BOOK 1

CPA2006-03

LEE COUNTY ORDINANCE NO. 09-10
(Olga Community Plan)
(CPA2006-03)

AN ORDINANCE AMENDING THE LEE COUNTY COMPREHENSIVE PLAN, COMMONLY KNOWN AS THE "LEE PLAN," ADOPTED BY ORDINANCE NO. 89-02, AS AMENDED, SO AS TO ADOPT AMENDMENT CPA2006-03 (PERTAINING TO THE OLGA COMMUNITY PLAN) APPROVED DURING THE COUNTY'S 2007/2008 REGULAR COMPREHENSIVE PLAN AMENDMENT CYCLE; PROVIDING FOR AMENDMENTS TO ADOPTED TEXT AND MAPS; PURPOSE AND SHORT TITLE; LEGAL EFFECT OF "THE LEE PLAN"; GEOGRAPHICAL APPLICABILITY; SEVERABILITY, CODIFICATION, SCRIVENER'S ERRORS, AND AN EFFECTIVE DATE.

WHEREAS, the Lee County Comprehensive Plan ("Lee Plan") Policy 2.4.1 and Chapter XIII, provides for adoption of amendments to the Plan in compliance with State statutes and in accordance with administrative procedures adopted by the Board of County Commissioners ("Board"); and,

WHEREAS, the Board, in accordance with Section 163.3181, Florida Statutes, and Lee County Administrative Code 13-6, provide an opportunity for private individuals to participate in the plan amendment public hearing process; and,

WHEREAS, the Lee County Local Planning Agency ("LPA") held a public hearing pursuant to Florida Statutes and the Lee County Administrative Code on September 22, 2008; and,

WHEREAS, the Board held a public hearing for the transmittal of the proposed amendment on October 22, 2008. At that hearing, the Board approved a motion to send, and did later send, proposed amendment CPA2006-03 pertaining to the Olga Community Planning effort to the Florida Department of Community Affairs ("DCA") for review and comment; and,

WHEREAS, at the October 22, 2008 meeting, the Board announced its intention to hold a public hearing after the receipt of DCA's written comments commonly referred to as the "ORC Report." DCA issued their ORC Report on January 16, 2009; and,

WHEREAS, at a public hearing on February 25, 2009, the Board moved to adopt the proposed amendment to the Lee Plan adopting the Olga Community Plan as more particularly set forth herein.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF LEE COUNTY, FLORIDA, THAT:

SECTION ONE: PURPOSE, INTENT AND SHORT TITLE

The Board of County Commissioners of Lee County, Florida, in compliance with Chapter 163, Part II, Florida Statutes, and with Lee County Administrative Code 13-6, conducted public hearings to review proposed amendments to the Lee Plan. The purpose of this ordinance is to adopt the amendments to the Lee Plan discussed at those meetings and approved by a majority of the Board of County Commissioners. The short title and proper reference for the Lee County Comprehensive Land Use Plan, as hereby amended, will continue to be the "Lee Plan." **This amending ordinance may be referred to as the "2007/2008 Regular Comprehensive Plan Amendment Cycle CPA2006-03 Olga Community Plan Ordinance."**

SECTION TWO: ADOPTION OF LEE COUNTY'S 2007/2008 REGULAR COMPREHENSIVE PLAN AMENDMENT CYCLE

The Lee County Board of County Commissioners hereby amends the existing Lee Plan, adopted by Ordinance Number 89-02, as amended, by adopting an amendment, as revised by the Board of County Commissioners on February 25, 2009, known as CPA2006-03. CPA2006-03 amends the Plan to incorporate the recommendations of the Olga Community by adding a new Goal, Objective, and Policies specific to the Olga community located within the Caloosahatchee Shores planning area as set forth below. The Lee Plan Future Land Use Map is also amended as reflected on attached Exhibit A.

The corresponding Staff Reports and Analysis, along with all attachments for this amendment are adopted as "Support Documentation" for the Lee Plan.

Goal 29: Olga Community.

To capture and maintain Olga's heritage and rural character while allowing new development to "fit in" the following objectives and policies will be implemented to direct the new density and intensities for the Olga Community. For the purpose of this Goal, the Olga Community boundaries are generally defined by Caloosahatchee River on the north, Old Olga Road as it intersects SR 80 at its most eastern point on the east, SR 80 (aka Palm Beach Boulevard) on the south and Old Olga Road at the intersection of Buckingham Road/SR 80/Old Olga Road intersection to the west along with an imaginary line north to the Caloosahatchee River.

Objective 29.1: Olga's Future Land Use Map reflects the vision and desires of the Olga Community. Any land use regulations, comprehensive plan changes, County regulated amendments or project developments imposed by Lee County will consider the Olga's Land Use Map prior to making any decisions.

Policy 29.1.1: All new development requiring a development order on Old Olga Road from the western intersection of SR 80 and Old Olga Road east to the eastern intersection of Old Olga Road and SR 80 will be required to install eight-foot (8') wide bicycle and pedestrian facilities along one side of the length of the property line. The bicycle and pedestrian facility will be required on the east and south side of Old Olga Road from the western intersection of Old Olga Road and SR 80 to the intersection of Old Olga

Road and South Olga Road; and, on the north side of Old Olga Road from the intersection of Old Olga Road and South Olga Road to the eastern intersection of Old Olga Road and SR 80. The community will work with the Lee County Bike and Pedestrian Committee to get a retrofit project prioritized.

Policy 29.1.2: Any new commercial projects must be a Commercial Planned Development and may not have a residential component unless it matches the abutting residential density.

Policy 29.1.3: Development density and intensity will gradient from the center to the edge suitable to integrate surrounding land uses.

Policy 29.1.4: Parking lots will be internal to the building site with buildings lining or shielding the parking lot from the street and neighborhood.

Policy 29.1.5: If deemed appropriate by the Director of Zoning, parking space requirements may be reduced by up to one half in order to provide more open space and less impervious surfaces on the site.

Policy 29.1.6: Canopy trees must be planted in all parking areas in order to provide shade.

Policy 29.1.7: The minimum commercial building setbacks will be as follows:

a. Street: 40 feet

b. Side: 30 feet

c. Rear: 50 feet

Policy 29.1.8: Floor Area Ratios (FAR) maximums will be in the Commercial Future Land Use Category located north of SR 80 and east of South Olga Road 0.25. FAR represents the relationship of the size of a building to its site area. Calculated by taking the size of the parcel in square feet divided by four equals the floor area of the building.

Policy 29.1.9: Open Space Requirements:

a. Projects less than five acres (Small Projects) will provide 30% open space.

b. Projects between five and ten acres will provide 40% open space.

c. Projects more than ten acres will provide 50% open space.

Policy 29.1.10: Building and project designs must ensure that internal street systems are designed for the efficient and safe flow of vehicles and pedestrians without having a disruptive effect on the activities and functions contained within or adjacent to the development.

Policy 29.1.11: Heritage trees, as defined in Land Development Code Sec. 10-415, will be preserved or when possible, may be relocated on-site. If a heritage tree must be removed from the site then a replacement tree with a minimum 20-foot height must be planted within an appropriate open space.

Policy 29.1.12: The community will support a collector road connection from South Olga Drive west to the intersection of Old Olga Road and Caribbean Drive. If constructed the roadway connection will be at the developer's expense as properties along the proposed roadway are built.

Policy 29.1.13: Projects must be designed to maintain the integrity of the natural environment when developing property, especially when significant tree canopies or natural habitats exist on the parcel. These natural features must be integrated into the site design.

Policy 29.1.14: When undertaking streetscape improvements, new private construction and building rehabilitation, place utility lines underground where it is economically feasible and where practical to improve visual qualities.

Policy 29.1.15: The FDOT outfall ditch easement and drainage ditch located on the R&D Cattle site is described in Lee County Deed Book 175, Page 445 may be relocated within the Commercial Future Land Use area immediately north of River Hall if it is demonstrated that the new ditch alignment will maintain the hydrological connection and capacity existing at its present location. The appropriateness of the ditch realignment must be demonstrated based upon sound engineering principals prior to rezoning or development approval, whichever occurs first. The easement establishing the new alignment must be reviewed and approved by Lee County and all other applicable regulatory agencies prior to recording.

SECTION THREE: LEGAL EFFECT OF THE "LEE PLAN"

No public or private development will be permitted except in conformity with the Lee Plan. All land development regulations and land development orders must be consistent with the Lee Plan as amended.

SECTION FOUR: GEOGRAPHIC APPLICABILITY

The Lee Plan is applicable throughout the unincorporated area of Lee County, Florida, except in those unincorporated areas included in joint or interlocal agreements with other local governments that specifically provide otherwise.

SECTION FIVE: SEVERABILITY

The provisions of this ordinance are severable and it is the intention of the Board of County Commissioners of Lee County, Florida, to confer the whole or any part of the powers herein provided. If any of the provisions of this ordinance are held unconstitutional by a court of competent jurisdiction, the decision of that court will not affect or impair the remaining provisions of this ordinance. It is hereby declared to be the legislative intent of the Board that this ordinance would have been adopted had the unconstitutional provisions not been included therein.

SECTION SIX: INCLUSION IN CODE, CODIFICATION, SCRIVENERS' ERROR

It is the intention of the Board of County Commissioners that the provisions of this ordinance will become and be made a part of the Lee County Comprehensive Land Use Plan. Sections of this ordinance may be renumbered or relettered and the word "ordinance" may be changed to "section," "article," or other appropriate word or phrase in order to accomplish this intention; and regardless of whether inclusion in the code is accomplished, sections of this ordinance may be renumbered or relettered. The correction of typographical errors that do not affect the intent, may be authorized by the County Manager, or his or her designee, without need of public hearing, by filing a corrected or recodified copy with the Clerk of the Circuit Court.

SECTION SEVEN: EFFECTIVE DATE

The plan amendments adopted herein are not effective until a final order is issued by the DCA or Administrative Commission finding the amendment in compliance with Section 163.3184(9), Florida Statutes, or until the Administrative Commission issues a final order determining the adopted amendment to be in compliance in accordance with 163.3184(10), Florida Statutes, whichever occurs earlier. No development orders, development permits, or land uses dependent on this amendment may be issued or commence before the amendment has become effective. If a final order of noncompliance is issued by the Administration Commission, this amendment may nevertheless be made effective by adoption of a resolution affirming its effective status. A copy of such resolution will be sent to the DCA, Bureau of Local Planning, 2555 Shumard Oak Boulevard, Tallahassee, Florida 32399-2100.

Commissioner Hall made a motion to adopt the foregoing ordinance, seconded by Commissioner Mann. The vote was as follows:

Robert P. Janes	Aye
Brian Bigelow	Aye
Ray Judah	Aye
Tammara Hall	Aye
Frank Mann	Aye

DONE AND ADOPTED this 25th day of February 2009.

ATTEST:
CHARLIE GREEN, CLERK

BY: Marcia Wilson
Deputy Clerk

LEE COUNTY
BOARD OF COUNTY COMMISSIONERS

BY: Ray Judah
Ray Judah, Chairman

DATE: 2/25/09

Approved as to form by:

Dawn E. Perry-Lehnert
County Attorney's Office

EXHIBIT
A - Future Land Use Map

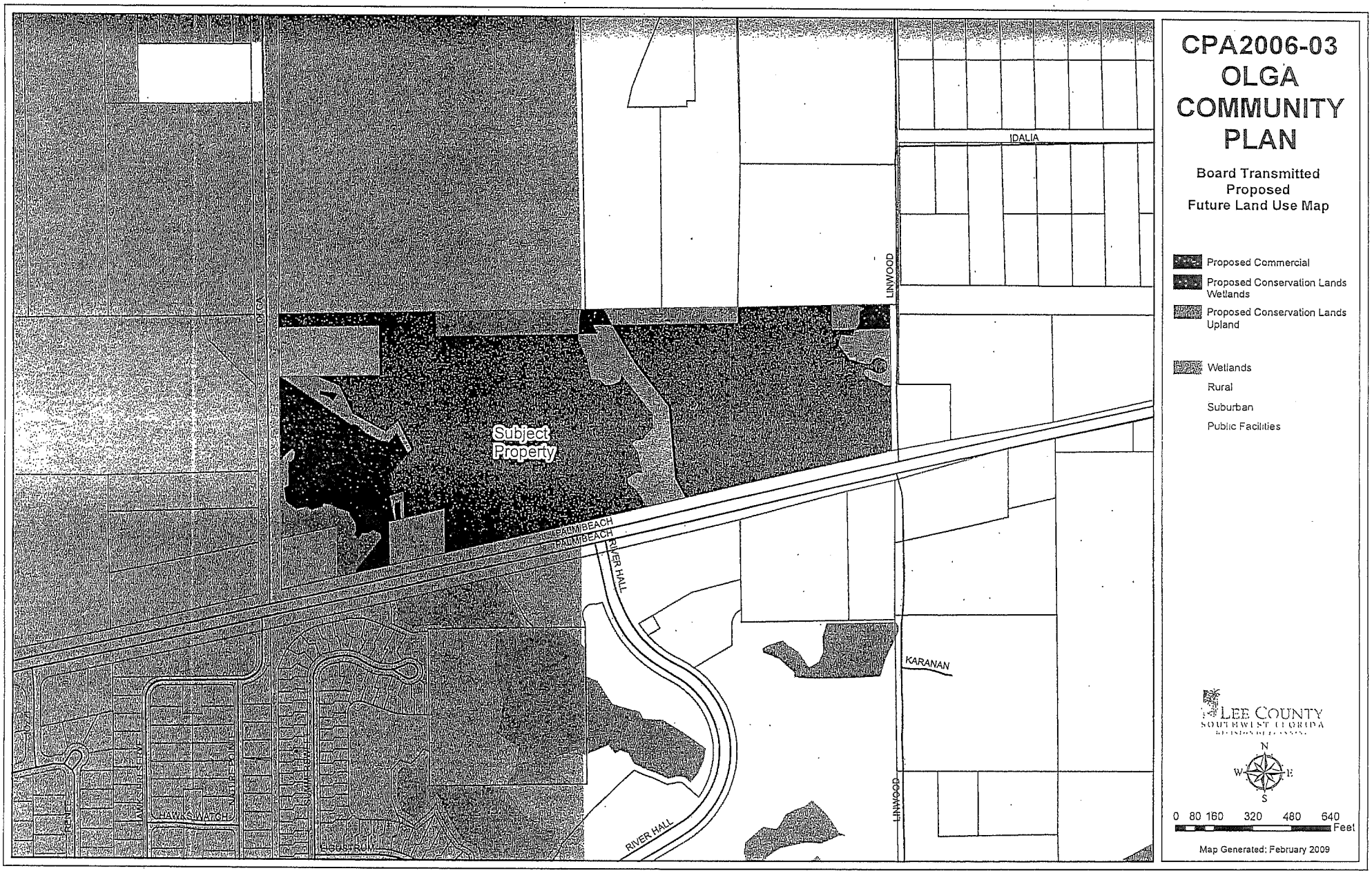
State of Florida
County of Lee

I Charlie Green, Clerk of the Circuit Court for Lee County, Florida, do hereby certify this document to be a true and correct copy of the original document filed in the Minutes Department.

Given under my hand and official seal at Fort Myers, Florida, this 6th day of March, A.D. 2009

CHARLIE GREEN, CLERK

By Marcia Wilson
Deputy Clerk


CPA2006-03
OLGA
COMMUNITY
PLAN
Board Transmitted
Proposed
Future Land Use Map
Proposed Commercial
Proposed Conservation Lands Wetlands
Proposed Conservation Lands Upland
Wetlands
Rural
Suburban
Public Facilities
Subject Property
IDALIA
LINWOOD
PALM BEACH
RIVER HALL
KARANAN
HAWKS WATCH
LEE COUNTY
SOUTHWEST FLORIDA
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Feet
Map Generated: February 2009

EXHIBIT A

CPA2006-03
OLGA
BoCC SPONSORED
AMENDMENT
TO THE

LEE COUNTY COMPREHENSIVE PLAN

THE LEE PLAN

BoCC Adoption Document

Lee County Planning Division
1500 Monroe Street
P.O. Box 398
Fort Myers, FL 33902-0398
(239) 533-8585

February 25, 2009

LEE COUNTY
DIVISION OF PLANNING
STAFF REPORT FOR
COMPREHENSIVE PLAN AMENDMENT
CPA2006-00003

[✓] **Text Amendment** [✓] **Map Amendment**

	This Document Contains the Following Reviews:
✓	**Staff Review**
✓	**Local Planning Agency Review and Recommendation**
✓	**Board of County Commissioners Hearing for Transmittal**
✓	**Staff Response to the DCA Objections, Recommendations, and Comments (ORC) Report**
✓	**Board of County Commissioners Hearing for Adoption**

STAFF REPORT PREPARATION DATE: September 10, 2008

PART I - BACKGROUND AND STAFF RECOMMENDATION

A. SUMMARY OF APPLICATION

1. SPONSOR/APPLICANT:

A. SPONSOR:
LEE COUNTY BOARD OF COUNTY COMMISSIONERS
REPRESENTED BY LEE COUNTY DIVISION OF PLANNING

B. APPLICANT
THE EAST LEE COUNTY COUNCIL
ON BEHALF OF THE OLGA COMMUNITY PLANNING PANEL

2. REQUEST:

Amend the Future Land Use Element of the Lee Plan to add a new Goal, Objective, and Policies specific to the Olga community located within the Caloosahatchee Shores planning area. Amend the Future Land Use Map series, Map 1, Page 1 of 6, for specified parcels located east of South Olga Road fronting SR 80 containing approximately 48.7 acres from Suburban and Rural to the Commercial and Conservation Lands Future Land Use Map categories. Amend the Future Land Use series, Map 1, Page 2 of 6, Special Treatment Areas, to indicate that a new Goal specific to the Olga Community has been adopted.

THE BOARD OF COUNTY COMMISSIONERS VOTED TO TRANSMIT THE FOLLOWING LANGUAGE AND FUTURE LAND USE MAP CHANGE TO THE DEPARTMENT OF COMMUNITY AFFAIRS:

Goal 29: Olga Community.

To capture and maintain Olga's heritage and rural character while allowing new development to "fit in" the following objectives and policies will be implemented to direct the new density and intensities for the Olga Community. For the purpose of this Goal, the Olga Community boundaries are generally defined by Caloosahatchee River on the north, Old Olga Road as it intersects SR 80 at its most eastern point on the east, SR 80 (aka Palm Beach Boulevard) on the south and Old Olga Road at the intersection of Buckingham Road/SR 80/Old Olga Road intersection to the west along with an imaginary line north to the Caloosahatchee River.

Objective 29: Olga's Future Land Use Map reflects the vision and desires of the Olga Community. Any land use regulations, comprehensive plan changes, County regulated amendments or project developments imposed by Lee County will consider the Olga's Land Use Map prior to making any decisions.

Policy 29.1: All new development requiring a development order on Old Olga Road from the western intersection of SR 80 and Old Olga Road east to the eastern intersection of Old Olga Road and SR 80 will be required to install eight-foot (8') wide bicycle and pedestrian facilities along one side of the length of the property line. The bicycle and pedestrian facility will be required on the east and south side of Old Olga Road from the western intersection of Old Olga Road and SR 80 to the intersection of Old Olga Road and South Olga Road and on the north side of Old Olga Road from the intersection of Old Olga Road and South Olga Road to the eastern intersection of Old Olga Road and SR 80. The community will work with the Lee County Bike and Pedestrian Committee to get a retrofit project prioritized.

Policy 29.5: Any new commercial projects must be a Commercial Planned Development and may not have a residential component unless it matches the abutting residential density.

Policy 29.6: Development density and intensity will gradient from the center to the edge suitable to integrate surrounding land uses.

Policy 29.7: Parking lots will be internal to the building site with buildings lining or shielding the parking lot from the street and neighborhood.

Policy 29.8: If deemed appropriate by the Director of Zoning, parking space requirements may be reduced by up to one half in order to provide more open space and less impervious surfaces on the site .

Policy 29.9: Canopy trees must be planted in all parking areas in order to provide shade.

Policy 29.11: The minimum commercial building setbacks will be as follows:

a. Street: 40 feet
b. Side: 30 feet
c. Rear: 50 feet

Policy 29.12: The Olga Community discourages automobile oriented uses. This includes drive-thrus, automotive sales and repair, drive-ins and other similar businesses.

Policy 29.14: Floor Area Ratios (FAR) maximums will be 0.25. FAR represents the relationship of the size of a building to its site area. Calculated by taking the size of the parcel in square feet divided by 4 equals the floor area of the building.

Policy 29.15: Open Space Requirements:
a. Projects less than five (5) acres (Small Projects) will provide 30% open space.
b. Projects between five (5) and ten (10) acres will provide 40% open space.
c. Projects more than ten (10) acres will provide 50% open space.

Policy 29.16: Building and project designs must ensure that internal street systems are designed for the efficient and safe flow of vehicles and pedestrians without having a disruptive effect on the activities and functions contained within or adjacent to the development.

Policy 29.18: Heritage trees, as defined in Sec. 10-415 of the Land Development Code, will be preserved or when possible, may be relocated on-site. If a heritage tree must be removed from the site then a replacement tree with a minimum 20-foot height must be planted within an appropriate open space.

Policy 29.20: The community will support a collector road connection from South Olga Drive west to the intersection of Old Olga Road and Caribbean Drive. If constructed the roadway connection will be at the developer's expense as properties along the proposed roadway are built.

Policy 29.21: Projects must be designed to maintain the integrity of the natural environment when developing property, especially when significant tree canopies or natural habitats exist on the parcel. These natural features must be integrated into the site design.

Policy 29.22: When undertaking streetscape improvements, new private construction and building rehabilitation, place utility lines underground where it is economically feasible and where practical to improve visual qualities.

The Board of County Commissioners voted to transmit a Future Land Use Map change from Suburban and Rural to Commercial and Conservation Lands to the Department of Community Affairs as recommended by staff (see attached map).

The following language was submitted by the community for consideration by staff, the LPA and the Board of County Commissioners:

Goal 29: Olga Community.

To capture and maintain Olga's heritage and rural character while allowing new development to "fit in" the following objectives and policies will be implemented to direct the new density and intensities for the Olga Community. For the purpose of this Goal, the Olga Community boundaries are generally defined by Caloosahatchee River on the north, Old Olga Road as it intersects SR 80 at its most eastern point on the east, SR 80 (aka Palm Beach Boulevard) on the south and Old Olga Road at the intersection of Buckingham Road/SR 80/Old Olga Road intersection to the west along with an imaginary line north to the Caloosahatchee River.

Objective 29: Olga's Future Land Use Map reflects the vision and desires of the Olga Community. Any land use regulations, comprehensive plan changes, County regulated amendments or project developments imposed by Lee County will consider the Olga's Land Use Map prior to making any decisions.

Policy 29.1: All new development on Old Olga Road from the western intersection of SR 80 and Old Olga Road east to the eastern intersection of Old Olga Road and SR 80 will be required to install eight-foot (8') wide bicycle and pedestrian facilities along the length of the property line. The community will work with the Lee County Bike and Pedestrian Committee to get a retrofit project prioritized.

Policy 29.2: Suburban land use designations within the community will be strongly encouraged to develop at one dwelling unit per acre. If one dwelling unit per acre is not possible new developments will match the surrounding density and intensity. Wherever possible, all new developments will maintain a one acre minimum lot size.

Policy 29.3: Parcels located on the north side of SR 80, bound on the west by South Olga Drive and on the east by the intersection of Old Olga Road/SR 80 will be allowed to develop as Outlying Suburban. Those parcels are identified will be required to develop under specific development standards and are identified as follows:

28-43-26-00-00001.0030
28-43-26-00-00001.0050
28-43-26-00-00003.0010
28-43-26-00-00008.0010
28-43-26-00-00008.0000
28-43-26-00-00007.0010
27-43-26-00-00002.0000
27-43-26-00-00003.0000
27-43-26-00-00001.0020
27-43-26-00-00006.0030
23-43-26-00-00011.0010
27-43-26-00-00006.0010
27-43-26-00-00006.0000
27-43-26-00-00006.0020
27-43-26-00-00001.0050
27-43-26-00-00001.0070
27-43-26-00-00013.0000
23-43-26-00-00012.0010
23-43-26-00-00011.001A
23-43-26-00-00011.0000
23-43-26-00-00011.001B
23-43-26-00-00005.0000

Policy 29.4: Commercial land uses will not be permitted into single-family neighborhoods unless the neighborhood is consulted and approves.

Policy 29.5: Any new commercial projects must be a Commercial Planned Development and may not have a residential component unless it matches the abutting residential density.

Policy 29.6: Development intensity will gradient from the center to the edge suitable to integrate surrounding land uses.

Policy 29.7: Parking lots will be internal to the building structures with buildings lining or shielding the parking lot from the street and neighborhood.

Policy 29.8: Parking space requirements will be reduced by one half in order to provide more open space and less impervious surfaces on the site.

Policy 29.9: Canopy trees must be planted in all parking areas in order to provide shade

Policy 29.10: Developments will utilize the principals of Crime Prevention through Environmental Design (CPTED).

Policy 29.11: The minimum commercial building setbacks will be as follows:
a. Street: 40 feet
b. Side: 30 feet
c. Rear: 50 feet

Policy 29.12: No Automobile oriented uses will be permitted. This includes drive-thrus, automotive sales and repair, drive-ins and other similar businesses.

Policy 29.13: As feasible, developers will work with Lee Tran to provide bus stops to encourage public transit access to their site.

Policy 29.14: Floor Area Ratios (FAR) maximums will be 0.10. FAR represents the relationship of the size of a building to its site area. Calculated by taking the size of the parcel in square feet divided by 10 equals the size of the building.

Policy 29.15: Open Space Requirements:
a. Parcels less than five (5) acres (Small Projects) will provide 30% open space.
b. Parcels between five (5) and ten (10) acres will provide 40% open space.
c. Parcels more than ten (10) acres will provide 50% open space.

Policy 29.16: Building and project designs must ensure that internal street systems are designed for the efficient and safe flow of vehicles and pedestrians without having a disruptive effect on the activities and functions contained within or adjacent to the development.

Policy 29.17: Project access will not be permitted from a residential street unless no other access can be obtained.

Policy 29.18: Heritage trees will be preserved or relocated on-site.

Policy 29.19: The development of the parcel located at the northeast quadrant of South Olga Drive and SR 80 (aka Strap # 27-43-26-00-00003.000) will incorporate a collector road that will align north to the northern boundary of the property line, turn west following the northern boundary of the property line and connect to South Olga Drive. The cost of such improvements will be bourn by the developer. In addition to the roadway, there will be a 100 foot wide landscape buffer on the northern boundary of the property separating the commercial use from the community. No connections from any parcel north of this location will connect to the proposed roadway.

