



ALACHUA COUNTY GROWTH MANAGEMENT STAFF REPORT

UNIFIED LAND DEVELOPMENT CODE TEXT AMENDMENT

SUBJECT: A County-initiated request to amend the Unified Land Development Code.

APPLICATION NUMBER: Z25-000013

CHRONOLOGY:

Request to Advertise	05/13/2025
BoCC Adoption Hearing	06/24/2025

STAFF RECOMMENDATION:

For the Board of County Commissioners to approve County initiated amendments to the Unified Land Development Code (ULDC).

1. Convene as the Land Development Regulation Commission and find the ULDC amendments consistent with the Alachua County Comprehensive Plan.
2. Reconvene as the Board of County Commissioners and approve the ordinance and authorize the Chair's signature on the ordinance.

SUMMARY OF PROPOSED AMENDMENT

The proposed amendments would update the County's Street Design Specifications table to more closely follow State and National best practice. In addition, updates to related sections of the code regarding street design, including the TOD/TND code, will be updated to align with and refer to the updated Table 407.141.1.

Staff Analysis of the Proposed Text Amendments

Comprehensive Plan Consistency

Staff find the proposed amendments to be internally consistent with the Alachua County Comprehensive Plan as a whole, and with the following policies, as applicable:

Transportation Mobility Element

Policy 1.1.2 *Urban Transportation Mobility Districts are designed to support compact, mixed-use developments provided for in the Future Land Use Element by developing an interconnected multi-modal transportation system that reduces per capita greenhouse gas emissions by encouraging walking, bicycling and driving short distances between residential, retail, office, educational, civic and institutional uses and utilizing transit to commute to regional employment, educational and entertainment destinations.*

Policy 1.1.3 *The intent of Urban Transportation Mobility Districts are:*

(a) *To provide for mobility within urban areas through the development of an interconnected network of:*

(1) *Roadways that provide multiple route choices, alternatives to the state road system and protect the Strategic Intermodal System (SIS).*

(2) *Rapid Transit and Express Transit Corridors that connect Transit Oriented Developments, Traditional Neighborhood Developments and Activity Centers and facilitate efficient and cost effective transit service to regional employment, educational and entertainment destinations.*

(3) *Bicycle lanes, sidewalks, and multi-use paths that connect residential, commercial, office, educational and recreation uses and provide multi-modal access to transit.*

Policy 1.1.4 *Within the Urban Cluster, the County adopts multi-modal level of service (LOS) guidelines for the following:*

	Level of Service (LOS)	Standard of Measure
<i>Pedestrian</i>	<i>B</i>	<i>Based on Presence of a pedestrian facility</i>
<i>Bicycle</i>	<i>B</i>	<i>Based on Presence of a bike lanes / paved shoulders</i>
<i>Express Transit</i>	<i>B</i>	<i>Based on Peak Hour Frequency of 15 minutes or less</i>
<i>Motor Vehicle*</i>	<i>D</i>	<i>Professionally Accepted Traffic Analysis</i>

* *Guideline applies to Collector and Arterial Roads*

(a) *In order to achieve the level of service guideline for pedestrians and bicyclists, the facility shall run the entire length of the roadway segment. A pedestrian facility shall be either a multi-use path on one (1) side of the roadway or sidewalks on both sides of the roadway. A multi-use path along a roadway shall result in a LOS B for bicyclists. The LOS for bicycle and pedestrian travel is the goal for all collector and arterial roadways within the Urban Cluster by 2040, not a standard that is intended to be achieved on an annual basis for each roadway.*

Policy 1.1.8 The following are internal street network requirements for all development within the Urban Cluster:

(a) Developments are required to design and construct a continuous interconnected network designed to safely calm traffic and encourage walking and bicycling throughout the development.

(b) Street design standards shall address narrow pavement and right-of-way widths, turning radii, on-street parking, and other design criteria for streets and alleys. Standards shall promote walking and biking, ensure safety for all users and allow for emergency access.

Policy 1.3.1 Proposed development shall be reviewed during the Development Review process for the provision of adequate and safe on-site circulation, including pedestrian and bicycle facilities, public transit facilities, access modifications, loading facilities, and parking facilities. In addition to Comprehensive Plan policies, such review shall include FDOT access management standards. Design criteria, standards, and requirements to implement this policy shall be included in the update of the land development regulations.

Policy 1.3.5 The land development regulations shall include standards, criteria, and procedures to ensure that an adequate system of roads functionally classified as local provides safe and maintainable access to new development that will use such roads. These regulations shall include design standards to ensure that the structural integrity and volume capacity of such roads are adequate based on projected trips to and from such development and shall take into account requirements for fire-fighting and other emergency vehicle access. Evaluation and approval of new development proposals shall include assessment of impact on and capacity of directly connected existing local roads.

Policy 1.6.4 New development proposals shall be reviewed as part of the Development Review process for the provision of adequate and safe bicycle and pedestrian facilities consistent with policies in the Future Land Use Element. Standards and requirements for bicycle and pedestrian facilities (such as sidewalks, pedestrian paths, bicycle lanes, and bicycle parking) shall be detailed in the land development regulations and include elements such as amount, design, and location.

Policy 1.6.5 Streets and roads shall be designed such that automobile and non-automobile modes of transportation are equitably served to the greatest extent possible. Design will include public and emergency vehicle access. Such designs shall include strategies to calm automobile traffic, provide a pleasant pedestrian environment, and create safe, balanced, livable streets, such as:

- (a) narrow travel lane width,
- (b) minimum turning radius,
- (c) bike lanes,
- (d) pedestrian-friendly frontage uses and design,
- (e) street trees, street furniture, and landscaping,
- (f) wide sidewalks,
- (g) crosswalks, and/or
- (h) gridded street system of short blocks.

Fiscal Impact Analysis

Impact on the initial cost of housing and the long-term cost of homeownership.

The proposed amendments have potentially variable impacts on the cost of transportation infrastructure in new housing development. Many of the street cross-sections in the proposed revisions have reduced the amount of impervious surface and right of way requirements from previous ULDC standards. This should lower initial and long-term costs for those cross-sections. However, some of the cross-sections that serve high vehicle volumes may require more substantial infrastructure to meet state and national standards, which may increase costs. The net impact on any single development will depend on the overall transportation layout and the relative lane miles of individual cross sections.

Impact on the County and County Taxpayers.

As the County largely constructs Collector and higher order roadways, it is possible that these amendments may result in increased costs to the County or County Taxpayers for a given project depending on specific context. Since publicly constructed projects often deal with constraints, including available rights of way, the proposed Code does allow design flexibility for County projects, so the fiscal impact of this code update can only be assessed on a per-project basis.

STAFF RECOMMENDATION

Staff recommend that the BoCC approve the county-initiated amendments to the ULDC for a public hearing for adoption.

Staff propose amending the ULDC text as shown in the underlined and ~~striketrough~~ proposed language as follows:

CHAPTER 407 GENERAL DEVELOPMENT STANDARDS
ARTICLE VII TRADITIONAL NEIGHBORHOOD AND TRANSIT ORIENTED
DEVELOPMENTS

Sec. 407.68. Transit supportive area design standards.

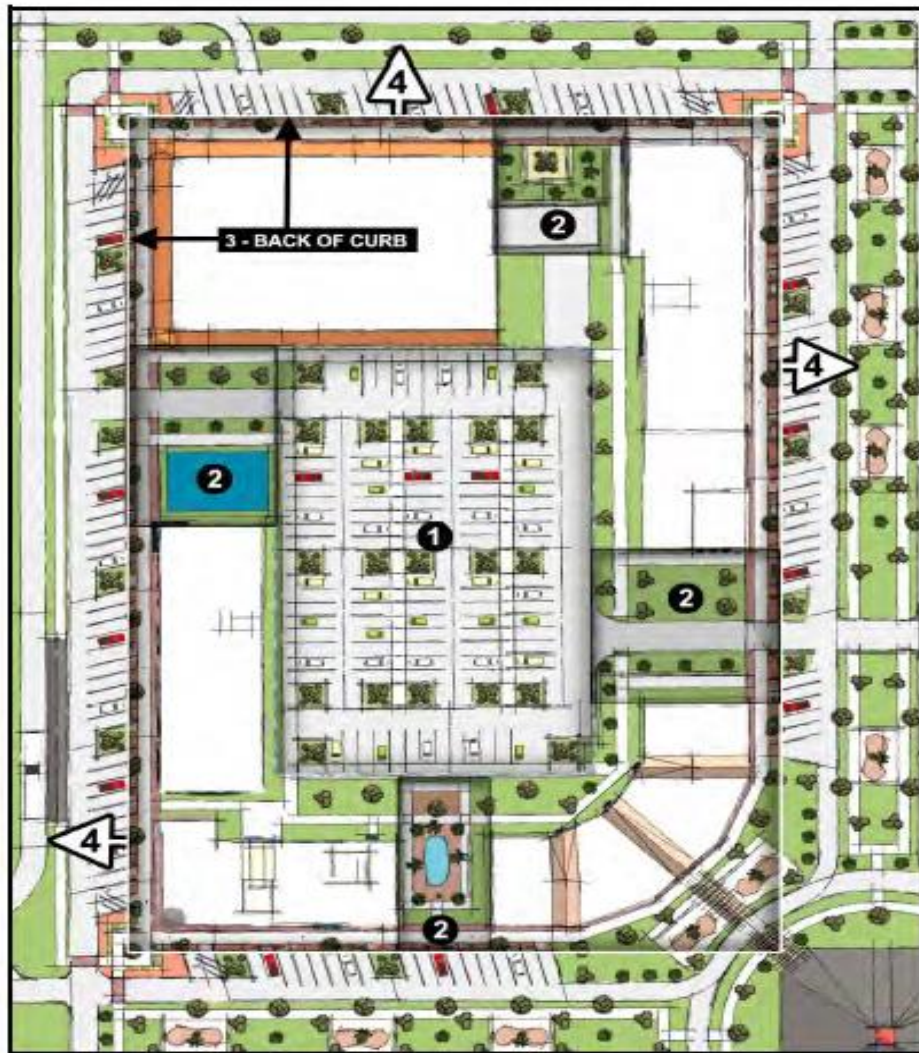
(a) *Block perimeter.*

- (1) The TSA in TND and TOD developments shall be designed with a regular block pattern. Blocks within the TSA shall have a maximum perimeter consistent with this Section. The perimeter of a block shall be measured from the back of curb. Conservation areas, topographic constraints and property boundary lines can form the sides of a block.

