage rack and landing pad for a new bus stop within the road right-of-way or dedicated easement.
- (b) Residential developments exceeding 500 living units and commercial or industrial establishments with 30,000 square feet or more of total floor area shall be subject to the following:
 - (1) A paved walkway to the nearest bus stop must be provided if the bus stop is within one-fourth mile of the vehicular entrance to the property, as well as installation of a bicycle storage rack, signage and a landing pad within the road right-of-way or dedicated easement.
 - (2) If there is no bus stop within one-fourth mile and the property abuts the bus route, the developer shall provide for a bus stop, including a shelter, signage, walkways, bicycle rack, landing pad, lighting and a bus pull-off area within the road right-of-way or dedicated easement so passengers can get on or off the bus out of the line of traffic.

(Ord. No. 92-44, § 14(A)1, 2, 10-14-92; Ord. No. 94-07, § 13, 2-16-94; Ord. No. 17-11, § 1, 9-5-17)

Sec. 10-443. - Waiver (fee-in-lieu).

- (a) Notwithstanding the provisions of section 10-442, the facility will not be required where the

Development Services Director, along with a recommendation from the Director of LeeTran, determines that construction of the facility would be contrary to public safety.

- (b) As a condition of granting the waiver, the applicant is required to make a fee-in-lieu contribution equal to the estimated cost of constructing the improvement. The cost estimate must include: design; mobilization, clearing, and grubbing; embankment; drainage including inlets, grates, headwalls, pipes and mitered ends; sidewalk and grading; gravity wall and handrail; bus shelter, signage, bicycle rack, landing pad, lighting and bus pull-off area and finish items including sod, and miscellaneous items. The amount of the fee must be paid prior to the issuance of a development order.
- (c) Projects adjacent to a County facility with an active construction bid, the actual bid price will be accepted. The fee is to be calculated using the line items from the bid tabulation submitted by the contractor building the project.
- (d) The fee-in-lieu will be deposited in a CIP subfund, created for expenditure on a transit facility.

(Ord. No. 92-44, § 14(A)3, 10-14-92; Ord. No. 94-07, § 13, 2-16-94; Ord. No. 95-12, § 6, 7-12-95; Ord. No. 11-08, § 4, 8-9-11; Ord. No. 17-11, § 1, 9-5-17)

Editor's note— Ord. No. 17-11, § 1, adopted Sept. 5, 2017, changed the title of § 10-443 from "Exceptions" to read as herein set out.

Secs. 10-444—10-470. - Reserved.

Sec. 10-296. - Street design and construction standards.

- (a) *Generally.* All public and private streets must be designed to accommodate all expected users, where applicable, and constructed and improved in accordance with the specifications set out in this section, as well as the other requirements of this division. In addition, the following standards and criteria will be applicable: American Association of State and Highway Transportation Officials (AASHTO), A Policy on Geometric Design of Highways and Streets, as modified by Florida Department of Transportation (FDOT) Florida Greenbook, FDOT Design Standards, FDOT Drainage Manual and FDOT Standard Specifications, current editions, with supplements, and such other applicable publications, editions and amendments as may be adopted by the state department of transportation, and sound engineering judgment. Construction on state facilities must be done in accord with applicable state statutes and regulations.
- (b) *Right-of-way width.* All public and private streets established and constructed in accordance with this chapter must have right-of-way widths or roadway easements complying with the requirements of the design criteria within this section.

TABLE 2. RIGHT-OF-WAY WIDTH SPECIFICATIONS FOR STREETS

	Principal or Minor Arterial	Major or Minor Collector	Local Street		Access Street	
			County Maintained	Privately Maintained	County Maintained	Privately Maintained
Closed drainage	150'	100'	50'	40'	45'	40'
Open drainage	150'	100'	60'	45'	50'	40'

Notes:

1. This table identifies standard right-of-way widths for new roads and desirable right-of-way widths for improvements in developed area. Tables 4—15 represent cross-section elements that may vary in width for arterials, collectors, local and access streets based on land use categories identified on the Lee Plan Future Land Use Map. The overall right-of-way width varies based on the presence and width of cross-sectional elements identified in this chapter. The right-of-way width will be determined by the Director of Transportation on public roadways and by the Director of Development Services on privately maintained roadways. Right-of-way width for new streets will be based upon demonstration of considerations such as provision of sufficient width for the future number of lanes identified in Lee Plan Map 3A, required median, turn lanes, signs, streetlights, adequate clear zone for the design speed, bicycle and pedestrian facilities, transit facilities, on-street parking, drainage facilities, backslope or slope easements and other roadway appurtenances. These roadway design elements may be modified on existing streets to fit within available right-of-way pursuant to [section 10-296\(d\)\(3\)](#).
 2. The access street standard applies to frontage streets. The local street standard applies to all other access streets, including reverse frontage streets.
 3. Stormwater management and utility easements will be provided in accordance with [sections 10-328](#) and [10-355](#), respectively.
- (c) *Street and bridge design and construction standards.* All street and bridge improvements must comply with the standards and specifications listed herein, pertaining to minimum specifications for street improvements, and section 10-706, pertaining to minimum specifications for bridge improvements, for the applicable development category.
- (d) *All roads.*
- (1) *Horizontal curves.* Horizontal curves must be designed in accordance with AASHTO and FDOT design criteria.
 - (2) *Grading and centerline gradients.* Per plans and profiles approved by the Director of the Department of Transportation for publicly maintained roadways or the Director of Development Services for privately maintained roadways.

Typical street cross-sections are shown in section 10-296(e).

