

**AGTEC ORC RESPONSE**  
**TABLE OF CONTENTS**

- 1. Cover Letter with responses**
- 2. Revised Text Amendment**
- 3. Dr. Nicholas Memo**
- 4. Transportation/VMT Memo and Exhibit 1**
- 5. Urban sprawl Response**
- 6. Comprehensive Plan Consistency**
- 7. Memo and Exhibits from Toby Overdorf**
- 8. Exhibit F-14 (Cumulative Traffic Analysis)**

July 12, 2010

**DELISI FITZGERALD, INC.**

Planning – Engineering – Project Management

Clyde Dulin  
Martin County  
Growth Management Department  
2401 SE Monterey Road  
Stuart, FL 34994

Re: AgTEC (CPA 2010-04 & CPA 2010-05) ORC Response

Dear Clyde:

Please find below the responses and back up information to the Objections, Recommendations and Comments (ORC) Report issued by the Department of Community Affairs, as it relates to the AgTEC (Sunrise Grove) comprehensive plan amendment.

#### 7. Objection (Need).

*Unlike other land uses, a land based needs analysis for industrial development is significantly limiting for two primary reasons:*

*1) Evaluating the “need” for industrial and office/employment uses is a very different concept than evaluating “need” for additional residential development. Industrial development has more to do with a county’s vision for how they want the local economy structured rather than a “need” to accommodate population. In other words, should a county desire to have an economy structured primarily around tourism and construction of homes for a retiree market, there will not be as great of a need for employment centered uses as a county that desires a more diverse and balanced economy.*

*2) Unlike residential development, which can be located virtually anywhere, lands that can be successfully marketed for industrial development must be located along and with easy access to major transportation corridors, most notably rail or interstate corridors. Simply designating lands for industrial development will not produce industrial development unless they are located in marketable corridors. In addition, as the Urbanomics Study pointed out, there are different types of industrial development that will require different types of properties. Amenitized industrial parks specifically need larger areas of land, on and with easy access to major transportation corridors, to be successful.*

*It is important to note that only one of the goals of the AgTEC amendment is to provide jobs for Martin County residents. An equally important goal of AgTEC is to provide economic diversification for Martin County so that government services can be maintained at manageable tax rates over time. Long term economic sustainability can only come through diversification.*

*For a further discussion of need, please see the attached analysis from Dr. Nicholas.*

## **8. Objection (Urban Sprawl, Energy Efficient Land Use Patterns and Reduction of Greenhouse Gas)**

*The AgTec land use category does not represent “single use development”. In fact, all uses other than residential development are specifically allowed or required, and there is policy language dictating their use, location and intent. The AgTEC land use category was created specifically to include uses that would provide for internal capture of vehicle and pedestrian trips. Policy 4.4.M.1.g.(6) a.iii specifically requires retail development at levels that would constitute ancillary service uses such as restaurants, dry cleaners and other retail uses that are commonly found in business areas to promote internal capture of trips. Office uses are also specifically allowed.*

*The only use that is not allowed in the AgTEC land use category is residential, and that is because there are over 10,000 platted lots in close proximity and immediately adjacent to the property. In addition, the 3 DRIs that are directly adjacent to the property along the northern boundary contain entitlements for an additional 30,000 residential units. Additional residential development is not needed for any reason. However, additional industrial development is needed for economic diversification of the Martin County economy.*

*The attached analysis from Kimley Horn demonstrates that based on the location of the AgTEC property and the current travel patterns of workers living in Martin County, the proposed amendment would be an improvement over the current situation with regard to vehicle miles traveled. This analysis, coupled with the analysis from Dr. Nicholas, which among other things shows that the average industrial parcel size in Martin County is less than 5 acres (no where near enough consolidated land to attract most employment centers) causes trips to be made out of county at greater distances. Adding a marketable employment center within Martin County alone will create a big opportunity to shift current travel patterns into a more sustainable land use pattern.*

*To add to these analyses, an additional policy was added committing future development to the incorporation of Transportation Demand Measures, which will further reduces VMT and greenhouse gas emissions. Please see policy 4.4.M.1.g.(6)(f)2.*

*In addition, please see the attached environmental analysis, which reviews the net overall benefit of this land use change in greenhouse gas reduction. According to the analysis from Mr. Overdorf, with Crossroads Environmental Consultants, the wetland and environmental restoration that is committed to in the AgTEC text amendment, as well as the commitments to green development and building practices will reduce the carbon footprint over citrus operations.*

## **9. Transportation Facilities**

*Please see the attached analysis from Kimley Horn.*

## **10. Internal Inconsistency**

*The submitted environmental analysis and all of the available mapping demonstrate that there are no threatened or endangered species on site. There is no inconsistency with Policies 4.4.E.1.A.5 and 10. In fact, the proposed AgTEC land use category would take a property that is devoid of habitat and wildlife and recreate habitat areas so that wildlife could return. If*

*anything it would be inconsistent with Policies 4.4.E.1.A.5 and 10 to not adopt this amendment. For additional information, please see the attached memo from Toby Overdorf. For responses to the other policies listed, please see the attached Comprehensive Plan Consistency document.*

## **11. Public Facilities and Coordination with Adjacent Local Governments**

*Please see the attached revise text amendment which adds policies to address DCA's concerns. Specifically, Please see Policy 4.4.M.1.g.(6)(b), Policy 4.4.M.1.g.(6)(c)5, Policy 4.4.M.1.g.(6)(c)6 and Policy 4.4.M.1.g.(6)(c)8.*

## **12. Environmental**

*Please see the attached memo from Toby Overdorf with Crossroads Environmental Consultants.*

## **14. Cumulative Impacts to Transportation Facilities**

*Please see the attached cumulative transportation analysis (referenced as Exhibit F-14).*

If you should require any additional information, please contact our office.

Sincerely,  
DeLisi Fitzgerald, Inc.

A handwritten signature in blue ink, appearing to read "Daniel DeLisi".

Daniel DeLisi, AICP

## **Suggested Text Amendment**

### **AgTEC (I-95 Agricultural & Targeted Employment Center) Land Use Category Text Amendment**

*Suggested Location - 4.4.M.1.g.(6)*

#### **(6) AgTEC Policies**

The AgTEC land use category, is intended to allow the continuation of permitted economically viable agriculture, support the development of targeted businesses, tax base and employment opportunities, and facilitate environmental enhancement through the protection of common open space or restoration of natural systems while protecting and enhancing the Martin Grade Scenic Corridor.

While a primary emphasis for this land use category is to provide an opportunity for targeted industries and institutions, this land use category shall also set the standard for green development in the region through sustainable, environmentally-friendly, and energy efficiency in planning and design, and the accommodation of an evolving agricultural industry.

(a) Uses permitted within the AgTEC land use category are limited to the following primary and ancillary uses:

(i) Primary “Targeted Employment” Uses (requires PUD approval):

Research and Biotech development laboratories and facilities

Administrative services, not for profit

Business and professional offices

Educational institution

Electronic equipment manufacturing and testing

Limited impact industries (including distribution centers)

Medical and dental labs

Medical equipment manufacturing

Optical equipment manufacturing

Pharmaceutical products manufacturing

Precision instrument manufacturing

Public park and recreation, active

Utilities

(ii) Ancillary Uses

Commercial day care

Convenience restaurants

Copy services and duplicating services

Financial institutions

General restaurants

Hotels and motels

Mail services and parcel exchange

Physical fitness centers

Post offices

(iii) Any Agricultural Uses that is permitted in the Agricultural Future Land Use Designation (approved in accordance with current County requirements)

The total *non-agricultural* development within the (AgTEC) land use category shall be limited to 5 million square feet of Targeted Employment Uses, 1 million square feet of office/regional headquarters/Institutions floor area, 200,000 square feet of ancillary retail development and 500 hotel units. Only retail uses that are intended to service the permitted uses in the nearby agricultural land use designation or the Targeted Employment /commerce activities and are ancillary to the principal uses shall be allowed. Further, to promote distribution of the retail uses throughout the site, no more than 20% of the square footage contained in any *non agricultural* Final Site Plan Approval shall be allocated to ancillary retail. Similarly, in order to ensure a mix of uses and provide for internal capture, a minimum of 25,000 square feet of ancillary uses shall be required for each 1,000,000 square feet of primary uses.

*Bona fide* agricultural uses and their support structures, or agriculturally related uses (such as the growing of feedstock for renewable fuels), shall not be counted against the total development allocations for *non-agricultural development*. *Total acreages for non-agricultural and agricultural development are shown below.*

Use	Minimum Area (Acres)	Maximum Area (Acres)
Non-agricultural development/ Targeted Employment Uses	0	900 Acres
Common Open Space/ Agriculture	817	1717

(b) Development on the property will be limited within the first 5 years to a development program not to exceed 1,000,000 square feet of industrial land uses (or the trip generation equivalent of alternative land uses) unless the applicant is able to demonstrate that transportation concurrency requirements have been satisfied for additional development, or additional development is otherwise permitted by applicable laws and ordinances at time of development approval.

(c) The AgTEC land use category is for the expressed purpose of providing land for targeted employment uses and the ancillary uses that these businesses need to thrive, or for supporting agricultural activities and uses permitted in agricultural land use categories. Therefore, all development proposals or activities shall be aimed at providing locations for Targeted Sectors as defined by the Martin County Business Development Board and the State of Florida, or for facilitating the growth and expansion of agriculture, or bona fide agriculturally related uses such as the growing of materials for renewable/bio fuels.

Development within the I-95 AgTEC shall meet the following requirements:

1. Permitted zoning categories within the AgTEC shall include A-2, A-20A and non-residential Planned Unit Development. All development proposals that convert from agriculture to a non-agriculture employment use must be approved through the Planned Unit Development (PUD) process. Any

Agricultural related activity that currently requires a non-residential site plan approval would still be required to obtain the same local permits for development.

2. Prior to, or in conjunction with the first development proposal for any portion of the AgTEC, a Conceptual Master plan for the entire AgTEC area, including general site layout, with a conceptual roadway/sidewalk/transit network, minimum design standards, infrastructure narrative, and a plan for supporting the protection and enhancement of the Martin Grade Scenic Corridor must be submitted to Martin County.
3. AgTEC uses shall be located no closer than 300 feet from any existing residential use.
4. All development shall be limited to a maximum height of 40 feet, excluding non-habitable structures as described in Section 3.14 of the Martin County Land Development Regulations.
5. The applicant will provide the right of way and fund construction (of sufficient width to include the option for multi-modal forms of transportation) for a north-south roadway, connecting Martin Highway to Becker Road, providing the opportunity for a regional parallel reliever road to I-95. The right of way and construction costs of the north-south road shall be impact fee creditable pursuant to state and county regulations.  
Concurrent with Development of Regional Impact approval or specific development approvals of parcels requiring access to Becker Road (whichever occurs first), the applicant will initiate an agreement with the City of Port St. Lucie to facilitate construction of the roadway connection to Becker Road consistent with the schedule and geometric needs identified by the Development of Regional Impact. Furthermore, the applicant agrees to initiate applicable modifications to the Long Range Transportation Plan and Martin County's Capital Improvement Element, as required. Right of Way for a north-south road, connecting Martin Highway to Becker Road in St. Lucie County shall be accommodated, providing the opportunity for a regional parallel reliever road to I-95 that will provide better traffic distribution than the current network. The reservation within Martin County shall be of sufficient width to include the option for multi-modal forms of transportation.
6. Development on the property shall be limited to 1,000,000 square feet of industrial land uses (or the trip generation equivalent of alternative land uses) unless the applicant has initiated either an Application for Development Approval (ADA) for a Development of Regional Impact (DRI) with the Treasure Coast Regional Planning Council, Sector Plan or other regional transportation planning effort. The purpose of the additional review is to identify mitigation measures and compensatory obligations necessary to address the property's transportation impacts on roadway, intersections.

and interchange facilities in Martin County, St. Lucie County, and the City of Port St. Lucie.

7. Provide a minimum of 30% common open space for the entire property (gross acreage) and an additional 10% open space within each specific development parcel, for a total of 40% of the gross acreage ultimately being placed in open space or agricultural uses. The 30% Open Space shall be shown on the required Conceptual Master Plan. Final Site Plan approval for each specific site development area must demonstrate the provision of the additional 10% of open space. Further, a minimum of 75% of the common open space shall be provided in the western half of the AgTEC land use category to facilitate compact development oriented to the eastern portion of the site, and to provide a “transect” that reduces in intensity as you move away from Interstate 95. The common open space and required development tract open space shall be proportionately established with each development phase. Open space shall be defined in accordance with the Comprehensive Growth Management Plan.
8. Any future development within the AgTEC land use category shall connect to regional water and wastewater systems. Prior to any final plan approval for any development on the AgTEC property, the developer will enter into a utility service agreement with the utility, which shall be reflected in the Water Supply Plan for the jurisdiction providing service.

(d) The AgTEC future land use category is hereby established as a Freestanding Urban Service District. The provision of urban services shall be in accordance with *Sections 4.4.G.1.n., and 4.4.M.1.h.*

(e) Agricultural activity, consistent with the Agricultural land use designation, may be pursued in compliance with the Comprehensive Growth Management Plan and the Land Development Regulations, and shall comply with the open space provisions for *the Agricultural future land use*. Any non agricultural, primary or ancillary use must be approved through a PUD, and shall comply with the performance standards in Section 4.5 of the Comprehensive Growth Management Plan, except as otherwise specified in this policy.

(f) Any PUD zoning within the AgTEC shall, at a minimum, incorporate the following sustainability and environmental design principles:

1. Maintain water quality in excess of the Martin County and SFWMD standards through the incorporation of low impact development techniques, Best Management Practices, and sustainable storm water management practices. The applicant shall investigate financially feasible partnership opportunities with organizations including, but not limited to Martin County, the SFWMD, Martin Soil and Water Conservation District, IFAS and USDA on possible environmental service opportunities that could serve as demonstration projects to illustrate techniques in water quality enhancement, more environmentally beneficial surface water management activities, or restoration of localized hydrology or habitat.

2. Minimize greenhouse gas emissions and vehicle miles traveled (VMT) by locating employment intensive uses, such as regional headquarter offices or labor intensive industrial uses in such a manner as to locate them close to mass transit/alternative transit modes, or in close proximity to existing and planned residential areas; and provide a mix of uses to promote internal capture of trips during the work day in accordance with Chapter 163.3177 (6) (a). Provide transportation demand management strategies to support a reduction in VMT. Prior to approval of any Planned Development Application, a Transportation Demand Measures (TDM) implementation plan will be developed for each phase of the project. The following TDM elements shall incorporate any combination of the following as part of this implementation plan:
  - Land Use / Site Planning Measure - Provide an integrated and interconnected mix of land uses as part of the Master Development Plan supporting non-motorized modes of travel (bicycle and pedestrian pathways) as well as a “park-once” philosophy.
  - Land Use / Site Planning Measure - Concurrent with obtaining each certificate of occupancy for a non-residential building located on a parcel 50 acres or greater, implement parking strategies that provide preferred parking for alternative vehicles and car pool vehicles.
  - Land Use / Site Planning Measure - Provide right-of-way for implementation of future transit stops along the proposed Village Parkway.
  - Land Use / Site Planning Measure - Upon the completion of 1,000,000 square feet of development, provide a dedicated car/van pool parking facility to be located near one of the interchanges to further reduce VMT for both project and non-project use.
  - Transit Measure - Coordinate with Treasure Coast Connector to provide a bus route(s) to/from the site upon the completion of 3 million square feet of development.
  - Transit Measure - Provide a financial incentive in the form of a subsidy of at least 50% of the annual ticket cost to at least 5% of the persons employed at the project site for riding future transit service.
  - Transit Measure - Provide onsite bus stop facilities within one year of provision of a bus service.
  - Transportation Demand Management (TDM) Measure - Provide an on-going ride-sharing information service to persons employed at the project site.

3. Incorporate design and development standards from programs such as the Leadership in Energy and Environmental Design (LEED), Florida Green Building Council or other programs for energy efficiency and environmental sustainability.
4. Utilize native vegetation and xeriscape techniques, including limiting irrigated turf to a maximum of 15% of lot area to decrease the overall consumption of irrigation water.
5. Incorporate compact development designs which provide large areas of common open space and provide opportunities for natural lands restoration.
6. Establish a continuous 100 foot wide conservation area, beginning at the southwestern corner of the property, and running northward 13,200 feet (along the western property line). This area shall be documented in phases that correspond with development approvals, through the adoption of a conservation designation on a PUD, or the establishment of deed restrictions or conservation easements. If a conservation easement is established, it shall benefit Martin County, the South Florida Water Management District, or any other appropriate entity. Within this conservation area, the following uses are permitted: access for management of publicly owned land, separation from preserve uses, agriculture, passive recreation, water quality and water management areas (in accordance with applicable permits), ~~passive alternative energy collection uses~~, environmental service activities, and other similar uses.
7. Where appropriate, provide an open space management and enhancement plan as part of each PUD submittal to demonstrate interconnectivity of common open space areas.
8. Final Site Plan Approval for any development within the AgTEC land use category shall demonstrate that any external service areas or illumination are adequately screened for adjacent residential uses, or that illumination is shielded and oriented away from adjacent residential or preserve areas.
9. In conjunction with the approval of any PUD within the AgTEC land use category, the developer/owner shall provide a plan for supporting the protection and enhancement of the Martin Grade Scenic Corridor that includes at a minimum providing financial support and helping address traffic impacts on the corridor by exploring alternative roadway locations, traffic patterns, traffic timing, and roadway designs for the purpose of protecting and enhancing the scenic character of the corridor.

(g) Any PUD zoning within the I-95 AgTEC shall, at a minimum, incorporate the following design principles:

1. In order to support the "Martin Grade Scenic Corridor", any development within the AgTEC land use designation shall provide a minimum 100' building setback from the SR 714 right of way, which shall include a minimum 50' buffer preserve area adjacent to the right of way.

2. A minimum of 90% of the native vegetation within the 100' building setback shall be preserved.
3. Prior to approval of any development plan for buildings abutting SR 714, the land owner shall submit a landscape plan that augments the preserved native vegetation with additional native ground cover, understory and canopy trees, with the goal of providing a Type "5" buffer, and/or meeting 50% opacity at eye level within 5 years.
4. Prior to approval of the first Final Site Plan for a phase within the AgTEC land use category, the land owner/developer shall submit a uniform signage plan that ensures a common design theme, clear requirements for signage location, size and materials, and a limit on the overall amount of signage permitted along the SR 714 frontage.
5. In order to reinforce the rural character of properties located to the west of the AgTEC site, and to support the "Scenic Highway" designation of portions of SR 714, only agricultural uses that are consistent with the Agricultural land use category and A-20 zoning shall be permitted on the western 40% of the frontage of SR 714 to a depth of 1,000, subject to the necessary site development plan approval.
6. In cooperation with Martin County, the State of Florida and the South Florida Water Management District, the land owner/developer shall investigate the opportunity to incorporate additional water storage capacity within the proposed water management system of the AgTEC area for any future widening of SR 714. As part of any such widening project that includes the Martin Grade Scenic Corridor, the land owner/developer will assist the county in exploring alternative traffic patterns, traffic timing, and roadway cross sections for the purpose of protecting and enhancing the scenic character of the corridor.
7. To assist Martin County with hurricane evacuation needs, the property owner shall coordinate with Martin County to identify opportunities for Martin County to fund upgrades to proposed public or private facilities such that they may serve the public as hurricane shelters, community relief centers or emergency operations centers during declared hurricane events.

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#### **Section 4.4.g.1.n**

*Policy:* The following forms of development are recognized exceptions to the general prohibitions on development outside of the Primary Urban Service District set forth in policies a.—m., above:

- (1) Expressway Oriented Transient Commercial Service Centers, as set forth in section 4.4.M.1.g.(5).
- (2) Reserved.

- (3) Reserved The AgTEC land use category as set forth in 4.4.M.1.g.(6).
- (4) Those facilities located within Jonathan Dickinson State Park, as set forth in sections 10.4.A.1.g and 11.4.A.3.j.
- (5) Seven Js Industrial Area, as set forth in section 4.4.M.1.h.

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#### **Section 4.4.M.1.h**

*(Industrial development).* The Land Use Map allocates land resources for existing and anticipated future industrial development needs. The allocation process provides a high priority to industry's frequent need for strategically located lands accessible to rail facilities, major arterials or interchanges, labor markets, and requisite urban services located within planned Urban Service Districts (Figure 4-5). Industrial Development includes both Limited Impact and Extensive Impact Development. Industrial development includes Limited Impact Industries, such as light assembly and manufacturing uses. Extensive impact industries include heavy assembly plants manufacturing/processing plants, fabricators or metal products and steam/electricity co-generation plants and uses customarily associated with airports.

**Editor's note— Figure 4-5 is on file in the office of the Martin County Growth Management Department.**

Private development of airport property shall be subject to an Airport Zoning District or Planned Unit Development (Airport) Zoning District, when such district is adopted to implement this policy.

The locational criteria for industrial development require that all development within Industrial designated areas shall provide assurances that central water distribution and wastewater collection utilities shall be provided by a regional public utility system, as described in Chapter 10, Sanitary Sewer Services Element and Chapter 11, Potable Water Services Element. Those areas of the County, where freestanding urban services (i.e., central utility system) can be provided by a group of industrial users, may be considered as independent or freestanding Urban Service Districts and may be illustrated as such on Figure 4-5 in conjunction with formal amendments to the Future Land Use Map as provided in section 1.11, Amendment Procedures. All such freestanding Urban Service Districts must comply with the adopted level of service standards in this plan and the Capital Improvements Element.

The Seven Js Industrial Area, which covers the same area as the plat of Seven Js Subdivision, recorded in Plat Book 15, Page 97 of the Public Records of Martin County, Florida, is hereby established as a Freestanding Urban Service District. Any package wastewater treatment plants constructed within the Seven Js Industrial Area shall be fully funded and maintained by the landowner.

The AgTEC future land use category is hereby established as a Freestanding Urban Service District.

Industrially designated areas are not generally adaptive to residential use and such uses shall not be located in areas designated for residential development unless planned for within mixed use developments allowed under the Traditional Neighborhood Goal (section 4.4.C.) or in large scale PUDs.

# James C. Nicholas

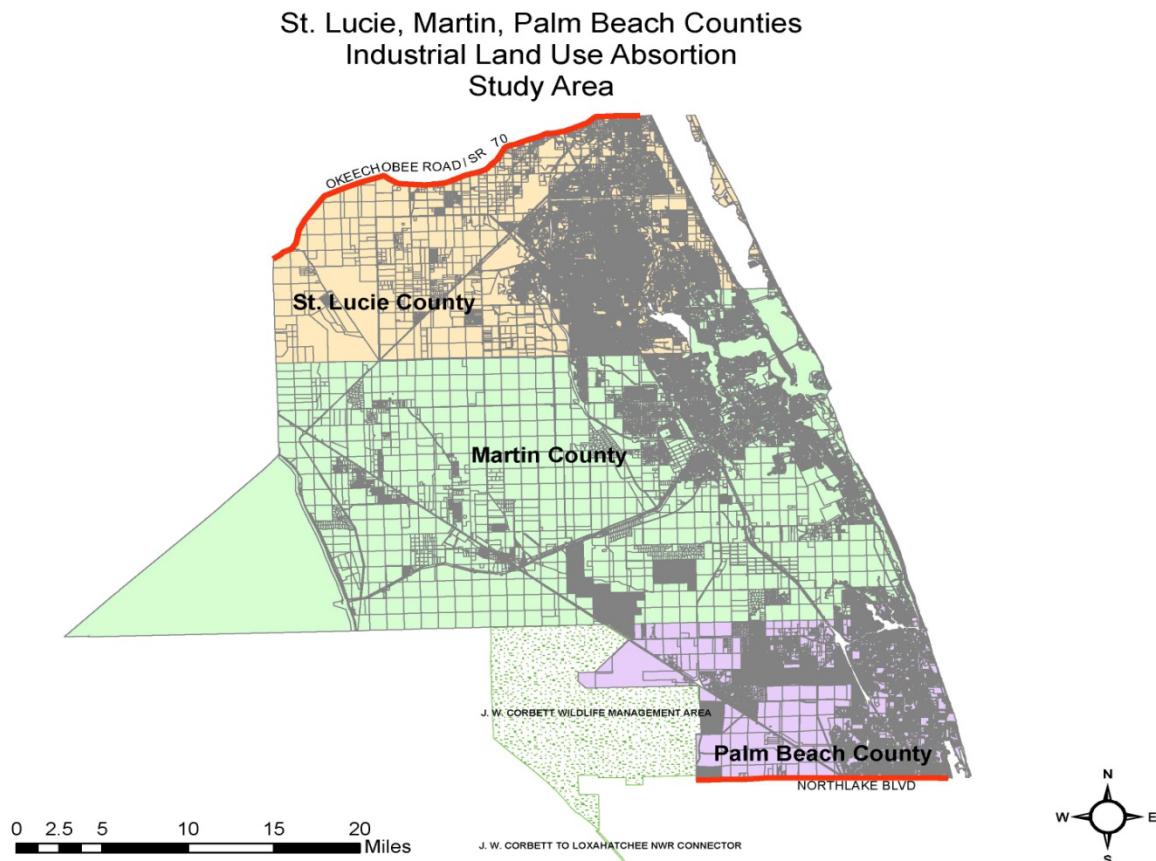
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## MEMORANDUM

**DATE:** July 11, 2010

**SUBJ:** Industrial Land Absorption in Southeastern Florida

One of the more critical factors in economic development is the existence of adequate and suitable sites for potential users. What is an adequate or suitable site will vary from user to user, but the fact is clear that if adequate and suitable sites are not available then economic development cannot occur. Judging whether available industrial sites are adequate or suitable is difficult. The usual method is to look at absorption in light of apparent available sites in order to determine adequacy on a quantitative basis. This report will present industrial land absorption in southeastern Florida, specifically, northern Palm Beach County, Martin County, and southern St. Lucie County. The study area is shown below.



Re: Industrial Land Absorption

July 11, 2010

Page 2

The period covered is 2005 to 2009. The latter two years of this period have been a period of severe economic recession while the earlier two years were ones that have come to be called “excessive exuberance.” Given these two extremes, perhaps the entire 5 year period might be a good indicator of the prevailing market conditions.

The data on industrial land and floor area are from the respective Property Appraisers’ offices. What is industrial land is defined by the Florida Department of Revenue’s land use coding system. In this system, industrial land includes:

- Vacant Industrial Land
- Light Manufacturing
- Heavy Manufacturing
- Lumber Yards, Sawmills, Planning Mills,
- Fruit, Vegetables, and Meat Packing
- Canneries, Distilleries, And Wineries
- Other Food Processing
- Mineral Processing
- Warehouses and Distribution Centers
- Industrial Storage (Fuel, Equip, and Material).

Vacant industrial land is land that is zoned or otherwise authorized for one of the above industrial uses. Many jurisdictions allow non-industrial uses in industrially zoned areas, so there can be a mismatch between vacant land and industrially used land. Industrial land uses are defined by the North American Industrial Classification System.<sup>1</sup> Thus all of the data for developed industrial land is confined to actual industrial uses and not simply uses within industrially zoned areas.

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<sup>1</sup> The North American Industry Classification System (NAICS) is the standard used by Federal agencies, state and local agencies, and private entities in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. economy. NAICS was developed under the auspices of the Office of Management and Budget (OMB), and was adopted in 1997

Re: Industrial Land Absorption

July 11, 2010

Page 3

**Vacant Industrial Land.** Vacant industrial land by county by year is shown in Table 1. The roles of exuberance and recession are easily seen in these data.

**Table 1**  
**Vacant Industrial Acres**

	<b>Martin</b>	<b>Palm Beach</b>	<b>St Lucie</b>	<b>Total</b>	<b>Change</b>
2004	786	592	1,251	2,628	
2005	980	2,113	1,225	4,319	1,691
2006	924	2,172	1,760	4,856	537
2007	1,033	1,545	1,718	4,295	-561
2008	1,029	2,120	1,848	4,998	703
2009	1,063	1,413	1,078	3,554	-1,444
per Year	55	164	-35	185	

The average size of the parcels of vacant industrial land is set out in Table 2. These vacant parcels are quite small. This can be a problem for any users that prefer

**Table 2**  
**Average Size Vacant Industrial Parcels**

	<b>Martin</b>	<b>Palm Beach</b>	<b>St Lucie</b>	<b>Total</b>
2004	4.34	5.19	6.45	5.37
2005	5.16	15.09	6.32	8.24
2006	5.05	15.19	7.68	8.75
2007	4.49	13.32	7.95	7.64
2008	4.55	16.57	8.11	8.59
2009	4.39	15.03	5.36	6.62

industrial parks or campus type environments, which are typically hundreds of acres in size. Whether this inventory is adequate or suitable cannot be determined. Certainly they exist, but the fact that they are vacant could be due to a lack of suitability to user needs.

**Industrially Used Land.** Data are available for both the land used for industrial purposes and the floor area of industrial structures.<sup>2</sup> Both sets of data yield their own information. Industrially used land is in Table 3 and industrial floor area in table 4.

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<sup>2</sup> The floor area is the area within a building that is heated and/or air conditioned.

Re: Industrial Land Absorption

July 11, 2010

Page 4

**Table 3**  
**Developed Industrial Acres**

	<b>Martin</b>	<b>Palm Beach</b>	<b>St Lucie</b>	<b>Total</b>	<b>Change</b>
2004	798	7,350	824	8,972	
2005	1,077	6,413	895	8,384	-587
2006	1,070	6,421	913	8,404	19
2007	951	6,433	1,255	8,638	235
2008	922	6,427	1,186	8,535	-104
2009	924	6,462	1,290	8,676	141
per Year	25	-178	93	-59	

**Table 4**  
**Industrial Floor Area**

	<b>Martin</b>	<b>Palm Beach</b>	<b>St Lucie</b>	<b>Total</b>	<b>Change</b>
2004	3,118,837	6,414,106	6,620,173	16,153,116	
2005	3,270,393	6,343,708	6,893,803	16,507,904	354,788
2006	3,332,843	6,349,307	7,020,879	16,703,029	195,125
2007	7,135,787	6,566,186	8,266,236	21,968,209	5,265,180
2008	6,899,631	6,544,299	7,548,013	20,991,943	-976,266
2009	7,409,624	7,183,948	8,648,202	23,241,774	2,249,831
per Year	858,157	153,968	405,606	1,417,732	

Here there is an oddity. In northern Palm Beach County acres of developed industrial property is going down while industrial floor area is going up. Clearly industrially zoned land is being converted to other uses.

Floor area is generally accepted as the best definition of absorption. These data show average annual absorption over the 5-year period of 1.4 million square feet per year. With typical floor to area ratios (FAR) of 0.20 to 0.35, this industrial floor area absorption would require some 100 to 200 acres per year. Absorption by county has been the greatest in Martin County, as contrasted with northern Palm Beach and southern St Lucie. At standard FARs, Martin County would absorb some 60 to 110 acres per year.

The data presented above are for the past 5 years. The past is reviewed in order to gain some insight into what to expect in the future. The number of vacant industrial acres would tend to indicate some degree of adequacy, at least on a quantitative basis. However, these currently available parcels are small, and not conducive to modern campus type industrial development. This is especially true for Martin County. Adequacy and suitability of industrial sites must be seen through the eyes of

Re: Industrial Land Absorption

July 11, 2010

Page 5

potential users. Ultimately the decision to select a site is a qualitative one, with suitability of a site being the primary concern.

## AgTEC @ Sunrise Groves

### Transportation Response

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Kimley-Horn and Associates, Inc. has prepared this response to address the Objections, Recommendations, and Comments dated June 25, 2010 related to Sunrise Groves (CPA 10-04), also known as AgTEC.

#### **Objection 8 – Reduction of Greenhouse Gas and VMT**

AgTEC @ Sunrise Grove (AgTEC) is strategically located along I-95 in close proximity to two existing interchanges. As the adjacent counties of St. Lucie and Palm Beach have experienced with their targeted employment projects, the I-95 orientation provides both the visibility to attract business, along with multiple opportunities for access and distribution of traffic. The strategic location at I-95 allows the “pass-by capture” trip already traveling on the adjacent interstate to access the property with minimal utilization of surface streets.

As proposed in the land use plan text amendment, the reduction and/or offsetting of Vehicle Miles Traveled (VMT) will be an integrated component of the AgTEC master plan. The project is committed to minimizing greenhouse gas emissions and VMT by locating employment intensive uses, such as regional headquarter offices or labor intensive industrial uses, in close proximity to existing or planned residential areas (Policy 4.4.M.1.g.(6)(F)2.) or by participating in regional transit alternatives that serve adjacent areas (as outlined in TDM portion of the same policy and Policy 4.4.M.1.g.(6)(C)6.); and provide an integrated mix of diverse uses to promote internal capture of trips during the work day (Policy 4.4.M.1.g.(6)(A)).

As the AgTEC project builds out and such options become feasible, the project proposal includes policy language that requires exploring alternative methods to minimize vehicular traffic impacts – this may include transportation demand measures (i.e carpooling or alternative work hours) or providing on-site transit facilities to support the Treasure Coast long-term vision for transit options and connectivity. A detailed summary of these transportation demand options are provided in this response.

## Location and Demographics

The AgTEC project is located at the crossroads of I-95 and the Martin/St. Lucie County line. These two components will be examined in detail.

### I-95 corridor

The I-95 corridor serves multiple functions as it spans St. Lucie, Martin, and Palm Beach counties. These functions include local traffic within a county, regional commuting traffic across multiple counties, as well as intrastate and interstate travel. The regional traffic component serving the commuting population is a significant component of overall I-95 traffic volumes in this area. In fact, a summary of commuter demographics was presented by the South Florida Regional Planning Council to the *Urban Land Institute 2010 South Florida Economic & Development Outlook* meeting in February 2010. In summary:

- More than 11,000 residents of Martin County (21% of resident workers) and 12,500 residents of St. Lucie County (13% of resident workers) commute to Palm Beach County.
- More than 5,000 residents of Martin County and more than 7,500 residents of St. Lucie County commute to Broward and Miami-Dade Counties.
- More than 50% of the total workforce in Martin County commute out of Martin County to go to work each day.

Since the I-95 corridor is the primary route that services this commuting traffic flow, the increased availability of local employment options (such as the proposed AgTEC project) strategically located along I-95 provides an ability to “capture” the existing and future workforce of the Treasure Coast. Therefore, there is potential for a reduction of the reliance on the long commuting trip for employment in Palm Beach, Broward, and Miami-Dade Counties, as demonstrated on Exhibit 1.

To further support the potential benefits in VMT of the existing Martin County workforce, a commuter “journey to work” scenario was developed based on the information contained in Exhibit 1. Based on average trip distances for the Martin County workforce to other counties in SE Florida, and an assumption that 10% of this workforce would be willing to reduce their

commute by relocating to AgTEC, a significant reduction in daily (73 miles) and annual vehicle miles traveled (nearly 39 million miles) would result for the approximately 2,100 employees assumed in this scenario. Furthermore, the number of existing and approved residential units located in Port St. Lucie within 5 miles of AgTEC is expected to support a reduced commuter distance for this available workforce.

<u>EXISTING SCENARIO</u>				
	Commuters	10% Capture	Average Trip Length	Trip Miles
Martin to Indian River	492	49	70	3,444
Martin to St. Lucie	4,403	440	36	15,851
Martin to Palm Beach	11,349	1,135	80	90,792
Martin to Broward	2,965	297	164	48,626
<u>Martin to Miami-Dade</u>	<u>2,097</u>	<u>210</u>	<u>210</u>	<u>44,037</u>
Total	21,306	2,131		202,750
Avg. Trip Miles Per Person Per Year (250 work days)				<b>95</b> 50,687,450
<u>AGTEC SCENARIO</u>				
	Commuters	10% Capture	Average Trip Length	Trip Miles
Martin to Indian River	492	49	22	1,082
Martin to St. Lucie	4,403	440	22	9,687
Martin to Palm Beach	11,349	1,135	22	24,968
Martin to Broward	2,965	297	22	6,523
<u>Martin to Miami-Dade</u>	<u>2,097</u>	<u>210</u>	<u>22</u>	<u>4,613</u>
Total	21,306	2,131		46,873
Avg. Trip Miles Per Person Per Year (250 work days)				<b>22</b> 11,718,300
Annual Vehicle Trip Miles Savings				<b>38,969,150</b>

Lastly, there are situations where specific commuter trips experience an increase of VMT (i.e. a Palm Beach County resident who commutes a longer distance to AgTEC). Nevertheless, the commute in this example is occurring in the off-peak direction - resulting in a more efficient use of capacity on I-95.

