FG-1A.LDC - (Table of Zoning District Regulations Inside [and Outside of the] Traditional City) - R-1AA; R-1A; R-1; R-1N; R-2A; R-2B; R-3A; R-3B; R-3C; R-3D

FIGURE 1A.LDC

FIGURE 1: Table of Zoning District Regulations. Use this table to determine regulations that apply within each zoning district (includes districts inside and outside of the Traditional City). For additional regulations for specific uses, see Chapter 58, Parts 3 and 4. Numbers in parentheses refer to footnotes following the tables.

Standards	R-1AA	R-1A	R-1	R-1N	R-2A	R-2B	R-3A	R-3B	R-3C	R-3D
Max. ISR (2)	.55	.55	.55	.55	0.55	0.60	0.60	0.70	0.80	0.85

FG-1B.LDC - (Table of Zoning District Regulations Inside [and Outside of] the Traditional City ("T. City")]) - MXD-1; MXD-2; O-1; O-2; O-3; MU-1; MU-2

FIGURE 1: Table of Zoning District Regulations. Use this table to determine district regulations that apply within each zoning district (includes districts inside and outside of the Traditional City ("T. City")). For additional regulations for specific uses, see Chapter 58, Parts 3 and 4. Numbers in parentheses refer to footnotes following the tables.

Standards	MXD-1	MXD-2	O-1	O-2	O-3	MU-1	MU-2
Max. ISR	.70	0.85	0.70	0.85	0.90	0.85	0.90

FG-1C.LDC - (Table of Zoning District Regulations Inside [and Outside of] the Traditional City) - AC-N; AC-1; AC-2; AC-3; AC-3A; IC; IG; IP; H; P; C

FIGURE 1: Table of Zoning District Regulations. Use this table to determine regulations that apply within each zoning district (includes districts inside and outside of the Traditional City). Numbers in parentheses refer to footnotes following the tables.

Standards	AC-N	AC-1	AC-2	AC-3	AC-3A	IC	IG	IP	H	P	C	UR
Max. ISR	0.75	0.85	0.90	0.90	0.95	0.90	0.90	0.80	0.05	(8)	0.05	

Sec. 67.604. - Development Site Standards and Principal Building Setbacks.

The Alternative Housing Development may be designed as an Townhome, Z-lot, or Zero-lot-line development. In all cases, the following development site standards and building setbacks shall apply:

Alternative Housing Development Site Standards.

Max. Residential Density: Varies by zoning district.

Building Site Standards:

Site Standards	1-Family	2-Family
Min. Avg. all lots	Varies by zoning district	
Min. Area each lot	1600 sq. ft.	2400 sq. ft.
Mean Lot Width	None	25 ft.
Mean Lot Depth	95 ft.	95 ft.
Max. ISR	0.55	0.55

2AI. – PARRAMORE HERITAGE OVERLAY DISTRICT (PH)

Sec. 58.499.16. - Modification of Standards in the PH Overlay District.

When, in the judgment of the Zoning Official, reasonable development of a non-conforming one or two family residential building site justifies such action, principal building setbacks may be relaxed on individual lots within the PH Overlay District over and above the 20% numerical standard specified in Section 65.302(b)1. However, all one and two family residential infill lots must meet the minimum standards shown below. The front, side, and street side yard setbacks shall be measured from the face of the structure to the property line or, if present, the city services easement.

Front yard setback: 15 ft.; 20 ft. for a garage

Side yard setback: 5 ft.

Street side yard setback: 5 ft.; 20 ft. for a garage

Rear yard setback: 15 ft.

The maximum ISR for individual non-conforming one or two family residential lots within the PH Overlay District may also be modified by the Zoning Official with concurrence by the City Engineer, but shall not exceed 10% of the established district standard (For example, a non-conforming R-1 lot would typically be limited to 0.55 ISR, but this provision would allow up to a 0.6 ISR. Similarly, an R-2B lot would typically be limited to 0.60 ISR, but this provision would allow up to a 0.66 ISR).

3L. – ZERO-LOT-LINE DEVELOPMENT

Sec. 58.604. - Development Site Standards and Principal Building Setbacks.

Development Site Standards.

Min. Development Site Size: 0 ft.

Min. Perimeter Setback: 10 ft.

Maximum ISR: 0.55.

Min. Lot Depth: 100 ft.

Sec.62.407. – Washington Shores Special plan.

/ Chapter 62 – HISTORIC PRESERVATION AND ARCHITECTURAL DESIGN

/ PART 4. – SPECIALLY PLANNED AREAS

to 5 feet, the minimum rear yard setback is reduced to 15 feet, and the maximum ISR is increased to 0.85. Where a T4 lot is zoned AC-2/T/SP, minimum FAR and density

Building Site: Any group of one or more lot(s) or parcel(s) occupied or intended for development as a unit, whether or not as part of a larger Development Site. Building site area does not include surface water bodies or floodways, but does include wetlands. Should the building site contain more than one lot or parcel intended for separate fee simple sale after development, interior lot setback and yard requirements shall apply to each individual lot, and any applicable building site setback requirements will be established from the building site perimeter.

Where the building site will be retained in single ownership after development, interior lot setback and yard requirements shall be disregarded and any applicable setback requirements shall be established from the building site perimeter, provided that all lots or parcels contained within a building site shall be bound together by location of principal structure(s), replatting, or an instrument approved by the City Attorney as to form and legality and recorded in the Public Records of Orange County, Florida.

***Impervious Surface Area*:** The area of ground covered by any part of a building, street, vehicular use area, or any other structure, improvement, facility or material which prevents or severely restricts natural percolation of moisture. This includes all asphalt and brick surfaces, and areas devoted to any outdoor storage and/or display of materials and merchandise, but does not include residential accessory swimming pools. Gravel surfaces shall be considered impervious when used for a vehicular use area, and porous otherwise. Unpaved vehicular use areas shall also be considered impervious, except those designated and approved for occasional vehicular use only. Wooden patios shall be considered pervious. Impervious

Surface Ratio (ISR): The Impervious Surface Area divided by the Site Area

Sec. 58.1161. - Work to Nonconforming Building, Structure, or Vehicular Use Area.

Substantial improvement to nonconforming buildings, structures, and vehicular use areas is prohibited unless such nonconforming conditions are brought into compliance with all applicable provisions of the Land Development Code and all other applicable provisions of City Code and general and special law, except in the following circumstances:

(a) *Affordable Housing.* Legally existing nonconforming buildings, structures, and vehicular use areas constituting part of a City certified affordable housing development and undergoing a substantial improvement are hereby made exempt from current parking and stormwater regulations enacted by City ordinance.

(b) *Unsafe Buildings and Structures.* Work constituting a substantial improvement may be made to legally existing nonconforming buildings and structures without bringing the building or structure into compliance with current regulations of the Land Development Code if such building or structure is declared to be unsafe and unsuitable for human habitation by a government authority having jurisdiction, but only to the extent necessary to make the building or structure safe and suitable for human habitation as determined by the government authority having jurisdiction.

(c) *Certain Buildings and Structures Damaged by Force Majeure.* Repairs constituting substantial improvements may be made to legally existing nonconforming buildings, structures, and vehicular use areas constituting part of either (1) a one family dwelling, (2) a two family dwelling, or (3) a multifamily dwelling certified by the City as an affordable housing development, without bringing the building, structure, or vehicular use area into compliance with current regulations of the Land Development Code if such building or structure is being repaired due to damage caused by force majeure, but only under the following conditions:

(1) Relief pursuant to this part may be granted only by written determination of the zoning official.

(2) The property owner must provide evidence that the buildings, structures, and vehicular use areas proposed for repair were legally existing.

(3) The repaired buildings, structures, and vehicular use areas will be no larger than the original.

(4) Relief pursuant to this part is only available if the property owner receives a building permit for the subject building, structure, or vehicular use area within 1 year of the damage caused by force majeure.

(5) Continuation of the nonconforming condition is not inconsistent with applicable provisions of the Growth Management Plan, nor inconsistent with the public health, safety, or welfare.

For the purposes of this section, the term "force majeure" means any overwhelming event or act of God, nature, or people, that is exceptional, unusual, inevitable, and irresistible, the effects of which cannot be prevented or avoided by the exercise of due care or foresight, examples of which include, but are not limited to, hurricanes, tornadoes, tropical storms, tropical depressions, lightning, and other grave meteorological events, sinkholes, earthquakes, and other grave geologic events, floods, water damage, and other grave hydrologic events, accidents caused by automobile or machinery, fire, riot, civil unrest or commotion, terrorist attack or activity, acts of war, and acts of a public enemy. Events or conditions specifically excluded from the meaning of the term "force majeure" for the purposes of this section include termite damage, deterioration due to poor maintenance or neglect, and purposeful acts or omissions by or on behalf of the property owner.

(d) *Longstanding buildings.* Legally existing nonconforming buildings, structures, and their associated vehicular use areas, originally built more than 30 years ago, may undergo substantial improvement without meeting the following existing development standards of this Code:

1. Setbacks.
2. Maximum height.
3. Maximum impervious surface area.
4. Minimum and maximum density and intensity.
5. Minimum lot width, length, or size. (Non-residential structures only).
6. Landscaping standards.
7. Parking standards.
8. Traditional City design standards provided at Part 6, Chapter 62 of this Code.

Relief may be granted under this subsection only by official determination of the zoning official. The zoning official may grant relief under this subsection only if he or she finds as follows:

1. Complying with the development standards presents a practical hindrance to beneficial redevelopment.
2. Complying with the development standards presents a clear and unreasonable financial hardship.
3. Continuation of the nonconformity will not result in the continuation of a nonconforming use.
4. That the preponderance of the evidence supports the legal existence of the nonconformity.
5. Continuation of the nonconformity is not inconsistent with applicable provisions of the Growth Management Plan, nor inconsistent with the public health, safety and welfare.
6. Continuation of the nonconformity is reasonably compatible with existing and reasonably foreseeable neighboring development pattern.
7. That the proposed work will retain and rehabilitate the preponderance of the existing nonconforming building, structure, or vehicular use area.
8. That the proposed work will not increase or expand a nonconforming aspect of the building, structure, or vehicular use area.
9. That the work does not exceed 400% of a substantial improvement.

Recognizing that relief under this subsection will prolong a condition not conforming to the development standards of this Code, the zoning official may impose one or more of the conditions of development provided by section 65.334 of this Code. Conditions of development must be reasonably calculated to mitigate identifiable land use impacts of the nonconformity. Violations of development conditions constitute a violation of this subsection. Relief under this subsection does not exempt the property from section 58.1184, or any other applicable provision of this Code, except as expressly provided in this subsection.

(Ord. of 9-16-1991, Doc. #25094; Ord. of 7-26-1993, Doc. #26769; Ord. of 5-4-2009, § 1, Doc. #0905041101; Ord. No. 2014-33, § 1, 9-29-2014, Doc. #1409291201; Ord. No. 2018-45, § 5, 8-20-2018, Doc. #1808201202; Ord. No. 2018-68, § 1, 1-14-2019, Doc. #1901141201)

Sec. 65.334-1. - Master Plans With Modifications.

(a) *General requirements and purpose.* In accordance with the requirements of this section, master plans may be approved with modifications to the development standards applicable to the governing zoning district. The purpose of this part is to provide an application and approval process for relatively small modifications to applicable development standards where the modification is consistent with the purpose and intent of the Growth Management Plan and results in a superior plan of development. Development standards eligible for modification pursuant to this part include:

1. *Impervious surface ratio (ISR).* The maximum permitted ISR may be increased by up to 20% of the numerical standard (Example: where a maximum 0.55 ISR is allowed, the maximum modification is 20% x 0.55 = 0.11, for a total of 0.66 ISR).

2. *Minimum and maximum building setbacks.* Minimum and maximum building setbacks may be modified by up to 20% of the applicable numerical standard. This applies to all setback standards, including without limitation, setbacks from bodies of water and wetlands, as long as the proposed setback from a body of water or wetland is consistent with applicable state or federal standards. In the AC-3A district, the rear yard setback may be reduced by up to 100% provided that no modification to the maximum permitted ISR is necessary to accommodate the reduced setback.

3. *Landscaping and buffer yards.* The width of a required buffer yard may be reduced by up to 50% provided that no modification to the maximum permitted ISR is necessary to accommodate the reduced buffer yard. Landscaping may be modified as provided at sections 60.202 and 60.203 of this Code.

4. *Building height.* The height of a building may be increased by up to 20% of the maximum permitted building height.

5. *Other development standards.* Master plans may also approve modifications of standards as provided at sections 65.302 and 65.303 of this Code.

The list of permitted, prohibited, and condition uses are not a "development standard" for the purposes of this section. Development standards provided by a special plan overlay district are ineligible for a modification pursuant to this section if the special plan provides a procedure for the modification, waiver, or variance from the standard.

(b) *Review procedure.* The application procedures, review process, standards of review, effects of approval, submittal requirements, opportunities for intensity and/or density bonus, and appeal procedures for a master plan with modifications are the same as for a regular master plan, except as follows:

1. *Standards of review.* In addition to the standards of review provided at section 65.335 of this Code, master plans with modifications must also meet the following standards:

   A. *Superior alternative.* The proposed development achieves the purposes and intent of the development standard for which a modification is sought by providing a superior plan of development through thoughtful design, efficiency, or performance.

   B. *Neighborhood compatibility.* The proposed development is compatible with the surrounding neighborhood and does not negatively impact the public welfare.

   C. *Technical impracticality.* Strict application of the development standard would be technically impractical in terms of engineering, design, or construction practices, due to the unusual size, shape, topography, natural conditions, or location of the land.

   D. *Protection of significant features.* Where applicable, the modification is necessary to preserve or enhance a significant existing environmental or cultural feature, such as trees, scenic areas, historic sites, or public facilities.

Sec. 65.349. - Proposed Development.

(a) All proposed buildings, structures, uses and outdoor display areas, including:

1. Locations.
2. Intended Use and nature of each.
3. Dimensions and Heights of each.
4. Gross Floor Areas of all buildings and uses.
5. Number of Dwelling Units for all residential uses.
6. Gross and Net Densities for all residential uses.
7. Gross and Net Floor Area Ratios for all non-residential uses.
8. Architectural Elevations of all buildings and structures.

(b) Proposed vehicular circulation system, including the locations, dimensions and type of construction of:

1. Driveways Approaches and Curbcuts.
2. Aisles and travelways.
3. Parking spaces, including bus spaces, if any.
4. Loading berths.
5. Other vehicular use areas.
6. Sidewalks and other pedestrian use areas.
7. Through-access corridors and cross-access easements required by Chapter 61, Part 1 for appropriate design along thoroughfares.

(c) Number of parking spaces and loading berths.

(d) A remote parking encumbrance, if required by Chapter 61, Part 3.

(e) A proposed landscaping plan, including the location of all plantings for parking lot landscaping, shade coverage, bufferyards, street trees, open spaces, recreation areas and other landscaped areas. The landscape plan shall include: plant species grouped by water use zones (high, medium, low); turf areas; specification of mulch and lake edge landscaping (where applicable) shall be coordinated with a utility plan indicating the location of existing and proposed above and below grade utilities, including but not limited to overhead power lines, poles, underground storm, and sanitary lines. Utility locations must be coordinated with the locations of existing trees and proposed landscaping so they do not conflict above or below grade.

(f) A proposed tree protection plan, including the following:

1. All Items Required for Preliminary Site Plan (see Section 65.338—65.340 above).
2. The Undisturbed Areas which will surround each tree or tree grouping to be retained and awarded tree points, including the area and dimensions of each.
3. A Parking Logistics Plan indicating locations where construction vehicles and employee vehicles will be parked on-site or off-site during the construction period, and certifying in writing that such vehicles will not be parked within the undisturbed areas shown in the tree protection plan.
4. Construction Lay-down Areas to be used during the construction period, and certification in writing that undisturbed areas shown in the tree protection plan will not be used for construction lay-down.

(g) A proposed irrigation plan showing the automatic irrigation system shall be required for a landscape plan which utilizes high water use zones in accordance with Chapter 60, Part 2. A proposed irrigation

plan indicating the location of the readily available water supply source (such as a hose bibb) shall be provided for all other landscape plans.

(h) The locations and dimensions of all yards and setbacks provided in accordance with this Chapter, and the distances between all buildings.

(i) All open spaces, recreational facilities, parks, school sites and similar areas or facilities proposed on the property, including:

1. Locations and Dimensions of each.
2. Type of facility or area.
3. Gross land area of each.
4. Percentage of Building Site Area devoted to open space.

(j) Locations, dimensions, and terms of all parcels of land proposed for public uses, together with any necessary legal instruments. These parcels of land include:

1. Street rights-of-way.
2. Easements for drainage, utilities, stormwater management, pedestrian ways, sidewalks, bike paths, etc.
3. Land reservations for parks, schools, public facilities, stormwater management, etc.

(k) Proposed utility and drainage infrastructure plan shall indicate the locations of existing and proposed above and below grade utilities, including overhead power lines, poles, underground storm and sanitary lines. The utility plan shall also show boundaries and dimensions of any utility easements affecting the site. Another utility locations plan shall be coordinated with the proposed landscaping plan as required in Section 65.349.

(l) A final drainage and erosion control plan, in conformance with the Orlando Urban Storm Water Management Manual (OUSWMM).

(m) A final stormwater management plan, in conformance with the Orlando Urban Stormwater Management Manual (OUSWMM).

(n) A description of the means of ownership and maintenance of all common improvements and open space, in accordance with Chapter 65, Part 5D.

(o) A description of the proposed sewage disposal method. If the disposal method is other than the Orlando central collection system, evidence must be shown that the method can meet the requirements of any applicable administrative agency or applicable law. An engineering report may be required by the City Engineer.

(p) Sign and outdoor lighting plan, including the locations and sizes of all signs and the intensity and nature of all proposed lighting.

(q) Proposed development schedule indicating the approximate starting and completion dates for the entire development and any construction stages thereof, together with appropriate identification and description of such stages.

(r) Other site design information, including:

1. Dumpsters, utilities and other service equipment locations, dimensions and screening, and maneuvering area for collection and service vehicles;
2. Patios and porches locations and dimensions;
3. External air conditioning units locations;
4. Impervious surfaces locations, total area and ratio to building site area;
5. For vehicle sales and rental establishments, designation of vehicle display and storage areas, as distinguished from customer parking areas;

ORDINANCE NO. 2005-____

AN ORDINANCE OF THE COUNTY COUNCIL OF VOLUSIA COUNTY, FLORIDA, AMENDING THE CODE OF ORDINANCES OF THE COUNTY OF VOLUSIA, CHAPTER 122, TITLED "UTILITIES," ARTICLE IV, "STORMWATER UTILITY"; BY AMENDING SECTION 122-151 DEFINITIONS; BY AMENDING SECTION 122-158, ADMINISTRATION OF PROGRAM; CALCULATION OF FEE; COLLECTION OF FEE; BY AMENDING SECTION 122-159, ADJUSTMENT OF FEES; BY CREATING SECTION 122-162, STORMWATER UTILITY FEE CREDITS; BY CREATING SECTION 122-163, FLOODING; BY PROVIDING FOR INCLUSION IN CODE AND SCRIVENERS ERRORS; BY PROVIDING FOR SEVERABILITY; BY PROVIDING AN EFFECTIVE DATE.