- (3) *Deviations and exceptions.* A deviation from these standards for road design must meet the standards and criteria established by FDOT in the Florida Greenbook with consideration of the Plans Preparation Manual and guidance in AASHTO publications. Deviations in accordance with section 10-104 on County-maintained roadways are also subject to review by the Director of the Department of Transportation.
- (4) *Drainage.*
- a. Curb and gutter type B, F and drop or shoulder (valley). See FDOT Design Standards, current edition.
 - b. *Roadside swales.* Roadside swales may be used in excessively drained and somewhat excessively drained to moderately well-drained soils, except where closed drainage is required by the Director of Development Services. (Refer to section 10-720)
 - c. Roadside swales within privately maintained street rights-of-way must have slopes no steeper than three horizontal to one vertical. Roadside swales within County maintained street right-of-way must have side slopes no steeper than four horizontal to one vertical. Normal swale sections must be a minimum of 12 inches deep. An administrative deviation may be granted from this subsection with consultation from the Director of Transportation subject to the criteria set forth in section 10-104.
 - d. Where run-off is accumulated or carried in roadway swales and flow velocities in excess of two feet per second are anticipated, closed drainage or other erosion control measures must be provided.
 - e. The Director of Development services may grant deviations from these requirements under the provisions of section 10-104. On County maintained roads, the deviation must be reviewed in consultation with the Director of Transportation.
 - f. *Underdrains.* Underdrains may be required on both sides of streets if, in the opinion of the Director of Development Services, soils data indicates that underdrains would be necessary. In cases where there is a prevalence of soils that exhibit adverse water table characteristics, underdrains or fill or some other acceptable alternative that will provide necessary measures to maintain the structural integrity of the road will be required. The determination of need will be made by reference to the applicable portions of the most recent edition of the Soil Survey for Lee County, Florida, as prepared by the U.S. Department of Agriculture, Soil Conservation Service, or according to information generated by the developer's engineer. See section 10-712 for suggested underdrain details.
 1. Wherever road construction or lot development is planned in areas having soil types with unacceptable water table characteristics, underdrains or fill must be provided and shown on the engineering plans. Underdrains must be designed with outlets at carefully selected discharge points. Erosion control measures must be provided as needed at all discharge points.
 2. Wherever road cuts in otherwise suitable soils indicate that the finish grade will result in a road surface to water table relationship that adversely exceeds the degree of limitation stated above, underdrains or other acceptable alternative that will provide necessary measures to maintain the structural integrity of the road will be required.
- (5) *Landscaping.*
- a. *Grassing and mulching.* Prior to the acceptance of the streets or the release of the security, the developer will be responsible for ensuring that all swales, parkways, medians, percolation areas and planting strips are sodded, seeded or planted and mulched in accordance with section 570 of the FDOT standard specifications.
 - b. Installation and maintenance of landscaping and irrigation systems in County maintained road right-of-way may be performed at the developer's option and expense.
 - c. *LeeScape Master Plan.* Site-related roadway improvements in right-of-way with existing county-maintained landscaping will require relocation or replacement of county-maintained (including MSTBU's) plant materials, irrigation lines, pumps, etc. consistent with the LeeScape Master Plan. Site-related improvements on a county-maintained roadway that is a landscaping corridor identified in the LeeScape Master Plan must accommodate the planned landscaping.
 - d. *Tree/plant installation.* A tree's growth habit must be considered in advance of planting to avoid potential conflicts

(e.g., views, signage, overhead power lines, lighting, buildings, circulation). Trees may not be placed where they will interfere with drainage, subsurface or overhead utilities, or where they will require frequent pruning to avoid interference with overhead power lines. Horizontal separation between underground utilities to required street trees will be five feet for palm trees and ten feet for shade trees. When this requirement cannot be achieved, additional preventative measures to protect the underground utilities must be provided at the discretion of the Development Services Director.

1. At least 75 percent of the trees must be native Florida species.
 2. Trees must be a minimum ten feet in height, have two-inch caliper (at 12 inches above the ground) and a four-foot spread at the time of installation. Palm trees must have a minimum of ten feet of clear trunk at planting.
 - e. *Mulch requirements*. A two-inch minimum layer, after watering in, of mulch or other recycled materials must be placed and maintained around all newly installed trees. Each tree must have a ring of mulch no less than 24 inches beyond its trunk in all directions. The use of cypress mulch is prohibited.
 - f. *Soil conditions*. Plant materials must be installed in soil conditions conducive to proper growth of the plant material. Prior to planting, limerock located in the planting area must be removed and replaced with native or growing quality soil before planting.
- (6) *Signs and pavement markings, street lighting and traffic control devices.*
- a. *Street name and regulatory signs*. Street name and regulatory signs will be installed by the developer at all intersections and on the streets in the development prior to the acceptance of the streets or the release of the security. Regulatory signs will not be required at parking lot entrances for parking lots containing less than 25 parking spaces.
 - b. *Street lighting*. Street lighting may be installed at the developer's option and expense in compliance with section 34-625. Where street lighting is to be provided, the streetlight improvements must be maintained and operated through a covenant that runs with the land in the form of deed restrictions, a property owners' or condominium association, or another legal mechanism, acceptable to the County, which assures the beneficiaries of the service that the street lighting will be continually operated and maintained. Regardless of the method chosen to provide for the continual maintenance and operation of the streetlights, the beneficiaries of the service must be provided with a legal right to enforce the assurance that the lighting will be continually operated and maintained. The legal documents that provide for the continual maintenance and operation of the lighting may be accepted and recorded only after they are reviewed and approved by the County Attorney's office for compliance with this section. In the alternative, the Board may satisfy this requirement by establishing a street lighting municipal service taxing or benefit unit that includes operation and maintenance of the streetlights.
 - c. *Street and intersection improvements; traffic control devices.*
 1. All streets and intersections within a development must operate at service level C or higher. The developer must design and construct those traffic control devices and acceleration, deceleration, turning or additional lanes, referred to in this subsection as traffic improvements, deemed necessary to bring the level of service up to service level C or higher.
 2. Traffic control devices and acceleration, deceleration, turning and additional lanes must be specifically indicated on the development order plan. These traffic control devices must be designed and shown on the development order plans as per MUTCD standards.
- (7) *Bicycle and pedestrian facilities*. Bicycle and pedestrian facilities must be provided in accordance with section 10-256.
- (8) *Transit facilities.*
- a. Design and location of the bus stop sign, landing pad, bus pull-off area, shelter, lighting, bench, bicycle parking, and other amenities, will be coordinated with LeeTran.
 - b. A bus may stop within a lane of travel or may utilize a bus pull-off area that allows the transit vehicle to exit the lane of travel for boarding or alighting. The minimum requirements for a bus stop are a bus stop sign and a boarding and alighting area that provides a well-drained, non-slippery surface with adequate space for passenger movement on and off buses. Passenger amenities may include a landing pad, bench, bike parking, trash receptacle, and shelter. Passenger amenities will be installed adjacent to the bus stop pursuant to chapter 10, article III, division 7 and FDOT design criteria.