Further, the AgTEC proposal includes a requirement to establish a parallel arterial road to I-95 (See Policy 4.4.M.1.g.(6)(C)5). This parallel facility will relieve the adjacent segments of I-95 of both AgTEC traffic as well as other local traffic in this area of Martin and St. Lucie Counties.

An integral element of employment centers such as AgTEC is the opportunity to site regional freight distribution and warehouse uses at the site, adjacent to the I-95 interstate facility where this regional truck traffic already exists today. Therefore, the AgTEC site will capture this truck traffic, reducing truck VMT and air emissions that would otherwise result if located further away from the I-95 corridor.

*Martin/St. Lucie County Line*

The AgTEC property is located directly adjacent to St. Lucie County and the City of Port St. Lucie. In 2009, the State of Florida estimated the City's population at 155,251, with future development approved for annexed areas west of I-95 directly north of the AgTEC property. There are tens of thousands of residential homes within a five mile radius who can access the planned employment uses of AgTEC within minutes, utilizing the existing and planned localized transportation network. The AgTEC project has modified its transportation condition within its land use amendment to specifically establish direct linkage to Port St. Lucie and Becker Road via the future extension of Village Parkway. This linkage allows local vehicular traffic originating from the north to access AgTEC minimizing additional traffic demand on the adjacent segments of I-95.

Lastly, it is acknowledged that the location and orientation to I-95 of the AgTEC site is adjacent to the Port St. Lucie urban services boundary, and over three miles from the existing urban services boundary of Martin County. However, the primary route for traffic originating from the urban areas of Martin County is State Road 714, and improvements to this east-west facility have been identified in the 2030 Needs Plan of the Long Range Transportation Plan (LRTP). Furthermore, certain segments of Martin Highway will be improved as the Indian Street Bridge is constructed.

### **Transportation Demand Measures (TDM)**

To further provide the opportunity to reduce VMT of traffic destined for AgTEC @ Sunrise Groves, the applicant has proposed Policy 4.4.M.1.g.(6)(F)2.:

Minimize greenhouse gas emissions and vehicle miles traveled (VMT) by locating employment intensive uses, such as regional headquarter offices or labor intensive industrial uses in such a manner as to locate them close to mass transit/alternative transit modes, or in close proximity to existing and planned residential areas; and provide a mix of uses to promote internal capture of trips during the work day in accordance with Chapter 163.3177 (6) (a). Provide transportation demand management strategies to support a reduction in VMT. Prior to approval of any Planned Development Application, a Transportation Demand Measures (TDM) implementation plan shall be developed for each phase of the project. The following TDM elements shall incorporate any combination of the following as part of this implementation plan:

- Land Use / Site Planning Measure – Provide an integrated and interconnected mix of land uses as part of the Master Development Plan supporting non-motorized modes of travel (bicycle and pedestrian pathways) as well as a “park-once” philosophy.
- Land Use / Site Planning Measure – Concurrent with obtaining each certificate of occupancy for a non-residential building located on a parcel 50 acres or greater, implement parking strategies that provide preferred parking for alternative vehicles and car pool vehicles.
- Land Use / Site Planning Measure – Provide right-of-way for implementation of future transit stops along the proposed Village Parkway.
- Land Use / Site Planning Measure – Upon the completion of 1,000,000 square feet of development, provide a dedicated car/van pool parking facility to be located near one of the interchanges to further reduce VMT for both project and non-project use.
- Transit Measure – Coordinate with Treasure Coast Connector to provide a bus route(s) to/from the site upon the completion of 3 million square feet of development.
- Transit Measure – Provide a financial incentive in the form of a subsidy of at least 50% of the annual ticket cost to at least 5% of the persons employed at the project site for riding future transit service.

- Transit Measure – Provide onsite bus stop facilities within one year of provision of a bus service.
- Transportation Demand Management (TDM) Measure – Provide an on-going ride-sharing information service to persons employed at the project site.

### **Objection 9 – Transportation Facilities**

The transportation analysis originally provided for the Sunrise Groves amendment evaluated both short and long term impacts consistent with statutory requirements. The analysis establishes a limitation of development of 1,000,000 s.f of industrial land uses in the initial five-year timeframe, and the applicant has proposed Policy 4.4.M.1.g.(6)(B) as a commitment to this limitation:

Development on the property shall be limited within the first 5 years to a development program not to exceed 1,000,000 square feet of industrial land uses (or the trip generation equivalent of alternative land uses) unless the applicant is able to demonstrate that transportation concurrency requirements have been satisfied for additional development, or additional development is otherwise permitted by applicable laws and ordinances at time of development approval.

Furthermore, it is acknowledged that the buildout potential for the property will exceed current Development of Regional Impact thresholds. In order to initiate the evaluation of regional and cross-jurisdictional impacts, the applicant proposes Policy 4.4.M.1.g.(6)(C)6:

Development on the property shall be limited to 1,000,000 square feet of industrial land uses (or the trip generation equivalent of alternative land uses) unless the applicant has initiated either an Application for Development Approval (ADA) for a Development of Regional Impact (DRI) with the Treasure Coast Regional Planning Council, Sector Plan or other regional transportation planning effort. The purpose of the additional review is to identify mitigation measures and compensatory obligations necessary to address the property's transportation impacts on roadway, intersections, and interchange facilities in Martin County, St. Lucie County, and the City of Port St. Lucie.

As previously mentioned, the AgTEC project is proposing a new north/south connector roadway that will provide access between Becker Road and Martin Highway. This new connector roadway provides a unique opportunity for additional north/south connectivity between Martin and St. Lucie Counties, reducing the reliance on I-95 for local origins and destinations. The applicant proposes Policy 4.4.M.1.g.(6)(C)5 as a commitment to provide this north/south connector:

The applicant will provide the right of way and fund construction (of sufficient width to include the option for multi-modal forms of transportation) for a north-south roadway, connecting Martin Highway to Becker Road, providing the opportunity for a regional parallel reliever road to I-95. The right of way and construction costs of the north-south road shall be impact fee creditable pursuant to state and county regulations.

Concurrent with Development of Regional Impact approval or specific development approvals of parcels requiring access to Becker Road (whichever occurs first), the applicant will initiate an agreement with the City of Port St. Lucie to facilitate construction of the roadway connection to Becker Road consistent with the schedule and geometric needs identified by the Development of Regional Impact. Furthermore, the applicant agrees to initiate applicable modifications to the Long Range Transportation Plan and Martin County's Capital Improvement Element, as required.

#### **Objection 14 – Cumulative Impacts to Transportation Facilities**

As requested, a cumulative analysis of county and state roadways was undertaken by Susan E. O'Rourke, P.E., Inc. and Kimley-Horn and Associates, Inc. and attached as Exhibit F14. The applicant has assisted in the preparation of a "Cumulative" Traffic Impact Study, addressing the collective transportation impacts of the requested four Land Use Amendments. On July 7, 2010, the methodology of the cumulative study was presented to Martin County Engineering staff and input received at the meeting was incorporated into the traffic study. Within that study, there are two short term link assessments. These analyses correspond to the consultants' short term assignment and an alternate assignment that addressed the County recommended changes. These recommendations were not received prior to preparing the individual analyses so to remain consistent with those assignments, the primary analysis was based on what was in the traffic studies and reviewed by agencies. The alternate was prepared to address County input and demonstrate that the results remain unchanged.

The cumulative analysis identified the following issues; by 2015, improvements will be needed on SR 76 between I-95 and Cove Road. These improvements are included in the Five Year CIP; therefore, amendments are not needed.

Additionally, four roadways exceed theoretical standards but demonstrate acceptable levels of service through detailed analysis. These roadways include: the section of I-95 from Bridge Road to Indiantown – Freeplan demonstrates LOS C; SR 714 from CR 76A to Florida's Turnpike - Artplan demonstrates LOS C/D; CR 713 from I-95 to CR 714 – Highplan demonstrates acceptable LOS D.

Therefore, additional improvements are not required in the short term and therefore no modifications are necessary to the current Five year CIP or work program.

In the long term, the cumulative analysis identifies that the long range Circulation Map for Martin County will support the proposed land use plan amendments. Amendments to the plan will not be necessary at this stage. However, AgTEC agrees to initiate applicable modifications to the Long Range Transportation Plan and Martin County's Capital Improvement Element, as required in the future for the proposed north/south roadway.

The Martin County Concurrency process will ensure that the timing of the long term improvements are commensurate with development plans.

#### Cross-Jurisdictional Impacts

The applicant agrees (see Policy 4.4.M.1.g.(6)(C)6) to address cross-jurisdictional impacts to roadways and intersections located in the City of Port St. Lucie and other applicable jurisdictions at the Development of Regional Impact stage. Furthermore, the applicant will initiate timely discussions with the City to evaluate impacts to Becker Road between Village Parkway and I-95 and the I-95/Becker Road interchange, prior to any development approval requiring access via the direct connection to Becker Road.

#### SIS Impacts

In general, Martin County has undertaken numerous actions to enhance the transportation system and reduce reliance on I-95. The County has been aggressive in the construction of north/ south arterials such as Citrus Avenue (formally the Western Corridor) and Green River Parkway parallel to US 1. Both of these corridors facilitate north/ south travel that could have occurred on I-95. Additionally, the County has active projects to improve access to I-95 at SR 76.

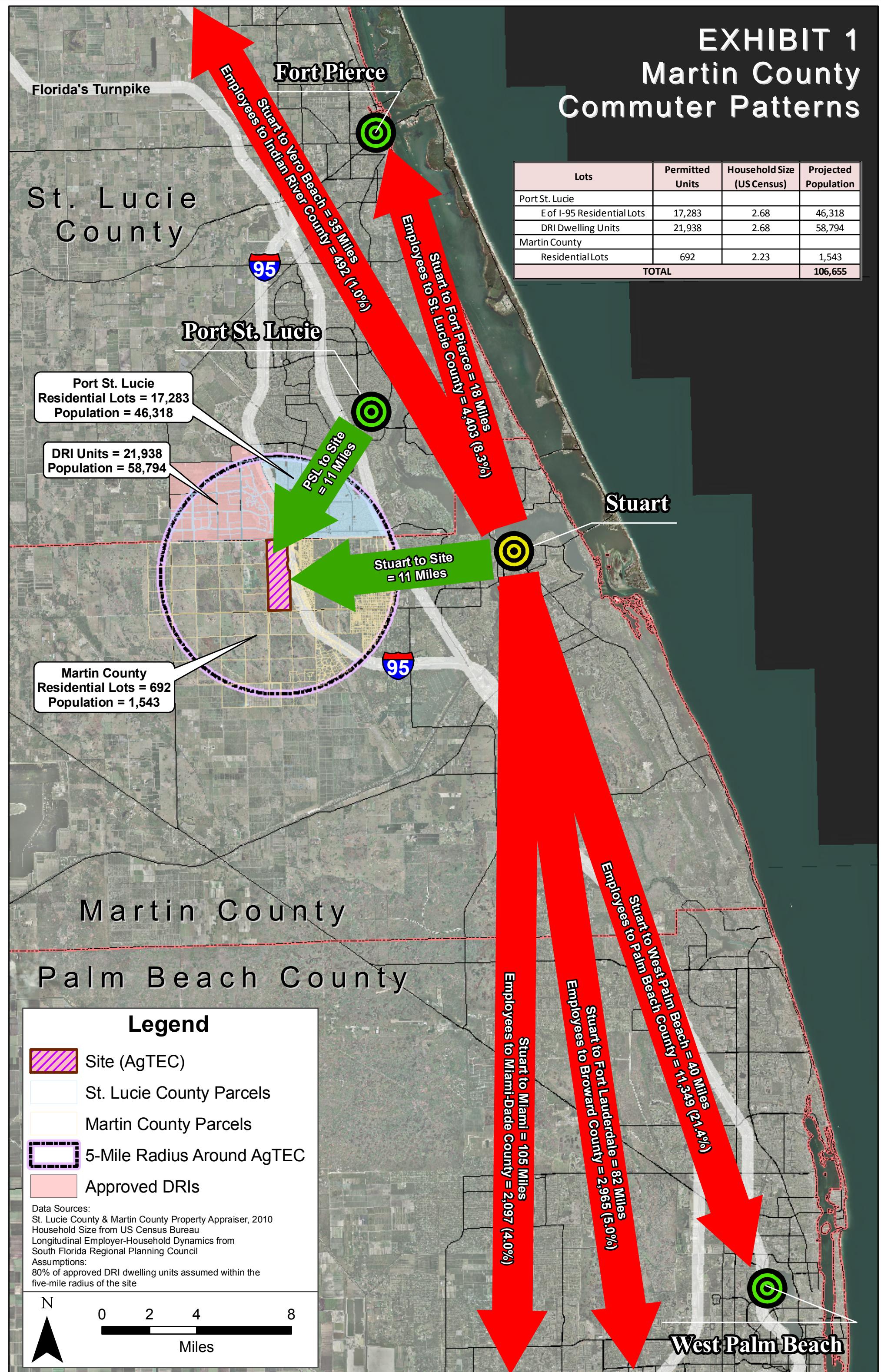
In the areas of transit and rail, the County recently began express bus service from a park-n-ride in south Martin County to Palm Beach County and is under design for a transit hub in downtown Stuart. They are working to bring intrastate rail service via Amtrak at a downtown Stuart station as well.

Specifically related to the projects evaluated in the cumulative study, as noted above, individually, these projects have little impact to SIS Facilities. As stated previously, AgTEC has provided a policy for its proposed north/south roadway to serve as a reliever to I-95.

While the cumulative analysis demonstrates possible long range impacts, the timing beyond the first five years is difficult to gage and the responsibility for improvement dictated by law. Significance criteria identifies when a project must address a transportation facility. Only when a roadway has been identified in the Comp Plan as a failing roadway without mitigation, does the issue of significance fail to apply. As none of the subject roadways are currently failing, all are subject to significance criteria. Martin County roadways are subject to a 2% of adopted level of service standard (Martin County Land Development Code Section 5.64.C.5) and FDOT Freeways are subject to 5% criteria (Site Impact Handbook "Significant Degradation").

# EXHIBIT 1

## Martin County Commuter Patterns



## AGTEC ANALYSIS OF URBAN SPRAWL

### ***Urban Sprawl***

Due to the contained area of the subject property and the surrounding land uses and infrastructure, the proposed amendment can not be considered urban sprawl. According to Rule 9J-5 of the Florida Administrative Code, sprawl is defined by the following 13 characteristics in *italics* followed by a description of how this proposed land use change does not meet the definition of sprawl:

1. *Development of substantial areas as low-intensity, low-density, or single-use development.*

The subject amendment proposes to create an employment center node. The proposal is not to create a substantial area for low intensity, low density single use development. The proposal requires the development of a mix of uses, including industrial and office development with ancillary retail and recreational uses that are required in order to ensure internal capture of trips. The intent is to create a mixed use employment center that draws from the adjacent and nearby abundance of existing and planned residential communities. During employment hours, the mixed use nature of the property will decrease trip lengths by allowing employees to stay on site throughout the day.

2. *Urban development in rural areas, leaping over undeveloped areas...*

The proposed amendment is contiguous to existing and planned development areas to the north and east, and along I-95, a major interstate. There are over 30,000 thousand planned units in the developments of regional impact (DRIs) that are approved directly to the north of the AgTEC property, in addition to the tens of thousands of adjacent platted lots in the City of Port St. Lucie and existing residential communities located nearby in Martin County. Contiguous to AgTEC is a planned regional mall at the Becker Road interchange. This relationship with adjacent urban uses, including the approved regional mall within the Southern Groves DRI, clearly demonstrates that the proposed land use change would in no way constitute leap frog development.

3. *Promotes, allows or designates urban development in radial, strip, isolated or ribbon patterns.*

The proposed amendment is a natural economic development node for Martin County. With access to two interchanges, the property will act as an employment center destination. The text amendment contains policies that will produce compact development areas connected by a transit system and alternate road network with recreated natural areas. The development will not be development radial, strip, isolated or in ribbon patterns.

*4. Premature or poorly planned conversion of rural land to other uses, fails adequately to protect and conserve natural resources.*

While the subject property is not of high environmental significance as indicated in the attached environmental analysis, the proposed policies provide opportunities for environmental enhancement that will improve the value of nearby natural resources.

Similarly, the proposed use does not represent premature or poorly planned conversion of land. The property has historically been an active citrus production. The rapid spread of Citrus Greening has destroyed the viability of this grove, resulting in its last harvest in 2010. Exhibits 18 and 19 of the original submittal show the rapid spread of Citrus Greening along the coastal areas of Florida. Because of its scale, location and soils, the project is not ideal for conversion to other conventional agricultural uses, but the proposed policies support the continuation of innovative agricultural uses, as well as environmental services. Further, as described in the proposed Goals, Objectives and Policies, the property will provide a buffer or transition area to protect natural resources to the west. The historic agricultural use has already converted. What this property and Martin County now have is an opportunity to reuse the land for job generating activities adjacent to the highly urban area approved to the north.

*5. Fails adequately to protect adjacent agricultural areas and activities.*

There will be no impact to the limited adjacent agricultural lands. There is only one adjacent agricultural property and it is between AgTEC's western border and a very large area of preservation. Further, based on input from SFWMD, FFWCC and other community organizations, and as required by the proposed policies, there will be a significant open space/agricultural buffer between the developed areas within the AgTEC property and the western border, and an enhanced environmental area. This ensures that the proposed use will provide adequate protection for adjacent uses, and will ensure that public agencies will have future access along the western edge of the property for management of adjacent lands.

*6. Fails to maximize use of existing public facilities and services.*

The proposed development will better utilize the assets that Martin County has to attract economic development. This heavily impacted property, located at an I-95 interchange, and in close proximity to an additional I-95 interchange underutilizes this infrastructure asset. Additionally, there is currently water and sewer infrastructure within  $\frac{1}{4}$  mile of the property with adequate size and capacity to provide service to this project without any required improvements to existing capital facilities. Through approving this plan amendment, Martin County will be moving toward maximizing its existing public facilities for the purpose of diversifying the local economy.

*7. Fails to maximize use of future public facilities and services.*

The proposed amendment will maximize the use of planned urban services,

including water and sewer, or alternatively making the required package facility at the Martin Highway Interchange financially feasible. This will allow Martin County to capture more revenue from the travelling public that is on I-95, passing through Martin County, and maximize the benefit of I-95 to Martin County.

*8. Allows for land use patterns or timing which disproportionately increase the cost of providing service.*

Allowing for increased development in an area of planned public service will not disproportionately increase the cost of providing service. Costs associated with providing infrastructure to future development on the Ag-TEC property will be funded by the developer as is specifically being committed to in the text amendment.

*9. Fails to provide a clear separation between rural and urban uses.*

There will be a clear separation between rural and urban uses with the adoption of this amendment. The subject property is adjacent to planned urban uses to the north. On all other sides of the property are either low density residential subdivisions or targeted/acquired environmental preservation properties. There is a clear and permanent separation between urban and rural uses that will be created by the existing and proposed greenbelt to the west and south, preventing the further expansion of urban uses.

*10. Discourages or inhibits infill development or the redevelopment of existing neighborhoods and communities.*

The proposed amendment will have no negative effect on infill development or redevelopment. Many industrial uses and corporate parks need both a high level of access to interstate corridors and large properties to develop mixed use amenitized corporate parks. The locations are not found in in-fill or redevelopment settings. The proposed land use category will in no way be competing for similar users.

*11. Fails to encourage an attractive and functional mix of uses.*

The proposed text amendment is for a mixed use employment center. There are provisions in the proposed land use category that will require a functional mix of uses to diminish both trip length and promote internal capture of trips. The text amendment specifically requires minimum and maximum amount of ancillary retail uses as well as a geographic dispersion of those uses to provide for internal capture of trips.

Further, the design policies, open space requirements, and buffering provisions will all ensure that the designed environment is not only functional, but attractive.

*12. Results in poor accessibility among linked or related land uses.*

The proposed amendment will significantly improve the linkage between related employment uses that are permitted to the north of the project. The Treasure Coast area has been working on developing an “employment corridor” that is being

implemented immediately to the north of this property. The result of this amendment will be interconnectivity between related uses, the extension of a parallel transportation facility adjacent to I-95, transit services between AgTEC and other planned industrial uses and the efficient utilization of existing infrastructure. The placement of a Martin County employment center adjacent to the St. Lucie County employment center allows for a regional marketing and branding effort. Further, the subject property is not considered to be targeted as environmental lands and does not serve any proposed or future environmental connections. The proposed amendment simply creates an employment center node between two I-95 interchanges.

*13. Results in the loss of significant amounts of functional open space.*

There will be no loss in functional open space through this amendment. The property is currently in private agricultural use. There will be a gain in functional open space with the habitat enhancement that will be required on the southwestern portion of the property, and the public open space that will be required as part of future development.

The proposed land use category will serve as an economic development node that will act as a terminus for urban development, while maximizing the economic development utility of I-95 for Martin County. The proposed amendment will not lead to a further extension of the Urban Service Area to the south or west, due to the existing public owned lands and platted residential subdivision. Urban Sprawl would not be promoted in surrounding areas, and the proposed amendment could not be considered precedent for future amendments.

Further, the amendment provides the opportunity for increased public access to the functional open space in Martin County through the provision of trail heads, pedestrian trails and potential for equestrian related uses.

## AGTEC COMPREHENSIVE PLAN CONSISTENCY RESPONSE

The following is a supplement to the comprehensive plan analysis provided on September 24, 2009 with additional information based on the Objections, Recommendations and Comments Report from the Department of Community Affairs. The AgTEC land use category is consistent with and implements the Martin County Comprehensive Growth Management Plan. In addition to the Comprehensive Plan policies cited in the originally submitted analysis and the planning narrative demonstrates that the proposed amendment is not inconsistent with the Martin County Comprehensive Plan.

**Goal 4.4.G - Martin County shall regulate urban sprawl tendencies by directing growth in a timely and efficient manner to those areas where urban public facilities and services are available, or are programmed to be available, at the levels of service adopted in this Growth Management Plan.**

The AgTEC property is directly adjacent to an urban service area containing three DRI's and a proposed regional mall, and based on our data and analysis, there is adequate ability to provide all urban services. Stating that urban services don't exist for this property that is immediately adjacent to 3 approved DRIs is simply ignoring the adjacent uses, regional context and existing and planned transportation network.. The proposed text amendment has been revised to add specific requirements for the provision of any additional infrastructure that may be needed through the development of this property.

**Policy 4.4.G.1 - Martin County shall concentrate higher densities and intensities of development within strategically located Primary Urban Service Districts, as delineated including commercial or industrial uses as well as residential development exceeding a density of two units per acre, by this Growth Management Plan, where all forms of public facilities are available or are programmed to be available, at the base levels of service adopted in the Capital Improvement Element.**

Although this policy directs *higher* densities and intensities to the Primary Urban Service District, the Martin County Comprehensive Plan specifically recognizes that Industrial development may be most appropriately located outside of the urban service district. It is not uncommon to plan for industrial uses to be located on the edge of population centers rather than in the middle of population centers for compatibility reasons. Therefore, Policy 4.4.G.1.n exists to create free standing urban service districts, which is being proposed for AgTEC. The Martin County Comprehensive Plan already contains one free standing Urban Service District. The AgTEC amendment simply proposes to create another. Further, the proposed policies within the AgTEC application do provide for higher intensities of use through aggressive open space requirements, design standards, and locational requirements.

**Policy 4.4.G.1.a - Martin County shall designate land uses within the Primary Urban Service District so as to provide for the use and extension of all necessary urban services and needs in an efficient and economical manner.**

The AgTEC land use category, located directly adjacent to existing and planned intense development will coordinate locally and regionally with the surrounding areas to ensure adequate levels of public services. Included in this are specific commitments to a regional transportation study with commitments to road improvements and utility extensions (Policies 4.4.M.1.g.(6)(C)5, 6 and 8)

**Policy 4.4G(1)d. - Martin County shall discourage the proliferation of small, individual water treatment, wastewater disposal, and solid waste disposal facilities. Package treatment plants shall be prohibited outside the Primary and Secondary Urban Service Districts and outside of the Expressway Oriented Transient Commercial Service Center Land Use District.**

The proposed AgTEC land use category specifically requires connection to regional central water and wastewater system. Individual package facilities will not be an option. See Policy 4.4.M.1.g.(6)(C)8 and therefore is not inconsistent with this policy.

**Policy 4.4G(1)f - Urban Service District ...the consideration of any expansion, creation or contraction of these boundaries through the plan amendment process must include a finding by the Board of County Commissioners that the requested alteration to the Primary Urban Service District boundary will;**

**(2) Not result in land use incompatibilities with adjacent land uses;**

**(5) Demonstrate that reasonable capacity does not exist on suitable land within the existing Primary Urban Service District for the 15-year planning period. For the purpose of this subsection reasonable means available for development from the standpoint of environmental concerns, the efficient use and expansion of public facilities and services or the availability of development sites in relationship to the projected needs of the population;**

Please see the attached previously submitted analysis of the criteria to expand the Urban Service District. There are no land use incompatibilities with adjacent uses. Please see the letter issued from the FFWCC which acknowledged that the proposed recreated vegetated area on the western boundary of the property will provide a nice transition to land farther to the west. While there is not habitat on site and no impacts to threatened or endangered species, the restoration of part of the property will provide great benefit to the natural areas to the east of the property.

To the south of the property is Martin Highway. Several policies are included in the text amendment with the specific goal of maintaining the character of the road. These policies will ensure protection of this roadway being proposed as a scenic highway. To the west of the property is I-95. Not only are the proposed uses compatible with an interstate but transportation access to this extent is essential for the types of economic development activities that are being proposed.

East of the proposed project is the Interstate 95 corridor, with existing urban levels of development beyond, in the form of Stuart West and Cobblestone communities.

Finally, to the north of the property there are 3 approved developments of regional impact, extending from the northeast boundary of AgTEC well west of the AgTEC property. A planned regional mall is located contiguous on the northern boundary of AgTEC right at the Becker Road interchange. The approved Developments of Regional Impact are of a much more intense land use category than the proposed AgTEC land use category. The creation of the AgTEC land use category would allow the timely extension of planned development, allowing Martin County to capture some of the economic development opportunities that I-95 presents.

For additional information on “need”, please see the attached revised analysis from Dr. James Nicholas.

**Policy 4.4.G.1.n - The following forms of development are recognized exceptions to the general prohibitions on development outside of the Primary Urban Service District set forth in policies a.—m., above**

The AgTEC comprehensive plan amendment is being proposed as a freestanding urban service district in accordance with this policy. Therefore, there is no inconsistency created.

**Policy 4.4.K.2.a - The development review process shall ensure that, at a minimum:**

**(1) Industrial activities are compatible with surrounding land uses, established or planned development, and natural systems and resources.**

The above responses clearly demonstrate compliance with this requirement. The proposed land use category is clearly compatible with the intense urban land uses directly to the north and I-95 to the east. The proposed land use category will require a significant open space buffer between the proposed development area and the adjacent agricultural uses, and the recreation of vegetated areas in the southwest portion of the site has been recognized by the FFWCC to ensure compatibility. Several policies have been added to the text amendment to ensure that the character of Martin Highway to the south is preserved. All of these measures, which are clearly spelled out in the text amendment ensure compatibility with surrounding land uses, planned development and natural resources.

**(2) Sites for industrial development are accessible to the essential public and private facilities and services at the levels of service adopted in this Growth Management Plan for transportation, potable water, solid waste, drainage, and sanitary sewer.**

The AgTEC property is adjacent to existing and planned urban development and therefore has significant levels of urban services already in place to serve development. There have been several policies added including Policies 4.4.M.1.g.(6)(C)5, 6 and 8, which require specific infrastructure improvements to be made at the appropriate time to serve development.

**(3) Sites for industrial development are located with convenient access to the major roadway transportation corridors and are encouraged to locate with convenient access to air, water, and rail transportation facilities.**

The AgTEC property is along I-95 and has access to 2 interchanges on I-95. In addition, the proposed text amendment commits to providing funding for the I-95 parallel north-south road that will act as a reliever for I-95 local trips.

**(4) Sites for industrial land uses are encouraged to locate with convenient access to the labor supply, raw material sources, energy resources, and market areas.**

There are tens of thousands of platted and planed lots within five miles of the property. The labor supply is abundant within very close proximity of the property. Further, I-95 acts as a major corridor for the distribution of material sources and access to market areas. The location of the AgTEC project on I-95 does provide convenient access to these items.

**(5) A need for industrial land use is demonstrated either on a project basis or in a county wide assessment, when industrial proposals are considered by the Board of County Commissioners.**

Please see the attached analyses from Dr. James Nicholas.

**Policy 4.4.L.1.a - The County shall restrict expansion of urban public facilities and services to the urban service districts designated within this Growth Management Plan in order to preserve agricultural lands and provide maximum protection to the farmer from encroachment by urban uses. This policy will be accomplished by the implementation of Primary and Secondary Urban Service Districts and the careful evaluation of residential and nonresidential land use applications during the planning period in order to prevent an unreasonable surplus of such uses and to protect agricultural lands.**

This policy is listed under Goal 4.4.L which states:

**Martin County shall fairly and equitably preserve agricultural lands by enhancing and protecting appropriate and productive lands for agricultural uses.**

While it would have been preferable to the land owner to not have had the property decimated by Citrus Greening, nature destroyed the former agricultural production that used to take place on the property. This property can no longer be considered *productive* agricultural land. This amendment will not impact or encroach into agricultural areas because of the AG limitations that exist as well as the land in preservation to the west and south of the property. The AgTEC amendment will only make future agricultural uses on the property more viable. In order to revitalize and reinvest in new and different agricultural operations there needs to be income producing uses. This new category will make it possible to reinvest in future agricultural operations rather than let a decimate grove convert to the only other viable use, large lot residential development, a use that produces no agricultural use at all.

**Policy 4.4.M.1.a - The Land Use Map identifies those lands within Martin County which are allocated for agricultural development. This designation is intended to protect and preserve areas of agricultural soils for agriculturally related uses realizing that food and commodity production is an essential industry and basic to the economic diversity of the County.**

While it would have been preferable to the land owner to not have had the property decimated by Citrus Greening, nature destroyed the “food production” that used to take place on the property. This amendment will not impact food production in any way except to make it more viable by putting a significant percentage of the site into perpetual agricultural use, and by providing additive revenue opportunities that will make on-going agriculture economically viable. In order to revitalize and reinvest in new and different agricultural operations there needs to be income producing uses. This new category will make it possible to reinvest in future agricultural operations rather than let a decimate grove convert to the only other viable use, large lot residential development, a use that produces no food at all.

**Policy 4.4.M.1.2.b - The proposed land conversion is a logical and timely extension of a more intense land use designation in a nearby area, considering existing and anticipated land use development patterns, consistency with goals and objectives of the Comprehensive Growth Management Plan, availability of supportive services, including improved roads, recreation amenities, adequate school capacity, satisfactory allocations of water and wastewater facilities and other needed supportive facilities. Such findings shall be based on soil potential analysis as well as on agricultural site assessment for the proposed land use conversion.**

There are 3 approved developments of regional impact directly adjacent to the property to the north, extending from the northeast boundary of AgTEC well west of the AgTEC property. A planned regional mall is located contiguous on the northern boundary of AgTEC right at the Becker Road interchange. The approved DRIs are of a much more intense land use category than the proposed AgTEC land use category. The creation of the AgTEC land use category would allow the timely extension of planned development, allowing Martin County to capture some of the economic development opportunities that I-95 presents.

The subject property is uniquely located to attract the economic development activities that Martin County is looking for. It is not enough for infrastructure to be in place to serve development, but economic development activities need the right type of infrastructure. The subject property is at or near two I-95 interchanges, an essential requisite for locating many types of high wage job generating activities. Other road infrastructure will serve any proposed development, including Martin Highway and a north-south road that is a requirement in the future land use category, which will connect Martin Highway with Becker Road to the north. This north-south road will serve as a parallel I-95 facility that will run from the Interchange at Gatlin Boulevard to Martin Highway.



July 12, 2010

Mr. Mike McDaniel  
Office of Comprehensive Planning  
Department of Community Affairs  
2555 Shumard Oak Boulevard  
Tallahassee, Florida 32399-2100

RE: Martin County ORC Report  
Plan Amendment 10-1  
Sunrise Groves, AgTEC

Dear Mr. McDaniel:

The following addresses environmental comments associated with the June 25, 2010 ORC report submitted to Martin County. It is the professional opinion of Crossroads Environmental that the Department of Community Affairs (DCA) did not fully comprehend the materials submitted to their department. This letter is intended to clarify the applicant's materials and provide additional information to DCA on behalf of Sunrise Groves and AgTEC. The response is as follows:

**Objection 8 – Greenhouse Gas –**

The current carbon sequestration rates associated with the parcel are minimal. Dormant, even productive citrus operations are not a carbon sink and may actually increase carbon dioxide levels through production, fertilization, picking and transport. The citrus trees themselves have limited capacity for sequestration as most of the carbon is transported away from the tree in the form of the fruit. Carbon Trust, at the bequest of Tropicana, found that a 64 ounce container of Tropicana Pure Premium orange juice produced 3.74 pounds of carbon emissions. Approximately 60% of the footprint was tied to grove maintenance, fertilizers, planting, irrigation, and pesticide application. The additional 40% is tied up in transportation, packaging, distribution, and consumer sales. Based on this, the property, when it was productive as citrus, was likely a large carbon footprint producer. The carbon footprint was likely greater than the proposed use of the property, given the landscaping, restoration, and proposed wetlands on the property.

The proposed amendment will create alternative uses for portions of the property, but retain agricultural uses, open space and conservation areas on a minimum of 40% of the parcel. In conjunction with these new land uses, the proposed policy (Policy e.3)



specifically requires the utilization of Florida Green Building, LEED or other similar standards for the development of the site and the construction of the building. This will result in development practices, materials, and landscaping that are specifically chosen with carbon footprint in mind.

In addition to those LEED standards, the parcel specific policies also establish provisions for landscaping requirements, the enhancement and/or restoration of the southwest corner of the property and a native vegetation corridor along the western side of the property. In recognition of the research completed by the FNAI CLIP mapping, all of the proposed development areas have been located in previously impacted areas, and away from properties that could provide additional carbon sequestration opportunities. Within the required 30% common open space area, (which is predominantly cleared or dormant citrus fields), the applicant is proposing to re-establish on-going agricultural uses, conduct environmental restoration activities, or create perpetual open space areas with native plant communities. The applicant will also be required to plant and maintain mature trees that will remain as viable specimens for the life of the property. As such, they will sequester carbon. The lakes, retention system, and swales will retain submerged aquatic vegetation that has been shown to sequester carbon and act as positive sinks for carbon.