WHEREAS, the County Council desires to amend the current Code of Ordinances, Chapter 122, Titled "Utilities", Article IV, "Stormwater Utility," and,

WHEREAS, the county is updating this ordinance to reflect current stormwater studies and analysis; and,

WHEREAS, the county desires to provide stormwater utility customers with credits for facilities that reduce the pollutant discharge and reduce flood impact from their property; and,

WHEREAS, the county stormwater utility system will benefit from improved utility customer stormwater facilities that reduce the impact and burden on the need for capital improvements and maintenance and operation of the county stormwater utility system.

NOW THEREFORE, BE IT ORDAINED BY THE COUNTY COUNCIL OF VOLUSIA COUNTY, FLORIDA IN OPEN MEETING DULY ASSEMBLED IN THE

VOLUSIA COUNTY ADMINISTRATION CENTER, DELAND, FLORIDA THIS _____ DAY OF _____, A.D. 2005, AS FOLLOWS:

(Words in ~~strike-through~~ type are deletions; words in underscore type are additions.)

SECTION I: Chapter 122, Titled "Utilities", Article IV, "Stormwater Utility," is amended to read as follows:

Sec. 122-151. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

County manager means the county manager or ~~his~~ a duly authorized representative.

Developed property means that property which has been altered from its natural state by the addition of any improvements, including but not limited to buildings, structures or impervious surfaces. For new construction, a property shall be considered developed pursuant to this article upon issuance of a certificate of occupancy, or upon completion of construction or final inspection if no such certificate is issued.

Dwelling unit means one or more rooms in a building forming a separate and independent housekeeping establishment, arranged, designed or intended to be used or occupied by one family, and having no enclosed space or cooking or

sanitary facilities in common with any other dwelling unit with no ingress or egress though any other dwelling unit, and containing permanent provisions for sleeping facilities, sanitary facilities and not more than one kitchen.

Equivalent residential unit (ERU) means the statistical average horizontal impervious area of residential units. The horizontal impervious area includes but is not limited to all areas covered by structures, roof extensions, patios, porches, driveways and sidewalks. The common denominator used for relating runoff is the ERU.

Impervious area means an area covered by material which retards or does not permit infiltration or percolation of water into the ground. Such impervious areas may include but are not limited to areas covered by roofs, roof extensions, slabs, patios, porches, driveways, sidewalks, parking areas and athletic courts.

Lot means an area of land which abuts a street or other means of legal access and which either complies with or is exempt from the land development code, Ordinance No. 88-3, as amended (appendix A to this Code), and is sufficient in size to meet the minimum area and width requirements for its zoning classification as established in article VII of Ordinance No. 80-8, as amended (appendix B to this Code), and a portion of a subdivision or any other tract or parcel of land, including the airspace above or contiguous thereto, intended as a unit for transfer of ownership or for development or both. The word "lot" includes the word "plot," "tract" or "parcel."

Nonresidential developed property means any developed property that is

classified by the property appraiser ~~as land use types 10 through 99~~ using the state department of revenue land use codes, as may be amended from time to time.

Parcel of land means any quantity of land capable of being described with such definiteness that its location and boundaries may be established, which is designated by its owner or developer as a unit or which has been used or developed as a unit.

Residential developed property means developed property that is classified by the property appraiser of the county ~~as land use types 00 through 09~~ using the state department of revenue land use codes, as may be amended from time to time.

Stormwater means that part of the precipitation that travels over natural, altered or improved surfaces to the nearest stream channel or impoundment, and that which appears in surface waters.

Stormwater facility means a conveyance, storage area or system of conveyances and storage areas (including, but not limited to, roads with drainage systems, streets, catch basins, curbs, gutters, ditches, manmade channels, storm drains, treatment ponds, and other structural best management practices) which discharges to waters of the state, or to other municipal or county systems.

Stormwater Management System means a system which is designed and constructed or implemented to control discharges which are necessitated by

rainfall events, incorporating methods to collect, convey, store, absorb, inhibit, treat, use or reuse water to prevent or reduce flooding, over drainage, environmental degradation, and water pollution or otherwise affect the quality and quantity of the discharges.

...

Sec. 122-158. Administration of program; calculation of fee; collection of fee.

(a) The county manager shall assign a classification of residential or nonresidential to each lot or parcel, based upon the applicable state department of revenue land use code.

(b) The county council shall, upon the recommendation of the county manager from time to time, by resolution, define the square footage of impervious area of the ERU.

(c) To the extent provided in this article, all developed property shall be subject to a stormwater utility fee.

(d) The stormwater utility fee for residential developed properties shall be calculated from the rate for one ERU, multiplied by the number of individual dwelling units existing on the property (ERU rate X number of dwelling units~~), provided that:~~ .

~~(1) For ERU's from 26 through 100, the fee shall be the rate multiplied by the number of dwelling units multiplied by 0.5 (ERU rate X~~

~~number of dwelling units X 0.5).~~

~~(2) For ERU's above 100, the fee shall be the rate multiplied by the number of dwelling units multiplied by 0.25 (ERU rate X number of dwelling units X 0.25).~~

(e) The stormwater utility fee for nonresidential developed properties shall be the rate for one ERU, multiplied by the numerical factor (number of ERU's) obtained by dividing the total impervious area of the nonresidential property by the impervious area of ~~the~~ an ERU (ERU rate X parcel impervious area/impervious area of 1 ERU)~~, provided that:~~ .

~~(1) For ERU's from 25.01 through 100.00, the fee shall be the rate multiplied by the number of ERU's multiplied by 0.5 (ERU rate X (parcel impervious area/impervious area of 1 ERU) X 0.5); and~~

~~(2) For ERU's 100.01 and above, the fee shall be the rate multiplied by the number of ERU's multiplied by 0.25 (ERU rate X (parcel impervious area/impervious area of 1 ERU) X 0.25).~~

(f) The number of ERU's per lot or parcel shall be rounded to the nearest hundredth.

(g) The county manager shall administer the stormwater utility and its related program.

(h) The county manager shall determine impervious area on residential or nonresidential property considering data supplied by the property appraiser, other county staff, and/or the property owner, tenant or

developer. The county manager may require additional information as necessary to make a determination. The number of ERU's of any lot or parcel shall be updated by the county manager based on any significant changes in impervious area, including that arising from an approved building permit.

(i) The method of collection of stormwater utility fees shall be the placement on the tax bill, as a non-ad-valorem assessment pursuant to F.S. §§ 197.3631--197.3635, or an alternative method of collection; provided, however, that applicable developed property not included on the property appraiser assessment roll and not billed as a special assessment charge on the annual tax bill as provided in this subsection shall be billed a pro rata portion of the annual charge for the remaining months of the fiscal year and for the next fiscal year, if applicable. The total amount shall be collected by the county when permanent electrical service is authorized (certificate of occupancy issued).

...

SECTION II: Chapter 122, Titled "Utilities", Article IV, "Stormwater Utility," Sections 122-162 and 122-163 is created as follows:

Sec. 122-162. Stormwater Utility Fee Credits.

(a) The county recognizes that some developed properties subject to the stormwater utility fee have constructed and currently operate and maintain stormwater facilities that can reduce stormwater runoff impacts from the

subject property and reduce the burden on the county to maintain, operate and provide capital improvements to the stormwater management system. Additionally, the county recognizes that some property owners may wish to mitigate the stormwater utility fee by constructing and maintaining a stormwater facility that will reduce the impact of the subject property. As an incentive for operating and maintaining a stormwater facility, fee credits may be granted to the utility customer when the management facility reduces the pollutant load on the water quality, reduces the flow of water quantity from the subject property, or both.

(b) To qualify for the fee credit, a utility customer must operate a stormwater facility that has a valid St. Johns River Water Management District Permit and must provide certification by a Florida registered professional engineer that the facility is operating as designed and is regularly maintained.

(1) If the stormwater facility has a valid Chapter 40-42, F.A.C. St. Johns River Water Management Permit for water quality, then the facility is eligible for a 34% fee credit.

(2) If the stormwater facility has a valid Chapter 40C-40 or 40C-4, F.A.C. St. Johns River Water Management Permit for water quality and quantity, then the facility is eligible for a 68% fee credit.

(c) A facility may be eligible for up to a 68% credit from stormwater utility fees even if it does not have a valid St. Johns River Water Management District Permit. If the utility customer demonstrates that the stormwater facility

does not discharge stormwater to the stormwater management system during the 100-year, 24-hour design storm event as defined by the St. John's River Water Management District or the facility has a level of treatment for stormwater which meets or exceeds the applicable criteria, for a St. Johns River Water Management Permit, referenced in section 122-162 (b). If the utility customer provides proof that both pollutant discharge affecting water quality and stormwater flow affecting water quantity are reduced to standards set forth by the St. Johns Water Management District, than the customer is eligible to receive a 68% credit. If the applicant only establishes that the pollutant discharge affecting water quality is reduced, than the customer is eligible to receive a 34% credit. The customer must provide a certification with applicable plans and calculations signed and sealed by a Florida registered professional engineer that one or both of the above criteria are met.

(d) The stormwater utility customer requesting the credit must demonstrate to the county on or before every third year anniversary after the granting of the credit that the stormwater facilities are operating properly and being maintained according to standard practices. The demonstration shall include, at a minimum, current photographs of the subject stormwater facilities taken during the year prior and a signed affidavit that the facilities have been operated properly and maintained according to standard practices. The Stormwater facility must be certified by a Florida registered

professional engineer that the facility is operating as designed and is regularly maintained.

(e) After a particular property receives a stormwater drainage utility fee credit, annually thereafter the county may inspect the stormwater drainage facilities serving the site in order to determine whether those facilities are maintained and functioning properly. If the county inspection determines that they are maintained and functioning properly, the stormwater drainage utility fee credit shall be continued. However, if the county inspection determines that the system is improperly maintained and not functioning properly, the county shall notify the property owner or owners to correct the deficiency within 60 days. If the deficiency is corrected to the satisfaction of the county within the 60-day period, the stormwater drainage utility fee credit shall continue in effect until the next annual inspection. However, if the deficiency is not corrected to the satisfaction of the county within 60 days, the county may cancel the stormwater drainage utility fee credit until the necessary corrections are made.

Sec. 122-163. Flooding. Floods from stormwater runoff may occasionally occur which exceed the capacity of stormwater management facilities constructed, operated or maintained by funds made available under this chapter. This chapter shall not be construed or interpreted to mean that property subject to the fees and charges established herein will always (or at any time) be free from stormwater flooding or flood damage, or that stormwater systems capable of

handling all storm events can be cost-effectively constructed, operated or maintained. Nor shall this chapter create any liability on the part of, or cause of action against, the county, or any official or employee thereof, for any flood damage that may result from such storms or the runoff thereof. Nor does this chapter purport to reduce the need or the necessity for obtaining flood insurance by individual property owners.

SECTION III: Except as amended herein, the provisions of the Code of Ordinances of the County of Volusia remain in full force and effect.

SECTION IV: AUTHORIZING INCLUSION IN CODE - The provisions of this ordinance shall be included and incorporated into the Code of Ordinances of the County of Volusia, as additions or amendments thereto, and shall be appropriately renumbered to conform to the uniform numbering system of the Code.

SECTION V: SEVERABILITY - Should any word, phrase, sentence, subsection or section be held by a court of competent jurisdiction to be illegal, void, unenforceable, or unconstitutional, then that word, phrase, sentence, subsection or section so held shall be severed from this ordinance and all other words, phrases, sentences, subsections, or sections shall remain in full force and effect.

SECTION VI: EFFECTIVE DATE - A certified copy of this Ordinance shall be filed with the Department of State by the County Manager within ten (10) days after enactment by the County Council and this Ordinance shall take effect upon filing with the Department of State.

ADOPTED BY THE COUNTY COUNCIL OF VOLUSIA COUNTY, FLORIDA, IN OPEN MEETING DULY ASSEMBLED IN THE COUNTY COUNCIL CHAMBERS AT THE THOMAS C. KELLY ADMINISTRATION CENTER, 123 WEST INDIANA AVENUE, DELAND, FLORIDA, THIS _____ DAY OF _____ A.D., 2005.

COUNTY COUNCIL
ATTEST:

COUNTY OF VOLUSIA, FLORIDA

_____
Cynthia A. Coto, County Manager

_____
Frank T. Bruno, Jr., County Chair

Sec. 72-577. - Conceptual or final site plan review.

(a) *Necessity for filing.*

(1) All applicants for an FSP shall first submit a conceptual site plan application (CPN) to the land development division (LDD).

(2) The land development manager (LDM) shall, within three working days of acceptance of the application, review the application for conformity with this article and other development regulations and notify the applicant in writing of the results of the review. Thereafter, the applicant may submit an application for an FSP.

(b) *Procedures.* An application for an FSP shall be filed and processed pursuant to sections 72-503 and 72-504 of this article.

(c) *Required submittals.* A CPN or FSP application shall include the following:

(1) *Conceptual site plan application.*

a. Statement of ownership of the proposed development, and the names, addresses and telephone numbers of the developer and any project engineers, architects or planners;

b. Legal description;

c. Current zoning classification(s);

d. Schematic representation of proposed use, including building size, shape and location on the site;

e. Schematic representation of vehicular circulation within the site, including driveways, parking areas and loading areas;

f. Schematic representation of points of connection to the public right-of-way.

(2) *Final site plan application.* After receiving the written results of the CPN review an FSP application may be submitted pursuant to sections 72-503 and 72-504 of this article and shall include the following information and exhibits drawn to a scale of not less than one inch equals 50 feet:

a. Statement of ownership of the proposed development, and the names, addresses and telephone numbers of the developer and any project engineers, architects or planners;

b. Legal description;

c. Current zoning classification(s);

d. Vicinity map at a scale of one inch equals 2,000 feet with sufficient information to locate the property in the field;

e. A survey of the subject property, prepared by a registered surveyor, showing the boundaries of the project, and any existing streets, buildings, watercourses, easements and section lines;

f. Flood-prone areas;

g. Waterbodies or courses;

h. Swamp or wetland areas;

i. A signed and sealed site plan containing the title of the project, its date, scale and a north arrow, and illustrating the location of all proposed buildings and structures, access and traffic flow, off-street parking and off-street loading areas, recreational facilities, landscaped and buffer areas, refuse collection areas, proposed utilities, and existing and proposed topography at one-foot contour intervals;

j. Total acreage, project density, and the percentages of total acreage for each permitted use, for building coverage and for impervious surface coverage;

k. Statement of the proposed number of off-street parking and loading spaces and how that number was calculated;

l. Statement of the proposed arrangements for the maintenance of common open space areas and facilities;

m. Location and height of all structures and total floor area with dimensions to lot lines and designation of use;

n. Building separations;

o. Vehicular circulation system for bicycles, cars and other required vehicle types, with indication of connection to adjacent streets;

p. All adjacent rights-of-way, with indication of centerline and width, paving width, existing median cuts, driveways and intersections, street light poles and power company facilities;

q. Pedestrian circulation system;

r. Provider of water and sewerage facilities;

s. Existing and proposed fire hydrant locations and water main sizes;

t. Direction of drainage flows and nature of retention facilities, if any;

u. Indication of existing native vegetation that will be preserved;

v. Identify known wildlife corridors for federal and state endangered species, threatened species or species of special concern;

w. Identify known plants and animals which inhabit the site that are listed as federal and state endangered species, threatened species or species of special concern;

x. Identify known historic and archaeological sites;

y. Tentative construction schedule for the proposed development, including, if applicable, a tentative schedule for phasing construction, the date potable water facilities are needed to serve the proposed development and a commitment from the appropriate potable water provider, if other than the County of Volusia, demonstrating that adequate capacity shall be available to service the proposed development at the time of impact as provided in division 14; provided, however, the level of service standards described in division 14 shall be adhered to by any potable water facility provider;

z. The date sanitary sewer facilities are needed to service the proposed development and a demonstration and commitment from the appropriate sanitary sewer system provider, if other than the County of Volusia, that adequate capacity shall be available to service the proposed development at the time of impact as provided in division 14; provided, however, the level of service standards described in division 14 shall be adhered to by any sanitary sewer provider;

aa. Location of solid waste disposal system and provisions for accessibility to refuse collection and recycling trucks;

bb. Off-street parking, loading, bicycle parking and mass transit loading (bus stop) areas and provisions for accessibility to vehicles of the required type;

cc. Areas for emergency vehicles and fire engines, and provisions for accessibility to vehicles of the required type;

dd. Design of all paved areas, including dimensions, radii and elevations, as well as plans for traffic-control signs and pavement markings;

ee. Location of all drainage features, and retention areas, if any; lowest floor elevation of proposed buildings;

ff. Plans and specifications required pursuant to all other applicable articles of this article;

gg. Computation of pervious and impervious area, in square footage and percentage;

hh. Building floor areas, elevations, sizes, types and typical floor plans;

ii. Plans for signs, which at a minimum shall include location, size and setbacks;

jj. A landscaping plan signed and sealed by a landscape architect meeting the requirements of subsection 72-284(3) of the zoning ordinance [article II of this chapter];

kk. Location and plans for any outside storage areas;

ll. Any additional information deemed necessary by any reviewing department or agency, or deemed appropriate by the developer;

mm. If the FSP was prepared on an appropriate CAD system, the applicant shall provide such computer disks to the LDM;

nn. Environmental impact analysis in accordance with subsection 72-505(i), if applicable.

One or more of the above items of information may be waived by the LDM at the time of application if deemed unnecessary in a particular case. The waived item may still be subsequently required by any reviewing department or agency if they deem it necessary.

(d) *Committee review.* [Repealed.]

(Ord. No. 90-33, §§ XXXI, XXXII, 9-27-90; Ord. No. 94-2, §§ 41—46, 4-7-94; Ord. No. 96-32, §§ XXV—XXVII, 12-19-96; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-611. - General design criteria.

(a) *Use of natural features.* The arrangement of structures, buildings, lots, blocks and traffic circulation systems and retention areas shall make the most advantageous use of topography, trees and other natural features.

(b) *Consideration of soil and flood hazards.* A development order shall not be approved unless all land intended for use as building sites can be used safely for building purposes without danger from flood or other inundation or from adverse soil or foundation conditions or from any other menace to health, safety or public welfare. Lands shall not be subdivided and/or developed until proper provisions are made for protective flood control measures and water management facilities necessary for flood-free development and flood-free vehicular access to such sites. It is the intent of this provision that no filling or grade level change will be permitted which will cause adverse drainage, or public health or public safety impacts to any surrounding area.

The "County of Volusia Soil Survey" and any supplements thereto shall be used as a guideline in identifying soil properties, and for interpretations for various uses in terms of soil limitations and soil features adversely affecting a particular use. In addition, the "soil supplement and vegetative analysis" or supplemental soil borings are to be used in interpreting the basic properties of the soils in terms of their potential for a particular use.

(c) *Finished floor elevation, utility lines and special considerations.* No development shall be approved that does not contain a suitable building site of sufficient elevation to permit construction utilizing a first floor elevation based upon the following:

(1) At least one foot above the 100-year flood-prone elevation, as determined by the CDE based upon the best available data. Where the floodplain of any stream or river is defined, development shall be approved only if all parts of the platted lots located within the floodway are expressly limited to open space uses. On-site drainage storage capacity shall be in conformance with division 8.