Table 407.68.1 Maximum Block Perimeter		
Location	Maximum Block Perimeter (ft.)	
	Standard	Extended
Village Center	1,300	2,000
Inside the TSA, outside the VC	1,600	2,300

- (2) The extended maximum block perimeter in Table 407.68.1 may be used if the block contains parking interior to the block.
 - (3) In addition to the extended block, an additional seven hundred (700) feet of block perimeter may be allowed where a continuous ten-foot multi-use path with limited vehicular crossings and with shade trees alternating forty (40) feet on center is provided. This path forms an internal bicycle and pedestrian block that does not exceed the extended perimeter blocks length.
 - (4) For projects of one hundred (100) acres or more, maximum block perimeter may be extended up to three thousand (3,000) feet if the block contains:
 - a. A parking structure with at least one level above surface parking; or
 - b. A single tenant retail use greater than twenty-five thousand (25,000) square feet with parking interior to the block.
- (b) *Building orientation and design.*
- (1) *Orientation and location.*
 - a. The front of buildings shall be oriented toward the more primary adjacent street. Where a building is not adjacent to a street, the front of the building shall be oriented toward a greenspace or civic space.
 - b. Primary pedestrian entrances to buildings shall be provided and accessible on the front of a building with limited exceptions allowed for residential or lodging uses that have units fronting a parking area located interior to a block. Primary pedestrian entrances shall be designed for access by the public.
 - c. Shade along the building frontage shall be provided for pedestrians through architectural features such as covered walkways, terraces, balconies, awnings and street trees.
 - (2) *Scale and massing.*
 - a. Individual buildings shall use human-scaled, pedestrian-oriented architectural features, such as windows, balconies, porches, awnings and arcades, and shall clearly articulate the first story and primary entrances. Decorative, pedestrian scale lighting shall be provided at the entrance of all buildings.
 - b. Any building with a single frontage of more than one hundred (100) feet shall be designed to create a visual impression of a series of smaller buildings or sections. Windows, doors, shutters, columns, masonry detailing and variations in the front roofline, recessed building walls and variations in colors and materials shall be used to break up the mass of a single building.
 - c. Buildings within a block shall reflect a continuity of building scale at the building line.
 - d. Buildings shall avoid uninterrupted walls or roof planes. Windowless walls are prohibited along street frontages. Walls shall be broken up using a variety of articulation techniques and areas of transparency.
 - (3) *Building articulation and materials.*
 - a. No more than twenty-five (25) feet of horizontal distance of a wall shall be provided without articulation or architectural relief for building walls facing a street or greenspace, even if the building wall faces a street or greenspace outside of the TND or TOD.
 - b. At least twenty-five (25) percent of the exterior siding material must be different than the primary siding material, except for brick and stone.
 - (4) *Glazing.*
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- a. Glazing shall be provided on front and side building walls for all facades that front a street, civic space such as plaza or square, or directly adjacent pedestrian walkway.
- b. Glazing percentages for the first floor shall be calculated based upon the facade area between three (3) feet above grade and eight (8) feet above grade. Glazing percentages for floors above the first shall be calculated based upon the full facade area.
 1. Front building walls shall have windows covering at least fifty (50) percent of the first floor facade. Front building walls above the first floor shall have at least twenty (20) percent glazing.
 2. Side building walls shall have windows covering at least thirty (30) percent of the first floor facade. Side building walls above the first floor shall have at least ten (10) percent glazing.
- c. Operable entrance doors shall be excluded from the calculation of total facade surface area.
- d. Windows or glazed areas facing a sidewalk on the first story of a commercial or mixed-use building shall use glass which is at least eighty (80) percent transparent.



Sample Block Showing: (1) parking interior to the block; (2) limited, pedestrian scaled common areas screening the surface parking; (3) back of curb; and (4) block perimeter measured at the back of curb.

- (5) *Garages.* Garages serving single-family or multi-family uses shall provide entries from alleys or side streets with anticipated daily traffic volumes of less than one thousand two hundred (1,200) AADT wherever practicable. Front-entry garages shall be set back a minimum of ten (10) feet behind the primary building line.
 - (6) *Parking structures.* Parking structures shall be designed to allow for commercial, office, civic or residential uses lining the structure on the ground floor where the parking structure abuts a street. The parking structure shall be designed to integrate seamlessly with surrounding development and shall provide pedestrian oriented design on the ground floor abutting a street.
 - (7) *Colonnades.* Roof or overhangs supported by colonnades at or within seven (7) feet of a sidewalk shall have a minimum clearance height of nine (9) feet (excluding signage or lighting).
 - (8) *Existing buildings.* Every effort shall be made to meet the TND requirements by appropriately incorporating existing buildings into the design of the neighborhood.
 - (9) *Trash collection facilities.* All recycling and trash collection facilities shall be located to the rear of buildings or within buildings or parking facilities. All recycling and trash collection facilities shall be screened as required by Subsection 407.10(b) of this ULDC.
 - (10) *Utilities.* Above ground utilities, except for life safety, should be located to the rear and side of buildings. All above ground utility access, transfer and conveyance points such as panels, boxes, meters, and valves shall be screened from the street and sidewalks through architectural features and/or landscaping.
- (c) *Parking.*
- (1) *Off-street surface parking.* Off-street surface parking is not required. Where provided, off-street surface parking shall meet the standards of the parking schedule in Table 407.68.2. These maximums shall not apply to structured parking, park-and ride, and on-street parking.

Table 407.68.2 Maximum Off-Street Surface Parking for in the TSA of TNDs and TODs	
Use	Maximum Number of Spaces
Non-residential	3 per 1,000 sq. ft. gross floor area
Multi-family residential and hotel	0.5 per 400 sq. ft. gross floor area

- (2) Parking spaces may be pooled and utilized anywhere within the development.
 - a. Off-street surface parking shall be located to the rear of buildings and interior to the block. A minimum of seventy-five (75) percent of the perimeter block length shall be lined by buildings, excluding access to off-street surface parking. Along any portion of a block not lined by buildings, off-street surface parking shall be located at least twenty-five (25) feet from the back of curb. To screen the parking, between the back of curb and off-street parking, there shall be a sidewalk and a plaza with lighting, seating, architectural features, landscaping, low impact design techniques and fifty (50) percent of ground surface areas under mature tree canopy at twenty (20) years.
 - b. Up to two (2) driveways may be provided per block face. However, no block shall have more than six (6) driveways.
 - c. Off-street surface parking areas adjacent to a conservation area, topographical constraint, or property boundary and not lined by buildings shall provide a minimum of an ten ~~eight~~-foot wide multi-use path with shade trees alternating forty (40) foot on center. The perimeter block length along a conservation area, topographical constraint, or property boundary may exceed twenty-

five (25) percent of the total block perimeter; however the remainder of the block shall be lined by buildings, excluding access to off-street parking.

- d. Off-street parking shall clearly delineate routes for pedestrians and bicycles through parking areas to accommodate safe and convenient pedestrian and bicycle circulation between uses and create a park-once environment.
- e. A single transitional off-street surface parking area may be allowed per development. The perimeter block length shall not exceed the perimeter block length requirements of this Article. Plans shall be submitted demonstrating how liner buildings will be provided at a future date along with justification why the additional parking is needed and why it cannot be provided elsewhere. Within this block, off-street surface parking shall not be located closer than twenty-five (25) feet to the back of curb and off street surface parking shall be lined by a sidewalk and a plaza with lighting, seating, architectural features, landscaping and fifty (50) percent mature tree canopy at twenty (20) years.
- f. In addition to the single transitional lot, a TOD more than one hundred (100) acres in size is allowed one (1) block with parking interior per every one hundred (100) acres where the block face is lined by buildings on fifty (50) percent or greater of the block so long as there are buildings on three (3) sides of the block face and at least one (1) of the structures on the block is multistory. Off-street surface parking shall be setback at least twenty-five (25) feet from the back of curb. To screen the parking, within the setback there shall be a sidewalk and a plaza with lighting, seating, architectural features, landscaping and fifty (50) percent mature tree canopy at twenty (20) years.
- g. Single occupant retail uses greater than twenty-five thousand (25,000) square feet per floor may have parking in front of buildings provided all surface parking and the side and rear of the building are screened from adjacent streets by liner buildings. The rear of the building for single occupant retail uses between twenty-five thousand (25,000) and fifty thousand (50,000) square feet per floor may front a street as long as a functional entrance is provided and the architecture of the building provides a pedestrian friendly environment in compliance with all design requirements for buildings fronting a street.
- h. Off-street surface parking areas shall be landscaped to reduce heat-island effects, stormwater pollution and rate of flow from developed areas, minimize glare, and limit noise impacts from automobile uses.
 - 1. Off-street parking areas shall contain sufficient canopy trees to produce a mature canopy that provides fifty (50) percent shading of paved areas within twenty (20) years. Canopy trees are identified in Table 407.50.1 of this Chapter.
 - 2. The minimum planting area for trees shall be 25 square feet. The planting area shall be clear of impervious or semi-pervious materials but may include additional landscaping materials. Additional semi-pervious areas for trees shall vary according to Table 407.68.3.
 - 3. Planting strips, medians, islands, bulb-outs, or other planting areas may be depressed to accommodate stormwater runoff provided stormwater overflow is accommodated.