Finally, the applicant has proposed to complete wetland restoration within the south west and south central portion of the property. Exhibit 7, the CLIP Biodiversity map, identified an area on the SW sector of the property as a level 5 (P5) priority area. The CLIP map is generated by data collected from multiple agencies including the South Florida Water Management District (SFWMD), the Florida Fish and Wildlife Conservation Commission (FFWCC), Florida Forever, the US Fish and Wildlife Service, the Florida Department of Environmental Protection (FDEP) and multiple other agencies and NGO's. The priority 5 area ranking is slated for species that are considered "secure" by the various agencies and NGO's involved in the analysis. Additionally, the ranking reviews properties that may not necessarily be critical but are contributory towards the benefits of the secure species. The P5 ranking is the lowest designated ranking by the CLIP system. Based on the inclusion of a priority 5 area on the property, the applicant will be constructing environmental enhancements within the area identified by the map. The main component of the enhancement will be a flow through wetland marsh. Wetland marsh systems with sub-aquatic vegetation and emergent vegetation are known carbon sinks in the tropical environment (Mitsch and Bernal, 2008) and they continue to sequester carbon throughout their lifetime (Kusler 2005). The proposed flow through marsh will therefore act as a carbon sequestration sink that currently does not exist on the

property. Thus adding an additional benefit to the property and creating an additional carbon negative area on the property.

The factors listed above, among others, demonstrate the project will have positive effects associated with carbon sequestration verses the existing use of the property. Based on the DCA comments regarding traffic, trips to the property, and housing, it does not appear that the DCA considered the carbon benefits of the parcel. DCA did not mention current uses of the property, proposed carbon sequestration areas, or an analysis of the generation verses sink potential on the property. Based on this, it would appear that DCA should re-evaluate their comments and consider the entire project elements.

#### **Objection 10 – Internal Inconsistency –**

- 1. Policy 4.4.E.1.a(5) and (10)** – The applicant completed extensive reviews of the site utilizing available data from USFWS, FFWCC, SFWMD, FDEP, ACOE, Nature Conservancy, Florida Natural Areas Inventory (FNAI), Critical Lands and Water Identification Project (CLIP) and others. The result of this research found there were no locally or regionally significant habitats on the property considered as critical by the State or Federal government. This conclusion is supported in Section 6 of the original application, and is graphically demonstrated by Exhibits 2,3,7,8,9,10, and 12. Additionally, there were no resident species identified on the property as listed by any State or Federal agency.

**While the data collected from Federal, State, Local, and NGO resources does not demonstrate any justification for additional evaluation**, such a review will be required during the application process for development. Based on the Martin County Land Development Code (Section 4.32 and 4.37) the applicant will be required to obtain all State and Federal approvals prior to commencing construction activities. As part of the Martin County land development approval process, the applicant will be required to submit current surveys that are in compliance with approved state and federal survey methodologies. The species surveys typical for a project of this nature include caracara, gopher tortoise, sandhill crane, and eastern indigo snake.

Exhibits 13 & 14 show the USFWS consultation areas for the snail kite and scrub jay and include the subject property. However, there are no vegetated communities within the property that would be considered as native habitat support for either of these species. The applicant will, however, consult with

the jurisdictional agency as required by Martin County Land Development code and provide written proof of the consultation prior to approval of the land development.

Similarly, Exhibit 15 illustrates the Audubon's Crested Caracara USFWS Consultation Area, which contains the proposed development area. The subject property, including the land to the north and east of the subject property, are not considered desirable nesting habitat for the Crested Caracara. However, the USFWS recently changed their foraging designation protocol and thus the property may be considered as a forage area for the species. It should be noted that roadside areas throughout the consultation area are also included as forage areas. Based on this, the applicant will formally consult with the USFWS and conduct caracara surveys in accordance with the USFWS protocol established by the Vero Beach office of the Service.

As with all potential flora and fauna species on the property, any development activities will be supported by the necessary surveys, studies, and reports showing that the proposed development does not significantly impact any supporting habitat, provides significant increases in conservation opportunities and buffers, and provides agricultural transition areas that will not result in statistically significant impacts on adjacent properties.,

The proposed project generally provides greater protections for these potential identified species than those contained in the current Future Land Use Map designation. The current FLUM would allow for conversion to 20 acre residential lots, less contiguous common open space, and an incremental approach to open space and restoration planning.

Based on these factors, the DCA is incorrect in highlighting an internal inconsistency regarding listed species. The applicant has demonstrated compliance with the Martin County regulations related to identifying listed species and their associated habitat.

2. **Policy 4.4.L.1.a** – The applicant has created mandatory buffer and open space areas to the only adjacent agricultural operation that is equivalent to approximately 30% of the property, and that could provide  $\frac{1}{4}$  to  $\frac{1}{2}$  mile of buffer between any proposed development and adjacent agricultural activities. The applicant's property is currently abutting urban uses and/or transportation corridors on three sides. These areas do not contain active or viable



agricultural operations. The applicant has removed all cankered citrus from the property thus reducing the potential for offsite infection of other agricultural operations. The applicant will likely utilize less water from current groundwater sources as well. Thus the applicant has reduced or minimized impacts to agriculture in the proximity.

The current Future Land Use designation would allow the conversion of the property to approximately 88, 20 acre homesites. Many of these 88 homesites could be located along the western edge of the property, resulting in far greater impacts on the continuation of viable agricultural or environmental restoration activities than would be allowed under the AgTEC proposal, which establishes specific buffers, wetland restoration, areas of contiguous open space, and the ability to undertake long term agricultural or environmental activities.

Based on these factors, DCA is clearly incorrect in stating that the proposed use will result in greater impacts on adjacent agricultural land.

3. **Policy 4.4.M.1.a** – The applicant’s property has been infected by citrus canker and greening. Greening is an aggressive virus, for which there is currently no cure, and that ultimately kills any infected trees. Martin County, particularly those areas adjacent to major transportation routes (which serve to transport the virus carrying host), is one of the most significantly impacted Counties in the state, and has experienced a loss of approximately 50% of its commercial citrus grove acres within the last five years as a result of hurricanes, canker and greening. CCLP has aggressively managed the greening threat, and has realized that the Sunrise Grove is fully impacted and will not yield another commercially viable harvest. As a result, the conversion from agriculture is a natural process and completely outside of the control, actions or desire of CCLP/King Ranch. As a result, the applicant has submitted a balanced proposal that facilitates the conversion to other commercially viable forms of agriculture on a portion of the acreage, environmental restoration/services on a portion of the acreage, and a long term development proposal on fully impacted land. To suggest that this is “premature conversion” of agriculture is a complete disregard for the facts surrounding greening, canker, and the continued viability of the commercial citrus industry. The only currently available use of the property, without the proposed change, would result in incremental platting of the property for 88 lots of low intensity, single use development patterns that would permanently remove the opportunity for on-



going agriculture, environmental services, public access to open space, or regional open space planning.

As a result of canker and greening, to continue agriculture operations (particularly on the current scale) on the property would not yield viable crops for an extensive period of time, if ever, and it would reduce the opportunity to positively plan for regional planning of open space, environmental restoration or environmental services.

### **Objection 12 - Environmental**

It should be noted that the property is within a consultation area for the species listed in the report. What the report fails to mention is the extensive data collection completed by the applicant as demonstrated by the following exhibits, contained in the AgTEC application including:

- Exhibit 2: SHCA
- Exhibit 3: Florida Forever
- Exhibit 7: CLIP Biodiversity
- Exhibit 8: CLIP Landscape
- Exhibit 9: CLIP Eco Gateway
- Exhibit 10: CLIP Priority 1-2
- Exhibit 12: Wetlands and Hydrology

The result of the data collection found the property contained no habitat for any of the consultation species. Initial ground truthing of the property by Crossroads Environmental personnel also did not identify any resident listed species. Moreover, FFWCC, in their comments to DCA indicated that they determined the proposed AgTEC land use category was consistent with and/or implemented the environmental policies in the Regional Policy Plan.

The species consultation areas (attached Exhibits 13, 14 and 15) are set up by the State and Federal agencies to insure the applicant “consults” with the jurisdictional agency. The consultation may consist of an agency completing a desktop review, a field visit, or requiring a survey in strict accordance with Agency protocol. The consultation is required as part of the Martin County land development code (Article 4, Section 3). As noted earlier, the applicant will be required to submit all surveys, coordination, and approvals to Martin County prior to initiation of construction activities.



The southwest corner of the project will be developed in accordance with the proposed amendment. This area was identified as a P5 priority area by the applicant's data review. Additionally, the applicant is continuing to work with the Martin Grade Scenic Highway Project. As a result the applicant will be planting the southwest and southern borders of the property to compliment the current Martin Grade habitat. The applicant has proposed to replicate oak hammock communities that exist further to the west along Martin Grade. Additionally, based on the P5 designation the applicant will create a wetland restoration area to flow from the northwest to the southeast orientation of the property (see attached preliminary site plan). The wetland restoration/creation project is also located within the footprint of historic soils on the property (Exhibit 16). It will geographically connect wetland areas to the south and west of the proposed project. However, based on SFWMD permitting, FPL right of ways to the west and SR 714 to the south, the wetland restoration activities may not surficially and hydrologically connect with offsite wetlands. The wetland restoration and oak hammock restoration provide habitat that has not existed on the property for decades and provides additional and/or new habitat for regionally significant species. The area will be covered by a Martin County mandated (Land Development Code Article 4, Section 4.36) Preserve Area Management Plan (PAMP). The PAMP is then approved by the Board of County Commissioners and recorded within the public records of Martin County. As such it is a legally enforceable instrument and insures perpetual preservation and maintenance.

The 100 foot wide conservation area on the western boundary will be covered by a conservation easement as well as the Martin County PAMP. The easement language will be modified to specifically exclude agriculture and alternative energy uses. Additionally, the PAMP language specifically excludes the proposed alternative uses, thus providing an additional check on the use of the easement area.

Based on the elements listed above, the DCA failed to accurately assess the data collection conducted by the applicant. Additionally, the DCA failed to recognize the applicant's use of the data in the proposed locations of upland, wetland, and buffer creation on the property. The DCA did accurately recognize the limits of the language of the proposed conservation easements, as such, the applicant made modifications to the easement language.

## 111. Comments

1. Comment (Historic Resources) – The entire site has been mechanically modified to accommodate citrus production. Based on this, it does not appear that significant historic resources would be viable on the property. No



identified middens, oak canopy, or native vegetation associations currently exist on the property. The applicant will consult with the State Division of Historical Resources prior to receiving final site plan approval in accordance with Section 4.32 of the Martin County Land Development Code.

Based on the information submitted above, the applicant is adhering to Martin County policies and creating a net environmental benefit for the property versus what is currently existing on the property. Additionally, the applicant is creating an alternative use for the property which will provide an alternative use for the property that is far superior to the 88 unit, 20 acre ranchette development that could occur on the property.

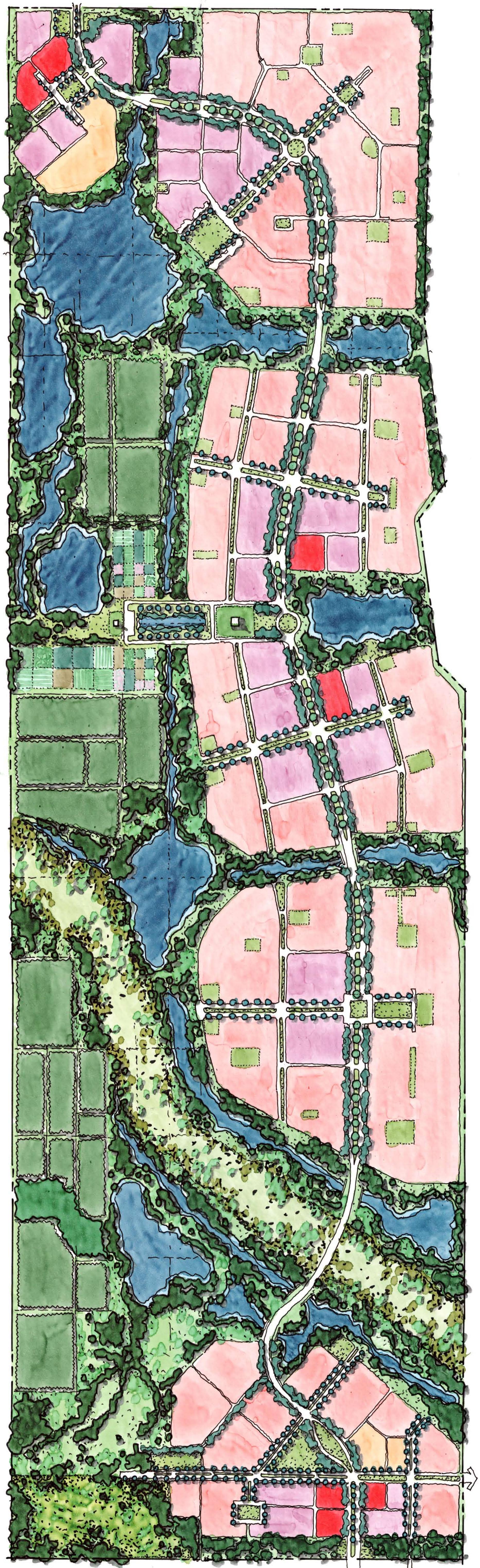
Please feel free to contact me if you have additional questions or comments.

Sincerely,  
Crossroads Environmental Consultants, Inc.



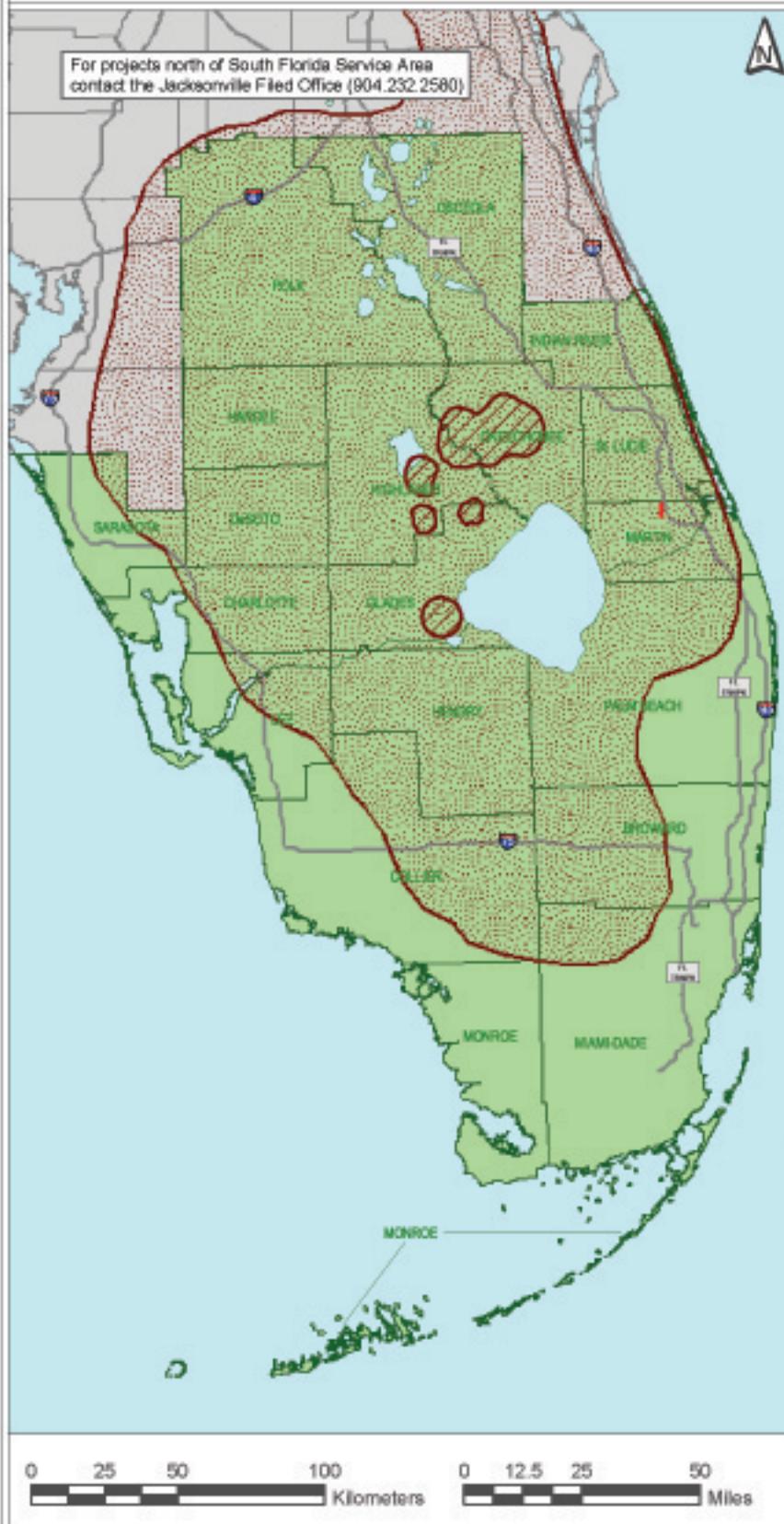
for Tobin R. Overdorf  
President, Founder

cc: Mitch Hutchcraft, CCLP  
Dan DeLisi, DeLisi Fitzgerald, Inc.  
Jason Matson, Kimley-Horn



## Crested Caracara

For projects north of South Florida Service Area  
contact the Jacksonville Filed Office (904) 232-2580



## Consultation Area Map

July 14, 2003

The legend consists of four entries, each with a colored square and text: a red diagonal-striped square for 'Crested Caracara Gathering Areas', a red dotted square for 'Crested Caracara Consultation Area', a light green square for 'South Florida Service Area', and a red solid square for 'Project Boundary'.



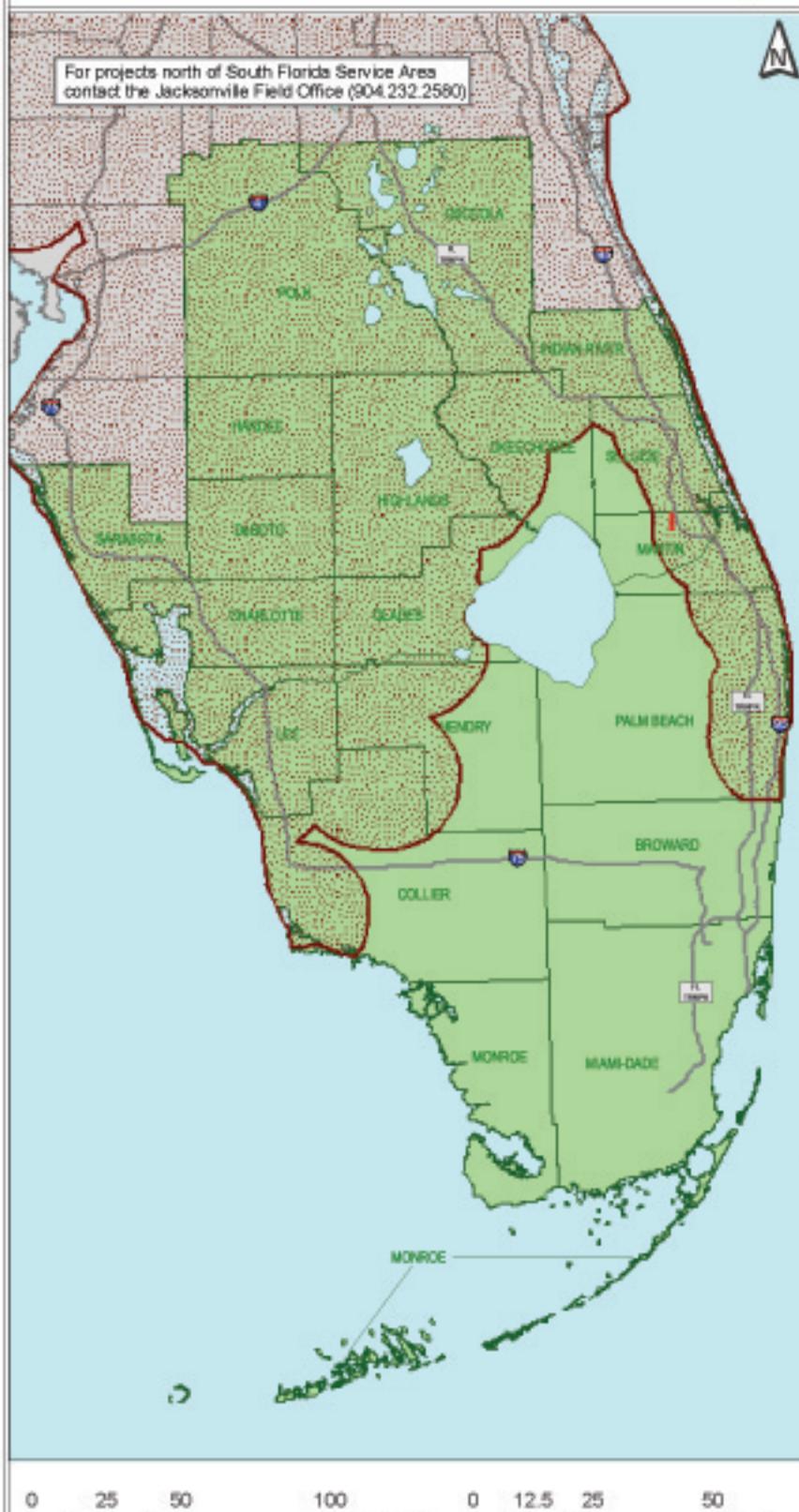
Produced by:  
South Florida Ecological Services Office  
<http://verobeach.fws.gov>  
Phone: 772.562.3909

**Disclaimer:**  
The information on this map has been compiled from a variety of sources and is intended for illustration purposes only.



**Exhibit 15:USFWS Caracara DRAFT Consultation Area with Project Boundary Overlay  
(As modified by Crossroads Environmental Consultants, Inc., July 2010)**

# Florida Scrub-jay



## Consultation Area Map

October 16, 2003

- Florida Scrub-jay Consultation Area
- South Florida Service Area
- Project Boundary



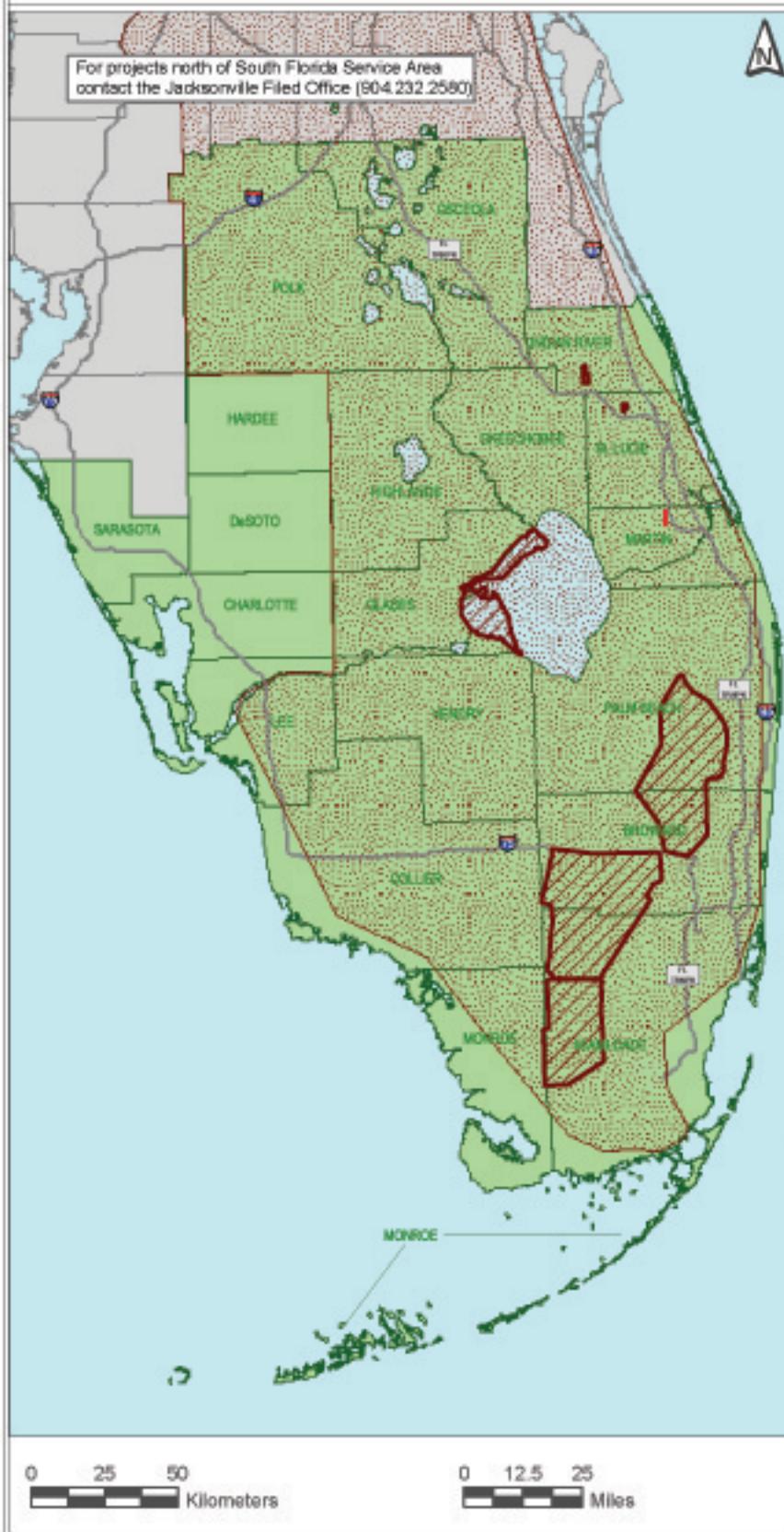
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<http://verobeach.fws.gov>  
Phone: 772.562.3909

Disclaimer:  
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Exhibit 13: USFWS Scrub Jay DRAFT Consultation Area with Project Boundary Overlay  
(As modified by Crossroads Environmental Consultants, Inc., July 2010)

# Snail Kite



## Consultation Area Map

October 30, 2003

- Snail Kite Critical Habitat
- Snail Kite Consultation Area
- South Florida Service Area
- Project Boundary



Produced by:  
South Florida Ecological Services Office  
<http://verobeach.fws.gov>  
Phone: 772.562.3909

Disclaimer:  
The information on this map has been compiled from a variety of sources and is intended for illustration purposes only.



Exhibit 14: USFWS Snail Kite DRAFT Consultation Area with Project Boundary Overlay  
(As modified by Crossroads Environmental Consultants, Inc., July 2010)



**Exhibit 16: Project Historic Soils, as described and delineated by the *Soil Survey of Martin County Area, Florida* (April, 1981).**

# SUSAN E. O'ROURKE, P.E., Inc.

Traffic Engineering, Transportation Planning

## EXHIBIT F14

### CUMULATIVE TRAFFIC ANALYSIS

FOR

#### MARTIN COUNTY LUPA

- 7<sup>TH</sup> EDITION
- SUNRISE GROVE
- ST. LUCIE PARTNERS
- CANOPUS SOUND
- B-4

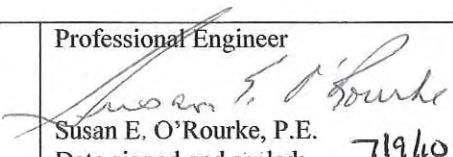
Prepared by:

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&

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July 9, 2010

Prepared by: Susan E. O'Rourke, P.E., Inc. Certificate of Authorization: #26869 428 SW Akron Avenue, Ste. 1A Stuart, Florida 34994 772-781-7918	Professional Engineer  Susan E. O'Rourke, P.E. Date signed and sealed: License #: 42684
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## TABLE OF CONTENTS

INTRODUCTION	1
1.0 - PROJECT TRIPS	2
2.0 – PROJECT SIGNIFICANCE	5
3.0 - CUMULATIVE LINK ANALYSIS — 2015	8
4.0 - CUMULATIVE ANALYSIS — 2030	13
5.0 - FINDINGS	15

## TABLES

TABLE 1a: 2015 Trip Generation Summary	3
TABLE 1b: 2030 Trip Generation Summary	4
TABLE 2a: Project Significance — 2015	6
TABLE 2b: Project Significance — 2030	7
TABLE 3a: Martin County Cumulative Analysis — 2015 (Reviewed Assignment)	9
TABLE 3b: Martin County Cumulative Analysis— 2015 (County Alternative Assignment)	11
TABLE 4: Martin County LUPA Cumulative Link Analysis — 2030	14

## APPENDICES

APPENDIX 1 - Project Trips Worksheets — 2015 and 2030
APPENDIX 2 - Significance Info, Project 2030 Assignment (New Cumulative Model Select Zone) Project 2015 Assignment
APPENDIX 3 - 2015 Data: High Plan (Artplan/FreePlan), 5-Year Work Program, Martin County 2009 Roadway Level of Service Inventory Report, FDOT existing Counts, & FDOT Historic Growth Calculation
APPENDIX 4 - 2030 Data: Model Data, 2030 Network — Martin County & 2030 Network FDOT

## **INTRODUCTION**

Susan E. O'Rourke, P.E, Inc. with Kimley- Horn and Associates, Inc. were retained to provide a cumulative traffic analysis requested by the Department of Community Affairs (DCA) for the Martin County Land Use Plan Amendments. DCA requested a cumulative analysis of five projects: 7th Edition, Sunrise Groves, Canopus Sound, St. Lucie Partners and B4. To that end, the following tasks were undertaken:

1. Summary of Project trips for the 2015 and 2030 Scenarios
2. Summary of Project Significance for the 2015 and 2030 Scenarios
3. Analysis of the Cumulative Impacts in 2015
4. Development of 2030 Volumes and Analysis of 2030 Impacts
5. Summary of Findings

Each of these tasks is addressed herein.

## **1.0 Project Trips**

**Table 1a and 1b** provide a summary of the land use for each of the five projects and the resultant trip generation for the five year and long term (project buildout), respectively. The land use and the trip generation correspond to the land uses included in each application and the corresponding "caps" for each project.

The detailed breakdown of the trip generation for each project as it appeared in each project's individual traffic study is provided in **Appendix 1** of this document.

**Table 1a: 2015 Trip Generation Summary**

Project	Land Use	Quantity/ Acres/SF	Total PM Peak Hour Trips	Net Change PM Peak Hour Trips
7th Edition	Marina	25 acres	478	373
	Water front Commercial	15,000		
	General Office	100,000		
	Industrial Park	360,000		
B-4	Shopping Center	20,000	104	102
Canopus Sound	Single Family	270	272	117
	State Park	500		
St. Lucie Partners	Single Family	195	192	0
Sunrise Groves	Single Family	90	771	675
	Industrial Park	1,000,000		

**Table 1b: 2030 Trip Generation Summary**

Project	Land Use	Quantity/ Acres/SF	Total PM Peak Hour Trips	Net Change PM Peak Hour Trips
7th Edition	Marina	50 acres	1332	1227
	Water front Commercial	50,000		
	General Office	250,000		
	Industrial Park	1,250,000		
B-4	Shopping Center	50,000	208	206
Canopus Sound	Single Family	270	272	117
	State Park	500		
St. Lucie Partners	Single Family	600	527	335
Sunrise Groves	Single Family	90	6160	6064
	Industrial Park	5,000,000		
	Hotel	500 rooms		
	General Office	1,000,000		
	Retail	200,000		

## 2.0 Project Significance

The FDOT provided a specific list of roadways on the Strategic Intermodal System (SIS) that they felt had not been adequately addressed by the subject applications. All of these facilities are part of the cumulative analysis. However, it is important to note that these projects do not have a requirement to address these roadways as these projects are not significant on these SIS roadways. The significance criterion in Martin County is 2% of adopted level of service and 5% is the standard for establishing significance on the state freeways.

The project percent of adopted level of service is shown in **Table 2a and 2b** for the 2015 and 2030 scenarios, respectively. The percent assignment shown in Table 2a is based on the data included in the individual traffic studies. The percent assignment shown in Table 2b reflects the assignment based on select zone model runs that were made as a result of this cumulative analysis. The assignments from the individual reports and the select zone runs are included in **Appendix 2**.

**TABLE 2a: Project Significance - 2015**

		Percent Project Significance									
		St. Lucie Partners CPA #10-1					Becker B-4 CPA #10-21				
		Existing Lanes	Existing LOS Threshold	St. Lucie Partners CPA #10-1	St. Lucie Partners CPA #10-1	Sunrise Groves CPA #10-4	Sunrise Groves CPA #10-4	Canopus Sound CPA #10-9	Canopus Sound CPA #10-9	Becker B-4 CPA #10-21	Becker B-4 CPA #10-21
Roadway Segment	From	To	Functional Classification								
I-95	Palm Beach County Line	Bridge Road	UT	6X	4480	27	0.6%	87	1.9%	34	0.8%
	Bridge Road	SR-76	U	6X	5580	0	0.0%	106	2.4%	51	1.1%
SR-76	Turnpike/High Meadow	SW Martin Hwy (CR714)	U	6X	5580	24	0.4%	124	2.8%	17	0.4%
	Turnpike/High Meadow	SW Martin Hwy (CR714)	UT	6X	4480	16	0.4%	155	3.5%	12	0.3%
	SW Martin Hwy (CR714)	St. Lucie County Line	U	6X	5580	13	0.2%	248	5.5%	8	0.2%
SR 710 (Warfield Blvd)	Okeechobee County Line/Transitioning Boundary	RT/T	2L	420	0	0.0%	0	0.0%	0	0.0%	5
	Transitioning Boundary	SW Van Buren Ave.	T	2L/4L	690	0	0.0%	0	0.0%	0	0.0%
	SW Van Buren Ave.	SW Citrus Blvd.	T	4LD	1730	4	0.2%	0	0.0%	0	0.0%
	SW Citrus Blvd.	SR-76*	T	4LD	1730	4	0.2%	0	0.0%	0	0.0%

**TABLE 2b: Project Significance - 2030**

Roadway	From	To	2030 Needs Plan Laneage	2030 Capacity	% Assign	Trips	% Impact	Significant?
Interstate 95	Palm Beach County Line	Bridge Road	8-L	146,500	5.8%	2,616	1.8%	No
	Bridge Road	Kanner Highway	8-L	146,500	7.0%	3,157	2.2%	No
	Kanner Highway	High Meadow Avenue	8-L	146,500	11.2%	5,051	3.4%	No
	High Meadow Avenue	Martin Highway	6-L	110,300	11.4%	5,141	4.7%	No
	Martin Highway	Becker Road	6-L	110,300	0.0%	0	0.0%	No
SR-710	Okeechobee County Line	Transitioning Boundary	4-L	23,800	0.0%	0	0.0%	No
	Transitioning Boundary	Van Buren Avenue	4-L	36,900	1.1%	496	1.3%	No
	Van Buren Avenue	Citrus Blvd	4-L	36,900	1.2%	541	1.5%	No
	Citrus Blvd	SR-76	4-L	36,900	1.0%	451	1.2%	No
						Sunrise Groves 2030 Daily Trips =	45,096	

Roadway	From	To	2030 Needs Plan Laneage	2030 Capacity	7th Edition			
					% Assign	Trips	% Impact	Significant?
Interstate 95	Palm Beach County Line	Bridge Road	8-L	146,500	20.0%	2,125	1.5%	No
	Bridge Road	Kanner Highway	8-L	146,500	5.6%	595	0.4%	No
	Kanner Highway	High Meadow Avenue	8-L	146,500	7.3%	776	0.5%	No
	High Meadow Avenue	Martin Highway	6-L	110,300	6.7%	712	0.6%	No
	Martin Highway	Becker Road	6-L	110,300	6.8%	723	0.7%	No
SR-710	Okeechobee County Line	Transitioning Boundary	4-L	23,800	0.2%	21	0.1%	No
	Transitioning Boundary	Van Buren Avenue	4-L	36,900	2.1%	223	0.6%	No
	Van Buren Avenue	Citrus Blvd	4-L	36,900	2.5%	266	0.7%	No
	Citrus Blvd	SR-76	4-L	36,900	4.1%	436	1.2%	No
						7th Edition 2030 Daily Trips =	10,627	

Roadway	From	To	2030 Needs Plan Laneage	2030 Capacity	St. Lucie Partners			
					% Assign	Trips	% Impact	Significant?
Interstate 95	Palm Beach County Line	Bridge Road	8-L	146,500	17.2%	930	0.6%	No
	Bridge Road	Kanner Highway	8-L	146,500	1.1%	59	0.0%	No
	Kanner Highway	High Meadow Avenue	8-L	146,500	4.3%	232	0.2%	No
	High Meadow Avenue	Martin Highway	6-L	110,300	3.9%	211	0.2%	No
	Martin Highway	Becker Road	6-L	110,300	3.9%	211	0.2%	No
SR-710	Okeechobee County Line	Transitioning Boundary	4-L	23,800	1.8%	97	0.4%	No
	Transitioning Boundary	Van Buren Avenue	4-L	36,900	5.4%	292	0.8%	No
	Van Buren Avenue	Citrus Blvd	4-L	36,900	6.5%	351	1.0%	No
	Citrus Blvd	SR-76	4-L	36,900	10.0%	541	1.5%	No
						St. Lucie Partners 2030 Daily Trips =	5,406	

Roadway	From	To	2030 Needs Plan Laneage	2030 Capacity	Canopus Sound			
					% Assign	Trips	% Impact	Significant?
Interstate 95	Palm Beach County Line	Bridge Road	8-L	146,500	42.6%	1,243	0.8%	No
	Bridge Road	Kanner Highway	8-L	146,500	23.9%	697	0.5%	No
	Kanner Highway	High Meadow Avenue	8-L	146,500	17.0%	496	0.3%	No
	High Meadow Avenue	Martin Highway	6-L	110,300	11.5%	336	0.3%	No
	Martin Highway	Becker Road	6-L	110,300	10.0%	292	0.3%	No
SR-710	Okeechobee County Line	Transitioning Boundary	4-L	23,800	0.2%	6	0.0%	No
	Transitioning Boundary	Van Buren Avenue	4-L	36,900	0.5%	15	0.0%	No
	Van Buren Avenue	Citrus Blvd	4-L	36,900	0.6%	18	0.0%	No
	Citrus Blvd	SR-76	4-L	36,900	1.0%	29	0.1%	No
						Canopus Sound 2030 Daily Trips =	2,918	

Roadway	From	To	2030 Needs Plan Laneage	2030 Capacity	Becker B-4			
					% Assign	Trips	% Impact	Significant?
Interstate 95	Palm Beach County Line	Bridge Road	8-L	146,500	4.0%	90	0.1%	No
	Bridge Road	Kanner Highway	8-L	146,500	4.7%	106	0.1%	No
	Kanner Highway	High Meadow Avenue	8-L	146,500	8.4%	189	0.1%	No
	High Meadow Avenue	Martin Highway	6-L	110,300	8.8%	198	0.2%	No
	Martin Highway	Becker Road	6-L	110,300	8.4%	189	0.2%	No
SR-710	Okeechobee County Line	Transitioning Boundary	4-L	23,800	2.6%	59	0.2%	No
	Transitioning Boundary	Van Buren Avenue	4-L	36,900	5.8%	131	0.4%	No
	Van Buren Avenue	Citrus Blvd	4-L	36,900	6.5%	146	0.4%	No
	Citrus Blvd	SR-76	4-L	36,900	5.7%	128	0.3%	No
						Becker B-4 2030 Daily Trips =	2,251	

### 3.0 Cumulative Link Analysis – 2015

While each of the applicants submitted an assessment of their project's individual impacts, they did not submit an analysis of the resultant impacts should all of the applications receive approval. This analysis represents that impact. The project trips shown in Section 1.0 were assigned to the network as discussed in Section 2.0. The existing traffic volumes were grown to 2015 based on growth rates included in the Martin County level of service report for all roadways except I-95. The growth rates for I-95 were developed from the 2009 FDOT Traffic data. The five year buildup in this scenario varies from the five year analysis included with the original transmittal in a few ways: the studies were prepared and submitted in 2009 so the five year window based on the latest CIP was 2014, the cumulative analysis now reflects 2015; the inventory level of service report was updated in April and May 2010 so that new information is included in the cumulative analysis; the 2009 Quality Level of Service Handbook has been accepted for use in Martin County and is therefore reflected in this analysis. Furthermore, this analysis includes the impacts of approved land uses and DRI developments within Port St. Lucie. The PSL projects include; Western Groves, Wilson Groves, NWAA, Southern Groves, Verano, Tradition, St. Lucie West and Riverland.