(2) Provided that building lots are a reasonable level or slope toward a street, road or right-of-way, the minimum finished floor elevation of any structure shall not be less than 12 inches above the lowest crown of that portion of any adjacent street, road or right-of-way. On lots which slope away from a street or road with continuous slope toward a lake, stream or water collection area and where positive drainage exists, the finished floor elevation of any structure, including garage areas, shall not be less than 12 inches above finished site grade measured at the highest contour that abuts the building unless specifically approved by the CDE and the DRC. Where necessary, swales shall be constructed to divert runoff water around any structure so as to not adversely impact adjacent property owners.

(3) Driveways or other areas of access to a building or structure shall be sloped so as to prevent the runoff of surface water into any building or structure, including garage and carport areas.

(4) Utility lines including, but not limited to, electric power and light, telephone and telegraph, cable television, water, sewer and gas, shall be constructed and installed beneath the surface of the ground unless it is determined by the DRC that soil, topographical or any other compelling conditions make the underground installation of such utility lines unreasonable and impracticable. The underground installation of bulk electric power supply lines, including but not limited to, transmission lines and primary distribution feeder lines, shall not be required.

(5) Special considerations shall be given in the layout of streets, lots, blocks, buildings and easements to the preservation of large and specimen individual trees; to preserving natural drainage methods and natural topography and landscape; and to providing screening, buffers or berms where developments abut noncompatible land uses.

(d) *Monuments.* Permanent survey reference monuments shall be installed in all subdivisions and condominium plats in accordance with F.S. ch. 177, as amended. Additional monuments such as along rear lot lines which do not abut the subdivision boundary may be required by the county registered land surveyor.

(1) At least one corner of a development shall be designated by course and distance (tie) from a readily discernible reference marker such as a U.S. Government marker, section corner, or quarter-section corner. When such a monument or corner is not available, the tie shall be made to some permanent and readily recognizable landmark or identifiable point, physical object or structure, excluding trees.

(2) At least two monuments shall be installed as control corners within each block within the plat. The surveyor shall install additional monuments, if required by the county registered land surveyor, prior to final plat approval. All monuments shall be constructed of concrete and shall be at least four inches in diameter or square, and not less than two feet in length. Each monument shall have imbedded in its top or attached by a suitable means a metal plate of noncorrosive material marked plainly with the point, the surveyor's registration number, and the words "Permanent Reference Monument" or the initials "P.R.M." Monuments shall be set in the ground so that the top is flush with the finish grade.

(3) Property markers shall be installed in accordance with F.S. ch. 177, as amended.

(e) *Impervious area and stormwater runoff.*

(1) The area covered by structures and impervious surface shall not exceed 80 percent for any lot.

a. Pervious areas may be used to satisfy requirements for landscaping and setbacks, buffer strips, drain fields, passive recreation areas, or any other purpose that does not require covering with a material that prevents infiltration of water into the ground.

b. In the case of the use of an impervious material which does not cover all the surface to which it is applied, credit towards the computation of the pervious area shall be given according to the amount of percolation that is permitted.

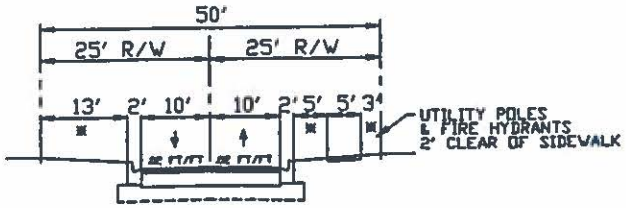
c. Parking areas, whether paved with impervious material or not, shall be onsidered impervious.

(Ord. No. 96-32, § XXVIII, 12-19-96; Ord. No. 2008-25, § III, 12-4-08)

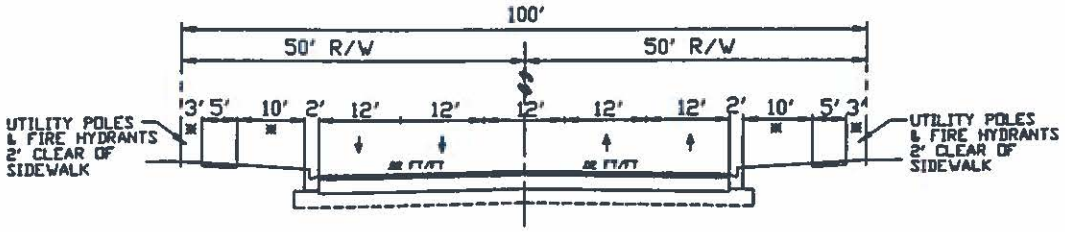
Sec. 72-612. - Streets.

(a) *General requirements for paved and unpaved streets.* All proposed lots or developments, except as provided in section 72-547 (Conservation subdivisions), and 72-548 (Unpaved road subdivisions), or for utilities such as cable substations, communication towers, etc., shall front on a paved street. Primary access to a subdivision or development shall be from a street paved to the standards of this section. This street, if not already paved, shall be paved by the developer from the entrance of the development to the nearest public paved street. The character, width, grade and location of all streets shall conform to the standards in this section and shall be considered in their relation to existing and planned streets, to topographical conditions, to public convenience and safety, and in their appropriate relation to the proposed uses of the land to be served by such streets. Construction and material specifications for streets shall conform to "FDOT Standard Specifications for Road and Bridge Construction," except as otherwise may be stated herein or depicted below:

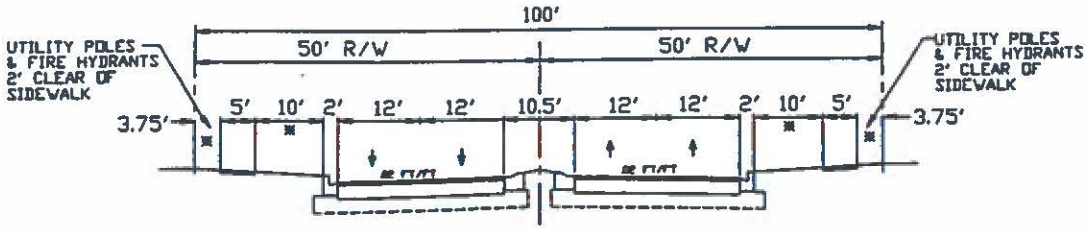
TYPICAL ROADWAY SECTIONS



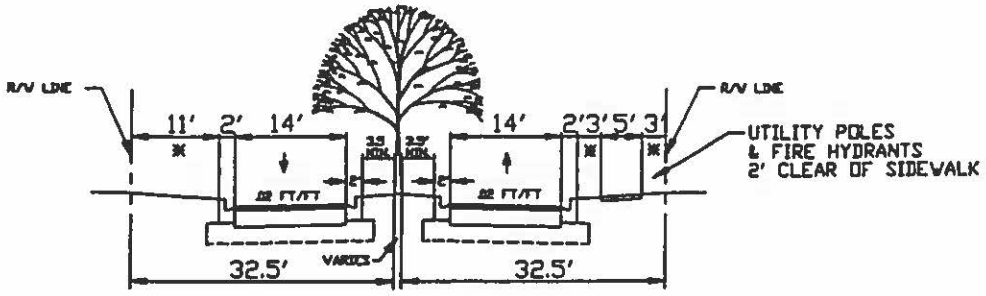
TWO-LANE LOCAL STREET, URBAN



FOUR-LANE URBAN ARTERIAL OR COLLECTOR
Median Turn Lane



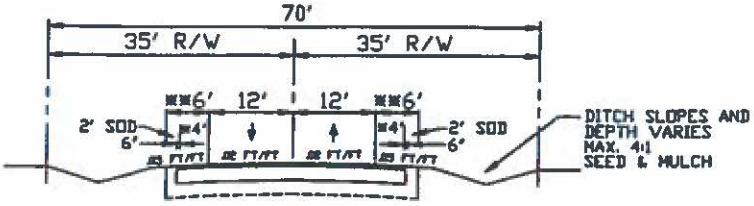
FOUR-LANE URBAN ARTERIAL OR COLLECTOR
Raised Median
*Seed and Mulch



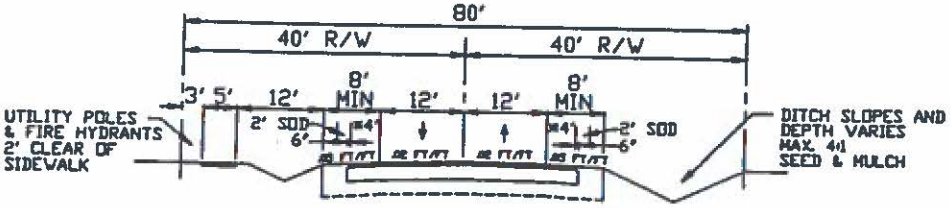
TWO LANE LOCAL STREET URBAN, WITH ISLAND SEPARATOR

Note: Minimum width of island is 4' without obstructions [such as posts & trees, etc.]

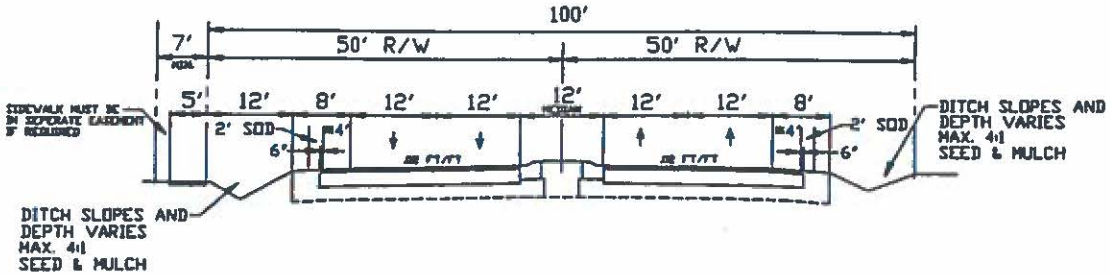
*Seed and Mulch



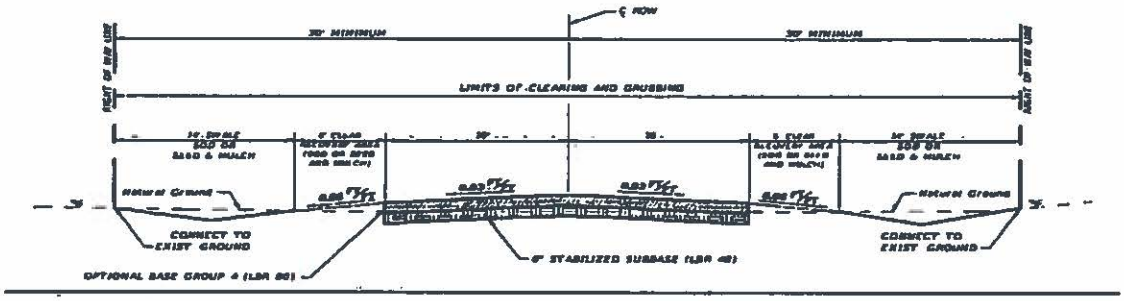
TWO-LANE LOCAL STREET, RURAL
**8' for 750 ADT and Above



TWO-LANE RURAL COLLECTOR



FOUR-LANE RURAL ARTERIAL OR COLLECTOR
*4' Paved Shoulders Optional



UNPAVED PRIVATE ROAD TYPICAL SECTION
Design Speed 30 MPH

Notes:

Optional base group 4 (LBR 80)

6" Stabilized subbase (LBR 40)
(FDOT Design Standards latest edition or base approved by CDE)

Optional base group 4

4" Type B 12.5 Reclaimed asphalt pavement

6" Graded aggregate including gravel and rock

9" Sand clay mix

6" Cemented coquina

6" Limerock - including #57 stone

The stabilized subbase may be replaced by a 2-inch increase in the depth of the base.

The road elevation shall be a minimum of one foot above the 100-year floodplain.

(1) Thoroughfares in developments should be planned in conformity with chapter 2, the traffic circulation element of the comprehensive plan.

(2) All newly platted streets intended to serve residential uses shall be public except for private unpaved roads approved under section 72-547 (Conservation subdivisions) or section 72-548 (Unpaved road subdivisions). The DRC may also recommend and the county council may approve private streets for security purposes only, provided all such streets meet all design and construction criteria of this article, a permanent security post or posts are provided, and a condominium or homeowners association is created with all duties and powers necessary to ensure perpetual maintenance of such private streets. All streets shall be constructed to the exterior property lines of the development unless they are permanently terminated by a cul-de-sac or an intersection with another street.

(3) Newly platted streets intended to serve business or industrial uses may be private if approved by the DRC. In such cases, all streets shall meet the design and construction criteria of this article unless overriding conditions, such as sharing entrances or parking areas, require different design criteria.

(4) *Design and construction standards:*

a. Street capacities shall be determined by the standards established by the "Transportation Research Board Highway Capacity Manual".

b. The geometric design of streets shall conform to the minimum standards established by the "FDOT Minimum Standards for Streets and Highways", except where changes are specified herein.

c. The construction of streets and work in the public right-of-way shall conform to the "FDOT Standard Specifications for Road and Bridge Construction", except where changes are specified herein.

d. The determination of traffic generation rates for a particular development shall conform to the latest edition of the "ITE Trip Generation Manual", unless otherwise approved by the county traffic engineer (CTE).

e. Obstruction to visibility. At the intersection of any streets, no obstruction of any kind shall block the visibility of motorists between 30 inches and ten feet above the centerline grades of those intersecting streets within a triangular area of horizontal configuration as depicted in the "FDOT Roadway and Traffic Designs Standards Index No. 546", or as amended.

(b) *Traffic impact analysis.* Unless waived by the DRC, the developer at his/her expense shall have a registered professional engineer qualified in traffic engineering prepare and provide the county with a traffic impact analysis when trip ends generated by the proposed development equal or exceed 1,000 trip ends per day, as determined from the "ITE Trip Generation Manual", or when determined to be necessary by the DRC, if less than 1,000 trip ends per day. The traffic impact analysis shall be submitted at the time of ODP or FSP review, and shall provide the following findings and appropriate methodologies utilized in determining the findings:

(1) Total projected average daily trip ends for the proposed development;

(2) Design capacity of the accessed street(s);

(3) Average projected peak-hour trip ends generated by the development;

(4) Analysis of projected on- and off-site traffic patterns and turning movements;

(5) Projected percentage of truck and bus traffic;

(6) Other related information as required by the DRC.

(c) *Arrangement of streets.* The arrangement of streets in a development shall:

(1) Provide efficient and orderly hierarchy of streets;

(2) Conform with official plans and maps of County of Volusia;

(3) Be integrated with the existing and planned street system of the surrounding area in a manner which is not detrimental to existing neighborhoods;

(4) Be such that the use of local streets by through or commercial traffic is discouraged;

(5) When necessary, as determined by the DRC, provide at least two separate and remote entrances to a development, unless other provisions, such as easements, are made for emergency ingress and egress, and provided that such entrances will not adversely affect the overall street system;

(6) Facilitate and coordinate with the desirable future development of adjoining property of a similar character and provide for local circulation and convenient access to neighborhood facilities;

(7) Local streets shall be patterned in such a way that continuous traffic from one collector to another collector is discouraged.

(d) *Intersections.* Street intersections shall be laid out as follows:

(1) Streets shall intersect at an angle of 90 degrees, unless circumstances acceptable to the DRC indicate a need for a lesser angle of intersection.

(2) Spacing of street intersections.

a. A collector may intersect an arterial, but only if aligned with and extending an existing collector which intersects the arterial, or at a minimum distance of 1,320 feet from the intersection of an existing collector and the arterial.

b. A local street shall not intersect an arterial unless unavoidable, in which case the local street may intersect an arterial, but only if aligned with and extending an existing local street which intersects the arterial, or at a minimum distance of 660 feet from any other intersection of the arterial.

c. A collector may intersect another collector, but only if aligned with and extending an existing collector, or at a minimum distance of 660 feet from any other intersection.

d. A local street may intersect a collector if spaced at a minimum distance of 660 feet from any other intersection or, in the case of a T-type intersection, at a minimum distance of 330 feet from any other intersection.

e. The minimum spacing requirements of this section may be reduced upon a finding by the DRC that, given the particular conditions of the proposed development, such reduction will not compromise operational and safety standards or cause undo hardship.

(3) Property lines at street intersections shall be rounded with a minimum radius of 25 feet. A greater radius shall be required for angles of intersections less than 90 degrees.

(4) If required by the CDE, the right-of-way width and pavement width shall be increased by at least ten feet on each side of an arterial street for a minimum distance of 150 feet from its intersection with another arterial street or thoroughfare, to permit proper intersection design.

(e) *Minimum right-of-way and pavement widths.* New street minimum rights-of-way and pavement widths shall be as set forth in Tables II and III.

(f) *Additional right-of-way and/or pavement widths.*

(1) Additional right-of-way shall be required for public safety and convenience, or to assure adequate access, circulation, parking and to provide turn lanes on any public road. Further, additional right-of-way may be required on existing or proposed thoroughfares if such thoroughfares are within the capital improvements element of the comprehensive plan.

(2) The thoroughfares shown on the thoroughfare system maps in chapter 2 of the traffic circulation element of the Comprehensive Plan of Volusia County or the jurisdiction in which the roads are located, which are either located within or provide primary access as provided in subsection (f)(1) above, shall be conveyed or dedicated to the public by deed, or if acceptable to the county or other appropriate jurisdiction, by grant of easement.

(3) Half streets shall be prohibited. Where a previously dedicated half street, paved or unpaved, abuts or is within a tract to be developed, the second half of the street shall be dedicated to the county and the full width shall be paved by the developer where the subject street is necessary for the development of the subdivision or overall traffic circulation.

(4) Additional right-of-way required at intersections. For the installation of traffic-control equipment, a chord based on a 30-foot radius curve at the intersection of the right-of-way lines, shall be provided at each thoroughfare intersection, and the area between the chord and the tangents of the intersecting streets shall be dedicated or, if acceptable to the county, granted by easement.

(g) *Access to development.*

(1) Every lot or parcel shall have access from a publicly dedicated street, except as otherwise provided in subsection (a) of this section.

(2) Where development borders on or contains a right-of-way for a railroad, expressway, interstate highway, drainage canal or waterway, a street may be required approximately parallel to and on each side of such right-of-way, at a distance suitable for the appropriate use of the intervening land and in compliance with all provisions of this article.

(3) Reserve strips controlling access to streets shall be prohibited, unless dedicated to the public.

(4) Median openings. To assure traffic safety, capacity and control, median openings located on a thoroughfare shall be spaced the maximum distance apart that will allow safe and adequate traffic circulation.

a. *Location.*

1. No median opening shall be spaced at a distance less than 660 feet from any other median opening unless specifically approved by the CTE on a finding that, given the particular conditions of the proposed development, such determination will not compromise traffic operational and safety standards.

2. Dedicated public streets are given priority consideration for median openings.

b. *Design criteria.*

1. All median openings shall include at least 105 feet storage with 50 feet transition, unless otherwise acceptable by the CTE. Increased storage and transition lengths may be required to eliminate disruption of through-traffic flow.