Table 407.68.3 Canopy Tree Planting Requirements for Off-Street Parking Areas	
Planting Area (sq. ft.)	Minimum Additional Semi-pervious Area (sq. ft.)
25—50	400
51—100	200
101—200	100
>200	0

4. The use of semi-pervious materials, such as pavers or porous pavement, is encouraged throughout parking areas to maximize the amount of usable space and ensure survival of landscaping.
- (3) Vehicular use areas, other than off-street surface parking, shall be located to the rear of buildings. Limited exceptions may be allowed for loading areas separated from through traffic by a physical barrier.
- (d) *Roadway network design.*
- (1) In order to provide for pedestrian oriented design along existing corridors, streets that are proposed parallel to existing roadways, without intervening buildings, shall be restricted to a cross section width of forty-eight (48) feet from curb face to curb face. In no such case shall angled parking be provided on both sides of the a new two-way street.
 - (2) Notwithstanding the requirements in Subsection 407.68(d)(1), developments with a valid preliminary development plan or planned development that identifies street and block locations and was approved prior to November 10, 2020 may provide street and block locations consistent with the approved preliminary development plan or planned development.
 - (3) Roadways within the transit supportive area shall be considered functionally classified as local roadways and shall be designed consistent with Table 407.68.4141.1 and the standards in this Section. ~~This Section does not include arterial and collector roadways on the Future Highway Function Classification Map which shall be designed consistent with the standards in Article XIII, Access Management and Street Network Standards; this Section may apply if a design exception or variance is approved by the County Engineer in accordance with the Florida Greenbook.~~
 - a. ~~All roadways within the transit supportive area shall provide curb and gutter on both sides of the roadway. The use of curb cuts and other low impact design techniques shall be encouraged and allowed.~~
 - b. ~~All roadways within the transit supportive area shall provide street trees. Standards for street tree planting shall be consistent with Subsection 407.43.1(b) of this Chapter. Street trees may be provided in bulb-outs.~~
 - c. ~~In the transit supportive area sidewalks shall be provided on both sides of streets. The DRC may approve a cross section that includes a sidewalk on only one (1) side of a street in limited situations where a single sidewalk would not reduce pedestrian circulation. Streetscape elements within the transit supportive area shall include pedestrian scale lighting, street furniture, waste receptacles, locational maps, planters, and street trees. Required minimum sidewalk widths are:~~
 1. ~~Eight (8) feet for single family attached/multi family/nonresidential (excluding commercial);~~
 2. ~~Ten (10) feet for commercial/mixed use; and~~

- ~~3. Single family detached areas shall provide either six foot sidewalks on both sides of streets or a single ten foot multiuse path if the front of the homes are oriented to the path.~~
- ~~d. Innovative traffic calming techniques, except along roadways identified on the Future Highways-Functional Classification Map of the Comprehensive Plan, are allowed along roadways and at intersections within the development. Techniques may include raised intersections, woonerfs (streets where pedestrians and cyclists have legal priority using techniques including shared space, traffic calming and low speed limits), shared multi-modal spaces with reduced markings and signage in addition to other innovations that enhance pedestrian and bicycle mobility. For publicly maintained roadways projected to carry more than seven thousand five hundred (7,500) daily trips, traffic calming techniques shall be limited to horizontal deflections.~~
- ~~e. Priority shall be given to the design of roadway, transit, bicycle, pedestrian facilities, and required landscaping in the allocation of space within the right of way. Where location of utilities conflicts with the priority considerations, utilities shall be located outside the right of way.~~

Table 407.68.4 Roadway Design Standards for Transit Supportive Area and Village Center							
Daily Trips	Number of Lanes	Design Speed (mph)	Travel Lane Type Width (ft) ¹	Access Type ²	Median (ft)	Bike Lanes (ft) ³	On-Street Parking (ft) ⁴
Under 1,200	2	25	Cartway 18—20	Direct	No	No	7
1,200—2,500	2	25	Marked Lanes 10	Limited	10 (Optional)	4 (Optional)	7
2,500—7,500	2	30	Marked Lanes 10	Limited	12 (Optional)	5	8
7,500—20,000	2	35	Marked Lanes 10	Limited	16—22	5	8
15,000—40,000	4	35	Marked Lanes 10	Limited	16—22	5	8
¹ If transit is projected to run on the roadway outside of dedicated transit lanes, then the lane width shall be eleven (11) feet. ² "Direct" means that individual <u>uses</u> may utilize a driveway to the road. "Limited" means that individual <u>uses</u> must utilize a shared separate roadway, driveway or alley. ³ Bike lanes not adjacent to parallel parking may be reduced to four (4) feet. Bike lanes are optional for roadways between 2,500—7,500 ADT that are less than one quarter (0.25) mile in length or interrupted with stop control at intersections spaced no more than six hundred sixty (660) feet apart and are located within a TOD. ⁴ On street parking is optional, but must be provided on the majority of streets. Provision of on street parking shall be adequate to serve the proposed intensity of development in order that the required clearances for public safety vehicles are maintained. Angled parking is allowed on all roadways. Where on street parallel parking is provided it must be marked at the width indicated in the table or greater. The gutter pan of curbs can be used to meet the minimum on street parking widths. ⁵ Roadways with dedicated transit facilities located within the right of way shall be designed on a case by case basis and shall provide bicycle and pedestrian facilities and where practical, on street parking.							

- (4) Table 407.68.4 does not preclude the development of one-way streets. The design of one-way streets, alleys and streets featuring dedicated transit lanes shall be reviewed on a case-by-case basis. One-way streets shall have a pavement width between twelve (12) and fourteen (14) feet.
- (5) Cross access and stub streets shall be provided in order that the general block pattern of the development can be continued on adjacent properties upon development or redevelopment.
- (6) On-street parking.
 - a. Defined on-street parking shall be provided on the majority of block faces within the transit supportive area, and is allowed throughout the rest of the development. Bulb-outs and curb extensions shall be provided at a maximum interval of two hundred (200) feet. For block faces less than two hundred (200) feet, a bulb-out shall be provided at both ends of the block face.
 - b. On through collector and arterial roadways with a projected AADT greater than five thousand (5,000) trips angled on-street parking shall be accessed via a drive aisle separated from through-traffic by a landscaped median.

~~Parallel on-street parking or angled parking accessed by a drive aisle separated from through-traffic by a landscaped median are allowed and encouraged on arterial and collector roadways so long as it can be done in a safe manner that does not negatively impact the operations of the facility.~~

- c. The use of semi-pervious materials, such as pavers or porous pavement, is encouraged within on-street parking areas to reduce stormwater runoff and delineate parking areas.
- (7) External connectivity. Street stubs shall be provided to adjacent open land and adjacent developed parcels other than platted subdivisions to provide for future connections. Signs shall be posted, at the expense of the developer, advising residents of the intent and purpose of the stubbed street. Cul-de-sacs shall be permitted only where environmental concerns or existing platted development makes a street connection impracticable. Cul-de-sacs shall not exceed two hundred fifty (250) feet in length and shall be accessed from a street providing internal or external connectivity.
- (8) Utilities.
- a. Underground utilities are to be compressed to minimize right-of-way width, allow adequate space for street trees and provide for the visual definition of the street. Appropriate utilities shall be allowed to be placed in joint trenches.
 - b. All above ground utility access, transfer and conveyance points such as panels, boxes, meters, and valves shall be screened from the street and sidewalks through architectural features and/or landscaping.
 - c. Pressurized lines are allowed to be placed under roadways not shown on the Future Highway Functional Classifications Map of the Comprehensive Plan—and on roadways projected to carry less than fifteen thousand (15,000) daily trips.
- (e) *Transit network design.*
- (1) For developments contiguous with a rapid transit corridor, dedicated transit lane(s) for use by transit vehicles or fixed guide-way rail lines for streetcars or light rail shall be provided within or adjacent to the development consistent with the rapid transit corridor map. Dedicated transit lanes for buses shall be designed as concrete ribbon drives with raised curbs in a median or in right-of-way separated from motor vehicle travel lanes, except on bridges. Dedicated transit lanes shall be designed and constructed in such a manner that they cannot be used for motor vehicle travel, other than transit vehicles. Multi-lane roadways in-lieu of dedicated lanes may be provided within the transit supportive area for developments that can demonstrate future transit headways of ten (10) minutes can be maintained and feature either block lengths that average one thousand two hundred (1,200) perimeter feet or less or include fixed guide-way rail lines. Regional transit system (RTS) shall be a reviewing entity along with the County and FDOT along state roadways.
 - (2) Developments contiguous with the portion of the express transit corridor along Tower Road shall provide either site related turn out facilities (bus bays) or dedicated lane(s). Regional transit system (RTS) shall be a reviewing entity along with the County and FDOT along state roadways.
 - (3) For developments contiguous with a rapid transit corridor, a park and ride facility shall be provided within or adjacent to the development in close proximity to the transit station consistent with the rapid transit corridor map. Park and ride facilities shall be designed for shared evening and weekend use by the development. Park and rides shall be designed in accordance with block, street tree and pedestrian facility requirements of this ULDC and are encouraged to be screened by liner buildings. The size of the park and ride facility shall be based on projected demand as the relative to the size and location of the development. Park and ride facilities shall be coordinated and jointly planned where developments are directly adjacent. Regional transit system (RTS) shall be a reviewing entity along with the County and FDOT along state roadways.
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- (4) For developments contiguous with a rapid transit corridor, a principal transit station shall be provided adjacent to the corridor within the village center. The transit station shall be of sufficient size and scale to accommodate the projected ridership from the development. Transit stations shall feature solid roofs and protection from the elements along the perimeter of the station through architectural features. The transit station shall be architecturally integrated with the development. The transit station shall provide lighting, seating, waste receptacles, kiosk with maps and route information, a route map, a digital display indicating arrival times and a means to provide air circulation and cooling within the station. The station shall include a facility for purchasing transit passes. The transit station should be integrated with retail uses or provide adequate space for future retail uses.
- (5) For developments contiguous with a rapid transit corridor, smaller transit stations which feature solid roofs, some protection from the elements, lighting, seating, route maps and a digital display indicating arrival times are encouraged to be located along the corridor and are required if more than a one-quarter (0.25) mile from the principal transit station. The transit station should be integrated with retail uses or provide adequate space for future retail uses.
- (f) *Charging stations.* A minimum provision of one (1) Level 2 Vehicle Charging Station (240v) per every ten (10) multi-family units shall be provided in new TND and TOD development with a multi-family component.

Sec. 407.69. Standards for development areas outside the transit supportive area.

- (a) Single-family residential development outside the transit supportive area shall be subject to the subdivision regulations of Article VIII Chapter 407 and Article XIII Chapter 407 with the following additional standards.
Development outside the transit supportive area shall have a maximum block perimeter of two thousand (2,000) linear feet.

Sec. 407.70. Open space and landscaping.