- (9) *On-street parking.*
- On-street parking facilities may be permitted on privately-maintained roadways at the Director's discretion as specified in this section. The Director of the Department of Transportation will determine where on-street parking is appropriate on county-maintained roads.
 - The County reserves the option to operate and maintain on-street parking on county-maintained roadways, including collection of parking fees.
 - As part of the review and approval of on-street parking, the developer must provide a written agreement, subject to review by the county in accordance with AC-11-12.
 - Where approved, on-street parking will be located adjacent to the curb and gutter or paved shoulder. On-street parking space width will be eight feet for parallel parking, 12 feet for disabled parking, and 20 feet for angled parking. Any relocation of roadway elements such as curb and gutter, roadway drainage structures, transit facilities, landscaping, street furniture, utilities, bicycle and pedestrian facilities, as a result of adding parking spaces to meet development parking requirements, will be considered a site-related improvement. On-street parking spaces will be separated from turn lane tapers and intersection turning radius to provide adequate sight distance. Parking spaces may alternate with other intermittent streetside features such as wider planting areas for canopy trees, transit facilities, and pedestrian bulb-outs.
- (10) *Medians.* All multi-lane roadways must have a median designed and constructed consistent with the American Association of State and Highway Transportation Officials (AASHTO), A Policy on Geometric Design of Highways and Streets, as modified by Florida Department of Transportation (FDOT) Florida Greenbook, FDOT Design Standards and FDOT Standard Specifications, current editions. Median width will be based on clear recovery area, median landscaping requirements set forth in section 10-296(e), and posted speed.
- (11) *Pavement design.* New construction or reconstruction of streets and roadways must be in accordance with Table 3 unless an alternative pavement design based on traffic type and volume performed by a registered professional engineer demonstrates the same or better structural integrity. Roadway pavement design criteria will also apply to travel lanes, turn lanes, median openings, bicycle lanes, on-street parking, and bus-pullout bays. The applicant may submit a request for an administrative deviation in accord with section 10-104(a)(5) for an alternative design.

TABLE 3. MINIMUM PAVEMENT DESIGN SPECIFICATIONS

	Friction Course	Structural Course	Base	Subgrade
Principal Arterial	One inch type S-III (section 331, FDOT specifications) OR SUPERPAVE 9.5	Two and one-half inch asphaltic concrete FDOT type S-1 or SUPERPAVE 12.5	FDOT Optional Base Group 9 (ten inches of compacted limerock)	Twelve inch thick stabilized subgrade LBR40
Minor Arterial	One inch type S-III (section 331, FDOT specifications) OR SUPERPAVE 9.5	Two and one-half inch asphaltic concrete FDOT type S-1 or SUPERPAVE 12.5	FDOT Optional Base Group 9 (ten inches of compacted limerock)	Twelve inch thick stabilized subgrade LBR40
Major Collector	One inch type S-III (section 331, FDOT specifications) OR SUPERPAVE 9.5	One and one-half inch asphaltic concrete FDOT type S-1 or SUPERPAVE 12.5	FDOT Optional Base Group 6 (eight inches of compacted limerock)	Twelve inch thick stabilized subgrade LBR40

Minor Collector	None	One and one-half inch asphaltic concrete FDOT type S-1 or SUPERPAVE 12.5	FDOT Optional Base Group 6 (eight inches of compacted limerock)	Twelve inch thick stabilized subgrade LBR40
Local and Access Street (including Privately Maintained Non-Residential Streets)	None	One and one-half inch asphaltic concrete FDOT type S-1 or SUPERPAVE 12.5	FDOT Optional Base Group 6 (eight inches of compacted limerock)	Twelve inch thick stabilized subgrade LBR40
Privately Maintained Residential Local Streets	None	One inch asphaltic concrete FDOT type S-III, or SUPERPAVE 9.5	FDOT Optional Base Group 4 (six inches of compacted limerock)	Six inch thick stabilized subgrade LBR40
Shared Streets/ Bicycle Boulevard	None	Six inch Portland Cement concrete, or one inch asphaltic concrete FDOT type S-III, or SUPERPAVE 9.5	FDOT Optional Base Group 4 (six inches of compacted limerock)	Six inch thick stabilized subgrade LBR40
Shared Use Path/ Sidewalk/ Cycle Track	None	Six inch Portland Cement concrete, or one inch asphaltic concrete FDOT type S-III, or SUPERPAVE 9.5	FDOT Optional Base Group 1 (four inches of compacted limerock)	Six inch thick stabilized subgrade LBR40

(e) *Road design.* All roadways will be designed and constructed in accordance with this subsection. Cross-sections within this subsection are for illustrative purposes only.

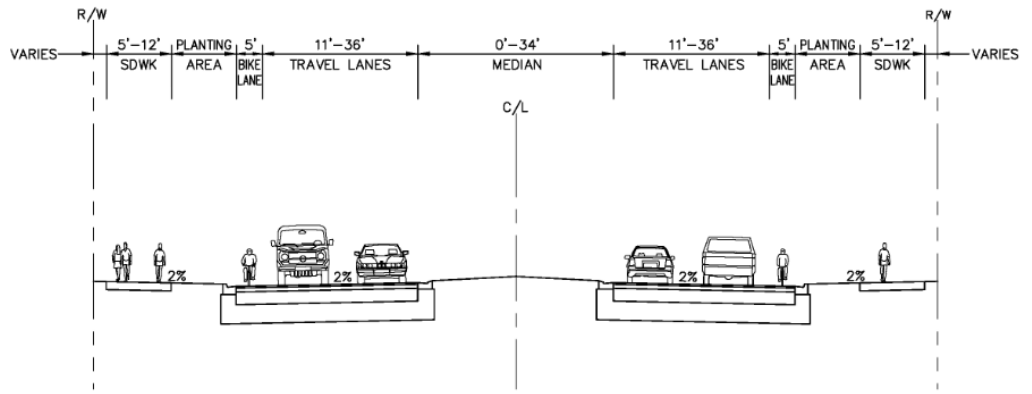
- (1) *Urban roadways.* Roadway segments in or abutting future urban areas identified in the Lee Plan will be designed in accordance with this subsection. Design criteria will be determined by the existing functional classification of the adjacent roadway identified in AC-11-1 and the future land use designation of the property identified in the Lee Plan Future Land Use Map.
- a. *Lane width.* The required lane width for roadways with two-way traffic and no existing or planned transit or freight route(s), must be as specified in Tables 4 thru 10. The required lane width for one-way streets is 14 feet. For roadways with an existing or planned transit route, the required lane width for lanes utilized by the transit vehicle is 12 feet. Where freight or large truck traffic is frequent (shown as a primary or secondary truck route on the MPO freight plan or greater than one percent of the daily volume), the lane width will be 11 feet.
 - b. *Transit facilities.* Bus pull-offs, shelters, and benches will be provided consistent with this chapter. All bus stops will have:
 1. A sign with route number(s).
 2. An eight feet by 30 feet minimum concrete landing pad. The landing pad will have a maximum two percent cross-slope and connected, or be a part of, an existing pedestrian way.
 3. Bicycle parking.