2. Final design of median openings shall be approved by the CTE.

(h) *Street jogs.* Street jogs or centerline offsets between streets shall be no less than 150 feet.

(i) *Culs-de-sac.* Cul-de-sac length shall be determined in the following manner: Twenty × typical lot width, with a maximum of 2,000 feet. Paved turnarounds shall be provided. In the center of the turnaround, an unpaved island, surrounded by a curb, improved with grass and landscaping that will not interfere with sight distance, may be provided. Center islands shall have a diameter of 17 feet.

(j) *Street grade.* Minimum centerline grade for all streets with curb and gutter shall be 0.2 of one percent. Maximum centerline grades for streets range from three to eight percent depending on type and design speed and shall meet the recommended maximum grades in the FDOT "Green Book". The centerline may be flat for all swale sections provided the swale grade is a minimum of 0.2 of one percent.

(k) *Minimum street elevation.* New streets shall be designed flood-free so as not to submerge, based on foreseeable flood stages. Generally, the minimum street centerline elevation shall be one foot above known or estimated flood stages of natural or manmade water bodies. Where flood stage recovery is expected to occur in less than one day (such as water sheds with positive outfall or tidal flood areas), the lowest edge of pavement elevation may be at the flood stage.

(l) *Street names.* Proposed streets which are obviously in alignment with other existing or approved named streets shall have the same name as the existing or approved streets. In no other case shall the name of a proposed street duplicate or be phonetically similar to existing or approved street names, irrespective of the use of alternative suffixes, such as "street", "avenue", "boulevard", "drive", "place", "court", etc. Circle or loop streets shall bear the same name throughout. All street names shall require the approval of the department.

(m) *Streetlights.* All proposed urban development shall provide for street lighting installation. A petition for creation of a special assessment district for street lighting shall be submitted in accordance with the provisions of chapter 110, article II, Code of Ordinances.

(1) *Installation of street lighting.*

Arterials. Lighting units of 22,000 lumen along arterials must be spaced 100 feet to 150 feet on alternate sides of the street. All intersections must be provided with street lighting.

Collectors. Lighting units of 16,000 lumen along collectors must be spaced 200 feet to 250 feet on alternate sides of the roadway. All intersections must be provided with street lighting.

Locals. New streetlights of 9,500 lumen on local streets must be provided at intersections or at points along the street such as sharp curves or existing overlength culs-de-sac where streetlights would decrease the potential for accidents.

(2) *Installation procedures.* Proposed street lighting along all public rights-of-way must be coordinated through the county. Streetlight installation orders are issued by the county department of public works to initiate the process and must be requested by the developer through the county as soon as street construction plans are complete. All costs for new street lighting on public streets must be paid for by the developer.

(n) *Curbs and gutters:*

(1) *General.* Except for rural developments, all streets shall be drained utilizing curb-and-gutter construction unless otherwise waived by the CDE.

(2) *Width and permitted types.* The width of curb and gutter shall be a minimum of 24 inches and shall be either Florida State DOT-type or Miami curb and gutter, depending upon the flow to be handled. Environmental curb or a minimum 18-inch wide curb surrounding medians may be

permitted by the DRC in developments where soil types and/or topography indicate this method to be preferable. All curbs designed to handle water shall incorporate an approved gutter design. There shall be a stabilized subgrade beneath all curbs and one foot beyond the back of curbs. No water valve boxes, meters, portions of manholes, or other appurtenances of any kind relating to any underground utilities shall be located in any portion of a curb and gutter section.

(3) *Minimum grades.* The minimum allowable flow line grade of curbs and gutters shall be 0.2 of one percent, except in intersections where flatter grades shall be allowable. The tolerance for ponded water in curb construction is one-fourth-inch maximum.

(4) *Other requirements.*

a. Plastering shall not be permitted on the face of the curb.

b. Joints shall be provided at intervals of ten feet, except where shorter intervals are required for closures, but in no case less than four feet.

c. No raised portion of any type of curb shall be constructed closer than 12 feet from the pavement edge of an intersecting road without curbs. After concrete has set sufficiently, but in no case later than three days after construction, the curbs shall be backfilled.

d. All cross-street valley gutters shall be constructed of concrete.

(o) *Street construction specifications.*

(1) *Clearing and grubbing of rights-of-way.* The developer shall clear all traveled ways and recovery areas according to the "FDOT Standard Specifications for Road and Bridge Construction". Trees may be selectively cleared outside of the recovery area to accommodate the installation of the drainage, water and sewer systems, or any other utilities. Any such tree removal shall be in accordance with the requirements of division 10. All debris shall be removed by the developer from rights-of-way after construction.

(2) *Paving.*

a. All paving shall be done in accordance with "FDOT Standard Specifications for Road and Bridge Construction" and "FDOT Roadway and Traffic Design Standards", except where changes are specified herein.

b. All unstable materials such as muck, peat, plastic clays or marls shall be removed from roadbed areas. The areas then shall be backfilled with suitable material, and the subgrade stabilized to a depth below the base as shown in Table I. Stabilization shall be to 75 pounds per square inch, Florida bearing value, for soils stabilized with clay, marl or other plastic-type materials and to 40 percent limerock bearing ratio for soils stabilized with shell, concrete screenings or other granular materials. The materials to be added for stabilization, if needed, shall be either high-bearing soil, sand clay, ground lime rock, or any other suitable material. (Muck shall not be used.) For rural sections, subgrade shall be stabilized to include the entire width of both shoulders to a depth of six inches. Where curb and gutter is utilized, subgrade shall be stabilized underneath curb to a depth of six inches and for a distance of four feet beyond the back edge of curbs where Miami or environmental curbs are used. For raised curbs, refer to stabilization requirements as used in "FDOT Standard Specifications for Road and Bridge Construction" and "FDOT Roadway and Traffic Design Standards".

c. Written test results, provided by a competent testing laboratory, shall be submitted giving Florida bearing value sufficient to obtain uniform results for each and every type of soil appearing in the roadbed at or random locations designated by the county.

d. After the subgrade is mixed, brought to grade, and ready for base course construction, it shall be showing not less than 98 percent modified maximum density for samples taken not more than every 250 feet apart, alternating from side to center, thence to opposite side and back to center, etc., or, in addition, whenever the county may require, prior to commencing. Separate test results will be required if stabilization is performed under curb areas

separately from stabilization of the roadbed, showing not less than 98 percent modified maximum density for samples taken not more than every 250 feet apart, alternating from side to center, thence to opposite side and back to center, etc., or, in addition, whenever the county may require, prior to commencing. Separate test results will be required if stabilization is performed under curb areas separately from stabilization of the roadbed.

(3) *Base courses.*

a. Base course type and thickness shall be determined from Table I. All base courses shall be constructed in accordance with "FDOT Standard Specifications for Road and Bridge Construction" and "FDOT Roadway and Traffic Design Standards".

TABLE I. ROAD DESIGN STANDARDS

		Arterial or over 10,000 ADT*	Collector or 2,000 to 10,000 ADT	Local 1,000 to 2,000 ADT	Local 0 to 1,000 ADT
I.	**Asphalt:**				
	A. Surface [1]:				
	1. Friction course [2]	1"	1"	—	—
	2. Structural course [3]	2"	1½"	1½"	1" [4]
	B. Base:				
	Limerock or	10"	8"	6" [4]	6" [4]
	Soil cement or	10"	8"	6" [4]	6" [4]
	Asphalt	8"	6"	5" [4]	5" [4]
	C. Subbase stabilizing	12"	10"	8"	6"
II.	**Concrete:**				

	A. Pavement	9"	6"	6"	5"
	B. Subbase	Florida Department of Transportation Embankment Standards to be used for all concrete road construction. Top 12" layer shall be A-1, A-3 or A-2-4 AASHTO Classification, stabilized to LBR 40 or FBV 75, as recommended by the CDE. *Average daily traffic.			

[1] No recycled asphalt material shall be used in surface course asphalt.
[2] DOT Type FC1 or FC4 only shall be used for friction course.
[3] Type I asphaltic concrete or any current DOT structural course may be used.
[4] Minimum thickness. Standard DOT tolerance below dimension not acceptable.

b. Following compaction, for limerock base courses, written test results shall be submitted showing not less than 98 percent modified maximum density for samples taken not more than every 250 feet apart, alternating from side to center, etc., or wherever the county may require.

c. Tests shall be required for each layer if construction is in two layers. The contractor shall make borings in areas designated by the county inspector to enable measurement of thickness.

d. Finished lime rock base courses shall be primed without delay and continuously maintained free of damage until the wearing surface is applied. The wearing surface shall be applied immediately upon completion, but, in no case, later than 15 days.

(4) *Wearing surface.*

a. The material used for the wearing surface shall be a Florida DOT asphaltic concrete mix of types S-1, S-3 or FC, or Florida DOT modifications. The surface shall have a compacted nominal thickness in accordance with Table I.

b. On all streets in commercial or industrial subdivisions, the wearing surface shall be constructed no less than one and three-fourth inches thick in any place.

c. A certified copy of the design mix shall be approved by the CDE before being placed. Any deviation from this design requirement will be considered only after review and documentation of the special circumstances by the county. The maintenance of the completed road system shall be guaranteed for a period of one year.

(5) *Concrete streets.* Concrete streets may be permitted. Refer to Table I for specifications. Construction shall be in accordance with "FDOT Standard Specifications for Road and Bridge Construction" and "FDOT Roadway and Traffic Design Standards".

(6) *Unpaved roads.* Unpaved roads may be constructed in conservation subdivisions or unpaved road subdivisions subject to the following criteria and Table II Rural Development Requirements:

a. New unpaved roads are permitted in conservation subdivisions or unpaved road subdivisions, provided the roads are designated as private roads, the unpaved private roads shall be set aside for common ownership and maintenance, which shall be borne by the lot owners using the unpaved private roads for access, and a "notice to future land owners" is recorded with the Clerk of the Circuit Court for Volusia County, as set forth in sections 72-547 and 72-548. The unpaved roads shall comply with the unpaved private

road typical section as set forth in this section, and meet the unpaved roads standards in Table II Rural Development Requirements as set forth in this section.

b. New unpaved private roads shall connect to a publicly maintained right-of-way or a privately maintained right-of-way that meets the design and construction standards in this division. The DRC may waive the design and construction standards for connections to existing unpaved roads upon finding:

1. The existing unpaved road base can bear the weight of a fire engine and ambulance without failing, as certified by a Florida registered professional engineer.

2. The existing unpaved road base can bear the weight of the additional residential trips generated by the proposed development, without failing, as certified by a Florida registered professional engineer.

(p) *Street name signs, regulatory signs, pavement markings, reflective pavement markers, traffic signals and pedestrian crosswalks.*

(1) *General.* Required signs must be in place prior to county acceptance of the street. All signing and pavement marking shall be in accordance with the "USDOT Manual on Uniform Traffic Control Devices" and shall be approved by the CTE. Traffic control signs shall be fabricated using 3M brand "Scotchlite" sheeting (engineer grade) on minimum 0.080 gauge 5052-H38 aluminum blanks "U" channel posts, may be used for all signs smaller than 36-inch × 48-inch. All warning signs shall be 30-inch × 30-inch. If, at any time prior to final acceptance, an unforeseen need becomes apparent for signing or pavement markings that were not shown on the approved plans, the county reserves the right to require the additional sign(s) or markings in the interest of public safety and as a condition of county acceptance. Alternative materials for sign mounting may be approved by the CTE.

(2) *Street name signs.*

a. Street name signs shall be a minimum of nine inches in height with lettering five inches in height on 3M brand "Scotchlite" sheeting (engineer grade) 0.080 gauge 5052-H38 aluminum; silver/white reflective upper and lower case lettering with green Scotchlite reflective background sheeting or equivalent with a minimum 30-inch length. Street name sign poles shall include a two-inch by 12-foot galvanized-type round support set in concrete, or a 2-1/2>-inch × 12-inch - three lbs. per foot galvanized "U" channel post. Street name signs may be placed on the same pole above a "STOP" sign. Alternative materials for sign mounting may be approved by the CTE.

b. Thoroughfare intersections shall be provided with at least two street name signs on diagonally opposite corners.

(3) *Regulatory signs.* Thirty-inch high intensity octagon "STOP" signs on 12-foot long, three lbs/ft. "U" channel posts (rail steel only) or three-inch diameter 12-foot long round aluminum posts shall be provided at every street intersection as a condition for acceptance of development paving and drainage improvements and shall be in place prior to final inspection. The developer shall furnish and erect regulatory signs as required by the CTE. Regulatory signs must conform to the specifications in the "USDOT Manual on Uniform Traffic Control Devices", and locations of signs shall be subject to approval by the CTE.

(4) *Pavement markings.* All pavement markings and striping within public rights-of-way shall be thermoplastic and shall be installed in accordance with FDOT Standard Index #17346.

(5) *Reflective pavement markers (RPM's).* RMP's shall be provided for all construction within public rights-of-way of all thoroughfares and shall be installed in accordance with FDOT Standard Index #17352.

(6) *Traffic signals.* Traffic signals and other control devices shall be installed at locations determined by the DRC, where warranted, pursuant to any submitted traffic studies in accordance with "USDOT Manual on Uniform Traffic Control Devices". Signal design plans prepared by a qualified traffic engineer shall be provided for all new and existing signal

modifications. The plans shall include appropriate intersection details at a one inch = 20 foot scale with signal head details, movement diagram, signal timing and system timing, pole calculations and a tabulation of quantities based on FDOT standard pay item numbers. Signals on State Roads shall meet FDOT requirements and shall be approved by the FDOT Traffic Operations.

(7) *Pedestrian crosswalks.* Pedestrian crosswalk signing and marking, where used, shall be in accordance with the "USDOT Manual on Uniform Traffic Control Devices".

(q) *Alleys.*

(1) One-way alleys may be provided to serve residential, business, commercial and industrial areas and shall be a minimum of 30 feet in right-of-way width with 12 feet of pavement.

(2) Changes in direction of the alignment of an alley shall be made on a centerline radius of not less than 50 feet.

(3) Dead-end alleys shall be prohibited.

(r) *Bridges.* Bridges shall be constructed to the width of the connecting roadway pavement, or such additional width as required by the CDE, with an additional allowance on each side for a pedestrian walk. Bridges extending over waterways shall have a center span and a vertical clearance as required by the CDE. Bridges shall be designed by a professional engineer and conform to AASHTO and ASTM specifications, which are incorporated herein by reference and made a part hereof, and any applicable federal and state requirements.

TABLE II. RURAL DEVELOPMENT REQUIREMENTS

	ARTERIAL	COLLECTOR		LOCAL STREETS		
	Two or Four Lanes	Four-Lane Collector	Two-Lane Collector	Local	Local/ Cul-de-Sac	Unpaved Roads
Volume	10,000—50,000 ADT	5,000—10,000 ADT	2,000—5,000 ADT	300(a)—2,000 ADT	0—300(a) ADT	0—250 ADT 251—500 ADT with alt emerg access
Access	Yes	Yes	Yes	Yes	Yes	Yes
Minimum design speed	50 mph(l)	45 mph(l)	40 mph(l)	30 mph(g)(l)	30 mph(g)(l)	30 mph(g)(l)
Intersection space minimum	660 ft.(b)	660 ft.(b)	330 ft.(b)	250 ft.(e)	250 ft.(e)	250 ft.(e)
Lanes	2—4	4	2	2	2	2

Minimum improved surface width	24 or 48 ft.(j)	48 ft.(j)	24 ft.(j)	24 ft.(j)	24 ft.(j)/43 ft.	20 ft.(j)(l)/43 ft.
Improved surfaced(l) radii	40—50 ft.	40—50 ft.	40—50 ft.	30—40 ft.	30—40 ft.	30—40 ft.
Pavement mark/signing	Yes(d)	Yes(d)	Yes(d)	Yes(d)	Yes(d)	N/A/Yes(d)
Parking on street	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited
Median	Yes(c)	Yes(c)	No	No	No	No
*Turn lanes	As required(f)	As required(f)	As required(f)	No	No	No
Traffic signal	As warranted	As warranted	As warranted	No	No	No
Pedestrian crossing	At signalized crossings	At signalized crossings	Intersection only	Yes(d)	Yes(d)	N/A
*Approach widening						
(Expand intersection)	Yes	Yes	Yes	No	No	No
*ROW	100 ft.	80 ft.	80 ft.	70 ft.	70 ft./68 ft. radius	60 ft./63 ft.
Design vehicle (geom.)	WB 60 & SU	WB 60 & SU	WB 60 & SU	WB 40 & SU	WB 40 & SU	WB 40 & SU
Corners of ROW	30-ft chord	30-ft chord	30-ft chord	30-ft chord or 25 ft. radius(k)	30 ft. chord or 25 ft. radius(k)	25 ft. radius

*Sidewalks	As required(h)	As required(h)	As required(h)	No	No	No

Table Notes:

(a) Over 300 ADT may be allowed if an alternate emergency access is provided.

(b) Or alternate approved by the development review committee based upon land planning and traffic analysis. A minimum 1,320 feet spacing will be required between two signalized intersections.

(c) Refer to section 72-612.

(d) As delineated in the "USDOT Manual on Uniform Traffic Control Devices."

(e) Or 150 feet for opposing offset T-type intersection.

(f) Refer to subsection 72-619(e)(5).

(g) Design speeds lower than 30 mph may be used for local, subdivision type roads and streets. Streets with a design speed less than 30 mph shall be posted with appropriate legal speed limit signs.

(h) Refer to subsection 72-620(b).

(i) See the Manual of Uniform Standards for Design Construction and Maintenance for Streets and Highways (Green Book).

(j) See FDOT Standard Specifications for Road and Bridge Construction and Table I for the structural section.

(k) Refer to subsection 72-612(d)(3) and subsection 72-612(f)(4).

(l) Pavement is not required. 20 ft. refers to the stabilized surface width; see unpaved private road typical section.

* Further explanation in provisions of this section

N/A = Not Applicable

TABLE III. URBAN DEVELOPMENT REQUIREMENTS

	Arterial	**Collector**		**Local Streets**	
	Two or Four Lanes	**Four-Lane Collector**	**Two-Lane Collector**	**Local**	**Local/ Cul-de-Sac**
Volume	10,000—36,000 ADT	5,000—10,000 ADT	2,000—5,000 ADT	300 [(a)] —2,000 ADT	0—300 [(a)] ADT
Access	Prohibited [(b)]	Prohibited [(b)]	Prohibited [(b)]	Yes	Yes

Minimum design speed	45 mph [m]	45 mph [m]	40 mph [m]	20 mph [g][m]	20 mph [g][m]
Intersection space minimum	660 ft. [c]	600 ft. [c]	330 ft. [c]	250 ft. [h]	250 ft. [h]
Lanes	2 or 4	4	2	2	2
Minimum pavement width	24 or 48 ft. [n]	48 ft. [n]	24 ft. [n]	20 ft. [n]	20 ft. [n]/43 ft. radius
Pavement radii	40—50 ft.	40—50 ft.	40—50 ft.	30—40 ft.	30—40 ft.
Pavement mark/signing	Yes [e]	Yes [e]	Yes [e]	Yes [e]	Yes [e]
Parking on street	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited
Median	Yes [d]	Yes [d]	No	No	No
Turn lanes	As required [f]	As required [f]	As required [f]	No	No
Traffic signal	As warranted	As warranted	As warranted	No	No
Pedestrian crossing markings	At signalized crossings	At signalized crossings	Intersections only	As required by CTE	As required by CTE
Approach widening (expand intersection)	Yes	Yes	No	No	No
ROW	100	80 ft.	80 ft. [p]	50 ft. [i]	50 ft. [i]/54 ft. radius
Design vehicle (geom)	WB 60 & SU	WB 60 & SU	WB 60 & SU	WB 40 & SU	WB 40 & SU
Corners	30-ft. chord	30-ft. chord	30-ft. chord	30 ft. chord or 25 ft. radius [o]	30 ft. chord or 25-ft. radius [o]
Sidewalks	Yes	Yes	Yes	Yes	As required [j]

Streetlights	Yes	Yes	Yes	Yes	As required [k]

Table Notes:

(a)
Over 300 ADT may be allowed if an alternate emergency access is provided.