- (a) *Open space.* Open space shall be provided consistent with Article V of this Chapter.
- (b) *Landscaping.*
 - (1) All TNDs and TODs shall submit a landscape plan consistent with Section 407.41 and Subsection 407.42(a) of this Chapter.
 - (2) *Project boundary buffers.*
 - a. Where new TND or TOD development abuts existing single-family detached residential development the following shall apply:
 - 1. For proposed development that abuts a portion of an existing development of lots in excess of twenty thousand (20,000) square feet, the minimum size for abutting lots shall be twenty thousand (20,000) square feet with a minimum lot width of one hundred ten (110) feet.
 - 2. For proposed development that abuts a portion of an existing development of lots between ten thousand (10,000) and twenty thousand (20,000) square feet, the minimum size for abutting lots shall be ten thousand (10,000) square feet with a minimum lot width of eighty (80) feet.
 - 3. For proposed development that abuts a portion of existing single-family detached lots of less than ten thousand (10,000) square feet, the TND or TOD shall provide buffer uses and lot sizes consistent with the R-1a zoning district.
 - 4. In lieu of providing the minimum lot size or width for the abutting lots as stated above in i, ii and iii, a minimum of a 50-foot wide medium density landscaped buffer, as provided in Section 407.43 of this Chapter may be utilized.
 - b. Where new development in a TND or TOD abuts existing industrial development, the new development shall provide a 45-foot high density buffer as defined in Table 407.43.2 of this Chapter.
 - c. Project boundary buffers shall not be located on individual lots. No structures are permitted in project boundary buffers except fire hydrants, concrete valve markers, underground utility markers, switches, bus shelters or benches, incidental signs not exceeding two (2) square feet in area, and screening. No parking is allowed in project boundary buffers.
 - d. Project boundary buffers may include portions of the stormwater management system so long as the character and intent of the buffer is not diminished. At a minimum, the buffer shall include all of the required plantings at the normal grade of the site at the property line.
 - e. Pedestrian access through a buffer to adjacent uses may be permitted. Trails within a buffer may be permitted provided the character and intent of the buffer is not diminished.
 - f. Utility lines may cross the buffer provided that the amount of buffer compromised is minimized while maintaining the specified number of plantings required in Table 407.43.2 of this Chapter.
 - g. No internal buffers shall be required within TODs and TNDs. Where the potential for adverse impact exists, landscaping, building separation and lot layout shall be utilized to minimize impacts by adjacent uses.
 - (3) *Roadway buffers.* The following types of roadway buffers shall be required (road classifications are provided in the transportation mobility element of the Comprehensive Plan). Any vegetation planted near driveway and road intersections shall be selected so that the area defined by the FDOT sight triangle shall remain clear.

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- a. *Interstate I-75 buffers.* All TNDs and TODs shall provide a 25-foot wide medium density buffer along the entire project boundary adjacent to the I-75 right-of-way consistent with Subsection 407.43(a). Screening shall not be required. Existing natural vegetation and street trees provided within an adjacent roadway or along a multi-use trail may be used to fulfill the landscaping requirement where such existing natural vegetation is of sufficient height or can be augmented to reach a sufficient height and opacity to provide an effective visual buffer.
- b. *Arterial street buffers.* All developments located along an arterial street shall be required to provide one of the following buffers along the entire street frontage:
1. Three (3) canopy trees per one hundred (100) linear feet of property frontage, located within a ten-foot wide landscape buffer; or
 2. Two (2) canopy trees and two (2) understory trees per one hundred (100) linear feet of property frontage, located within a ten-foot wide landscape buffer; or
 3. Under utility lines only, four (4) understory trees per one hundred (100) linear feet of property frontage, located within a ten-foot wide landscape buffer.
 4. Arterial street buffers may average ten (10) feet in width provided that no portion of the street buffer shall be less than five (5) feet in width.
 5. Where the fronts of buildings are oriented towards an arterial street the buffer requirements are as follows:
 - (A) A 15-foot buffer from the back of curb along arterials with landscaping as required in Subsections 1., 2., [and] 3. above;
 - (B) A buffer based on clear recovery areas from the edge of pavement along rural section arterial streets with landscaping as required in Subsections 1., 2., [and] 3. above.
 - (C) Sidewalks shall be located between the buffer and the front of the building. Existing sidewalks more than six hundred sixty (660) feet in length shall be relocated between the buffer and the front of buildings where the required buffer widths do not presently exist. ~~Sidewalks shall be twelve (12) feet in width along arterials.~~
 - (D) Parallel on-street parking or angled parking accessed by a drive-aisle separated from through traffic by a landscaped median is allowed and encouraged so long as it can be done in a safe manner that does not negatively impact the operations of the arterial or collector.
 - (E) Buildings shall be set-back between twenty-five (25) and forty (40) feet from the back of curb on urban section streets and edge of pavement on rural section streets.
- c. *Measurements.*
1. All roadway buffers excluding Subsection 407.70(c)(3)b.v. shall be measured from the future right-of-way line determined during development plan review, unless additional public utility easement is required between the right-of-way line and the buffer to provide utility clearance.
 2. If a street is platted but has not been constructed, it shall be buffered and treated as a street, even where no pavement currently exists.
 3. Vehicular access easements shall not be treated as a street, but shall be buffered as a project boundary buffer outside the easement area. The buffer may be provided on either side of the easement.
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- (4) *Required tree plantings in pedestrian walkways.* Areas dedicated to pedestrian circulation that are not coincident with a street shall have canopy trees spaced no more than an average of forty (40) feet on-center on alternating sides of the walkways.
 - (5) *Landscape design of stormwater management facilities.* All surface stormwater management facilities located within the village center area of TNDs and TODs shall be designed to meet the criteria of Chapter 407 Article IX, Stormwater Management Facilities. Landscaping shall be provided consistent with Section 407.43.2 of this Chapter.
 - (6) *Utility service.*
 - a. Proposed overhead or underground utility service facilities shall be designed to provide clearance from the mature height of trees and landscaping proposed on the landscape plan.
 - b. Existing overhead or underground utility service facilities shall be considered in the design of the landscaping to provide clearance from the mature height of trees and landscaping.
 - c. Any vegetation within a public utility easement shall conform to accepted vegetation management standards. In all cases the minimum requirements of this Article shall be met.
 - (7) *Required plant materials, installation, irrigation, and maintenance.* All TODs and TNDs shall meet the requirements of Section 407.44 through Section 407.47 of this Chapter.

CHAPTER 407 GENERAL DEVELOPMENT STANDARDS
ARTICLE XIII ACCESS MANAGEMENT AND STREET NETWORK STANDARDS

Sec. 407.140. Street network standards.

All streets shall be designed to ~~generally include the context sensitive elements of the Corridor Design Manual and to meet~~ the specific requirements of this ULDC and the Florida Greenbook.

(a) *External connectivity.*

- (1) No direct access shall be permitted from any lots in subdivisions or outparcels in retail centers to any street or highway on the County or state system, which is functionally classified in accordance with F.S. § 335.04 at a level of major collector or higher except where the construction of an internal street is not technically feasible as determined by the DRC or the development creates only two (2) lots fronting on the street and the lots have frontage greater than two hundred fifty (250) feet and are served by a common access driveway.
- (2) All new lots in subdivisions and new non-residential developments shall be accessed via a paved public street or a private paved street constructed to County specifications. Access to and within a development project shall be in place prior to the accumulation of combustible materials (such as building materials) on the development site. Temporary access can be used prior to the completion of the final paved roadway network. All access routes must meet the minimum criteria specified in Subsection 407.140(a)6.
- (3) No lot shall access an unpaved road except for lots meeting the requirements in Sections 407.75 and 407.76.
- (4) All developments with frontage on a public road shall access the public road except where infeasible due to original tract dimensions or topography.
- (5) For developments containing twenty-five (25) or more residential units or generating two hundred fifty (250) or more non-residential daily trips, there shall be a minimum of two (2) functional access points located on different sides of the subdivision except where infeasible due to original tract dimensions, topography or existing development patterns.

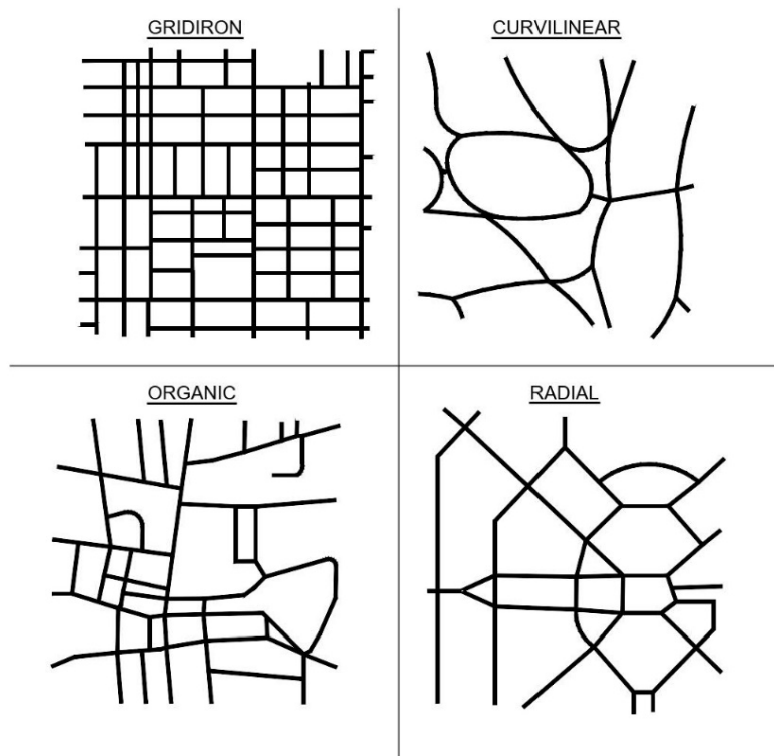
For a development containing only one (1) access, an emergency service access shall be provided and maintained in addition to the primary access, unless a waiver is granted in Subsection (a)(7) below. The emergency service access shall be available prior to the issuance of the first certificate of occupancy in the development, have a clear zone of 20-foot horizontal area and 14-foot vertical area, and shall be stabilized to a limerock bearing ratio of thirty-five (35).

- (6) In addition, an emergency service access may: be grassed or landscaped with traversable vegetation. The County shall have the right to clear the emergency service access when needed. A gate may be provided when equipped with a system acceptable to the Alachua County Fire/Rescue Department for access by emergency service vehicles.
- (7) The DRC may grant a waiver from the requirement for a secondary emergency access in Subsection (a)(6) above when not feasible due to original tract dimensions, topography, or existing development patterns, provided that a full disclosure statement is placed as a notation on the plat by the applicant, and provided to the initial buyer (and subsequent buyers) informing them that a waiver was granted from the requirement and could potentially prevent the response of fire service, emergency medical service, and emergency management at this location. Buyers shall sign attesting that they understand the impact of this waiver.
- (8) The layout and types of streets in a development must provide for the continuation or appropriate projection of stub streets and sidewalks to adjacent properties by constructing the

improvement as close to the property line as is practicable. Signs shall be posted, at the expense of the developer, advising residents of the intent and purpose of the stubbed street. In addition, where a proposed development abuts an existing development with a stub street, the street system in the proposed development must connect to the existing stub street. The continuation of existing streets shall be designed in such a manner to discourage cut-through traffic through existing or planned development, while providing for convenient movement of traffic, effective fire protection and other public service providers and efficient provision of utilities. The requirement to extend streets or provide a secondary access may be waived by the reviewing body where the topography, development patterns or other regulated natural features make continuance or conformance to existing streets impractical or undesirable and provision for pedestrian and bicycle interconnectivity between the developments is provided. In the event a waiver is obtained, a cul-de-sac turnaround shall be provided at the end of an existing dead-end street.