- c. *Tree wells/planting strips.* Dimensions, plant materials specifications and irrigation must comply with the Lee Scape Manual 12. The planting area may utilize islands or areas between on-street parking spaces to provide adequate area for tree ; dimensions shown in Table 4 as minimums. The planting strip area depicted in cross-sections include two feet for curb
- d. *Tree and palm spacing .* Small trees (under 30 feet at mature height) must be provided at a rate of five trees for every 100 linear feet. Medium sized trees (30 feet to 40 feet at mature height) must be provided at a rate of four trees for every 100 linear feet. Large trees (over 40 feet at mature height) must be provided at a rate of three trees for every 100 linear feet. Trees should be spaced evenly along the frontage and not clustered. Adjustments to the placement of trees up to ten feet is permitted to avoid conflicts with utilities and building visibility. Palm trees may only be substituted for a maximum of 50 percent of the required small trees.
- e. *Street furniture.* May be installed in the streetside planting area where approved by the Development Services Director.
- f. *Bicycle and pedestrian facilities.* Include a shared use path when depicted on the Lee Plan Maps 3D or 22. Where a shared use path or greenway is not depicted, pedestrian facility width dimensions will be governed by the design tables contained in this section.
- g. *Streetlighting.* Must be provided in accordance with AC-11-2. When streetlighting is required in or abutting coastal areas or environmental preserves, the lighting must be constructed utilizing environmentally friendly techniques.
- h. *Mixed use development.* Streets must be designed in accordance with non-residential roadway design criteria.
- i. *Urban context design criteria.*
 - 1. *Urban principal arterials.*
 - i. *Pavement design .* Must be in accordance with Table 3.
 - ii. *Context design.* Urban principal arterial roadway lane width, bicycle and pedestrian facilities, and planting strips must be designed in accordance with the criteria set forth in Table 4.

TABLE 4. URBAN PRINCIPAL ARTERIAL

Lee Plan Future Land Use Designation		Intensive	Central Urban		Urban Community	
Existing/Proposed Land Use		All	Commercial	Residential	Commercial	Residential
Lane Width		11 feet	12 feet	11 feet	12 feet	12 feet
On-Road Bicycle Facility		5-foot bike lane	5-foot bike lane	5-foot bike lane	5-foot bike lane	5-foot bike lane
Streetside	Planting Strip	8-foot strip	8-foot strip	8-foot strip	6-foot strip	5-foot strip
	Pedestrian Facility Width	12 feet	10 feet	8 feet	6 feet	5 feet

- iii. *Cross-section drawings.* The following cross-section is illustrative of an urban principal arterial. All urban arterial cross-section drawings reflect closed drainage facilities.



Urban Principal Arterial

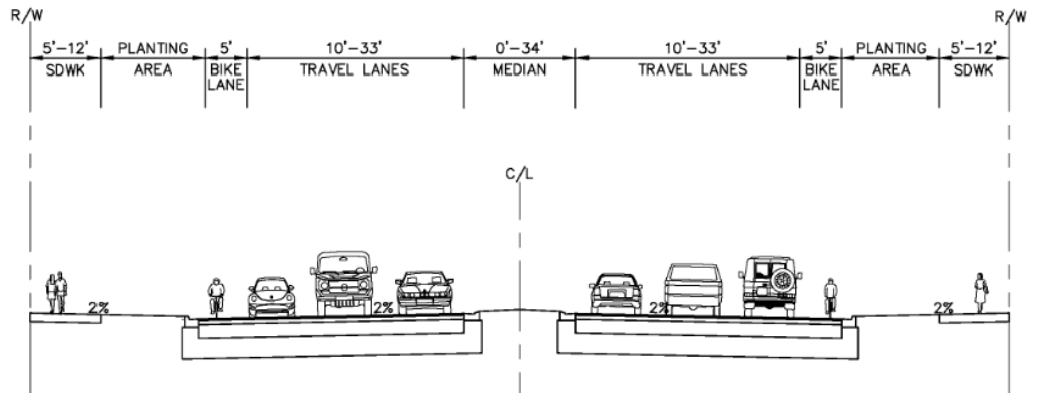
2. *Urban minor arterials.*

- i. *Pavement design* . Must be in accordance with Table 3.
- ii. *Context design*. Urban minor arterial roadway lane width, bicycle and pedestrian facilities, and planting strips must be designed in accordance with the criteria set forth in Table 5.

TABLE 5. URBAN MINOR ARTERIAL

Lee Plan Future Land Use Designation		Intensive	Central Urban		Urban Community	
Existing/Proposed Land Use		All	Commercial	Residential	Commercial	Residential
Lane Width		10 feet	11 feet	11 feet	11 feet	11 feet
On-Road Bicycle Facility		Shared lane	5-foot bike lane	Shared lane	5-foot bike lane	5-foot bike lane
Streetside	Planting Strip	8-foot strip	8-foot strip	8-foot strip	6-foot strip	5-foot strip
	Pedestrian Facility Width	12 feet	10 feet	8 feet	6 feet	5 feet

- iii. *Cross-section drawings*. The following cross-section is illustrative of an urban minor arterial. All urban arterial cross-section drawings reflect closed drainage facilities.



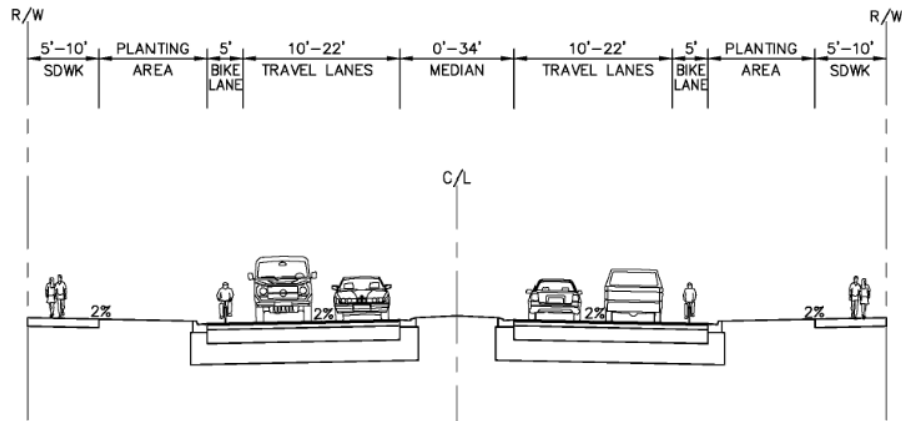
Urban Minor Arterial

- 3. *Urban major collectors.*
 - i. *Pavement design.* Must be in accordance with Table 3.
 - ii. *Context design.* Urban major collector roadway lane width, bicycle and pedestrian facilities, and planting strips must be designed in accordance with the criteria set forth in Table 6.