Table 3a shows the results of the 2015 cumulative link analysis. In addition to the assignment shown in Table 3a, Martin County staff provided an alternate assignment for some of the project links. That link analysis is shown in Table 3b. This analysis shows that the results will not be altered by the slight revision.

The analysis shows that there are four links that exceed their generalized levels of service. However, detailed analysis (that is acceptable within the five year period), shows that acceptable levels of service will be maintained. For I-95 from Indiantown Road to Bridge Road, the standard threshold of LOS C is exceeded. However, Freeplan analysis shows that based on vehicular density, LOS C is maintained. On CR 713 from I-95 to CR 714, Highplan was used to demonstrate acceptable LOS D. On SR 714 from CR 76a to Florida's Turnpike, Artplan was used to demonstrate acceptable level of service D. SR 76a from I-95 to Cove Road exceeds the theoretical capacity but improvements to provide level of service are included in the five year CIP.

Given the caps placed on the amount of development that can occur in the five year horizon, the results of the analysis, and the committed improvements to SR 76, additional mitigation is not necessary at this stage in the development process to address short term impacts.

The Martin County 2009 Roadway Level of Service Inventory Report, the FDOT Counts, growth rate calculations, Port St. Lucie project data and five year road programs are included in Appendix 3.

Table 3a: Martin County Cumulative Analysis - 2015 (Reviewed Assignment)

Segment	From	To	Dir.	(1) Lanes	(1) Type	(1) AADT	(1) K Factor	(1) P Factor	2009 Volume	2009 Growth	2015 Volume	(1) LOS Threshold	St. Lucie Partners CPA #10-1 Project % Assignment	In or Out	St. Lucie Partners CPA #10-4 Project % Assignment	In or Out	Sunrise Groves CPA #10-9 Project % Assignment	In or Out	Canopus Sound CPA #10-9 Project % Assignment	In or Out	Canopus Sound CPA #10-10 Project % Assignment	In or Out	VIA Claudia CPA #10-1 Project % Assignment	In or Out	VIA Claudia CPA #10-2 Project % Assignment	In or Out	Becker B-4 CPA #10-21 Project % Assignment	In or Out	7th Edition CPA #10-21 Project % Assignment	In or Out	7th Edition CPA #10-19 Project % Assignment	In or Out	PSL Approved Project traffic	Committed trips					
																														Total Non-Residential	Total Residential	Double Counting	Net Committed LUPAs	Total Volume on Link	Is total less than Capacity?				
CR 708 (Bridge Rd)	SR-76	CR-711	EB	2L	UR	655	0.100	0.330	22	1.005	22	1100	35.0%	out	25	0.0%	na	0	5.0%	in	8	0.0%	na	0	0	na	0	20.0%	Out	73	0	73	33	-7	100	122	yes		
			WB				0.100	0.670	44		45		35.0%	in	42	0.0%	na	0	5.0%	out	5	0.0%	na	0	0	na	0	20.0%	In	22	0	22	48	-6	64	110	yes		
	CR-711	Turnpike/ I-95	EB	2L	UR	2,829	0.100	0.630	178	1.052	242	1100	27.0%	out	19	0.0%	na	0	15.0%	in	25	0.0%	na	0	0	na	0	23.0%	Out	84	6	86	48	-10	125	366	yes		
			WB				0.100	0.370	105		142		27.0%	in	33	0.0%	na	0	15.0%	out	15	0.0%	na	0	0	na	0	23.0%	In	26	5	28	51	-7	72	214	yes		
	Turnpike/ I-95	Powerline	EB	2L	T	6,186	0.100	0.460	285	1.005	293	1120	5.0%	out	4	3.0%	out	19	65.0%	in	110	0.0%	na	0	0	na	0	3.0%	Out	11	23	38	128	-9	156	449	yes		
			WB				0.100	0.540	334		344		5.0%	in	6	3.0%	out	5	65.0%	out	67	0.0%	na	0	0	na	0	3.0%	In	3	20	15	86	-4	97	441	yes		
	Powerline	US 1	EB	2L	DNS	7,553	0.100	0.530	400	1.005	412	1120	3.0%	out	2	3.0%	out	19	30.0%	out	31	0.0%	na	0	0	na	0	2.0%	Out	7	0	26	33	-6	52	465	yes		
			WB				0.100	0.470	355		366		3.0%	in	4	3.0%	in	5	30.0%	in	51	0.0%	na	0	0	na	0	2.0%	In	2	0	7	54	-2	59	425	yes		
	Palm Beach Co.	CR-708	NB	2L	UR	2,553	0.100	0.170	43	1.078	68	1100	8.0%	in	10	0.0%	na	0	3.0%	in	5	0.0%	na	0	0	na	0	5.0%	In	6	0	6	15	-1	19	87	yes		
			SB				0.100	0.830	212		333		8.0%	out	6	0.0%	na	0	3.0%	out	3	0.0%	na	0	0	na	0	5.0%	Out	18	0	18	9	-2	25	358	yes		
CR-711 (Pratt Whitney Rd)	CR-708	South Fork High	NB	2L	IRA	3,540	0.100	0.730	258	1.031	310	740	2.0%	out	1	0.0%	na	0	7.0%	in	12	2.0%	out	1	0	na	0	8.0%	In	9	0	9	11	-2	18	328	yes		
			SB				0.100	0.270	96		115		2.0%	in	2	0.0%	na	0	7.0%	out	7	2.0%	in	2	0	na	0	8.0%	Out	29	0	29	16	-3	42	157	yes		
	South Fork High	SR-76	NB	2L	T	4,946	0.100	0.760	376	1.064	545	1120	2.0%	out	1	0.0%	na	0	7.0%	out	7	2.0%	out	1	0	na	0	10.0%	Out	37	0	37	11	-2	45	591	yes		
SR-76 (Kanner Hwy)	SR-710	CR-708	NB	2L	UR	2,666	0.100	0.470	125	1.005	129	1100	5.0%	in	6	0.0%	na	0	2.0%	in	3	2.0%	in	2	0	na	0	10.0%	In	11	0	11	12	-2	21	150	yes		
			SB				0.100	0.530	141		146		5.0%	out	4	0.0%	na	0	2.0%	out	2	2.0%	out	1	0	na	0	10.0%	Out	37	0	37	7	-1	42	188	yes		
	CR-708	CR-711/ CR 76a	NB	2L	T	2,990	0.100	0.470	141	1.005	145	1120	3.0%	out	2	0.0%	na	0	0.0%	na	0	8.0%	in	9	0	na	0	30.0%	Out	110	0	110	11	-2	119	264	yes		
			SB				0.100	0.530	158		163		3.0%	in	4	0.0%	na	0	0.0%	na	0	8.0%	out	5	0	na	0	25.0%	Out	92	0	92	9	-2	99	262	yes		
	CR-711/ CR-76A	Locks Rd	NB	2L	CIU	11,399	0.120	0.480	657	1.005	677	880	40.0%	out	28	0.0%	na	0	0.0%	na	0	10.0%	in	12	0	na	0	40.0%	Out	146	0	146	40	-8	178	855	yes		
			SB				0.120	0.520	711		733		40.0%	in	48	0.0%	na	0	0.0%	na	0	10.0%	out	7	0	na	0	40.0%	In	45	0	45	55	-11	89	822	yes		
(2)(3) I-95	Locks Rd	I-95	NB	4D	CID	19,126	0.100	0.430	822	1.005	847	1960	40.0%	out	28	0.0%	na	0	0.0%	na	0	15.0%	in	18	0	na	0	37.0%	Out	135	13	140	54	-11	183	1031	yes		
			SB				0.100	0.570	1,090		1,123		40.0%	in	48	0.0%	na	0	0.0%	na	0	15.0%	out	10	0	na	0	37.0%	In	41	11	46	66	-11	100	1223	yes		
	I-95	Cove Rd	NB	4D	CID	38,027	0.100	0.530	2,015	1.005	2,077	19																											



Table 3b: Martin County Cumulative Analysis - 2015 (County Alternative Assignment)

Segment	From	To	Dir.	(1) Lanes	(1) Type	(1) ADT	(1) K Factor	(1) P Factor	2009 Volume	2009 Growth	2015 Volume	(1) LOS Threshold	St. Lucie Partners CPA #10-1 Project % Assignment	Sunrise Groves CPA #10-4 Project % Assignment	In or Out	Sunrise Groves CPA #10-9 Project % Assignment	In or Out	Canopus Sound CPA #10-9 Project % Assignment	In or Out	Canopus Sound CPA #10-10 Project % Assignment	In or Out	Via Claudia CPA #10-1 Project % Assignment	In or Out	Via Claudia CPA #10-10 Project % Assignment	In or Out	Becker B-4 CPA #10-21 Project % Assignment	7th Edition CPA #10-19 Project % Assignment	In or Out	7th Edition CPA #10-19 Project Volume	PSL Approved Project traffic	Committed trips				Net Committed+ LUPAs	Total Volume on Link	Is total less than Capacity?		
CR 708 (Bridge Rd)	SR-76	CR-711	EB	2L	UR	655	0.100	0.330	22	1.005	22	45	1100	35.0%	out	25	0.0%	na	0	0.0%	in	0	0.0%	na	0	0	20.0%	Out	73	0	73	25	-5	93	115	yes			
			WB				0.100	0.670	44					35.0%	in	42	0.0%	na	0	0.0%	out	0	0.0%	na	0	0	20.0%	In	22	0	22	42	-6	59	104	yes			
	CR-711	Turnpike/ I-95	EB	2L	UR	2,829	0.100	0.630	178	1.052	242	142	1100	30.0%	out	21	0.0%	na	0	5.0%	in	8	0.0%	na	0	0	23.0%	Out	84	6	86	33	-7	113	354	yes			
			WB				0.100	0.370	105					30.0%	in	36	0.0%	na	0	5.0%	out	5	0.0%	na	0	0	23.0%	In	26	5	28	45	-7	65	207	yes			
	Turnpike/ I-95	Powerline	EB	2L	T	6,186	0.100	0.460	285	1.005	293	344	1120	10.0%	out	7	3.0%	out	19	65.0%	in	110	0.0%	na	0	0	3.0%	Out	11	23	38	131	-9	160	453	yes			
			WB				0.100	0.540	334					10.0%	in	12	3.0%	in	5	65.0%	out	67	0.0%	na	0	0	3.0%	In	3	20	15	92	-4	103	447	yes			
	Powerline	US 1	EB	2L	DNS	7,553	0.100	0.530	400	1.005	412	366	792	5.0%	out	4	3.0%	out	19	35.0%	out	36	0.0%	na	0	0	2.0%	Out	7	0	26	40	-6	59	472	yes			
			WB				0.100	0.470	355					5.0%	in	6	3.0%	in	5	35.0%	in	59	0.0%	na	0	0	2.0%	In	2	0	7	65	-2	70	436	yes			
	Palm Beach Co.	CR-708	NB	2L	UR	2,553	0.100	0.170	43	1.078	68	333	1100	8.0%	in	10	0.0%	na	0	2.0%	in	3	0.0%	na	0	0	5.0%	In	6	0	6	13	-1	17	85	yes			
			SB				0.100	0.830	212					8.0%	out	6	0.0%	na	0	2.0%	out	2	0.0%	na	0	0	5.0%	Out	18	0	8	-2	24	357	yes				
	CR-708	South Fork High	NB	2L	IRA	3,540	0.100	0.730	258	1.031	310	115	740	2.0%	out	1	0.0%	na	0	2.0%	out	2	0.0%	na	0	0	8.0%	In	9	0	9	-1	14	324	yes				
			SB				0.100	0.270	96					2.0%	in	2	0.0%	na	0	2.0%	in	3	0.0%	out	1	0	8.0%	Out	29	0	29	7	-1	35	150	yes			
	South Fork High	SR-76	NB	2L	T	4,946	0.100	0.760	376	1.064	545	172	1120	2.0%	out	1	0.0%	na	0	2.0%	out	2	0.0%	na	0	0	10.0%	Out	37	0	37	6	-1	41	587	yes			
			SB				0.100	0.240	119					2.0%	in	2	0.0%	na	0	2.0%	out	1	0	na	0	0	10.0%	In	11	0	11	-1	17	189	yes				
	SR-76 (Kanner Hwy)	SR-710	NB	2L	UR	2,666	0.100	0.470	125	1.005	129	146	1100	5.0%	in	6	0.0%	na	0	0.0%	in	2	0	na	0	0	10.0%	In	11	0	11	8	-2	18	147	yes			
			SB				0.100	0.530	141					5.0%	out	4	0.0%	na	0	0.0%	out	0	2.0%	out	1	0	10.0%	Out	37	0	37	5	-1	41	186	yes			
	CR 708 - SOR switch dir	CR-711/ CR 76a	NB	2L	T	2,990	0.100	0.470	141	1.005	145	163	1120	60.0%	out	43	0.0%	na	0	0.0%	in	9	0	na	0	0	30.0%	Out	110	0	110	52	-10	151	296	yes			
			SB				0.100	0.530	158					60.0%	in	73	0.0%	na	0	0.0%	na	0	0.0%	out	5	0	na	0	0	25.0%	Out	92	0	92	78	-16	154	317	yes
	CR-711/ CR-76A	Locks Rd	NB	2L	CIU	11,399	0.120	0.480	657	1.005	677	733	880	40.0%	out	28	0.0%	na	0	0.0%	na	0	10.0%	in	12	0	na	0	0	40.0%	Out	146	0	146	40	-8	178	855	yes
			SB				0.120	0.520	711					40.0%	in	48	0.0%	na	0	0.0%	na	0	10.0%	out	7	0	na	0	0	40.0%	In	45	0	45	55	-11	89	822	yes
	Locks Rd	I-95	NB	4D	CID	19,126	0.100	0.430	822	1.005	847	1,123	1960	40.0%	out	28	0.0%	na	0	0.0%	na	0	15.0%	in	18	0	na	0	0	37.0%	Out	135	13	140	54	-11	183	1031	yes
			SB				0.100	0.570	1,090					40.0%	in	48	0.0%	na	0	0.0%	na	0	15.0%	out	10	0	na	0	0	37.0%	In	41	11	46	66	-11	100	1223	yes
	I-95	Cove Rd	NB	4D	CID	38,027	0.100	0.470	1,787	1.005	1,842	1,960	20.																										



#### **4.0 Cumulative Analysis – 2030**

The 2030 analysis reflects the full buildout of each of the projects. The land use and employment data was entered into the Treasure Coast Regional Planning Model (TCRPM). This model was selected because it has been updated to show refinements in Port St. Lucie (including the Northwest and Southwest Annexation Areas). The project trips were calibrated to reflect ITE trip generation.

The model volumes were posted and then adjusted using the Model Output Conversion Factor (MOCF) to reflect Average Annual Daily Traffic. These volumes were compared to the capacity of the 2030 Long Range Transportation Needs reflecting the Circulation Plan for Martin County. **Table 4** shows the results of the 2030 link analysis. As shown, the 2030 Roadway Network will accommodate the additional traffic associated with the proposed amendments.

The timing of the future roadway network needed for the project development will be identified during the PUD, site plan or DRI analysis if appropriate.

The 2030 Network, FDOT Needs Plan and the model data are included in **Appendix 4**.

Table 4: Martin County LUPA Cumulative Link Analysis - 2030

Roadway	From	To	2030 Needs Plan Laneage	Roadway Type	Adopted LOS	Daily Capacity	Capacity Adjustment	Adjusted Daily Capacity	2030 Model Volumes (PSW/ADT)	2030 ADT (PSW/ADT x MOEF)	2030 V/C ratio	Meets LOS Standard?	
CR-708 (Bridge Rd)	SR-76	CR-711	2-L	rural unint.	D	20,000	none	20,000	12,300	0.94	11,550	0.58	Yes
	CR-711	Turnpike / I-95	4-L	rural unint.	D	48,000	none	48,000	17,800	0.94	16,750	0.35	Yes
	Powerline Poveline	US-1	4-L	urban non-state	D	58,800	+ 5% (right-turn lanes)	61,700	21,100	0.95	20,050	0.32	Yes
	Palm Beach County Line	CR-708	4-L	rural unint.	D	36,700	+ 5% (non-state w/ right-turn lanes)	38,500	22,450	0.95	21,350	0.55	Yes
CR-711 (Pratt Whitney Rd)	CR-708	South Fork High	4-L	rural unint.	D	48,000	none	48,000	20,950	0.94	19,700	0.41	Yes
	SR-76	CR-708	4-L	rural int.	D	25,200	none	25,200	18,400	0.94	17,300	0.69	Yes
	CR-710	CR-711/ CR-76a	4-L	rural unint.	D	58,800	none	58,800	16,750	0.94	15,750	0.27	Yes
	CR-708	Locks Rd	4-L	trans. Class 1 art.	D	46,000	+ 15% (right-turn lanes)	48,000	13,200	0.94	12,400	0.26	Yes
SR-76 (Kanner Hwy)	CR-711/ CR-76a	I-95	6-L	urban state	D	33,800	+ 15% (right-turn lanes)	38,900	12,250	0.94	11,500	0.30	Yes
	Locks Rd	I-95	6-L	urban state	D	55,300	+ 15% (right-turn lanes)	63,600	27,300	0.94	25,650	0.40	Yes
	Cove Rd	I-95	6-L	urban state	D	55,300	+ 15% (right-turn lanes)	63,600	34,200	0.94	32,150	0.51	Yes
	Becker Road	SR-714	6-L	urban freeway	D	110,300	none	110,300	87,300	0.94	82,050	0.77	Yes
Interstate 95	SR-714	CR-713	6-L	urban freeway	D	110,300	none	110,300	80,200	0.94	75,400	0.74	Yes
	CR-713	SR-76	8-L	urban freeway	D	146,500	none	146,500	97,350	0.94	91,500	0.68	Yes
	SR-75	Bridge Road	8-L	urban freeway	D	146,500	none	146,500	106,350	0.94	100,550	0.62	Yes
	Bridge Road	Indiantown Road	8-L	urban freeway	D	146,500	none	146,500	124,550	0.94	117,100	0.80	Yes
CR-76A (SW 96th St)	CR-726	Pennsylvania Ave	4-L	trans. unint.	D	58,800	none	58,800	11,150	0.94	10,500	0.18	Yes
	SR-76	SR-76	4-L	trans. Class 1 art.	D	33,800	none	33,800	11,600	0.94	10,900	0.32	Yes
	SR-710	Greenridge Ln	2-L	rural unint.	D	20,000	none	20,000	7,600	0.94	7,150	0.36	Yes
	Greenridge Ln	CR-76A (Citrus Blvd)	2-L	rural unint.	D	20,000	none	20,000	7,200	0.94	6,750	0.34	Yes
CR-76A (Citrus Blvd)	SR-714	CR-726	4-L	trans. unint.	D	58,800	none	58,800	11,500	0.94	10,800	0.18	Yes
	SR-710	Fox Brown Rd	2-L	rural unint.	D	20,000	none	20,000	7,600	0.94	7,150	0.36	Yes
	CR-609	CR-609	2-L	rural int.	D	13,800	none	13,800	10,550	0.94	9,900	0.72	Yes
	I-95	CR-76A	4-L	rural unint.	D	20,000	none	20,000	16,400	0.94	15,400	0.77	Yes
SR 714/ CR 714	CR-76A	Florida's Turnpike	4-L	urban state	D	58,800	+ 15% (right-turn lanes)	58,800	21,300	0.95	20,250	0.34	Yes
	CR 713	CR 714	4-L	urban state	D	36,700	+ 15% (right-turn lanes)	42,200	26,900	0.95	25,550	0.61	Yes
	I-95	CR 714	4-L	urban Class 1 art.	D	36,700	+ 15% (right-turn lanes)	42,200	33,250	0.95	31,600	0.75	Yes
	CR 714	SR 714	2-L	urban state	D	16,500	+ 15% (right-turn lanes)	19,000	19,500	0.95	18,550	0.44	Yes
CR-609	CR-714	St. Lucie County Line	4-L	rural unint.	D	48,000	none	48,000	15,800	0.94	14,850	0.31	Yes
	SR-710	CR-714	2-L	trans. unint.	D	21,100	none	21,100	15,350	0.94	14,450	0.68	Yes
	Okeechobee County	Fox Brown Rd	4-L	rural unint.	B	23,300	none	23,300	15,750	0.94	14,800	0.62	Yes
	CR-609	Van Buren	4-L	trans. Class 1 art.	C	32,100	+ 15% (right-turn lanes)	36,900	26,300	0.94	24,700	0.67	Yes
SR-710 (Warfield Blvd)	CR-726	CR-76	4-L	trans. Class 1 art.	C	32,100	+ 15% (right-turn lanes)	36,900	24,300	0.94	22,850	0.62	Yes
	Palm Beach County Line	SR-76	4-L	trans. unint.	C	32,100	+ 15% (right-turn lanes)	36,900	28,300	0.94	26,600	0.72	Yes
	Dr. Martin Luther King	Palm Way	2-L	urban non-state	D	16,500	none	45,400	26,400	0.94	32,700	0.89	Yes
	Cove Road	SR-76	4-L	urban state	D	36,700	+ 15% (right-turn lanes)	42,200	14,900	0.94	24,800	0.55	Yes
Note: All segments of Interstate 95 were assumed to be urban in 2030 and thus were evaluated based upon a Level of Service D standard.													

## **5.0 Findings**

The cumulative analysis was prepared as a result of the objection by DCA. This analysis has demonstrated that none of the projects are significant on the key roadways of concern to the FDOT. However, a complete cumulative analysis of the Martin County and FDOT roadways were addressed for 2015 and 2030 conditions. The results of the analyses, show that should all the projects get approved and develop to the levels of the five year cap, additional improvements beyond the improvements included in the CIP, would not be required.

Furthermore, the long range transportation network identified for the existing Comprehensive land use plan is sufficient to accommodate the proposed changes to the plan. Therefore, the applicants have responded to the objection and the further recommendation by DCA to add caps and the objections can be removed.

## APPENDIX 1

### PROJECT TRIPS WORKSHEETS FOR 2015 AND 2030

**TABLE 1: Trip Generation - FIVE-YEAR CAP**

EXISTING LAND USE									
Description	Land Use Code	Quantity/ Acres	Daily Equation	Daily Trips					
Single-Family Housing	210	12	$\ln(T)=0.92 \ln(x)+2.71$	148					
(1) Agriculture	N/A	249	2 Trips per Acre	498					
Description	Land Use Code	Quantity	AM Equation	AM Trips	% In	% Out	AM In	AM Out	
Single-Family Housing	210	12	$T=0.70(x)+9.74$	18	25	75	5	13	
Agriculture	N/A	249	19% of Daily	95	93	7	88	7	
Based on Manufacturing Percent									
PROPOSED LAND USE									
Description	Land Use Code	Quantity/ Acres/ SF	Daily Equation	Daily Trips	Internal Trips	External Trips	(1) Pass-by %	Pass-by trips	Net New Trips
Marina	420	25	$20.93(x)$	523	0	523	10	52	471
Water Front Commercial	814	15,000	$T=42.78(x)+37.66$	679	24	655	52	341	314
General Office	710	100,000	$\ln(T)=0.77 \ln(x)+3.65$	1,334	24	1,310	21	275	1,035
Industrial Park	130	360,000	$T=4.96(x)+47.75$	2,533	0	2,533	15	380	2,153
<b>TOTAL:</b>				<b>5,069</b>	<b>48</b>	<b>5,021</b>	<b>1,048</b>	<b>3,973</b>	
PROPOSED LAND USE									
Description	Land Use Code	Quantity/ Acres/ SF	AM Equation	AM Trips	% In	% Out	AM In	AM Out	
Marina	420	25	0.56 per Acre	14	33	67	5	9	
Water Front Commercial	814	15,000	$1.03(x)$	15	61	39	9	6	
General Office	710	100,000	$\ln(T)=0.80 \ln(x)+1.55$	188	88	12	165	23	
Industrial Park	130	360,000	$\ln(T)=0.77 \ln(x)+1.05$	277	82	18	227	50	
<b>TOTAL:</b>				<b>494</b>	<b>406</b>	<b>88</b>	<b>494</b>	<b>104</b>	
PROPOSED LAND USE									
Description	Land Use Code	Quantity/ SF	PM Equation	PM Trips	% In	% Out	PM In	PM Out	
Marina	420	25	1.34 per Acre	34	60	40	20	14	
Water Front Commercial	814	15,000	$T=2.40(x)+21.48$	57	44	56	25	32	
General Office	710	100,000	$T=1.12(x)+78.81$	191	17	83	32	159	
Industrial Park	130	360,000	$T=0.77(x)+42.11$	319	21	79	67	252	
<b>TOTAL:</b>				<b>601</b>	<b>144</b>	<b>457</b>	<b>4</b>	<b>597</b>	

Source: ITE, 5th Edition

(1) San Diego Municipal Code, Land Development Code, Trip Generation Manual, Revised May 2003

(2) Martin County 2005 Impact Fee Update, Gen. Industrial

Net New Trips = EFLU+PFLU		
	IN	OUT
DAILY:		
AM:	245	64
PM:	56	317
TOTAL	3,475	309
	373	

**TABLE 4: Trip Generation - BUILD OUT**  
**EXISTING LAND USE**

Description	Land Use Code	Quantity/Acres	Daily Equation	Daily Trips
Single-Family Housing	210	12	$\ln(T)=0.92 \ln(x)+2.71$	148
(1) Agriculture	N/A	249	2 Trips per Acre	498

Description	Land Use Code	Quantity/Acres	AM Equation	AM Trips	% In	% Out	AM In	AM Out
Single-Family Housing	210	12	$T=0.70(x)+9.74$	18	25	75	5	13
Agriculture	N/A	249	19% of Daily	95	93	7	88	7

Based on Manufacturing Percent

Description	Land Use Code	Quantity/Acres	PM Equation	PM Trips	% In	% Out	PM In	PM Out
Single-Family Housing	210	12	$\ln(T)=0.90 \ln(x)+0.51$	16	63	37	10	6
Agriculture	N/A	249	21% of Daily	105	53	47	56	49

Based on Manufacturing Percent

**PROPOSED LAND USE**

Description	Land Use Code	Quantity/Acres/SF	AM Equation	AM Trips	% In	% Out	AM In	AM Out	Internal Trips	External Trips	(2) Pass-by Trips	Pass-by trips %	Net New Trips
Marina	420	50	$20.93(x)$	1,047	0	1,047	10	105	0	28	9	19	10
Water Front Commercial	814	50,000	$T=42.78(x)+37.66$	2,177	77	2,100	35	735	20	35	17	20	942
General Office	710	250,000	$\ln(T)=0.77 \ln(x)+3.65$	2,701	77	2,624	8	210	2	47	8	31	1,365
Industrial Park	130	1,250,000	$T=4.96(x)+747.75$	6,948	0	6,948	15	1,042	0	721	591	130	43
<b>TOTAL:</b>				12,873	154	12,719	2,092	10,627					5,906

Source: ITE, 8th Edition

Description	Land Use Code	Quantity/Acres/SF	PM Equation	PM Trips	% In	% Out	PM In	PM Out	Internal Trips	External Trips	(2) Pass-by Trips	Pass-by trips %	Net New Trips
Marina	420	50	0.56 per Acre	28	33	67	9	19	0	28	9	19	3
Water Front Commercial	814	50,000	$1.03(x)$	52	61	39	32	20	2	50	30	35	8
General Office	710	250,000	$\ln(T)=0.80 \ln(x)+1.55$	390	88	12	343	47	2	388	342	47	13
Industrial Park	130	1,250,000	$\ln(T)=0.77 \ln(x)+1.09$	721	82	18	591	130	0	721	591	130	43
<b>TOTAL:</b>				1,191			975	216	4	1,187	972	215	1,028

Description	Land Use Code	Quantity/SF	PM Equation	PM Trips	% In	% Out	PM In	PM Out	Internal Trips	External Trips	(2) Pass-by Trips	Pass-by trips %	Net New Trips
Marina	420	50	1.34 per Acre	67	60	40	40	27	0	67	40	27	7
Water Front Commercial	814	50,000	$T=2.40(x)+21.48$	141	44	56	62	79	3	138	61	78	35
General Office	710	250,000	$T=1.12(x)+78.81$	359	17	83	61	298	3	356	60	295	8
Industrial Park	130	1,250,000	$T=0.77(x)+42.11$	1,005	21	79	211	794	0	1,005	211	794	15
<b>TOTAL:</b>				1,572			374	1,198	6	1,566	372	1,194	234

Source: ITE, 8th Edition

(1) San Diego Municipal Code, Land Development Code, Trip Generation Manual, Revised May 2003  
 (2) Martin County 2005 Impact Fee Update

DAILY: 757 176 933  
 AM: 255 972 1,227

Net New Trips = EFU+PFU			
DAILY:	IN	OUT	TOTAL
AM:	757	176	933
PM:	255	972	1,227

TABLE 1: Trip Generation

EXISTING FUTURE LAND USE				
Description	Land Use Code	Quantity/ Acres	Daily Equation	Daily Trips
(1) Agriculture	N/A	5	2 Trips Per Acre	10

Description	Land Use Code	Quantity/ Acres	PM Equation	PM Trips	% In	% Out	PM In	PM Out
(1) Agriculture	N/A	5	21% of Daily	2	53	47	1	1

Based on Manufacturing Percent

PROPOSED FUTURE LAND USE - FIVE YEAR

Description	Land Use Code	Quantity/ SF	Daily Equation	PM Trips	% In	% Out	(2) Pass-by %	Pass-by trips	Net New Trips
Shopping Center	820	20,000	$\ln(T)=0.67 \ln(x)+5.83$	2,386	52	1,241	1,145		

Description	Land Use Code	Quantity/ SF	PM Equation	PM Trips	% In	% Out	(2) Pass-by %	Pass-by trips	Net New Trips
Shopping Center	820	20,000	$\ln(T)=0.67 \ln(x)+3.37$	216	49	51	106	110	52

FIVE YEAR NET NEW TRIPS = PFLU - EFLU				
DAILY:	IN	OUT	TOTAL	
PM:	50	52	102	1,135

PROPOSED FUTURE LAND USE - 2030

Description	Land Use Code	Quantity/ SF	Daily Equation	PM Trips	% In	% Out	(2) Pass-by %	Pass-by trips	Net New Trips
Shopping Center	820	50,000	$\ln(T)=0.65 \ln(x)+5.83$	4,328	48	2,077	2,251		

Description	Land Use Code	Quantity/ SF	PM Equation	PM Trips	% In	% Out	(2) Pass-by %	Pass-by trips	Net New Trips
Shopping Center	820	50,000	$\ln(T)=0.67 \ln(x)+3.37$	400	49	51	196	204	48

2030 NET NEW TRIPS = PFLU - EFLU				
DAILY:	IN	OUT	TOTAL	
PM:	101	105	206	2,241

Source: ITE, 8th Edition

(1) San Diego Municipal Code, Land Development Code, Trip Generation Manual, Revised May 2009

(2) Martin County 2005 Impact Fee Update

TABLE 1: Trip Generation- 2014

DAILY - EXISTING FUTURE LAND USE			
Description	ITE Code	Quantity	Daily Equation
Single-Family	210	154	$\ln(T)=0.92 \ln(x)+2.71$
			1,547

## PM - EXISTING FUTURE LAND USE

Description	ITE Code	Quantity	PM Equation	PM Trips	% In	% Out	PM In	PM Out
Single-Family	210	154	$\ln(T)=0.90 \ln(x)+0.51$	155	63	37	98	57

## DAILY - PROPOSED FUTURE LAND USE

Description	ITE Code	Quantity	Daily Equation	Daily Trips
Single-Family	210	270	$\ln(T)=0.92 \ln(x)+2.71$	2,593
State Park (Acres)	413	500	$T=0.65(x)$	325
TOTAL				2,918