Policy 29.20: The community will support a collector road connection from South Olga Drive west to the intersection of Old Olga Road and Caribbean Drive. The construction of such the roadway connection will be at the developer's expense as properties along the proposed roadway are built.

Policy 29.21: Wherever possible, maintain the integrity of the natural environment when developing property especially when significant tree canopies or natural habitats can be integrated into the site design.

Policy 29.22: When undertaking streetscape improvements, new private construction and building rehabilitation, place utility lines underground where it is economically feasible and where practical to improve visual qualities.

The Board of County Commissioners voted to transmit a Future Land Use Map change from Suburban and Rural to Commercial and Conservation Lands for approximately 48.7 acres of land located north of SR 80 and east of South Olga Road (see attached map).

B. STAFF RECOMMENDATION AND FINDINGS OF FACT SUMMARY:

1. RECOMMENDATION: Planning staff recommends that the Board of County Commissioners transmit this proposed amendment as follows:

Goal 29: Olga Community.

To capture and maintain Olga's heritage and rural character while allowing new development to "fit in" the following objectives and policies will be implemented to direct the new density and intensities for the Olga Community. For the purpose of this Goal, the Olga Community boundaries are generally defined by Caloosahatchee River on the north, Old Olga Road as it intersects SR 80 at its most eastern point on the east, SR 80 (aka Palm Beach Boulevard) on the south and Old Olga Road at the intersection of Buckingham Road/SR 80/Old Olga Road intersection to the west along with an imaginary line north to the Caloosahatchee River.

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Policy 29.6: Development density and intensity will gradient from the center to the edge suitable to integrate surrounding land uses.

Policy 29.7: Parking lots will be internal to the building structures with buildings lining or shielding the parking lot from the street and neighborhood.

Policy 29.8: If deemed appropriate by the Director of Zoning, parking space requirements may be reduced by up to one half in order to provide more open space and less impervious surfaces on the site .

Policy 29.9: Canopy trees must be planted in all parking areas in order to provide shade.

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Policy 29.14: Floor Area Ratios (FAR) maximums will be 0.25. FAR represents the relationship of the size of a building to its site area. Calculated by taking the size of the parcel in square feet divided by 10 equals the size of the building.

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b. Projects between five (5) and ten (10) acres will provide 40% open space.

c. Projects more than ten (10) acres will provide 50% open space.

Policy 29.16: Building and project designs must ensure that internal street systems are designed for the efficient and safe flow of vehicles and pedestrians without having a disruptive effect on the activities and functions contained within or adjacent to the development.

Policy 29.17: Commercial access will not be permitted from a local street unless no other access can be obtained.

Policy 29.18: Heritage trees, as defined in Sec. 10-415 of the Land Development Code, will be preserved or when possible, may be relocated on-site. If a heritage tree must be removed from the site then a replacement tree with a minimum 20-foot height must be planted within an appropriate open space.

Policy 29.20: The community will support a collector road connection from South Olga Drive west to the intersection of Old Olga Road and Caribbean Drive. If constructed the roadway connection will be at the developer's expense as properties along the proposed roadway are built.

Policy 29.21: Projects must be designed to maintain the integrity of the natural environment when developing property, especially when significant tree canopies or natural habitats exist on the parcel. These natural features must be integrated into the site design.

Policy 29.22: When undertaking streetscape improvements, new private construction and building rehabilitation, place utility lines underground where it is economically feasible and where practical to improve visual qualities.

Staff understands that there is community support for the proposed FLUM amendment, but there are technical difficulties with the proposal that will cause segments of roadways to reach level of service "F". Staff cannot recommend approval of a land use change that intensifies development on a road segment that is projected to fail If the Board of County Commissioners decides to transmit the language there will still be concurrency issues at the time of rezoning, development order review, and building permit issuance.

2. BASIS AND RECOMMENDED FINDINGS OF FACT:

- The residents of Olga developed the Olga Community Plan over a period of several years.
- The Olga Community Planning Panel, through the East Lee County Council, hired a planning consultant, DRMP, to help them write their plan.
- The Olga Community Plan was submitted to Lee County in November, 2007.
- The Olga Community Plan is intended to add additional policies to Goal 21 of the Lee Plan specific to the area known as Olga.

- A follow-up meeting was held on August 2, prior to the meeting of the Local Planning Agency to further refine policy language and to address the proposal for a Future Land Use Map change from Rural and Suburban to Commercial for two parcels located east of South Olga Road.

- At the August 2, 2008 public meeting, the residents that were present voted in support of the Future Land Use map change from Suburban and Rural to Commercial. If that change is recommended for transmittal staff recommends including Conservation Lands on wetland and upland habitat as depicted on the attached Exhibit A.

- One segment of the three-mile radius around the site of the Proposed Future Land Use map change is projected to operate at level of service "F" in the year 2030 both with and without the proposed land use change, on SR 80/Palm Beach Boulevard from SR 31 to Tropic Avenue.

- Another segment that is projected to operate at level of service "C" without the proposed Future Land Use map change falls to level of service "F" with the addition of the project, on SR 80/Palm Beach Boulevard from Buckingham Road to the eastern end of Old Olga Road.

- If adopted this amendment will add a new Goal, Objective and Policies to the Lee Plan and will amend the FLUM, Map 1, Page 1 of 6, from Rural and Suburban to Commercial and Conservation Lands on two parcels located east of South Olga Road and fronting SR 80, and will amend Map 1, Page 2 of 6 Special Treatment Areas.

C. BACKGROUND INFORMATION

The Olga Community Plan was undertaken by the Olga Community Planning Panel working as a sub-group of the East Lee County Council. The planning area encompasses that portion of the Caloosahatchee Shores planning area generally located between the east and west intersections of Old Olga Road and SR 80 north to the Caloosahatchee River. The community plan was financed, in part, with $25,000 of community planning funds from Lee County.

The Olga Community Plan was submitted to the County in November, 2007. In addition to Goal 21 of the Lee Plan for Caloosahatchee Shores, the Olga community plan will add an additional Goal, Objective, and Policies specific to the Olga Planning area generally described in the above paragraph.

The Olga Community Planning Panel, East Lee County Council, and residents of Olga continued work on refining the Olga policies after they were submitted to the County. This report reflects those refinements. One major change is the proposed designation of a new Commercial Future Land Use Category east of South Olga Road for two parcels of land comprising approximately 48 acres. A maximum Floor Area Ratio (FAR) of 0.25 would be allowed.

A. STAFF DISCUSSION

This new Goal for Olga is intended to express the communities desire to protect and maintain the existing character of the Olga Community, and to assure that new development maintains that character. This new Goal, as revised by staff in strike-through/double-underline format reads as follows:

Goal 29: Olga Community.

To capture and maintain Olga's heritage and rural character while allowing new development to "fit in" the following objectives and policies will be implemented to direct the new density and intensities for the Olga Community. For the purpose of this Goal, the Olga Community boundaries are generally defined by Caloosahatchee River on the north, Old Olga Road as it intersects SR 80 at its most eastern point on the east, SR 80 (aka Palm Beach Boulevard) on the south and Old Olga Road at the intersection of Buckingham Road/SR 80/Old Olga Road intersection to the west along with an imaginary line north to the Caloosahatchee River.

Objective 29: Olga's Future Land Use Map reflects the vision and desires of the Olga Community. Any land use regulations, comprehensive plan changes, County regulated amendments or project developments imposed by Lee County will consider the Olga's Land Use Map prior to making any decisions.

Policy 29.1: All new development requiring a development order on Old Olga Road from the western intersection of SR 80 and Old Olga Road east to the eastern intersection of Old Olga Road and SR 80 will be required to install eight-foot (8') wide bicycle and pedestrian facilities along one side of the length of the property line. The bicycle and pedestrian facility will be required on the east and south side of Old Olga Road from the western intersection of Old Olga Road and SR 80 to the intersection of Old Olga Road and South Olga Road and on the north side of Old Olga Road from the intersection of Old Olga Road and South Olga Road to the eastern intersection of Old Olga Road and SR 80. The community will work with the Lee County Bike and Pedestrian Committee to get a retrofit project prioritized.

At a community meeting on August 2, 2008, the meeting participants voted in favor of changing Policy to require an 8 foot wide bicycle and pedestrian facility on one side of Old Olga Road at the location indicated above. Staff recommends adding new development "requiring a development order". That will remove the requirement of building the facility from owners constructing a single-family home, or that are adding an addition to an existing home. Staff recommends transmittal of Goal 29, Objective 29, and Policy 29.1 as revised above.

~~**Policy 29.2:** Suburban land use designations within the community will be strongly encouraged to develop at one dwelling unit per acre. If one dwelling unit per acre is not possible new developments will match the surrounding density and intensity. Wherever possible, all new developments will maintain a one acre minimum lot size.~~

Policy 29.2 essentially downgrades the existing development potential of property classified as urban, with a standard maximum density of 6 dwelling units per acre to a rural designation with a maximum density of 1 dwelling unit per acre. There is potential Bert J. Harris liability rising out of this policy.

~~**Policy 29.3:** Parcels located on the north side of SR 80, bound on the west by South Olga Drive and on the east by the intersection of Old Olga Road/SR 80 will be allowed to develop~~

~~as Outlying Suburban. Those parcels are identified will be required to develop under specific development standards and are identified as follows:~~

~~28-43-26-00-00001.0030~~	~~27-43-26-00-00006.0010~~
~~28-43-26-00-00001.0050~~	~~27-43-26-00-00006.0000~~
~~28-43-26-00-00003.0010~~	~~27-43-26-00-00006.0020~~
~~28-43-26-00-00008.0010~~	~~27-43-26-00-00001.0050~~
~~28-43-26-00-00008.0000~~	~~27-43-26-00-00001.0070~~
~~28-43-26-00-00007.0010~~	~~27-43-26-00-00013.0000~~
~~27-43-26-00-00002.0000~~	~~23-43-26-00-00012.0010~~
~~27-43-26-00-00003.0000~~	~~23-43-26-00-00011.001A~~
~~27-43-26-00-00001.0020~~	~~23-43-26-00-00011.0000~~
~~27-43-26-00-00006.0030~~	~~23-43-26-00-00011.001B~~
~~23-43-26-00-00011.0010~~	~~23-43-26-00-00005.0000~~

Policy 29.3 identifies parcels located north of SR 80, from South Olga Road on the west to the eastern intersection of Old Olga Road and SR 80. With the exception of approximately 26 Acres of Suburban FLUM category located within one of the above parcels, the remaining area in that parcel and all other parcels listed above are in the Rural FLUM category. This policy would allow a maximum of three dwelling units per ace in a FLUM category that is limited in the Lee Plan to 1 dwelling unit per acre. The policy also requires those properties to develop under specific development standards, although no standards are in place and no standards are proposed. At a community meeting on August 2, 2008, the meeting participants voted in favor of deleting Policy 29.3.

Furthermore, the Outlying Suburban FLUM category allows for neighborhood commercial development. The parcels located east of Linwood Avenue may not be deep enough to allow for anything other than a typical "strip commercial" development similar to what is located along U.S. 41 and along Lee Boulevard. Staff does not recommend transmittal of Policy 29.2.3.

~~**Policy 29.4:** Commercial land uses will not be permitted into single-family neighborhoods unless the neighborhood is consulted and approves~~.

Although the neighborhood does not have authority to approve or deny zoning changes, Policy 29.5 below requires new commercial projects to be part of a Commercial Planned Development. Policy 21.6.3 requires the owner or agent for any Planned Development request within the Caloosahatchee Shores community to hold one public informational meeting. That requirement covers the Olga planning area.

Policy 29.5: Any new commercial projects must be a Commercial Planned Development and may not have a residential component unless it matches the abutting residential density.

Staff has no objection to Policy 29.5.

Policy 29.6: Development density and intensity will gradient from the center to the edge suitable to integrate surrounding land uses.

The intent of this policy is to prevent abrupt differences in densities and intensities of adjacent land uses. This is something that zoning staff evaluates when addressing compatibility. Staff does not object to Policy 29.6.

Policy 29.7: Parking lots will be internal to the building structures with buildings lining or shielding the parking lot from the street and neighborhood.

Similar requirements are in place for projects located in Estero.

Policy 29.8: If deemed appropriate by the Director of Zoning, pParking space requirements ~~will~~ may be reduced by up to one half in order to provide more open space and less impervious surfaces on the site .

Policy 29.8 would allow a reduction in parking by up to one-half of the required parking spaces by administrative action if deemed appropriate by the Director of Zoning. Requests would be evaluated on a case-by-case basis.

Policy 29.9: Canopy trees must be planted in all parking areas in order to provide shade.

Policy 29.9 will be an additional requirement to what is required by the Land Development Code. Land Development Code amendments will required to implement this policy. Staff has no objections.

~~**Policy 29.10:** Developments will utilize the principals of Crime Prevention through Environmental Design (CPTED).~~

Department of Community Development staff does not review plans for compliance with CPTED standards during the rezoning process or during Development Order review and has no guidelines to follow to accomplish that review. Policy 4.3.3 l. of the Lee Plan addresses CPTED and LandDevelopment Code amendments will be required to implement that policy. Staff does not recommend transmittal of Policy 29.10.

Policy 29.11: The minimum commercial building setbacks will be as follows:
a. Street: 40 feet
b. Side: 30 feet
c. Rear: 50 feet

The setback requirements in Policy 29.11 are not unusual for commercial development and staff has no objection to this policy.

Policy 29.12: ~~No Automobile oriented uses will be permitted~~ The Olga Community discourages automobile oriented uses. This includes drive-thrus, automotive sales and repair, drive-ins and other similar businesses.

Policy 29.12, as revised, indicates the Olga resident's desire to maintain the character of their community by discouraging automobile oriented uses in their community. Staff does not object to this policy.

~~**Policy 29.13:** As feasible, developers will work with Lee Tran to provide bus stops to encourage public transit access to their site.~~

It is beyond the scope of the Lee Plan to require developers to work with Lee Tran to determine the location of bus stops. Lee Tran has professional staff that make the determination of where bus stops should be located along their routes.

Policy 29.14: Floor Area Ratios (FAR) maximums will be 0.~~1~~025. FAR represents the relationship of the size of a building to its site area. Calculated by taking the size of the parcel in square feet divided by 10 equals the size of the building.

A floor Area Ratio of 0.1 would generally make commercial development not viable. A workable ratio is 0.25, whereby 1/4 of the size of the site may be used for floor area.

Policy 29.15: Open Space Requirements:
a. ~~Parcels~~ Projects less than five (5) acres (Small Projects) will provide 30% open space.
b. ~~Parcels~~ Projects between five (5) and ten (10) acres will provide 40% open space.
c. ~~Parcels~~ Projects more than ten (10) acres will provide 50% open space.

The open space requirements in Policy 29.15 are substantial, but staff has no objection. Staff recommends revising Policy 29.15 to not include the word parcel to describe the open space requirements. Staff recommends revising the language as shown above to avoid conflicts with large, individual single-family land owners. The Land Development Code will need to be revised to avoid conflicts and specifically implement this policy through the development order process. Staff recommends transmittal of Policy 29.15 as revised.

Policy 29.16: Building and project designs must ensure that internal street systems are designed for the efficient and safe flow of vehicles and pedestrians without having a disruptive effect on the activities and functions contained within or adjacent to the development.

Staff has no objection to Policy 29.16.

Policy 29.17: Commercial access will not be permitted from a ~~residential~~ local street unless no other access can be obtained.

Policy 39.1.4 states: Main access points from new development will not be established where traffic is required to travel through areas with significantly lower densities or intensities (e.g. multifamily access through single-family areas, or commercial access through residential areas) except where adequate mitigation can be provided.

Lee County does not recognize residential or commercial streets. DOT staff recommends changing "residential" to "local". Staff has no objection to Policy 29.17 as revised.

Policy 29.18: Heritage trees, as defined in Sec. 10-415 of the Land Development Code, will be preserved or when possible, may be relocated on-site. If a heritage tree must be removed from the site then a replacement tree with a minimum 20-foot height must be planted within an appropriate open space.

Heritage trees are defined in Sec. 10-415 Open Space, and this policy can be enforced. Very large trees may not be able to be relocated. Staff recommends transmittal of Policy 29.18 as revised.

> ~~**Policy 29.19:** The development of the parcel located at the northeast quadrant of South Olga Drive and SR 80 (aka Strap # 27-43-26-00-00003.000) will incorporate a collector road that will align north to the northern boundary of the property line, turn west following the northern boundary of the property line and connect to South Olga Drive. The cost of such improvements will be bourn by the developer. In addition to the roadway, there will be a 100 foot wide landscape buffer on the northern boundary of the property separating the commercial use from the community. No connections from any parcel north of this location will connect to the proposed roadway.~~

Staff discourages identifying specific parcels in the Lee Plan. The Department of Transportation staff has indicated they do not object to the road being built through the above mentioned property, but does not support its construction and will not pay for the road, or provide impact fee credits for its construction. The subject property will require rezoning before any commercial development can occur on the site, and issues of road construction and buffering are more appropriately addressed during the rezoning process.

> **Policy 29.20:** The community will support a collector road connection from South Olga Drive west to the intersection of Old Olga Road and Caribbean Drive. ~~The~~ If constructed ~~ion of such~~ the roadway connection will be at the developer's expense as properties along the proposed roadway are built.

Staff's recommended changes to Policy 29.20 reflect the fact that the County is not requiring construction of the collector road on the site. The County does not object to the construction of the road at the expense of the developer and a road may benefit commercial development on that site, but does not believe that road will provide any significant benefit to the County.

> **Policy 29.21:** Projects must be designed to ~~Wherever possible,~~ maintain the integrity of the natural environment when developing property, especially when significant tree canopies or natural habitats exist on the parcel. These natural features must ~~can~~ be integrated into the site design.

Staff supports Policy 29.21 as revised by Environmental Sciences staff.

> **Policy 29.22:** When undertaking streetscape improvements, new private construction and building rehabilitation, place utility lines underground where it is economically feasible and where practical to improve visual qualities.

Policy 29.22 encourages, but does not require placing utility lines underground. Staff does not object.

PROPOSED CHANGE TO THE FUTURE LAND USE MAP:

In addition to adding a new Goal, Objectives, and Policies to the Lee Plan specific to the Olga Community, CPA 2006-00003 will change the Future Land Use Map for parcels locate east of South Olga Road fronting SR 80 containing approximately 48 acres from Suburban and Rural to the Commercial Future Land Use Map category and Conservation Lands. The site is not designated as a Floodway Area on the new Flood Insurance

Rate Map effective August 28, 2008.The Conservation Lands are depicted on the attached map, the remainder of the site will be Commercial.

One segment in the three mile radius around the project is projected to operate at level of service "F" in the year 2030 both with and without this project, on SR 80 from SR 31 to Tropic Avenue. Another segment that is projected to operate at level of service "C" without the project but falls to level of service "F" with the addition of the project; on SR 80 from Buckingham Road to the eastern end of Old Olga Road.

There is no improvement identified in the 2030 Plan to address the projected failure of the segment of SR 80 from Buckingham Road to the eastern end of Old Olga Road created by the addition of this amendment. Absent an identified means of paying for such improvements and their subsequent inclusion in the Financially Feasible Plan, DOT staff cannot recommend approval of a land use change that intensifies development on a road segment that is projected to fail. See the attached Department of Transportation Memo.

PART III - LOCAL PLANNING AGENCY REVIEW AND RECOMMENDATION

DATE OF PUBLIC HEARING: September 22, 2008

A. LOCAL PLANNING AGENCY REVIEW

Following a presentation by staff covering a review of the staff report and an explanation of staff's recommendations, the LPA opened the meeting to public comment. Several members of the public spoke in favor of the amendment, including the Future Land Use Map change and some spoke about specific policies but did not indicate that they were for or against transmittal of the amendment. General questions and answers ensued between the LPA and staff. Staff recommended that the LPA change an error in Policy 29.14 and look closely at Policy 29.17 pertaining to commercial access.

B. LOCAL PLANNING AGENCY RECOMMENDATION AND FINDINGS OF FACT SUMMARY

1. RECOMMENDATION:

A motion was made to transmit CPA 2006-00003 as recommended by staff with the following changes:

1. **Policy 29.7:** Parking lots will be internal to the building ~~structures~~ site with buildings lining or shielding the parking lot from the street and neighborhood.

2. **Policy 29.14:** Floor Area Ratios (FAR) maximums will be 0.~~1~~025. FAR represents the relationship of the size of a building to its site area. Calculated by taking the size of the parcel in square feet divided by ~~10~~ 4 equals the ~~size~~ floor area of the building.

3. ~~**Policy 29.17:** Commercial access will not be permitted from a residential local street unless no other access can be obtained.~~

4. The motion also included transmitting this amendment including the Future Land Use Map change from Suburban and Rural to Commercial and Conservation Lands as depicted on the map attached to their packet.

Because the Future Land Use Map amendment was included in the motion, one LPA member stated he would support the motion, but with reservation because he felt that sooner or later the County would have to address funding. Although a community may want something, it does not mean the County can fund it. However, since this amendment had the support of the community and they have worked on it for a long time; he agreed to support the motion with reservation.

Speaking about the Future Land Use Map change, Mr. Andress explained his reason for supporting the motion is because there is a lengthy process that an applicant must go through before he actually gets a development order and there are checks and balances that are built into the system that allows for all of this to take place. The LPA is only charged with looking at whether this is an appropriate place for commercial. In his opinion, it is an appropriate place and the community recognizes that as well.

2. **BASIS AND RECOMMENDED FINDINGS OF FACT:** The LPA accepted the findings of fact as advanced by staff.

C. VOTE:

NOEL ANDRESS	AYE
LES COCHRAN	AYE
RONALD INGE	AYE
JACQUE RIPPE	AYE
CARLETON RYFFEL	AYE
RAE ANN WESSEL	AYE
LELAND TAYLOR	ABSENT

PART IV - BOARD OF COUNTY COMMISSIONERS
HEARING FOR TRANSMITTAL OF PROPOSED AMENDMENT

DATE OF TRANSMITTAL HEARING: October 22, 2008

A. BOARD REVIEW:

Planning staff gave a brief presentation and explained that staff agreed with the LPA recommendation with the exception of the Future Land Use Map (FLUM) amendment. Staff told the Board that the amendment had the potential of causing the SR 80 link between the intersection of Buckingham Road and the eastern intersection of Old Olga to go from a Level of Service "C" to a Level of Service "F". For that reason staff did not support transmittal of the FLUM amendment. Staff told the Board that there was community support for the FLUM amendment.

The applicant's representative, one of the affected property owners, and residents in the community spoke in favor of the amendment as recommended by the LPA, including the FLUM amendment. One resident spoke in favor of the text amendment, but did not have an opinion on the FLUM amendment.

B. BOARD ACTION AND FINDINGS OF FACT SUMMARY:

1. BOARD ACTION:

Motion to transmit CPA 2006-00003 text amendment as recommended by the Local Planning Agency, and the FLUM amendment as recommended by staff, including the conservation lands.

2. BASIS AND RECOMMENDED FINDINGS OF FACT:

The Board accepted the findings of fact as advanced by staff and the LPA.

C. VOTE:

A. BRIAN BIGELOW	**AYE**
TAMMARA HALL	**AYE**
ROBERT P. JANES	**AYE**
RAY JUDAH	**AYE**
FRANKLIN B. MANN	**AYE**

PART V - DEPARTMENT OF COMMUNITY AFFAIRS OBJECTIONS, RECOMMENDATIONS, AND COMMENTS (ORC) REPORT

DATE OF ORC REPORT: January 16, 2009

A. DCA OBJECTIONS, RECOMMENDATIONS AND COMMENTS

The DCA ORC report contained the following Objection and Comments:

A proposed amendment to the Future Land Use Element to establish a new goal, objective, and policies for the Olga Community Plan within the Caloosahatchee Shores area of the Fort Myers Shores Planning Community. In addition, a Future Land Use Map (FLUM) amendment to change 48.7 acres from Suburban and Rural to Commercial and Conservation Lands located along State Road 80 in the Olga Community area. The Department raises the following objection and comment to the proposed Amendment 2006-03:

Objection (Transportation Facilities): The proposed FLUM Amendment 2006-03 is not supported by a road segment transportation analysis (including assumptions, data sources, and description of methodologies used) for the five-year and long-term planning time frames addressing the following: (1) the number of peak hour vehicle trips generated by the maximum development potential allowed by the FLUM amendment; (2) the impact of the peak hour vehicle trips on the projected operating level of service of potentially impacted roadways; (3) the need for road improvements (scope, timing and cost of improvements) or other planning alternatives to maintain the adopted level of service standards for roadways; (4) coordination of the road improvement or other planning alternatives with the Future Land Use Element, Transportation Element (including Future Transportation Map), and Capital Improvements Element, and implementation through the Five-Year Schedule of Capital Improvements; and (5) coordination of the road improvements with the plans of the Florida Department of Transportation and the Metropolitan Planning Organization.

Rules 9J-5.005(2) and (5), 9J-5.019(3)(f, g, h and I); 9J-5.019(5)(a and b); 9J-5.016(I)(a); 9J-5.016(2)(b, c and f); 9J-5.016(4), F.A.C.; and Sections 163.3175; 163.3177(2), (3), (8), and (10); 163.3177(6)(a and j); 163.3177(6)(h)1 and 2, F.S.

Recommendation: Revise the amendment to include the data and analysis necessary to support the FLUM amendment and demonstrate coordination of land use with the planning for transportation facilities as well as coordination with the Transportation Element and Capital Improvements Element. Revise the Transportation Element, Capital Improvements Element, and Future Land Use Element, as necessary, to be consistent with and supported by the data and analysis and to achieve internal consistency with the FLUM> The Five-Year Schedule of Capital Improvements should be revised to include any needed improvements to maintain the adopted level of service within the five-year planning time frame. Include data and analysis demonstrating coordination of the amendment with the plans of the Florida Department of Transportation and the Metropolitan Planning Organization. Revise the amendment, as necessary, to be consistent with and supported by the data and analysis. The plan should be revised to include strategies to address any deficiencies projected for the long-range planning timeframe.

Comments: The proposed Policy 29.14 contains a typographical error which states the intensity standard is FAR 0.25 rather than 0.25. In addition, the proposed Policy 29.14 should be clarified to state the land uses to which the intensity standard applies. For example, it is not clear whether the intensity standard is intended to apply to residential uses. The policies should be revised to address these comments.