TABLE 6. URBAN MAJOR COLLECTOR

Lee Plan Future Land Use Designation		Intensive	Central Urban		Urban Community	
Existing/Proposed Land Use		All	Commercial	Residential	Commercial	Residential
Lane Width		10 feet	10 feet	10 feet	11 feet	11 feet
On-Road Bicycle Facility		Shared lane	5-foot bike lane	Shared lane	5-foot bike lane	Shared lane
Streetside	Planting Strip	8-foot strip	8-foot strip	8-foot strip	6-foot strip	5-foot strip
	Pedestrian Facility Width	10 feet	8 feet	8 feet	6 feet	5 feet

- iii. *Cross-section.* The following cross-section is illustrative of an urban major collector. All urban major collector cross-section drawings reflect closed drainage facilities.



Urban Major Collector

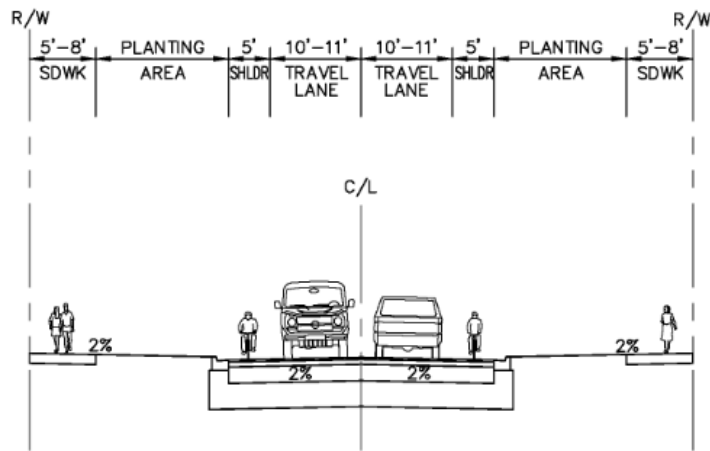
- 4. *Urban minor collectors.*
 - i. *Pavement design.* Must be in accordance with Table 3.
 - ii. *Context design.* Urban minor collector roadway lane width, bicycle and pedestrian facilities, and planting strips must be designed in accordance with the criteria set forth in Table 7.

TABLE 7. URBAN MINOR COLLECTOR

Lee Plan Future Land Use Designation	Intensive	Central Urban	Urban Community
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Existing/Proposed Land Use		All	Commercial	Residential	Commercial	Residential
Lane Width		10 feet	10 feet	10 feet	11 feet	11 feet
On-Road Bicycle Facility		Shared lane	Shared lane	Shared lane	Shared lane	Shared lane
Streetside	Planting Strip	8-foot strip	8-foot strip	8-foot strip	6-foot strip	5-foot strip
	Pedestrian Facility Width	8 feet	8 feet	8 feet	6 feet	5 feet

iii. *Cross-section drawings.* The following cross-section is illustrative of an urban minor collector. All urban minor collector cross-section drawings reflect closed drainage facilities.



Urban Minor Collector

5. *Urban local and access streets.*

- i. *Pavement design.* Must be in accordance with Table 3.
- ii. *Context design.* Urban local and access street roadway lane width, bicycle and pedestrian facilities, and planting strips must be designed in accordance with the criteria set forth in Table 8.

TABLE 8. URBAN LOCAL AND ACCESS STREETS

Lee Plan Future Land Use Designation		Intensive	Central Urban		Urban Community	
Existing/Proposed Land Use		All	Commercial	Residential	Commercial	Residential
Lane Width		10 feet	10 feet	10 feet	11 feet	11 feet
On-Road Bicycle Facility		Shared lane	Shared lane	Shared lane	Shared lane	Shared lane
Streetside	Planting Strip	8-foot strip	8-foot strip	6-foot strip	6-foot strip	5-foot strip

	Pedestrian Facility Width	6 feet	6 feet	5 feet	6 feet	5 feet
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- iii. *Cross-section drawings.* The following cross-section is illustrative of an urban local roadway. All urban local street cross-section drawings reflect closed drainage facilities.
 - a. Urban local/access street cross-section:

Urban Local/Access Street

- 6. *Urban shared streets.*
 - i. *Pavement design.* Must be in accordance with Table 3.
 - ii. *Context design.* Urban shared street roadway bicycle and pedestrian facilities, and planting strips must be designed in accordance with the criteria set forth in Table 9.

TABLE 9. URBAN SHARED STREET

Lee Plan Future Land Use Designation		Intensive	Central Urban		Urban Community	
Existing/Proposed Land Use		All	Commercial	Residential	Commercial	Residential
On-Road Bicycle Facility		Shared lane	Shared lane	Shared lane	Shared lane	Shared lane
Streetside	Planting Strip	8 ft - 20 ft strip	8 ft - 20 ft strip	6 ft - 10 ft strip	8 ft - 20 ft strip	6 ft - 10 ft strip
	Pedestrian Facility Width	12 ft - 20 ft	10 ft - 16 ft	8 ft - 12 ft	10 ft - 16 ft	8 ft - 12 ft

- iii. *Cross-section.* The following cross-section is illustrative of an urban shared street. All urban shared streets are designed with open drainage graded to drain to planting areas and a design speed of 5 mph. Motor vehicle use on shared streets is limited to emergency vehicles, local traffic or deliveries. Restriction

of vehicular traffic to be determined by LCDOT.

- a. Urban shared street cross-section:

**Urban Shared Street
Open Drainage**

- 7. *Urban bicycle boulevards.*
 - i. *Pavement design.* Must be in accordance with Table 3.
 - ii. *Context design.* Urban bicycle boulevard roadway bicycle and pedestrian facilities, and planting strips must be designed in accordance with the criteria set forth in Table 10.