- (9) If street construction is to be phased, appropriate provision for drainage and temporary or permanent turnarounds shall be provided on all temporary dead-end streets.
 - (10) All streets, drive aisles, and pedestrian facilities that provide cross access to adjacent properties shall provide an appropriate legal instrument to ensure public access.
- (b) *Layout of lots and streets.* The ideal street pattern is internally connected and may be in a gridiron, curvilinear, organic, radial, or any other style that provides for internal connections and external linkages. Examples of these street network pattern types are shown in Illustration 407.140.1 below:

Illustration 407.140.1: Street Network Design Patterns



- (1) The arrangement, character and location of all lots and streets in a development shall be designed to make advantageous use of existing and planned streets, topographical conditions, public convenience and safety, and mature trees and other natural physical features. All street layouts shall be designed in compliance with the State of Florida Manual of Uniform Standards for Design, Construction, Maintenance for Streets and Highways or criteria contained in this

ULDC, unless an exception to these standards is granted in writing by the County Engineer prior to preliminary development plan approval.

- (2) Dead-end streets shall not exceed two hundred fifty (250) feet in length except where a turn-around or cul-de-sac is provided. In no case, shall a dead-end street or cul-de-sac exceed one thousand (1,000) feet in length except for unpaved roads developed in accordance with Section 407.75. Turning radii of a cul-de-sac shall reflect the minimum required for 90-degree turns for WB30' design vehicles.
 - (3) An intersection shall occur on every street a minimum of every one thousand (1,000) feet.
 - (4) Street layouts shall provide for intersecting streets at right angles, ninety (90) degrees, but under no circumstances shall streets intersect at less than seventy-five (75) degrees, unless a roundabout or traffic circle is adequately designed. Street intersections shall be adequately spaced to prevent conflict or mutual interference of traffic flow. Generally, centerline offsets of less than one hundred fifty (150) feet shall be prohibited.
 - (5) On streets with designated on-street parking, bulb-outs shall be provided at the street ends. The resulting bulb-out shall be landscaped with a street tree. No parking space shall be located within fifty (50) feet of the nearest right-of-way line of a collector roadway or one hundred (100) feet of the nearest right-of-way line of an arterial roadway.
 - (6) Appropriate design speeds shall be identified by the applicant's engineer and agreed to by the County Engineer in conjunction with the street and lot layout of the development and shall be designed to ~~generally include the context sensitive elements of the Corridor Design Manual and~~ to meet the specific requirements of this ULDC and the Florida Greenbook. The selection of an appropriate design speed shall be based upon a rational prediction of the probable maximum operating speed on the street. The topography, general roadway geometry, surrounding land use, degree of access, use of traffic calming techniques, and desired posted speed limits shall be considered.
- (c) *Dedication of future rights-of-way.* All developments located adjacent to or along an existing or future alignment of a collector or arterial roadway, as identified on the future highway functional classification map adopted by Alachua County, shall provide dedication of right-of-way for the alignment that is roughly proportional to the impact of the development. The County Engineer may waive the dedication requirement, if there is a substitute dedication that would serve the same purpose, if due to the location and layout of the development, there is no public need for a dedication.
- (d) *Waiver of requirement for dedication of roads.* The BOCC's, upon recommendation of the DRC, may waive the requirement for the dedication of public streets and allow the streets to remain privately maintained upon finding that by reason of its location and anticipated use, the road will not serve a public purpose or provide connectivity to other platted or unplatted lands. However, the street to be privately owned shall be designed and constructed in accordance with the provisions of this Chapter. All streets to be privately owned shall be dedicated to a property owners association or other maintenance entity acceptable to the County for ownership and maintenance.

Sec. 407.141. Minimum design and construction standards for streets and drainage systems.

The purpose of this Section is to identify street design and construction standards required as a condition of final subdivision approval, consistent with the Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (Florida Greenbook), the Federal Highway Administration's (FHWA's) Separated Bike Lane Planning and Design Guide, and the North American City Transportation Officials' (NACTO's) Urban Bikeway Design Guide.

- (a) *Determination of street types.* Street types shall be determined on the basis of the number of vehicle trips per day generated by each type of land use contemplated for the development ~~and on the Alachua County Corridor Design Manual~~. The number of vehicle trips generated shall be calculated based on the most recent Edition Trip Generation Manual published by the Institute of Transportation Engineers. A trip generation and distribution analysis shall be performed by a transportation professional in accordance with generally accepted engineering practices and shall require approval by the County Engineer. The average daily traffic volumes shall be shown at each approach of every street intersection within the development.
 - (1) The lane width of the proposed streets shall be based upon the projected average daily trips and the standards outlined in Table 407.141.1 and the Florida Greenbook.
 - (2) All streets, whether public or private shall be designed and constructed in accordance with the State of Florida Manual of Uniform Minimum Standards For Design, Construction and Maintenance For Streets and Highways, the "Construction and Inspection Standards of the Public Works Department", ~~the Alachua County Corridor Design Manual~~ and these regulations. Typical street section drawings may be obtained from the County Engineer.
- (b) *Excluded facilities.* Access ways, alleys and driveways leading to on-site parking in common areas or to individual lots and private easement roads in rural residential subdivisions with no more than nine (9) lots may be excluded from the definition of a street, provided that the following occur:
 - (1) Estimated average daily traffic does not exceed four hundred (400) trips at full development for multiple-family or one hundred twenty-five (125) trips for single-family detached lots.
 - (2) Appropriate provisions are made for the private maintenance of these areas.
 - (3) These areas serve only those lots adjacent to the common areas or easements.
 - (4) The maximum distance from the public street road to the most distant lot or parking space in the common area or easement as measured along the centerline of the access way or driveway is no greater than one thousand (1,000) feet.
 - (5) For private roads in rural residential subdivisions with no more than nine (9) lots, if the maximum distance from the public road to the most distant parking space in the common area or easement as measured along the centerline of an access way or driveway is greater than one thousand (1,000) feet, the Board will take action on a Preliminary Development Plan in compliance with Article X Development Plan Review. In addition to the requirements in Article X and Section 407.76 the Board may apply the conditions below, as applicable:
 - a. Deed restriction(s) that no further subdivision or clustering of any lot(s) shall be permitted.
 - b. Not further than five (5) road miles from a fire hydrant/station to the most distant lot or if beyond that distance provide a note on the plat stating: "DUE TO THE RURAL LOCATION OF THIS PARCEL AND DEPENDING ON THE STATE OF MAINTENANCE OF ACCESS WAYS, EMERGENCY RESPONSE TIMES MAY BE ADVERSELY AFFECTED, FIRE HYDRANTS ARE NOT AVAILABLE FOR FIRE SUPPRESSION".
 - c. Hard-surfaced material for access way or driveway longer than one thousand (1,000) feet to mitigate deterioration.