(b)
Unless the spacing requirements of Table V-C are met.

(c)
Or approved alternate by the development review committee based upon land planning and traffic analysis. A minimum 1,320 ft. spacing will be required between two signalized intersections.

(d)
Refer to section 72-612.

(e)
As delineated in the "USDOT Manual on Uniform Traffic Control Devices" and as required by the CTE.

(f)
Refer to subsection 72-619(e)(5).

(g)
Design speeds lower than 30 m.p.h. may be used for local, subdivision type roads and streets. Streets with a design speed less than 30 m.p.h. shall be posted with appropriate legal speed limit signs.

(h)
Or 150 feet for opposing offset T-type intersection.

(i)
A 40-foot right-of-way width may be approved by the DRC provided a six-inch minimum vertical curb is used and upon a showing that all required improvements can be contained within the proposed 40-foot right-of-way or adjacent easements. Setbacks for structures shall be sufficient to permit a minimum of 25 feet of driveway depth from the closest side of the sidewalk to the structure.

(j)
Refer to subsection 72-620(b).

(k)
Refer to subsection 72-612(l).

(l)
[Reserved.]

(m)
See the Manual of Uniform Standards for Design, Construction and Maintenance for Streets and Highways (Green Book).

(n)
See FDOT Standard Specifications for Road and Bridge Construction and Table I for the structural section.

(o)
Refer to subsection 72-612(d)(3) and subsection 72-612(f)(4).

(p)
An internal subdivision functional collector may have a 60-foot right-of-way.

(Ord. No. 96-32, §§ XXVIII, LXXVII, 12-19-96; Ord. No. 2008-25, § III, 12-4-08; Ord. No. 2012-05, § V, 4-19-12; Ord. No. 2015-03, § II, 6-11-15; Ord. No. 2018-05, § XVIII, 1-18-18)

ORDINANCE NO. 90-19-238

AN ORDINANCE OF THE CITY OF ATLANTIC BEACH, COUNTY OF DUVAL, STATE OF FLORIDA, AMENDING CHAPTER 24, LAND DEVELOPMENT REGULATIONS; AMENDING SECTIONS: 24-17, DEFINITIONS; 24-64, VARIANCES; 24-66, STORMWATER, DRAINAGE, STORAGE AND TREATMENT REQUIREMENTS; 24-104, RESIDENTIAL SINGLE-FAMILY-LARGE LOT; 24-105, RESIDENTIAL, SINGLE-FAMILY; 24-106, RESIDENTIAL, SINGLE-FAMILY; 24-107, RESIDENTIAL GENERAL, TWO-FAMILY; 24-108, RESIDENTIAL GENERAL, MULTI-FAMILY; 24-115, RESIDENTIAL, SELVA MARINA; PROVIDING FOR CONFLICT; PROVIDING FOR SEVERABILITY; PROVIDING AN EFFECTIVE DATE.

NOW, THEREFORE, BE IT ENACTED BY THE CITY COMMISSION ON BEHALF OF THE PEOPLE OF THE CITY OF ATLANTIC BEACH, FLORIDA:

SECTION 1. Regulation Amended. Section 24-17 of the Code of Ordinances of the City of Atlantic Beach, Florida, is hereby amended to read as follows:

Impervious surface shall mean those surfaces that prevent the entry of water into the soil. Common impervious surfaces include, but are not limited to, rooftops, sidewalks, patio areas, driveways, parking lots, swimming pools, and other surfaces made of concrete, asphalt, brick, plastic, or any surfacing material with a base or lining of an impervious material. Wood decking elevated two (2) or more inches above the ground shall not be considered impervious provided that the ground surface beneath the decking is not impervious. Pervious areas beneath roof or balcony overhangs that are subject to inundation by stormwater and which allow the percolation of that stormwater shall not be considered impervious areas. ~~Swimming pools shall not be considered as impervious surfaces because of their ability to retain additional rainwater, however, decking around a pool may be considered impervious depending upon materials used. Surfaces using pervious concrete or other similar open grid paving systems shall be calculated as fifty (50) percent impervious surface, provided that no barrier to natural percolation of water shall be installed beneath such material. Open grid pavers must be installed on a sand base, without liner, in order to be considered fifty (50) percent impervious. Solid surface pavers (e.g., brick or brick appearing pavers as opposed to open grid pavers) do not qualify for any reduction in impervious area, regardless of type of base material used. Unless otherwise and specifically provided for in these land development regulations, or within another ordinance, or by other official action establishing specific impervious surface limits for a particular lot or development project, the fifty (50) percent impervious surface limit shall be the maximum impervious surface limit for all new residential~~

~~development and redevelopment.~~ In such cases where a previously and lawfully developed ~~residential lot or development~~ project exceeds the ~~fifty (50) percent limit~~applicable impervious surface limit required by the zoning designation, redevelopment or additions to existing residential development shall not exceed the pre-construction impervious surface limit, provided the stormwater and drainage requirements of section 24-66 are met.

SECTION 2. Regulation Amended. Section 24-64 of the Code of Ordinances of the City of Atlantic Beach, Florida, is hereby amended to read as follows:

A variance may be sought in accordance with this section. Applications for a variance may be obtained from the community development department. A variance shall not reduce minimum lot area, minimum lot width or lot depth, and shall not increase maximum height of building ~~or impervious surface area~~ as established for the various zoning districts. Further, a variance shall not modify the permitted uses or any use terms of a property.

SECTION 3. Regulation Amended. Section 24-66 of the Code of Ordinances of the City of Atlantic Beach, Florida, is hereby amended to read as follows:

(a) *Topography and grading.* All lots and development sites shall be constructed and graded in such a manner so that the stormwater drains to the adjacent street, an existing natural element used to convey stormwater (see section 22-303, definitions: Stormwater management system), or a city drainage structure after meeting onsite storage requirements, as set forth within this section. The city shall be provided with a pre-construction topographical survey prior to the issuance of a development permit and a post-construction topographical survey prior to the issuance of a certificate of occupancy. Elevations in all topographic surveys will be referenced to NAVD 1988. Said surveys shall be prepared by a licensed Florida surveyor, and the requirement for either or both surveys may be waived by the director of public works if determined to be unnecessary.

Except as required to meet coastal construction codes as set forth within a valid permit from the Florida Department of Environmental Protection; or as required to meet applicable flood zone or stormwater regulations as set forth herein, the elevation or topography of a development or redevelopment site shall not be altered.

(b) *Onsite storage.* ~~The~~ An applicant shall be required to provide onsite storage, such that there is no increase in the rate or volume of flow to offsite, from every developed or redeveloped parcel, and for any addition or modification that increases the impervious surface area on a developed lot by ~~ten (10) percent or four hundred~~one hundred fifty (~~400~~150) ~~SF~~square feet, ~~whichever is smaller~~ and provide documentations and calculations to demonstrate compliance. When fifty (50) percent or greater of any residential parcel's impervious surface is removed for redevelopment, those parcels shall not

receive credit or "grandfathering" for impervious surfaces when calculating delta volumes. Development projects previously permitted by the St. Johns River Water Management District (SJRWMD), which have an in-compliance retention or detention system that collects and controls runoff, are exempt, however a copy of the Engineer's Certification of As-Built Construction to the SJRWMD must be submitted to the city before issuing building permits for individual lot construction may begin. ~~The requirement for onsite storage may be waived by the director of public works if storage is determined to be unnecessary or unattainable.~~ If onsite storage is required for new development or redevelopment, an as-built survey, signed and sealed by a licensed Florida surveyor, documenting proper construction and required volume of the storage system, must be submitted to the director of public works prior to permit closeout or issuance of a certificate of occupancy. For an under-ground system, a notarized letter from the general contractor, along with red-lined plans and construction photographs, will be sufficient to document proper construction.

Volume calculations for additions of impervious surface greater than 150 sf on lots ~~that~~ shall require onsite storage after [the effective date of this ordinance] and ~~should~~ shall be based on the difference in runoff volume generated by the new impervious area ("delta volume") ~~and would be calculated by:~~ with the following calculation:

V = CAR/12, where
V = volume of storage in cubic feet,
A = area of the lot in square feet,
R = 25-year and 24-hour rainfall depth (9.3 inches) over the lot area, and
C = runoff coefficient, which is 0.6 for ~~the~~ fifty (50) percent ~~maximum~~ imperviousness, 0.4 for twenty-five (25) percent imperviousness, and 0.2 for zero (0) percent imperviousness.

This delta volume (post V minus pre-V in cubic feet) must be stored at least one (1) foot above the wet season water table and below the overflow point to offsite (in many cases this may be the adjacent road elevation). As an option, and as approved by the director of public works, the owner of the parcel to be developed or redeveloped may implement, at the applicant's cost, offsite storage and necessary conveyance to control existing flood stages offsite. When fifty (50) percent or greater of any residential parcel's impervious surface is removed for redevelopment after [the effective date of this ordinance], those parcels shall have a pre-V of zero (0) for volume calculations.

(c) *Floodplain storage.* There shall be no net loss of storage for areas in the 100-year floodplain, where a floodplain elevation has been defined by either the Federal Emergency Management Agency (FEMA) on flood insurance rate maps (FIRMs), the 1995 Stormwater Master Plan, the Core City project, ~~or~~

the 2002 Stormwater Master Plan Update (e.g., Hopkins Creek), or the 2018 Stormwater Master Plan Update. Site grading shall create storage onsite to mitigate for filling of volume onsite. This storage is in addition to the storage required for the increase in impervious surface area. The applicant shall provide signed and sealed engineering plans and calculations documenting that this "no net loss" requirement is met.

(d) *Stormwater treatment.* For all new development or redevelopment of existing properties, excluding single- and two-family uses, where construction meets limits for requiring building code upgrades, stormwater treatment shall be provided for a volume equivalent to either retention or detention with filtration, of the runoff from the first one (1) inch of rainfall; or as an option, for facilities with a drainage area of less than one hundred (100) acres, the first one-half (½) inch of runoff pursuant to Chapter 62-25, Florida Administrative Code (FAC). No discharge from any stormwater facility shall cause or contribute to a violation of water quality standards as provided in Section 62.302 of the Florida Administrative Code. This treatment volume can be included as part of the onsite storage requirement in item d(2) [subsection (b)] of this section.

(e) *NPDES requirements.* All construction activities shall be in conformance with the city's National Pollutant Discharge Elimination Systems (NPDES) permit, in addition to the requirements of the water management district and the Florida Department of Environmental Protection. NPDES requirements include use of best management practices (BMPs) prior to discharge into natural or artificial drainage systems. All construction projects of one (1) acre or more require a stand-alone NPDES permit. Site clearing, demolition and construction on any size site may not commence until site inspection and approval of the proper installation of a required best management practices erosion and sediment control plan is completed.

(f) *Enforcement.* Subsequent to approval of a property owner's final grading, including onsite and/or floodplain storage and stormwater treatment, the improvements shall be maintained by the property owner. Failure to maintain the improvements will require restoration upon notification by the director of public works, within a stipulated time frame. If restoration is not timely completed, the city shall have the right to complete the restoration, and the city's actual cost incurred, together with a charge of one hundred (100) percent of said costs to cover the city's administrative expenses, shall be charged to the owner.

(g) ~~*Minor waivers*~~*Variances to impervious surface area limits.* ~~The director of public works shall have the authority to waive the impervious surface area up to five (5) percent of the established limit upon demonstration by the property owner or applicant that preceding stormwater standards shall be maintained and upon showing of good cause and need for the increased impervious~~

~~surface area which shall be based upon the inability to meet limits due to site constraints or pre-existing conditions. Any reduction shall be calculated based upon the total square footage of lot area and the square footage of the allowed impervious surface area. For example, on a seven thousand five hundred (7,500) square foot lot, the allowed impervious surface area is three thousand seven hundred fifty (3,750) square feet, and the maximum impervious surface area permitted to be waived in accordance with this provision is one hundred eighty seven and one half (187.5) square feet.~~ Variances to impervious surface limits shall be subject to the provisions in Section 24-64. Impervious surface requirements shall not be eligible for relief via waivers from the city commission.

SECTION 4. Regulation Amended. Section 24-104 of the Code of Ordinances of the City of Atlantic Beach, Florida, is hereby amended to read as follows:

(f) *Building restrictions.* Additional building restrictions within the RS-L zoning district shall be:

(1) Maximum impervious surface: ~~Fifty~~ Forty-five (~~50~~45) percent.

(2) Maximum building height: Thirty-five (35) feet.

SECTION 5. Regulation Amended. Section 24-105 of the Code of Ordinances of the City of Atlantic Beach, Florida, is hereby amended to read as follows:

(f) *Building restrictions.* Building restrictions within the RS-1 zoning district shall be:

(1) Maximum impervious surface: ~~Fifty~~ Forty-five (~~50~~45) percent.

(2) Maximum building height: Thirty-five (35) feet.

SECTION 6. Regulation Amended. Section 24-106 of the Code of Ordinances of the City of Atlantic Beach, Florida, is hereby amended to read as follows:

(f) *Building restrictions.* Building restrictions within the RS-2 zoning district shall be:

(1) Maximum impervious surface: ~~Fifty~~ Forty-five (~~50~~45) percent.

(2) Maximum building height: Thirty-five (35) feet.

SECTION 7. Regulation Amended. Section 24-107 of the Code of Ordinances of the City of Atlantic Beach, Florida, is hereby amended to read as follows:

(f) *Building restrictions.* The building restrictions for the RG zoning district shall be:

(1) Maximum impervious surface: ~~Fifty~~ Forty-five (~~50~~45) percent.

(2) Maximum building height: Thirty-five (35) feet.

SECTION 8. Regulation Amended. Section 24-108 of the Code of Ordinances of the City of Atlantic Beach, Florida, is hereby amended to read as follows:

(f) *Building restrictions.* The building restrictions for the RG-M zoning district shall be as follows:

(1) Maximum impervious surface: ~~Fifty~~ Forty-five (~~50~~45) percent.

(2) Maximum building height: Thirty-five (35) feet.

SECTION 9. Regulation Amended. Section 24-115 of the Code of Ordinances of the City of Atlantic Beach, Florida, is hereby amended to read as follows:

(g) *Building restrictions.* The following building restrictions shall apply within the R- SM zoning district:

(1) Maximum impervious surface: ~~Fifty~~ Forty-five (~~50~~45) percent.

(2) Maximum building height: Thirty-five (35) feet.

SECTION 10. Conflict. All ordinances, resolutions, official determinations or parts thereof previously adopted or entered by the City or any of its officials and in conflict with this Ordinance are repealed to the extent inconsistent herewith.

SECTION 11. Severability. If a Court of competent jurisdiction at any time finds any provision of this Ordinance to be unlawful, illegal, or unenforceable, the offending provision shall be deemed severable and removed from the remaining provisions of this Ordinance which shall remain in full force and intact.

SECTION 12. Effective Date. This ordinance shall take effect upon final reading and approval.

PASSED by the City Commission on first reading this ____ day of _____, 2019.
PASSED by the City Commission on second and final reading this ____ day of _____, 2019.

CITY OF ATLANTIC BEACH

_____
Ellen Glasser, Mayor

Attest:

_____
Donna L. Bartle, City Clerk

Approved as to form and correctness:

_____
Brenna M. Durden, City Attorney

Sec. 24-66. - Stormwater, drainage, storage and treatment requirements.

(a) *Topography and grading.* All lots and development sites shall be constructed and graded in such a manner so that the stormwater drains to the adjacent street, an existing natural element used to convey stormwater (see section 22-303, definitions: Stormwater management system), or a city drainage structure after meeting onsite storage requirements, as set forth within this section. The city shall be provided with a pre-construction topographical survey prior to the issuance of a development permit and a post-construction topographical survey prior to the issuance of a certificate of occupancy. Elevations in all topographic surveys will be referenced to NAVD 1988. Said surveys shall be prepared by a licensed Florida surveyor, and the requirement for either or both surveys may be waived by the director of public works if determined to be unnecessary.

Except as required to meet coastal construction codes as set forth within a valid permit from the Florida Department of Environmental Protection; or as required to meet applicable flood zone or stormwater regulations as set forth herein, the elevation or topography of a development or redevelopment site shall not be altered.

(b) *Onsite storage.* The applicant shall be required to provide onsite storage, such that there is no increase in the rate or volume of flow to offsite, from every developed or redeveloped parcel, and for any addition or modification that increases the impervious surface area on a developed lot by ten (10) percent or four hundred (400) SF, whichever is smaller and provide documentations and calculations to demonstrate compliance. Development projects previously permitted by the St. Johns River Water Management District (SJRWMD), which have an in-compliance retention or detention system that collects and controls runoff, are exempt, however a copy of the Engineer's Certification of As-Built Construction to the SJRWMD must be submitted to the city before issuing building permits for individual lot construction may begin. The requirement for onsite storage may be waived by the director of public works if storage is determined to be unnecessary or unattainable. If onsite storage is required, an as-built survey, signed and sealed by a licensed Florida surveyor, documenting proper construction and required volume of the storage system, must be submitted to the director of public works prior to permit closeout or issuance of a certificate of occupancy. For an under-ground system, a notarized letter from the general contractor, along with red-lined plans and construction photographs, will be sufficient to document proper construction.

Volume calculations for lots that require onsite storage should be based on the difference in runoff volume generated by the new impervious area ("delta volume") and would be calculated by:

V=CAR/12, where

V = volume of storage in cubic feet,

A = area of the lot in square feet,

R = 25-year and 24-hour rainfall depth (9.3 inches) over the lot area, and

C = runoff coefficient, which is 0.6 for the fifty (50) percent maximum imperviousness, 0.4 for twenty-five (25) percent imperviousness, and 0.2 for zero (0) percent imperviousness.

This delta volume (post V minus pre-V in cubic feet) must be stored at least one (1) foot above the wet season water table and below the overflow point to offsite (in many cases this may be the adjacent road elevation). As an option, and as approved by the director of public works, the owner of the parcel to be developed or redeveloped may implement, at the applicant's cost, offsite storage and necessary conveyance to control existing flood stages offsite.