TABLE 10. URBAN BICYCLE BOULEVARDS

Lee Plan Future Land Use Designation		Intensive	Central Urban	Urban Community
Existing/Proposed Land Use		All	All	All
On-Road Bicycle Facility		8 ft bike lane	6 ft - 8 ft bike lane	4 ft - 6 ft bike lane
Streetside	Planting Strip	8-foot strip	8-foot strip	8-foot strip
	Pedestrian Facility Width	6 feet	6 feet	5 feet

- iii. *Cross-section.* The following cross-section is illustrative of an urban bicycle boulevard. All urban bicycle boulevards are designed with open drainage graded to drain to planting areas with a design speed of 20 mph with speed restrictions.

Urban Bicycle Boulevard
Open Drainage, 20 mph

8. *Urban cycle tracks.*
 - i. *Pavement design.* Must be in accordance with Table 3.
 - a. *Bicycle facility width.* The width of a one-way urban cycle track will be a minimum of six feet to eight feet for bicycle traffic. The width of a two-way urban cycle track will be 12 feet.
 - ii. *Cross-section.* The following cross-section is illustrative of an urban cycle track. All urban cycle tracks are designed with closed drainage systems.

Urban Cycle Track
Closed Drainage

- (2) *Suburban roadways.* Roadway segments in or abutting future suburban areas identified in the Lee Plan will be designed in accordance with this section. Design criteria will be determined by the existing functional classification of the roadway identified in AC-11-1 and the future land use identified in the Lee Plan Future Land Use Map.
 - a. *Lane width.* For roadways with two-way traffic and no existing or planned transit route(s), the required lane width must be as specified in the context design tables. The required lane width for one-way streets is 14 feet. For roadways with an existing or planned transit route, the required lane width for lanes utilized by the transit vehicle is 12 feet.
 - b. *Transit facilities.* Bus pull-off areas, shelters and a bench will be provided consistent with this chapter and will have:
 - i. A sign with route number(s).
 - ii. An eight feet by 30 feet minimum concrete landing pad. The landing pad will have a maximum two percent cross-slope and will be connected by an accessible route to, or be a part of, an existing pedestrian way.
 - iii. Bicycle parking.
 - c. *Tree wells/planting strips.* Dimensions, plant materials specifications irrigation must comply with AC-11-12 with closed drainage dimensions shown in Table 4 as minimums. If an open drainage cross-section is being utilized, the plantings must occur outside of the minimum clear zone/recovery area based on Florida Greenbook Table 3-12. The

planting area may utilize islands or areas between on-street parking spaces to provide adequate area for tree growth.

- d. *Tree and palm spacing* . Small trees (under 30 feet at mature height) must be provided at a rate of four trees for every 100 linear feet. Medium sized trees (30 feet to 40 feet at mature height) must be provided at a rate of three trees for every 100 linear feet. Large trees (over 40 feet at mature height) must be provided at a rate of two trees for every 100 linear feet. Trees should be spaced evenly along the frontage and not clustered. Adjustments to the placement of trees up to ten feet is permitted to avoid conflicts with utilities and building visibility. Palm trees may only be substituted for a maximum of 50 percent of the required small trees.
- e. *Bicycle and pedestrian facilities*. Include a shared use path when depicted on the bikeways/walkways facilities plan Map 3D of the Lee Plan or Greenways Plan Maps 22 of the Lee Plan. Where a shared use path or greenway is not depicted, pedestrian facility width dimensions will be governed by design tables contained in this section.
- f. *Streetlighting*. Must be provided in accordance with AC-11-2. When streetlighting is required in or abutting coastal areas or environmental preserves, it must be constructed utilizing environmentally friendly techniques.
- g. *Mixed use development*. Must use commercial roadway context design criteria.
- h. *Suburban context design criteria*.
 - 1. *Suburban arterials*.
 - i. *Pavement design*. Must be in accordance with Table 3.
 - ii. *Context design*. Suburban arterial roadway lane width, bicycle pedestrian facilities, and planting strips must be designed in accordance with the criteria set forth in Table 11.

TABLE 11. SUBURBAN PRINCIPAL ARTERIAL

Existing/Proposed Land Use		Commercial	Residential
Lane Width		12 feet	12 feet
On-Road Bicycle Facility		5-foot bike lane	5-foot bike lane
Streetside	Planting Strip	6-foot strip	5-foot strip
	Pedestrian Facility Width	8 feet	6 feet

- iii. *Cross-sections*.
 - a. The following cross-section is illustrative of suburban principal arterials with closed drainage.

**Suburban Principal Arterial
Closed Drainage**

- b. The following cross-section is illustrative of suburban principal arterials with open drainage.

**Suburban Principal Arterial
Open Drainage**

- 2. *Suburban minor arterials.*
 - i. *Pavement design.* Must be in accordance with Table 3.
 - ii. *Context design.* Suburban minor arterial roadway lane width, bicycle and pedestrian facilities, and planting strips must be designed in accordance with the criteria set forth in Table 12.

TABLE 12. SUBURBAN MINOR ARTERIAL

Existing/Proposed Land Use		Commercial	Residential
Lane Width		11 feet	11 feet
On-Road Bicycle Facility ⁽¹⁾		5-foot bike lane	5-foot bike lane
Streetside	Planting Strip	6-foot strip	5-foot strip
	Pedestrian Facility Width	8 feet	6 feet

⁽¹⁾ Where identified in Table 9, on-road bicycle lanes are required where the posted speed limit is greater than or equal to 35 mph. On-road bicycle lanes will be five feet in width when adjacent to a turn lane.

- iii. *Cross-sections.*
 - a. The following cross-section is illustrative of suburban minor arterials with closed drainage.

**Suburban Minor Arterial
Closed Drainage**

b. The following cross-section is illustrative of suburban principal arterials with open drainage.

**Suburban Minor Arterial
Open Drainage**

- 3. *Suburban major collectors.*
 - i. *Pavement design.* Must be in accordance with Table 3.
 - ii. *Context design.* Suburban major collector roadway lane width, bicycle and pedestrian facilities, and planting strips must be designed in accordance with the criteria set forth in Table 13.

TABLE 13. SUBURBAN MAJOR COLLECTOR

Existing/Proposed Land Use		Commercial	Residential
Lane Width		11 feet	11 feet
On-Road Bicycle Facility ⁽¹⁾		Shared lane	Shared lane
Streetside	Planting Strip	6-foot strip	5-foot strip
	Pedestrian Facility Width	6 feet	5 feet

(1) Where identified in Table 10, on-road bicycle lanes are required where the posted speed limit is greater than or equal to 35 mph.

iii. *Cross-sections.*

a. The following cross-section is illustrative of a suburban major collectors with closed drainage.