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- (6) Such access ways, alleys, driveways and associated parking areas shall meet the existing off-street parking requirements of Alachua County, as well as criteria established in this Article. The minimum width of pavement for this access shall be ten (10) feet for ADT less than two hundred (200) and sixteen (16) feet for ADT greater than two hundred (200).
 - (7) Private internal easement roads in rural residential subdivisions with no more than nine (9) lots shall have a traveled width of eighteen (18) feet with a minimum LBR of thirty-five (35), two-foot stabilized shoulders and a minimum depth of six (6) inches for the stabilized area. Private roads may be paved. The internal road must have a minimum 20 foot horizontal and 14-foot vertical clearance unless a waiver is approved consistent with the Florida Fire Prevention Code Chapter 18. Private internal roads shall be in an easement or common area not less than forty (40) feet in width. Drainage for private roads shall be designed to meet the requirements of this ULDC.
- (c) *Minimum street design specifications.*
- (1) All streets shall be designed in accordance with the following minimum specifications, as depicted in Table 407.141.1. ~~The Corridor Design manual provides graphical representations of street sections for illustrative purposes only, and in the event of conflict with the text contained in this ULDC, the text shall prevail.~~ The numerous graphics included herein are intended to give clear direction as to the intent of the street cross-section requirements. The graphic images are intended to supplement and clarify the written text. In the event a graphic image conflicts with written text, the written text shall prevail.
 - (2) The street design specifications are typical, and thus may be modified to accommodate special circumstances. Such modifications shall be reviewed and subject to approval by the County Engineer.
 - (3) Alternative street designs may be approved by the County Engineer where the design is found to be consistent with the intent of the zoning district and is found to further the design standards included herein.
- (d) *Street surfaces.*
- (1) Street surfaces shall be standard Florida DOT approved asphaltic concrete mixes as approved by County Engineer. Placement of street surfaces shall conform to the Alachua County Public Works Department Construction and Inspection Standards.
 - (2) Other types of construction or materials may be utilized for the surface and base of the roadway, if equal or greater strength requirements are met, and if approved by the County Engineer (i.e. colored concrete; brick pavers).
- (e) *Pavement thickness.*
- (1) Streets with a projected ADT of less than or equal to one thousand two hundred (1,200) shall have a minimum pavement thickness of one and one-half (1.5) inches, a minimum base thickness of eight (8) inches, and a minimum 12-inch subgrade with a limerock bearing ratio (LBR) of forty (40).
 - (2) Streets with a projected ADT between one thousand two hundred one (1,201) and two thousand five hundred (2,500) shall have a minimum pavement thickness of two (2) inches of structural asphalt, a minimum base thickness of eight (8) inches, and a minimum 12-inch subgrade with a limerock bearing ratio (LBR) of forty (40).
 - (3) Streets with a projected ADT between two thousand five hundred one (2,501) and seven thousand five hundred (7,500) shall have a minimum pavement thickness of two (2) inches of structural asphalt and one (1) inch of friction course, a minimum base thickness of ten (10) inches, and a minimum 12-inch subgrade with a limerock bearing ratio (LBR) of forty (40). The friction course surface shall be placed ninety (90) days prior to the expiration of the one-year warranty period as outlined in Section 407.86 of this Code.
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- (4) Streets with a projected ADT greater than seven thousand five hundred one (7,501) shall have a minimum pavement thickness of two (2) inches of structural asphalt and one and one-half (1.5) inches of friction course, a minimum base thickness of ten (10) inches, and a minimum 12-inch subgrade with a limerock bearing ratio (LBR) of forty (40). The friction course surface shall be placed ninety (90) days prior to the expiration of the one-year warranty period as outlined in Section 407.86 of this Code.
 - (5) The County Engineer has the authority to approve alternate designs meeting the objectives of technical guidelines and regulations upon demonstration by the applicant that result in sufficient design to meet the minimum requirements for that particular scenario.
- (f) *Roadway base and subgrade.*
- (1) Roadway base shall be constructed of Ocala limerock, or its equivalent, with a minimum Limerock Bearing Ratio (LBR) of one hundred (100) and compacted to ninety-eight (98) percent of maximum density in accordance with AASHTO Method T-180.
 - (2) Roadway subgrade shall be stabilized to a minimum depth of twelve (12) inches and be compacted to ninety-five (95) percent of maximum density in accordance with AASHTO Method T-180, except arterial and collector streets shall be compacted to ninety-eight (98) percent maximum density.
 - (3) Where soils classified as AASHTO soil groups A-6, A-7 or A-8 are encountered in the subgrade, such materials shall be removed to a minimum depth of twenty-four (24) inches below the base and replaced with AASHTO soil groups A-1, A-2 or A-3.
 - (4) An additional six (6) inches of limerock meeting the requirements of Subsection 407.141(f)(1) may be substituted for twelve (12) inches of subgrade meeting the requirements of Subsection 407.141(f)(2) provided that the criteria of Subsection 407.141(f)(3) is met.
- (g) *Drainage systems.*
- (1) All street classifications may be constructed with a closed (curb and gutter) drainage system. Where a closed drainage system is used, standard curb and gutter (FDOT Type F) shall be constructed. Drop-type (Miami) curb and gutter may only be constructed on streets where profile vertical alignment is less than three (3) percent and the curvature of the centerline alignment is less than one hundred (100) feet. The use of drop-type curb in any other location requires special approval from the County Engineer.
 - (2) All drainage pipe shall have adequate capacity to carry the runoff resulting from a rainfall intensity, which has a return period of once in three (3) years with a minimum time of concentration of ten (10) minutes. The FDOT rainfall intensity curve for Alachua County shall be used.
 - (3) Where storm sewers are used, the maximum length of gutter flow shall be governed by the street grade and inlet capacities. Minimum grade for curb and gutter shall be three-tenths (0.3) percent, except in extreme cases where two-tenths (0.2) percent may be used; however, one-half (0.5) percent shall be held insofar as practical.
 - (4) All drainage pipe and culvert material shall be in accordance with current FDOT Standard Specifications for Road and Bridge Construction, latest edition, or as approved by County Engineer. If polyethylene material is utilized, a pipe inspection and video report shall be provided in accordance with the current FDOT Standard Specifications for Road and Bridge Construction, latest edition. For closed drainage systems, minimum pipe size shall be fifteen (15) inches in diameter or equivalent on private roads and eighteen (18) inches in diameter or equivalent on public roads. For all open drainage systems the minimum pipe size shall be eighteen (18) inches in diameter or equivalent.
 - (5) All inlet grates shall be cast iron or steel with minimum size of two (2) square feet net open area.
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- (6) Roadside swales. Open (roadside swales) drainage systems may be permitted for the street classifications indicated in Table 407.141.1, if the following requirements are met; provided, however, that the County Engineer shall have final approval authority for roadside swales.
- a. Based on the ten-year storm, one-hour storm, the flow velocity shall not exceed three (3) feet per second without paved inverts and the swale flow shall not encroach on the pavement. Roadside swales shall typically have no front slopes steeper than 4:1. Any back slopes greater than 3:1 shall be sodded.
 - b. Additional right-of-way may be required to meet design conditions for swale section streets.
 - c. The applicant shall provide supporting hydrologic, soils, topographic and erosion control data deemed necessary by the County Engineer in order to determine whether roadside swales are permissible.
 - d. Roadside swales shall not be permitted where the estimated wet-season groundwater is within three (3) feet of the final profile of the street. Particular caution shall be used in areas where the soils encountered are predominately of Soil Conservation Service Types 7B, 7C, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 25, 26, 31B, 31C, 32B, 32C, 32D, 34, 44B, 48, 51, 52, 53, 54, 56, 57B, 60 and 61.
 - e. Documentation of unsaturated vertical infiltration and saturated horizontal soil conductivity estimates/test results and other aquifer characteristics shall be used in the design of a swale stormwater management system and shall be submitted for review and consideration. Following determination of vertical and horizontal infiltration, post hydrologic conditions must be similar to pre-development hydrologic conditions. A minimum of one (1) boring per improvement shall be required to verify infiltration rates.
 - f. For existing roadside swales that discharge to a stream or open lake basin, the stormwater management system must be designed such that the peak rate of discharge does not exceed the predevelopment peak rate of discharge for storm events up to and including the 25-year critical duration storm. If these criteria cannot be met and it can be demonstrated that no downstream detrimental effects will occur, the County Engineer may approve other measures.
 - g. For existing roadside swales that discharge to a closed depression, the stormwater management system must be designed such that the peak rate of discharge and peak volume discharge does not exceed the predevelopment peak for storm events up to and including the 100-year critical storm. If these criteria cannot be met and it can be demonstrated that no downstream detrimental effects will occur, the County Engineer may approve other measures.
- (7) The County Engineer, after consultation with the applicant, may require installation of underdrains parallel to and along one or both sides of the paved surface to prevent the free ground water table from rising within twelve (12) inches of the bottom of the base material.
- (8) Non-paved right-of-way of the streets shall be provided with suitable vegetative cover to prevent erosion; this includes a sod strip along the edge of pavement on swale section streets and sodding between the back of curb and on edges of sidewalks, where sidewalks are provided.
- (h) *Street design specifications.*
1. Table 407.141.1 identifies the required specifications for all streets in the County.
 - a. Applicability: All new privately developed and redeveloped roads shall comply with the specifications of Table 407.141.1. Where feasible, County-built roads shall endeavor to comply with the specifications of Table 407.141.1 within existing rights-of-way.
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Table 407.141.1 Street Design Specifications											
Type of Street ¹ Maximum Daily Trips	Design Speed (mph)	Travel Lane Width (feet) ²	Access Type	Street Trees ³	Curb and Gutter	Sidewalks (ft.)	Multiuse Path (ft.) ⁴	Median (ft.) ⁵	Bike Lanes/Shoulders (ft.)	On-Street Parking (ft.) ⁶	Minimum Right-of-Way (ft.)
Local—2 Lane											
Under 250 (Rural/AG Only)	25	Cartway-18	Direct	Yes	No	5 (Optional)	6 (One Side)	No	No	No	50
Under 250 (Urban Cluster)	25	Cartway-18	Direct	Yes	Optional	5 (Optional)	8 (One Side)	No	No	7 (Optional One Side)	55
250 to 1,200	25	Cartway-20	Direct	Yes	Optional	5 (Optional)	8 (One Side)	No	No	7 (Optional Both Sides)	60
1,200 to 2,500	25	10	Direct	Yes	Optional	5 (One Side)	8 (One side)	10 (Optional)	2	7 (Optional Both Sides)	65
2,500 to 7,500	30	11	Direct	Yes	Optional	6 (One Side)	8 (One Side)	12	5	8 (Optional with Bulbouts)	85
7,500 to 15,000	30	11	Direct	Yes	Optional	NA	8 (Both Sides)	16	6	8 (Optional)	90
Local—4 Lane											
15,000 to 30,000	35	11	Limited	Yes	Optional	NA	8 (Both Sides)	22	5	8 (Optional)	115
Collector—2 Lane—Including collectors on the Future Highway Functional Classification Map											
Under 20,000—Urban	40	11	Limited	Yes	Required	6 (One Side)	8 (One Side)	12 to 16 (Optional)	5	8 (Optional)	100
Under 20,000—Rural	60	12	Limited	Yes	No	6 (One Side)	8 (One Side)	12 to 16 (Optional)	8	8 (Optional)	100
Collector—4 Lane—Including collectors on the Future Highway Functional Classification Map											
20,000 to 40,000—Urban	45	11	Limited	Yes	Required	6 (One Side)	8 (One Side)	22	5	8 (Optional)	115
20,000 to 40,000—Rural	60	12	Limited	Yes	No	6 (One Side)	8 (One Side)	40	8	8 (Optional)	120
¹ Flexibility in design and less ROW required for developments that provide innovative plans that calm traffic, reduce impervious surface, provide safe and convenient travel for all modes of transportation, and desire to preserve existing natural features and tree canopy. The design of one-way streets and streets featuring dedicated transit lanes shall be reviewed on a case-by-case basis. The table above does not preclude the development of one-way streets. One-way streets shall have a pavement width between twelve (12) and sixteen (16) feet. ² For roadways under two thousand five hundred (2,500) ADT, any lane widths that are proposed greater than the minimum shall be accompanied by mitigating traffic calming measures placed at least every six hundred (600) feet. TNDs, TODs, and activity centers shall not have travel lane widths greater than that shown in the table above. ³ Street trees are required in the road right-of-way wherever there is an adjacent sidewalk and/or multiuse path per this table. If the required pedestrian facility is removed from within the roadway right-of-way to an alternative location as provided for in this table then existing canopy trees maintained within twenty (20) feet of the edge of the roadway pavement and protected through appropriate covenants and restrictions may be credited as a street tree in the calculation found in Subsection 407.43(6)(2). In all cases pedestrian facilities shall have the plantings required per Subsection 407.43(6)(1). Planting area determined by tree species per ULDC Table 407.50.1. Minimum planting strip without tree is four (4) feet. ⁴ Multi-use paths shall be constructed parallel to and up to three hundred (300) feet from the roadway in an Open Space or common area and shall conform to the standards in Section 407.140. ⁵ All medians shall be landscaped. ⁶ Unstriped on street parking shall be allowed on roadways less than one thousand two hundred (1,200) ADT. If unstriped on street parking is proposed it shall be accompanied by mitigation traffic calming measures located at least every six hundred (600) feet. On roadways greater than two hundred fifty (250) ADT, on street parking is required for TNDs, TODs, multi-family and activity centers. Provision of on street parking shall be adequate to serve the proposed intensity of development in order that the required clearances for public safety vehicles are maintained. For roadways of two thousand five hundred (2,500) ADT or more, on street parking is allowed via angled or parallel parking spaces with landscaped traffic separators. Alleys to be designed on a case-by-case basis.											