The proposed Policy 29.12 states that "The Olga Community discourages automobile oriented uses." The proposed Policy 29.12 does not establish meaningful and predictable guidelines addressing whether automobile oriented uses are prohibited or allowed. The proposed Policy 29.12 should be revised to establish the guidelines.

B. STAFF RESPONSE

A response to the transportation objection from jmb transportation engineering, inc. is attached to this report.

Policy 29.14 is intended to apply to the Commercial Future Land Use category that is being created by this amendment and has been revised as follows with the changes to the transmitted language shown in double underline format.

POLICY 29.14: Floor Area Ratios (FAR) maximums in the Commercial Future Land Use Category located north of SR 80 and east of South Olga Road will be 0.25. FAR represents the relationship of the size of a building to its site area. Calculated by taking the size of the parcel in square feet divided by 4 equals the floor area of the building.

The typographical error has been corrected and staff recommends revising Policy 29.12 as follows:

Policy 29.12: ~~The Olga Community discourages automobile oriented uses. This includes drive-thrus, automotive sales and repair, drive-ins and other similar businesses.~~ Land development regulations will be adopted to reflect the Olga planning community preference to curtail commercial uses accommodating or promoting vehicle traffic, such as drive-ins, drive-thrus as an accessory use, auto repair/service businesses and similar uses.

C. STAFF RECOMMENDATION

The site of the FLUM amendment from Rural to Commercial has an FDOT outfall ditch and easement running through the R&D cattle site and the owner has requested that the outfall ditch and easement be relocated to the eastern edge of the property. FDOT has agreed to the relocation if the easement is maintained (see attached memo from FDOT). Planning staff, Environmental Sciences, and Natural Resources have agreed to the relocation if it is demonstrated that the new ditch alignment will maintain the hydrological connection and capacity existing at its present location. Staff recommends the Board adopt the following policy regarding the ditch relocation.

POLICY 29.23: The FDOT outfall ditch easement and drainage ditch located on the R&D Cattle site as described in Lee County Deed Book 175, Page 445 may be relocated within the Commercial Future Land Use area immediately north of River Hall if it is demonstrated that the new ditch alignment will maintain the hydrological connection and capacity existing at its present location. The appropriateness of the ditch realignment must be demonstrated based upon sound engineering

principals prior to rezoning or development approval, whichever occurs first. The easement establishing the new alignment must be reviewed and approved by Lee County and all other applicable regulatory agencies prior to recording.

Staff recommends the Board adopt the remainder of the amendment as previously transmitted to DCA.

Staff believes DCA's objection and comments have been adequately addressed and recommend the Board adopt CPA2006-03 Olga text and map amendment with the new Policy 29.23 and the changes to Policy 29.14 and Policy 29.12 as shown above.

PART VI - BOARD OF COUNTY COMMISSIONERS
HEARING FOR ADOPTION OF PROPOSED AMENDMENT

DATE OF ADOPTION HEARING: February 25th, 2009

A. BOARD REVIEW: Staff gave a brief presentation and changed its recommendation for Policy 29.12 and recommended that the Board not adopt the policy. Staff explained that they thought Policy 29.12 was too vague and recommended the Board decide what uses would be allowed through either revisions to the Land Development Code or at the time of rezoning. After receiving public comment in support of the amendment and following a brief discussion by the Board, the Board voted to adopt the amendment as recommended by staff.

B. BOARD ACTION AND FINDINGS OF FACT SUMMARY:

1. **BOARD ACTION:** The Board voted to not adopt Policy 29.12 and to adopt the remainder of this amendment as previously transmitted to DCA and to adopt Policy 29.23 as recommended by staff.

2. **BASIS AND RECOMMENDED FINDINGS OF FACT:** The Board accepted the findings of fact as advanced by staff and the Local Planning Agency.

C. VOTE:

A. BRIAN BIGELOW	**AYE**
TAMMARA HALL	**AYE**
ROBERT P. JANES	**AYE**
RAY JUDAH	**AYE**
FRANKLIN B. MANN	**AYE**

jmb transportation engineering, inc.

traffic/transportation engineering & planning

February 3, 2009

Mr. James Mudd, AICP
Principal Planner, Planning Division
Lee County Department of Community Development
1500 Monroe Avenue
Fort Myers, Florida 33901-5500

Re: Comp Plan Amendment for Lee County (DCA 09-1)
Amendment 2006-03 – Olga Community Plan

Dear Mr. Mudd:

Regarding the Department of Community Affairs' review comments, dated January 16, 2009, I offer the following response concerning Amendment 2006-03.

A. Amendment 2006-03

1. Objection (Transportation Facilities): The proposed FLUM Amendment 2006-03 is not supported by a road segment transportation analysis including assumptions, data sources, and description of methodologies used for the five-year and long-term planning timeframes addressing the following: (1) the number of peak hour vehicle trips generated by the maximum development potential allowed by the FLUM amendment; (2) the impact of the peak hour vehicle trips on the projected operating level of service of potentially impacted roadways; (3) the need for road improvements or other planning alternatives to maintain the adopted level of service standards for roadways; (4) coordination of the road improvements or other planning alternatives with the Future Land Use Element, Transportation Element (including Future Transportation Map), and Capital Improvements Element, and implementation through the Five-Year Schedule of Capital Improvements; and (5) coordination of the road improvements with the plans of the Florida Department of Transportation and the Metropolitan Planning Organization.

   Response:
   The assumptions, data sources and description of methodologies used for the five-year timeframe were included in the amendment application. The five-year horizon information was contained within the transportation response reports. The long-term planning timeframe (i.e., 2030 horizon) was addressed by Lee County Department of Transportation (LDOT). LDOT provided a description of their assumptions and methodology within the staff report, dated September 10, 2008. The information contained within the transportation response reports and LDOT's staff report did address the following:

jmb

(1) Peak hour trip generation calculations were performed for the proposed commercial land use based upon the maximum and most-intense development scenario (i.e., 391,515 s.f. of mixed commercial). The trip generation computations are provided in the transportation response reports that were submitted as part of the amendment application. The five-year horizon trip generations were determined based upon the ITE Trip Generation Manual. The long-term horizon trip generations were determined by Lee County Department of Transportation using the FSUTMS Travel Model.

(2) The impact due to the land use change on the five-year projected roadway level of service was based upon project build-out conditions. It was determined that all roadway links within a 3-mile radius of the site would operate at acceptable levels of service for the five-year horizon. The level of service results are provided in the transportation response reports. The impact due to the land use change on the long-term projected roadway level of service was determined by LDOT using the FSUTMS Travel Model. LDOT determined that all roadway links within a 3-mile radius of the site would operate at acceptable levels of service for the 2030 horizon, except for State Road 80.

As determined by LDOT

> ***S.R. 80 (w. of Buckingham Road)** will fail for 2030 traffic conditions <u>regardless of the project</u>.*
> *LOS "D" capacity = 1,950 vehicles per hour, peak direction*
> *2030 w/o project = 2,286 vph (exceeds max by 336 vph)*
> *2030 w/ project = 2,348 vph (exceeds max by 398 vph)*
>
> ***S.R. 80 (Buckingham to Old Olga Road)** will fail for 2030 traffic conditions <u>due to project development</u>.* [3]
> *LOS "D" capacity = 1,950 vehicles per hour, peak direction*
> *2030 w/o project = 1,777 vph (remaining capacity is 173 vph)*
> *2030 w/ project = 2,000 vph (exceeds max by 50 vph)*

(3) It was concluded that in order to maintain acceptable levels of service for the five-year horizon, no roadways improvements would be required. As concluded by LDOT, in order to maintain acceptable levels of service for the 2030 horizon, State Road 80 will need to be widened from its current four-lane configuration to a six-lane configuration.

(4) There are no identified roadway improvements that are warranted through the five-year horizon. Therefore, no coordination with the Five-Year Schedule of Capital Improvements is needed.

(5) There are no identified roadway improvements that are warranted through the five-year horizon. Therefore, no coordination with the Florida Department of Transportation or the Metropolitan Planning Organization is needed.

jmb

Regarding DCA's comment to include strategies to address any deficiencies projected for the long-range planning timeframe, please consider the following response.

Response:
The only identified 2030 transportation deficiency was State Road 80. LDOT determined that the road (west of Old Olga Road) will need to be widened to six-lanes in order to maintain the adopted level of service. To date, no funding program for the six-laning of State Road 80 has been established.

It should be noted that the 2030 transportation deficiency was determined based upon the projections provided by the FSUTMS[1] travel model assuming the development of 391,515 s.f. of commercial use[2].

The assumptions used in the model for the "with" and "without" change analysis are flawed on three points. One is that the 391,515 s.f. "with" number is grossly unrealistic. The site planning for this property shows that it would be virtually impossible to fit more than 180,000 s.f. into any kind of feasible commercial development. The 345,250 s.f. number, which was dictated by Staff instructions to R&D's planner, results in traffic generation numbers which are almost double what actually could result in a worst case real world scenario. If the commercial intensity is reduced approximately 87,000 s.f. then the only link that fails would be S.R. 80 (west of Buckingham Road).

The second flaw in the analysis is the assumption that traffic generation "without" the change would be virtually zero because the land is zoned for agricultural use. However, that is incorrect because the current land use designations of Suburban and Rural do permit rezoning to commercial uses. In short, even without a change in the land use categories the real world "without" number will not be zero. The model assumes unrealistic numbers on both the bottom and on the top end of the difference between the two scenarios and this leads one to the third flaw, which is that there is no difference.

The change in land use designations will allow no more development intensity in the "after" potential size than in the current "before" potential size. The difference is not in the number of square feet of commercial uses; rather, it is in the type of commercial uses, i.e., general versus rural commercial uses on the eastern part of the property. The difference in trip generation rates between the two is negligible.

---

[1]FSUTMS is the Florida Standard Urban Transportation Model Structure. It is the standard traffic demand model used throughout the State of Florida.

[2]Of this number, 46,265 s.f. are allocated for the Byrus property which is east of and adjacent to the R&D property. The allocation for the R&D property is 345,250 s.f

The following development conditions are offered as a strategy to address the "potential" 2030 transportation deficiency that was identified by LDOT.

a.) *Prior to any development that occurs on the subject property, the applicant will be required to obtain zoning approval. During the zoning phase, the project will be required to submit a traffic impact statement that will address all on-site and off-site transportation deficiencies. Construction funding will need to be identified or a solution to the transportation deficiencies will need to be identified.*

b.) *Once zoning approval has been acquired, then development permits will need to be acquired. At this phase, the development order and/or the concurrency certificate will not be issued unless construction funding is committed or a resolution to the transportation deficiency has been achieved.*

c.) *In conjunction with the applicable Lee County Government permits, the project will be required to obtain a driveway connection permit from the Florida Department of Transportation. FDOT will not issue a permit that result in the degradation of the S.R. 80's adopted level of service standard.*

Therefore, it can be concluded that no development will occur on the subject property unless the identified transportation deficiencies are resolved. This condition will be enforced regardless of whether the land use amendment is approved.

Should you have any questions concerning this matter, feel free to contact me.

Sincerely,
JMB Transportation Engineering, Inc.

Jim Banks

James M. Banks, P.E.
President

Florida Department of Transportation

CHARLIE CRIST
GOVERNOR

STEPHANIE KOPELOUSOS
SECRETARY

MEMORANDUM

Date: August 4, 2008

To: Rae Ann Boylan, Boylan Environmental

From: Sonshine Dupree, District One Drainage
for Carl Spirio, District Drainage Engineer

Copies: Ralph Bond, R&D Cattle Co.

Subject: **SR 80, Palm Beach Blvd.**
12020 M.P 11.270 – M.P. 11.802

The FDOT Drainage dept is fine with relocating the drainage easement for the above subject, however, the easement is to be maintained and preserved by Ralph Bond at R & D Cattle Co.

If you should need any other assistance, please call.

District One, Drainage Office
801 North Broadway Avenue * Post Office Box 1249 * Bartow, FL 33831-1249
(863) 519-2621 * (863) 534-7039 (Fax) * MS 1-37
www.shuana.dupree@dot.state.fl.us

LEE COUNTY
SOUTHWEST FLORIDA

DEPARTMENT OF TRANSPORTATION

Memo

To: Paul O'Connor, Planning Director

From: David Loveland, Public Works Operations Manager, Planning DHL

Date: September 10, 2008

Subject: **CPA 2006-03 (Olga Community Plan)**

The Department of Transportation has reviewed the above-referenced privately-initiated amendment, involving a text change to add a new Goal, Objective and Policies specific to the Olga community, as well as a Future Land Use Map change of approximately 48 acres east of South Olga Road fronting SR 80 from Suburban and Rural to Commercial and Conservation Lands. We had previously commented on a small portion of the land use change known as Byrus (CPA 2007-60), in a memo to you dated March 31, 2008.

Regarding the proposed Goal, Objective and Policies, DOT staff has only two comments. First, DOT had previously commented on a draft of Policy 26.1, and are in agreement with the version as proposed to be revised by Planning staff. Our understanding is that the policy as revised by Planning staff would read as follows:

> ***POLICY 26.1:*** *All new development requiring a development order on Old Olga Road from the western intersection of SR 80 and Old Olga Road east to the eastern intersection of Old Olga Road and SR 80 will be required to install eight-foot (8') wide bicycle and pedestrian facilities along one side of the length of the property line. The sidewalk will be required on the east and south side of Old Olga Road from the western intersection of Old Olga Road and SR 80 to the intersection of Old Olga Road and South Olga Road and on the north side of Old Olga Road from the intersection of Old Olga Road and South Olga Road to the eastern intersection of Old Olga Road and SR 80. The community will work with the Lee County Bike and Pedestrian Committee to get a retrofit project prioritized.*

The second proposed policy that is a concern is Policy 26.17. The policy indicates that commercial access will not be permitted from a residential street, but the County does not classify streets as "residential" or "commercial". The street categories recognized in the Land Development Code are either arterials, collectors, or local streets, and many serve dual functions in terms of the uses that access them. DOT staff suggests that the word "local" be substituted for the word "residential" in the policy, as follows:

> ***POLICY 26.17:*** *Commercial access will not be permitted from a ~~residential~~ local street unless no other access can be obtained.*

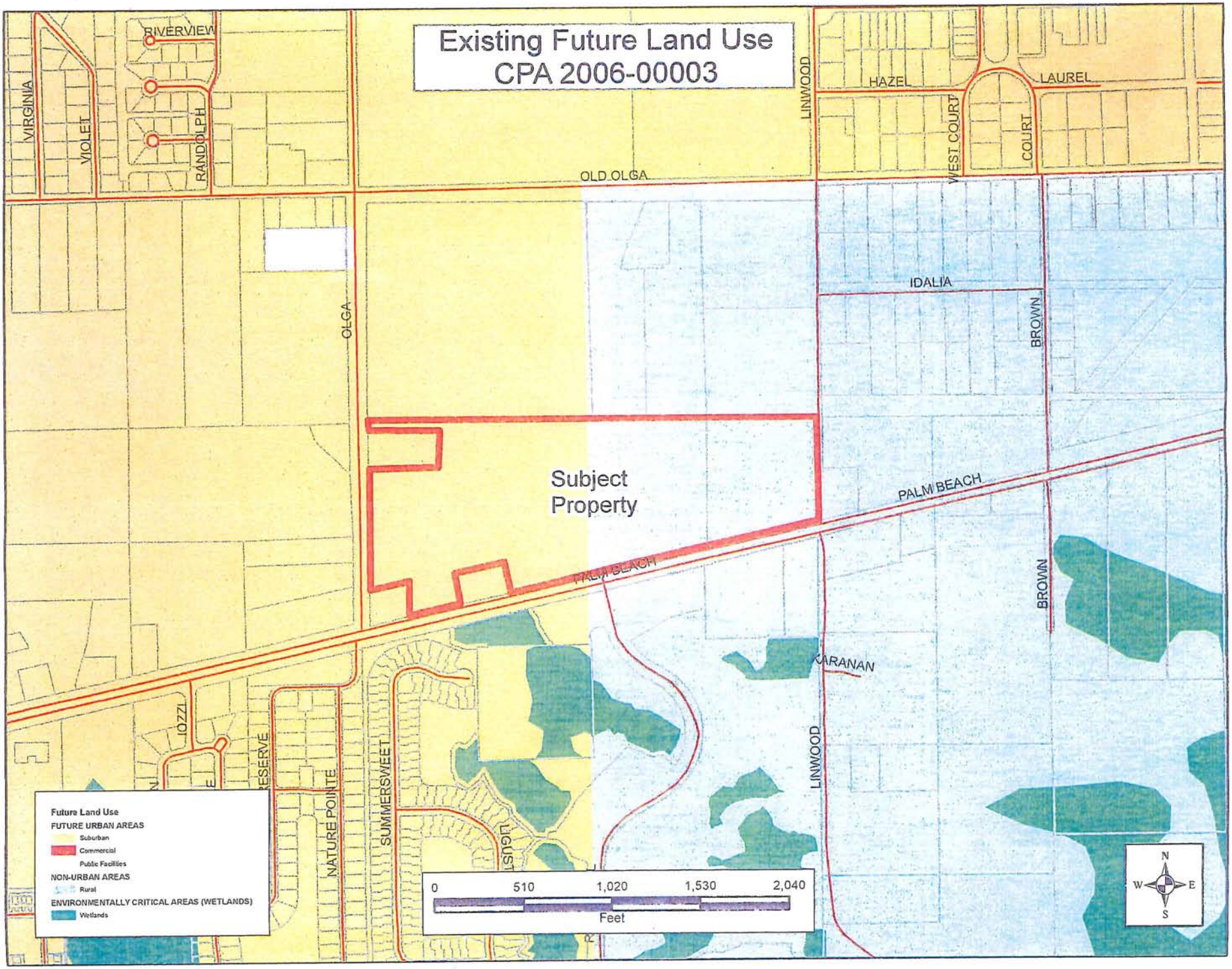
Regarding the land use change, Planning staff indicated that the proposed change would allow approximately 391,515 square feet of commercial use on the site. The property is located within Traffic Analysis Zone (TAZ) 1305, and we converted the above square footage into the model input variables for that zone, adding 978 commercial employees. We then reran the Lee County MPO's 2030 Financially Feasible Plan FSUTMS travel demand model.

Examining the three-mile radius around the project, there is one segment projected to operate at level of service "F" in the year 2030 both with and without the proposed land use change, on SR 80/Palm Beach Boulevard from SR 31 to Tropic Avenue. In addition, there is another segment that is projected to operate at level of service "C" without the project but falls to level of service "F" with the addition of the project, on SR 80/Palm Beach Boulevard from Buckingham Road to the eastern end of Old Olga Road.

The MPO's 2030 Needs Plan does identify a potential improvement to address the segment that fails even without the amendment, in the form of 6-laning SR 80 from SR 31 to Buckingham Road. This improvement is identified as contingent upon the identification of additional funding beyond the traditional sources projected for the Financially Feasible Plan, noting that it is a Strategic Intermodal System (SIS) facility. There is no improvement identified in the 2030 Plan to address the projected failure of the segment of SR 80 from Buckingham Road to the eastern end of Old Olga Road created by the addition of this amendment. Absent an identified means of paying for such improvements and their subsequent inclusion in the Financially Feasible Plan, DOT staff cannot recommend approval of a land use change that intensifies development on a road segment that is projected to fail.

Please let me know if you need any additional information.

cc: Donna Marie Collins
Jim Mudd


Existing Future Land Use
CPA 2006-00003
RIVERVIEW
VIRGINIA
VIOLET
RANDOLPH
OLD OLGA
LINWOOD
HAZEL
LAUREL
WEST COURT
COURT
OLGA
IDALIA
BROWN
Subject
Property
PALM BEACH
PALM BEACH
BROWN
LINWOOD
NATURE POINTE
SUMMERSWEET
Future Land Use
FUTURE URBAN AREAS
Suburban
Commercial
Public Facilities
NON-URBAN AREAS
Rural
ENVIRONMENTALLY CRITICAL AREAS (WETLANDS)
Wetlands
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PROPOSED SPECIAL TREATMENT AREAS MAP

Legend

- Water Dependent Overlay
- Community Planning Areas
- City Limits

See Goals 15 and 22 for Objectives and Policies Specific To the Gasparilla Island Area

See Goal 14 for Objectives and Policies Specific To the Greater Pine Island Area

See Goal 25 for Objectives and Policies Specific To the North Captiva Area

See Goal 13 for Objectives and Policies Specific To the Captiva Area

See Goal 12 for Objectives and Policies Specific To the San Carlos Island Area

See Goal 19 for Objectives and Policies Specific To the Estero Area

See Goal 28 for Objectives and Policies Specific To the North Fort Myers Area

See Goal 20 for Objectives and Policies Specific To the Bayshore Area

See Goal 26 for Objectives and Policies Specific To the Olga Area

See Goal 29 for Objectives and Policies Specific To the Alva Area

See Goal 21 for Objectives and Policies Specific To the Caloosahatchee Shores Area

See Goal 17 for Objectives and Policies Specific To the Buckingham Area

See Goal 17 for Objectives and Policies Specific To the Palm Beach Blvd Area

See Goal 27 for Objectives and Policies Specific To the Page Park Area

Charlotte Harbor

Boca Grande Pass

Captiva Pass

Pine Island Sound

San Carlos Bay

Estero Bay

Gulf of Mexico

Caloosahatchee River

CHARLOTTE COUNTY

HENDRY COUNTY

COLLIER COUNTY

LEE COUNTY
SOUTHWEST FLORIDA
DIVISION OF PLANNING

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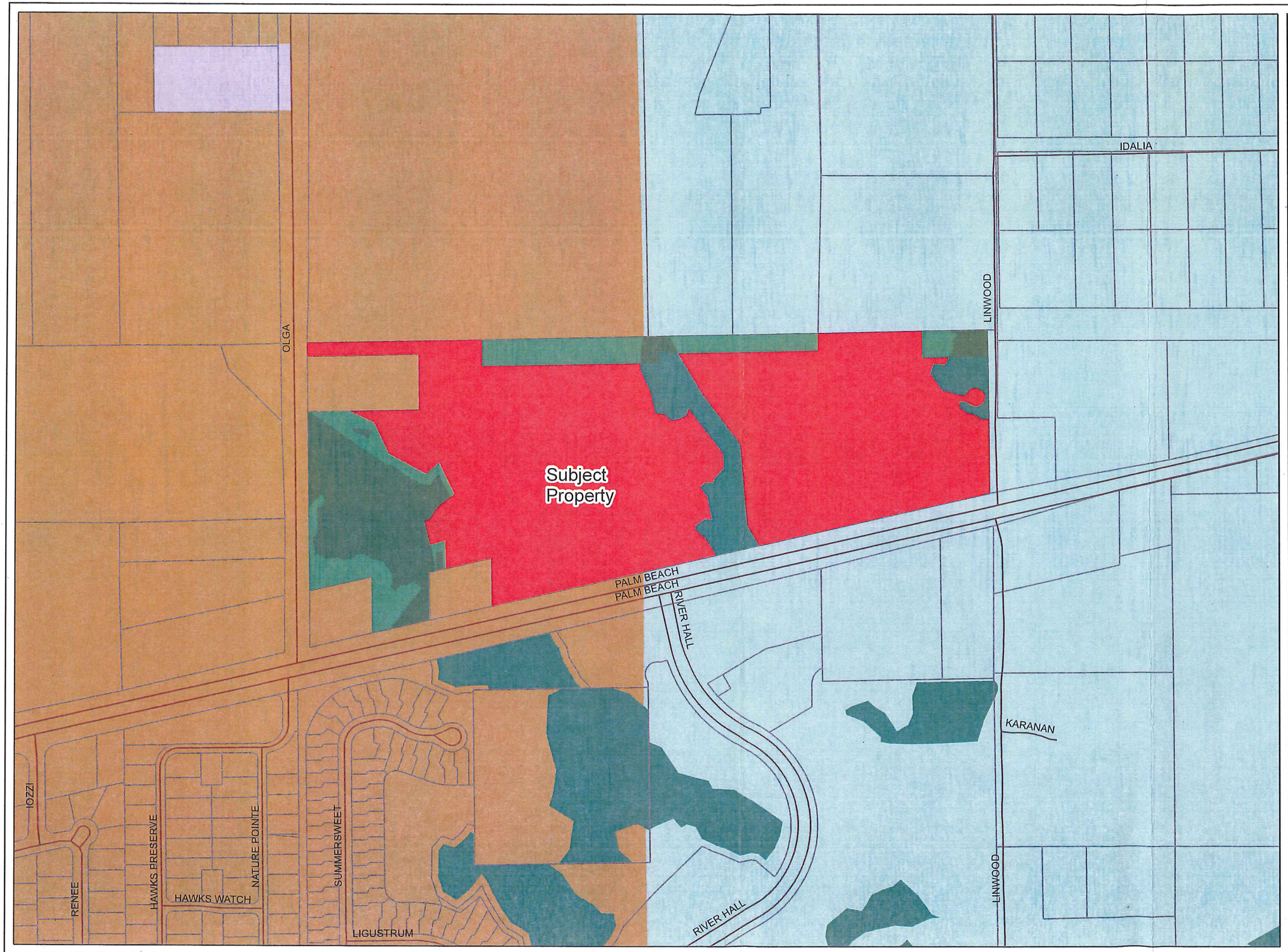
Map Generated: January, 2009
City Limits current to date of map generation

Last Amended: August 13, 2007
Amended by Ordinance No.
02-02, 03-01, 03-02, 03-04, 03-21, 07-09

Proposed
Lee Plan Map 1
Page 2 of 6

CPA2006-03 OLGA COMMUNITY PLAN

Proposed Future Land Use Map



- Proposed Commercial
- Proposed Conservation Lands Wetlands
- Proposed Conservation Lands Upland
- Wetlands
- Rural
- Suburban
- Public Facilities

LEE COUNTY
SOUTHWEST FLORIDA
DIVISION OF PLANNING

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Map Generated: February 2009

Olga Community Plan

Supplemental Goals, Objectives and Policies
To the
Caloosahatchee Shores Community Plan

Plan Acknowledgment

Plan Acknowledgment

The Olga Community has been very passionate in preserving the existing character of the neighborhood. The results of the Olga Overlay have provided a mechanism for this to happen. The Olga land use map and commercial land use regulations are a result of close work between Dyer, Riddle, Mills and Precourt, Inc. and the residents of the Olga community. Public involvement in this project has allowed the Olga land use map and the commercial land use regulations to directly reflect the needs of the community. They were not developed for the community, but rather by the community. The Olga land use map that the residents developed prior to Dyer, Riddle, Mills and Precourt, Inc's involvement was the basis for the finalized Olga land use map.