**Suburban Major Collector
Closed Drainage**

b. The following cross-section is illustrative of suburban major collectors with open drainage.

**Suburban Major Collector
Open Drainage**

4. *Suburban minor collectors.*

i. *Pavement design.* Must be in accordance with Table 3.

ii. *Context design.* Suburban minor collector roadway lane width, bicycle and pedestrian facilities, and planting strips must be designed in accordance with the criteria set forth in Table 12.

TABLE 14. SUBURBAN MINOR COLLECTOR

Existing/Proposed Land Use	Commercial	Residential
Lane Width	11 feet	11 feet

On-Road Bicycle Facility		Shared lane	Shared lane
Streetside	Planting Strip	6-foot strip	5-foot strip
	Pedestrian Facility Width	6 feet	5 feet

iii. *Cross-sections.*

- a. The following cross-section is illustrative of a suburban minor collector with closed drainage.

**Suburban Minor Collector
Closed Drainage**

- b. The following cross-section is illustrative of suburban minor collectors with open drainage.

**Suburban Minor Collector
Open Drainage**

- 5. *Suburban local streets.*
 - i. *Pavement design.* Must be in accordance with Table 3.
 - ii. *Context design.* Suburban local street roadway lane width, bicycle and pedestrian facilities, and planting

strips must be designed in accordance with the criteria set forth in Table 15.

TABLE 15. SUBURBAN LOCAL STREET

Existing/Proposed Land Use		Commercial	Residential
Lane Width		11 feet	10 feet
On-Road Bicycle Facility		None	None
Streetside	Planting Strip	6-foot strip	5-foot strip
	Pedestrian Facility Width	6 feet	5 feet

iii. *Cross-sections.*

a. The following cross-section is illustrative of suburban local streets with closed drainage.

**Suburban Local Street
Closed Drainage**

b. The following cross-section is illustrative of suburban local streets with open drainage.

**Suburban Local Street
Open Drainage**

6. *Suburban cycle tracks.*

i. *Pavement design.* Must be in accordance with Table 3.

- ii. *Cross-sections.* The following cross-section is illustrative of a suburban cycle track. All suburban cycle tracks drainage systems.

**Suburban Cycle
Tracks Open
Drainage**

- (3) *Non-urban roadways.* Roadway segments in or abutting to future non-urban areas identified in the Lee Plan will be designed in accordance with this sub-section. Design criteria will be determined by the existing functional classification of the roadway identified in AC-11-1 and the future land use.
 - a. *Lane width.* For roadways with two-way traffic and no existing or planned transit route(s), the required lane width must be as specified in this subsection. The required lane width for one-way streets is 14 feet.
 - b. *Transit facilities.* All bus stops in non-urban land use categories will have:
 1. A route number(s) sign.
 2. A minimum eight feet by five feet minimum concrete landing pad on a flush shoulder area with stabilized subgrade. The landing pad will have a maximum two percent cross-slope and will be accessible.
 - c. *Tree and palm spacing.* No street trees are required in the planting strips along non-urban roadways. Any trees provided in planting strips on non-urban roadways must comply with the clear zone requirements indicated in the Florida Greenbook Table 3-12.
 - d. *Bicycle and pedestrian facility.* A separated bicycle and pedestrian facility is required where depicted on Lee Plan Maps 3D or 22.
 - e. *Non-urban context design criteria.*
 1. *Non-urban principal and minor arterials.*
 - i. *Pavement design.* Must be in accordance with Table 3.
 - ii. *Lane width.* Non-urban arterial roadway segments must be designed with 12 feet wide lanes and five feet wide paved shoulders.
 - iii. *Cross-sections.* The following cross-section is illustrative of non-urban arterial roadway segments. All non-urban arterial cross-section drawings reflect open drainage. The following cross-section applies to non-urban principal and minor arterials.

Non-Urban Principal & Minor Arterial

2. *Non-urban major collectors.*
 - i. *Pavement design.* Must be in accordance with Table 3.
 - ii. *Lane width.* Non-urban major collector roadway segments must be designed with 11 feet wide lanes and five feet wide paved shoulders.
 - iii. *Cross-section.* All non-urban major collector cross-section drawings reflect open drainage design. The following cross-section is illustrative of non-urban major collectors.

Non-Urban Major Collector

3. *Non-urban minor collectors.*
 - i. *Pavement design.* Must be in accordance with Table 3.
 - ii. *Lane width.* Non-urban minor collector roadway segments must be designed with 11 feet wide lanes and five feet wide paved shoulders.
 - iii. *Cross-section.* All non-urban minor collector cross-section drawings reflect open drainage.

Non-Urban Minor Collector

4. *Non-urban local streets.*

- i. *Pavement design.* Must be in accordance with Table 3. Asphaltic wearing course is not required for residential development of 0.4 or less dwelling units per acre, and all residential developments located on islands where direct vehicular access to the mainland by bridge, causeway or street is not attainable.
- ii. *Lane width.* Non-urban local street roadway segments must be designed with 11 feet wide travel lanes adjacent to non-residential land uses and ten feet wide travel lanes adjacent to residential uses. Travel lane width may be reduced to nine feet on a non-urban local street adjacent to residential uses where daily traffic volumes will be less than 400 vehicles per day and with design speed 35 mph or lower and an eight feet wide shoulder.
- iii. *Cross-section.* All non-urban local street segments reflect open drainage. The following cross-section is illustrative of non-urban local streets.

Non-Urban Local Street

- (f) *Conformance with state construction standards.* All construction materials, methods and equipment must conform to the requirements of the FDOT Standard Specifications for Road and Bridge Construction, current edition, and such other editions, amendments or supplements as may be adopted by the FDOT.
- (g) *Dedication of right-of-way and completion of improvements.* Prior to acceptance of the streets or the release of security, the developer must dedicate the rights-of-way and complete the improvements, or provide funds for the completion or installation of the improvements in conformance with the standards and specifications of this chapter.
- (h) *Existing nonconforming access routes.* Existing nonconforming access routes to new proposed subdivisions may be permitted upon approval of a variance or a planned development deviation.
- (i) *State roads.* Streets designated as state roads will be required to meet all additional state department of transportation requirements.
- (j) *Intersection design.* Streets must be designed to intersect as nearly as possible at right angles. Multiple intersections involving the juncture of more than two streets is prohibited. A minimum sight distance of 200 feet from every intersection on private roadways and consistent with the Florida Greenbook on public roadways must be maintained on all intersecting streets. This requirement may not be construed to increase the minimum allowable intersection separation of 125 feet.
 - (1) The angle of intersection of intersecting streets must be in accordance with the requirements of Table 16.