(c) *Floodplain storage.* There shall be no net loss of storage for areas in the 100-year floodplain, where a floodplain elevation has been defined by either the Federal Emergency Management Agency (FEMA) on flood insurance rate maps (FIRMs), the 1995 Stormwater Master Plan, the Core City project, or the 2002 Stormwater Master Plan Update (e.g., Hopkins Creek). Site grading shall create storage onsite to mitigate for filling of volume onsite. This storage is in addition to the storage required for the increase in impervious surface area. The applicant shall provide signed and sealed engineering plans and calculations documenting that this "no net loss" requirement is met.

(d) *Stormwater treatment.* For all new development or redevelopment of existing properties, excluding single- and two-family uses, where construction meets limits for requiring building code upgrades, stormwater treatment shall be provided for a volume equivalent to either retention or detention with filtration, of the runoff from the first one (1) inch of rainfall; or as an option, for facilities with a drainage area of less than one hundred (100) acres, the first one-half (½) inch of runoff pursuant to Chapter 62-25, Florida Administrative Code (FAC). No discharge from any stormwater facility shall cause or contribute to a violation of water quality standards as provided in Section 62.302 of the Florida Administrative Code. This treatment volume can be included as part of the onsite storage requirement in item d(2) [subsection (b)] of this section.

(e) *NPDES requirements.* All construction activities shall be in conformance with the city's National Pollutant Discharge Elimination Systems (NPDES) permit, in addition to the requirements of the water management district and the Florida Department of Environmental Protection. NPDES requirements include use of best management practices (BMPs) prior to discharge into natural or artificial drainage systems. All construction projects of one (1) acre or more require a stand-alone NPDES permit. Site clearing, demolition and construction on any size site may not commence until site inspection and approval of the proper installation of a required best management practices erosion and sediment control plan is completed.

(f) *Enforcement.* Subsequent to approval of a property owner's final grading, including onsite and/or floodplain storage and stormwater treatment, the improvements shall be maintained by the property owner. Failure to maintain the improvements will require restoration upon notification by the director of public works, within a stipulated time frame. If restoration is not timely completed, the city shall have the right to complete the restoration, and the city's actual cost incurred, together with a charge of one hundred (100) percent of said costs to cover the city's administrative expenses, shall be charged to the owner.

(g) *Minor waivers to impervious surface area limits.* The director of public works shall have the authority to waive the impervious surface area up to five (5) percent of the established limit upon demonstration by the property owner or applicant that preceding stormwater standards shall be maintained and upon showing of good cause and need for the increased impervious surface area which shall be based upon the inability to meet limits due to site constraints or pre-existing conditions. Any reduction shall be calculated based upon the total square footage of lot area and the square footage of the allowed impervious surface area. For example, on a seven thousand five hundred (7,500) square foot lot, the allowed impervious surface area is three thousand seven hundred fifty (3,750) square feet, and the maximum impervious surface area permitted to be waived in accordance with this provision is one hundred eighty-seven and one-half (187.5) square feet.

(Ord. No. 90-10-212, § 2(Exh. A), 3-8-10)

Sec. 24-104. - Residential, single-family—Large lot district (RS-l).

(a) *Intent.* The RS-L zoning district is intended for development of low density single-family residential uses in areas where traditional established lot sizes are larger than those typically located throughout the City of Atlantic Beach. All development of land and parcels within the RS-L zoning district shall comply with the residential density limitations as set forth within the adopted comprehensive plan for the City of Atlantic Beach, as may be amended.

(b) *Permitted uses.* The uses permitted within the RS-l zoning district shall be:

(1) Single-family dwellings.

(2) Accessory uses (see section 24-151).

(3) Government uses, buildings and facilities.

(c) *Uses-by-exception.* Within the RS-l zoning district, the following uses-by-exception may be permitted.

(1) Churches, subject to the provisions of section 24-153.

(2) Public and private recreational facilities not of a commercial nature and of a neighborhood scale intended to serve the surrounding residential neighborhood.

(3) Schools.

(4) Home occupations, subject to the provisions of section 24-159.

(d) *Minimum lot size.* Existing legally established lots of record may exist, which do not meet the following lot width, depth or area requirements. These lots may be developed subject to all applicable land development regulations; however, all lots created after the February 27, 2006 effective date of Ordinance 90-06-189, shall comply with these minimum lot size requirements in order to obtain building permits authorizing development.

The minimum size for lots within the RS-L zoning district shall be:

(1) Minimum lot or site area: Ten thousand (10,000) square feet.

(2) Minimum lot width: One hundred (100) feet.

(3) Minimum lot depth: One hundred (100) feet.

(e) *Minimum yard requirements.* The minimum yard requirements in the RS-l zoning district shall be:

(1) Front yard: Twenty (20) feet.

(2) Rear yard: Twenty (20) feet.

(3) Side yard: Seven and one-half (7.5) feet.

(f) *Building restrictions.* Additional building restrictions within the RS-l zoning district shall be:

(1) Maximum impervious surface: Fifty (50) percent.

(2) Maximum building height: Thirty-five (35) feet.

(Ord. No. 90-10-212, § 2(Exh. A), 3-8-10)

ARTICLE VI
DESIGN STANDARDS AND IMPROVEMENT REQUIREMENTS

PART 6.00.00 GENERALLY

This Article contains the minimum design standards and Improvement requirements that apply to all Development in St. Johns County. The standards or requirements in this Article may be supplemented or superseded by more stringent standards or requirements associated with specific Development criteria addressed in other Articles of this Code.

PART 6.01.00 DISTRICT PERFORMANCE AND DIMENSIONAL STANDARDS

Sec. 6.01.01 Schedule Of District Area, Height, Bulk, and Placement Regulations

Except as specifically provided elsewhere in this Code, regulations governing the Minimum Lot Width, Minimum Lot Area, Maximum Lot Coverage, Floor Area Ratio, Impervious Surface Ratio, Minimum Yard Requirements, and Maximum Height of Structures shall be established for the districts as shown in the following Table 6.01:

TABLE 6.01

SCHEDULE OF AREA, HEIGHT, BULK AND PLACEMENT STANDARDS							
Zoning Districts	Minimum Lot Widths	Minimum Lot Area	Maximum Lot Coverage by All Buildings	Floor Area Ratio ➧	Impervious Surface Ratio ➧	Min. Yard Req. ⊗ Front/ Side/Rear	Maximum Height of Structures ⊕
RS-E	150 feet ☼	1 acre ☼	20%	N/A	70%	30/20/20 feet	35 feet
RS-1	120 feet ☼	13,200 square feet ☼	25%	N/A	70%	30/10/15 feet	35 feet
RS-2	90 feet ☼	10,000 square feet ☼	30%	N/A	70%	25/8/10 feet	35 feet
RS-3	75 feet ☼	7,500 square feet ☼	35%	N/A	70%	25/8/10 feet	35 feet
RG-1 SF Dwellings	75 feet ☼	7,500 square feet ☼	25%	N/A	70%	25/8/10 feet	35 feet
RG-1 MF Dwellings	100 feet ☼	6,000 square feet ☼	25%	N/A	70%	20/10/20 feet	35 feet
RG-2 SF Dwellings	75 feet ☼	7,500 square feet ☼	35%	N/A	70%	25/8/10 feet	35 feet
RG-2 MF Dwellings	75 feet ☼	6,000 square feet ☼	Max. Height 35 feet - 27% 45 feet - 25% 55 feet - 23%	N/A	70%	20/10/10 feet	35 feet ◊ #
RMH (Manufactured/ Mobile Home Park)	100 feet @ entrance & 200 feet @ portion used for Mobile Home stands ☼	10 acres for Mobile Home Park and 2,500 square feet for each Mobile Home stand ☼	35%	N/A	70%	25/10/10 feet	35 feet
RMH (Manufactured/ Mobile Home Subdiv. and Mobile Home on Individual Lot)	200 feet for the Subdivision & 60 feet for individual Lots ☼	10 acres for the Subdivision & 6,000 square feet for each Mobile Home Lot ☼	35%	N/A	70%	20/8/10 feet	35 feet
RMH-S	75 feet ☼	7,500 square feet ☼	35%	N/A	70%	25/8/10 feet	35 feet
OP	N/A	N/A	N/A	50%	75%	15/5/10 feet	40 feet ◊ # +
CN	N/A	N/A	N/A	50%	70%	20/5/10 feet	35 feet
CHT	100 feet	15,000 square feet	N/A	50%	75%	15/15/15 feet	40 feet ◊ # +
CG	N/A	N/A	N/A	50%	70%	15/5/10 feet	40 feet ◊ # +
TCMU							
Bldg. Type I	N/A	N/A	N/A	80%	75%	Section 3.10.05.C. 1	40 feet@ +
Bldg. Type II	N/A	N/A	N/A	80%	75%	Section 3.10.05. C.2	40 feet @ +
Bldg. Type III	N/A	N/A	N/A	80%	75%	Section 3.10.05 .C.3	40 feet @ +
CI	N/A	N/A	N/A	50%	75%	15/5/10 feet	40 feet ◊ # +
CHI	N/A	N/A	N/A	50%	75%	15/5/10 feet	40 feet ◊ # +
CR	N/A	N/A	N/A	50%	70%	15/5/10 feet	40 feet ◊ # +
CW	N/A	N/A	N/A	70%	75%	15/15/15	40 feet ◊ # +
IW	N/A	N/A	N/A	70%	75%	15/15/15 feet	None * # +

SCHEDULE OF AREA, HEIGHT, BULK AND PLACEMENT STANDARDS							
Zoning Districts	Minimum Lot Widths	Minimum Lot Area	Maximum Lot Coverage by All Buildings	Floor Area Ratio ➧	Impervious Surface Ratio ➧	Min. Yard Req. ⊗ Front/ Side/Rear	Maximum Height of Structures ⊕
HI	N/A	N/A	N/A	70%	75%	15/15/15 feet	None * # +
PS	N/A	N/A	N/A	N/A	75%	10/10/10 feet	None * # +
OR - Single Family Dwelling or Mobile Home	100 feet ☼	1 acre ☼	35%	N/A	70%	25/10/10 feet	35 feet
OR - All Other Uses	100 feet	1 acre	20%	N/A	75%	25/10/10 feet	None * # +
AD	N/A	N/A	N/A	70%	70%	10/5/10 feet	None * +

N/A = Not Applicable

☼ See Section 6.01.05 for Minimum Lot Area and Lot Width with use of septic tank and/or private well.

* Maximum height of Structures within Airport Development District is regulated by Federal Aviation Regulations Part 77 and height/distance requirements in Airport Overlay District Part 3.04.00 and Height Regulation Part 6.07.00 of this Code.

◊ The Structure may exceed the prescribed maximum height. Five (5) feet additional setback shall be required for each five (5) feet of Structure height above the prescribed maximum height up to a maximum increase of twenty (20) feet.

\# Maximum height of Structures in the Coastal Area is limited to thirty-five (35) feet.

\+ Maximum height of Structures is thirty-five (35) feet unless protected with an automatic sprinkler system designed and installed in accordance with the latest edition adopted by the Florida Fire Prevention Code and NFPA 13.

⊗ Yard requirements may be modified by additional setback requirements for Lots adjacent to contiguous Wetlands contained in Section 4.01.06 of this Code.

⊕ Maximum height of Structures measured from established grade as provided in Height Regulation Part 6.07.00 of this Code.

@ Maximum Height of Structures for TCMU – See Article III Part 3.10.00 Section 3.10.05.B

➧ Refer to Section 3.10.10 Incentives For Property Owners Who Restore and Preserve a Qualified Historic Structure

Sec. 6.01.02 Reserved

of good cause. Such deviations may require the following from the Applicant/Developer:

(1) Provide the County with documentation of unique or special conditions based upon established engineering principles that make strict application of the spacing standards impractical or unsafe; and

(2) Provide documentation how the deviation would affect the traffic efficiency and safety of the transportation facility and;

(3) Be signed and sealed by a licensed Florida Professional Engineer knowledgeable in traffic engineering; and

(4) Be clearly beneficial or justifiable to the County Administrator.

L. Traffic Signals

Traffic signals may be required if justified based upon traffic signal warrants contained in the MUTCD and the signal location is approved by the County Administrator. All expenses, including signal warrant study, design, materials, and installation shall be the responsibility of the applicant at no cost to the County. Traffic signals shall be designed to comply with the MUTCD and FDOT Standards and Specifications, and the signal equipment shall meet County Specifications. Mast arms shall be used for signal supports. The traffic signal shall become the property of St. Johns County upon acceptance by the County of the signal installation following a ninety (90) day burn-in time period to ensure that all equipment is functioning properly.

Sec. 6.04.06 Stormwater Management

A. Objectives

1. This Section shall govern the design and Construction or alteration of all drainage systems, natural or man-made, within the unincorporated areas of St. Johns County. The following objectives are hereby established in order to protect, maintain and enhance both the immediate and the long term health, safety, and welfare of the citizens of St. Johns County, while allowing landowners reasonable use of their property:

   a. To prevent loss of life and property due to Flooding;

   b. To reduce the capital expenditures associated with Flood control and the installation and maintenance of storm drainage systems;

   c. To minimize the adverse impact of land Development and related Construction activities on property, environmentally sensitive areas, water and other natural resources.

2. Legally the Applicant shall respect the rights of other landowners with regard to volume, rate, and quality of Stormwater runoff leaving a Project site; and, shall mitigate in accordance with the requirements of this Code, the predicted impacts of the proposed activity on other lands through the use of a properly designed,

constructed and maintained Stormwater Management System. In mitigating impacts the following shall be addressed:

a. Impacts to adjacent and downstream collection, storage, and conveyance systems due to increased volume and rate of Stormwater runoff leaving a Project site;

b. Impacts to adjacent and upstream runoff contributing areas which may be hydrologically or hydraulically connected to the Project;

c. Impacts to adjacent and downstream property due to sediments and other pollutants carried by Stormwater runoff during and after Construction of the Project;

d. Impacts to "Special Flood Hazard Areas" due to earthwork activities associated with the Project which may result in reduced Flood storage or conveyance capacity;

e. Impacts to "Volume Sensitive" areas which are Flood prone due to being land-locked or closed areas having either no drainage outlet or limited outlet capacity.

3. St. Johns County acknowledges that under certain circumstances, it may not be possible or practical to meet all of the objectives of Section 6.04.06.A. above. Projects will be evaluated to determine the methods by which the Applicant proposes to mitigate undesirable effects resulting from an inability to meet all the objectives herein. A Project that meets all of the minimum design standards and permitting requirements established by this Section shall be presumed to adequately mitigate for Stormwater runoff impacts identified above.

4. Compliance with Part 6.04.00 shall not, by itself, relieve the designer, the contractor, or the Owner of his or her liability to others affected by the drainage work.

B. Activities Requiring a Permit

1. Unless exempted under Section 6.04.06.C. below, the following activities will require prior approval through the St. Johns County Development Review Process:

a. Alteration, restriction, or removal of existing natural drainage collection, storage and conveyance systems;

b. Alteration, restriction, removal, reconstruction, or abandonment of existing man-made collection, storage, and conveyance systems;

c. Any activity which alters or disrupts the natural flow patterns of Stormwater runoff, or would result in an increase in Stormwater discharge volume and/or rate. These activities include, but are not limited to: Land Clearing, draining, compacting, filling, excavating, diverting or otherwise altering the natural flow patterns of Stormwater runoff;

d. Changing the Use of land and/or the Construction of a Structure or change in the size of one or more Structures;

f. The Development of recorded and unrecorded Subdivisions or the replatting of recorded Subdivisions, residential or non-residential.

C. Exemptions

1. Except as noted, the following Projects shall be exempted from the Stormwater permitting requirements of this Code:

   a. Agricultural activities (Silvicultural activities shall meet requirements of Section 6.04.09.C.);

   b. Maintenance work performed on existing mosquito control drainage canals;

   c. Maintenance work performed on existing Stormwater Management Systems provided that such maintenance work does not alter the purpose and intent of the system as constructed;

   d. Maintenance or renewal of existing pavement or Buildings;

   e. Single Family Dwelling Units and Two Family Dwelling Units which are not a part of a larger common plan of Development or sale;

2. Projects meeting the provisions of Section 6.04.06.C.1.e. above shall be subject to the requirements of Section 6.04.06.F.8., (Special Flood Hazard Areas and Flood Prone Areas), and Section 6.04.06.H., (Finished Floor Elevations and Lot Grading Plans).

3. The following Projects shall be considered minor in nature and shall be exempted from the Stormwater discharge requirements of Section 6.04.06.F.3.a. only. However, depending on soil types and hydrologic conditions, Projects exempted under this provision shall at a minimum provide retention of Stormwater runoff generated from the first one inch of rainfall resulting from the developed or redeveloped area. In cases where soil types and groundwater table conditions are not conducive to retention systems, a Stormwater detention system shall be provided with the above required Stormwater volume released over a period of twenty-four (24) to seventy-two (72) hours following the storm event.

   a. Single triplexes and quadraplexes provided that Lot coverage including the Building, driveways, and Parking Area does not exceed thirty-five percent (35%) of the total developable Lot area and the Lot is not part of a larger common plan of Development or sale.

   b. Expansions or modifications to existing Projects provided that all of the following requirements are met:

      (1) The site is currently served by an existing and maintained Stormwater Management System;

      (2) The existing site Improvements plus the proposed expansion does not exceed seventy percent (70%) total site impervious coverage;

(3) The expansion consists of no more than two thousand, eight hundred (2800) square feet of Building, sidewalks, and associated Parking Area. This requirement is based on a one-time only expansion or a cumulative expansion up to the two thousand, eight hundred (2800) square feet. Any further expansions shall be non-exempt and shall meet all the Stormwater management requirements of this Section;

(4) The existing Stormwater Management System can be enlarged to collect and retain or detain, as required above, Stormwater runoff from the developed or redeveloped area;

(5) The proposed Improvements and alterations to the Project site will not cause unreasonable impacts to adjacent properties;

(6) All other applicable Land Development Regulations have been met.

c. New Projects which are less than or equal to thirty-five percent (35%) impervious Lot coverage up to a maximum of nine thousand (9,000) square feet of impervious Lot coverage including Building, sidewalks, driveway, and Parking Area and provided that all of the following are met:

(1) No more than fifteen thousand (15,000) square feet of the Project site is altered, including clearing and earthwork;

(2) Retention or detention of Stormwater runoff as required above can be provided;

(3) The proposed Improvements and Alterations to the Project site will not cause unreasonable drainage impacts to adjacent properties;

(4) All other applicable Land Development Regulations have been met.

4. Projects meeting the requirements of Section 6.04.06.C.3.c.(3) above shall be required to submit a drainage plan meeting the requirements referenced in Section 6.04.06.G. below and are subject to "As-Built" inspection and certification.

5. The County Administrator shall have the right to exempt any Project from the drainage requirements herein, where, in the judgment of the County Administrator, the proposed Improvements will result in less than a five percent (5%) increase in volume and/or rate of Stormwater runoff from the project site; impacts to adjacent and downstream properties are negligible; and, there is no history of Flooding problems.

6. Exemption of any Project under the provisions of Section 6.04.06.C. does not relieve the Applicant from obtaining Permits from other local, state or federal agencies which may have jurisdiction over the Project or from meeting all other applicable Land Development Regulations.