Lee County Board of County Commissioners

Bob Janes, Lee County Commissioner District 1
Brian Bigelow, Lee County Commissioner District 2
Ray Judah, Lee County Commissioner District 3
Tammy Hall, Lee County Commissioner District 4
Frank Mann, Lee County Commissioner District 5

East Lee County Council

Jim Mathisen, Chair
Douglas Vaught, Past Chair
Janet Tripp, Secretary
Jim Green, Member
Gordon Brandt, Member
Grady Miars, Member
Paul Martin, Member
Kris Cella, Member

Olga Community Planning Sub Committee

Bob Reige
Cherie Schneider
Ed Kimball
Glenn Chagrin
Gloria Moff
Janet Jones
Jerry Kaemmerer
Jim Green
Rosalie Prestarri
Sharron Lamely
Bill Byrus

Lee County Community Development Department

Jim Mudd, AICP, Community Planner/County Liaison

Prepared by:

Dyer, Riddle, Mills and Precourt, Inc.
1404 Dean Street, Suite 300
Fort Myers, Florida 33901
(239) 344-0050

Plan Introduction

Introduction

The Olga community is located in East Lee County north of State Road 80 (a.k.a. SR 80 and Palm Beach Boulevard), south of the Caloosahatchee River within the Lee County Fort Myers Shores Planning Community and the Caloosahatchee Shores Community. According to the 2000 US Census, Olga was primarily developed between 1960 and 1989. Olga's community boundaries are the Caloosahatchee River on the north, Old Olga Road as it intersects SR 80 at its most eastern point on the east, SR 80 on the south and Old Olga Road at the intersection of Buckingham Road/SR 80/Old Olga Road intersection to the west along with an imaginary line north to the Caloosahatchee River. See Exhibit A for Olga Map.

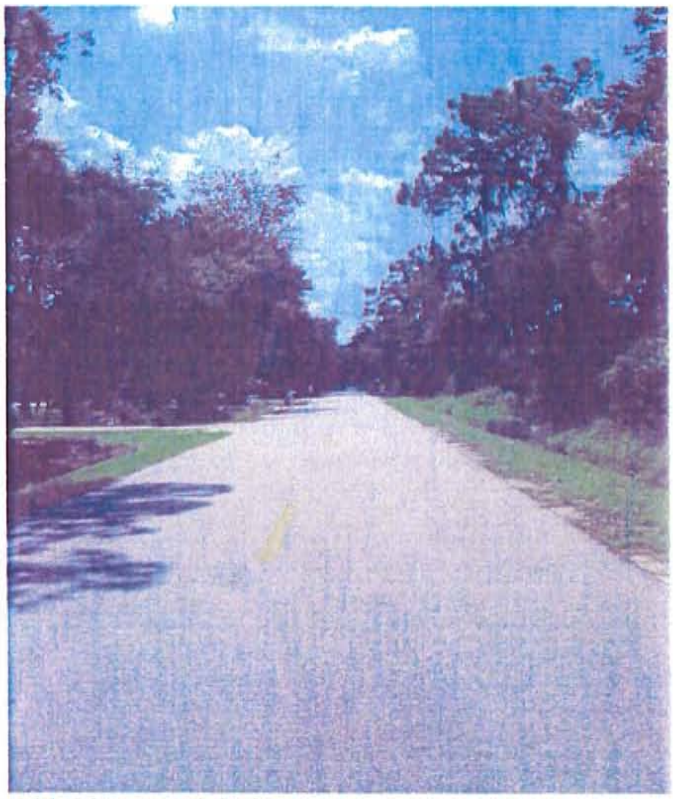
Olga is located approximately 5.8 miles east from I-75 and approximately 6.4 miles west from Alva. It has a rural character with an overall density of less than one unit per acre with lot sizes varying between ¼ acre to 5, 10 and more acre parcels maintaining a consistent agricultural feel. The area has not seen the significant development within its boundaries that other areas of Lee County have experienced.

With the exception of Old Olga Road, the community's only collector road, the roads are considered local roads and are in most cases physically limited for future widening. They are mostly two-lane, narrow roads, some barely wide-enough to allow a car passing in both directions simultaneously, helping to contribute to the rural character of Olga.

Old Olga Road

The roadways possess open drainage systems, utilizing roadside swales and ditches with no curbs or sidewalks. With no sidewalks in place, it is commonplace for pedestrian travel to be on the roads throughout the community. Though most roadways are narrow,

it has not proven hazardous to pedestrians due to the low traffic volume throughout the area. Most of the vehicular traffic taking place within Olga consists of travel by residents and not through traffic.



Old Olga Road facing west

Parcels throughout the community vary in size ranging from less than one acre with the majority greater than 8 acres in size. Parcels in the community west of Linwood Avenue and south of Old Olga Road are larger than those north of the Olga Mall, and are utilized primarily for agricultural uses.

Parcels north of Old Olga Road and west of South Olga Drive contain most of the multi-family residential units in the community. These parcels also happen to be the smallest, typically less than an acre in size.

Parcels east of Linwood Avenue follow the above trends with the parcels containing a mix of residential uses and agricultural uses. This results in parcels that are one acre or less for residential uses and those parcels as large as nine acres being used for agricultural purposes.

Planning Community

Olga lies within the Fort Myers Shores Planning Community in the Lee Plan. The Lee Plan describes the Fort Myers Shores Planning Community as *"located south of the Caloosahatchee River, east of Hickey Creek and north of the Orange River; and, along I-75 west of the Buckingham Rural Community Preserve, north of SR 82 and east of the City of Fort Myers. This community contains two distinct areas: Caloosahatchee Shores, located east of I-75, and Palm Beach Boulevard, located west of I-75. This area also has a mixture of future land use designations. The majority of the land is designated Suburban, Outlying Suburban, Rural or Urban Community' however, there are some lands designated Intensive Development, Central Urban, Public Facilities, Industrial interchange Area and General Interchange.*

Caloosahatchee Shores: This community is located south of the Caloosahatchee River, west of Hickey's Creek and north of the Orange River; and along I-75 east to the Buckingham Rural Community Preserve, north of SR 82 and west of I-75. This community contains three neighborhoods: Fort Myers Shores, Olga and the Riverdale neighborhood around the intersection of Buckingham Road and SR 80. The Caloosahatchee Shores planning community has a more rural character, but is anticipated to grow substantially over the life of this plan [Lee Plan]. This area also has a mixture of future land use designations. The majority of land use designations are Suburban, Outlying Suburban, Rural or Urban Community; however, there are some lands designated public facility and industrial interchange.

Due to the rapid rise in population and limitations on commercial development in surrounding communities, the amount of commercial buildings will more than double by 2020. Currently, this community contains commercial outlets which accommodate the needs of its residents as well as those from neighboring communities such as Alva, Bayshore and Buckingham. Shopping areas in this community are concentrated along the SR 80 Corridor with specific commercial nodes for higher intensity development to satisfy resident's primary commercial needs. During the life of this plan [Lee Plan], Fort Myers Shores will continue to develop a commercial/employment center for the adjacent communities.

Palm Beach Boulevard: The Palm Beach Boulevard Community actually encompasses part of the City of Fort Myers and is bound by Billy's Creek on the west and south, I-75 on the east and Caloosahatchee River on the north. This is one of the older urban areas of Lee County and Fort Myers, and it has experienced significant demographic and economic change over the last decade. The future vision is of an attractive, mixed-use community with an abundance of employment and shopping opportunities. Palm Beach Boulevard will be improved with medians and landscaping, and an effort will be made to renovate and beautify aging commercial centers along the corridor. Opportunities for mixed use developments within obsolete commercial centers and a general upgrading of the housing stock will be a priority."

Population and Demographics

Population and Demographics

According to the 2000 Census Bureau the Olga community is approximately 1,190 acres in size and incorporates approximately 780 people, 402 dwelling units and 639 families. The population density is less than one person (0.65 persons) per acre with a household density average of approximately 1/3 of a unit (0.34) per acre.

The racial makeup of the area is 95% white with the remaining 5 percent make up of African American, American Indian/Alaska Native, Asian and some other race.

There are 402 dwelling units in the community with an average household size of 2.39 persons per household only slightly lower than the typical household size of Lee County (2.47 persons per household). Of the 402 units, over 63% are owner occupied, 20.8% renter occupied, and15.9% of the housing units are vacant. The median age is 42.2 years old supporting the fact that almost 82% of the community is made up of families.

The age of the population is about equally spread over all age groups.

Table 1

Age Range	Percent of Population
Under 20	21.7 %
21-24	5.7 %
25-44	22.8 %
45-64	28.3 %
65 +	21.3 %

Evolution of Olga Community Plan

Evolution of the Olga Community Plan

As previously mentioned, the Olga Community is located within the Caloosahatchee Shores Community. The boundaries of the Caloosahatchee Shores Community are east of I-75, south of the Caloosahatchee River, west of Hickey Creek, and north of Orange River. Residential neighborhoods and agricultural lands make up the majority of land use in the Caloosahatchee Shores Community. It is contiguous to the Buckingham Rural Preserve Area. See Exhibit B for the Caloosahatchee Shores Map.

A Caloosahatchee Shores Community Plan was adopted by the Lee County Board of County Commissioners in 2003. This community plan was a joint partnership between Lee County Department of Community Development, East Lee County Council, and the Caloosahatchee Shores Community. The planning firm of Vanasse Daylor completed the plan with the assistance of the community residents and submitted the final report to Lee County in September 2002. Lee County subsequently reviewed and approved the plan with the incorporation of the plans goals, objectives and policies into the Lee Plan in October 2003. The plan's goals, objectives, and policies provide direction on land use and infrastructure decisions.

In December of 2006 Dyer, Riddle, Mills, and Precourt, Inc. was hired by the East Lee County Council on behalf of the Lee County Department of Community Development to develop Land Development Regulations for the Caloosahatchee Shores Community. Through this process it became evident that due to the uniqueness the Olga community, more specific regulations in addition to the Caloosahatchee Shores Land Development Regulations.

The Olga Community has become an overlay area within the Caloosahatchee Shores Community. The Land Development Regulations for Caloosahatchee Shores will still apply to Olga, but additional regulations specific to Olga should be implemented as well. In a joint decision by Lee County, the East Lee County Council and Dyer, Riddle, Mills and Precourt, Inc. it was determined that the best way to address Olga's specific issues was to implement an Olga land use map. During the previous year (2005) the community banded together to create such a land use map. The land use map defines the uses permitted throughout the community by re-designating areas for Future Land Use categories. This not only defines where residential and commercial development should be encouraged, but would define what types of residential and commercial development would be permitted.

Today's Conditions

The development that Olga/Caloosahatchee Shores has experienced over recent years has triggered a change in the character of the community. This once highly rural and agricultural community now possesses many characteristics of a suburban community. Many property owners have begun to take notice of the increased development interest in the area and the possibility to maximize the potential of their properties for commercial or residential development. Over the last five years there have been less than ten (10)

Residential/Mixed Use Planned Developments with approximately 4,899 units either approved or in various stages of the approval process. Two major developments that have changed the face of the area are River Hall and the Veranda, both significantly increasing the population and commercial uses in the area. Additionally, there are a number of projects in the conceptual stages. Shown in the tables below are a number of projects located within Olga, SR 31 and the Caloosahatchee Shores area.

In addition to the residential component of community development, there have been numerous commercial developments that have been constructed along SR 80. Commercial nodes can now be seen at such intersections of Buckingham Road and SR 80 as well as at SR-31 and SR 80.

Caloosahatchee Shores Area

Project Name	Approved (A) or Pending (P)	Acreage	Units per Acre	# of Residential Units Approved or Proposed	Square Footage of Retail/Commercial Approved	# of units built	Square Footage built
Veranda	A	1,455.56	1.21	1,654	242,000		109,014
River Hall RPD	A	1,978.44	1.01	1,999			
River Hall CPD*	A	27.05	N/A	N/A	45,000	N/A	
Leeward Yacht Club	A	19.36	18.08	350	30,000		
Orange River Landings	P	24.4	10	244 multi-family	N/A	N/A	N/A
Florida Community Bank	A	7.51	N/A	N/A	62,000	N/A	62,000
Caloosa Ridge	P	20	6	120 multi-family	Office	N/A	N/A
River Pointe	P	39.9	3.5	140 single family			
Alva Shores	P	11.7	3.41	40 multi-family	Boat Storage		

* Commercial Planned Development (CPD)

In addition, the following projects have been approved or are pending in the Olga Community:

Project Name	Approved (A), ~~or~~ Pending (P), or Withdrawn (W)	Acreage	Units Per Acre	# of Residential Units Approved or Proposed	Square Footage of Retail/Commercial Approved	# of units built	Square Footage Built
Caloosa Estates	A	91.71	1	92	N/A	0	N/A
Caloosa Meadows	W	35.7	1.68	60	N/A	0	N/A

Finally, within the SR 31 area, there are the following projects either approved or pending:

Project Name	Approved (A) or Pending (P)	Acreage	Units Per Acre	# of Residential Units Approved or Proposed	Square Footage of Retail/Commercial Approved	# of units built	Square Footage Built
SR 31 Multi-Family	P	21.07	2.84	60 multi-family	N/A	N/A	N/A
Marina 31	A	4.06	N/A		Water Craft Storage and 9 unit Motel	N/A	N/A
Marina Del Lago	A	49.62	2.82	140 single family	N/A	0	N/A
Hwy 80/31 CPD	P	16.07	N/A	N/A	185,000	N/A	N/A
SR 80 CPD	A	24.66	N/A	N/A	200,000	N/A	0

Future Development

Future Development

The Olga Community contains large tracts of land that are currently utilized for agricultural purposes. The residential component of the community is low density, creating a rural character. The residents of the Olga Community have expressed a strong desire to maintain their rural character of the community, especially with all of the current and future development.

The Future Land Use Map designations within Olga provide support for the community to sustain its rural character. The majority of Olga has a Future Land Use designation of either Suburban or Rural. The Suburban land use designation allows a range of one to six dwelling units per acre while the rural land use designation allows one dwelling unit per acre. The remaining Future Land Use designation in Olga is Public Facilities, used exclusively for publicly owned lands (Franklin Locks). See Exhibit C for the existing Future Land Use Map.

The residents of the Olga Community have expressed their strong desire to limit all future development to no more than one dwelling unit per acre. There are currently two residential projects within Olga, one approved and one pending. The first project, known as Caloosahatchee Estates, is located north of Old Olga Road between South Olga Drive and Linwood Avenue. It was approved as a Residential Planned Development consisting of 91.7 acres with 92 residential units for a density of one (1) dwelling unit per acre. The developer's initial request brought the community together to negotiate with the developer for one unit per acre to be consistent with the community character. The neighborhood rallied together presenting testimony to the Hearing Examiner and again at the Lee County Board of County Commissioner meeting successfully reducing the density to one (1) dwelling unit per acre. This was a wake up call to the community that developers had "discovered" the area. Over the next couple of years, developers brought forward a number of proposals to the East Lee County Council for review and comments. The neighborhood has been very vocal that any new developments have to be one unit per acre or less in order to gain support from the Council and the community.

The second project is known as Caloosa Meadows for which an application for a Residential Planned Development was submitted in 2006. The developer has withdrawn their proposal for 60 residential units to be located on approximately 37.5 acres, a density of 1.68 dwelling units per acre.

The two projects mentioned above are the only projects within the past 5 years that have been submitted within the Olga Community. Some landowners along SR 80 between South Olga Drive and Old Olga Road and SR 80 East have expressed their intent to develop their land for commercial uses. Still others have expressed that although they have no current plans for the commercial development of their lands, they may be interested in commercial development in the future. In either case, it appears that there is a high possibility for future commercial development within Olga, especially along the north side of SR 80.

Currently, there are only a handful of properties in Olga with a commercial use. One of the most active commercial centers, East Gate Square incorporates a Winn-Dixie Supermarket as the anchor with smaller support uses located in the northeast quadrant of the western intersection of SR 80/Old Olga Road/Buckingham Road. The next largest commercial use is the Tractor Supply Company located in the northwest quadrant of the intersection of SR 80 and South Olga Drive. Finally, there is a minor commercial use located at the southwest intersection of South Olga Drive and Old Olga Road, known as the Olga Mall.

The current commercial uses in Olga support a rural community according to the Lee Plan. Currently there is one project within Olga requesting commercial planned development. The property is located at the western corner of the eastern intersection of SR 80 and Old Olga Road and has applied for a rezoning from Ag-2 to Commercial Planned Development (CPD). Initial discussions between the applicant and the East Lee County Council the applicant indicated their desire to either have a mobile home sales center or a restaurant on this 2.16 acre site.

During later discussions, the community has indicated that they would prefer a restaurant at this location instead of a mobile home sales center. It is the community's opinion that a mobile home sales center would be inconsistent with the rural character and uniqueness of the area.

Proposed Olga

Future Land Use Map

Proposed Olga Future Land Use Map

The Olga residents have been very active in the planning and development process taking place in the community. The residents are determined to protect their rural way of life from the expanding development. The community has been involved with all major residential projects taking place in Olga from beginning stages.

Currently, each new development proposal must present their project to the community prior to proceeding to the Hearing Examiner for a public hearing. For the community, this meeting is the first opportunity to learn about the project and to negotiate density and intensity with the developer. This is a tedious process requiring the community to be ever vigilant in attending the East Lee County Council meetings. However and more importantly, it puts the community in an adverse role with the development community.

It is the community's opinion that all new residential developments should compliment the existing neighborhood, where one dwelling unit per acre is the standard. Typically, density is calculated by dividing the number of proposed dwelling units by the number of acres. For example, as previously discussed in the Caloosahatchee Estates was approved for 92 units on 91.7 acres. The community is proposing a minimum lot size of one acre, where the density is calculated after the project's infrastructure, open space and amenities are determined.

In 2005 the community began working on a Future Land Use Map that would define the development permitted throughout the community by re-designating areas on the Future Land Use Map. This not only defines where residential and commercial developments are appropriate, but what types of residential and commercial development will be permitted. This map consists of areas defined by land use as well as permitted density. It also includes the locations of proposed roads and sidewalks and is the basis of the land use map developed by Dyer, Riddle, Mills and Precourt, Inc. See Exhibit D for the community's proposed Future Land Use Map.

To restrict residential development to one unit per acre, the majority of the land within Olga is designated Rural on the proposed land use map. The Rural land use designation is areas the community feels are most vulnerable and appropriate for low density residential development. These areas currently abut low density residential or agricultural that does not have densities over one unit per acre.

The northeast quadrant of the western intersection of Old Olga Road/SR 80/Buckingham Road is currently and is proposed to be designated a Mixed Use Overlay. This quadrant is currently designated as a Commercial Node on Map 19 of the Lee Plan. The commercial designation at the intersection is appropriate for Neighborhood Commercial, which allows up to 100,000 square feet of commercial uses. Due to its location (the intersection of SR 80, a major arterial and Old Olga Road a collector road the proposed higher densities and intensities are more appropriate at this intersection. This designation encourages mixed use developments that adhere to the principals of Smart Growth and New Urbanism. Just as the name implies, the overlay is intended to provide a mix of

uses; residential, commercial and retail on one parcel and have the ability to capture vehicular trips on site and to concentrate a high density count within the project.

The Olga residents recognize that although commercial use within the community should be kept to a minimum, the Olga residents recognize that commercial uses along SR 80 are necessary. To address this issue, the Neighborhood Commercial Overlay was created for the parcels abutting the north side of SR 80. This designation does not require these parcels to be developed commercially it merely identifies parcels on which commercial uses will be permitted. Residential and agricultural uses will still be permitted under this designation.

The intention of the overlay is to place development restrictions on the commercial uses permitted in the overlay by maintaining those commercial uses that are appropriate and complimentary to a rural community. This includes limiting the size of the structures, the types of commercial uses and development design standards. Exhibit E outlines the complete list of commercial development standards.

The proposed land use map suggests expanding the number of Public Facilities parcels within the community to include all parcels currently owned by public entities.

The northwest area, bound by Marilyn Lane on the west, Old Olga Road on the south and Riverside Drive to the north and east, has been designated Suburban, as it was identified by the community as suitable for higher densities. Parcels in this designation are allowed densities ranging from one to six units per acre. Most of the parcels in this area are currently developed as single and multifamily homes.

A key issue in the development of the land use map is the location and type of new roadways. Initially, the community proposed a new road to run east/west from Old Olga Road to South Olga Drive along the northern property line of the Lee County Schools property. An additional road proposed to run north/south from SR 80 to Old Olga Road would bisect a privately owned parcel located at the northeast quadrant of the intersection of South Olga Drive and SR 80. This parcel is identified from the Lee County Property Appraiser's information as Strap Number 27-43-26-00-00003.0000 (The Parcel). The north/south road would connect to SR 80 and would be aligned to River Hall Parkway to create a four way intersection. The road connection would provide a signalized access point for the community traveling east from Olga. When warranted, this intersection will be signalized as required by the Development Order for River Hall PUD.

There are few existing north/south roadways in Olga to relieve traffic access from Old Olga Road and SR 80 (see Exhibit F). South Olga Drive, Inwood Avenue, Brown Road, Linwood Avenue, and Pine Avenue are narrow two-lane local roads and are the only north/south corridors connecting SR 80 to Old Olga Road and the community. Many residents were concerned that an additional collector road might lead to increased development and densities throughout Olga. The collector road connection through the center of the community would allow increased circulation and the ability to allow more density in the community based on new levels of service impacts. Residents expressed

concerns that the improved vehicular circulation would make properties more suitable for development and give incentives for property owners to develop their land at higher density above one dwelling unit per acre.

The issue of the proposed new roads and their locations became so debated that a public meeting was scheduled on Saturday, June 9, 2007 at the United Methodist Church of Olga/Fort Myers Shores (Grace Church) to discuss the road configurations through the community. Meeting notices were sent to all Olga residents, as well as noticed in the News-Press, to discuss and vote on the topic of including proposed roads on the Olga land use map.

The meeting notice to each property owner included a cover letter describing the purpose of the meeting along with a sample ballot containing four options for the residents to vote on (Exhibit G) at the meeting. The ballot displayed the four options and described the pros and cons of each scenario.

Option One

Option 1

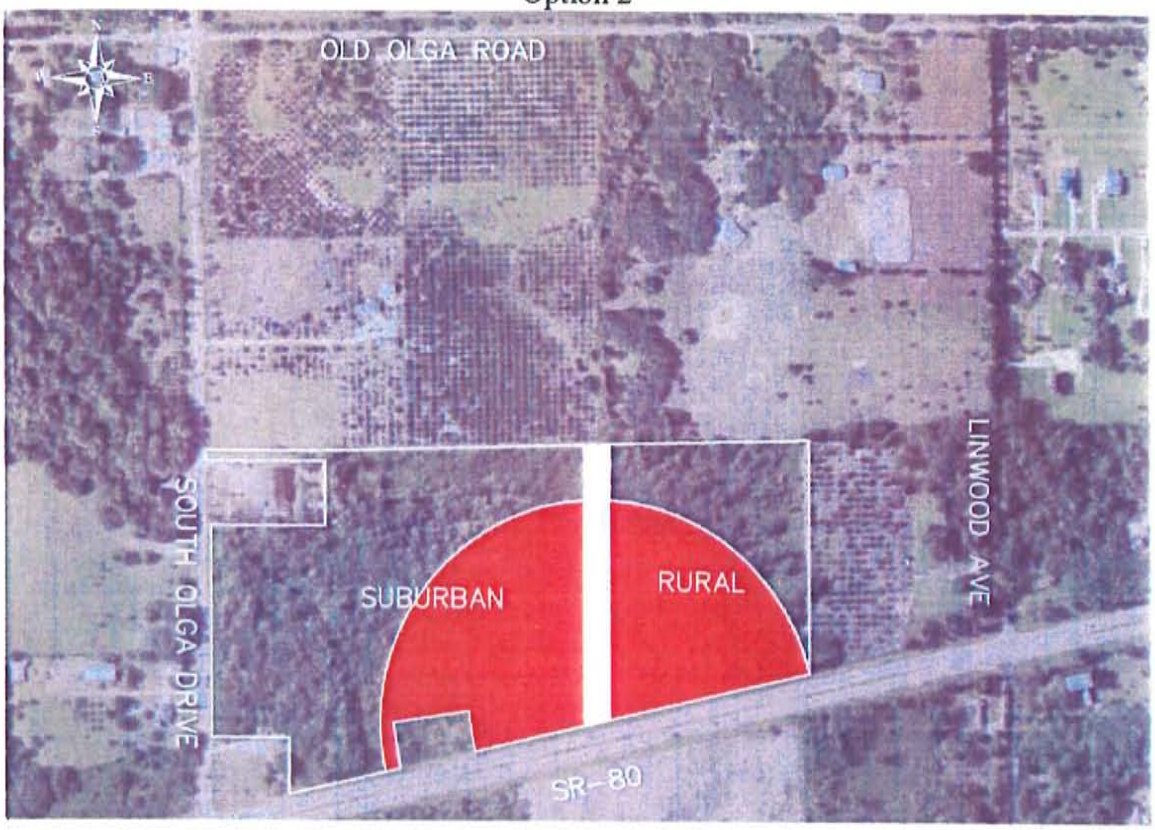
Option one proposed no change to the current community road configuration. The roadway system would remain the same as it currently exists. This option meant property owner(s) would develop their land on their own and provide the allowable access only to their properties.

The internal roadway would be classified as a private dead-end road and would terminate at the northern boundary of The Parcel providing internal access only. The "Commercial Development" on the site would be a minor commercial use because it is located at an intersection of a private road and an arterial road. No more than 30,000 square feet of

"Commercial Development" would be allowed. The property owner has agreed to preserve a 100 foot wide buffer on the northern property line.

Option Two

Option 2



Option two proposed the intersection of the proposed road intersecting SR 80 should be designated as a commercial node in Map 19 of the Lee Plan to allow the property located north of the intersection to be developed at a Neighborhood Commercial level.

The Parcel owner will work with Lee County to designate the internal roadway as a "collector road" according to the Lee County Comprehensive Plan (the Lee Plan) and this location on the commercial node map. This would allow a Neighborhood Commercial Development on the site since the project would access a collector and will connect to an arterial (SR 80). Neighborhood Commercial Development permits a range of 30,000 to 100,000 square feet of "Commercial Development" uses. The Parcel owner agreed to preserve a 100 foot wide buffer on the northern property line.

Option Three

Option 3

Option three proposed a new roadway running north from the intersection of River Hall Parkway and SR 80 then turning west at the northern property line of the parcel, continuing west past South Olga Drive, and ending at Old Olga Road at the intersection of Caribbean Boulevard. Connecting the new roadway to Caribbean Boulevard (currently a collector road) would allow the proposed road to be classified as a collector road.