## PM - PROPOSED FUTURE LAND USE

Description	ITE Code	Quantity	PM Equation	PM Trips	% In	% Out	PM In	PM Out
Single-Family	210	270	$\ln(T)=0.90 \ln(x)+0.51$	257	63	37	162	95
State Park (Acres)	413	500	$T=0.03(x)$	15	45	55	7	8
TOTAL				272			169	103

Source: ITE, 8th Edition

TOTAL NEW NET TRIPS	
Daily:	1,371
PM Trips:	117
PM Trips In:	71
PM Trips Out:	46

TABLE 4: Trip Generation- 2030

DAILY - EXISTING FUTURE LAND USE			
Description	ITE Code	Quantity	Daily Equation
Single-Family	210	154	$\ln(T)=0.92 \ln(x)+2.71$
			1,547

## PM - EXISTING FUTURE LAND USE

Description	ITE Code	Quantity	PM Equation	PM Trips	% In	% Out	PM In	PM Out
Single-Family	210	154	$\ln(T)=0.90 \ln(x)+0.51$	155	63	37	98	57

## DAILY - PROPOSED FUTURE LAND USE

Description	ITE Code	Quantity	Daily Equation	Daily Trips
Single-Family	210	270	$\ln(T)=0.92 \ln(x)+2.71$	2,593
State Park (Acres)	413	500	$T=0.65(x)$	325
TOTAL				2,918

## PM - PROPOSED FUTURE LAND USE

Description	ITE Code	Quantity	PM Equation	PM Trips	% In	% Out	PM In	PM Out
Single-Family	210	270	$\ln(T)=0.90 \ln(x)+0.51$	257	63	37	162	95
State Park (Acres)	413	500	$T=0.03(x)$	15	45	55	7	8
TOTAL				272			169	103

Source: ITE, 8th Edition

TOTAL NEW NET TRIPS	
Daily:	1,371
PM Trips:	117
PM Trips In:	71
PM Trips Out:	46

TABLE 1: Trip Generation- 2014

## DAILY - EXISTING FUTURE LAND USE

Description	Land Use Code	Quantity	Daily Equation	Daily Trips
Single-Family	210	195	$\ln(T)=0.92 \ln(x)+2.71$	1,922

## PM - EXISTING FUTURE LAND USE

Description	Land Use Code	SF/Quantity	PM Equation	PM Trips	% In	% Out	PM In	PM Out
Single-Family	210	195	$\ln(T)=0.90 \ln(x)+0.51$	192	63	37	121	71

## DAILY - PROPOSED FUTURE LAND USE

Description	Land Use Code	Quantity	Daily Equation	Daily Trips
Single-Family	210	195	$\ln(T)=0.92 \ln(x)+2.71$	1,922

## PM - PROPOSED FUTURE LAND USE

Description	Land Use Code	SF/Quantity	PM Equation	PM Trips	% In	% Out	PM In	PM Out
Single-Family	210	195	$\ln(T)=0.90 \ln(x)+0.51$	192	63	37	121	71

Source: ITE, 8th Edition

TOTAL NEW NET TRIPS								
Daily:	0							
PM Trips:	0							
PM Trips In:	0							
PM Trips Out:	0							

**TABLE 3: Trip Generation- 2030**  
**DAILY - EXISTING FUTURE LAND USE**

Description	Land Use Code	Quantity	Daily Equation	Daily Trips
Single-Family	210	195	$\ln(T)=0.92 \ln(x)+2.71$	1,922

**PM - EXISTING FUTURE LAND USE**

Description	Land Use Code	SF/Quantity	PM Equation	PM Trips	% In	% Out	PM In	PM Out
Single-Family	210	195	$\ln(T)=0.90 \ln(x)+0.51$	192	63	37	121	71

**DAILY - PROPOSED FUTURE LAND USE**

Description	Land Use Code	Quantity	Daily Equation	Daily Trips
Single-Family	210	600	$\ln(T)=0.92 \ln(x)+2.71$	5,406

**PM - PROPOSED FUTURE LAND USE**

Description	Land Use Code	SF/Quantity	PM Equation	PM Trips	% In	% Out	PM In	PM Out
Single-Family	210	600	$\ln(T)=0.90 \ln(x)+0.51$	527	63	37	332	195

Source: ITE, 8th Edition

<b>TOTAL NEW NET TRIPS</b>	
Daily:	3,484
PM Trips:	335
PM Trips In:	211
PM Trips Out:	124

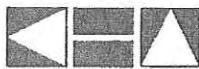


TABLE 1  
SUNRISE GROVE  
SUBPHASE TRIP GENERATION

Land Use		Daily Trips	AM Peak Hour			PM Peak Hour			
			Total	In	Out	Total	In	Out	
<b>Current Future Land Use</b>									
Single Family Residential	90 DUs	944	73	18	55	96	60	36	
<i>Net Total Existing</i>		944	73	18	55	96	60	36	
<b>Proposed Future Land Use</b>									
Industrial Park	<i>Subtotal</i>	1,000,000 sq.feet	5,708	607	498	109	812	171	641
Pass-by Capture (maximum by use)			5,708	607	498	109	812	171	641
Industrial Park	<i>Subtotal</i>	15%	856	91	75	16	122	26	96
			856	91	75	16	122	26	96
Pass-by Capture (based on adjacent street)		or							
Martin Highway	<i>Subtotal</i>	10% of Adjacent Street	412	41	21	20	41	21	20
			412	41	21	20	41	21	20
Pass-by Capture	<i>Subtotal</i>		412	41	21	16	41	21	20
			412	41	21	16	41	21	20
<i>Net Total Proposed</i>			5,296	566	477	93	771	150	621
<i>Net Change in Trips</i>			4,352	493	459	38	675	90	585

Trip generation was calculated using the following data:

**Daily Traffic Generation**

Industrial Park  $[ITE 130] = T = 4.96*(X/1000) + 747.75$

Single Family Residential  $[ITE 210] = \ln(T) = 0.92*\ln(X) + 2.71$

**AM Peak Hour Traffic Generation**

Industrial Park  $[ITE 130] = \ln(T) = 0.77*\ln(X/1000) + 1.09; (82\% \text{ in}, 18\% \text{ out})$

Single Family Residential  $[ITE 210] = T = 0.70*(X) + 9.74; (25\% \text{ in}, 75\% \text{ out})$

**PM Peak Hour Traffic Generation**

Industrial Park  $[ITE 130] = T = 0.77*(X/1000) + 42.11; (21\% \text{ in}, 79\% \text{ out})$

Single Family Residential  $[ITE 210] = \ln(T) = 0.90*\ln(X) + 0.51; (63\% \text{ in}, 37\% \text{ out})$

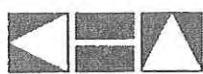


TABLE 3  
SUNRISE GROVE  
TRIP GENERATION

Land Use		Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
<b>Current Future Land Use</b>								
Single Family Residential	90 DUs	944	73	18	55	96	60	36
<i>Net Total Existing</i>		944	73	18	55	96	60	36
<b>Proposed Future Land Use</b>								
Industrial Park	5,000,000 sq.feet	25,548	2,097	1,720	377	3,892	817	3,075
Hotel	500 room	4,460	335	194	141	350	172	178
General Office	1,000,000 sq.feet	7,856	1,183	1,041	142	1,199	204	995
Retail	200,000 sq.feet	10,656	232	142	90	1,012	496	516
Internal Capture	<i>Subtotal</i>	48,520	3,847	3,097	750	6,453	1,689	4,764
Industrial Park	Daily	0.27%	0.55%	337	6	5	1	21
Hotel	25.40%	3.88%	28.86%	1,133	13	8	5	101
General Office	1.32%	0.27%	0.55%	103	3	3	0	7
Retail	13.50%	9.48%	12.15%	1,439	22	13	9	123
Pass-by Capture (maximum by use)	<i>Subtotal</i>	3,012	44	29	15	252	115	137
Industrial Park	15%	3,782	314	257	57	581	122	459
Hotel	34%	1,131	109	63	46	85	41	44
General Office	8%	620	94	83	11	95	16	79
Retail	31%	2,857	65	40	25	276	135	141
Pass-by Capture (based on adjacent street)	<i>Subtotal</i>	8,390	582	443	139	1,037	314	723
Martin Highway	10% of Adjacent Street Traffic	412	41	21	20	41	21	20
		412	41	21	20	41	21	20
Pass-by Capture	<i>Subtotal</i>	412	41	21	20	41	21	20
	<i>Net Total Proposed</i>	45,096	3,762	3,047	715	6,160	1,553	4,607
	<i>Net Change in Trips</i>		44,152	3,689	3,029	660	6,064	1,493

Trip generation was calculated using the following data:

**Daily Traffic Generation**

Industrial Park	[ITE 130]	=	$T = 4.96 * (X/1000) + 747.75$
Single Family Residential	[ITE 210]	=	$\ln(T) = 0.92 * \ln(X) + 2.71$
Hotel	[ITE 310]	=	$T = 8.92$ trips per occupied room
General Office	[ITE 710]	=	$\ln(T) = 0.77 * \ln(X/1000) + 3.65$
Retail	[ITE 820]	=	$\ln(T) = 0.65 * \ln(X/1000) + 5.83$

**AM Peak Hour Traffic Generation**

Industrial Park	[ITE 130]	=	$\ln(T) = 0.77 * \ln(X/1000) + 1.09$ ; (82% in, 18% out)
Single Family Residential	[ITE 210]	=	$T = 0.70 * (X) + 9.74$ ; (25% in, 75% out)
Hotel	[ITE 310]	=	$T = 0.67$ trips per occupied room; (58% in, 42% out)
General Office	[ITE 710]	=	$\ln(T) = 0.8 * \ln(X/1000) + 1.55$ ; (88% in, 12% out)
Retail	[ITE 820]	=	$\ln(T) = 0.59 * \ln(X/1000) + 2.32$ ; (61% in, 39% out)

**PM Peak Hour Traffic Generation**

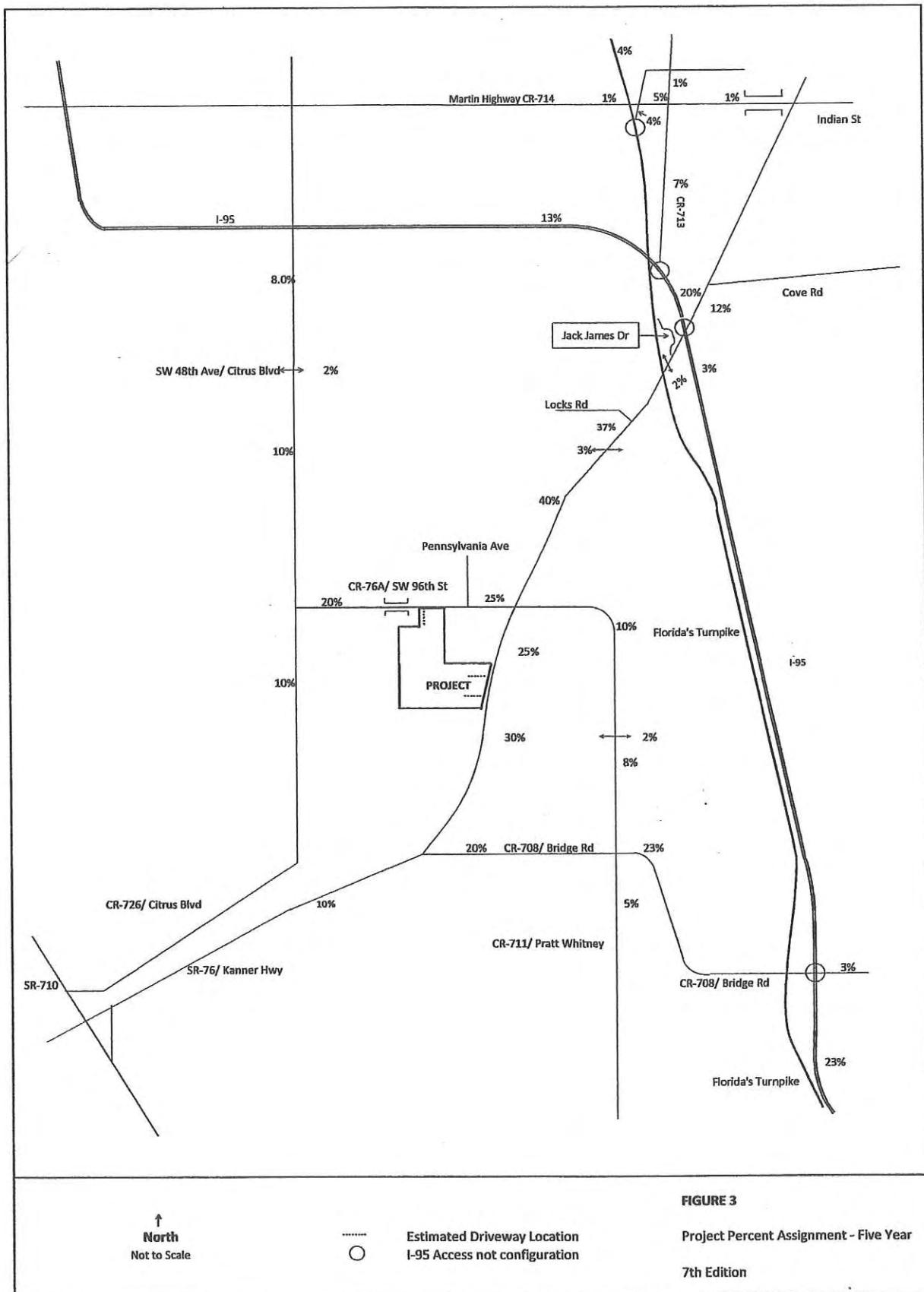
Industrial Park	[ITE 130]	=	$T = 0.77 * (X/1000) + 42.11$ ; (21% in, 79% out)
Single Family Residential	[ITE 210]	=	$\ln(T) = 0.90 * \ln(X) + 0.51$ ; (63% in, 37% out)
Hotel	[ITE 310]	=	$T = 0.70$ trips per occupied room; (49% in, 51% out)
General Office	[ITE 710]	=	$T = 1.12 * (X/1000) + 78.81$ ; (17% in, 83% out)
Retail	[ITE 820]	=	$\ln(T) = 0.67 * \ln(X/1000) + 3.37$ ; (49% in, 51% out)

## APPENDIX 2

### SIGNIFICANCE INFO

PROJECT 2030 ASSIGNMENT (New Cumulative Model Select Zone)

PROJECT 2015 ASSIGNMENT



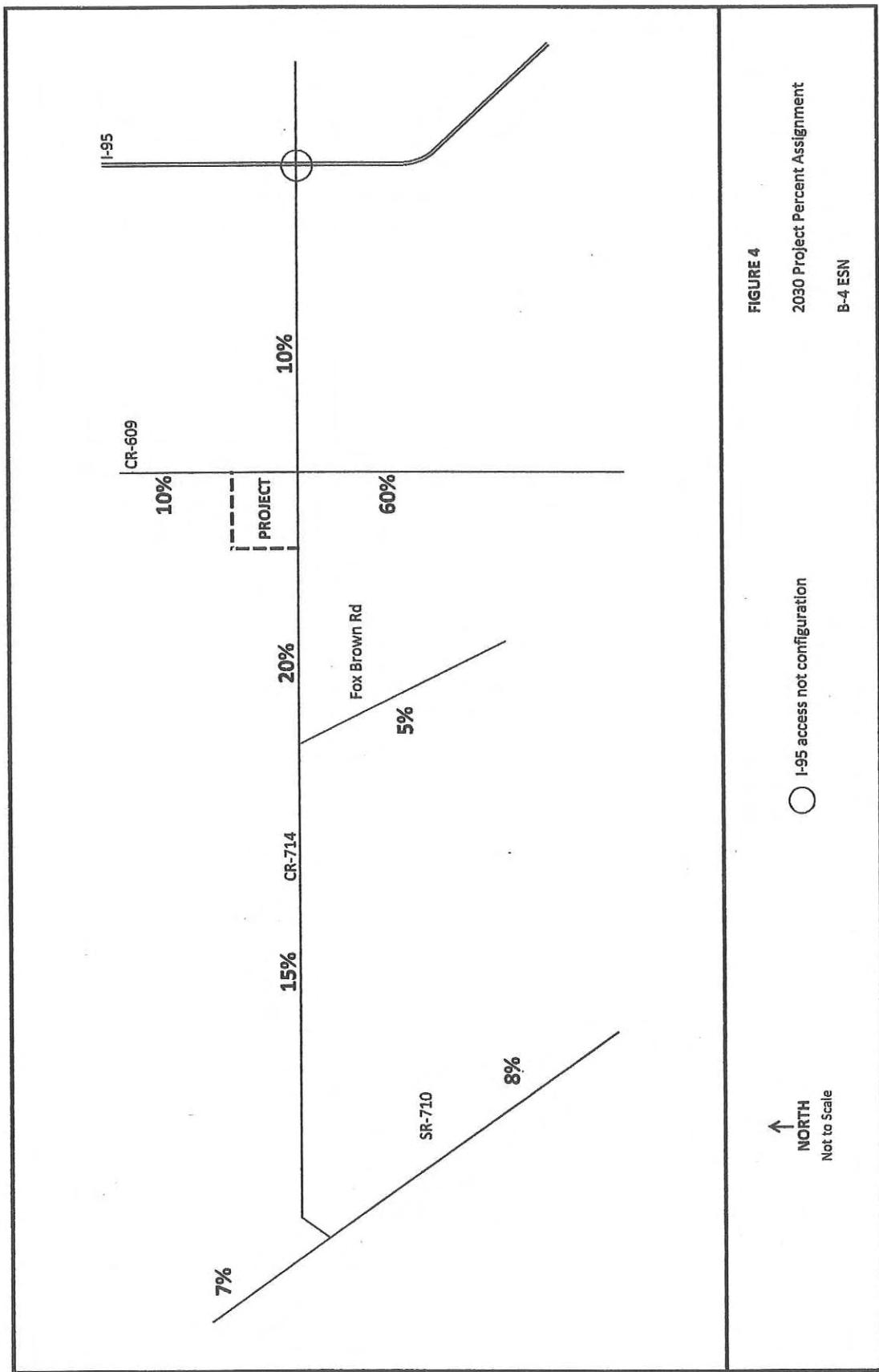
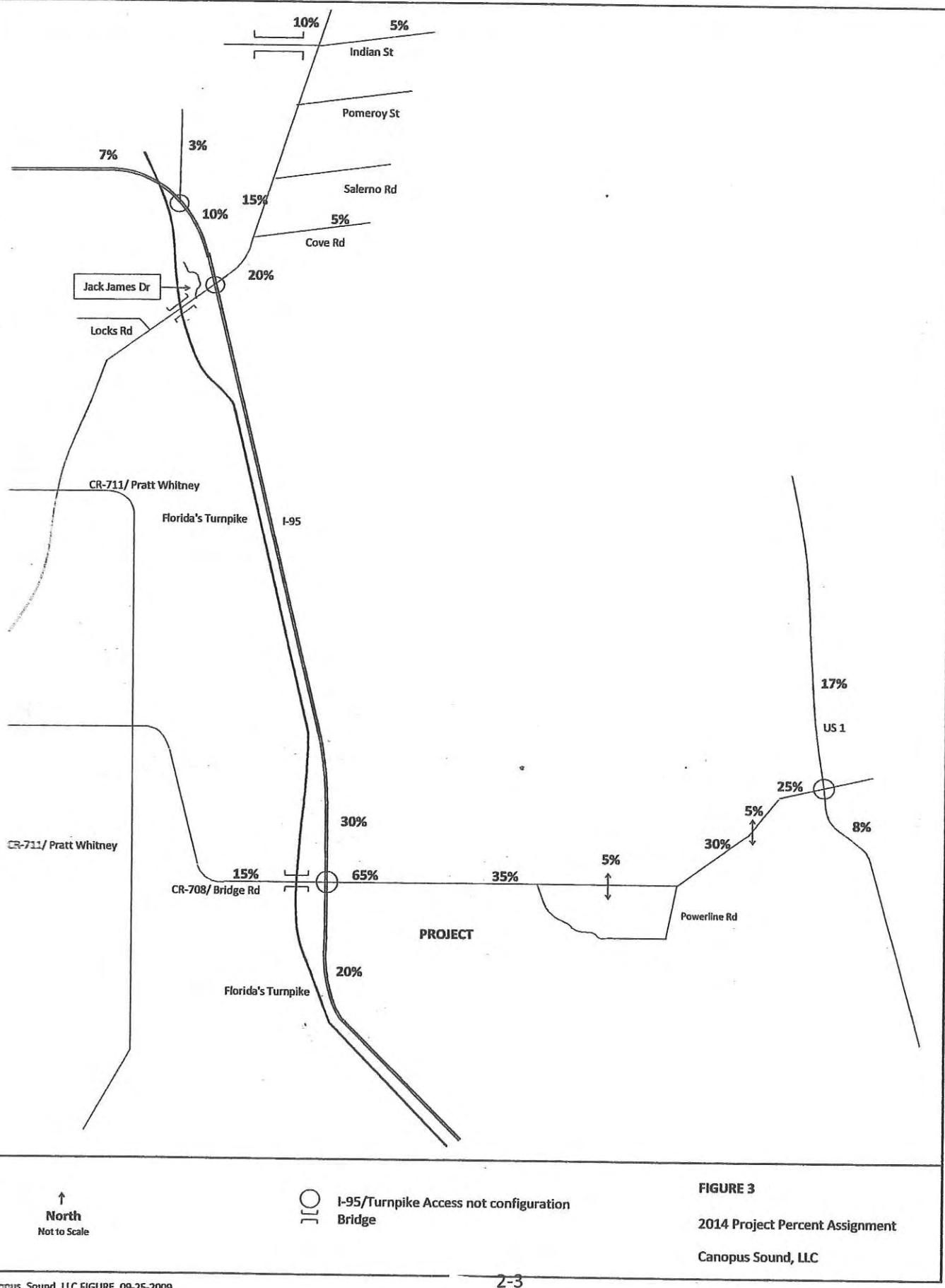
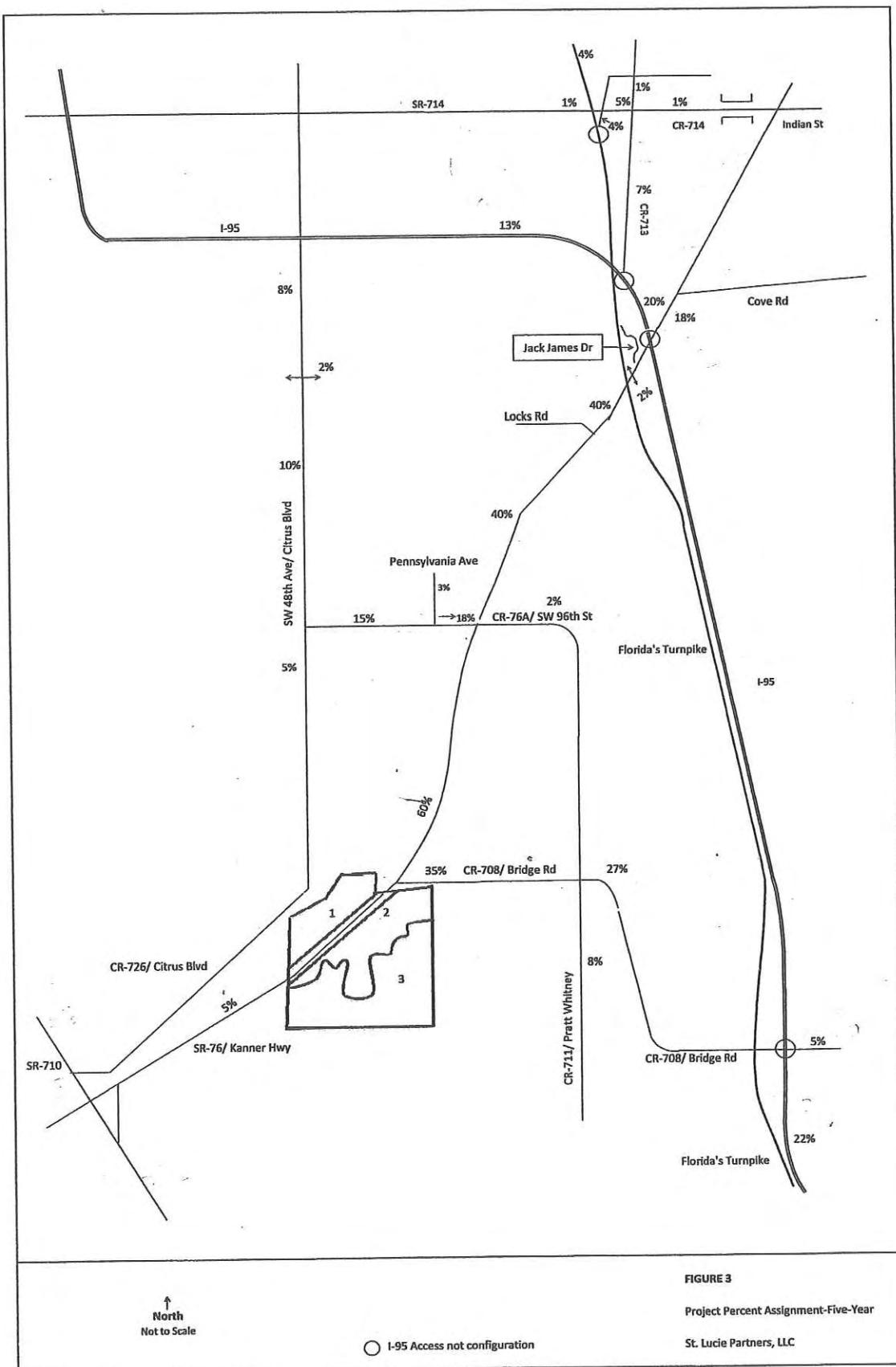


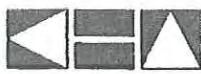
FIGURE 4

2030 Project Percent Assignment  
B-4 ESN



**FIGURE 3**  
2014 Project Percent Assignment  
Canopus Sound, LLC

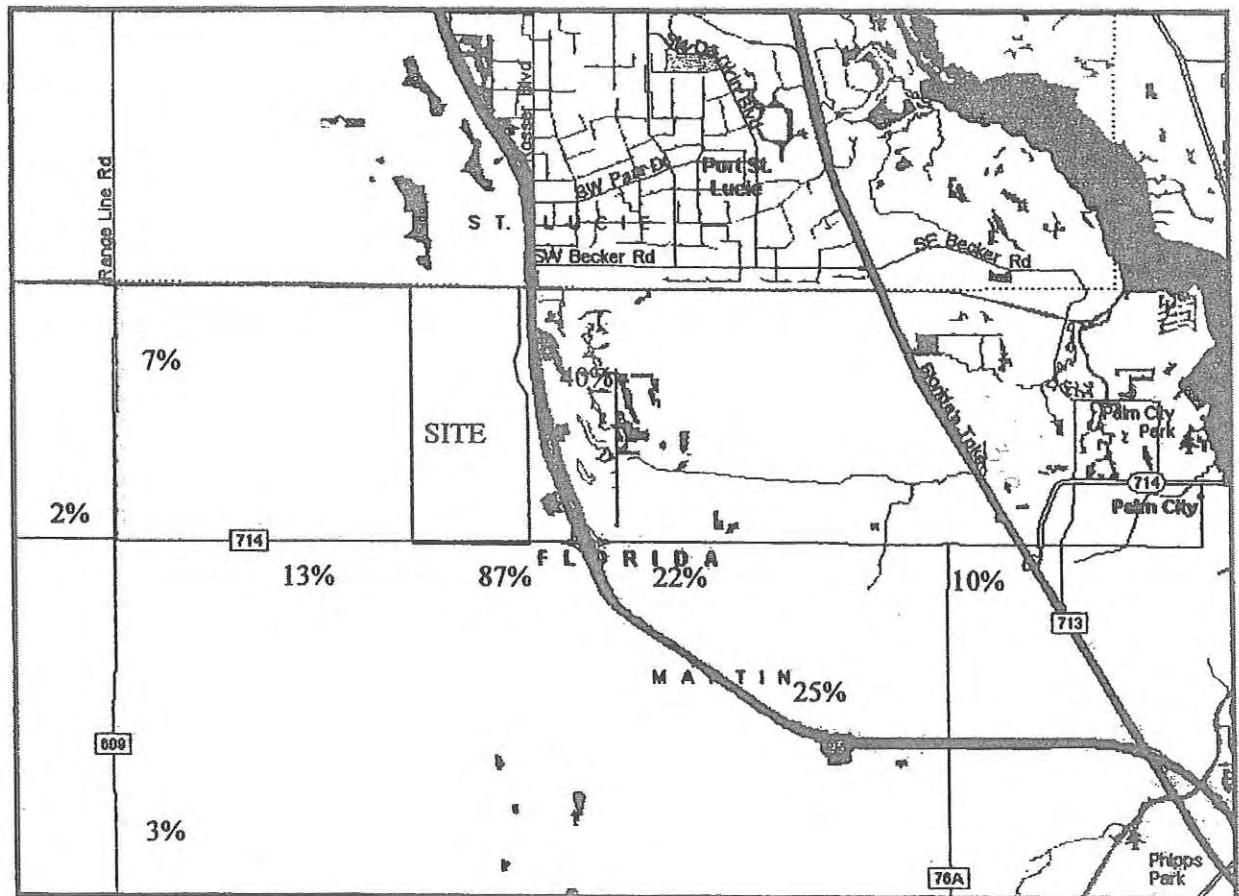




Kimley-Horn  
and Associates, Inc.

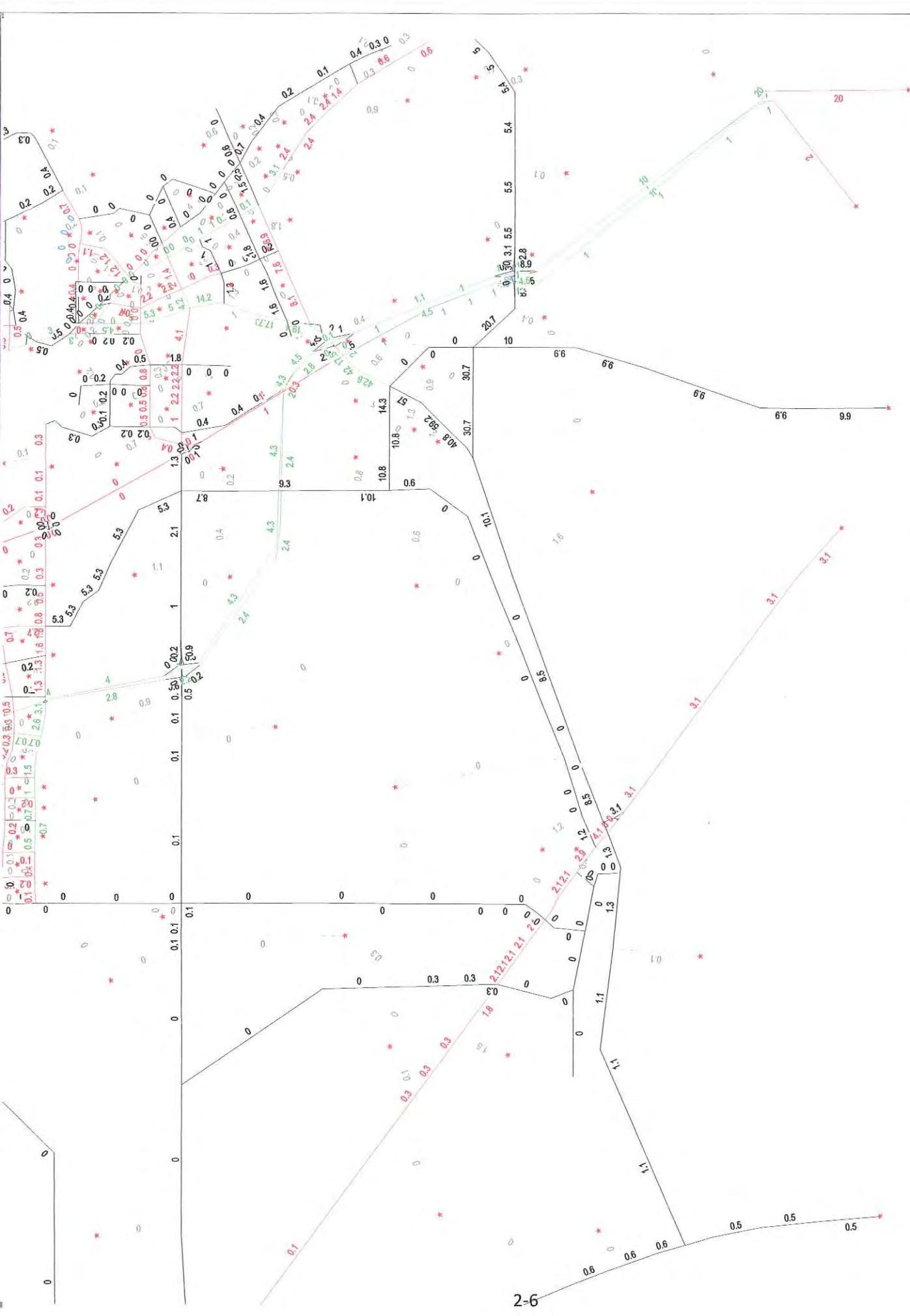
The potential traffic resulting from the subject site was assigned to the external roadway network based on the distribution and assignment obtained from the model. The model outputs can be found in the Appendix.