Table 407.141.1
Street Design Specifications

Type of Street Maximum Daily Trips	Design Speed (mph)	Travel Lane Widths (ft)	Access Type	Sidewalks or Multi- Use Paths (ft)	Street Tree Planting Strip	Curb and Gutter (C&G) (ft)	Seperated Bike Lanes (ft)	Parking and Bike Lane/MUP Buffer (ft)	Traffic Calming Features - 407.141.3	Shoulders (ft)	On Street Parking (ft)	Median (ft)	Minimum Right-of- Way (ft)
Local—2 Lane													
Rural/AG Subdivision	20-25	Travelway 18	Direct	5 (Optional)	Optional	2 (Optional)	No	No	Optional	2 (If No C&G)	No	No	50
Under 150 Urban Clusters	20-25	Travelway 18	Direct	5	Yes	2 (Optional)	No	No	Yes	2 (If No C&G)	8 (Optional)	No	55
150 to 1,500	20-25	Travelway 20	Direct	5	Yes	2 (Optional)	No	No	Yes	2 (If No C&G)	8 (Optional)	No	60
1,500 to 6,000 Residential	20-25	10	Limited	10	Yes	2 (Optional)	No	3	Optional	2 (If No C&G)	8 (Optional)	10 (Optional)	65
1,500 to 3,000 Mixed- Use/ Commercial	20-25	10	Limited	10	Yes	2 (Optional)	No	No	Yes	2 (If No C&G)	8 (Optional)	10 (Optional)	65
3,000 to 6,000 Mixed- Use/ Commercial	25	10	Limited	10	Yes	2	7	3	Optional	No	8	10 (Optional)	85
6,000+ Residential	25-30	10	Limited	10	Yes	2	No	3	Optional	No	8 (Optional)	10	85
6,000+ Mixed-Use/ Commercial	25-30	10	Limited	10	Yes	2	7	3	Optional	No	8	10	90

Collector—2 Lane - Including collectors on the Future Highway Functional Classification Map													
Under 20,000 Urban Residential	30	10	Limited	10	Yes	2	No	3	Optional	No	8 (Optional)	13	100
Under 20,000 Urban Mixed-Use/ Commercial Main Street	30	10	Limited	10	Yes	2	7	3	Yes	No	8	13	100
Under 20,000 Urban Mixed-Use/ Commercial Throughway	30	10	Limited	10	Yes	2	No	No	No	No	No	13	100
Under 20,000 - Rural	60	11	Limited	12 (One Side)	Yes	No	No	No	No	8	No	40	100
Collector—4 Lane - Including collectors on the Future Highway Functional Classification Map													
20,000 to 40,000 Urban Residential	30-35	10	Limited	10	Yes	2	No	No	Optional	No	8 (Optional)	13	115
20,000 to 40,000 Urban Mixed-Use/ Commercial Main Street	30	10	Limited	10	Yes	2	7	3	Yes	No	8	13	115
20,000 to 40,000 Urban Mixed-Use/ Commercial Throughway	30-35	10	Limited	10	Yes	2	No	No	No	No	No	13	115
20,000 to 40,000 Rural	60	11	Limited	12 (One Side)	Yes	No	No	No	No	8	No	40	120

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2. Roadway plans may be proposed that calm traffic, reduce impervious surface, provide safe and convenient travel for all modes of transportation, and preserve existing natural features and tree canopy.
 3. Where AADT changes across a given corridor, the County maintains the right to generalize across segments – within reason – to maintain a consistent, legible, and safe corridor.
 4. Table 407.141.1, above, does not preclude the development of one-way streets or streets with dedicated transit lanes. One-way streets and streets featuring dedicated transit lanes shall be reviewed on a case by case basis. One-way streets shall have a pavement width between twelve (12) and sixteen (16) feet.
 5. For Urban roadways under 1,500 ADT, street section shall be accompanied by mitigating traffic calming measures placed every 260-500 feet.
 6. If transit or heavy freight are projected to run on general purpose travel lanes, then the lane width shall be eleven (11) feet.
 7. Turning lane widths shall be 10 foot wide per Florida Greenbook.
 8. In Table 407.141.1, "Direct" access means that individual uses may utilize a driveway to the road. "Limited" means that individual uses must utilize a shared separate roadway, driveway or alley, located to the rear of buildings.
 9. Where roadside swales are provided, they shall be designed in accordance with ARTICLE XIII. Sec. 407.141(g)(6) and Florida Statute 403.803 (14).
 10. Where Table 407.141 indicates a sidewalk or multi-use path is required, those facilities shall be provided on both sides of roadway, unless otherwise noted in the Table. Where One Side multi-use paths are proposed, the location must be justified, and appropriate crossing treatments to all major destinations must be provided.
 11. Street trees are required wherever there is an adjacent sidewalk or multiuse path per this table and shall be located between the sidewalk or multi-use path and the vehicular travel lanes. Planting areas and specifications, including root barrier requirements, shall determined by ULDC Table 407.45.1. Tree wells may be used, so long as 7' minimum clear width (on local streets) and 10' minimum clear width (on collector roads) is maintained. Clear width may include flush, ADA-compliant tree grates.
 12. Where Table 407.141.1 requires 2 foot Shoulders, the entirety shall be paved. Where 8 foot Shoulders are required, please build 8 foot Shoulder, including 5 foot Paved Shoulder and 3 foot Grass Shoulder
 13. Where on-street parallel parking is provided it must be marked at the width indicated in the table or greater. The gutter pan of curbs shall be used to meet the minimum on-street parking widths. In TODs and TNDs, on-street parking is optional, but must be provided on the majority of streets. Provision of on-street parking shall be adequate to serve the proposed intensity of development in order that the required clearances for public safety vehicles are maintained. Angled parking is allowed on roadways where parallel parking is allowed. Angled parking spaces shall be designed to meet the stall depth requirements of Table 407.19.1 with a minimum width of 8.5 ft.
 14. Where medians are provided in urban contexts, they must be raised (curb and gutter). In rural contexts, they may be flush. In all contexts, medians shall be landscaped.
 15. For roads to be dedicated to the public, the right-of-way width must be sufficient to include all required and proposed cross-section elements, plus an additional 2 ft. to accommodate maintenance activities on either side of the section.
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16. Specifications for rural collector roadways shall apply to roadway projects only, not to limited-scale developments permitted in areas outside the urban cluster per Alachua County's ULDC.
 17. Where separated bicycle facilities are required, raised bike lanes may be provided. They shall be designed in accordance with the Florida Design Manual, 223.2.4.2., including an additional 2-foot buffer separating the bike lane from pedestrian walkways.
 18. Developments with a valid preliminary development plan or planned development that identifies street cross sections and was approved prior to June 24, 2025 may provide street sections consistent with the approved preliminary development plan or planned development.
- (i) *Intersection design.* The design of intersections shall balance the needs of all street users, including pedestrians and bicyclists. Safe pedestrian crossings shall be included on every arterial and collector. The following design features are required as applicable:
- (1) *Dedicated turning lanes.*
 - a. On street types with medians, the median shall be narrowed to allow the left-turn lane without disrupting on-street parking and bulb-outs.
 - b. On street types without medians and with on-street parking, on-street parking shall cease a safe distance from the intersection, and travel lanes shall shift to allow for a dedicated left-turn lane.
 - (2) *Bulb-outs:* Bulb-outs are curb extensions at intersections that reduce roadway width curb to curb, depicted in Illustration 407.141.2. Bulb-outs are encouraged where possible. At a safe distance from the intersection, on-street parking shall cease and the curb shall be extended to the travel lane.
 - (3) *Medians:* On street types with medians, a ~~ten-foot median~~ is permitted at intersections after a left-turn lane had been provided. Construction and landscaping of these medians shall provide a mid-intersection pedestrian refuge.
 - (4) *Roundabouts:* A roundabout is a raised circular structure constructed at a three-way or four-way intersection, depicted in Illustration 407.141.2. Urban single lane roundabouts may be installed in all areas; mini-roundabouts may be constructed on local roads and local roads with parking only. Roundabout design shall comply with current as approved by the County Engineer.
 - a. Urban single lane roundabouts on collector and arterial roads and future collector or arterial roads as shown the Future Highway Functional Classification Map shall be designed to accommodate a WB-50 class vehicle in the travel lane. Urban single lane roundabouts on all other road types shall be designed to accommodate a WB-40 class vehicle in the travel lane. Truck aprons shall be provided to accommodate the next highest class vehicle. (WB-40 and WB-50 refer to the American Association of State Highway and Transportation Officials (AASHTO) vehicle classification schemes.) Turning vehicle template drawings shall be submitted as verification that design vehicles are accommodated. Electronic CAD files shall also be submitted.
 - b. A roundabout justification study and operational analysis per current state and federal guidelines as approved by the County Engineer shall be provided for all roundabouts proposed for collector roads or higher. The study shall compare the roundabout to a stop-controlled and signalized intersection. The study shall show that the proposed roundabout operates at an acceptable level of service over at least a 20-year lifespan.
 - c. Raised splitter islands shall be provided on all approaches to the roundabout in order to channelize traffic and provide deflection.

- d. On roads with sidewalks, pedestrian crossings shall be provided at the roundabout on each approach where a sidewalk exists. A six-foot by six-foot pedestrian refuge shall be provided in the splitter island.
 - e. Pedestrian crossings shall be located at least twenty (20) feet back from the yield line to provide storage room for vehicles entering and leaving the roundabout.
 - f. On roads with an on-street bikeway lane, a ramp shall be provided ahead of the roundabout to allow bicyclists access to the sidewalk.
 - g. An appropriate combination of street lighting and landscape lighting shall be provided to light all approaches and the center island. At a minimum, one (1) street light shall be provided on each approach to the intersection.
 - h. Mini-roundabouts shall be designed to accommodate an S-BUS-36 (Standard for School Bus) within the travel lane. A fully traversable central island may be used to accommodate larger vehicles.
 - i. All roundabouts shall be signed and marked in accordance with the latest MUTCD and other applicable state and federal guidelines.
- (5) *Signals*: When a signal is proposed a detailed traffic study shall be submitted with the preliminary development plan approval. The traffic study shall include:
- a. A signal warrant analysis per the MUTCD and MUTS; and
 - b. A roundabout justification per current state and federal guidelines as approved by the County Engineer; and
 - c. A comparison of the two (2) intersection types on the basis of capacity, multi-modal considerations, safety and long-term maintenance costs to the public; and
 - d. An operational analysis based on designs that operate at an acceptable level of service over at least a 20-year lifespan.