D. Certifications

1. Professional Certification

a. Stormwater management plans, drawings, details, calculations, and related documents, as independently submitted or as contained in the set of Construction Plans shall be prepared by an Engineer or other Registered Professional as defined herein, who is competent in the fields of hydrology; drainage and Flood control; erosion and sediment control; and, Stormwater pollution control. All final drawings, specifications, plans, reports, or documents prepared or issued by the Registered Professional shall be signed, dated, and sealed in accordance with Florida Statutes. Each sheet or page of the final drawings of record shall bear the signature, date and embossed seal of the Registered Professional. All drawings of record shall clearly identify in a legible manner the name and registration number of the Registered Professional.

b. The registered professional shall certify to St. Johns County, either on the drainage plan or by separate document, that the drainage facilities shown on the final drawings of record were designed in conformance with the St. Johns County Land Development Code. A standard form meeting this requirement is provided in the Development Review Manual.

c. The drainage calculations shall be submitted in a report form, and shall include a summary section which will address all the requirements of this Section specifically Section 6.04.06.F.

d. All survey plans, (including but not limited to: boundary, topographic, as-built, wetland, mean high water, specific purpose and associated reports) shall be prepared by a Florida Registered Professional Surveyor and Mapper (PSM). All survey plans and related reports prepared or issued by the PMS shall be signed, dated and sealed in accordance with Florida Statutes.

2. Operation and Maintenance

Projects which do not otherwise require establishment of operation and maintenance responsibility in public records shall be required to designate the entity responsible for operation and maintenance prior to approval for Construction. A standard form meeting this requirement is provided in the Development Review Manual.

3. Maintenance of Drainage Facilities after Construction

All privately owned drainage facilities shall be continuously maintained by the Homeowners Association, the Developer, or other entity approved by the County and designated in the Construction application. Failure to adequately maintain the facilities shall be in violation of this Code.

4. As-Built Certification

"As-Built" survey requirements and related certification shall be provided in accordance with the requirements of Section 6.04.01. A standard form meeting this requirement is provided in the Development Review Manual.

E. Legal Positive Outfall

1. All Stormwater discharges from a Project shall be directed to a point of Legal Positive Outfall from the point of discharge to the receiving body of water without unreasonably impacting Flood levels of any upstream, downstream, or adjacent property relative to the minimum design standards of Section 6.04.06.F. and the design considerations for mitigating unreasonable impacts set forth in Section 6.04.06.A.2. No diversions of surface waters will be permitted if properties downstream of the diversion would be unreasonably impacted by such diversion for storm events up to and including the one hundred (100) year storm. Any Improvements or increase in capacity of downstream facilities necessary to serve the Project shall be the responsibility of the Applicant and shall be constructed in conjunction and prior to the Project Construction unless otherwise approved or provided by the County Administrator. Financial assurances meeting the requirements of Section 6.04.08 may be required prior to approval by St. Johns County.

2. County approval of a Project does not result in the grant of any Easements or property rights or authorize encroachment upon or use of the property by others. As a result, the County will assume that the Applicant and the Project Engineer have verified the existence of a legal right to discharge Stormwater from the Project outfall. However, in the event St Johns County has substantial doubts concerning such legal rights, the County may require additional information be submitted to verify the legal right to discharge prior to commencement of Construction.

F. Minimum Design Standards

1. General

   a. In meeting the objectives of Section 6.04.06.A. above, storage of Stormwater runoff shall be provided to meet the minimum design standards below. Required storage shall meet the volume requirements for water quality and attenuation of peak discharge rate and/or volume (for volume sensitive areas), whichever is greater. In the event another local, state, or federal regulation is more restrictive, the more restrictive standards shall prevail.

   b. Projects which are to be constructed in phases shall provide drainage Improvements meeting the minimum design standards for each phase. No phase shall be dependent upon the ultimate installation of a future phase.

   c. Stormwater retention ponds shall have a top of bank elevation no less than six (6) inches above the twenty-five (25) year maximum water surface elevation.

2. Geotechnical Evaluation

   The United States Department of Agriculture (USDA), Natural Resource Conservation Service "Soil Survey of St. Johns County, Florida" shall be used as a planning guide only. Soil profiles using the USDA soil classification method shall be performed on sufficient areas throughout the site to verify soil types and hydrological conditions.

a. A geotechnical report from a licensed engineer or other professional authorized under Florida Statutes to do such work shall be submitted for any Stormwater storage facility, system or open channel (swale, ditch or canal) proposed as a "dry" facility; designed to contain standing or flowing water for less than seventy-two (72) hours after a rainfall event or which uses infiltration for sizing of the facility. The report shall include soil boring logs, estimated seasonal high water table, locations of confining layers, results of hydraulic conductivity tests, and any other parameters which may affect the design or recovery of the facility. Soil borings shall extend a sufficient distance below the proposed bottom elevation of the Stormwater storage facility to identify any constraints that may affect the design or recovery of the system. Guidelines pertaining to the depth and number of borings and hydraulic conductivity tests may be obtained from the County Administrator. In areas where it is evident that a seasonal high water table or a confining or impermeable soil layer is within four (4) feet of the bottom elevation of the proposed retention area, a "mounding analysis" is required to substantiate the design and recovery of the system.

b. Soil Investigation – Roadways

A soil investigation report shall be submitted with the Construction Plans and shall include:

(1) Test borings to a depth (minimum four (4) feet below proposed edge of pavement) and spacing maximum five hundred (500) feet along centerline) showing existing water table and estimated water table during periods of normal rainfall and without drainage Improvements that may lower the groundwater.

(2) In special cases additional borings to determine the soil classifications predominant to the area may be required by the County Administrator.

(3) Soil borings for pond designs shall be in accordance with Section 6.04.06. F.2.c. below.

c. Soil Investigation – Retention/Detention Areas

(1) At a minimum, soil borings for wet detention systems shall be made to a depth equal to the design low water. For dry retention systems, soil borings shall be of sufficient depth to determine the wet season high water table and the permeability of the soils.

(2) Soil types and the wet season high water table elevation shall be included and illustrated as a part of the detailed lake Construction Plans.

(3) For wet detention systems, a minimum of one (1) boring (to a minimum depth of the design low water) shall be taken per acre of lake surface. Fractions of acres of lake surface shall be rounded to the next whole acre for purposes of determining the number of borings.

(4) If the analysis of the basin utilizes infiltration to achieve either peak flow attenuation or recovery time, a double ring infiltrometer test shall be performed at the bottom of the proposed basin.

3. Specific Design and Performance Criteria

a. Except for those Projects which are exempted under Section 6.04.06.C. above, allowable Stormwater discharge rate and discharge volume from a project shall be based on the following design and performance criteria unless otherwise indicated below:

(1) Projects which discharge or contribute runoff to downstream areas which are not volume sensitive and have adequate capacity to accept and convey Stormwater runoff from the Project site without increasing Flood levels shall limit peak rates of discharge for developed conditions to pre-developed or existing conditions for the five (5) and twenty-five (25) year design storm event.

(2) Projects which discharge or contribute runoff to downstream areas which are volume sensitive and/or do not have adequate capacity to accept and convey Stormwater runoff from the Project site without increasing Flood levels shall provide detention of the twenty-five (25) year discharge volume for developed conditions such that the volume released from the Project during the critical time period is no greater than the volume released under pre-developed or existing conditions during the same time period. For the purposes of this requirement the critical time period shall be the storm duration as indicated in Section 6.04.06.F.3.g. below unless a detailed hydrologic study of the contributing watershed demonstrates otherwise.

(3) Unless exempt, all projects shall meet state water quality discharge standards as regulated by the St. Johns River Water Management District. The County Administrator shall presume that this requirement is met upon submittal of a copy of a valid St. Johns River Water Management District Permit prior to commencement of construction.

b. The County Administrator shall have the right to exempt any project from the discharge requirements of Section 6.04.06.F.3.a.(1) which borders on and discharges directly into the St Johns River; the Intracoastal Waterway, or the Atlantic Ocean.

c. Stormwater discharge analysis shall consist of generating pre-Development and post-Development runoff hydrographs; routing the post-Development runoff hydrographs through the Stormwater storage system; and, sizing the storage system and discharge control Structure(s) to limit post-Development discharge rate and/or volume to pre-Development or existing conditions for the storm events indicated in Section 6.04.06.F.3.a above. Stormwater discharge computations shall include the storm frequency, storm duration, rainfall amount, rainfall distribution, hydrologic soil conditions, surface storage, changes in land Use cover and slope conditions, off-site runoff contributing areas, time of concentration, tailwater

conditions, and any other changes in topographic and hydrologic characteristics. Where applicable, projects will be divided into sub-basins according to the drainage divides to allow for more accurate hydrologic simulations. Interconnected pond systems shall be modeled as such.

d. Depending on soil types and hydrologic conditions, infiltration may be utilized in conjunction with Flood routing procedures to satisfy the requirements of Section 6.04.06.F.3.a.(1) and 6.04.06.F.3.a.(2) where soil and groundwater table conditions are conducive to such practices, such as NRCS Hydrologic Group "A" soils.

e. All Stormwater storage facilities shall be designed to recover sufficient volume to satisfy state water quality discharge standards with total volume recovery within seven (7) to fourteen (14) days following the design storm event.

f. Rainfall data shall be based on the twenty-four (24) hour precipitation amounts contained in the SJRWMD Technical Publication SJ 91-3 entitled "24-Hour Rainfall Distributions for Surface Water Basins Within the St. Johns River Water Management District, Northeast Florida."

g. Rainfall distributions shall be based on the twenty-four (24) hour duration rainfall event utilizing the NRCS Type II Florida Modified rainfall distribution or an applicable basin specific storm frequency distribution contained in the SJRWMD Technical Publication SJ 91-3 entitled "24-Hour Rainfall Distributions for Surface Water Basins Within the St. Johns River Water Management District, Northeast Florida".

h. Except as indicated in Section 6.04.06.F.3.i. hydrographs for Flood routing procedures shall use the U.S. Department of Agriculture, Natural Resource Conservation Service (NRCS) runoff curve number method. Ultimate land usage shall be utilized for post-Development design and analysis using average antecedent moisture conditions (AMC II). Selection of appropriate runoff curve numbers shall be based on values contained in the latest edition of the NRCS Technical Release 55 entitled, "Urban Hydrology for Small Watersheds." With prior approval of County Administrator, other methods may be accepted based on applicability to site conditions, soil and hydrologic conditions, and demonstration that results are comparable to the NRCS runoff curve number method.

i. The following methods are accepted for generating runoff hydrographs for Flood routing procedures:

(1) NRCS Unit Hydrograph Method

(2) Santa Barbara Urban Hydrograph Method

(3) Modified Rational Method *

* Use of the Modified Rational Method for Flood routing procedures shall be limited to small projects less than five (5) acres.

4. Collection and Conveyance Facilities

Unless otherwise approved by the County Administrator, the following standards shall apply to all collection, storage, and conveyance facilities:

a. Temporary Roadway Flooding for the storm events indicated below may be permissible during the design storm event only if full recovery and use of the Roadway is available at the end of the design storm event. Flood routing analysis shall show that Flood elevations at no time will exceed the following:

   (1) Exceed an elevation that would permit Flood water encroachment of more than one-half of a travel lane at the lowest elevation on the centerline profile of a Roadway for a twenty-five (25) year storm event;

   (2) Exceed a depth of one (1.0) foot (12 inches) above the lowest elevation on the centerline profile of a Roadway located within a Special Flood Hazard Area or exceed the finished floor elevation of any Structure within the Project for the one hundred (100) year storm event whether located in a Special Flood Hazard Area or not.

b. Roadway Stormwater systems shall be designed to transport Stormwater runoff resulting from a five (5) year frequency storm event using the FDOT Zone 5 intensity-duration-frequency curves. Time of concentration shall be based on standard accepted engineering practice and should consider, where applicable, overland sheet flow, shallow concentrated flow, open channel flow, or a combination of these conditions. For systems with time of concentrations less than ten (10) minutes, the minimum time of concentration of ten (10) minutes may be used.

c. Stormwater systems serving parking lots or other non-residential Projects shall be designed to collect and handle all Stormwater flows into and through the system without creating unreasonable impacts to adjacent properties. Temporary ponding in parking lots is permissible if of shallow depth and if full recovery and use of the Parking Area is available at the end of the storm event. At a minimum, the Stormwater system shall be designed to convey the five (5) year storm event using the FDOT Zone 5 intensity-duration-frequency curves.

d. Friction losses shall be considered in the computation of the design hydraulic gradient for all Stormwater systems. Energy losses associated with special pollution control Structures (weirs, baffles, etc.) and losses due to Utility conflict Structures shall also be included when present in the system. When hydraulic calculations do not consider all minor energy losses, the elevation of the hydraulic gradient for design storm conditions shall be at least one (1.0) foot below the gutter elevation. If all energy losses are calculated, the hydraulic gradient shall be allowed to reach the Roadway gutter elevation. Minor energy losses shall include those losses associated with entrance, exit, expansion, contraction, bends, and junction/manhole losses.

e. Determination of hydraulic gradient and sizing of the Stormwater system shall be based on the highest tailwater which can be reasonably expected

to occur coincident with the applicable design storm event. Standard design tailwater conditions for the design of Stormwater systems are as follows:

(1) Systems which discharge into ponds, lakes, and other wet facilities shall use the stage occurring at peak flow conditions for the design storm event used. Where no outlet exists, the seasonal high water elevation shall be used at the beginning of the storm event;

(2) Systems discharging into tidal areas such as the Atlantic Ocean, the Intracoastal Waterway, and the St. Johns River shall use the Mean High Tide elevation plus twelve (12) inches;

(3) Systems discharging into Regulatory Floodways shall use a tailwater elevation derived by use of the Federal Emergency Management Agency (FEMA) Flood profile data contained in the FEMA Flood Insurance Rate Study or other approved water surface profile study;

(4) Systems discharging into ditches shall use the normal depth flow in the ditch or if downstream control exists, the greater of the normal depth flow or the stage due to backwater from the downstream control;

(5) Systems which connect to existing Stormwater systems shall use the hydraulic grade line of the existing system at the connection.

f. All manual calculations shall be submitted in standard FDOT stormwater tabulation format. Printouts from commercially available computer software developed specifically for analysis and design of Stormwater systems is permissible.

g. The minimum design velocity for Stormwater systems shall be two and one-half (2.5) feet per second. Energy dissipation will be required at the point of discharge for velocities greater than six (6) feet per second. Submergence of the pipe outlet by at least two-thirds (2/3) of the pipe diameter below normal water level may be considered as energy dissipation.

h. Unless otherwise approved by the County Administrator, the minimum allowable pipe size for Stormwater systems, within Roadway Right-of-Way, shall be fifteen (15) inches. The maximum pipe lengths without maintenance access Structures shall be based on the following:

TABLE 6.04

PIPE SIZE	MAXIMUM PIPE LENGTH
15 inches	200 feet
18 inches	300 feet
24 inches to 36 inches	400 feet
42 inches and larger	500 feet
Box Culverts	500 feet

i. Open channels (swales, ditches and canals) shall be designed to convey, without damage, Stormwater flow from design storm frequencies as follows:

(1) Outfall ditches and canals - twenty-five (25) year

(2) Collector Road swales and ditches - ten (10) year

(3) Local Road swales and ditches - five (5) year

j. Unless site specific factors warrant the use of larger design storm events, Local Road cross-drains shall be designed to convey, without damage, the five (5) year storm event based on open channel flow conditions and the ten (10) year storm event utilizing available head at the entrance. Collector road cross-drains shall be designed to convey, without damage, the ten (10) year storm event based on open channel flow conditions and the twenty-five (25) year storm event utilizing available head at the entrance.

k. Unless site specific factors warrant the use of larger design storm events, Roadway side drains shall be designed to convey, without damage, the five (5) year storm event.

5. Erosion and Sediment Control

a. Erosion and sediment control best management practices shall be used as required during Construction to retain sediment on-site. These management practices shall be designed according to Minimum FDOT standards and shall be shown and noted on the "Grading and Drainage Plan" or on a separate "Erosion and Sediment Control Plan". Information pertaining to the Construction, operation and maintenance of the erosion and sediment control practice shall be included. Sediment accumulations in the system from Construction activities shall be removed to prevent loss of storage volume. Sedimentation occurring to off-site areas shall be halted and the area immediately restored to conditions prior to sedimentation.

b. All side slopes and other areas disturbed by Construction shall be stabilized by sodding, hydro-mulching or other appropriate vegetative or non-vegetative erosion control measures. Grass shall be fully established prior to scheduling for final inspection of the Project and/or acceptance by the County Administrator. Banks or berms having a 3:1 slope or steeper shall be sodded.

c. Erosion and sediment control best management practices shall be in conformance with St. Johns County Ordinance No. 2006-62 regarding pollutant discharges to the Municipal Separate Storm Sewer System (MS4) in conjunction with participation in the National Pollutant Discharge Elimination System (NPDES).

6. Public Safety

Normally dry basins designed to impound more than two (2) feet of water or permanently wet basins shall be designed with side slopes no steeper than four (4) feet horizontal to one (1) foot vertical (4:1) out to a depth of two (2) feet below the surface control elevation. As an alternative, the basins may be fenced or otherwise restricted from public access if the slopes must be steeper due to space limitations or other constraints. A fence shall be a minimum four (4) foot high and prevent passage of a four (4) inch sphere.

7. Access and Maintenance Easements

a. Stormwater storage, collection and conveyance facilities shall be designed and constructed to permit adequate equipment access. Facilities designed and constructed to serve more than one property Owner, such as residential and non-residential Subdivisions shall provide an access and maintenance area contained within a dedicated tract or Easement designated for the Stormwater storage facility adequate to provide for future maintenance. Except where existing septic systems or wells are present on adjacent property, an access and maintenance Easement of width meeting the requirements below shall be provided landward of the top of bank elevation of all Stormwater storage, collection and conveyance facilities. Where existing septic systems or wells are present on the adjacent property, a buffer of sufficient width to meet separation requirements between the Stormwater storage facility and the well or septic system shall be provided as approved by the State Health Department or, in the case of public water wells, as approved by the St. Johns River Water Management District. Minimum Easement widths shall be based on the following unless the Applicant can demonstrate lesser widths will be adequate to provide maintenance of the Stormwater storage, collection and conveyance facility:

TABLE 6.05

STORAGE FACILITY SIZE	MINIMUM EASEMENT WIDTH
Less than 1/4 acre 1/4 acre or greater	5 feet 8 feet
MAXIMUM SLOPE 10 feet horizontal to 1 foot vertical (10:1)	

b. Building and Accessory Structures such as, but not limited to, decks, concrete pads, must be a minimum of three (3) feet from side and rear property lines except as provided in Section 2.02.04.B. Positive drainage

shall be maintained at all times regardless of distance from the property line.

c. Minimum drainage Easement widths for conveyance facilities other than those within a road Right-of-Way shall be based on the following:

(1) Piped Systems

Fifteen (15) feet or the pipe width plus two (2) times the average depth to the pipe invert rounded up to the nearest five (5) foot increment, whichever is greater.

(2) Open Channels

Thirty (30) feet or the width to convey the required design flows plus twenty (20) feet unobstructed area for access and maintenance measured from the top of the bank.