The internal project access road would be designated as a collector road and turn to the west at the northern boundary of the property and connect to South Olga Drive (a collector road). Neighborhood Commercial Districts are allowed in the Suburban designated area and as discussed in Option 2 permits a range of 30,000 to 100,000 square feet of "Commercial Development". The Parcel owner had agreed to preserve a 100 foot wide buffer on the northern property line.

Option 4

Option 4

Option four proposed a road running north from the intersection of River Hall Parkway and SR 80 to Old Olga Road.

Option four would be developed the same as Option three as it is based on the development criteria within Suburban land use, at the neighborhood commercial node a range of 30,000 to 100,000 square feet of "Commercial Development". The variable in this option is the internal project access road would connect SR 80 to Old Olga Road. The developer of the northern residential property (located at the southeast corner of Old Olga Road and South Olga Drive) could petition to connect to the internal road and ultimately out to SR 80. This would provide the road to be designated as a collector road with direct access to the Olga Community.

A fifth option was introduced at the meeting by one of the residents (Exhibit H). This option was presented at the meeting by a local property owner.

After the options were explained and questions were addressed, Olga property owners were asked to vote for one of the options. In order to track each ballot a label displaying the parcel identification number, property address, and property owner name was affixed to each ballot and the property owner was asked to sign the ballot prior to submitting it (Exhibit I for sample ballot). This ensured that only one vote was cast for each property. Some Olga residents expressed concern that their neighbors were interested in voting but

were unable to attend the meeting. Neighborhood representatives worked with Dyer, Riddle, Mills and Precourt, Inc. to collect ballots from residents who were unable to attend the meeting. Ballots were accepted until Friday, June 15, 2007.

A total of 114 ballots were collected and validated. The results of the voting were as follows:

Option	Votes
1	7
2	7
3	77
4	18
5	5

Meeting minutes, sign-in sheets and voting ballots are shown in Exhibit J.

As the vote tally shows, Option Three was the community's clear choice. Option Three proposed a new roadway running north from the intersection of River Hall Parkway and SR 80 then turning west at the northern property line of the parcel, continuing west past South Olga Drive, and ending at Old Olga Road at the intersection of Caribbean Boulevard. Connecting the new roadway to Caribbean Boulevard (currently a collector road) will allow the proposed road to be classified a collector road.

In accordance with the Community's selection, the proposed Future Land Use Map incorporates the new road configuration as identified in Option Three of the voting. See Exhibit D for the proposed map.

Record Of Olga Community Meetings

Meetings

In order to accomplish the coordination of an Olga Community Plan, Dyer, Riddle, Mills and Precourt, Inc. worked with the East Lee County Council and the Olga Planning Sub-Committee. All the meetings were advertised in the News Press and were open to the public. All attendees signed in at the meeting, meeting minutes were taken and the meetings were audio recorded. The purpose of the meetings was to work with the residents to develop an awareness of the community's issues and concerns. The Olga Planning Sub-Committee meetings were held on the following dates and locations:

- Wednesday, December 6, 2006 at 2029 Clarke Avenue
- Tuesday, January 16, 2007 at 2029 Clarke Avenue
- Thursday, February 15, 2007 at Olga Community Center, 2325 South Olga Drive
- Thursday, March 15, 2007 at Olga Baptist Church, 2364 South Olga Drive
- Thursday, March 29, 2007 at Olga Baptist Church, 2364 South Olga Drive
- Saturday, June 9, 2007 at United Methodist Church of Olga/Fort Myers Shores (Grace Church), 14036 Matanzas Drive

The sign in sheets and meeting minutes for the meetings are attached as Exhibit K.

Amending Lee Plan Incorporating Olga's Goals, Objectives and Policies

Goal ____: Olga Community.

To capture and maintain Olga's heritage and rural character while allowing new development to "fit in" the following objectives and policies will be implemented to direct the new density and intensities for the Olga Community. For the purpose of this Goal, the Olga Community boundaries are generally defined by Caloosahatchee River on the north, Old Olga Road as it intersects SR 80 at its most eastern point on the east, SR 80 (aka Palm Beach Boulevard) on the south and Old Olga Road at the intersection of Buckingham Road/SR 80/Old Olga Road intersection to the west along with an imaginary line north to the Caloosahatchee River.

Objective__: Olga's Future Land Use Map reflects the vision and desires of the Olga Community. Any land use regulations, comprehensive plan changes, County regulated amendments or project developments imposed by Lee County shall consider the Olga's Land Use Map prior to making any decisions.

Policy __: The community shall work with the Lee County Bike and Pedestrian Committee to develop and install eight foot (8') wide sidewalk/bikepaths within the existing right-of-way of Old Olga Road from SR 80 at the intersection of SR 80/Old Olga Road/Buckingham Road north and east to the intersection of SR 80/Old Olga Road.

Policy __: Suburban land use designations within the community shall be strongly encouraged to develop at one dwelling unit per acre. If one dwelling unit per acre is not possible new developments shall match the surrounding density and intensity. Wherever possible, all new developments shall maintain a one acre minimum lot size.

Policy __: Parcels located on the north side of SR 80, bound on the west by South Olga Drive and on the east by the intersection of Old Olga Road/SR 80 shall be allowed to develop as Outlying Suburban. Those parcels are identified will be required to develop under specific development standards and are identified as follows:

28-43-26-00-00001.0030	27-43-26-00-00006.0010
28-43-26-00-00001.0050	27-43-26-00-00006.0000
28-43-26-00-00003.0010	27-43-26-00-00006.0020
28-43-26-00-00008.0010	27-43-26-00-00001.0050
28-43-26-00-00008.0000	27-43-26-00-00001.0070
28-43-26-00-00007.0010	27-43-26-00-00013.0000
27-43-26-00-00002.0000	23-43-26-00-00012.0010
27-43-26-00-00003.0000	23-43-26-00-00011.001A
27-43-26-00-00001.0020	23-43-26-00-00011.0000
27-43-26-00-00006.0030	23-43-26-00-00011.001B
23-43-26-00-00011.0010	23-43-26-00-00005.0000

Standard __: Commercial land uses will not be permitted into single family neighborhoods unless the neighborhood is consulted and approves.

Standard __: Any new commercial projects must be a Commercial Planned Development and may not have a residential component unless is matches the abutting residential density.

Standard __: Development intensity will gradient from the center to the edge suitable to integrate surrounding land uses.

Standard __: Parking lots shall be internal to the building structure with buildings lining or shielding the parking lot from the street and neighborhood.

Standard __: Parking space requirements will be reduced by one half in order to provide more open space and less impervious surfaces on the site.

Standard __: Canopy trees must be planted in all parking areas in order to provide shade

Standard __: Developments shall utilize the principals of Crime Prevention through Environmental Design (CPTED).

Standard __: The minimum building setbacks shall be as follows:
a. Street: 40 feet
b. Side: 30 feet
c. Rear: 50 feet

Standard __: No automobile oriented uses will be permitted. This includes drive-thrus, automotive sales and repair, drive-ins and other similar businesses.

Standard __: As feasible, developers shall work with Lee Tran to provide bus stops to encourage public transit access to their site.

Standard __: Floor Area Ratios (FAR) maximums shall be 0.10. FAR represents the relationship of the size of a building to its site area. Calculated by taking the size of the parcel in square feet divided by 10 equals the size of the building.

Standard __: Open Space Requirements:
a. Parcels less than five (5) acres (Small Projects) shall provide 30% open space.
b. Parcels between five (5) and ten (10) acres shall provide 40% open space.
c. Parcels more than ten (10) acres shall provide 50% open space.

Standard __: Building and project designs must ensure that internal street systems are designed for the efficient and safe flow of vehicles and pedestrians without having a disruptive effect on the activities and functions contained within or adjacent to the development.

Standard __: Project access shall not be from a residential street.

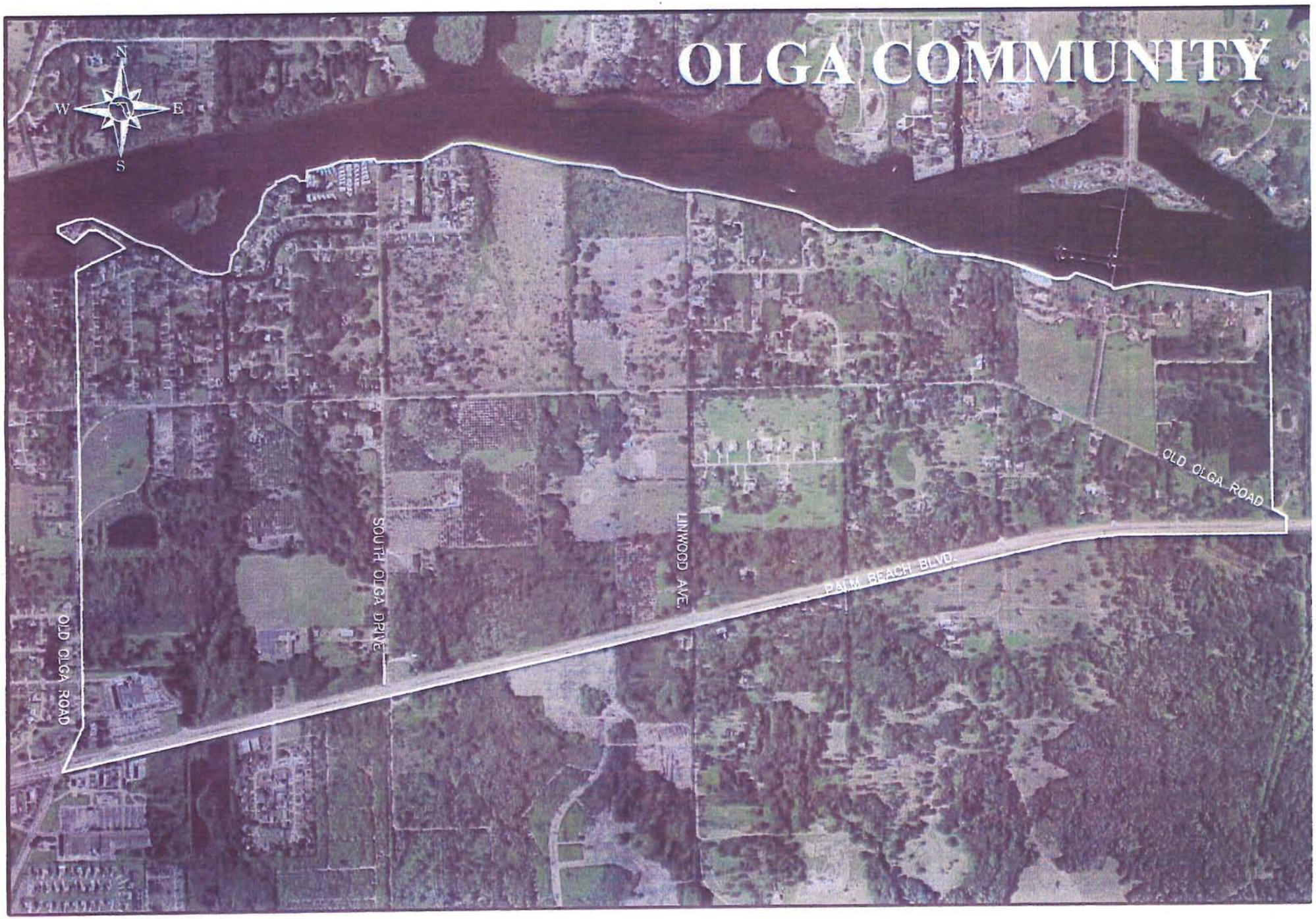
Standard __: Mature trees shall be preserved or relocated on-site.

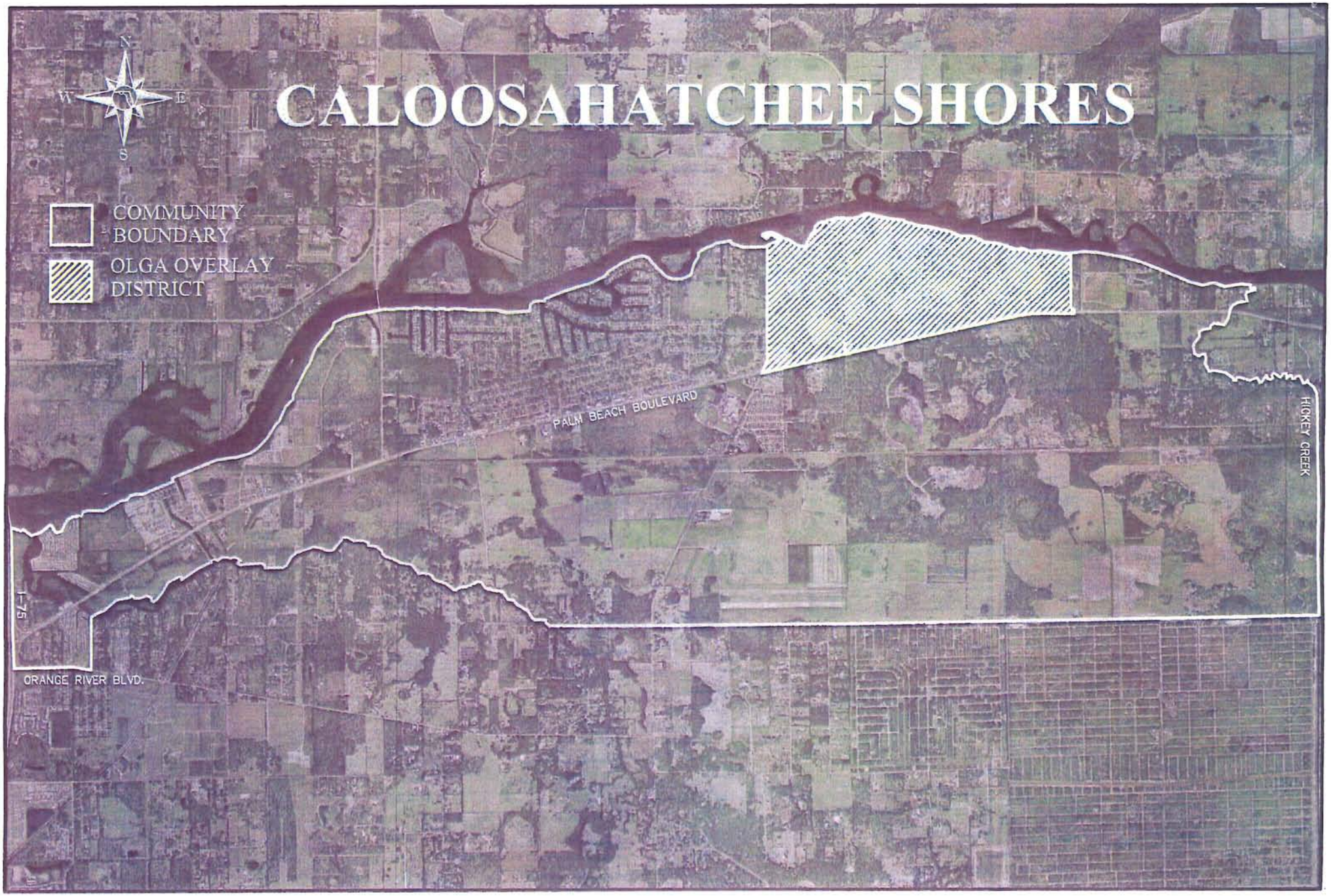
Policy __: The development of the parcel located at the northeast quadrant of South Olga Drive and SR 80 (aka Strap # 27-43-26-00-00003.000) shall incorporate a collector road that will align north to the northern boundary of the property line, turn west following the northern boundary of the property line and connect to South Olga Drive. The cost of such improvements shall be bourn by the developer. In addition to the roadway, there shall be a 100 foot wide landscape buffer on the northern boundary of the property separating the commercial use from the community. No connections from any parcel north of this location shall connect to the proposed roadway.

Policy __: The community will support a collector road connection from South Olga Drive west to the intersection of Old Olga Road and Caribbean Drive. The construction of such roadway connection shall be at the developer's expense as properties along the proposed roadway are built.

Policy __: Wherever possible, maintain the integrity of the natural environment when developing property especially when significant tree canopies or natural habitats can be integrated into the site design.

Policy __: When undertaking streetscape improvements, new private construction and building rehabilitation, place utility lines underground where it is economically feasible and where practical to improve visual qualities.


OLGA COMMUNITY
N
W
E
S
OLD OLGA ROAD
SOUTH OLGA DRIVE
LINWOOD AVE.
PALM BEACH BLVD.
OLD OLGA ROAD


CALOOSAHATCHEE SHORES
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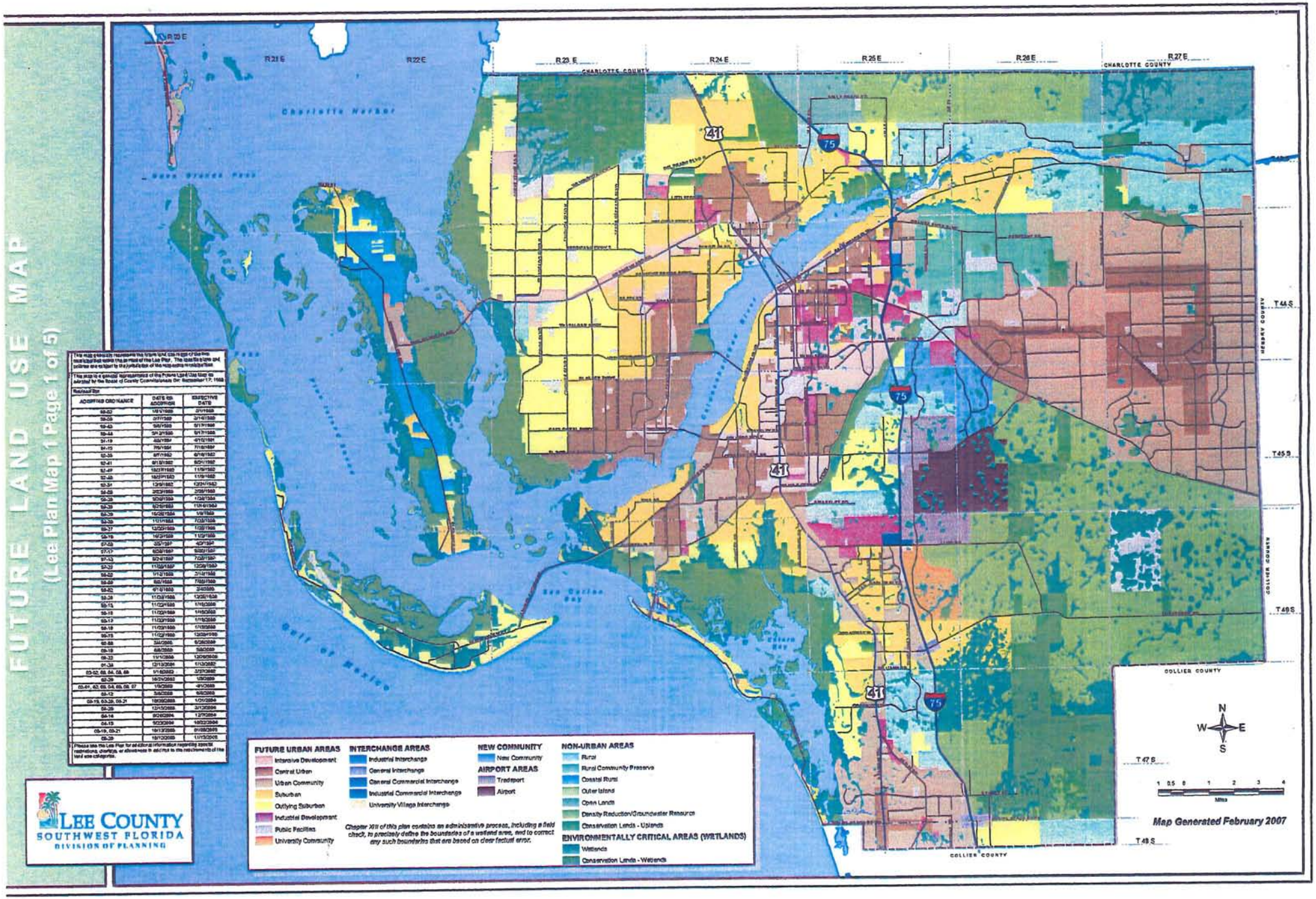
COMMUNITY BOUNDARY
OLGA OVERLAY DISTRICT
PALM BEACH BOULEVARD
HICKEY CREEK
I-75
ORANGE RIVER BLVD.

FUTURE LAND USE MAP

(Lee Plan Map 1 Page 1 of 5)



This map graphically represents the future land use design of the lines established within the pertinent of the Lee Plan. The specific types and policies are subject to the jurisdiction of the respective ordinances.

This map is a general representation of the Future Land Use Map as adopted by the Board of County Commissioners On: September 17, 1984

Revised By:

ADOPTING ORDINANCE	DATE OF ADOPTION	EFFECTIVE DATE
89-02	1/9/1989	2/1/1989
89-09	2/7/1989	2/14/1989
89-43	5/8/1989	5/11/1989
89-44	5/12/1989	5/11/1989
91-19	4/8/1991	4/12/1991
91-13	7/9/1991	7/16/1991
92-35	6/17/1992	6/16/1992
92-51	8/31/1992	8/31/1992
92-49	10/27/1992	11/9/1992
92-48	10/27/1992	11/9/1992
92-51	12/9/1992	12/31/1992
93-09	2/23/1993	3/9/1993
93-38	5/24/1993	1/24/1994
93-39	6/25/1993	11/24/1993
93-39	10/28/1994	1/9/1995
93-36	11/01/1993	7/28/1995
93-37	12/20/1993	1/28/1994
93-16	10/27/1993	11/9/1993
97-09	3/5/1997	4/2/1997
97-17	6/26/1997	6/30/1997
97-13	8/21/1997	7/28/1997
97-23	11/03/1997	12/29/1997
98-02	1/12/1998	2/1/1998
98-09	5/5/1998	7/30/1998
98-02	6/1/1998	3/4/1998
98-28	11/04/1998	12/30/1998
99-15	11/22/1999	1/10/2000
99-16	11/22/1999	1/10/2000
99-17	11/22/1999	1/10/2000
99-18	11/22/1999	1/10/2000
99-19	11/22/1999	12/29/1999
00-08	3/6/2000	6/26/2000
00-19	6/6/2000	6/8/2000
00-22	11/1/2000	12/6/2000
01-08	12/13/2001	1/13/2002
03-02, 03, 04, 05, 06	1/14/2003	2/3/2003
02-39	10/21/2002	1/8/2003
03-01, 02, 03, 04, 05, 06, 07	1/8/2003	4/1/2003
03-12	5/5/2003	6/6/2003
03-13, 03-20, 05-21	10/30/2003	1/31/2004
04-05	12/15/2003	3/1/2004
04-14	8/26/2004	12/7/2004
04-15	9/23/2004	10/22/2004
05-19, 05-21	10/13/2005	01/02/2006
05-20	10/12/2005	11/15/2005

Please see the Lee Plan for additional information regarding specific restrictions, overlays, or allowances in addition to the requirements of the land use categories.