Illustration 407.141.2:



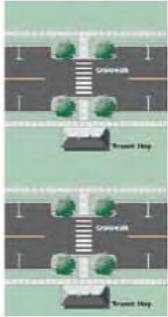

(6) For guidance and standards regarding intersection treatments for Separated Bike Lanes, refer to the Florida Design Manual, 223.2.5.2 Intersections and Driveways.

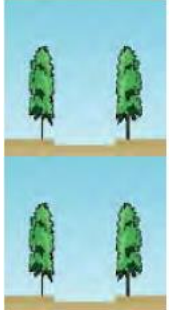





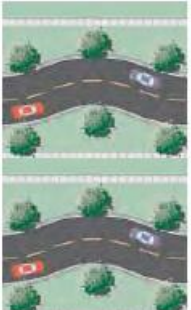








- (j) *Traffic calming*. Traffic calming measures described in Illustration 407.141.3 may be used to modify vehicle speeds and other driver behavior. An asterisk (*) means that the device is permitted, while a blank cell means that the device is not permitted. Other traffic calming devices may also be used



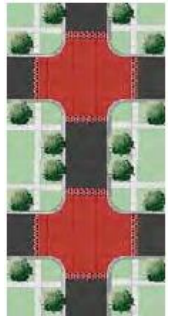
subject to approval of the County Engineer. References to arterial and collector roadways in this include future arterial and collector roadways on the Future Highway Functional Classification Map.

- (1) The choice, design and installation of traffic calming measures on any collector or arterial road shall be balanced with its regional vehicle traffic-carrying role.
- (2) The planning and installation of traffic calming measures shall respect the presence of driveways.

Illustration 407.141.3
Traffic Calming

		Traffic Calming Measures	Arterial	Collector	Main Street	Road	Lane w/ Parking	Lane
Street Narrowing		<p>Mid-Block Bulb-Outs</p> <p>Mid-block bulb-outs reduce the width of the roadway for a mid-block section. They shorten crossing distances for pedestrians and draw attention to pedestrians via raised peninsulas. Bulb-outs can be built within the marked on-street parking area or on residential roadways over 20 feet in width.</p>	+	+		+		
		<p>Restriping</p> <p>Street can be restriped to narrow the lanes to the minimum for that classification. The excess space can be used to create bike lanes or marked on-street parking on one or both sides. Bicycle lanes shall be 4 feet wide minimum, and on-street parking shall be 7 feet wide minimum. The parking can be staggered to create a weaving path on the roadway, further informing drivers that caution should be used in the neighborhood.</p>	+	+	+	+	+	

		<p>Gateways</p> <p>Gateways appear to narrow the street, and also serve as highly visible entryways into neighborhoods. Gateway features can also double as transit waiting areas.</p>						
Vehicle Deflection		<p>Chicanes</p> <p>A chicane changes the physical characteristics of a roadway section from an existing straight alignment to a series of horizontal curves. Trees can be planted in the slow point to restrict the driver's vision down the street, creating the feeling of a "closed" street.</p>						
Pavement Sharing		<p>Mid-Block Yield Point</p> <p>The mid-block single-lane yield point reduces the street width to a single lane for a short section at some point between intersections. A variety of designs are possible for the remaining single lane of traffic: centered on the existing street, offset to one side or aligned in a curve from one side of the street to the other.</p>						

		<p>Unmarked On-Street Parking</p> <p>Allowing on-street parking on streets without designated on-street parking areas will create a series of single-lane yield points wherever parked cars are present. This "informal" single-lane yield point occurs when the street width is narrow enough to prevent simultaneous passing of two moving vehicles past a parked vehicle. For streets up to 30 feet in width, allowing parking on both sides of the street is necessary to create a yield point.</p>			—		—	
Pavement Surface Treatments		<p>Brick Pavement</p> <p>Brick streets are also an effective traffic calming measure. The advantages of a brick street are that it is aesthetically pleasing and it calms traffic better as it ages as the surface wears out. Installation costs are higher than those for asphalt roadways, but long-term maintenance costs are lower. However, brick pavement can be loud.</p>	—	—	—	—	—	
		<p>Raised Intersections</p> <p>Raised intersections slow cars down throughout an entire intersection, providing an extra level of safety for pedestrians crossing an intersection. This improvement may be most appropriate for commercial areas where both vehicular and pedestrian traffic volumes are high. Textured pavement can also be part of this improvement.</p>		—	—	—	—	

Sec. 407.142. Minimum design and construction standards for pedestrian networks.

The purpose of this Section is to identify pedestrian access design and construction standards.

(a) *Pedestrian network standards.*

- (1) A sidewalk or a multi-use path, as required by Table 407.141.1, shall be provided along the entire property frontage with all external streets within the Urban Cluster. The specific facility type provided shall correspond to the adopted capital improvements element. If no specific facility type is specified in the capital improvements element, the default facility shall be consistent with Table 407.141.1 ~~be a five-foot sidewalk along local streets and an eight-foot along collectors and arterials.~~ The width of the multi-use path may be decreased to ~~five (5)~~ eight (8) feet for limited segments where existing environmental, topographic, right-of-way and utility constraints exist. A multiuse path shall run roughly parallel and within three hundred (300) feet of the street right-of-way. Multiuse paths and sidewalks may be provided within a public use easement.
- (2) Each development shall include a pedestrian network that shall provide direct pedestrian and bicycle pathways between other developments and within the development, and subsequent phases of the development, and adjacent neighborhood type uses such as public and private schools, parks, activity centers and other recreational areas.
- (3) The pedestrian network shall be in a connected block pattern throughout the development. Intersections of pedestrian facilities shall occur on every pedestrian facility at least every six hundred (600) feet.
- (4) The following elements qualify as a pedestrian facility and may form a side of a block provided they meet ADA accessibility requirements: Continuous sidewalks along roadways, alleys less than or equal to five hundred (500) feet in length, pass-throughs located at mid-block locations or at cul-de-sac heads, boardwalks and multi-use trails.
- (5) The following elements do not qualify as pedestrian facilities and may not form a side of a block: Recreational or Open Space without a designated pedestrian or multi-use path, alleys greater than five hundred (500) feet in length and trails, sidewalks and boardwalks that dead-end.
- (6) Pedestrian network standards may be modified where the DRC finds that the following circumstances exist: continuation of the pedestrian network at a particular location would require encroachment on regulated natural features; boardwalks for such crossings not practicable or not consistent with protection of the resource; and other available alternatives would have undue and avoidable impacts on wetlands, or native habitat, or other regulated natural features.
- (7) Multi-use paths and sidewalks shall be located at the back of the right-of-way. Multi-use paths and sidewalks shall be located behind existing or planned vegetation. Where existing vegetation is located at the back of the right-of-way, the multi-use path or sidewalk should be located in either additional right-of-way or an easement. The multi-use path or sidewalk may be located closer to the roadways due to environmental, topographical, utility or right-of-way constraints or where the County Engineer deems safety issues exist.

(b) *Sidewalks.*

- (1) Sidewalks shall be constructed to a minimum width as shown in Table 407.141.1, four (4) inches in thickness, and constructed of a minimum two thousand five hundred (2,500) psi concrete. An alternative may be substituted if approved by the County Engineer.
- (2) Sidewalks shall be designed to comply with the Americans with Disabilities Act and Florida Accessibility Code standards.
- (3) When pedestrian crossings are provided at mid-block locations, raised crosswalks (or other traffic-calming measure(s) identified in Subsection 407.141(j)) shall be located at all points where the pedestrian crossing traverses the lane of vehicle travel. When pedestrian crossings are provided at intersection locations, the requirements in intersection design and traffic calming, as outlined in Subsection 407.141(j), shall be followed.
- (4) In special areas designed as permanent or occasional plaza areas, curbs between on-street parking and sidewalk are optional.

- (5) Sidewalks are required along both sides of internal streets within Activity Centers and shall conform to the following minimum standards: Single-family attached/multi-family/nonresidential excluding commercial (eight-foot sidewalks), Commercial/mixed use (ten-foot sidewalks). Single-family detached shall provide either six-foot sidewalks or a ten-foot multiuse path if the front of the homes are oriented to the path. Sidewalk widths shall be clear of any obstructions.
- (c) *Multi-use paths.* Multi-use paths shall be constructed parallel to and up to three hundred (300) feet from the roadway in an Open Space or common area. A multi-use path may satisfy the pedestrian facility requirement for two (2) parallel roadway facilities. Multi-use paths are intended to provide safe and convenient bicycle and pedestrian transportation to major attractors within a development and between developments. Multiuse paths can be placed behind homes or homes can be oriented to front multiuse paths. Appropriate access management, site distance and intersection treatments must be used wherever a multiuse path crosses an intersecting driveway or street. Development plans shall be designed to provide for safe pedestrian and bicycle circulation. The County Engineer may require deviations from this requirement due to public safety concerns. In no instance shall a pedestrian facility be eliminated entirely from a street corridor. Multi-use paths shall conform to the following standards.
- (1) *Vehicle/path separation.* Where multi-use paths are parallel and adjacent to a driveway or street (public or private), they shall be raised six (6) inches and curbed, or separated from the driveway or street by a five-foot minimum strip within bollards, a landscape berm or other physical barrier. If a raised path is used, the ends of raised portions shall be equipped with curb ramps.
 - (2) *Housing and path separation.* Multi-use paths shall be separated a minimum of five (5) feet from all residential living areas on the ground floor, except at building entrances. Separation is measured from the path edge to the closest dwelling unit.
 - (3) *Crosswalks.* Where paths cross a parking area, driveway or street ("crosswalk"), they shall be clearly marked with contrasting paving material, humps, raised crossing or painted striping. An example of contrasting paving material is the use of a concrete crosswalk through an asphalt driveway. If painted striping is used, it shall consist of thermo-plastic striping or similar type of durable application. Neighborhood streets do not require crosswalk striping except when the street width is greater than thirty-six (36) feet or at the intersection of roadways that have AADTs greater than one thousand ~~two~~ five hundred (~~1,200~~ 1,500).
 - (4) *Path surface.* Path surfaces shall be concrete, asphalt, brick/masonry pavers or other durable surfaces, and shall comply with the Americans with Disabilities Act (ADA) requirements. Multi-use paths shall be constructed to a minimum width as shown in Table 407.141.1 and with a surface of one (1) inch in thickness and constructed with SP 9.5 asphaltic concrete and four (4) inches limerock base with LBR one hundred (100) and ninety-eight (98) percent maximum density using modified proctor and six (6) inches stabilized subgrade with LBR thirty (30) and ninety-eight (98) percent maximum density using modified Proctor. An alternative may be substituted if approved by the County Engineer.

Illustration 407.142.1 Multiuse Path Examples