Figure 2. Traffic Assignment



### Background Traffic

Background traffic was developed for analysis year 2014. 2008 peak hour directional traffic volumes and growth rates were obtained from the Martin County 2008 Roadway Level of Service Inventory Report. These 2008 volumes were then grown to year 2014 volumes using their respective compounded growth rates from the Martin County Roadway Level of Service Inventory 041449000

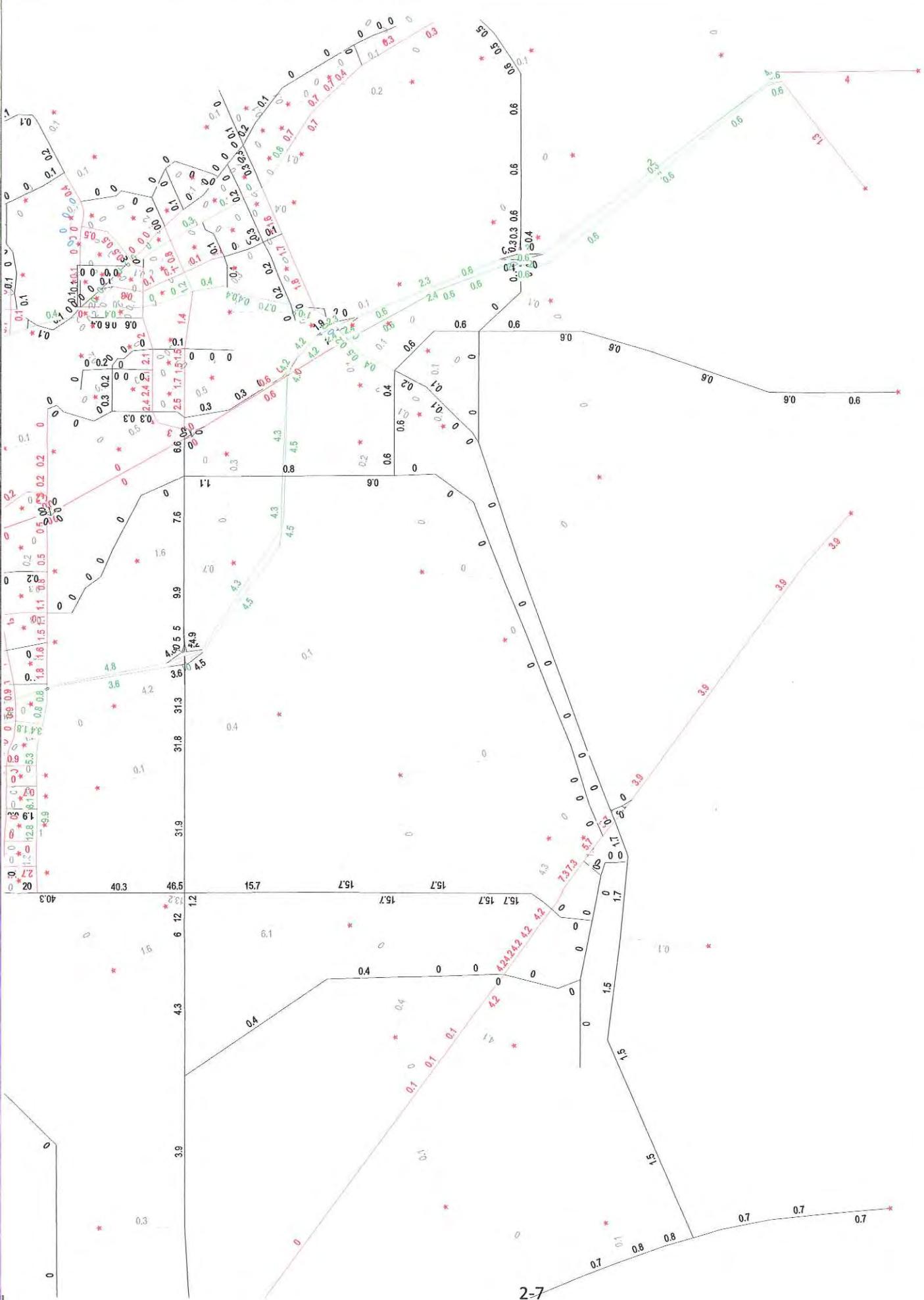


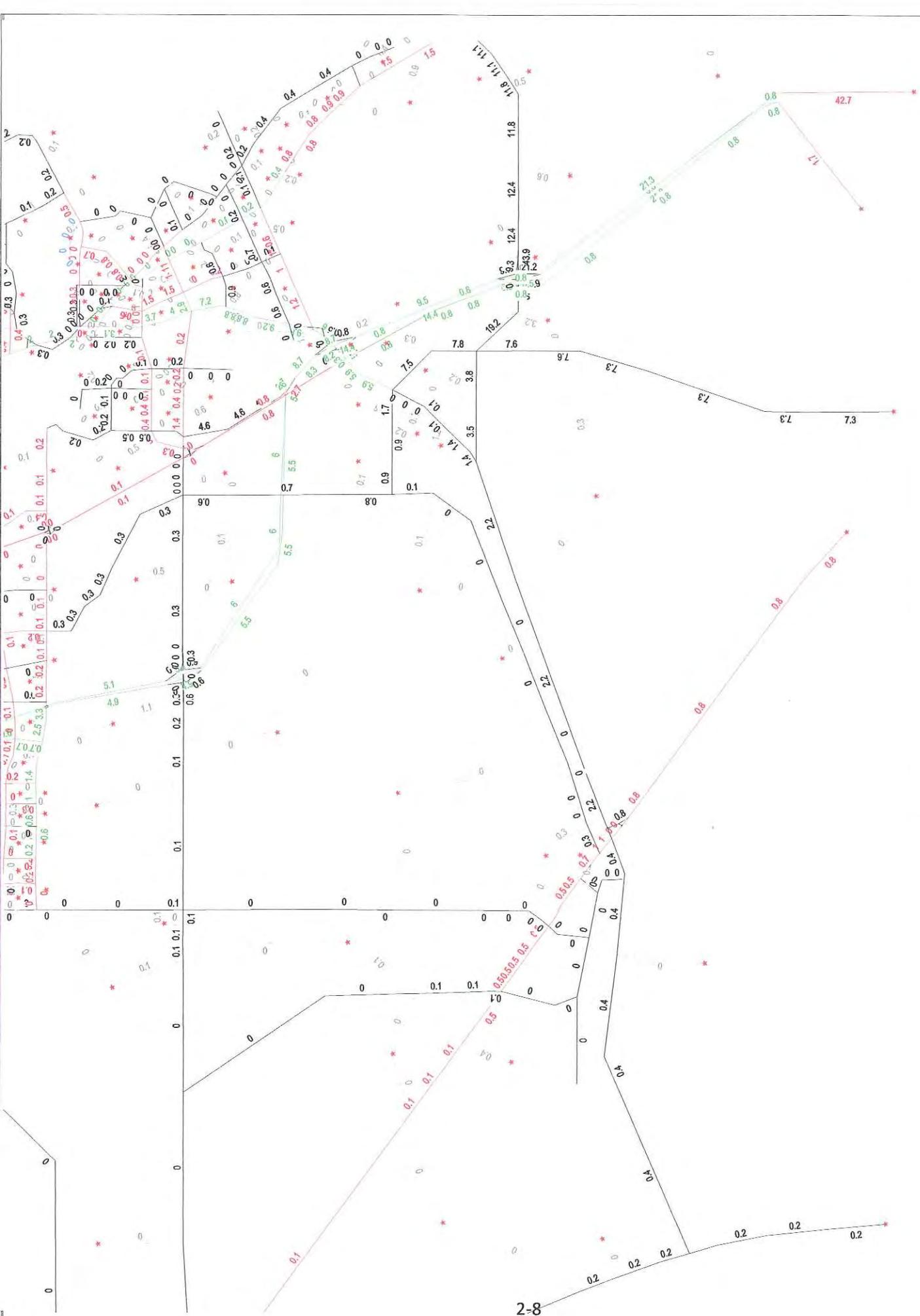
MARTIN COUNTY CUMULATIVE LUPA ANALYSIS  
2030 MODEL - SEVENTH EDITION TRAFFIC DISTRIBUTION

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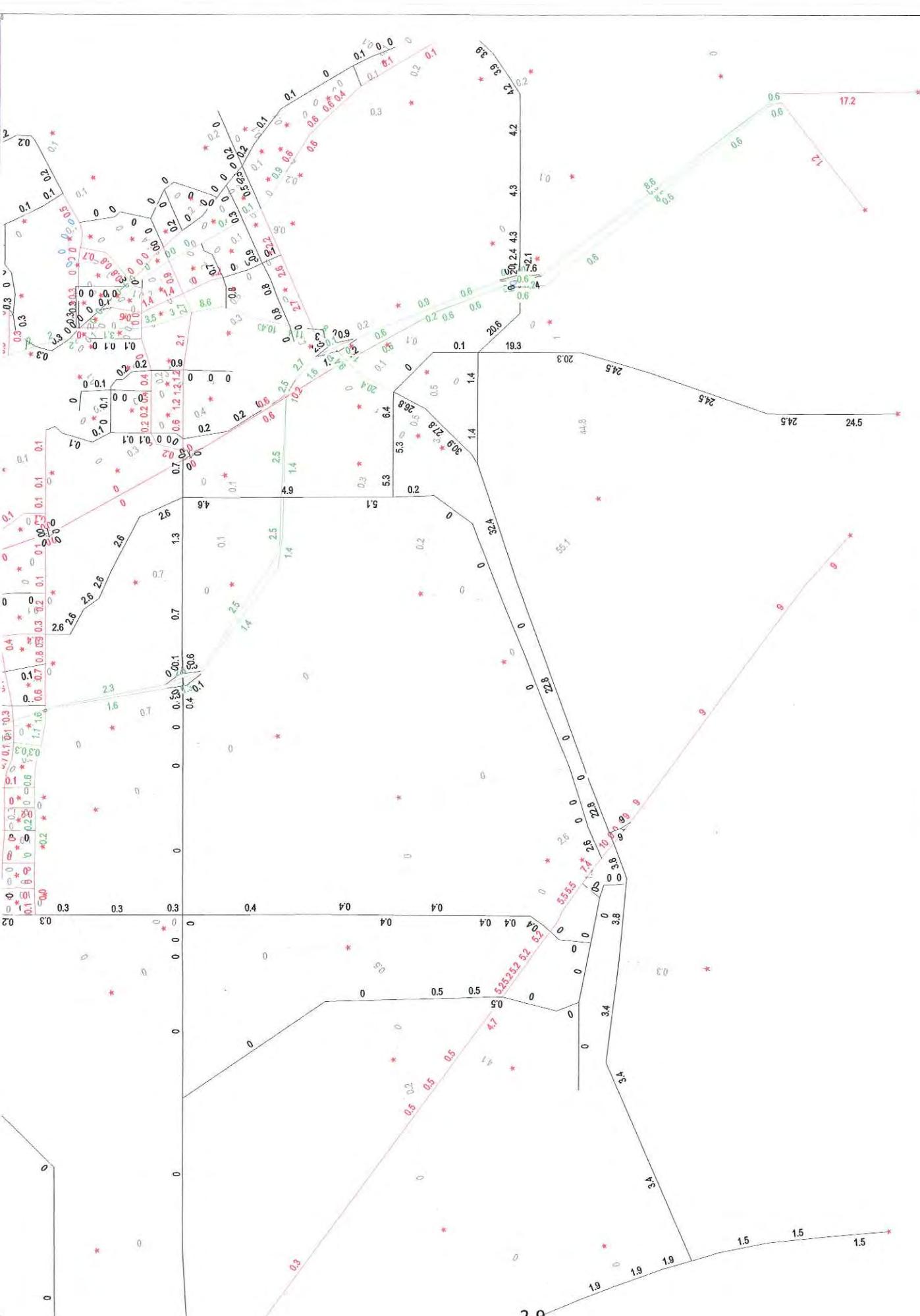
Licensed to Kimley-Horn and Associates, Inc.

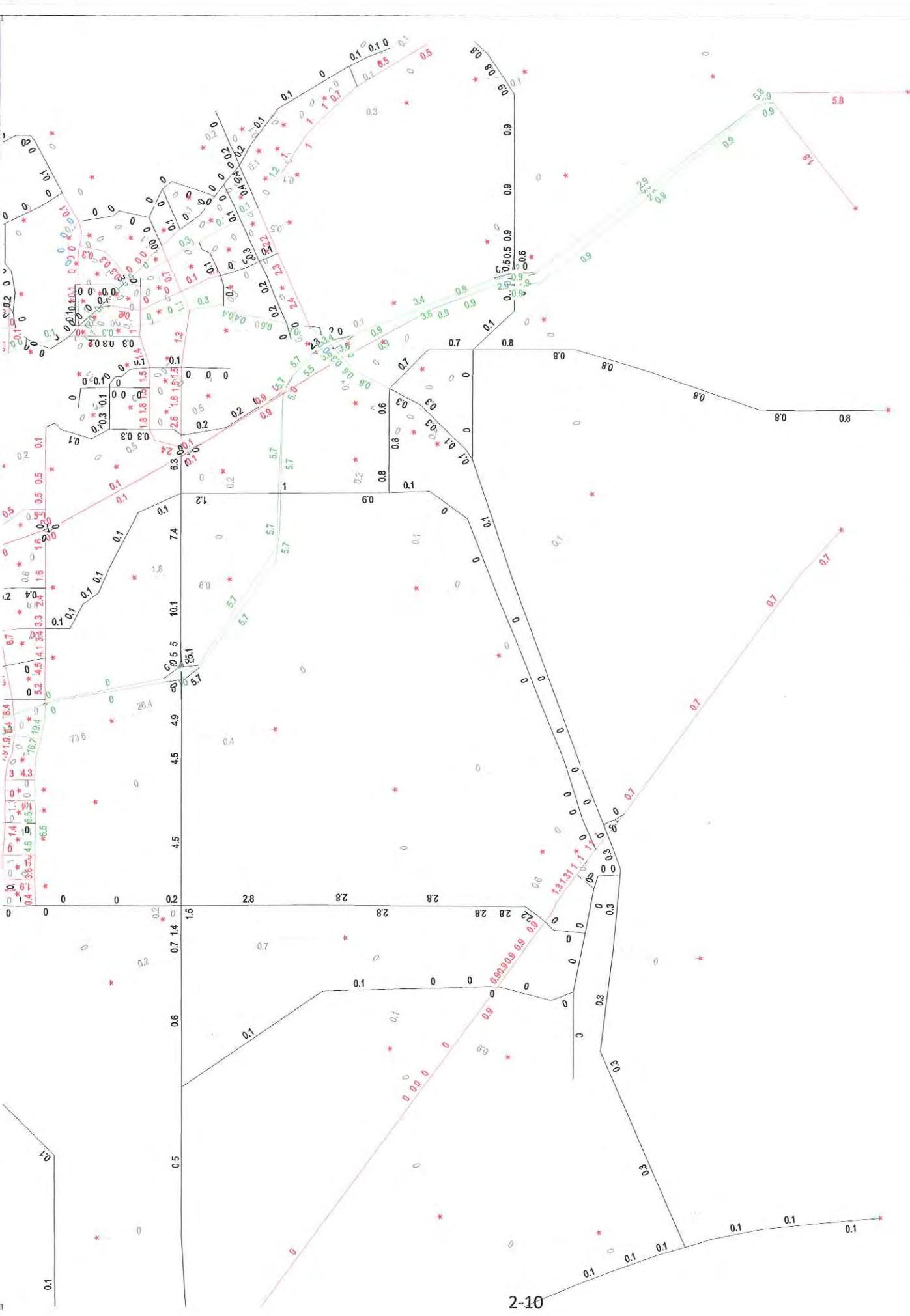
MARTIN COUNTY CUMULATIVE LUPA ANALYSIS  
2030 MODEL - BECKER B-4 TRAFFIC DISTRIBUTION





MARTIN COUNTY CUMULATIVE LUPA ANALYSIS  
2030 MODEL - CANOPUS SOUND TRAFFIC DISTRIBUTION





MARTIN COUNTY CUMULATIVE LUPA ANALYSIS  
2030 MODEL - SUNRISE GROVES TRAFFIC DISTRIBUTION

APPENDIX 3

2015 DATA:

HIGHPLAN (ARTPLAN/FREE PLAN)

5-YEAR WORK PROGRAM

MARTIN COUNTY 2009 ROADWAY LEVEL OF SERVICE INVENTORY REPORT

FDOT EXISTING COUNTS

FDOT HISTORIC GROWTH CALCULATION

# ARTPLAN 2009 Conceptual Planning Analysis

## Project Information

Analyst	SOR	Arterial Name	SR 714	Study Period	Dir Hr Demand Vol
Date Prepared	7/9/2010 12:00:00 AM	From	east of Turnpike	Modal Analysis	Auto Only
Agency	Susan E. O'Rourke, P.E., Inc.	To		Program	ARTPLAN 2009
Area Type	Large Urbanized	Peak Direction	Westbound	Version Date	10/18/09
Arterial Class	2				
File Name	C:\Temp\preview.xml				
User Notes	LUPAS cumulative analysis 2015				

## Arterial Data

K	0	PHF	0.95	Control Type	Semiactuated
D	0	% Heavy Vehicles	3	Base Sat. Flow Rate	1950

## Automobile Intersection and Segment Data

Segment #	Cycle Length	Thru g/C	Arr. Type	INT # Dir. Lanes	% Left Turns	% Right Turns	Left Turn Lanes	# Left Turn Lanes	LT Storage Length	Left g/C	Right Turn Lanes	Length	AADT	Hourly Vol.	SEG # Dir. Lanes	FFS	Median Type
1 (to Turnpike/SR 714)	130	0.38	4	1	30	12	Yes	1	235	0.25	Yes	1742	19176	766	1	50	Non-Restrictive
2 (to 42nd Avenue)	130	0.5	4	1	6	12	Yes	1	235	0.10	Yes	3538.128	14340	1132	1	50	Non-Restrictive
3 (to CR 76A)	130	0.45	4	1	30	6	Yes	1	325	0.25	Yes	5280	14340	1132	1	50	Non-Restrictive

## Automobile LOS

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	Queue Ratio	Speed (mph)	Segment LOS								
1 (to Turnpike/SR 714)	468	1788	0.688	34.76	C	0.86	18.91	D								
2 (to 42nd Avenue)	977	1866	1.047	62.41	E	0.27	20.18	D								
3 (to CR 76A)	763	1851	0.916	29.99	C	0.95	31.55	B								
Arterial Length	2.0000	Weighted g/C	0.43	FFS Delay	152.45	Threshold Delay	0.00	Auto Speed	24.29	Auto LOS	C					

# HIGHPLAN 2009 Conceptual Planning Analysis

## Project Information

<b>Analyst</b>	SO'R	<b>Highway Name</b>	CR 713	<b>Study Period</b>	Dir Hr Demand Vol		
<b>Date Prepared</b>	7/9/2010 12:00:00 AM	<b>From</b>	CR 714	<b>Program</b>	HIGHPLAN 2009		
<b>Agency</b>	Susan E. O'Rourke, P.E., Inc	<b>To</b>	I-95	<b>Version Date</b>	3/7/10		
<b>Area Type</b>	Large/Other Urbanized	<b>Peak Direction</b>	Northbound				
<b>File Name</b>	C:\Users\Susan\AppData\Local\Temp\preview.xml						
<b>User Notes</b>	2015 Cumulative LUPA Analysis						

## Highway Data

Roadway Variables			Traffic Variables				
<b>Area Type</b>	Large/Other Urbanized	<b>Segment Length</b>	5	<b>AADT</b>	15296	<b>PHF</b>	0.950
<b># Thru Lanes</b>	2	<b>Median</b>	No	<b>K</b>	0.090	<b>% Heavy Vehicles</b>	2.0
<b>Terrain</b>	Level	<b>Left Turn Impact</b>	No	<b>D</b>	0.550	<b>Base Capacity</b>	1700
<b>Posted Speed</b>	50	<b>Pass Lane Spacing</b>	N/A	<b>Peak Dir. Hrly. Vol.</b>	1165	<b>Local Adj. Factor</b>	1.00
<b>Free Flow Speed</b>	55	<b>% NPZ</b>	75	<b>Off Peak Dir. Hrly. Vol.</b>	504	<b>Adjusted Capacity</b>	1599

## LOS Results

<b>v/c Ratio</b>	0.72	<b>Density</b>	N/A	<b>PTSF</b>	91.15	<b>ATS</b>	36.8	<b>% FFS</b>	66.89
<b>FFS Delay</b>	162.01	<b>LOS Thresh. Delay</b>	2.79	<b>Service Measure</b>	PctFFS	<b>LOS</b>	D		

## Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 0 veh/h/in.

<b>Lanes</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>Hourly Volume In Peak Direction</b>					
1	120	420	820	1170	1480
2					
3					
4					
<b>Lanes</b>	<b>Hourly Volume In Both Directions</b>				
2	220	770	1500	2130	2700
4					
6					
8					
<b>Lanes</b>	<b>Annual Average Daily Traffic</b>				
2	N/A	N/A	N/A	N/A	N/A

4
6
8

Cannot  
be achieved based on input data provided.

# Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service  
volume tables to obtain the LOS.

$$14,279 \times 1.005^6 + \frac{50}{109} = 15,296$$

# FREEPLAN 2009 Conceptual Planning Analysis

## Project Information

Analyst	SOR	Freeway Name	I-95	Study Period	Dir Hr Demand Vol		
Date Prepared	7/9/2010 12:06:29 PM	From	Indiantown Road	Program	FREEPLAN 2009		
Agency	Susan E. O'Rourke, PE Inc	To	Bridge Road	Version Date	2/22/10		
Area Type	Transitioning/Urban	Peak Direction	Northbound				
File Name	C:\Users\Susan\AppData\Local\Temp\preview.xml						
User Notes	2015 Cumulative Analysis						

## Freeway Data

AADT	79000	Freeway Input Volume	4569	Local Adjustment Factor	0.95
K	0.09	PHF	0.95	Ramp Metering Exists	No
D	0.63	Percent Trucks Entering First Segment	11.9		

## Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	Indiantown	Bridge	Basic Segment	48048	0	4569	3	0	70	75	Level

## Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	

## Ramp Descriptions

Segment	Type	First Off-Ramp				First On-Ramp				Second Off-Ramp				Second On-Ramp			
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	

## Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact							
1	Indiantown	Bridge	Basic Segment	4569	6133	71.2	25.1	C	N/A							
Freeway Length	9.10000	FFS Delay	23.11	Threshold Delay	0.00	Avg. Speed	71.23	Density	25.1	LOS	D					

## Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/in.

Los based on density

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
4					
6					

8					
10					
12					
<b>Lanes</b>	<b>Peak Hour Volume Both Directions</b>				
4					
6					
8					
10					
12					
<b>Lanes</b>	<b>Annual Average Daily Traffic</b>				
4					
6					
8					
10					
12					

# Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.

## One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.

Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.

\* For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.

\*\* Cannot be achieved based on input data provided.

\*\*\* Not applicable for that level of service letter grade. See generalized tables notes for more details.

## 6.3 FREEPLAN

*FREEPLAN was developed specifically for freeway planning and preliminary engineering applications.*

FREEPLAN is FDOT's planning and preliminary engineering software for freeways, multilane divided roadways with at least two lanes for exclusive use of traffic in each direction and full control of ingress and egress.

### FREEPLAN features

Major features of FREEPLAN are:

- Use of the HCM (Chapter 22) as the primary resource document for the methodology, such that the FREEPLAN methodology should "not be inconsistent" with the HCM, but, as appropriate, extend the HCM for planning and preliminary engineering purposes;
- Concentration on the thru vehicle while being sensitive to the analysis of other vehicles on the freeway and on segments of the freeway;
- Rather than combining point analyses (e.g., ramps), the approach is structured towards combining segments (e.g., interchange areas, toll plaza influence areas);
- LOS density thresholds slightly lower than HCM basic segment criteria because of the effects of interchanges;
- Capacity reductions in interchange areas;
- Analysis of auxiliary lanes at a preliminary engineering level;
- A generalized treatment of ramp metering;
- A simplified interchange ramp terminal capacity check;
- Consideration of acceleration and deceleration lanes at least 1500 feet in length;
- Use of a "local adjustment factor" or driver population factor based primarily on area type; and
- Resulting volumes matching reasonably well with actual Florida traffic counts.

*LOS is based on density.*

*Capacity is reduced in interchange areas.*

*Results match well with Florida data.*

### Special aspects about operating FREEPLAN

Some special aspects about operating FREEPLAN are listed below:

- The interchange influence area consists of the length from the off ramp gore to on ramp gore, plus 1,500 feet extending from each gore. As a default, the typical interchange influence area is 1 mile consisting of 1,500 feet prior to the off ramp gore, 2,280 feet from gore to gore, and 1,500 feet past the on ramp gore;
- Basic segment influence areas are the same as the basic segment length; and
- AADT is entered into FREEPLAN for the first segment.

### FREEPLAN input and output screens

FREEPLAN input and output screens appear in Figure 6-5.

The measure used to provide an estimate of level of service is density. The three measures of speed, density, and flow or volume are interrelated. If values for two of these measures are known, the third can be computed.

LOS thresholds for a basic freeway segment are summarized below.

LOS	Density Range (pc/mi/ln)
A	0–11
B	> 11–18
C	> 18–26
D	> 26–35
E	> 35–45
F	> 45

*Density is used to define LOS*

For any given level of service, the maximum allowable density is somewhat lower than that for the corresponding level of service on multilane highways. This reflects the higher quality of service drivers expect when using freeways as compared with surface multilane facilities. This does not imply that an at-grade multilane highway will perform better than a freeway with the same number of lanes under similar conditions. For any given density, a freeway will carry higher flow rates at higher speeds than will a comparable multilane highway.

The specification of maximum densities for LOS A through D is based on the collective professional judgment of the members of the Committee on Highway Capacity and Quality of Service of the Transportation Research Board. The upper value shown for LOS E (45 pc/mi/ln) is the maximum density at which sustained flows at capacity are expected to occur.

LOS criteria for basic freeway segments are given in Exhibit 23-2 for free-flow speeds of 75 mi/h or greater, 70 mi/h, 65 mi/h, 60 mi/h, and 55 mi/h. To be within a given LOS, the density criterion must be met. In effect, under base conditions, these are the speeds and flow rates expected to occur at the density shown for each LOS.

Failure, breakdown, congestion, and LOS F occur when queues begin to form on the freeway. Density tends to increase sharply within the queue and may be considerably higher than the maximum value of 45 pc/mi/ln for LOS E. Further guidance on analysis of basic freeway segments with densities greater than 45 pc/mi/ln is provided in Chapter 22.

Exhibit 23-3 shows the relationship between speed, flow, and density for basic freeway segments. It also shows the definition of the various LOS on the basis of density boundary values.

### DETERMINING FFS

FFS is the mean speed of passenger cars measured during low to moderate flows (up to 1,300 pc/h/ln). For a specific segment of freeway, speeds are virtually constant in this range of flow rates. Two methods can be used to determine the FFS of a basic freeway segment: field measurement and estimation with guidelines provided in this chapter. The field-measurement procedure is provided for users who prefer to gather these data directly. However, field measurements are not required for application of the method. If field-measured data are used, no adjustments are made to the free-flow speed.

The speed study should be conducted at a location that is representative of the segment when flows and densities are low (flow rates may be up to 1,300 pc/h/ln). Weekday off-peak hours are generally good times to observe low to moderate flow rates. The speed study should measure the speeds of all passenger cars or use a systematic sample (e.g., every 10th passenger car). The speed study should measure passenger-car speeds across all lanes. A sample of at least 100 passenger-car speeds should be obtained. Any speed measurement technique that has been found acceptable for other types of traffic engineering speed studies may be used. Further guidance on the conduct of speed studies is found in standard traffic engineering publications, such as the *Manual of Traffic Engineering Studies* published by the Institute of Transportation Engineers.

*Density greater than 45 pc/mi/ln (LOS F) indicates a queue that extends into the segment*

*Measure or estimate the FFS*

*Measurement of free-flow speed*

Link	Road Name	From	To	Type	Capacity or Interim LOS Threshold	Generalized Service AADT			2008 AADT			2009 AADT			Peak Hour Factor K <sub>100</sub>	Directional Distribution Ratio	2009 Peak Hour Directional Volume	2009 Generalized LOS	Avg. Annual Growth Rate		
						2006 AADT	2007 AADT	2008 AADT	2006 AADT	2007 AADT	2008 AADT	2006 AADT	2007 AADT	2008 AADT							
2 Baker Rd	SR-5	CR-723		2-Ln Undivided Non-State	792	5,692	4,578	4,080	4,214	3,915	3,100	0,520	204	0,520	204	A/B	0.5%				
164 Berry Ave	Golden Bear Wy	CR-714		2-Ln Undivided Non-State	792	3,053	1,274	2,699	2,620	3,100	0,690	0,540	151	0,690	151	A/B	0.5%				
163 Berry Ave	CR-714	Sunset Tr		2-Ln Undivided Non-State	792	2,022	2,923	1,793	1,507	1,500	0,990	0,550	74	1,000	0,560	252	A/B	0.5%			
3 Britt Rd	Pine Lake Dr	SR-5		2-Ln Undivided Non-State	792	5,268	4,986	4,562	4,797	4,498	4,100	0,560	252	0,560	252	A/B	0.5%				
187 Citrus Blvd.	CR-714 (Martin Hwy)	Port St. Lucie Blvd.		Transitional 2-Ln Uninter/Undivided Flow	1120											3,443	0,120	0,840	347	A/B	0.5%
134 Colorado Ave	SR-5	CR-A1A		4-Ln Divided Non-State	1764	14,728	14,356	14,359	13,546	13,094	1,000	0,550	720	0,550	720	A/B	0.5%				
4 Commerce Ave	Salem Rd	Monroe St		2-Ln Undivided Non-State	792	5,251	6,251	6,335	6,338	5,771	0,110	0,690	438	0,690	438	A/B	2.4%				
5 Commerce Ave	Monroe St	Indian St		2-Ln Undivided Non-State	792	5,014	6,136	6,340	6,117	6,060	0,110	0,550	367	0,550	367	A/B	4.9%				
6 Country Club Dr	Palm Beach County	Island Wy		2-Ln Undivided Non-State	792	3,013	2,638	2,695	2,446	4,372	0,100	0,530	232	0,530	232	A/B	9.8%				
27 Country Club Dr	Island Wy	Little Club Dr		2-Ln Undivided Non-State	792	2,591	3,210	3,094	2,899	5,433	0,100	0,590	321	0,590	321	A/B	15.0%				
7 County Line Rd	Little Club Dr	SR-5		2-Ln Undivided Non-State	792	2,760	2,896	2,753	2,641	4,765	0,100	0,530	300	0,530	300	A/B	14.6%				
165 County Line Rd	Savanna Rd	CR-707		2-Ln Undivided Non-State	792	512	710	733	686	607	0,100	0,550	33	0,550	33	A/B	4.3%				
8 Cove Rd	SR-76	Willoughby Blvd		Class I: 2-Ln Undivided State	880	13,260	12,855	12,429	11,965	12,453	0,100	0,520	648	0,100	648	C	0.5%				
188 Cove Rd	Willoughby Blvd	SR-5		Class I: 2-Ln Undivided State	880						13,981	0,100	0,520	727	0,100	727	C	0.5%			
9 Cove Rd	SR-5	CR-A1A		2-Ln Undivided Non-State	792	12,005	12,953	12,461	12,313	11,280	0,100	0,560	632	0,100	632	C	0.5%				
10 Cove Rd	CR-A1A	End		2-Ln Undivided Non-State	792	5,675	5,174	5,171	5,335	4,972	0,100	0,640	318	0,640	318	A/B	0.5%				
12 CR-609 (Allapattah Rd)	SR-710	CR-714		Transitional 2-Ln Uninter/Undivided Flow	1120	1,107	1,706	1,125	1,177	1,179	0,100	0,580	68	0,100	68	A/B	1.6%				
13 CR-609 (Allapattah Rd)	CR-714	St Lucie County		Uninterrupted Rural Hwr: 2-Ln Undivided	1100	1,283	1,344	1,516	1,426	1,491	0,100	0,720	107	0,100	107	A/B	3.8%				
166 CR-707 (Beach Rd)	Palm Beach County	CR-708		2-Ln Undivided Non-State	792	1,440	1,663	1,606	1,616	1,684	0,100	0,700	119	0,100	119	A/B	4.1%				
135 CR-707 (Dixie Hwy)	Wright Blvd	CR-723		Class I: 2-Ln Undivided State	880	12,811	12,614	11,887	11,395	10,562	0,100	0,540	676	0,100	676	C	0.5%				
136 CR-707 (Dixie Hwy)	CR-723/SR-707	CR-707 (Indian River Dr)		2-Ln Undivided Non-State	792	7,293	8,563	6,794	6,669	6,130	0,100	0,570	349	0,100	349	A/B	0.5%				
137 CR-707 (Indian River Dr)	CR-707 (Dixie Hwy)	CR-707A (Jensen Beach Blvd)		2-Ln Undivided Non-State	792	10,795	12,614	11,957	11,693	10,763	0,100	0,570	613	0,100	613	C	0.5%				
138 CR-707 (Indian River Dr)	CR-707A	SR-732		2-Ln Undivided Non-State	792	5,629	6,159	5,384	6,000	6,269	0,100	0,520	389	0,100	389	A/B	2.7%				
14 CR-707 (Indian River Dr)	SR-732	St. Lucie County		2-Ln Undivided Non-State	792	7,286	5,021	6,061	5,415	5,140	0,100	0,520	319	0,100	319	A/B	0.5%				

(1) Values in **Bold** **italic** font are Interim LOS Thresholds.  
 (2) Values in **bold** cells exceed the LOS threshold and additional impacts will require a more detailed analysis.