Lesser widths may be approved for minor conveyance systems such as Rear Yard or Side Yard swales upon demonstration that these minor systems are adequate to convey the design flows from the contributing drainage area; are capable of being effectively maintained by the property Owner; and, are not crucial to the master Stormwater conveyance system.

d. Unless otherwise approved by the County Administrator, no permanent Structure shall be allowed within any public or private drainage or utility Easement. For the purpose of this Code, examples of permanent Structures shall include, but are not limited to: Buildings, footings, fixed mechanical equipment, electrical transformers and emergency generators, decks, screened enclosures, Patios, swimming pools, and swimming pool decks and any other vertical encroachment.

e. The County Administrator may require a "Drainage Right-of-Way" in lieu of a drainage Easement where necessitated by maintenance requirements and functional importance to the contributing drainage basin. The width of the Drainage Right-of-Way shall be based on the same requirements as drainage Easements. No Structures, whether temporary or permanent, shall be allowed within an area designated as a Drainage Right-of-Way.

8. Special Flood Hazard Areas and Flood Prone Areas (A Zones) and Regulatory Floodways

a. Construction occurring in "Special Flood Hazard Areas" as identified by the Flood Insurance Rate Maps and/or the Flood Hazard Boundary Maps shall meet the requirements of the Federal Emergency Management Agency National Flood Insurance Program as referenced in Part 3.03.00.

b. Filling of "Flood Prone Areas" will be prohibited unless the Applicant can mitigate for the lost storage volume by providing other drainage Improvements to compensate for the lost storage volume elsewhere within the Flood prone area. Other drainage Improvements shall include compensating storage, downstream conveyance Improvements, or, a

combination of compensating storage and downstream conveyance Improvements. No filling shall be allowed within land-locked or closed type basins unless the Engineer can demonstrate that the filling activities will not adversely impact other properties within the Flood prone area. Raised drainfields are not to be considered fill areas.

G. Submittal Requirements

The Applicant is responsible for including in the Stormwater management review submittal sufficient information for the County Administrator to evaluate the environmental characteristics of the affected areas, the potential and predicted adverse impacts of the proposed activity on other lands, and the effectiveness of reducing adverse impacts. The County Administrator will establish submittal criteria relating to the contents of all Development review submittals. The criteria for submittals shall establish minimum requirements for the contents of Construction Plans and related design documents to assure requirements herein have been met. Other information may be requested if the County Administrator believes the information is reasonably necessary for support of the drainage analysis including maps, charts, graphs, tables, photographs, narrative descriptions, calculations, explanations, and citations to supporting references as appropriate to communicate the required information for responsible evaluation of the site. Topographic data shall extend off-site a minimum distance of twenty-five feet on all sides to support review of submittals.

H. Finished Floor Elevations and Lot Grading Plans

1. Finished floor elevations shall be constructed at a minimum one (1) foot above the FEMA one hundred (100) year minimum elevations in any Special Flood Hazard Area, as referenced in Section 6.04.06.F.8.a. above. In addition, on any sites developed under County approved Subdivision Lot Grading plans, the minimum floor elevations shall be as specified in those plans and the maximum floor elevation shall not exceed six (6) inches more than specified.

2. All Buildings except those on one acre or more of upland area will require a Lot Grading Plan (Note: For any lot over one (1) acre that proposes to add fill within ten (10) feet of any property line will not be exempted). The design shall meet the County approved master drainage plan if applicable or meet the HUD "A", "B" or "C" Lot grading configuration type (see S&D Manual). Such plans shall be approved prior to any Lot grading. On all sites, the Yard slope shall be at least one foot per hundred feet from the perimeter of the new Structure downward to the point of site drainage discharge (edge of pavement or top of swale) on paved Roadways or two feet per hundred feet for sites on unpaved roads. Floor elevations above the Yard elevation at the Building perimeter shall be no less than as required by adopted County Building codes, in addition to any aforesaid minimum specific elevations. At a minimum, the Lot Grading Plan shall be drawn to a scale of one (1) inch equals fifty (50) feet or larger and shall include the following information:

   a. Property boundary lines;

   b. Existing drainage patterns on the site including points of entry of off-site drainage contributing areas, points of exit of Stormwater runoff and if necessary, existing elevations and/or elevation contours;

c. Proposed limits of filling or grading of the site including fill depth, slopes, finished floor elevations, and if necessary, final elevations and/or elevation contours of the site;

d. Location of swales and drains to convey Stormwater runoff from the site and any off-site contributing drainage areas to an appropriate point of disposal without adversely impacting adjacent and downstream properties;

e. Any other pertinent information as may be required by the County Administrator as appropriate for responsible evaluation of the grading plan.

f. In addition, the Lot Grading Plan shall demonstrate that the fill will not block natural flow of Stormwater runoff from adjacent properties and will not divert or direct additional Stormwater runoff onto adjacent properties. Any additional Stormwater runoff shall be directed to the Roadway drainage system or other approved drainage facility.

3. The County Administrator may require Construction of retaining walls, roof gutters, underdrains, swales, or any other facility deemed necessary to provide adequate drainage.

Sec. 6.04.07 Roadway Design

A. General

1. All new Roadways shall be paved in accordance with approved design and Construction Plans prepared to equal or exceed the design standards established in this Section.

2. To prevent unnecessary damage on newly constructed roadways, temporary access for construction traffic shall be provided to each phase of a development project in such a manner as to prohibit construction traffic on any phase until after the application of the second lift of asphalt has been completed in all phases as required in Section 6.05.07.F.3.

3. Previously platted Roadways which have not been constructed are subject to the requirements of Part 6.04.00, unless Bonds have been received and accepted on Construction of such Roadways.

4. The design and specifications for Major and Minor Collectors shall comply, at a minimum, with the Florida Department of Transportation (FDOT) "Roadway and Traffic Design Standards" (Standards), "Manual of Uniform Standards for Design, Construction and Maintenance for Streets and Highways" (Green Book), and the "Manual of Uniform Traffic Control Devices" (MUTCD), unless specifically revised by this Code or the S&D Manual. Material specifications and Construction procedures shall comply to the FDOT "Standard Specifications for Road and Bridge Construction" (Specifications). Certain FDOT details may be required to be incorporated into the Construction Plans at the request of the County Administrator.

5. The Standards and Detail (S&D) Manual graphically depict the Roadway and drainage design details for Construction within unincorporated St. Johns County and are consistent with the objectives and standards contained within this Code.

ST. JOHNS COUNTY LAND DEVELOPMENT CODE

Article XII Definitions

Impervious Surfaces: Any Building, concrete, pools, wet retention/detention areas, pavement or compacted materials utilized for parking or roadways.

Impervious Surface Area (ISA): the sum of all Impervious Surfaces within a portion or portions of a proposed Development site or Project.

Impervious Surface Ratio (ISR): the ISR shall be calculated by dividing the total Impervious Surface Area, exclusive of the surface area of any wet retention/detention areas, by the total area of the proposed Development site or Project.

Development: Any man-made change to improved or unimproved structure and/or real estate, including but not limited to, buildings or other structures, tanks, temporary structures, temporary or permanent storage of equipment or materials. The following activities or uses shall be taken as to involve "development" as defined in this section:

A. Mining, dredging, filling, grading, paving, excavations, drilling operations or any other land disturbing activities.

B. A change in the intensity of use of land, such as an increase in the number of dwelling units in a structure, or on land or a material increase in the number of dwelling units in a structure or on land.

C. Alteration of a shore or bank of a seacoast, river, stream, lake, pond, or canal.

D. Demolition of a structure.

E. Clearing of land as an adjunct of construction.

F. Any other activities referenced in Section 380.04, F.S.

For those operations or uses that shall not be taken to involve "development" as defined in this section, please reference Section 380.04, F.S.

Project: Means the proposed Development of a particular Parcel or Parcels of land involving a land Use or group of land Uses at a particular density and/or intensity pursuant to a Development Order.

(/index.aspx)

St. Johns County Government

Elected Officials, Divisions, Departments, & Information | P: (904) 209-0655 | TF: 1-877-475-2468 | E: info@sjcfl.us (mailto:info@sjcfl.us)

Stormwater

Why Stormwater Management

Stormwater management is necessary to prevent the loss of life and property due to flooding, to reduce expenses related to flood control and maintenance of storm drain systems, and to minimize the adverse impact of development and related construction activities. The rights of other landowners must be respected with regards to the volume and rate of discharge from a project site. This includes upstream and downstream impacts in collection, storage and conveyance systems, and impacts to other hydraulically connected areas. Special consideration must also be given to sediment generated during construction and impacts to "volume sensitive" areas which may have limited or no drainage outlet.

Stormwater Permits

A stormwater permit is required from the St. Johns River Water Management District for almost any work that affects natural or man-made drainage systems or changes the use of a property or the structures on it. The following is a summary of the requirements from the St. Johns County Land Development Code. This is presented as informational only, and persons planning a project should refer to the Code for details or contact one of the county technical review engineers. There are levels of stormwater design requirements depending on the type, size and impact of a project. There are exempt projects, minor projects and those requiring full design and code compliance.

Exempt Projects

Exempt projects are those associated with agricultural activities, maintenance of drainage canals and existing stormwater systems, pavement or buildings. Isolated single and two family dwelling units are also exempt. However, they must meet finished floor elevations and lot grading requirements.

Minor Project Requirements

Minor projects are not required to limit post-development peak rate of discharge to the pre-development rate for the standardized 5 year and 25 storm event, but must meet all other

requirements. They must however, provide retention of the first one inch of rainfall resulting from the developed area, or where conditions require, detention of the same volume which must be released between 24 and 72 hours after the event.

These type projects include:

a. single triplexes and quadraplexes if lot coverage <35% of total lot

b. existing project expansions or modifications, if all the following are met.

1. *site is currently served by a stormwater system*
2. *total impervious area < 70% of total site*
3. *total expansion of building, sidewalks and new parking is less than 2800 square feet*
4. *the existing system can be enlarged to accommodate the additions*
5. *there will be no unreasonable impact to adjacent properties and all other Land Development Regulations have been met*

c. new project with no more than 35% impervious coverage (up to 9000 square ft.) if all the following are met.

1. *no more than 15,000 square feet of site is altered*
2. *retention or detention of runoff can be provided*
3. *there will be no unreasonable impact to adjacent properties and all other Land Development Regulations have been met*

All other projects must meet the following requirements at a minimum: (See Land Development Code for specifics)

1. Drawings and documents related to stormwater management must be prepared, signed and sealed by a Florida Registered Engineer. Design must be certified as being in compliance with the St. Johns County Land Development Code.

2. All drainage calculations must be submitted

3. A maintenance entity must be specified

4. An As-Built survey must be submitted

5. A legal positive outfall must be identified

6. system elements designed to be "dry" must have a geotechnical report indicating this condition. If seasonal high water table is < 4' from bottom of proposed retention area, a mounding analysis is required to substantiate design and recovery.

7. pre and post development hydrographs are required for the 5 and 25 year storm events (The preferred method is the SCS runoff curve number method based on TR 55 values)

8. The flow must be routed through the storage system to size for storage and discharge control to limit post development rate and volume to pre-development levels.

9. There must be recovery of total volume within 7 to 14 days after event

10. Temporary roadway flooding is permissible if roadway will be recovered at end of storm event and if no more than ½ of travel lane will be covered for a 25 year storm event, and not exceed a depth of 1 ft. or finished floor elevations for the 100 year storm event.

11. Normal roadway design shall be for a 5 year storm event.

12. Temporary ponding in parking lots is allowable if of shallow depth and if there will be full recovery at end of storm event.

13. Tailwater conditions must be addressed

14. Erosion and sediment control best management practices shall be used during construction to retain sediment on site.

15. If more than 2 feet of water is designed to be in a pond there must be a 4:1 slope out to a depth 2 feet below the surface control elevation or the pond may be fenced.

16. Finished floor elevations shall be at a minimum 1 foot above the FEMA 100 year elevations in A-flood zones or as specified in county approved subdivision lot grading plans.

17. All buildings except those on one acre or more of upland area will require a Lot Grading Plan unless fill is to be placed within 10 feet of the property line.

More Information

For more information about the Stormwater Management Program, **click here (/Stormwater/index.aspx)**.

ST. JOHNS COUNTY COMP PLAN

A. LAND USE ELEMENT

Goal A.1

To effectively manage growth and development by designating areas of anticipated future development which satisfy demand where feasible, in a cost-efficient and environmentally acceptable manner. Encourage and accommodate land uses which make St. Johns County a viable community. Create a sound economic base and offer diverse opportunities for a wide variety of living, working, shopping, and leisure activities, while minimizing adverse impact on the natural environment.

Objective A.1.1
Environmental Conditions

The County shall designate future land uses based upon environmental conditions and constraints including but not limited to: vegetation, topography, soil conditions, wildlife, aquifer recharge areas, surface waters and drainage. The County shall coordinate with state and federal agencies responsible for environmental and natural resource protection to include sharing of environmental data and studies to support the designation of appropriate land uses.

Policies

A.1.1.1 The County shall protect estuaries by ensuring compliance with state and federal standards for stormwater runoff and wastewater discharge into Outstanding Florida Waters, Class II and III waters through coordination between the County development review process and state and federal permitting requirements.

A.1.1.2 The County shall protect natural resources by working closely with various local, state, and federal agencies in collecting information, coordinating development permitting and reporting violations of laws and regulations which would have a negative impact on the environment.

A.1.1.3 The County shall research and consistently with applicable law, shall apply for state and federal grants to purchase natural resources for conservation.

districts rather than a strip commercial development pattern, characterized by continuous linear commercial frontage along the roadway.

(d) Notwithstanding A.1.11.2 (a) above, in West Augustine, Neighborhood and Community Commercial uses may be provided in Residential Land Use designations as permitted by zoning designation or Overlay District regulations.

A.1.11.3 In addition to all other applicable Plan policies and requirements, the intensity and bulk of the types development listed below shall, without limitation, be additionally controlled by the establishment of a maximum impervious surface area. Impervious surface area shall include, at a minimum, that portion of a proposed development site which is covered by buildings, pavement or other improvements through which water cannot penetrate. Impervious Surface Ratio (ISR) shall be as defined in the Land Development Code. Nothing in this provision shall be construed to guarantee the achievement of the maximum ISR for any specific proposed development including the provision of any bonus or incentive that may be applicable pursuant to the Plan. The actual ISR achieved by a proposed development shall be established and controlled, within the maximums provided by this provision, through the application of applicable Plan policies and implementing land development regulations, and concurrency management regulations. These additional controls may restrict the ISR of a proposed development to less than the maximum provided for in this provision. The Floor Area Ratio (FAR) is determined by the numerical value obtained by dividing the gross floor area of the building by the area of the lot on which the building is constructed. This determines the maximum building size allowed on a specific lot. The FAR establishes the development characteristics on a particular lot. The maximum Impervious Surface Ratio (ISR) and Floor Area Ratio (FAR) for the listed land use classifications shall be established as follows:

LAND USE	**Maximum ISR[12]**	**FAR[12]**
Residential[6]		
- Residential – A	0.70	50%[10]50%[10]
- Residential – B	0.70	50%[10]50%[10]
- Residential – C	0.70	
- Residential – D	0.70	
Commercial		
- Neighborhood Commercial[1]	0.70	50%
- Community Commercial[2]	0.70	50%[14]
- Intensive Commercial	0.75	50%
- Rural Commercial[1]	0.60	50%
Industrial	0.75	70%

Mixed Use Districts[3]	0.75	70%
Town Center Mixed Use District	0.75	80%
Hotel, Motel, and Club Facilities Located in Residential "D" Density Zones	0.75	50%
Parks, Recreation and Open Space[4] - Active - Passive	 0.50 0.20	 20% 10%
Public Buildings, Facilities and Grounds and Non-Commercial Community Facilities[5]	0.70	70%
Agribusiness Operation[7]	0.60	50%
Business and Commerce Park[8]	0.75	70%
Rural/Silviculture (R/S)[9]	0.60	70%
Agricultural – Intensive (A-I)[9]	0.60	70%
Airport District (AD)[11]	0.70	70%

Notes:

1. In addition to the maximum ISR and FAR, these uses are also limited in intensity to a maximum of 10,000 square feet of floor area per acre (10 KSF/acre).

2. In addition to the maximum ISR and FAR, these uses are also limited in intensity to a maximum of 12,000 square feet of floor area per acre (12 KSF/acre).

3. In the event of a conflict between the maximum ISR and FAR for an individual land use classification and the maximum ISR and FAR established for Mixed Use Districts, the ISR and FAR for Mixed Use Districts shall control. The actual maximum ISR achieved by developments proposed within Mixed Use Districts shall be additionally subject to the Plan's applicable Mixed Use District policies, and controls established through the implementing land development regulations. Mixed Use Districts are further governed by Objective A.1.9 and related Policies.

4. Project types are varied, and range from large passive recreation open space to smaller urban type and water-oriented active recreational facilities. See also separate ISR and Floor Area Ratio (FAR) standards for recreation uses in Conservation areas.

5. In the event a lower ISR is established for the individual use or land use classification in which the public facility or use is located, then the lesser ISR shall control.

6. In addition to the Maximum ISR and FAR, residential developments in Residential - A and Residential – B, are subject to maximum lot coverage by all buildings at 0.25 unless the individual zoning district is less. Residential

developments in Residential – C and Residential – D are subject to maximum lot coverage by all buildings at 0.35 unless the individual zoning district requires less. For Planned Developments, the above lot coverage standards shall apply to the overall development parcel; however, no maximum coverage on any individual residential lot by all buildings shall exceed 0.65 in any Residential Planned Developments.

7. Agribusiness operations are furthered governed through Policy A.1.6.9 of this Plan and the Land Development Code.

8. Business and Commerce Parks are further governed through Policy A.1.11.1 of this Plan and the Land Development Code.

9. Development in R/S and A-I is further governed through Objective A.1.6 and related Policies in this Plan and the Land Development Code.

10. Applies to Non-residential development.

11. Airport District uses are further governed through the Land Development Code.

12. See Policy A.3.2.6 for ISR and FAR established for preservation of Historic structures in the Vilano Beach Town Center Mixed Use District.

13. Deviations to allow development to exceed the ISR and FAR in the Vilano Beach Town Center Mixed Use District shall only be allowed where there are practical difficulties in meeting the requirements. Deviations shall be subject to a nonzoning variance or waiver review and approval in accordance with the provisions established in the Land Development Code.

14. Within the boundaries of the Hastings Overlay District (See Exhibit A.1.11.), development within Community Commercial land use designations abutting Main Street are permitted a maximum FAR of 1.00.

A.1.11.4 All County land development regulations, including zoning, subdivision regulations, and Zoning Atlas shall be subordinate to the County Comprehensive Plan and Future Land Use Map.

A.1.11.5 The exact boundaries of the land use designations on the Future Land Use Map may require interpretation in order to determine the appropriate land use designation of various parcels and lots. When necessary, the following criteria shall be used to establish the location of a specific boundary and to allow minor deviations, if not clearly delineated on the Future Land Use Map:

(a) The closest parcel or lot line when a land use designation boundary splits a specific parcel or lot. This provision will carry additional weight if the