FUTURE URBAN AREAS
- Intensive Development
- Central Urban
- Urban Community
- Suburban
- Outlying Suburban
- Industrial Development
- Public Facilities
- University Community

INTERCHANGE AREAS
- Industrial Interchange
- General Interchange
- General Commercial Interchange
- Industrial Commercial Interchange
- University Village Interchange

NEW COMMUNITY
- New Community

AIRPORT AREAS
- Tradeport
- Airport

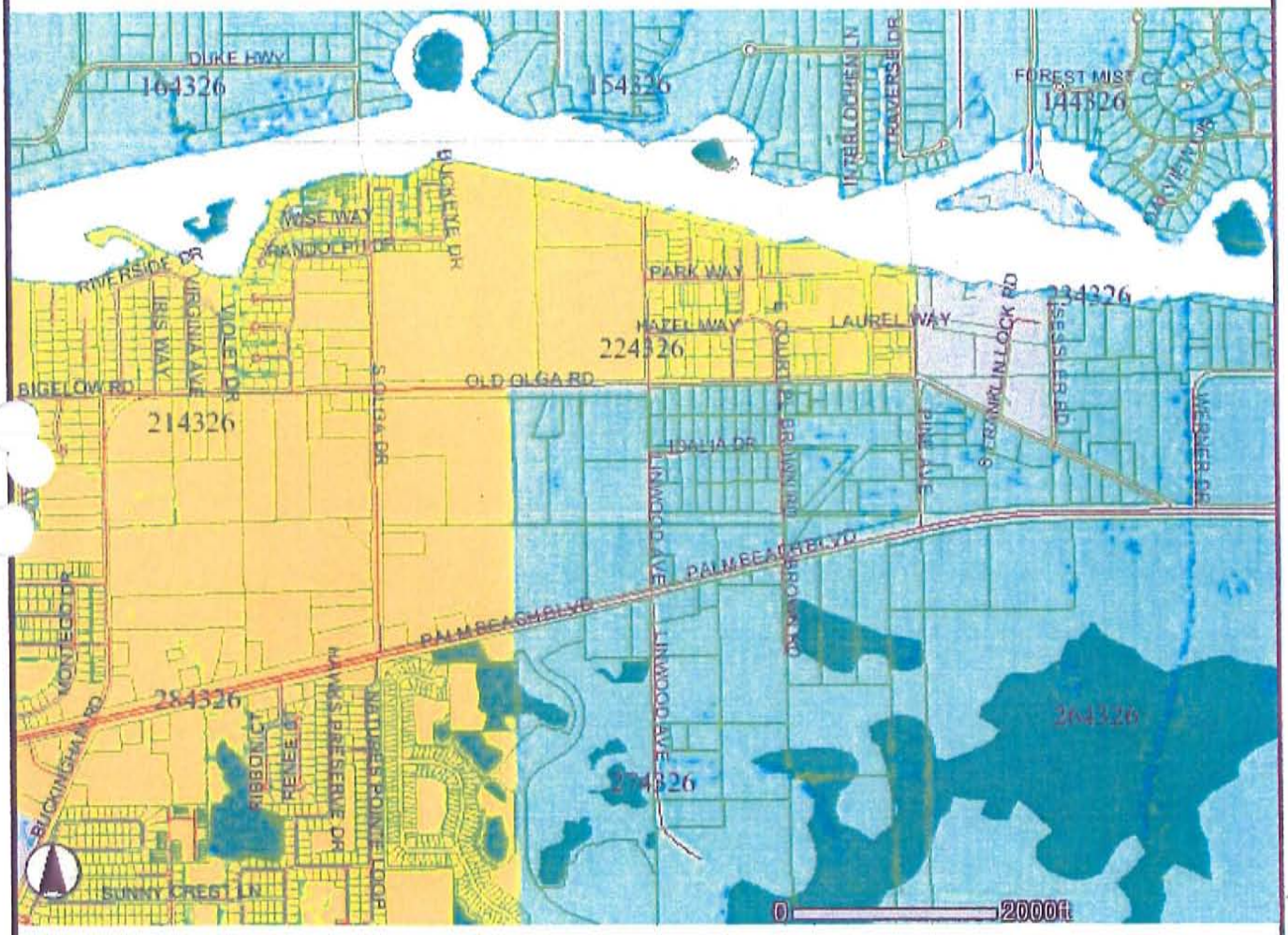
NON-URBAN AREAS
- Rural
- Rural Community Preserve
- Coastal Rural
- Outer Island
- Open Lands
- Density Reduction/Groundwater Resource
- Conservation Lands - Uplands

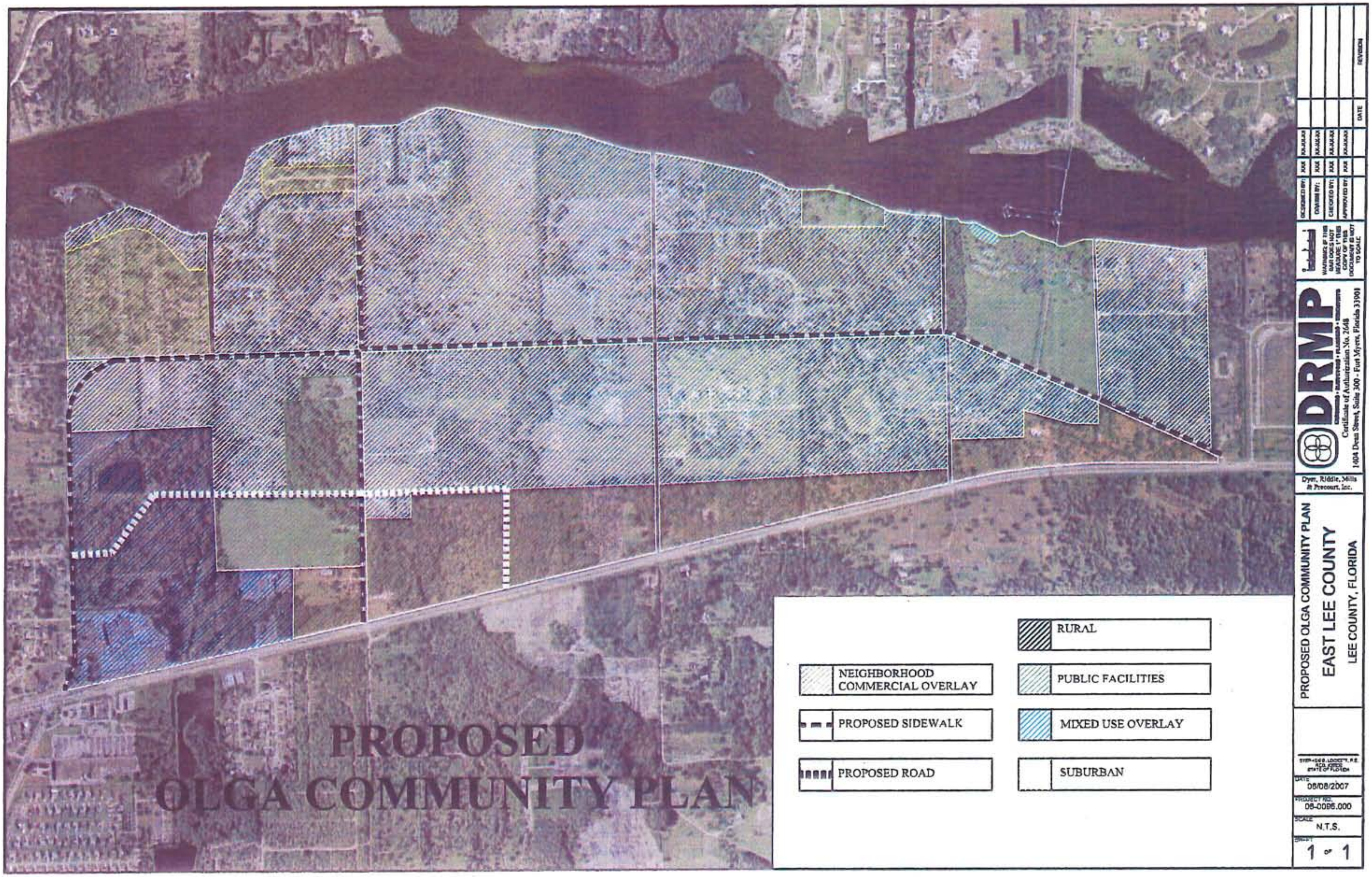
ENVIRONMENTALLY CRITICAL AREAS (WETLANDS)
- Wetlands
- Conservation Lands - Wetlands

Chapter XII of this plan contains an administrative process, including a field check, to precisely define the boundaries of a wetland area, and to correct any such boundaries that are based on clear factual error.

LEE COUNTY
SOUTHWEST FLORIDA
DIVISION OF PLANNING

Lee County Map




PROPOSED
OLGA COMMUNITY PLAN
RURAL
NEIGHBORHOOD COMMERCIAL OVERLAY
PUBLIC FACILITIES
PROPOSED SIDEWALK
MIXED USE OVERLAY
PROPOSED ROAD
SUBURBAN
DRMP
Certificate of Authorization No. 2648
1404 Dean Street, Suite 300 - Fort Myers, Florida 33901
Dyer, Riddle, Mills & Precourt, Inc.
PROPOSED OLGA COMMUNITY PLAN
EAST LEE COUNTY
LEE COUNTY, FLORIDA
DATE 06/08/2007
PROJECT NO. 06-0096.000
SCALE N.T.S.
SHEET 1 of 1

PROPOSED
OLGA COMMUNITY PLAN
COMMERCIAL DEVELOPMENT STANDARDS MATRIX
June 9, 2007

	Proposed Development Standards
Vision Statements Land uses and structures are well integrated, properly oriented and functionally related to the topographic and natural features of the site. Commercial development principals provide alternative development patterns that promote good balances between community livability, economic viability and environmental sensitivity.	Study area boundaries are one parcel deep fronting the north side of SR 80 bound on the west by South Olga Road and on the east by the intersection of Old Olga Road and SR 80. They include the following parcels (see map attached for pictorial view): 28-43-26-00-00001.0030 28-43-26-00-00001.0050 28-43-26-00-00003.0010 28-43-26-00-00008.0010 28-43-26-00-00008.0000 28-43-26-00-00007.0010 27-43-26-00-00002.0000 27-43-26-00-00003.0000 27-43-26-00-00001.0020 27-43-26-00-00006.0030 27-43-26-00-00006.0000 27-43-26-00-00006.0010 27-43-26-00-00006.0020 27-43-26-00-00001.0050 27-43-26-00-00001.0070 27-43-26-00-00013.0000 23-43-26-00-00012.0010 23-43-26-00-00011.001A 23-43-26-00-00011.0000 23-43-26-00-00011.001B 23-43-26-00-00011.0010 23-43-26-00-00005.0000
	Commercial land uses will not intrude into single family neighborhoods unless the neighborhood is consulted and approves.
	Must be a Commercial Planned Development and may not have a residential component unless it matches the abutting residential density.
	Development intensity will gradient from the center to the edge suitable to integrate surrounding land uses.
	Parking lots shall be internal to the building structure with buildings lining or shielding the

	parking lot from the street and neighborhood.
	Parking space requirements will be reduced by one half in order to provide more open space and less impervious surfaces on the site.
	Development shall utilize the principals of Crime Prevention Through Environmental Design (CPTED)
Minimum County Code for Commercial: Street: varies Side: 15 feet Rear: 20 feet	The minimum building setbacks shall be as follows: a. Street: 40 feet b. Side: 30 feet c. Rear: 50 feet
	No automobile oriented uses will be allowed. No drive-throughs. No drive-ins.
	As feasible, developer shall work with Lee Tran to provide a bus stop location in the project.
	Floor Area Ratios maximums shall be .10. FAR represents the relationship of the size of a building to its site area. Calculated by taking the size of the parcel in square feet divided by 10 equals the size of the building.
Sec. 10 – 415(a) Small Project – 20% Large Projects – 30% *Small development* less than 10 ac in land area and less than 2 ac of impervious *Large development* 10 ac or more in land area or 2 ac or more of impervious	Open Space Requirements: a. Small Projects A: Parcels less than 5 acres shall provide 30% open space. b. Small Projects B: Parcels between 5 – 10 acres shall provide 40% open space. c. Large Projects: Parcels more than 10 acres shall provide 50% open space.
County Code – Buffers Type A: 5 feet Type B,C, D: 15 feet Type E: 30 feet	The underlying land development standards from Chapter 33 for Caloosahatchee Shores shall apply to buffers, landscaping, etc. Buffers: Type A: 10 feet Type B, C,D: 20 feet Type E: 30 feet
	Building and project designs must ensure that internal street systems are designed for the efficient and safe flow of vehicles and pedestrians without having a disruptive effect on the activities and functions contained within or adjacent to the development.
Sec. 10-415(b) Large developments with existing indigenous native vegetation communities must provide 50 percent of their open space percentage requirement through the onsite preservation of existing native vegetation communities.	Small Projects A and Small Projects B with existing indigenous native vegetation must provide 35% of their open space percentage requirement through the onsite preservation of existing native vegetation. Projects over 10 acres will adhere to the current Lee County Code.


BUCKEYE DRIVE (L)
SR-80 (A)
SOUTH OLGA DRIVE (C)
OLD OLGA ROAD
N
E
S
W

Dyer, Riddle, Mills
& Precourt, Inc.

Principals
Wayne D. Chalifoux
Donaldson K. Barton, Jr.
Lucius J. Cushman, Jr.
Jon S. Meadows
Stephen L. Precourt
Lawrence L. Smith, Jr.
William T. Stone

June 1, 2007

**Subject: Public Meeting to Discuss and Vote On
The Olga Community Planning Overlay**

To all Property Owners, Residents and Interested Parties:

Please be advised that a public meeting is scheduled for all residents, property owners and interested parties in the Olga Community for Saturday, June 9, 2007 from 9:00 a.m. to 1:00 p.m. at the United Methodist Church of Olga/Fort Myers Shores (Grace Church) located at 14036 Matanzas Drive, Fort Myers, Florida 33905.

The purpose of this meeting is to review and discuss the Olga Community Planning Overlay and for all property owners, residents and interested parties of Olga to provide final input and comment on the community planning effort for the Olga Community. Additionally, the parties will cast a vote with regard to the proposed level of intensities allowed for future commercial development to be developed upon those properties located on the north side of and that front directly on State Road 80, lying between South Olga Drive and the Old Olga Road/State Road 80 intersection. There will also be a vote on what level of intensity should be permitted and roadway access provided for the 36± acres located at the northeast corner of South Olga Drive and State Road 80. The following information is being provided to give you a historical perspective of the events leading up to and which mandate some of the actions outlined in this letter. We have also provided the attached definitions to help define and explain some of the major points of discussion provided herein.

In December of 2006, the East Lee County Council hired the planning consultant, DRMP, Inc., to develop land development regulations for the Palm Beach Boulevard and the Caloosahatchee Shores Communities. The Caloosahatchee Shores Community is the area of Lee County located east of I-75, south of the Caloosahatchee River, west of Hickey Creek, and north of Orange River.

In addition to the land development regulations for Palm Beach Boulevard and Caloosahatchee Shores, DRMP was requested to review the previously submitted Olga community's goals, objectives and policies leading to the development of an independent overlay for the community.

Once approved by the Olga residents, the Olga Community, Planning Overlay will be incorporated as a sub-area to the Caloosahatchee Shores Community Plan that was previously adopted by the Lee County Board of County Commissioners in 2006 and incorporated in the Lee County Comprehensive Plan (Lee Plan). The Lee Plan is the

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Phone : 239.344.0050
Fax : 239.344.0057

Boca Raton, Florida
Charlotte, North Carolina
Chipley, Florida
Columbia, South Carolina
DeLand, Florida
Ft. Myers, Florida
Gainesville, Florida
Jacksonville, Florida
Lakeland, Florida
Norcross, Georgia
Palm Coast, Florida
Panama City Beach, Florida
Pensacola, Florida
Punta Gorda, Florida
Tallahassee, Florida
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roadmap for future development in the County over the next 25 years. It provides goals, objectives and policies for which all development in the County must adhere to.

From these goals, objectives and policies land development regulations are developed which govern the specific development criteria allowed within the various zoning districts of Lee County. Chapter 33 of the Land Development Code is the specific development regulations specific to Caloosahatchee Shores and Palm Beach Boulevard. These development regulations are currently being developed by DRMP and the East Lee County Council for future adoption. In addition to the specific regulations to CS Planning Community, there are zoning regulations that all properties within Lee County must comply with.

These Zoning regulations are known as the "Zoning Code" and are located in Chapter 34 of the Lee County Land Development Code. These regulations prescribe the specific development criteria, i.e., building setbacks, building height, parking requirements, etc. which are specific to each individual zoning district. Site construction regulations for each development are prescribed in Chapter 10 of the Lee County Land Development Code and known as the "Development Standards".

Since January 2007 the Olga Planning Sub committee has conducted a series of workshops and meetings to develop the Olga Community Planning Overlay. As outlined in the first paragraph of this letter, the upcoming meeting on Saturday, June 9 will be held to finalize the items listed.

One issue is the development of the 36-acre parcel located at the northeast corner of South Olga Drive and S.R. 80. The property owner has been working with the Olga Planning Sub-Committee to establish criteria for the development of the property. The key factor in determining the level of development allowed on the property is how the internal roadway will be classified by Lee County in the Lee Plan. The location of the entrance road can also provide new access from S.R.80 to other areas of Olga. The attached options illustrate four separate options on which there will be a vote. The voting procedures will be in accordance with instructions provided by the Lee County Attorney's Office.

Your attendance is important to the community planning process so please try to attend the meeting.

Should you have any questions or need any additional information, please contact me at the number below.

Sincerely,
Dyer, Riddle, Mills & Precourt, Inc.

Vincent Franceschelli
Project Planner
239.344.0050
vfranceschelli@drmp.com

DEFINITIONS:

Road Descriptions:

1. Arterial (A) – A street or highway primarily intended to carry large volumes of through traffic from one city to another. An arterial example is S.R.-80.

2. Collector (C) – Streets that collect traffic from intersecting local streets and move traffic to the nearest arterial. Collector streets provide access from local streets to arterial streets. An example is South Olga Drive providing access from local streets such as Buckeye Drive to S.R.-80.

3. Local (L) – Streets that serve the access needs of predominately residential properties. A local street provides access from individual properties to collector streets. Local streets are not intended to provide through traffic. An example of a local street in Olga is Buckeye Drive.

Shown below is a graphic depiction of the road descriptions.

Commercial Development:

4. Commercial Development - The following are considered commercial development: shopping centers, free-standing retail or service establishments, restaurants, convenience food stores, automobile dealerships, gas stations, car washes, and other

commercial development generating large volumes of traffic. The following are not considered commercial development: banks and savings and loan establishments without drive-in facilities, hotels and motels, marinas, industrial, warehouse, or wholesale development, or general, medical or professional offices.

5. Commercial Node (CN) – An intersection deemed by Lee County to be consistent with the standards of Neighborhood Commercial Development or Community Commercial Development. The intersections throughout Lee County are illustrated in the Lee Plan. See definitions for Neighborhood Commercial Development and Community Commercial Development for requirements. The closest commercial node in the Olga area is at the intersection of S.R.-80 and Buckingham Road. It was determined by Lee County that this intersection meets neighborhood commercial center standards.

6. Community Commercial Development (CCD) – Provides sale of convenience goods and personal services such as food, drugs, and hardware items, as well as clothing, variety items, appliances and furniture. CCD's are located at the intersection of two arterials. The site area ranges from 10 to 35 acres. Gross floor area ranges from 100,000 square feet to 400,000 square feet.

7. Minor Commercial Development (MCD) - Provide sale of convenience goods and services and located on or near the intersection of a local and collector, local and arterial, or collector and collector roads. The site area can range from two acres or less. The permitted floor area should not exceed 30,000 square feet.

8. Neighborhood Commercial Development (NCD) – Provide sale of convenience goods and personal services such as food, drugs, sundries, and hardware items, and located at the intersection of a collector and arterial or arterial and arterial roads. The site area can range from 2 to 10 acres. Gross floor area can range from 30,000 square feet to 100,000 square feet.

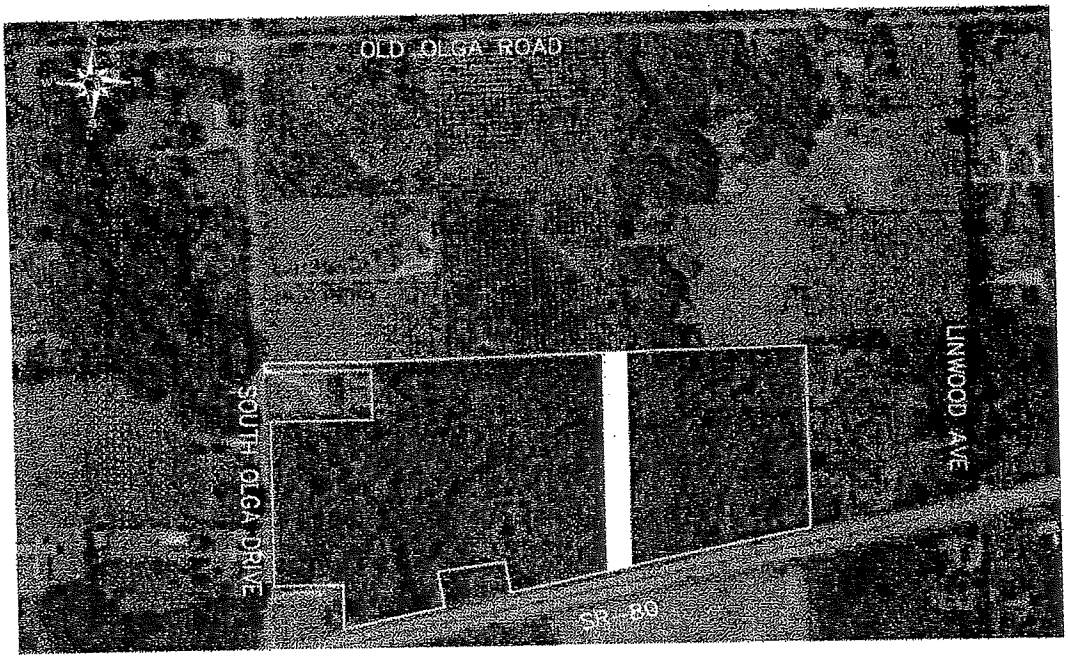
Future Land Use Categories:

9. Rural – Areas intended to remain low density residential, agricultural, and have minimal non-residential land uses needed to serve the rural community. These areas are not programmed to receive urban-type capital improvements and they can anticipate a continued level of public services below that of urban areas. Maximum density is 1 unit per acre.

10. Suburban – Areas predominantly residential appropriate to protect existing or emerging residential neighborhoods. These areas provide housing near the more urban areas but not a full mix of land uses that are typical to urban areas. Density ranges from 1 to 6 units per acre with no bonus densities above 6 units per acre allowed.

As identified on page 2 of the letter, we discussed the property located at the northeast corner of South Olga Drive and S.R.-80. The access to this property will impact the Olga Community depending upon the classification of the internal project roadway. On this and the following pages are four (4) separate options for consideration. Below are various development scenarios with a list of pro's and con's to each scenario. The pro/con list is provided as food for thought and by no means represents a complete list.

OPTION 1: NO CHANGE



The internal roadway will be classified as a private dead-end road and will terminate at the northern boundary of the property and will be used for internal access only. This will limit "Commercial Development" on the site to a minor commercial use because it is located at an intersection of a private road and an arterial road. No more than 30,000 square feet of "Commercial Development" will be allowed. The property owner will preserve a 100 foot wide buffer on the northern property line.

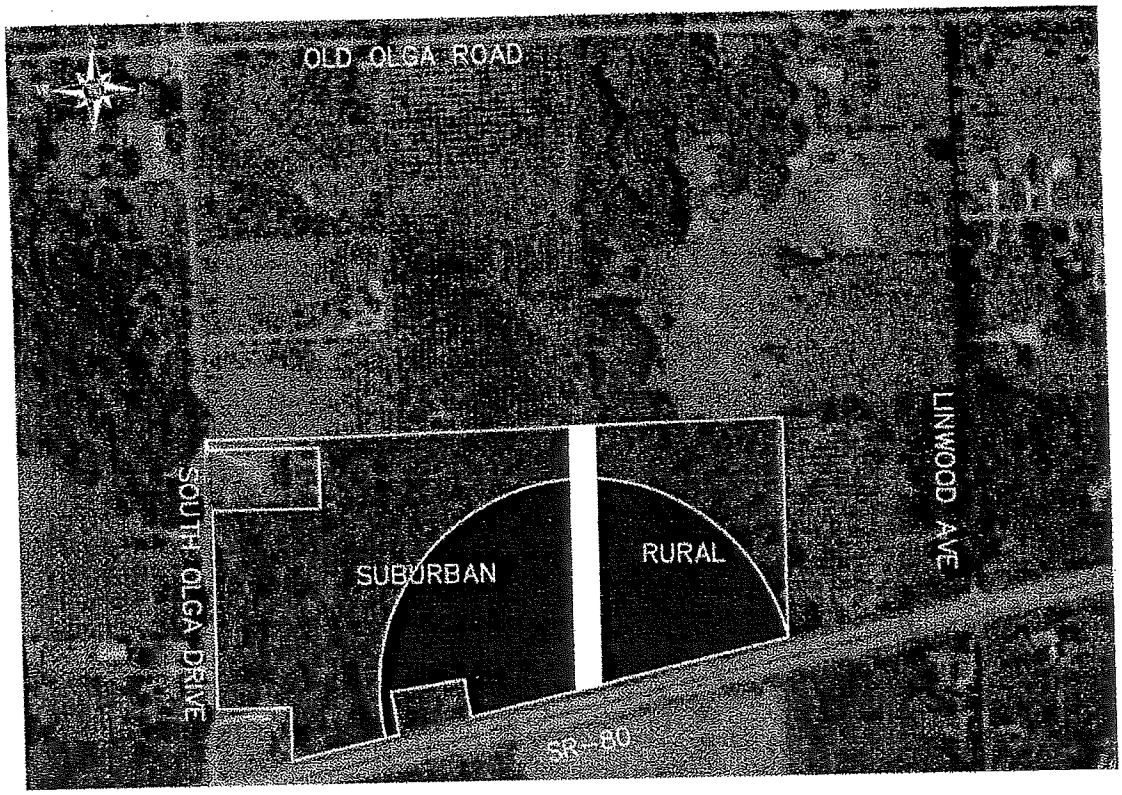
PROS

- "Commercial Development" limited to 30,000 square feet
- Traffic will only access the site from S.R.-80
- Will provide enhanced buffer along northern property line
- No neighborhood access to S.R.-80 from private access road
- Will provide extensive landscape buffer between residential and commercial

CONS

- Possibility of vacant residential properties to the north connecting to private road and access to S.R.-80
- No neighborhood access to S.R.-80 from private access road.

OPTION 2: COMMERCIAL NODE



The property owner would work with Lee County to designate the internal roadway as a "collector road" according to the Lee County Comprehensive Plan (the Lee Plan) and this location on the commercial node map. This will allow a Neighborhood Commercial Development on the site since the project would access a collector and will connect to an arterial (S.R.-80). Neighborhood Commercial Development permits a range of 30,000 to 100,000 square feet of "Commercial Development" uses. The property owner will preserve a 100 foot wide buffer on the northern property line.

PROS

- May provide access to S.R.-80 from vacant residential properties north of the parcel
- May provide site with left-turn in and out access to S.R.-80
- Limit access to S.R.-80, no neighborhood access
- Will provide enhanced landscape buffer along northern property line

CONS

- Will allow more commercial development square footage to be developed than Option 1
- May allow residential access to the site and S.R.-80 from vacant residential properties to the north
- No neighborhood access to S.R.-80

OPTION 3: COLLECTOR ROAD TO SOUTH OLGA DRIVE

The internal project access road would be designated as a collector road and turn to the west at the northern boundary of the property and connect to South Olga Drive (a collector road). As in all the options, this parcel is split between the Future Land Use Categories of Suburban and Rural designation (see above). Neighborhood Commercial Districts are allowed in the Suburban designated area and as discussed in Option 2 permits a range of 30,000 to 100,000 square feet of "Commercial Development". The property owner will preserve a 100 foot wide buffer on the northern property line.

PROS

- May provide left-turn in and out access to S.R.-80 from neighborhood north of parcel
- Will eliminate possibility of access between S.R.-80 and vacant residential lots to the north
- Will allow neighborhood to access site without going out to S.R.-80
- Will provide enhanced landscape buffer along northern property line

CONS

- Will allow more commercial development than is currently allowed
- Will allow traffic to enter and exit the site from South Olga Drive
- Traffic will not be kept internal to the site
- Increased traffic on South Olga Drive

OPTION 4: COLLECTOR ROAD TO OLD OLGA ROAD

Option 4 would be developed the same as Option 3 as it is based on the development criteria within Suburban land use, at the neighborhood commercial node a range of 30,000 to 100,000 square feet of "Commercial Development". The variable in this option is the internal project access road would connect S.R.-80 to Old Olga Road. The developer of the northern residential property could petition to connect to the internal road and ultimately out to S.R.-80. The property owner will preserve a 100 foot wide buffer on the northern property line.

PROS

- May provide left-turn in and out access for neighborhood to S.R.-80
- Will allow neighborhood to access site without going out to S.R.-80
- Will provide enhanced buffer along northern property line
- Will provide an additional north/south road for the neighborhood to access S.R.-80

CONS

- Will provide access for vacant properties to the north to S.R.-80
- Will allow traffic for the site to access the neighborhood
- Could allow property north and at the southeast corner of South Olga Drive and Old Olga Road to request more density than 1 unit per acre.

and provide signalized access to busy SR80. ***Sub option: adjacent sidewalk/bike path***

Standard 10: A new road is envisioned commencing at Old Olga Road at the proposed Town Center/Retail Village, through South Olga Road on the south side of the expanded park, and separating the new school from the park, then ***(Sub-Option A) through to the new north-south road proposed in Standard 9 above. Sub-Option B: Continue road through to Linwood Ave. Sub-Option C: add adjacent sidewalk/bike path.***

Standard 11: The Olga Community Club will be notified of any proposed rezoning or comp plan amendments in the Olga Community.