Road Name Link	From	To	Type	Generalized Service Capacity or Interim LOS Threshold	2005 AADT	2006 AADT	2007 AADT	2008 AADT	2009 AADT	Peak Hour Factor $K_{p,h}$	Directional Distribution $D_{dir}$	2009 Peak Hour Directional Volume	2009 Generalized LOS	Avg. Annual Growth Rate	
					2005 AADT	2006 AADT	2007 AADT	2008 AADT	2009 AADT	2009 Hour Factor $K_{p,h}$	Directional Distribution $D_{dir}$	2009 Peak Hour Directional Volume	2009 Generalized LOS	Avg. Annual Growth Rate	
17 CR-707A (Jensen Beach Blvd)	CR-723	Skyline Dr	Divided State	Class I: 4-Ln Divided State	1960	22,533	21,484	22,356	20,832	22,537	1.00	0.520	1,172	A/B	0.5%
18 CR-707A (Jensen Beach Blvd)	Skyline Dr	Pineapple Way	Divided State	Class I: 4-Ln Divided State	1960	20,750	20,679	19,369	18,743	0.100	0.530	993	A/B	0.5%	
19 CR-707A (Jensen Beach Blvd)	Pineapple Wy	CR-707	2-Ln Undivided Non- State	792	11,784	12,025	11,442	10,177	9,723	0.100	0.570	554	C	0.5%	
20 CR-708 (Bridge Rd)	SR-76	CR-711	Uninterrupted Rural Undivided	1100	762	828	743	615	655	0.100	0.670	44	A/B	0.5%	
21 CR-708 (Bridge Rd)	CR-711	Florida's Turnpike	Uninterrupted Rural Hwy: 2-Ln Undivided	1100	2,308	2,497	2,353	2,402	2,629	0.100	0.630	178	A/B	5.2%	
22 CR-708 (Bridge Rd)	Florida's Turnpike	Powerline Ave	Transitional 2-Ln Undivided	1120	7,494	7,588	7,619	6,945	6,185	0.100	0.540	334	A/B	0.5%	
23 CR-708 (Bridge Rd)	Powerline Ave	SR-5	2-Ln Undivided Non- State	792	9,091	8,833	9,071	8,475	7,553	0.100	0.530	400	A/B	0.5%	
24 CR-708 (Bridge Rd)	SR-5	CR-A1A	2-Ln Undivided Non- State	792	9,640	9,590	9,890	9,559	8,863	0.100	0.540	479	C	0.5%	
25 CR-708 (Bridge Rd)	CR-A1A	Gomez Ave	2-Ln Undivided Non- State	792	8,977	8,556	8,903	8,915	7,993	0.100	0.550	440	A/B	0.5%	
26 CR-708 (Pratt Whitney Rd)	Gomez Ave	CR-707	Uninterrupted Rural Undivided	1100	1,682	2,143	2,342	2,522	2,553	0.100	0.630	212	A/B	0.5%	
28 CR-711 (Pratt Whitney Rd)	Palm Beach County	CR-708	South Fork High School	2-Ln Interruption: 2-Ln Undivided	792	4,859	4,653	5,051	4,965	4,696	0.100	0.610	286	A/B	0.5%
29 CR-711 (Pratt Whitney Rd)	CR-708	CR-714	Uninterrupted Rural Undivided	1130	14,544	14,566	14,647	14,705	14,279	0.110	0.730	253	C	3.1%	
30 CR-711 (Pratt Whitney Rd)	South Fork High School	SR-75	Transitional 2-Ln Undivided	1120	3,866	4,561	3,957	4,591	4,946	0.100	0.760	376	A/B	6.4%	
34 CR-713 (High Meadow Ave)	I-95	CR-714	2-Ln Interruption: 2-Ln Undivided	1140	14,899	16,511	15,869	13,412	11,585	0.110	0.670	852	D	0.5%	
33 CR-713 (High Meadow Ave)	CR-714	CR-609	Class I: 2-Ln Undivided State	880	11,631	12,495	11,614	11,459	10,471	0.110	0.640	737	C	0.5%	
32 CR-713 (High Meadow Ave)	SR-714	Murphy Rd	2-Ln Interruption: 2-Ln Undivided	1140	14,899	16,511	15,869	13,412	11,585	0.110	0.670	852	D	0.5%	
35 CR-714 (Martin Hwy)	SR-710	Fox Brown Rd	Uninterrupted Rural Undivided	1100	2,462	2,447	2,788	2,535	2,485	0.100	0.590	147	A/B	0.5%	
36 CR-714 (Martin Hwy)	Fox Brown Rd	CR-609	Interruption: 2-Ln Undivided	792	3,009	2,720	2,759	2,871	2,663	0.100	0.560	160	A/B	0.5%	
37 CR-714 (Martin Hwy)	CR-609	I-95	Uninterrupted Rural Undivided	1100	3,824	3,716	3,916	3,971	3,994	0.100	0.560	224	A/B	1.1%	
38 CR-714 (Martin Hwy)	Florida's Turnpike	CR-713	Class I: 2-Ln Undivided State	880	11,368	11,555	11,529	11,164	11,926	0.090	0.610	655	C	1.2%	
39 CR-714 (Martin Hwy)	CR-713	Berry Ave	Class I: 2-Ln Undivided	880	11,505	12,435	11,239	9,843	10,030	0.090	0.570	515	C	0.5%	
41 CR-714 (Martin Hwy)	Berry Ave	Mapp Rd	Class I: 2-Ln Undivided State	880	11,596	12,646	12,155	10,987	11,179	0.090	0.520	523	C	0.5%	
42 CR-723 (Savanna Rd)	SR-707	NE 24th St	2-Ln Undivided Non- State	792	11,908	11,628	11,659	11,111	11,111	0.100	0.610	678	C	0.5%	
43 CR-723 (Savanna Rd)	NE 24th St	CR-707A (Jensen Beach Blvd.)	Class I: 2-Ln Undivided State	880	13,381	13,383	13,248	12,318	12,686	0.100	0.510	647	C	0.5%	

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Road Name Link	From	To	Type	Generalized Service Capacity or Interim LOS Threshold	2005 AADT			2006 AADT			2007 AADT			2008 AADT			2009 AADT			2009 Directional Volume		2009 Generalized LOS		Avg. Annual Growth Rate
					2005 AADT	2006 AADT	2007 AADT	2008 AADT	2009 AADT	Peak Hour Factor K <sub>100</sub>	Directional Distribution D <sub>100</sub>													
44 CR-728 (Citrus Blvd)	SR-710	Greenridge Ln	Uninterrupted Rural Hwy: 2-Ln Undivided	1100	2,621	2,803	2,743	2,335	2,777	0.100	0.800	167	A/B	1.5%										
45 CR-726 (Citrus Blvd)	Greenridge Ln	CR-76A	Uninterrupted Rural Hwy: 2-Ln Undivided	1100	2,771	2,648	2,419	2,272	2,526	0.100	0.620	157	A/B	0.5%										
46 CR-76A (Citrus Blvd.)	SR-714	CR-726	Transitional 2-Ln Uninter/Undivided Flow	1120	3,276	3,380	3,135	3,082	3,343	0.100	0.530	177	A/B	0.5%										
32 CR-76A (SW 96th St)	CR-726	Pennsylvania Ave	Transitional 2-Ln Uninter/Undivided Flow	1120	3,390	3,678	3,237	3,080	3,549	0.100	0.600	213	A/B	1.2%										
51 CR-76A (SW 96th St)	Pennsylvania Ave	SR-76	Class I: Transitional 2-Ln Undivided	800	6,518	6,555	6,563	6,558	7,243	0.100	0.650	471	C	2.7%										
47 CR-A1A (Dixie Hwy)	SR-5	CR-708	2-Ln Undivided Non- State	792	3,402	3,197	3,010	2,730	2,535	0.100	0.630	160	A/B	0.5%										
48 CR-A1A (Dixie Hwy)	CR-708	Osprey St	2-Ln Undivided Non- State	792	7,572	7,491	6,950	6,524	6,449	0.100	0.560	361	A/B	0.5%										
49 CR-A1A (Dixie Hwy)	Osprey St	Heritage Blvd	2-Ln Undivided Non- State	792	6,417	6,107	5,812	5,416	5,529	0.100	0.570	372	A/B	0.5%										
50 CR-A1A (Dixie Hwy)	Cove Rd	Heritage Blvd	Cove Rd	792	6,507	6,415	6,149	5,781	5,678	0.100	0.540	307	A/B	0.5%										
51 CR-A1A (Dixie Hwy)	Cove Rd	Salerno Rd	Salerno Rd	792	11,309	11,452	11,339	11,315	10,735	0.100	0.550	590	C	0.5%										
52 CR-A1A (Dixie Hwy)	Salerno Rd	St. Lucie Blvd	St. Lucie Blvd	792	15,654	15,938	15,938	14,923	14,377	0.100	0.550	791	D	0.5%										
53 CR-A1A (Dixie Hwy)	St. Lucie Blvd	Jefferson St	Jefferson St	792	13,425	12,799	12,495	11,768	11,552	0.100	0.550	635	C	0.5%										
54 CR-A1A (Dixie Hwy)	Jefferson St	Indian St	Class I: 4-Ln Divided State	1980	18,095	16,843	16,566	15,689	14,744	0.100	0.550	811	A/B	0.5%										
55 CR-A1A (Dixie Hwy)	Indian St	SR-714	Class I: 4-Ln Divided State	1980	16,885	13,514	13,004	13,516	12,296	0.100	0.550	676	A/B	0.5%										
57 CR-A1A (Dixie Hwy)	SR-714	Colorado Ave	2-Ln Undivided Non- State	792	6,938	6,099	5,811	5,521	5,067	0.100	0.520	265	A/B	0.5%										
11 Crossrip St	CR-41A	Gomez Ave	2-Ln Undivided Non- State	792	2,734	2,876	2,533	2,638	2,628	0.100	0.540	142	A/B	0.5%										
1 Dr Martin Luther King Jr Blvd	Farm Rd	SR-710	2-Ln Undivided Non- State	792	1,876	1,977	1,934	1,648	1,815	0.100	0.670	128	A/B	0.5%										
58 Farm Rd	Dr Martin Luther King Jr Dr	Palm Wy	2-Ln Undivided Non- State	792	1,444	1,370	1,359	1,336	1,428	0.100	0.560	160	A/B	0.5%										
59 Fork Rd	Fine Lake Dr	SR-5	2-Ln Undivided Non- State	792	2,904	3,198	2,679	2,515	2,850	0.100	0.640	36	A/B	1.6%										
60 Fox Brown Rd	SR-710	CR-714	Uninterrupted Rural Hwy: 2-Ln Undivided	1100	510	429	467	477	543	0.100	0.640	36	A/B	0.5%										
180 Goldenrod Rd	Britt Rd	SR-732	Class I: 4-Ln Divided State	1980	3,882	4,317	5,320	4,473	4,989	0.100	0.630	314	A/B	0.5%										
177 Goldenrod Rd	SR-732	SR-5	Class I: 2-Ln Undivided State	880	9,137	7,115	7,390	6,487	6,676	0.090	0.560	336	A/B	0.5%										
178 Goldenrod Rd	SR-5	Westmoreland Blvd	Class I: 2-Ln Undivided State	880	3,960	4,114	3,399	3,618	3,445	0.090	0.790	246	A/B	0.5%										
61 Gomez Ave	CR-708	Crossrip St	2-Ln Undivided Non- State	792	4,207	4,311	4,052	3,670	3,693	0.100	0.550	214	A/B	0.5%										

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Road Name Link	From	To	Type	Generalized Service Capacity or Interim LOS Threshold				Peak Hour Factor K <sub>100</sub>	Directional Duo	2009 Peak Hour Directional Volume	2009 Generalized LOS	Avg. Annual Growth Rate		
				2005 AADT	2006 AADT	2007 AADT	2008 AADT							
62 Gomez Ave	Crossrip St	Osprey St	2-Ln Undivided Non-State	792	1,195	1,273	1,211	1,125	1,137	0.100	0.570	A/B	0.5%	
181 Green River Parkway	SR-732	St. Lucie County	2-Ln Undivided Non-Flow	1140	5,372	4,665	5,128	4,814	4,576	0.100	0.630	A/B	0.5%	
64 Horseshoe Point Rd	CR-A1A	Kutin Ave	2-Ln Undivided Non-State	792	5,663	6,118	5,952	5,691	5,690	0.100	0.620	353	A/B	0.5%
67 Indian St	SR-76	Willoughby Blvd	Class I: 4-Ln Divided State	1980	18,833	17,289	16,402	14,974	14,750	0.100	0.580	856	A/B	0.5%
68 Indian St	Willoughby Blvd	SR-5	Class I: 4-Ln Divided State	1980	24,256	21,975	21,042	18,974	19,172	0.100	0.570	1,033	A/B	0.5%
69 Indian St	SR-5	Commerce Ave	Class I: 4-Ln Divided State	1980	24,429	22,170	21,590	19,469	19,255	0.100	0.530	1,021	A/B	0.5%
70 Indian St	Commerce Ave	CR-A1A	Class I: 4-Ln Divided State	1980	24,401	23,781	23,160	20,577	20,791	0.100	0.510	1,060	A/B	0.5%
71 Indian St	CR-A1A	St Lucie Blvd	2-Ln Undivided Non-State	792	10,029	9,093	8,632	6,639	8,080	0.110	0.530	471	C	0.5%
65 Indian River Dr	Palmer St	SR-707	2-Ln Undivided Non-State	792	6,798	6,983	7,789	6,653	6,316	0.120	0.580	440	A/B	0.5%
182 Island Way	Palm Beach County	Jupiter River Dr	2-Ln Undivided Non-Flow	1140	2,975	4,147	3,624	3,333	3,755	0.110	0.590	244	A/B	6.0%
66 Island Way	Jupiter River Dr	Country Club Wy	2-Ln Undivided Non-State	792	4,350	4,610	4,452	4,113	5,402	0.100	0.630	340	A/B	5.6%
72 Jack James Rd	SR-76	Blue Water Wy	2-Ln Undivided Non-State	792	3,253	3,068	2,548	2,477	2,122	0.100	0.720	153	A/B	0.5%
73 Jefferson St	CR-A1A	St Lucie Blvd	2-Ln Undivided Non-State	792	1,488	981	977	911	886	0.100	0.630	56	A/B	0.5%
172 Lares St	CR-708	CR-A1A	2-Ln Undivided Non-State	792	3,846	3,534	3,850	2,856	2,806	0.100	0.570	160	A/B	0.5%
74 Little Club Wy	Country Club Dr	Wooden Bridge Wy	2-Ln Undivided Non-State	792	2,287	2,547	2,364	2,212	4,434	0.100	0.530	235	A/B	15.0%
75 Locks Rd	Canal St	SR-76	2-Ln Undivided Non-State	792	4,221	5,673	3,675	3,511	3,768	0.100	0.630	237	A/B	0.5%
76 Macarthur Blvd	Sailfish Point	SR-A1A	2-Ln Undivided Non-State	792	5,859	5,826	5,913	4,750	4,856	0.110	0.540	288	A/B	0.5%
77 Mapp Rd	South End	CR-714	2-Ln Undivided Non-State	792	5,487	5,586	5,458	5,218	5,414	0.090	0.590	287	A/B	0.5%
78 Mapp Rd	CR-714	SR-714	2-Ln Undivided Non-State	792	13,791	14,152	13,299	12,804	13,149	0.090	0,520	616	C	0.5%
79 Mapp Rd	SR-714	Matheson Ave	2-Ln Undivided Non-State	792	5,575	5,523	3,811	5,114	5,148	0.090	0,510	283	A/B	0.5%
80 Mapp Rd	Matheson Ave	North End	2-Ln Undivided Non-State	792	8,628	7,674	7,667	7,539	7,537	0.090	0,620	421	A/B	0.5%
185 Market St	SR-5	Commerce Ave	2-Ln Divided Non-State	792	2,520	2,957	3,351	3,248	3,110	0.020	222	A/B	8.8%	
81 Matheson Ave	SR-714	Mapp Rd	2-Ln Undivided Non-State	792	7,538	6,491	9,666	6,283	5,976	0.090	0,660	355	A/B	0.5%
82 Monroe St	SR-5	Commerce Ave	2-Ln Undivided Non-State	792	2,538	2,327	2,113	1,898	1,830	0.110	0,590	119	A/B	0.5%

Link	Road Name	From	To	Type	Generalized Service Capacity or Interim LOS Threshold	2006	2007	2008	2009	Peak Hour Factor K <sub>100</sub>	Directional Distribution D <sub>100</sub>	2009 Hourly Directional Volume	Generalized LOS	Avg. Annual Growth Rate	
						AADT	AADT	AADT	AADT	K <sub>100</sub>	D <sub>100</sub>	Volume	Volume		
89	Murphy Rd	High Meadow Ave	Mapp Rd	2-Ln Undivided Non-State	792	6,181	5,798	5,062	5,559	6,912	0.110	0.570	433	A/B	2.8%
90	Murphy Rd	High Meadow Ave	St Lucie County	2-Ln Divided Non-State	792	10,379	12,898	12,034	10,069	8,016	0.110	0.670	591	C	0.5%
151	Ocean Blvd	Flagler Ave	Palm Beach Rd	2-Ln Divided Non-State	792	14,497	12,380	11,442	8,293	9,094	0.110	0.630	630	C	0.5%
152	Ocean Blvd	Palm Beach Rd	SR-714	4-Ln Divided Non-State	1764	17,200	13,761	13,454	10,554	11,875	0.110	0.530	681	A/B	0.5%
91	Osprey St	SR-5	CR-A1A	2-Ln Undivided Non-State	792	5,257	5,329	4,912	4,703	4,882	0.100	0.560	273	A/B	0.5%
92	Osprey St	CR-A1A	Gomez Ave	2-Ln Undivided Non-State	792	2,124	2,109	1,963	1,844	1,921	0.100	0.560	108	A/B	0.5%
93	Palm Beach Rd	SR-714	Ocean Blvd	2-Ln Divided Non-State	792	7,947	8,527	8,655	8,071	7,870	0.100	0.590	464	C	0.5%
94	Palm City Rd	SR-714	SR-5	2-Ln Undivided Non-State	792	8,081	7,610	7,635	6,907	6,934	0.090	0.690	431	A/B	0.5%
168	Palmer St	CR-707	Indian River Dr	2-Ln Undivided Non-State	792	3,239	3,033	2,971	2,763	2,714	0.100	0.590	160	A/B	0.5%
95	Pine Lake Dr	Fork Rd	Britt Rd	2-Ln Undivided Non-State	792	2,220	1,963	2,139	1,827	1,951	0.100	0.540	105	A/B	0.5%
40	Pineapple Wy	CR-707A(Jensen Beach Blvd.)	SR-732	2-Ln Undivided Non-State	792	10,472	11,989	10,875	9,720	9,763	0.120	0.650	762	D	0.5%
183	Pomeroy St	SR-76	Willoughby Blvd	2-Ln Undivided Non-State	792	4,110	3,943	4,782	6,036	6,872	0.100	0.590	405	A/B	13.7%
184	Pomeroy St	Willoughby Blvd	SR-5	2-Ln Divided Non-State	792	4,323	4,839	5,724	6,284	6,100	0.660	415	A/B	13.3%	
96	River Shores Blvd	Spruce Ridge Dr	SR-5	2-Ln Undivided Non-State	792	2,080	1,988	1,909	1,893	2,058	0.100	0.630	130	A/B	0.5%
97	Salemo Rd	SR-76	Willoughby Blvd	2-Ln Undivided Non-State	792	9,374	8,476	8,440	7,334	6,790	0.100	0.560	380	A/B	0.5%
98	Salemo Rd	Willoughby Blvd	SR-5	2-Ln Undivided Non-State	830	11,583	11,222	10,718	10,036	8,688	0.100	0.530	460	C	0.5%
99	Salemo Rd	SR-5	Commerce Ave	Class I: 2-Ln Undivided State	880	10,586	10,551	10,400	9,594	9,304	0.100	0.530	493	C	0.5%
100	Salemo Rd	Commerce Ave	CR-A1A	Class I: 2-Ln Undivided State	880	8,739	8,787	8,550	7,850	7,712	0.100	0.540	416	A/B	0.5%
169	Savanna Rd	CR-707A	County Line Rd	2-Ln Undivided Non-State	792	1,342	1,372	1,255	1,122	1,052	0.100	0.560	59	A/B	0.5%
102	Seabranch Blvd	Doubletree Dr	SR-5	4-Ln Divided Non-State	1764	6,775	6,778	6,748	6,408	6,875	0.100	0.570	380	A/B	0.5%
103	Seawalls Pt Rd	SR-A1A	Palmer St	2-Ln Undivided Non-State	792	10,329	9,285	9,602	8,049	7,713	0.110	0.590	501	C	0.5%
157	Silver Fox Ln	Farm Rd	SR-710	Interrupted Rural Arterial: 2-Ln Undivided	740	175	263	222	288	266	0.100	0.710	19	A/B	11.0%
170	Skyline Dr	CR-707A	CR-707	2-Ln Undivided Non-State	792	2,647	2,292	2,114	2,057	2,045	0.100	0.600	123	A/B	0.5%
123	SR-15 (Connors Hwy)	Palm Beach County	SR-76	Interrupted Rural Hwy: 2-Ln Undivided	1100	4,881	5,049	5,199	4,822	3,660	0.100	0.540	193	A/B	0.5%

(1) Values in **Bolded** font are Interim LOS Thresholds.  
 (2) Values in **Shaded** cells exceed the LOS threshold and additional analysis will require a more detailed analysis.

Road Name Link	From	To	Type	Generalized Service Capacity or Interim LOS Threshold	2006 AADT			2007 AADT			2008 AADT			2009 AADT			Peak Hour Factor K <sub>100</sub>	Directional Distribution Duo	2009 Peak Hour Directional Volume	Generalized LOS	Avg. Annual Growth Rate	
					2006 AADT	2007 AADT	2008 AADT	2009 AADT	2008 AADT	2009 AADT	2009 AADT	2009 AADT	2009 AADT	2009 AADT	2009 AADT							
124 SR-15 (Connors Hwy)	SR-76	Okeechobee County	Uninterrupted Rural	Hwy: 2-Ln Undivided	1100	4,343	3,914	3,659	3,145	2,530	1,00	0,680	172	A/B	0.5%							
105 SR-5 (US-1)	Palm Beach County	CR-41A	Transitional 4-Ln Uninter/Divided Flow	3130	21,603	18,332	19,411	18,150	19,654	0,100	0,640	1,258	A/B	0.5%								
106 SR-5 (US-1)	CR-41A	CR-708	Class I: 4-Ln Divided State	1960	18,376	14,479	15,011	14,172	14,805	0,100	0,680	1,007	A/B	0.5%								
107 SR-5 (US-1)	CR-708	Osprey St	Class I: 4-Ln Divided State	1960	26,994	22,108	23,159	22,437	22,691	0,100	0,620	1,407	A/B	0.5%								
108 SR-5 (US-1)	Seabranch Blvd	Seabranch Blvd	Class I: 4-Ln Divided State	1960	25,147	22,695	22,936	22,330	22,361	0,100	0,600	1,342	A/B	0.5%								
109 SR-5 (US-1)	Cove Rd	Cove Rd	Class II: 6-Ln Divided State	2680	37,342	35,242	33,355	30,241	28,946	0,100	0,520	1,505	C	0.5%								
110 SR-5 (US-1)	Salem Rd	Salem Rd	Class II: 6-Ln Divided State	2680	34,598	30,042	32,921	31,805	32,698	0,100	0,510	1,688	C	0.5%								
111 SR-5 (US-1)	Monroe St	Monroe St	Class II: 6-Ln Divided State	2680	42,456	42,362	40,564	38,286	38,735	0,100	0,510	1,975	C	0.5%								
112 SR-5 (US-1)	Indian St	SR-714	Indian St	Class II: 6-Ln Divided State	2680	47,000	46,681	45,229	43,541	42,827	0,100	0,510	2,184	D	0.5%							
113 SR-5 (US-1)	SR-714	SR-5A	SR-5A	Class II: 6-Ln Divided State	2680	43,610	42,025	40,175	38,011	37,643	0,100	0,520	1,957	C	0.5%							
114 SR-5 (US-1)	SR-5A(Cut-Off Rd)	SR-76	SR-5A	Class II: 6-Ln Divided State	2680	39,513	36,594	38,666	36,155	35,609	0,100	0,550	1,958	C	0.5%							
115 SR-5 (US-1)	SR-76	Palm City Rd	Palm City Rd	Class II: 6-Ln Divided State	2680	47,856	47,958	46,668	45,350	44,700	0,090	0,600	2,414	D	0.5%							
119 SR-5 (US-1)	Palm City Rd	Joan Jefferson Wy	Joan Jefferson Wy	Class II: 6-Ln Divided State	2680	54,113	53,367	54,402	52,870	51,973	0,090	0,580	2,713	E	0.5%							
116 SR-5 (US-1)	Joan Jefferson Wy	Wright Blvd	Wright Blvd	Class II: 6-Ln Divided State	2940	74,290	65,617	54,885	56,154	56,339	0,090	0,600	3,042	F	0.5%							
118 SR-5 (US-1)	Wright Blvd	Baker Rd	Baker Rd	Class II: 6-Ln Divided State	3600	54,867	54,134	54,968	52,321	52,200	0,090	0,610	2,866	Interim	0.5%							
119 SR-5 (US-1)	Baker Rd	Britt Rd	Britt Rd	Class II: 6-Ln Divided State	3600	59,322	56,804	57,798	55,688	54,392	0,090	0,550	2,692	Interim	0.5%							
120 SR-5 (US-1)	Britt Rd	SR-732	SR-732	Class II: 6-Ln Divided State	3600	65,495	62,404	60,039	56,566	56,320	0,090	0,530	2,686	Interim	0.5%							
121 SR-5 (US-1)	SR-732	Westmoreland Blvd	Westmoreland Blvd	Class II: 8-Ln Divided State	3580	76,283	69,838	69,490	64,018	63,736	0,090	0,560	3,212	D	0.5%							
122 SR-5 (US-1)	Westmoreland Blvd	St Lucie County	St Lucie County	Class II: 6-Ln Divided State	3590	73,836	65,188	67,687	60,447	60,881	0,090	0,570	3,123	D	0.5%							
174 SR-707 (Dixie Hwy)	Joan Jefferson Wy	Wright Blvd	Wright Blvd	Class I: 2-Ln Undivided State	880	9,239	9,653	8,372	8,272	7,507	0,100	0,710	533	C	0.5%							
143 SR-710 (Warfield Blvd)	Okeechobee County	Fox Brown Rd	Fox Brown Rd	Uninterrupted Rural Hwy: 2-Ln Undivided	420	8,378	8,020	7,307	5,769	4,474	0,100	0,720	322	C	0.5%							
142 SR-710 (Warfield Blvd)	Fox Brown Rd	CR-609 (Allapatlah)	CR-609 (Allapatlah)	Transitional 2-Ln Uninter/Undivided Flow	790	8,978	8,748	8,669	8,070	7,373	0,100	0,550	4,06	A/B	0.5%							
141 SR-710 (Warfield Blvd)	CR-609 (Allapatlah)	Van Buren	Van Buren	Class I: Transitional 2-Ln Divided State	690	11,261	11,022	10,698	8,982	9,914	0,100	0,540	535	C	0.5%							

Road Name Link	From	To	Type	Generalized Service Capacity or Interim LOS Threshold	2005 AADT			2006 AADT			2007 AADT			2008 AADT			2009 AADT			2009 Hour Directional Volume		2009 Generalized LOS		Avg. Annual Growth Rate	
					2005 AADT	2006 AADT	2007 AADT	2008 AADT	2009 AADT	Peak Hour Factor K <sub>pe</sub>	Directional Distribution D <sub>dir</sub>														
141 SR-710 (Warfield Blvd)	Van Buren	CR-726 (Citrus)	Class I: 4-Ln Divided State	1730	11,261	11,022	10,598	8,982	9,914	0.100	0.560	555	0.100	0.560	555	0.100	0.560	555	0.100	0.560	555	0.100	0.560	A/B	0.5%
140 SR-710 (Warfield Blvd)	CR-726	SR-76 (Kanner)	Transitional 2-Ln Uninter/Undivided Flow	790	11,840	11,597	11,022	9,094	9,648	0.100	0.500	579	0.100	0.500	579	0.100	0.500	579	0.100	0.500	579	0.100	0.500	A/B	0.5%
139 SR-710 (Warfield Blvd)	SR-76	Palm Beach County	Transitional 2-Ln Uninter/Undivided Flow	790	7,732	7,682	6,514	5,604	5,353	0.100	0.590	376	0.100	0.590	376	0.100	0.590	376	0.100	0.590	376	0.100	0.590	A/B	0.5%
144 SR-714 (Martin Hwy)	I-95	CR-78A (Citrus)	Transitional 2-Ln Uninter/Undivided Flow	1120	11,138	10,950	11,031	10,238	9,879	0.100	0.520	514	0.100	0.520	514	0.100	0.520	514	0.100	0.520	514	0.100	0.520	A/B	0.5%
145 SR-714 (Martin Hwy)	CR-76A (Citrus)	Florida's Turnpike	Class I: 2-Ln Undivided State	925	14,891	14,645	14,660	14,003	15,608	0.100	0.610	552	0.100	0.610	552	0.100	0.610	552	0.100	0.610	552	0.100	0.610	E	1.2%
146 SR-714 (Martin Downs Blvd)	Florida's Turnpike	CR-713	Class I: 4-Ln Divided State	1960	20,774	20,243	19,548	18,524	19,084	0.090	0.530	911	0.090	0.530	911	0.090	0.530	911	0.090	0.530	911	0.090	0.530	A/B	0.5%
147 SR-714 (Martin Downs Blvd)	CR-713	Matheson Ave	Class I: 4-Ln Divided State	1960	29,703	30,456	31,614	29,146	29,030	0.090	0.580	1,515	0.090	0.580	1,515	0.090	0.580	1,515	0.090	0.580	1,515	0.090	0.580	A/B	0.5%
148 SR-714 (Palm City Bridge)	Mapp Rd	Matheson Ave	Class I: 4-Ln Divided State	2810	47,541	47,008	46,465	44,384	43,386	0.090	0.590	2,304	0.090	0.590	2,304	0.090	0.590	2,304	0.090	0.590	2,304	0.090	0.590	A/B	0.5%
83 SR-714 (Monterey Rd)	SR-76	Willoughby Blvd	Class II: 4-Ln Divided State	2015	29,183	28,975	26,624	27,235	26,388	0.100	0.500	1,318	0.100	0.500	1,318	0.100	0.500	1,318	0.100	0.500	1,318	0.100	0.500	Interim	0.5%
84 SR-714 (Monterey Rd)	Willoughby Blvd	Monterey Extension	Class II: 4-Ln Divided State	2015	26,056	26,833	25,537	24,620	24,592	0.100	0.510	1,254	0.100	0.510	1,254	0.100	0.510	1,254	0.100	0.510	1,254	0.100	0.510	Interim	0.5%
85 SR-714 (Monterey Rd)	Monterey Extension	SR-5	Class II: 4-Ln Divided State	2015	18,580	18,351	16,557	16,863	16,880	0.100	0.570	962	0.100	0.570	962	0.100	0.570	962	0.100	0.570	962	0.100	0.570	Interim	0.5%
86 SR-714 (Monterey Rd)	SR-5	CR-A1A	Class I: 4-Ln Divided State	2015	25,381	24,073	20,516	21,480	22,254	0.100	0.550	1,224	0.100	0.550	1,224	0.100	0.550	1,224	0.100	0.550	1,224	0.100	0.550	Interim	0.5%
87 SR-714 (Monterey Rd)	CR-A1A	SR-A1A	Class I: 4-Ln Divided State	1980	18,724	13,531	13,659	12,881	14,146	0.110	0.530	825	0.110	0.530	825	0.110	0.530	825	0.110	0.530	825	0.110	0.530	A/B	0.5%
15 SR-714 (Jensen Beach Blvd)	SR-5	Green River Pkwy	Class II: 4-Ln Divided State	1770	29,225	28,144	27,345	25,736	24,851	0.100	0.520	1,232	0.100	0.520	1,232	0.100	0.520	1,232	0.100	0.520	1,232	0.100	0.520	C	0.5%
16 SR-732 (Jensen Beach Blvd)	Green River Pkwy	CR-723	Class I: 4-Ln Divided State	1980	26,235	25,789	20,441	23,888	23,018	0.100	0.520	1,197	0.100	0.520	1,197	0.100	0.520	1,197	0.100	0.520	1,197	0.100	0.520	A/B	0.5%
150 SR-732 (Causeway Blvd)	CR-707	SR-A1A	2-Ln Uninter/Undivided Flow	1140	12,551	13,082	11,820	11,678	12,120	0.0550	0.771	771	0.0550	0.771	771	0.0550	0.771	771	0.0550	0.771	771	0.0550	0.771	C	0.5%
125 SR-76 (Kanner Hwy)	SR-15	SR-710	Uninterrupted Rural Hwy: 2-Ln Undivided	1100	2,000	2,374	2,048	1,604	1,523	0.100	0.570	87	0.100	0.570	87	0.100	0.570	87	0.100	0.570	87	0.100	0.570	A/B	0.5%
126 SR-76 (Kanner Hwy)	SR-710	CR-708	Uninterrupted Rural Hwy: 2-Ln Undivided	1100	4,486	4,720	3,717	2,999	2,666	0.100	0.530	141	0.100	0.530	141	0.100	0.530	141	0.100	0.530	141	0.100	0.530	A/B	0.5%
127 SR-76 (Kanner Hwy)	CR-708	CR-711/CR-76A	Transitional 2-Ln Uninter/Undivided Flow	1120	3,338	3,453	3,232	2,857	2,990	0.100	0.530	156	0.100	0.530	156	0.100	0.530	156	0.100	0.530	156	0.100	0.530	A/B	0.5%
175 SR-76 (Kanner Hwy)	CR-711/CR-76A	Locks Rd	Class I: 2-Ln Divided State	880	15,730	15,583	12,639	11,605	11,399	0.120	0.520	711	0.120	0.520	711	0.120	0.520	711	0.120	0.520	711	0.120	0.520	C	0.5%
128 SR-76 (Kanner Hwy)	Locks Rd	I-95	Class I: 4-Ln Divided State	1980	19,567	19,759	19,629	19,128	19,126	0.100	0.570	1,090	0.100	0.570	1,090	0.100	0.570	1,090	0.100	0.570	1,090	0.100	0.570	A/B	0.5%
129 SR-76 (Kanner Hwy)	I-95	Cove Rd	Class I: 4-Ln Divided State	1980	40,632	41,722	41,118	38,147	38,027	0.100	0.530	2,015	0.100	0.530	2,015	0.100	0.530	2,015	0.100	0.530	2,015	0.100	0.530	F	0.5%
130 SR-76 (Kanner Hwy)	Cove Rd	Salem Rd	Class I: 4-Ln Divided State	1980	28,441	30,402	30,205	29,232	29,348	0.100	0.500	1,487	0.100	0.500	1,487	0.100	0.500	1,487	0.100	0.500	1,487	0.100	0.500	A/B	0.8%

(1) Values in **Bold Italic** font are interim LOS thresholds.  
 (2) Values in **Underline** font exceed the LOS threshold and additional impacts will require a more detailed analysis.