TABLE 16. ANGLE OF INTERSECTION

Street Type	Intersecting Street Type	Angle (degrees)	
		Minimum	Maximum
Local or access	Local or access	75	105
	Major or Minor Collector	80	100

	Principal or Minor Arterial	85	95
Major or Minor Collector	Major or Minor Collector	85	95
	Principal or Minor Arterial	85	95
Principal or Minor Arterial	Principal or Minor Arterial	85	95

(2) The inside edge of the pavement at street intersections must be rounded with a minimum radius as shown in Table 17.

TABLE 17. MINIMUM EDGE OF PAVEMENT RADIUS AT INTERSECTING STREETS

Street Type	Intersecting Street Type	Minimum Radius (feet)					
		Residential			Commercial/Industrial		
		Urban	Suburban	Non-Urban	Urban	Suburban	Non-Urban
Local	Local	10	25	25	15	30	30
	Major or Minor Collector	15	30	30	15	35	35
	Principal or Minor Arterial	20	40	40	20	45	45
Major or Minor Collector	Major or Minor Collector	25	40	40	20	50	50
	Principal or Minor Arterial	25	50	50	25	50	50
Principal or Minor Arterial	Principal or Minor Arterial	25	50	50	25	50	50

These values apply to a street type having two lanes without a median. Whenever the street type is divided by a median, the minimum pavement width is 14 feet on each side of the median and the edge of pavement radius will be determined by a special study using a WB-40 vehicle that negotiates the turn without encroaching on the median. Greater radii may be required where school buses will be routed or if an engineering study determines that traffic conditions warrant a larger radius.

(3) The property line radius must follow the curvature of the inside edge of pavement and be offset a minimum distance equivalent to the pavement/property line offset used on the roadway design section.

(k) *Culs-de-sac*.

(1) Dead-end streets, designed to be so permanently, must be closed at one end by a circular turnaround for vehicles and constructed according to the following standards:

- a. Diameter of pavement to inside edge of curb or edge of pavement must be a minimum of 90 feet outside diameter, and 90 feet inside diameter.
- b. Diameter of right-of-way for curb and gutter section: 110 feet.
- c. The diameter of right-of-way for ditch and swale drainage must be a minimum of 130 feet.
- (2) The island in the center of the circular turnaround may be paved solid, kept unpaved to preserve existing vegetation, or enhanced with additional vegetation, provided that vegetation does not cause a visual obstruction between 2 feet and seven feet in height above grade, and provided further that proper maintenance agreements have been filed with Lee County.
- (3) The transition from the cul-de-sac pavement to the regular approaching pavement width must be as shown in section 10-714.
- (4) All streets ending in culs-de-sac that are over 250 feet long must have a standard "No Outlet" traffic sign installed at the street entrance and paid for by the developer.
- (l) *Privately maintained accessways.* The following privately maintained accessways are not required to meet the minimum roadway right-of-way widths specified in subsection (b) of this section:
 - (1) Parking lot aisles (as defined in chapter 34);
 - (2) Parking lot accesses (as defined in chapter 34);
 - (3) Driveways (as defined in this chapter); and
 - (4) Accessways that meet the following three requirements:
 - a. Provide vehicle access to 100 or fewer multi-family residential units;
 - b. Pavement width meets the dimensional requirements for parking lot aisles at areas of back-out parking; and
 - c. Provide for utility easements in accordance with section 10-355(a)(1) if utilities are to be located in or adjacent to the accessway.
- (m) *Streets and driveways in wetland areas.* Notwithstanding other provisions of this chapter, new roads or driveways permitted in wetland areas in accordance with the Lee Plan must be culverted or bridged to maintain the pre-development volume, direction, distribution and surface water hydroperiod.
- (n) *Work in County right-of-way.*
 - (1) Except for emergency repair work, no individual, firm or corporation may commence any work within County-maintained rights-of-way or easements without first having obtained a permit from the County Department of Transportation. For the purposes of this section only, "work" means:
 - a. Excavation, grading or filling activity of any kind, except the placement of sod on existing grade; or
 - b. Construction activity of any kind except the placement of a mail or newspaper delivery box in accordance with section 34-2192.
 - (2) The County Department of Transportation will not issue a permit for any private road to connect to any County-maintained road other than a residential driveway without approval of drainage plans prepared by a registered engineer. (See section 10-716 for approved utility piping materials for use in County right-of-way.)
 - (3) For single residential buildings of two dwelling units or less on County-maintained streets, the County Department of Transportation will do all necessary field survey work to establish the proper grade, pipe diameter and length for driveway culverts.
 - (4) The inside edge of the pavement at the driveway connection to the street must be flared or rounded with a minimum radius consistent with the requirements of Table 18. A deviation from these standards may be issued administratively pursuant to section 10-104.

TABLE 18. MINIMUM EDGE OF PAVEMENT RADIUS AT DRIVEWAYS

Street Drainage	Intersecting Street Type	Minimum Radius (feet)	
		Residential	Commercial/Industrial

Closed (curb and gutter)	Local	N/A	N/A
	Major or Minor Collector	30 (10 in urban area)	35 (10 in urban area)
	Principal or Minor Arterial	40 (10 in urban area)	45 (10 in urban area)
Open (no curb and gutter)	Local	25	30
	Major or Minor Collector	30	35
	Principal or Minor Arterial	40	45

(o) *Roundabouts*. Roundabouts must be designed consistent with the U.S. Department of Transportation publication, *Roundabouts: An Informational Guide*, current edition as modified by AASHTO and FDOT.

(Ord. No. 92-44, § 9(P), 10-14-92; Ord. No. 94-07, § 9, 2-16-94; Ord. No. 94-28, §§ 17, 18, 10-19-94; Ord. No. 96-06, § 4, 3-20-96; Ord. No. 97-10, § 3, 6-10-97; Ord. No. 98-11, § 2, 6-23-98; Ord. No. 99-05, § 4, 6-29-99; Ord. No. 00-14, § 3, 6-27-00; Ord. No. 01-18, § 2, 11-13-01; Ord. No. 02-20, § 3, 6-25-02; Ord. No. 07-24, § 3, 8-14-07; Ord. No. 09-23, § 4, 6-23-09; Ord. No. 10-25, § 2, 6-8-10; Ord. No. 11-08, § 4, 8-9-11; Ord. No. 17-11, § 1, 9-5-17)