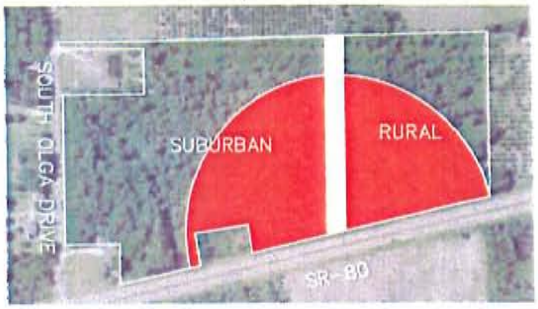
B. Proposed Changes to the Lee Plan Land Use Map

1. Designate the 90- acre "Caloosahatchee Estates" parcel and the parcel adjacent in the northeast corner "Rural".
2. Designate parcels bounded by S. Olga, Linwood and Old Olga that do not touch SR-80, excluding church property, "Rural".
3. (My understanding) the Rural Land Use Category does not permit commercial use other than "agriculture related". Add a statement along the following lines with respect to all land parcels that touch SR 80 east of 650 feet west of Linwood Avenue: "The Lee Plan is amended to permit commercial use that is other than agriculture-related in this designated area providing that commercial development on these parcels comply with Olga architectural, landscaping and intensity standards" (to be developed by the community).
4. Designate the land parcel immediately north of the Winn Dixie "Sub-Outlying Suburban" This permits commercial development of the Town Center & Retail Village referenced in the Vision Statement. Require that commercial development on these parcels comply with architectural, landscaping and intensity standards to be developed by the community.
5. Designate other land north of the Winn Dixie between Old Olga and South Olga (excluding school site, proposed park expansion, community center and Olga Mall) either:
    a. Sub-Outlying Suburban: only 2 residential units/acre
    b. **OR**: Rural: only one residential unit per acre.
6. Designate "acreage" land adjacent to and west of South Olga Drive
    a. Sub-Outlying Suburban: only 2 residential units/acre
    b. **OR:** Rural: only one residential unit per acre.

VOTING BALLOT

The following are four options for the access to the R & D Cattle Company, LLC (STRAP #27-43-26-00-00003.0000) property located in the northeast quadrant of the intersection of SR-80 and South Olga Drive presented at a community meeting on June 9, 2007 at the United Methodist Church of Olga/Fort Myers Shores (Grace Church) and after being duly noticed in the News Press and by letter. Please vote for the one Option that you would prefer to be included in the Olga Community Planning Overlay

Option 1: No Change



Option 2: Commercial Node

Option 3: Collector Road to Old Olga Road and Caribbean Boulevard

Option 4: Collector Road to Old Olga Road

Assuming that the owner of the subject property enters into a binding commitment to limit future development to one of the four options shown above, I _____, owning property at _____ prefer the following to be included in the Olga Community Planning Overlay:

Option 1 2 3 4 (circle one)

_____

Property Owner/Representative (with proper documentation) Signature

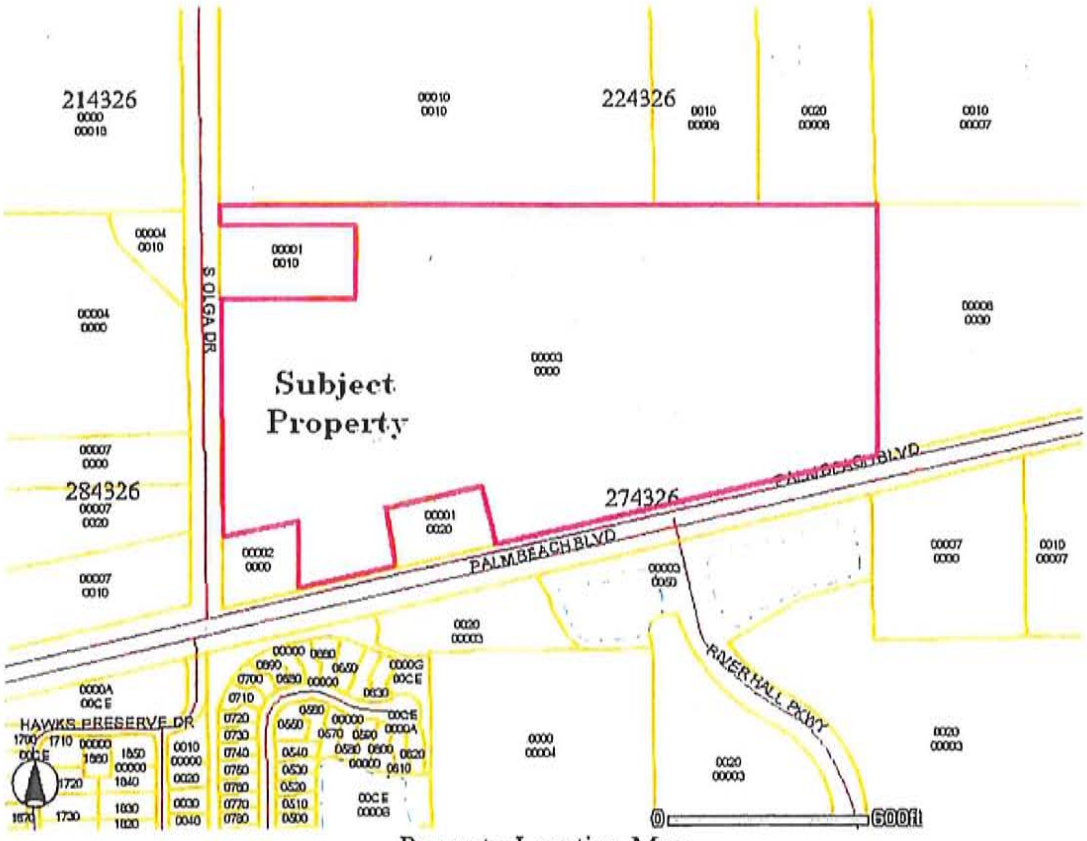
MORRIS DEPEW
ENGINEERS • PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
#LC26000330

Lee Plan FLUM Amendment Supplemental Data and Analysis

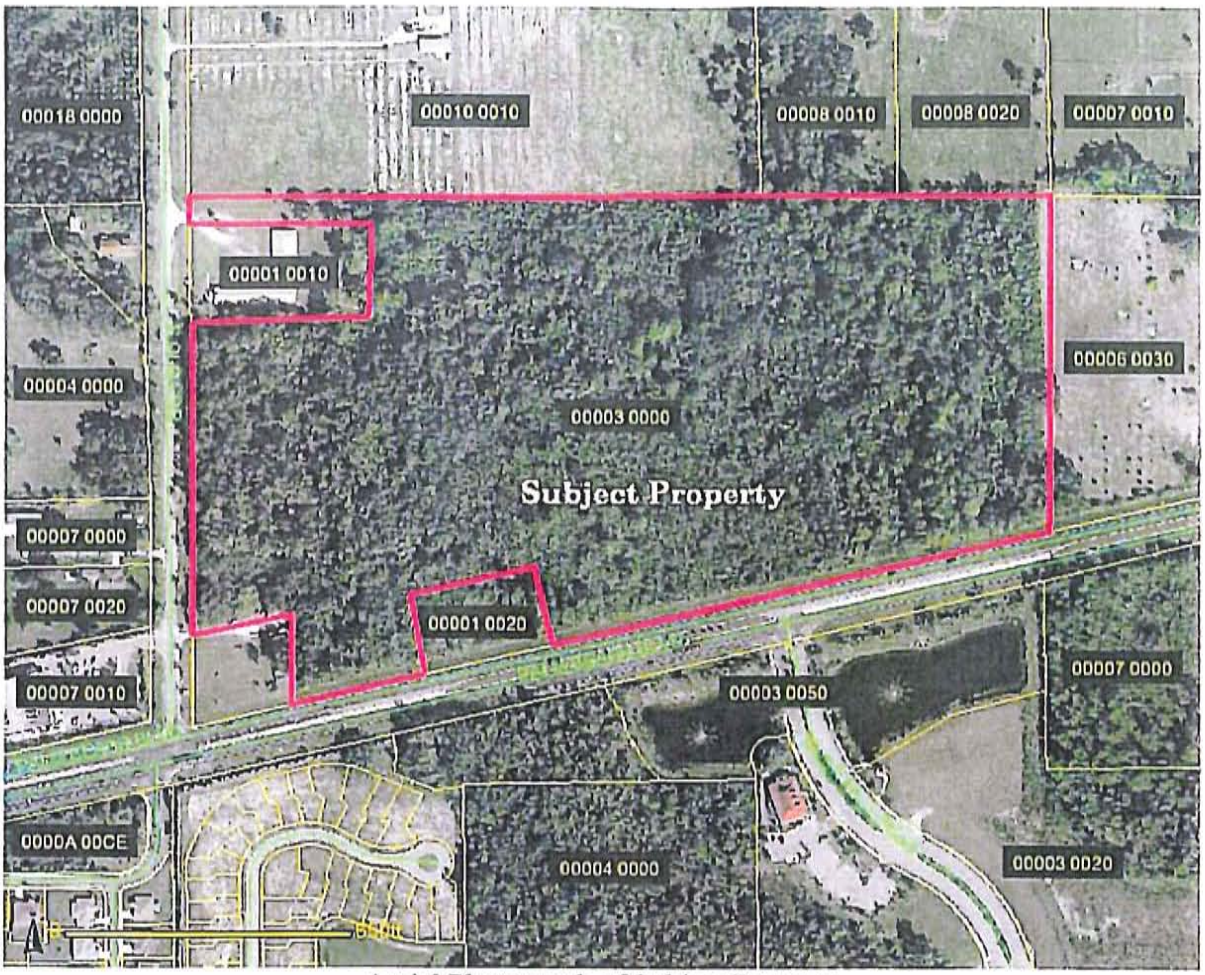
Property: 27-43-26-00-00003.0000
Owner of Record: R & D Cattle Company, LLC
c/o Michael J. Ciccarone, Esq.
2235 First Street
Fort Myers, FL 33901

Background

The proposed Lee Plan FLUM amendment is to change a property of +/- 37.6 acres from Suburban (+/- 25 acres) and Rural (+/- 12.6 acres) to Commercial (+/- 33.0 acres) and Wetlands (+/- 4.6 acres). The subject property is located on the north side of S. R. 80, east of South Olga Road, and is zoned AG-2.



Property Location Map



Aerial Photograph of Subject Property

Currently, the subject property contains an estimated 20.4 acres of upland 'Suburban' designated property. The environmental analysis suggests that there are 4.6 acres of wetlands within the area currently designated as Suburban. There are an estimated 12.6 acres of 'Rural' designated lands within the property boundaries. River Hall Parkway, the roadway intersecting S. R. 80/Palm Beach Boulevard on the south side across from the subject property, is proposed to be extended through the property and ultimately connected to South Olga Drive, serving as a collector road. At maximum development options, and assuming the severing of the subject property into 2 development tracts, this translates into the following development potentials:

A. Residential Option:
   1. 20.4 acres (Suburban) X 6 dwelling units/acre = 122.4 dwelling units
   2. 4.6 acres (wetlands) X 1/20 dwelling units/acre = 0.23 dwelling units
   3. 12.6 acres (Rural) X 1 dwelling unit/acre = 12.6 dwelling units
   4. Total residential units = 135.23 dwelling units

B. Commercial Option:
   1. 33 acres (Suburban/Rural—2 parcels) = 200,000 SF
   2.) 4.6 acres (Wetlands)—No commercial development allowed
   3.) Total potential commercial development = 200,000 SF

By changing the FLUM category to Commercial there is an overall reduction of potential impacts associated with residential development of the subject property. Commercial uses are proposed to be limited to a floor area ratio of 0.25, or a total of 359,370 SF.

Commercial Development

1.) 33 acres (Commercial) X 0.25 FAR = 359,370 SF commercial uses
2.) 4.6 acres (Wetlands)—No commercial development allowed
3.) Total potential commercial development = 359,370 SF
4.) Differential = 159,370 SF

Impact Analysis

According to a study performed by Stearns and Wheler, LLC, for the Mashpee Sewer Commission (Mashpee, MA, April, 2007), potable water use for commercial activities are estimated at 81.5 gallons per day (GPD) per 1,000 SF of floor area. Based upon this estimate, potable water demand for 200,000 SF of commercial floor area will be 16,300 GPD. For 359,370 SF of commercial floor area potable water demand will be +/- 29,300 GPD. There will be an increase in potable water demand, comparing commercial development in the pre- and post-amendment scenarios, of 13,000 GPD.

Wastewater treatment facilities demand will be the similarly increased in the post-amendment scenario. Estimating demand for wastewater treatment services at 90% of the potable water demand, a 359,370 SF development will generate demand for 26,370 GPD of wastewater treatment; a 200,000 SF commercial development will generate demand for 14,670 GPD of wastewater treatment. This represents an increase of 11,700 GPD of wastewater treatment demand in the post-amendment situation.

According to the Florida Administrative Code (64E-6.008, FAC), wastewater treatment demand for residential use ranges between 100 and 400 GPD, depending upon the number of bedrooms in a dwelling unit. Assuming that the residential units which could be constructed on the subject property will average 3 bedrooms per dwelling unit, wastewater treatment demand will be 300 GPD per unit. In the pre-amendment situation, with an estimated development capacity of 135 dwelling units, there is an estimated demand of 40,500 GPD of wastewater treatment capacity associated with full development of the subject property.

Using the same 135 dwelling units as the estimate for full development of the subject property, and assuming that wastewater treatment demand is 90% of potable water demand, 45,000 GPD of potable water will be required to support the pre-amendment development potential.

Thus, although a comparison of commercial to commercial in the pre- and post-amendment situations yields increase demand for potable water and wastewater treatment services, a comparison of the residential option in the pre-amendment situation with the commercial development option in the post-amendment situation yields a significant reduction in demand for both potable water and wastewater treatment. For potable water, commercial development of the subject property at 359,370 SF would result in a decrease of 15,700 GPD of potable water demand; wastewater treatment demand would decline by an estimated 14,130 GPD. This

represents a significant reduction in demand that would result from the approval of the proposed amendment.

Analysis of stormwater facilities is similar for all scenarios related to development. Based upon prior demand for stormwater treatment systems, 15% of the uplands will be required for construction of adequate stormwater treatment facilities. Based upon the developable acreage, 4.95 acres or 215,622 SF will be required for a stormwater management system.

For large residential projects, open space requirements amount to 40% of the total area of the site. Based upon the total site size of 37.6 acres, this means 15.04 acres or 655,142 SF would remain as open space. According to the U. S. Census, Lee County currently has 2.31 persons per household. For the 135 dwelling units, this yields a total of +/- 312 persons that would be living on the property at full build-out in the pre-amendment scenario. The Lee Plan indicates that park demand is calculated at 6 acres/1000 persons for regional parks and 0.8 acres/1000 persons for community parks. This means that in the pre-amendment development scenario there will be a demand generated for 1.87 acres of regional parks and 0.25 acres of community parks.

Open space for the subject property, as a commercial development, will be in accordance with the locally applicable development regulations. Lee County requires not less than 30% open space for development of this size, yielding an open space estimate of 9.9 acres or 431,244 SF. Thus there would be a decline in the required amount of open space required for commercial development as compared to residential development. However, it is noted that there are no demand estimates associated with commercial development for regional or community parks. Thus, demand for these facilities would be reduced by 1.87 acres and 0.25 acres if the parcel were to be developed as commercial.

Lee Plan Consistency
As a commercial parcel, it is estimated that 312 fewer persons would be accommodated at maximum FLUM build-out should the amendment be approved. It is anticipated that the change in population accommodation is small enough that overall projections will not be affected.

In the Fort Myers Shores planning community, there are 1,810 total acres of Suburban designated property and 1,400 acres of Rural designated property. According to Lee County's calculations, 1,240 acres of the Suburban property are developed, with 570 acres remaining; 339 acres of the Rural property are developed and 1,061 acres remain undeveloped. This amounts to a development ratio of 69% for the Suburban property and 24% of the Rural property. The proposed change will reduce the total Suburban designation in this planning community to 1,785, and reduce the undeveloped Suburban property to 545 acres. The ratio of developed property to undeveloped property will remain at 69%. For the Rural category, approval of the amendment would result in reduction of the total acreage to 1,387, and the developed property ratio also remains at 24%. Although there is no calculation related to Wetlands or Conservation Lands for this planning community, approval of the amendment would also result in designation of +/- 4.6 acres of property now designated Suburban to a designation of Wetlands.

Currently there are 400 acres of commercially designated lands in the Fort Myers Shores planning community. Of the 400 acres, 236 acres are developed commercially, leaving 164

acres remaining for additional commercial development. However, as the Commercial land use category is a relatively new designation, there are no acres in this planning community in the Commercial category. The designation of the subject property to the Commercial category will establish that land use as part of the overall community characteristics anticipated to manage and direct growth over the Lee Plan's current time horizon.

The designation to which the majority of the property is proposed to be designated is 'Commercial' with a FAR limitation of 0.25. Policy 1.1.10 states, "The Commercial areas are located in close proximity to existing commercial areas or corridors accommodating employment centers, tourist oriented areas, and where commercial services are necessary to meet the projected needs of the residential areas of the County. These areas are specifically designated for commercial uses. Residential uses, other than bona fide caretaker residences, are not permitted in this future land use category except to the extent provided in Chapter XIII of the Plan. The Commercial areas are areas where residential uses are not expected or compatible due to the nature of the surrounding land uses and their location along major travel corridors. The commercial designation is intended for use where residential development would increase densities in areas such as the Coastal High Hazard Areas of the County or areas such as Lehigh Acres where residential uses are abundant and existing commercial areas serving the residential needs are extremely limited.

The requisite infrastructure needed for commercial development is generally planned or in place. New developments in this category must connect to a potable water and sanitary sewer system. Commercial retail developments, hotels and motels, banks, all types of office development, research and development, public, and other similar development will predominate in the Commercial areas. Limited light industrial uses are also permitted, excluding outdoor storage type uses. Any redesignation of land to the Commercial land use category should occur along major travel corridors and at road intersections. The planned development rezoning process must be used to prevent adverse impacts to the surrounding areas and to ensure that appropriate site development regulations are incorporated into the development plans of each site. A maximum Floor Area Ratio (FAR) of 1 will be used as an index of intensity of development in the commercial category. Development in this future land use category is not required to comply with the site location criteria provided in Goal 6 when appropriate site development regulations are incorporated into the planned development."

Providing a focus for commercial activities, improved access across S. R. 80, and addressing employment and service needs for the area, the re-designation of the subject property to Commercial should serve to provide an anchor for the east end of the Olga community while acting to provide necessary functions to the rural, agricultural lands to the east and Lehigh Acres to the south. Additionally, S. R. 80 is a major transportation corridor, and the subject property will exist at the intersection of an arterial roadway and 2 collectors (1 existing and 1 proposed).

In addition to the designation of Commercial, a portion of the site is targeted for designation as Wetlands. Objective 1.5 indicates that Lee County will, "Designate on the Future Land Use Map those lands that are identified as Wetlands in accordance with F.S. 373.019(17) through the use of the unified state delineation methodology described in FAC Chapter 17-340, as ratified and amended in F.S. 373.4211." Wetlands mapping has been undertaken for the subject property,

and the naturally occurring and environmentally sensitive lands on the westerly portion of the site are proposed for designation in accordance with Lee Plan Objective 1.5.

Subject Property with Surrounding Development

As described in the Vision Statement of the Lee County Plan, the Fort Myers Shores Planning Community "is located south of the Caloosahatchee River, east of Hickey Creek, and north of the Orange River; and, along I-75 west of the Buckingham Rural Community Preserve, north of SR 82 and east of the City of Fort Myers. This community contains four areas: Fort Myers Shores, Morse Shores, Tice and Olga. The Fort Myers Shores, Morse Shores, and Tice areas are similar in character and will have similar development patterns for the next 20 years. The Olga area has a more rural/historic character and is anticipated to grow slightly slower that the other areas of this community. This area also has a mixture of future land use designations. The majority of the land is designated Suburban, Rural, or Urban Community; however, there are some lands designated Intensive Development, Central Urban, Public Facilities, Industrial Interchange Area, and General Interchange. The population of the Fort Myers Shores community is also expected to grow from a 1996 population of 12,000 to approximately 14,000. However, the amount of commercial building is expected to nearly double by 2020 and the amount of industrial land is expected to increase by 10 fold. Currently, this community contains commercial outlets which accommodate the needs of its residents as well as those from

neighboring communities such as Alva and Buckingham. There are two major shopping areas in this community to satisfy resident's primary commercial needs. The residents of this community still utilize commercial establishments in the more urbanized areas for much of their commercial needs. During the life of this plan this community will develop as a commercial/employment center for the adjacent communities which will retain their rural character."

The Olga section of the Fort Myers Shores Planning Community is the area in which this property is located. As described in the vision statement, the need for residential and commercial units in this community is expected to increase by the year 2020 due to the number of residents locating to this area to live and work. This community has several amenities that offer residents close access to Interstate 75 and close proximity to downtown Fort Myers. In addition, as noted in the vision statement, the Fort Myers Shores Planning Community will offer residents of this and surrounding communities a commercial center for shopping and business needs. Therefore, the change in the subject property's designation from Suburban and Rural, as currently exists, to Commercial and Wetlands, would be consistent with the Plan's vision for this area. Furthermore, this re-designation will address the growing demand for the availability of commercial businesses and residential units in the Fort Myers Shores Community.

An analysis has been undertaken (see above) related to the Acreage Allocation Table found in the Lee Plan. Policy 1.7.6 states, "The Planning Communities Map and Acreage Allocation Table (see Map 16 and Table 1(b) and Policies 1.1.1 and 2.2.2) depicts the proposed distribution, extent, and location of generalized land uses for the year 2030. Acreage totals are provided for land in each Planning Community in unincorporated Lee County. No final development orders or extensions to final development orders will be issued or approved by Lee County which would allow the acreage totals for residential, commercial or industrial uses contained in Table 1(b) to be exceeded." As noted above the modifications to the land use designation of the subject property are so slight as to have no effect upon the overall percentages of developed lands in each category. Yet, the location of the subject property will permit the overall creation of a neighborhood retail/service node consistent with the Commercial Site Location Policies and Map 19 of the Lee Plan.

Objective 2.1 suggests that, "Contiguous and compact growth patterns will be promoted through the rezoning process to contain urban sprawl, minimize energy costs, conserve land, water, and natural resources, minimize the cost of services, prevent development patterns where large tracts of land are by-passed in favor of development more distant from services and existing communities." Utilization of the +/- 33 acres of developable uplands on the site will serve to promote the establishment of an urban boundary, and assist in preventing sprawl patterns from developing in the Olga community.

Objective 2.2 indicates that Lee County will, "Direct new growth to those portions of the Future Urban Areas where adequate public facilities exist or are assured and where compact and contiguous development patterns can be created. Development orders and permits (as defined in F.S.163.3164(7)) will be granted only when consistent with the provisions of Sections 163.3202(2)(g) and 163.3180, Florida Statutes and the county's Concurrency Management Ordinance." Urban services are, or will be, available to the subject property when required for development. The property will ultimately serve to enhance the system of collector roadways,

and is located at the intersection of a collector and an arterial roadway. Serving as a boundary between the more urban development to the west and the rural and agricultural activities to the east, the property will assist in the definition of the urban boundary and promote compact development patterns.

Objective 2.4 indicates that Lee County will, on a regular basis, examine the Future Land Use Map in light of new information and changed conditions. When changed or changing conditions suggest adjustments are needed, necessary modifications are made. Clearly the increased residential demand in the area suggest that adjustments to the FLUM are warranted. Viewing the subject property as the location of a new collector road intersection with S. R. 80 permits consideration of the site as a potential commercial location intended to service the commercial needs for the developing suburban population.

Part of the ongoing analysis of the FLUM involves the evolution of the carrying capacity of the various areas designated on the FLUM. Objective 2.11 indicates that the County will attempt to calculate that carrying capacity and integrate the concept into planning strategies. The property has all the various urban services available to it, is centrally located to provide retail and service related commercial activities, can establish the basis for an improved collector road system in this developing area, and is ideally situated to intercept evolving demand, thus minimizing the number of arterial trips required for community support. In this fashion it supports the Lee Plan policies related to provision of functionally related land uses intended to support surrounding development.

Goal 11 of the Lee Plan was adopted to insure that appropriate water, sewer, traffic, and environmental review standards are considered in reviewing rezoning applications and are met prior to issuance of a county development order. Urban services are or will be available to the subject property at the time of development, and the proposed amendment will designate environmentally sensitive lands on the westerly portion of the property into the Wetlands designation. This will serve to protect and preserve the environmental values associated with that portion of the site.

This subject property is within the Fort Myers Shores Fire district with a fire/EMS station not more than 4.75 miles from the site on Palm Beach Boulevard and Kaune Baucom Road. The Lee County Sheriff Department, which is located within 2 miles of the property on Palm Beach Blvd., will provide police protection. LeeTran, the County's public transportation system, has a bus route along Palm Beach Blvd that stops approximately 1/4 mile west of the subject property at Old Olga Road. The nearby presence of other public facilities such as schools and parks are important in that it demonstrates the evolving nature of the development node of which this site is a part. There is a proposed school site directly west of the site, across South Olga Drive. Additionally, Riverdale High School is approximately 1 mile from the site.

Goal 21 establishes the Caloosahatchee Shores planning community, stating that Lee County recognizes the efforts, "To protect the existing character, natural resources and quality of life in Caloosahatchee Shores, while promoting new development, redevelopment and maintaining a more rural identity for the neighborhoods east of I-75 by establishing minimum aesthetic requirements, planning the location and intensity of future commercial and residential uses, and

providing incentives for redevelopment, mixed use development and pedestrian safe environments. This Goal and subsequent objectives and policies apply to the Caloosahatchee Shores boundaries as depicted on Map 1, page 2 of 5 in the Appendix." As part of the ongoing planning efforts, Objective 21.2 indicates that "Existing and future county regulations, land use interpretations, policies, zoning approvals, and administrative actions should be undertaken in an effort to promote the goal of commercial redevelopment along SR 80 and increased commercial opportunities to service the needs of the Caloosahatchee Shores community and surrounding areas. County regulations should attempt to ensure that commercial areas maintain a unified and pleasing aesthetic/visual quality in landscaping, architecture, lighting and signage. Commercial land uses must be designed to be compatible with and further the historic character and identity of existing rural Old Florida and Florida Vernacular styles of architecture and the historic identity of Olga." The Commercial designation requires that development be undertaken in the form of a planned development, allowing review and specification of design criteria that will serve to implement this Objective.