Page 7  
Effective: April 26, 2010

Road Name Link	From	To	Type	Generalized Service Capacity or Interim LOS Threshold			Peak Hour Factor $K_{p,h}$	Directional Distribution $D_{100}$	Peak Hour Directional Volume	2009 Generalized LOS	Avg. Annual Growth Rate	
				2005 AADT	2006 AADT	2007 AADT						
131 SR-76 (Kanner Hwy)	Salerno Rd	Indian St	Divided State	1960	25,521	25,631	25,675	26,621	0.100	0.520	1,334	A/B
132 SR-76 (Kanner Hwy)	Indian St	SR-714	Divided State	1960	25,002	23,633	22,321	22,286	0.090	0.540	1,148	A/B
133 SR-76 (Kanner Hwy)	SR-714	SR-5	Divided State	2940	30,812	32,625	28,406	28,715	0.100	0.510	1,330	A/B
153 SR-A1A (Ocean Blvd)	SR-714	St Lucie Blvd	Divided State	1770	21,072	15,762	17,164	17,600	0.110	0.540	1,006	C
154 SR-A1A (Ocean Blvd)	St Lucie Blvd	Sewalls Point Rd	Divided State	1960	23,133	20,648	20,497	17,711	0.110	0.540	1,056	A/B
155 SR-A1A (Ocean Blvd)	Sewalls Point Rd	MacArthur Blvd	Uninter/Undivided Flow	1140	13,662	13,053	12,167	11,636	0.120	0.550	751	C
156 SR-A1A (Ocean Blvd)	MacArthur Blvd	SR-732	Uninter/Undivided Flow	1140	7,140	7,302	7,977	6,705	0.090	0.568	353	A/B
157 SR-A1A (Ocean Blvd)	SR-732	St Lucie County	Uninter/Undivided Flow	1140	11,275	12,245	12,484	11,506	0.120	0.540	760	C
173 St Lucie Blvd	CR-A1A	Indian St	2-Ln Undivided Non- State	792	3,226	3,396	3,445	3,110	0.372	0.100	0.550	185
101 St Lucie Blvd	Indian St	SR-A1A	2-Ln Undivided Non- State	792	10,374	9,435	6,663	6,756	0.713	0.110	0.530	508
117 Westmoreland Blvd	St Lucie County	SR-5	2-Ln Divided Non- State	792	13,396	13,073	10,971	11,685	0.286	0.090	0.610	620
162 Willoughby Blvd	Cove Rd	Salerno Rd	2-Ln Undivided Non- State	792	3,083	3,046	2,923	2,461	2,680	0.100	0.630	181
161 Willoughby Blvd	Salerno Rd	Pomeroy St	2-Ln Undivided Non- State	792	7,351	8,145	7,230	7,616	7,200	0.100	0.590	425
160 Willoughby Blvd	Pomeroy St	Indian St	Class I: 4-Ln Divided State	1980	7,713	6,896	6,559	6,892	6,339	0.100	0.540	461
159 Willoughby Blvd	Indian St	SR-714	Divided State	1960	11,000	11,492	11,157	11,439	10,630	0.100	0.530	563
171 Wright Blvd	SR-5	SR-707	2-Ln Undivided Non- State	830	9,353	9,090	8,718	8,216	7,607	0.100	0.500	380

Trip Generation shall be in accordance with ITE Trip Generation Manual 8th Edition

Florida Department of Transportation  
 Transportation Statistics Office  
 2009 Historical AADT Report

County: 93 - PALM BEACH

Site: 2209 - SR 9/I-95 - N OF SR 706/INDIAN TOWN RD

Year	AADT	Direction 1	Direction 2	K Factor	D Factor	T Factor
2009	65000 C	N 33000	S 32000	8.86	63.24	11.90
2008	103500 C	N 51500	S 52000	8.86	63.29	11.90
2007	84000 F			8.51	63.11	11.10
2006	82500 C	N 42000	S 40500	8.30	63.65	11.10
2005	75000 F	N 38000	S 37000	8.60	60.70	15.60
2004	73000 C	N 37000	S 36000	8.30	56.50	15.60
2003	67500 C	N 34000	S 33500	8.00	50.70	11.70
2002	78500 F	N 38500	S 40000	8.80	61.10	7.90
2001	76500 C	N 37500	S 39000	8.90	63.20	10.50
2000	64500 C	N 32500	S 32000	8.20	61.70	8.90
1999	74000 C	N 36000	S 38000	9.90	54.40	9.40
1998	52500 C	N 26500	S 26000	8.40	57.90	7.50
1997	51500 C	N 25500	S 26000	9.90	53.40	8.30
1996	45000 C	N 23000	S 22000	9.90	51.10	8.30
1995	49500 C	N 24000	S 25500	10.50	65.20	7.40
1994	45500 C	N 23000	S 22500	10.40	59.90	4.20

AADT Flags: C = Computed; E = Manual Estimate; F = First Year Estimate  
 S = Second Year Estimate; T = Third Year Estimate; X = Unknown

Synopsis Report: 892212-20090527.syn  
Page: 1

County: 89  
Station: 2212  
Description: SR 9/I-95 - N OF SR 76/KANNER HWY  
Start Date: 05/27/2009  
Start Time: 1015

Time	Direction: N					Direction: S					Combined	
	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total	
0000	97	80	103	109	389	93	115	116	96	420	809	
0100	82	104	84	73	343	75	69	63	59	266	609	
0200	63	59	83	73	278	55	59	58	52	224	502	
0300	66	77	83	98	324	43	57	51	39	190	514	
0400	136	136	137	147	556	53	60	72	65	250	806	
0500	157	237	261	386	1041	78	95	153	184	510	1551	
0600	482	605	680	726	2493	221	330	345	369	1265	3758	
0700	671	753	800	791	3015	393	448	449	495	1785	4800	
0800	718	632	642	611	2603	399	423	425	466	1713	4316	
0900	537	486	550	445	2018	423	454	445	422	1744	3762	
1000	506	473	466	431	1876	412	422	425	428	1687	3563	
1100	470	453	458	468	1849	463	442	435	444	1784	3633	
1200	447	476	469	449	1841	421	431	497	469	1818	3659	
1300	428	480	449	453	1810	531	541	532	473	2077	3887	
1400	421	521	486	446	1874	481	547	531	510	2069	3943	
1500	440	483	474	424	1821	593	624	624	675	2516	4337	
1600	483	544	451	496	1974	712	709	754	830	3005	4979	
1700	534	534	468	486	2022	884	870	841	723	3318	5340	
1800	399	414	436	364	1613	646	603	537	461	2247	3860	
1900	297	269	244	279	1089	417	374	347	285	1423	2512	
2000	225	220	218	251	914	297	292	302	265	1156	2070	
2100	205	213	205	186	809	237	228	212	204	881	1690	
2200	209	183	168	143	703	171	176	165	159	671	1374	
2300	133	133	112	117	495	134	147	108	108	497	992	

24-Hour Totals: 33750 33516 67266

Peak Volume Information											
Direction: N			Direction: S			Combined Directions					
Hour	Volume	Hour	Volume	Hour	Volume	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0715	3062	0715	1791	0715	4853					
P.M.	1645	2032	1645	3425	1645	5457					
Daily	0715	3062	1645	3425	1645	5457					

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Synopsis Report: 892214-20090527.syn  
Page: 1

County: 89  
Station: 2214  
Description: SR 9/I-95 - S OF SR 714/MARTIN HIGHWAY  
Start Date: 05/27/2009  
Start Time: 1030

Time	Direction: N					Direction: S					Combined	
	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total	
0000	70	79	94	66	309	39	65	65	52	221	530	
0100	55	50	33	30	168	59	59	43	47	208	376	
0200	36	45	32	41	154	35	44	57	44	180	334	
0300	29	40	25	32	126	51	56	57	94	258	384	
0400	45	34	58	52	189	104	133	114	120	471	660	
0500	47	81	78	103	309	165	197	237	300	899	1208	
0600	174	194	309	248	925	379	446	428	482	1735	2660	
0700	265	316	361	324	1266	488	485	558	545	2076	3342	
0800	305	316	325	336	1282	459	491	406	406	1762	3044	
0900	320	319	317	329	1285	464	440	467	415	1786	3071	
1000	365	383	330	362	1440	399	368	368	384	1519	2959	
1100	366	377	364	360	1467	386	401	371	384	1542	3009	
1200	367	342	347	366	1422	397	377	392	374	1540	2962	
1300	363	371	421	381	1536	392	355	353	354	1454	2990	
1400	373	352	438	414	1577	342	362	352	350	1406	2983	
1500	389	423	431	466	1709	321	346	387	381	1435	3144	
1600	473	512	532	631	2148	392	386	358	359	1495	3643	
1700	632	646	650	540	2468	362	364	355	345	1426	3894	
1800	531	446	445	358	1780	321	263	309	262	1155	2935	
1900	369	316	276	283	1244	243	242	254	198	937	2181	
2000	229	232	241	216	918	140	141	138	143	562	1480	
2100	189	204	180	161	734	134	124	135	109	502	1236	
2200	153	160	144	129	586	109	97	89	81	376	962	
2300	105	107	82	83	377	80	88	61	73	302	679	

24-Hour Totals: 25419 25247 50666

Peak Volume Information											
Direction: N			Direction: S			Combined Directions					
Hour	Volume	Hour	Volume	Hour	Volume	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0915	1330	0700	2076	0730	3359					
P.M.	1645	2559	1530	1546	1645	3999					
Daily	1645	2559	0700	2076	1645	3999					

Generated by SPS 5.0.16

FLORIDA DEPARTMENT OF TRANSPORTATION  
2009 Annual Average Daily Traffic Report - Report Type: ALL

Site Type : P= Portable; T= Telemetered  
 AADT Flags : C= Computed; E= Manual Est; F= First Year Est; S= Second Year Est; T= Third Year Est; X= Unknown  
 Actual: F= Volume Fctr Ctg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road  
 Actual: F= Axle Fctr Ctg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference  
 "T" Flags : A= Actual; F= Axle Fctr Ctg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

15-Mar-2010 16:45:43

Page 1 of 1

Florida Department of Transportation  
 Transportation Statistics Office  
 2009 Historical AADT Report

County: 89 - MARTIN

Site: 0334 - SR 9 / I-95 - 0.1 MI S ST. LUCIE CO, MARTIN CO

Year	AADT	Direction 1	Direction 2	K Factor	D Factor	T Factor
2009	51266 C	N 0	S 0	9.00	65.48	16.60
2008	54000 F	N 0	S 0	8.51	56.08	16.60
2007	54924 C	N 27505	S 27419	8.82	53.84	16.60
2006	56500 F	N 28778	S 27722	8.82	53.84	16.20
2005	54622 C	N 27202	S 27420	8.80	53.80	16.20
2004	51431 C	N 25540	S 25891	9.00	54.40	17.50
2003	46715 C	N 23096	S 23619	9.30	54.40	18.50
2002	43823 C	N 21475	S 22348	9.30	52.80	19.90
2001	41570 C	N 20292	S 21278	9.40	53.40	16.30
2000	41360 C	N 20392	S 20968	9.50	54.20	13.30
1999	40168 C	N 19835	S 20333	10.80	58.70	12.20
1998	37866 C	N 18730	S 19136	10.40	57.30	20.70
1997	37485 C	N 18557	S 18928	9.50	54.90	17.60
1996	39135 C	N 19475	S 19660	9.60	57.20	19.00
1995	39479 C	N 19093	S 20386	9.50	56.10	15.40

AADT Flags: C = Computed; E = Manual Estimate; F = First Year Estimate  
 S = Second Year Estimate; T = Third Year Estimate; X = Unknown

Florida Department of Transportation  
 Transportation Statistics Office  
 2009 Historical AADT Report

County: 89 - MARTIN

Site: 2214 - SR 9/I-95 - S OF SR 714/MARTIN HIGHWAY

Year	AADT	Direction 1	Direction 2	K Factor	D Factor	T Factor
2009	48000 C	N 24000	S 24000	9.00	65.48	9.80
2008	46500 C	N 23500	S 23000	9.03	64.00	15.30
2007	47500 C	N 27000	S 20500	8.71	62.71	16.60
2006	52000 C	N 25500	S 26500	11.19	54.64	8.40
2005	45000 C	N 22000	S 23000	8.70	57.30	16.20
2004	40500 C	N 20500	S 20000	8.90	58.50	10.20
2003	42000 C	N 21000	S 21000	9.30	54.40	13.70
2002	38000 F	N 19000	S 19000	9.10	57.00	15.80
2001	37000 C	N 18500	S 18500	9.10	58.30	13.60
2000	36500 C	N 18500	S 18000	9.10	60.90	14.30
1999	39500 C	N 19500	S 20000	11.40	57.50	18.30
1998	33500 C	N 17000	S 16500	8.60	64.80	19.60
1997	36500 C	N 17500	S 19000	9.10	58.40	16.20
1996	37500 C	N 18500	S 19000	9.60	57.20	23.60
1995	35000 C	N 19000	S 16000	10.40	56.50	4.00
1994	37500 C	N 19000	S 18500	8.90	58.80	2.70

AADT Flags: C = Computed; E = Manual Estimate; F = First Year Estimate  
 S = Second Year Estimate; T = Third Year Estimate; X = Unknown

Florida Department of Transportation  
 Transportation Statistics Office  
 2009 Historical AADT Report

County: 89 - MARTIN

Site: 2212 - SR 9/I-95 - N OF SR 76/KANNER HWY

Year	AADT	Direction 1	Direction 2	K Factor	D Factor	T Factor
2009	64000 C	N 32000	S 32000	9.00	65.48	9.80
2008	62500 C	N 31500	S 31000	9.03	64.00	7.40
2007	68000 C	N 35000	S 33000	8.71	62.71	16.60
2006	68500 C	N 34500	S 34000	8.22	56.31	8.40
2005	58500 C	N 28500	S 30000	8.70	57.30	16.20
2004	60000 C	N 29500	S 30500	8.90	58.50	18.40
2003	49500 C	N 25000	S 24500	9.30	54.40	18.40
2002	53500 C	N 27500	S 26000	9.10	57.00	18.40
2001	52500 C	N 26500	S 26000	9.10	58.30	13.60
2000	49000 C	N 25000	S 24000	9.10	60.90	14.30
1999	51000 C	N 25000	S 26000	9.90	54.40	18.30
1998	46000 C	N 23500	S 22500	8.60	64.80	19.60
1997	46500 C	N 23000	S 23500	9.10	58.40	9.10
1996	46000 C	N 23000	S 23000	9.60	57.20	20.00
1995	43500 C	N 21000	S 22500	10.40	56.50	4.00
1994	43500 C	N 21500	S 22000	8.90	58.80	2.70

AADT Flags: C = Computed; E = Manual Estimate; F = First Year Estimate  
 S = Second Year Estimate; T = Third Year Estimate; X = Unknown

Florida Department of Transportation  
 Transportation Statistics Office  
 2009 Historical AADT Report

County: 89 - MARTIN

Site: 2210 - SR 9/I-95 - N OF CR 708/BRIDGE RD

Year	AADT	Direction 1	Direction 2	K Factor	D Factor	T Factor
2009	67500 F	N 34500	S 33000	9.00	65.48	9.80
2008	69500 C	N 35500	S 34000	9.03	64.00	7.40
2007	70000 C	N 33000	S 37000	8.71	62.71	16.60
2006	62500 C	N 25500	S 37000	8.22	56.31	2.90
2005	64500 C	N 32000	S 32500	8.70	57.30	2.90
2004	56500 C	N 28000	S 28500	8.90	58.50	2.90
2003	58500 C	N 29500	S 29000	9.30	54.40	4.50
2002	60500 C	N 30000	S 30500	9.10	57.00	3.60
2001	58000 C	N 28500	S 29500	9.10	58.30	3.80
2000	46000 C	N 22500	S 23500	9.10	60.90	3.50
1999	47500 C	N 23500	S 24000	11.40	57.50	18.30
1998	43000 C	N 21500	S 21500	8.60	64.80	19.60
1997	50500 C	N 25500	S 25000	9.10	58.40	16.20
1996	48500 C	N 24500	S 24000	9.60	57.20	17.90
1995	49000 C	N 24500	S 24500	10.40	56.50	4.00
1994	52500 C	N 26500	S 26000	8.90	58.80	2.70

AADT Flags: C = Computed; E = Manual Estimate; F = First Year Estimate  
 S = Second Year Estimate; T = Third Year Estimate; X = Unknown

FLORIDA DEPARTMENT OF TRANSPORTATION  
2009 Annual Average Daily Traffic Report - Report Type: ALL

County: 89 MARTIN

Site Type	Description	Direction 1	Direction 2	AADT	"K"	Demand "D"			
====	=====	=====	=====	Two-Way	Fctr	K100			
====	=====	=====	=====	=====	Fctr	D100			
====	=====	=====	=====	=====	Fctr	====			
2210	SR 9/I-95 - N OF CR 708/BRIDGE RD	N 34500E	S 33000E	67500	9.00E	8.61	65.48E	52.00	9.81E

Site Type : P= Portable; T= Telemetered  
 AADT Flags : C= Computed; E= Manual Est; F= First Year Est; S= Second Year Est; T= Third Year Est; X= Unknown  
 "K/D" Flags : A= Actual; F= Volume Fctr Categ; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road  
 "T" Flags : A= Actual; F= Axle Fctr Categ; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

Percent Res. Committed PSL

Project	Zone	Residential	Total	
St. Lucie West		211	664	
NWAA		2820	5326	
Southern Groves	381	0	0	
	382	467	10	
	383	0	0	
	384	0	0	
	385	0	0	
	386	0	0	
	387	0	0	
	388	437	437	
Wilson Groves	393	0	0	60%
	394	0	0	
	392	386.4	810	
	391	374.4	374.4	
	395	0	239.4	
	389	375	580.2	
	390	0	218.4	
Riverland	380	0	0	60%
	396	133.2	134.4	
	379	375	443.4	
	398	0	0	
	378	322.8	796.2	
	375	391.8	391.8	
	399	0	0	
	376	0	0	
	400	0	364.8	
	374	34.2	34.2	
	397	218.4	218.4	
	377	0	0	
Western Grove	371	455	477	
	372	329	344	
	373	0	0	
Tradition		1173	2005	50%
Verano		1001	1197	
		9504.2	15065.6	63%

**APPENDIX 4**

**2030 DATA:**

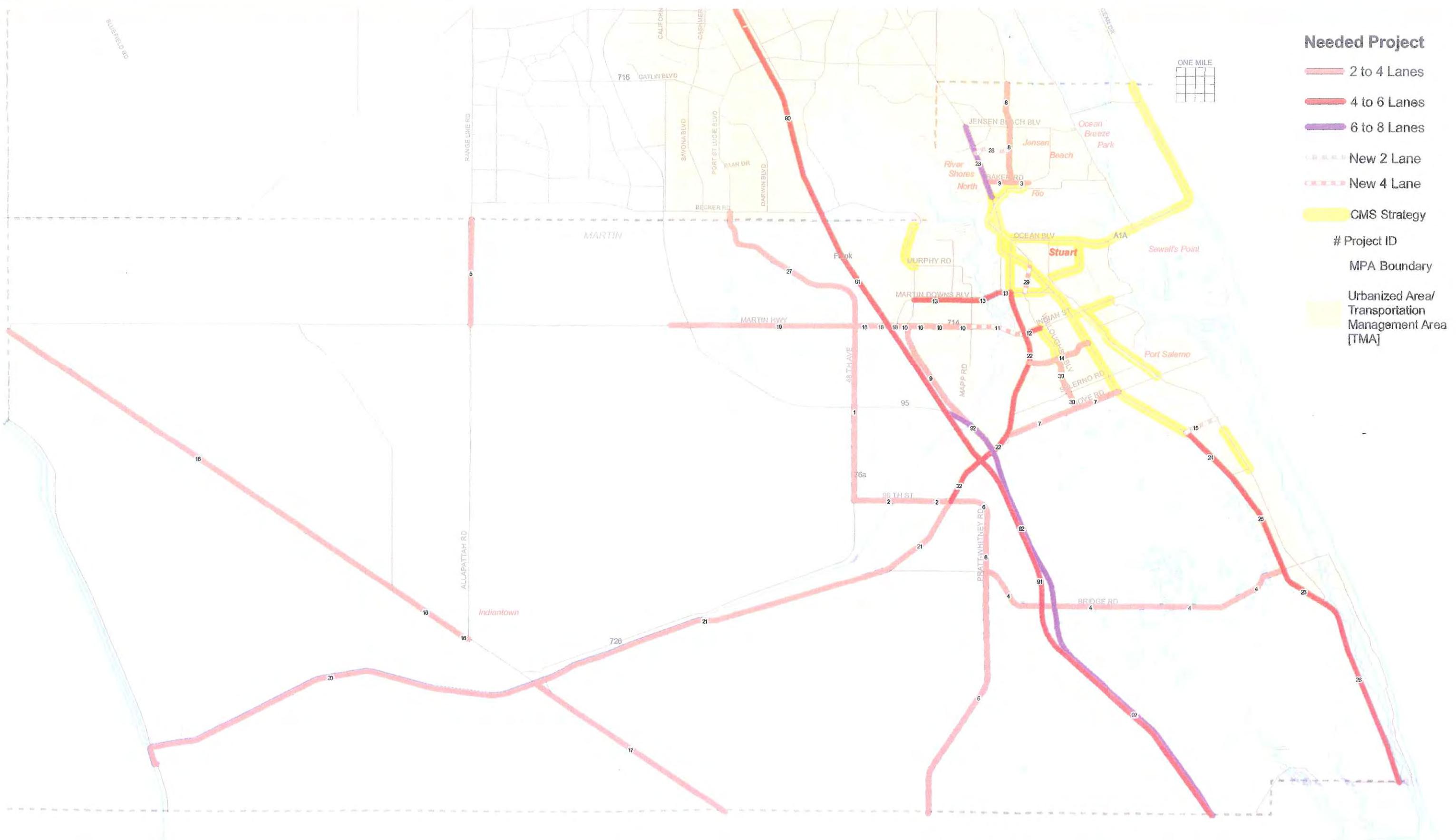
**MODEL DATA**

**2030 NETWORK – MARTIN COUNTY**

**2030 NETWORK - FDOT**



MARTIN COUNTY CUMULATIVE LUPA ANALYSIS  
2030 MODEL - UNADJUSTED DAILY VOLUMES



# STRATEGIC INTERMODAL SYSTEM FUNDING STRATEGY



# SECOND FIVE YEAR PLAN



4-3

## Highway

# FY 2014/2015 through FY 2018/2019

Capacity Projects on the Strategic Intermodal System  
State of Florida Department of Transportation



# DISTRICT 4 INTERSTATE PLAN

MAP ID	FACILITY	FROM	TO	DESCRIPTION	2015		2016		2017		2018		2019		TOTAL DISTRICT MANAGED	TOTAL STATE MANAGED	ROW	
					PF	PD&E	PF	PD&E	PF	PD&E	PF	PD&E	PF	PD&E				
4130461	I-95/SR-9	SR-70/OKEECHOBEE R	SR-614/INDRIO RD	ADD 4 LANES TO BUILD 8 LANE	\$93,376	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$93,376	•	•	
4130471	I-95/SR-9	SR-614/INDRIO	1RST LUCIE COLLINE	ADD 2 LANES TO BUILD 6 LANE	\$180	\$37,105	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$37,285	•	•	
4130491	I-95/SR-9	SR-60/OSCEOLA BLVD	N. OF CR-512	ADD 2 LANES TO BUILD 6 LANE	\$945	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$945	•	•	
4130501	I-95/SR-9	N. OF CR-512	BREVARD COLLINE	ADD 2 LANES TO BUILD 6 LANE	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$300	•	•	
4208091	I-95/CR-882	E. OF I-75	W. OF I-85	PRELIMINARY ENGINEERING	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$625	•	•	
4208093	I-95/CR-862/ P3	E. OF I-75	W. OF I-95	ADD 2 REVERSIBLE USE LANE	\$921,248	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$102,191	\$819,057	•	•
4259281	SR-9/AI-95	MIAMI-DADE/BROWARD	BROWARD BLVD	PROJECT DEVELOPMENT & EN	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,890	•	•
4130462	I-95/CR-9	@ SR-70 & SR-68	TWO INTERCHANGES	MODIFY INTERCHANGE	\$0	\$0	\$0	\$0	\$0	\$0	\$25,168	\$0	\$0	\$0	\$307	\$24,861	•	•
ANNUAL TOTALS															\$975	\$102,548	\$381,339	
															#####	\$37,105	\$25,168	

All Values in Thousands of "As Programmed" Dollars (FY 2009 costs that are inflated to the year of expenditure)



**DISTRICT 4**  
**SECOND FIVE YEARS**  
**INTERSTATE PLAN**

**STRATEGIC INTERMODAL SYSTEM**

**CAPACITY IMPROVEMENT PROJECTS**

**Approved Plan**

(FY 2014/2015 thru 2018/2019)  
as of September 23, 2009

**LEGEND**

**Project Phase**

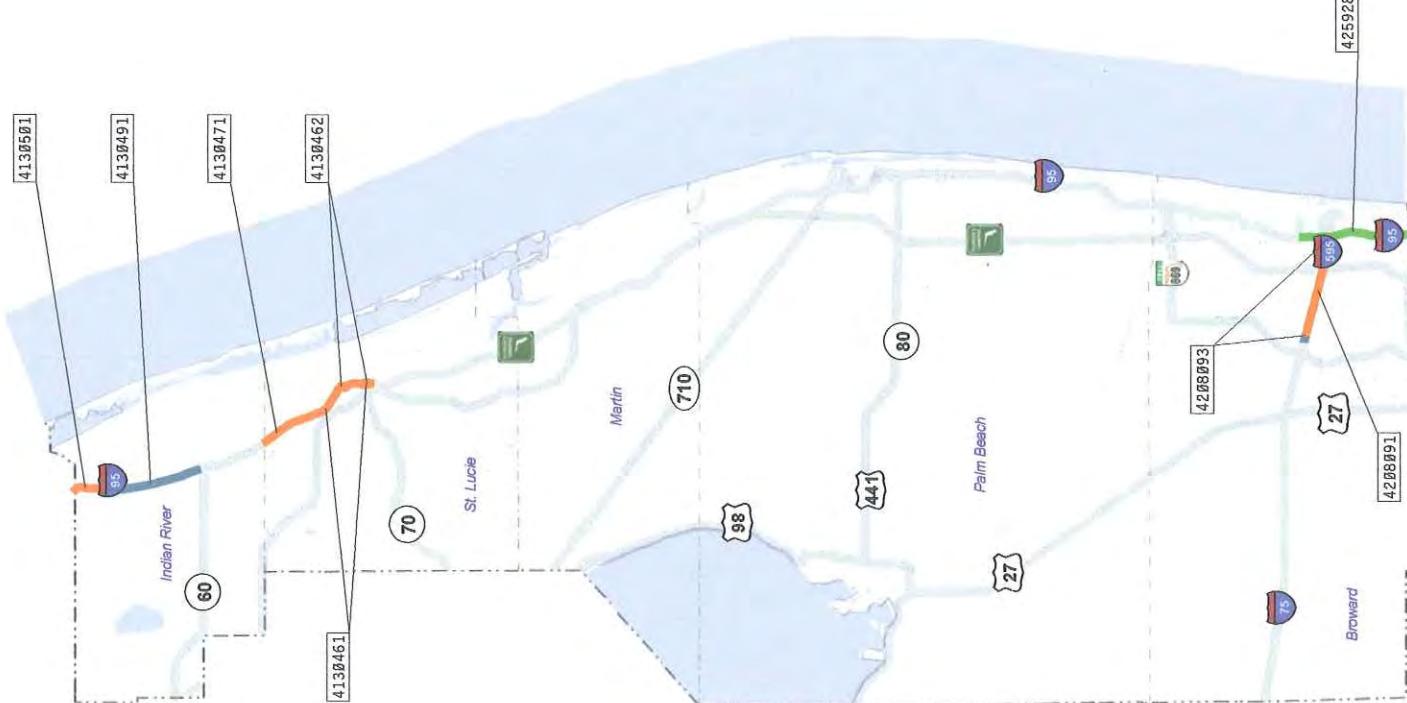
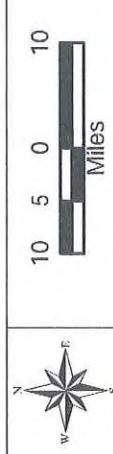
- Project Development & Environment
- Preliminary Engineering
- Right-Of-Way
- Construction

**NOTES**

Projects color coded by highest project phase.

Some projects may overlap on map.

Project costs are subject to change.



# DISTRICT 4 NON-INTERSTATE PLAN



MAP ID	FACILITY	FROM	TO	DESCRIPTION	2015	2016	2017	2018	2019	TOTAL DISTRICT MANAGED	TOTAL STATE MANAGED	PE	PD&E	ROW	Construction	
2302622	SR-70	OKEECHOBEE/LUCIE C	MP 5.871	ADD 2 LANES TO BUILD 4 LANE	\$0	\$0	\$0	\$0	\$0	\$168	\$0	\$168				
				ANNUAL TOTALS	\$0	\$0	\$0	\$0	\$0	\$168	\$0	\$168				

**DISTRICT 4**  
**SECOND FIVE YEARS**  
**NON-INTERSTATE PLAN**

**STRATEGIC INTERMODAL SYSTEM**

**CAPACITY IMPROVEMENT PROJECTS**

**Approved Plan**

(FY 2014/2015 thru 2018/2019)  
 as of September, 2009

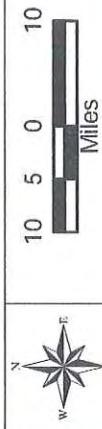
**LEGEND**

**Project Phase**

- █ Project Development & Environment
- █ Preliminary Engineering
- █ Right-Of-Way
- █ Construction

**NOTES**

Projects color coded by highest project phase.  
 Some projects may overlap on map.  
 Project costs are subject to change.

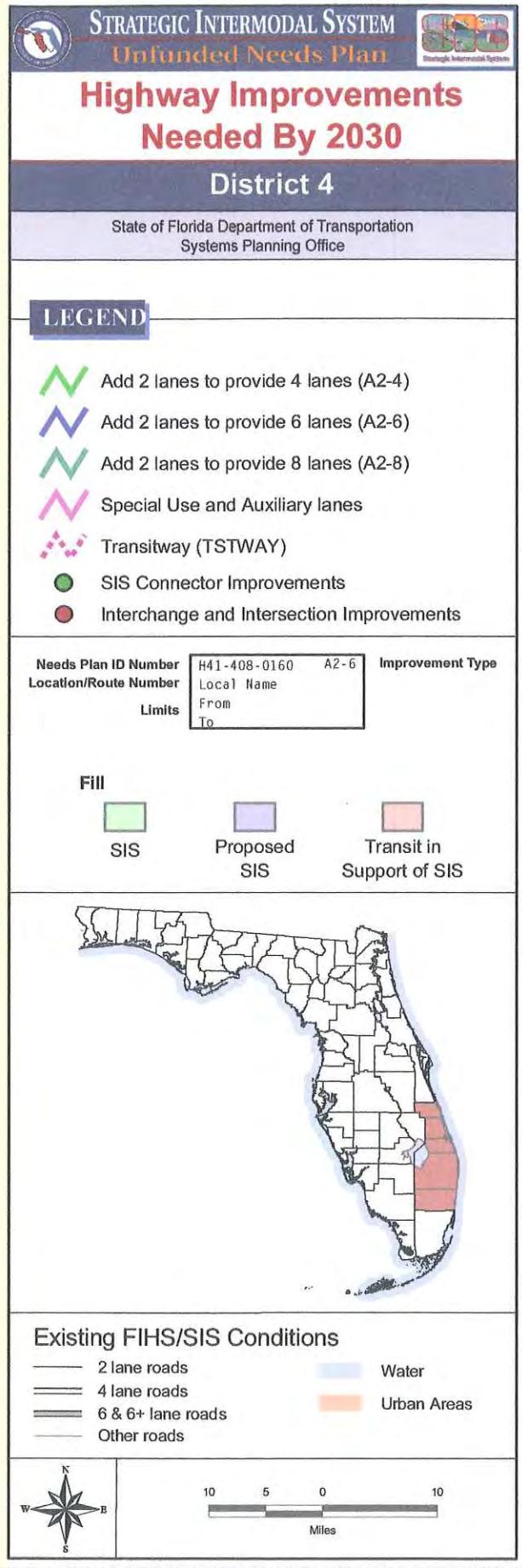
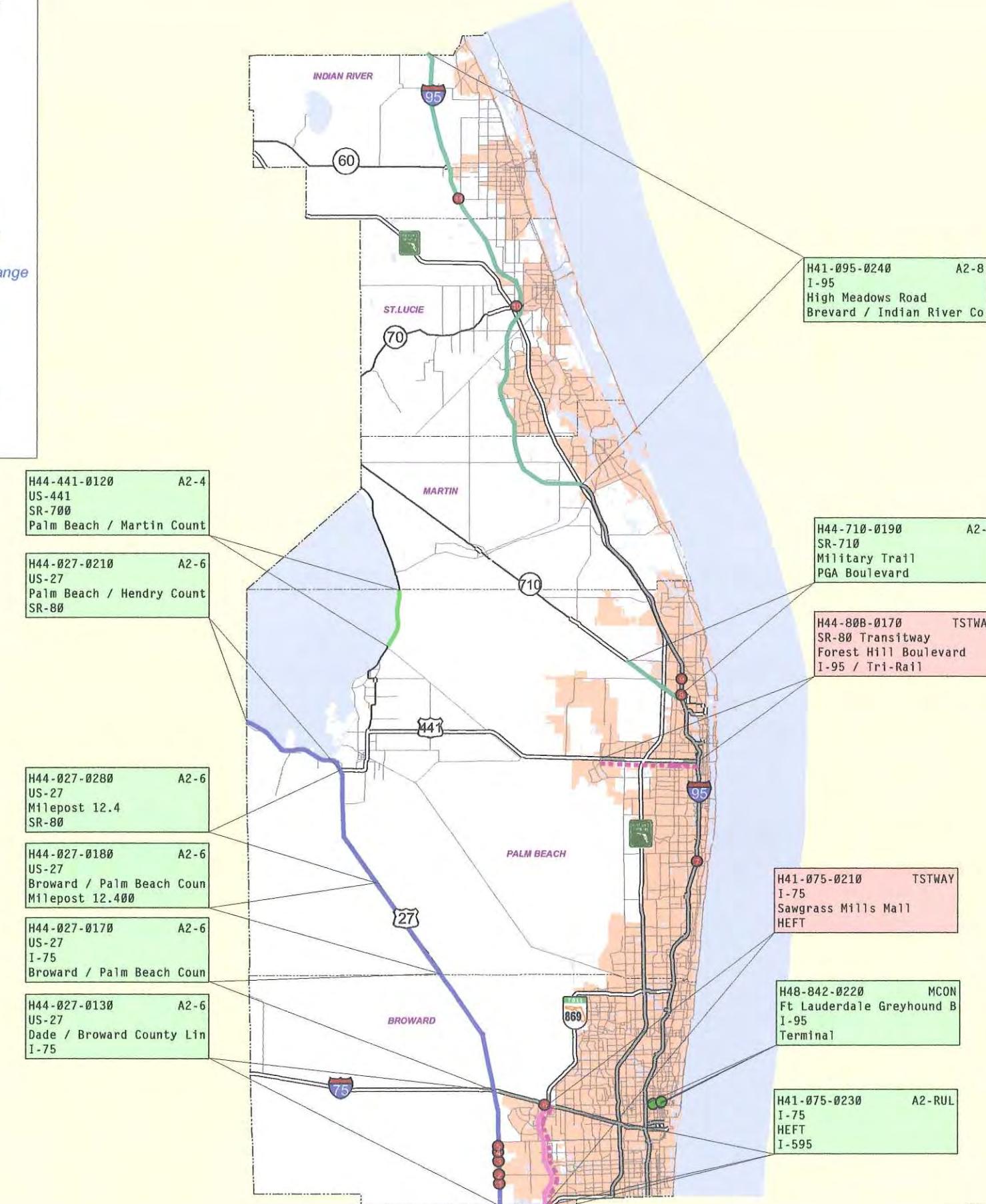


**HIGHWAY**



### Interchange and Intersection Improvements

- ① H44-027-0270 US-27 @ Pembroke Rd New Interchange
- ② H44-027-0140 US-27 @ Pines Blvd New Interchange
- ③ H44-027-0150 US-27 @ Sheridan Rd New Interchange
- ④ H44-027-0230 US-27 @ Stirling Rd New Interchange
- ⑤ H44-027-0360 US-27 @ Griffin Rd New Interchange
- ⑥ H41-075-0210 I-75 @ Sawgrass Expwy Modify Interchange
- ⑦ H41-095-0210 I-95 @ Woolbright / Gateway Modify Interchange
- ⑧ H41-095-0190 I-95 @ Blue Heron Blvd Modify Interchange
- ⑨ H41-095-0220 I-95 @ Northlake Blvd New Interchange
- ⑩ H44-070-0100 SR-70 @ Turnpike / I-95 Modify Interchange
- ⑪ H41-095-0180 I-95 @ Oslo Rd New Interchange





# STRATEGIC INTERMODAL SYSTEM

## SIS Eligible Multi-Modal Unfunded Needs Plan



May 2006

### Highway Capacity Improvements Needed by 2030 - District 4

Project costs are in 2006 dollars and are subject to change

MAP ID	FACILITY	FROM	TO	YEAR	IMPROVEMENT TYPE	TOTAL PROJECT COST
<b>NON-TRANSIT 2030 DISTRICT TOTAL:</b>						<b>\$1,035,600,000</b>
<b>SIS</b>						
H44-027-0130	US-27	Dade / Broward County Line	I-75	2020	(A2-6) Add 2 Lanes to build 6 Lanes	\$49,450,000
H44-027-0170	US-27	I-75	Broward / Palm Beach County Line	2020	(A2-6) Add 2 Lanes to build 6 Lanes	\$49,450,000
H44-027-0180	US-27	Broward / Palm Beach County Line	Milepost 12.400	2020	(A2-6) Add 2 Lanes to build 6 Lanes	\$47,150,000
H44-027-0210	US-27	Palm Beach / Hendry County Line	SR-80	2020	(A2-6) Add 2 Lanes to build 6 Lanes	\$48,000,000
H44-027-0280	US-27	Milepost 12.4	SR-80	2020	(A2-6) Add 2 Lanes to build 6 Lanes	\$52,300,000
H41-075-0200	I-75	at Sawgrass Expressway		2020	(M-INCH) Modify Interchange	\$26,800,000
H44-027-0140	US-27	at Pines Boulevard		2030	(N-INCH) New Interchange	\$8,050,000
H44-027-0150	US-27	at Sheridan Street		2030	(N-INCH) New Interchange	\$8,050,000
H44-027-0230	US-27	at Stirling Road		2030	(N-INCH) New interchange	\$8,050,000
H44-027-0270	US-27	at Pembroke Road		2030	(N-INCH) New Interchange	\$8,050,000
H44-027-0360	US-27	at Griffin Road		2030	(N-INCH) New Interchange	\$9,800,000
H44-441-0120	US-441	SR-700	Palm Beach / Martin County Line	2030	(A2-4) Add 2 Lanes to build 4 Lanes	\$11,150,000
H44-070-0100	SR-70	Turnpike / SR-91	I-95	2030	(M-INCH) Modify Interchange	\$33,200,000
H44-710-0190	SR-710	Military Trail	PGA Boulevard	2030	(A2-8) Add 2 Lanes to build 8 Lanes	\$31,950,000
H41-075-0230	I-75	HEFT	I-595	2030	(A2-RUL) Add 2 Reversible Use Lanes	\$36,350,000
H41-095-0180	I-95	at Oslo Road		2030	(N-INCH) New Interchange	\$26,450,000
H41-095-0190	I-95	at Blue Heron Boulevard		2030	(M-INCH) Modify Interchange	\$52,950,000
H41-095-0210	I-95	at Woolbright & Gateway		2030	(M-INCH) Modify Interchange	\$70,650,000
H41-095-0220	I-95	at Northlake Boulevard		2030	(M-INCH) Modify Interchange	\$83,400,000
H41-095-0240	I-95	High Meadows Road	Brevard / Indian River County Line	2030	(A2-8) Add 2 Lanes to build 8 Lanes	\$366,900,000
H48-842-0220	Ft Lauderdale Greyhound Bus Terminal	I-95	Terminal	2030	(MCON) Modify Connector	\$7,450,000

**SUB - TOTAL**

**\$1,035,600,000**

### Transit in Support of SIS

H41-075-0210	I-75	Sawgrass Mills Mall	HEFT	2025	(TSTWAY) Transit way	\$98,550,000
H44-80B-0170	SR-80 Transitway	Forest Hill Boulevard	I-95 / Tri-Rail	2030	(TSTWAY) Transit way	\$722,350,000
<b>SUB - TOTAL</b>						<b>\$820,900,000</b>