Additionally, Policy 21.2.4 indicates that, "Commercial developments within the Caloosahatchee Shores Community must provide interconnect opportunities with adjacent commercial uses in order to minimize access points onto primary road corridors; and residential developments should provide interconnect opportunities with commercial areas, including but not limited to bike paths, pedestrian access ways and equestrian trails." The development of the subject property will coincide with the construction of an additional collector road, connecting S. R. 80 with South Olga Drive. This will greatly enhance the neighborhood interconnections in this area, minimizing access points onto the primary roadway.

The approval of this amendment will also serve to designate +/- 4.6 acres of the site as Wetlands. According to Goal 107 Lee County is committed, "To manage the county's wetland and upland ecosystems so as to maintain and enhance native habitats, floral and faunal species diversity, water quality, and natural surface water characteristics." Additionally, Goal 114 states that the County will, "... maintain and enforce a regulatory program for development in wetlands that is cost-effective, complements federal and state permitting processes, and protects the fragile ecological characteristics of wetland systems." As part of Goal 114, Objection 114.1 states, "The natural functions of wetlands and wetland systems will be protected and conserved through the enforcement of the county's wetland protection regulations and the goals, objectives, and policies in this plan. "Wetlands" include all of those lands, whether shown on the Future Land Use Map or not, that are identified as wetlands in accordance with F.S. 373.019(17) through the use of the unified state delineation methodology described in FAC Chapter 17-340, as ratified and amended by F.S. 373.4211." Overall, the designation of the +/- 4.6 acres of wetlands on the westerly portion of the site will serve to implement these goals and their associated Objectives.

Sprawl Analysis

A comprehensive plan that promotes urban sprawl will promote, allow, or designate for development, substantial areas to develop as low-intensity, low-density, or single-use development or uses in excess of demonstrated need. Development of the subject property, must be considered in conjunction with the recognition that residential and rural, agricultural development is anticipated in close proximity to the subject property. The designation of an area that can be converted to non-residential uses demonstrates that the proposal is not for single-use

development, but rather serves to provide necessary non-residential uses to the established and evolving neighborhood. There are existing and proposed public schools proximate to the site, large residential developments, and limited commercial opportunities. Establishment of the subject property as a commercial location serves to provide needed diversity to the Ogla community.

The second criteria of urban sprawl in a plan is that it promotes, allows, or designates significant amounts of urban development to occur in rural areas at substantial distances from existing urban areas while leaping over undeveloped lands which are available and suitable for development. A review of the larger aerial photograph above is sufficient to demonstrate that significant urban development has occurred in the vicinity of the subject property. Further, it is clear that there are no suitable lands, possessing the necessary access to infrastructure, for the type of community-scale commercial development contemplated for the subject property anywhere else in the Olga community.

Sprawl also is characterized by policies that promote, allow, or designate urban development in radial, strip, isolated or ribbon patterns generally emanating from existing urban developments. Development of the subject property would establish a commercial node, clearly define the urban-rural boundary, promote clustered development, protect open space and natural resources, and concentrate development in areas most suitable for its location. Radial, strip, isolated, or ribbon development patterns would not be consistent with the application of Lee Plan provisions to the subject property or to the adopted community-based Goals, Objectives, and Policies.

Sprawl also, is a result of premature or poorly planned conversion of rural land to other uses, fails adequately to protect and conserve natural resources, such as wetlands, floodplains, native vegetation, environmentally sensitive areas, natural groundwater aquifer recharge areas, lakes, rivers, shorelines, beaches, bays, estuarine systems, and other significant natural systems. The applicable Lee Plan provisions, as applied to the subject property, include mandates for the protection of natural systems, including setbacks, buffers, use restrictions, open space requirements, preservation and conservation provisions, and design regulations. Thus, this sprawl indicator is inapplicable to the proposed amendment.

Policies promoting urban sprawl fail to adequately protect adjacent agricultural areas and activities, including silviculture, and including active agricultural and silvicultural activities as well as passive agricultural activities and dormant, unique and prime farmlands and soils. As noted above, setbacks, buffers, and performance criteria have been incorporated into the Lee Plan development parameters in order to provide protection to adjoining uses. The proposed amendment serves to provide a strong demarcation between the evolving Olga community and the rural uses located to the east.

The proposed amendment will maximize use of existing public facilities and services and will maximize use of future public facilities and services.As noted above, all urban services are available to the subject property at this time, and the establishment of a commercial node will service the surrounding residential development, providing the necessary diversity for the Olga community.

Related to the question of infrastructure extension is the sprawl indicator that states urban sprawl policies allow for land use patterns or timing which disproportionately increase the cost in time, money and energy, of providing and maintaining facilities and services, including roads, potable water, sanitary sewer, stormwater management, law enforcement, education, health care, fire and emergency response, and general government. As noted above, the County has determined that capacity to service the subject property exists currently. The Olga community and the County Staff have also identified the need for additional commercial development opportunities as being critical to the continued economic development of the area.

According to the Rule, the future land use map and policies will promote sprawl if they fail to provide a clear separation between rural and urban uses. However, the subject property clearly delineates the buffers, setbacks, and use limitations required for maintaining a boundary between properties so designated and adjoining parcels with different uses, especially those to the east that are designated for rural activities.

Sprawl also tends to discourage or inhibit infill development or the redevelopment of existing neighborhoods and communities. Since the type of development proposed for the subject property is non-existent anywhere else in the Olga community, and could not occur based upon the land use patterns that have evolved, it cannot be argued that designation of the subject property discourages infill development or redevelopment of the kind of non-residential development anticipated for the subject property properties.

The Rule also states that sprawl policies fail to encourage an attractive and functional mix of uses. However, the estalbishment of commerical uses on the subject property serves to provide needed commercial opportunities for the community at large. Further, design requirements mandate establishment of functional open space, preservation of environmentally sensitive wetlands, and establish design parameters to govern the style of development that emerges on the subject property.

Finally, sprawl policies are those that result in poor accessibility among linked or related land uses and result in the loss of significant amounts of functional open space. Part of the specific elements of the current designation proposal includes the establishment of rights of way connecting S. R. 80 with South Olga Drive. The anticipated road corridors will provide an additional north-south connections to the State highway network and provide alternate routes to existing facilities. Further, the subject property provisions for preservation of functional open space, preservation and conservation of regionally significant natural resources, and creation of open space requirements for future development serve to demonstrate that these sprawl indicators do not apply to the current proposed amendment.

It is also noted that 9J-5.006(h) states, "The comprehensive plan must be reviewed in its entirety to make the determinations in (5)(g) above. Plan amendments must be reviewed individually and for their impact on the remainder of the plan. However, in either case, a land use analysis will be the focus of the review and constitute the primary factor for making the determinations. Land use types cumulatively (within the entire jurisdiction and areas less than the entire jurisdiction, and in proximate areas outside the jurisdiction) will be evaluated based on density, intensity, distribution and functional relationship, including an analysis of the distribution of urban and

rural land uses." When such an analysis is undertaken (as it has herein) it is clear that the proposed designation is not sprawl, but rather part of a continuing effort on the part of Lee County to accommodate the demand for community based commercial development. The subject property designation for the subject properties serves to further advance the adopted Goals, Objectives, and Policies of the County's Comprehensive Plan.

9J5.006(i) goes on to state that, "Each of the land use factors in (5)(h) above will be evaluated within the context of features and characteristics unique to each locality. These include:

1. Size of developable area.
2. Projected growth rate (including population, commerce, industry, and agriculture).
3. Projected growth amounts (acres per land use category).
4. Facility availability (existing and committed).
5. Existing pattern of development (built and vested), including an analysis of the extent to which the existing pattern of development reflects urban sprawl.
6. Projected growth trends over the planning period, including the change in the overall density or intensity of urban development throughout the jurisdiction.
7. Costs of facilities and services, such as per capita cost over the planning period in terms of resources and energy.
8. Extra-jurisdictional and regional growth characteristics.
9. Transportation networks and use characteristics (existing and committed).
10. Geography, topography and various natural features of the jurisdiction."

As demonstrated in this analysis, when each of these factors are considered, in the context of the full range of applicable Lee Plan Goals, Objectives, and Policies, the subject property cannot be considered as sprawl, but rather as the logical extension of the County's ongoing development efforts undertaken for its localized communities.

Further, 9J5.006(j) states, "Development controls in the comprehensive plan may affect the determinations in (5)(g) above. The following development controls, to the extent they are included in the comprehensive plan, will be evaluated to determine how they discourage urban sprawl:

1. Open space requirements.
2. Development clustering requirements.
3. Other planning strategies, including the establishment of minimum development density and intensity, affecting the pattern and character of development.
4. Phasing of urban land use types, densities, intensities, extent, locations, and distribution over time, as measured through the permitted changes in land use within each urban land use category in the plan, and the timing and location of those changes.
5. Land use locational criteria related to the existing development pattern, natural resources and facilities and services.
6. Infrastructure extension controls, and infrastructure maximization requirements and incentives.
7. Allocation of the costs of future development based on the benefits received.
8. The extent to which new development pays for itself.

9. Transfer of development rights.
10. Purchase of development rights.
11. Planned unit development requirements.
12. Traditional neighborhood developments.
13. Land use functional relationship linkages and mixed land uses.
14. Jobs-to-housing balance requirements.
15. Policies specifying the circumstances under which future amendments could designate new lands for the urbanizing area.
16. Provision for new towns, rural villages or rural activity centers.
17. Effective functional buffering requirements.
18. Restriction on expansion of urban areas.
19. Planning strategies and incentives which promote the continuation of productive agricultural areas and the protection of environmentally sensitive lands.
20. Urban service areas.
21. Urban growth boundaries.
22. Access management controls."

A review of the provisions of the subject property, in conjunction with the Plan as a whole, demonstrates that all of the applicable 22 factors referenced are addressed. And, as 9J-5.006(k) indicates that these 22 land use types and land use combinations will be evaluated within the context of the features and characteristics of the locality, it is clear that the proposed designation is not urban sprawl. Additionally, the Rule notes that if a local government has in place a comprehensive plan already found to be in compliance, as is the case with the County, the Department shall not find a plan amendment to be not in compliance on the issue of discouraging urban sprawl solely because of pre-existing indicators if the amendment does not exacerbate existing indicators of urban sprawl within the jurisdiction.

Effect Upon Adjoining Local Governments

There should be no appreciable impacts upon any adjoining local government as a result of the proposed change.

Consistency with State and Regional Policy Plans

As proposed, the amendment will serve to implement State Policy Plan provisions, as applicable, including Sections 187.201(9)(b)1, 187.201(9)(b)3, 187.201(9)(b) 7, 187.201(15)(a), 187.201(15)(b)3, 187.201(15)(b)6, 187.201(17)(b)(1), 187.201(19)(b)2, & 15. These policies relate to preservation of environmental values, efficient provision of infrastructure, protection of highway capacity, and implementation of adopted policies related to land use and growth management. For a more detailed discussion, please see the applicable sections above.

The proposed amendment will also serve to implement the Regional Policy Plan, specifically in the areas of natural resource protection and the promotion of livable communities. Goal 2 of the Natural Resources section of the Regional Policy Plan states, "The diversity and extent of the Region's protected natural systems will increase consistently beyond that existing in 2001." Designation of +/- 4.6 acres of wetlands on the westerly portion of the site serves to advance this regional Goal.

Goal 4 of the Regional Policy Plan, Natural Resources section indicates that local governments

will support, "Livable communities designed to improve quality of life and provide for the sustainability of our natural resources." The provision of community commercial facilities in the Olga area will serve to create opportunities for retail, service, and employment activities for the residents, thus serving to advance the 'livable community' concept in this area of the County.

Conclusion

The proposed amendment is consistent with all applicable Lee Plan Goals, Objectives and Policies. Additionally, the basis for adopting this amendment is supported by the State Comprehensive Plan and the Regional Policy Plan. All required infrastructure is in existence and the development will not cause concurrency difficulties. The conversion of the property from residential uses to commercial uses results in a decrease in demand for potable water and wastewater treatment facilities. Finally, the establishment of commercial uses on the subject property, in conjunction with the preservation of wetlands extant on the site, serves to provide neighborhood options for retail, service, and employment activities.

Lee County GOVERNMENT

Community Development

E-Connect

Online Permitting

	Fort Myers Shores	Allocation	Existing	Remaining
Residential Acreage By Future Land Use Category	Intensive Development	20	9	11
	Central Urban	225	195	30
	Urban Community	637	284	353
	Suburban	1,810	1,240	570
	Outlying Suburban	40	3	37
	Sub-Outlying Suburban	367	0	367
	Commercial	0	0	0
	Industrial Development	0	0	0
	Public Facilities	0	0	0
	University Community	0	0	0
	Industrial Interchange	0	0	0
	General Interchange	0	0	0
	General/Commercial Interchange	0	1	(1)
	Industrial/Commercial Interchange	0	0	0
	Unversity Village Interchange	0	0	0
	New Community	0	0	0
	Airport	0	0	0
	Tradeport	0	0	0
	Rural	1,400	339	1,061
	Rural Community Preserve	0	0	0
	Coastal Rural	0	0	0
	Outer Islands	1	1	0
	Open Lands	0	0	0
	Density Reduction/Groundwater Resourse	0	0	0
	Conservation Lands Upland	0	0	0
	Wetlands	0	0	0
	Conservation Lands Wetland	0	0	0
Total Residential		4,500	2,072	2,428
Commercial		400	236	164
Industrial		400	58	342
Non Regulatory Allocations				
Public		2,000	2,301	(301)
Active Agriculture		550	554	(4)
Passive Agriculture		2,500	2,387	113
Conservation (wetlands)		1,142	1,018	124
Vacant		226	2,888	(2,662)
Total		11,718	11,514	204
Population Distribution		30,861	14,415	16,446

back to Planning Communities Map

[<<First Page] [<Previous Page] [Next Page>] [Last Page>>]

Mobile Home Park	
(a) Per single wide mobile home space, less than 4 single wide spaces connected to a shared onsite system	250
(b) Per single wide mobile home space, 4 or more single wide spaces are connected to a shared onsite system	225
(c) Per double wide mobile home space, less than 4 double wide mobile home spaces connected to a shared onsite system	300
(d) Per double wide mobile home space, 4 or more double wide mobile home spaces connected to a shared onsite system	275
Office building per employee per 8 hour shift or per 100 square feet of floor space, whichever is greater	15 15
Transient Recreational Vehicle Park	
(a) Recreational vehicle space for overnight stay, without water and sewer hookup per vehicle space	50
(b) Recreational vehicle space for overnight stay, with water and sewer hookup per vehicle space	75
Service stations per water closet	
(a) Open 16 hours per day or less	250
(b) Open more than 16 hours per day	325
Shopping centers without food or laundry per square foot of floor space	0.1
Stadiums, race tracks, ball parks per seat	4
Stores per bathroom	100
Swimming and bathing facilities, public per person	10
Theatres and Auditoriums, per seat	4
Veterinary Clinic	
(a) Per practitioner	250
(b) Add per employee per 8 hour shift	15
(c) Add per kennel, stall or cage	20
Warehouse	
(a) Add per employee per 8 hour shift	15
(b) Add per loading bay	100
(c) Self-storage, per unit (up to 200 units)	1
INSTITUTIONAL:	
Churches per seat which includes kitchen wastewater flows unless meals prepared on a routine basis	3
If meals served on a regular basis add per meal prepared	5
Hospitals per bed which does not include kitchen wastewater flows	200
add per meal prepared	5
Nursing, rest homes, adult congregate living facilities per bed which does not include kitchen wastewater flows	100
add per meal prepared	5
Parks, public picnic	
(a) With toilets only per person	4
(b) With bathhouse, showers & toilets per person	10
Public institutions other than schools and hospitals per person which does not include kitchen wastewater flows	100
add per meal prepared	5
Schools per student	
(a) Day-type	10
(b) Add for showers	4

TABLE I
For System Design
ESTIMATED SEWAGE FLOWS

TYPE OF ESTABLISHMENT	GALLONS PER DAY
COMMERCIAL:	
Airports, bus terminals, train stations, port & dock facilities, Bathroom waste only	
(a) Per passenger	4
(b) Add per employee per 8 hour shift	15
Barber & beauty shops per service chair	75
Bowling alley bathroom waste only per lane	50
Country club	
(a) Per resident	100
(b) Add per member or patron	25
(c) Add per employee per 8 hour shift	15
Doctor and Dentist offices	
(a) Per practitioner	250
(b) Add per employee per 8 hour shift	15
Factories, exclusive of industrial wastes gallons per employee per 8 hour shift	
(a) No showers provided	15
(b) Showers provided	25
Flea Market open 3 or less days per week	
(a) Per non-food service vendor space	15
(b) Add per food service establishment using single service articles only per 100 Square feet of floor space	50
(c) Per limited food service establishment	25
(d) For flea markets open more than 3 days per week estimated flows shall be doubled	
Food operations	
(a) Restaurant operating 16 hours or less per day per seat	40
(b) Restaurant operating more than 16 hours per day per seat	60
(c) Restaurant using single service articles only and operating 16 hours or less per day per seat	20
(d) Restaurant using single service articles only and operating more than 16 hours per day per seat	35
(e) Bar and cocktail lounge per seat	20
add per pool table or video game	15
(f) Drive-in restaurant per car space	50
(g) Carry out only, including caterers	
1. Per 100 square feet of floor space	50
2. Add per employee per 8 hour shift	15
(h) Institutions per meal	5
(i) Food Outlets excluding deli's, bakery, or meat department per 100 square feet of floor space	10
1. Add for deli per 100 square feet of deli floor space	40
2. Add for bakery per 100 square feet of bakery floor space	40
3. Add for meat department per 100 square feet of meat department floor space	75
4. Add per water closet	200
Hotels & motels	
(a) Regular per room	100
(b) Resort hotels, camps, cottages per room 200	
(c) Add for establishments with self service laundry facilities per machine	750

(c) Add for cafeteria	4
(d) Add for day school workers	15
(e) Boarding-type	75
Work/construction camps, semi-permanent per worker	50
RESIDENTIAL:	
Residences	
(a) Single or multiple family per dwelling unit	
1 Bedroom with 750 sq. ft. or less of building area	100
2 Bedrooms with 751-1200 sq. ft. of building area	200
3 Bedrooms with 1201-2250 sq. ft. of building area	300
4 Bedrooms with 2251-3300 sq. ft. of building area	400

For each additional bedroom or each additional 750 square feet of building area or fraction thereof in a dwelling unit, system sizing shall be increased by 100 gallons per dwelling unit.

(b) Other per occupant	50

Footnotes to Table I:

1. For food operations, kitchen wastewater flows shall normally be calculated as 66 percent of the total establishment wastewater flow.

2. Systems serving high volume establishments, such as restaurants, convenience stores and service stations located near interstate type highways and similar high-traffic areas, require special sizing consideration due to expected above average sewage volume. Minimum estimated flows for these facilities shall be 3.0 times the volumes determined from the Table I figures.

3. For residences, the volume of wastewater shall be calculated as 50 percent blackwater and 50 percent graywater.

4. Where the number of bedrooms indicated on the floor plan and the corresponding building area of a dwelling unit in Table II do not coincide, the criteria which will result in the greatest estimated sewage flow shall apply.

5. Convenience store estimated sewage flows shall be determined by adding flows for food outlets and service stations as appropriate to the products and services offered.

6. Estimated flows for residential systems assumes a maximum occupancy of two persons per bedroom. Where residential care facilities will house more than two persons in any bedroom, estimated flows shall be increased by 50 gallons per each additional occupant.

(2) Minimum effective septic tank capacity shall be determined from Table II. However, where multiple family dwelling units are jointly connected to a septic tank system, minimum effective septic tank capacities specified in the table shall be increased 75 gallons for each dwelling unit connected to the system. With the exception noted in Rule 64E-6.013(2)(a), all septic tanks shall be multiple chambered or shall be placed in series to achieve the required effective capacity. The use of an approved outlet filter device shall be required. Outlet filters shall be installed within or following the last septic tank or septic tank compartment before distribution to the drainfield. The outlet filter device requirement includes blackwater tanks, but does not include graywater tanks or grease interceptors or laundry tanks. Outlet filter devices shall be placed to allow accessibility for routine maintenance. Utilization and sizing of outlet filter devices shall be in accordance with the manufacturers' recommendations. The approved outlet filter device shall be installed in accordance with the manufacturers' recommendations. The Bureau of Onsite Sewage Programs shall approve outlet filter devices per the department's Policy on Approval Standards For Onsite Sewage Treatment And Disposal Systems Outlet Filter Devices, August 1999, which is herein incorporated by reference.

TABLE II

SEPTIC TANK AND PUMP TANK CAPACITY

AVERAGE SEWAGE FLOW GALLONS/DAY	SEPTIC TANK MINIMUM EFFECTIVE CAPACITY GALLONS	PUMP TANK MINIMUM EFFECTIVE CAPACITY GALLONS	
		Residential	Commercial
0-200	900	150	225
201-300	900	225	375
301-400	1050	300	450
401-500	1200	375	600
501-600	1350	450	600
601-700	1500	525	750
701-800	1650	600	900
801-1000	1900	750	1050
1001-1250	2200	900	1200
1251-1750	2700	1350	1900
1751-2500	3200	1650	2700
2501-3000	3700	1900	3000

3001-3500	4300	2200	3000
3501-4000	4800	2700	3000
4001-4500	5300	2700	3000
4501-5000	5800	3000	3000

(3) Where a separate graywater tank and drainfield system is used, the minimum effective capacity of the graywater tank shall be 250 gallons with such system receiving not more than 75 gallons of flow per day. For graywater systems receiving flows greater than 75 gallons per day, minimum effective tank capacity shall be based on the average daily sewage flow plus 200 gallons for sludge storage. Design requirements for graywater tanks are described in Rule 64E-6.013(2). Where separate graywater and blackwater systems are utilized, the size of the blackwater system can be reduced, but in no case shall the blackwater system be reduced by more than 25 percent. However, the minimum capacity for septic tanks disposing of blackwater shall be 900 gallons.

(4) Where building codes allow separation of discharge pipes of the residence to separate stubouts and where lot sizes and setbacks allow system construction, the applicant may request a separate laundry waste tank and drainfield system. Where an aerobic treatment unit is used, all blackwater, graywater and laundry waste flows shall be consolidated and treated by the aerobic treatment unit. Where a residential laundry waste tank and drainfield system is used:

(a) The minimum laundry waste trench drainfield absorption area for slightly limited soil shall be 75 square feet for a one or two bedroom residence with an additional 25 square feet for each additional bedroom. If an absorption bed drainfield is used the minimum drainfield area shall be 100 square feet with an additional 50 square feet for each additional bedroom over two bedrooms. The DOH county health department shall require additional drainfield area based on moderately limited soils and other site specific conditions, which shall not exceed twice the required amount of drainfield for a slightly limited soil.

(b) The laundry waste interceptor shall meet requirements of Rule 64E-6.013(2) and (9).

(c) The drainfield absorption area serving the remaining wastewater fixtures in the residence shall be reduced by 25 percent.

(5) The minimum absorption area for standard subsurface drainfield systems, graywater drainfield systems, and filled systems shall be based on estimated sewage flows and Table III so long as estimated sewage flows are 200 gallons per day or higher. When estimated sewage flows are less than 200 gallons per day, system size shall be based on a minimum of 200 gallons per day.

TABLE III

For Sizing of Drainfields Other Than Mounds

U.S. DEPARTMENT OF AGRICULTURE SOIL TEXTURAL CLASSIFICATION	SOIL TEXTURE LIMITATION (PERCOLATION RATE)	MAXIMUM SEWAGE LOADING RATE TO TRENCH & BED ABSORPTION SURFACE IN GALLONS PER SQUARE FOOT PER DAY	
		RENCH	BED
Sand; Coarse Sand not associated with a seasonal water table of less than 48 inches; and Loamy Coarse Sand	Slightly limited (Less than 2 min/inch)	1.20	0.80
Loamy Sand; Sandy Loam; Coarse Sandy Loam; Fine Sand	Slightly limited (2-4 min/inch)	0.90	0.70
Loam; Fine Sandy Loam; Silt Loam; Very Fine Sand; Very Fine Sandy Loam; Loamy Fine Sand; Loamy Very Fine Sand; Sandy Clay Loam	Moderately limited (5-10 min/inch)	0.65	0.35
Clay Loam; Silty Clay Loam; Sandy Clay; Silty Clay; Silt	Moderately limited (Greater than 15 min/inch but not exceeding 30 min/inch)	0.35	0.20
Clay; Organic Soils; Hardpan; Bedrock	Severely limited (Greater than 30 min/inch)	Unsatisfactory for standard subsurface system	

Coarse Sand with an estimated wet season high water table within 48 inches of the bottom of the proposed drainfield; Gravel or Fractured Rock or Oolitic Limestone	Severely limited (Less than 1 min/inch and a water table less than 4 feet below the drainfield)	Unsatisfactory for standard subsurface system

Footnotes to Table III:

1. U.S. Department of Agriculture major soil textural classification groupings and methods of field identification are explained in Rule 64E-6.016. Laboratory sieve analysis of soil samples may be necessary to confirm field evaluation of specific soil textural classifications. The USDA Soil Conservation Service "Soil Textural Triangle" shall be used to classify soil groupings based on the proportion of sand, silt and clay size particles.

2. The permeability or percolation rate of a soil within a specific textural classification may be affected by such factors as soil structure, cementation and mineralogy. Where a percolation rate is determined using the falling head percolation test procedure described in the United States Environmental Protection Agency Design Manual for Onsite Wastewater Treatment and Disposal Systems, October, 1980, incorporated by reference into this rule, the calculated percolation test rate shall be used with Table III and evaluated by the DOH county health department with other factors such as history of performance of systems in the area in determining the minimum sizing for the drainfield area.

3. When all other site conditions are favorable, horizons or strata of moderately or severely limited soil may be replaced with slightly limited soil or soil of the same texture as the satisfactory slightly limited permeable layer lying below the replaced layer. The slightly limited permeable layer below the replaced layer shall be identified within the soil profile which was submitted as part of the permit application. The resulting soil profile must show complete removal of the moderately or severely limited soil layer being replaced and must be satisfactory to a minimum depth of 54 inches beneath the bottom surface of the proposed drainfield. The width of the replacement area shall be at least 2 feet wider and longer than the drain trench and for absorption beds shall include an area at least 2 feet wider and longer than the proposed bed. Drainfields shall be centered in the replaced area. Where at least 33 percent of the moderately limited soils at depths greater than 54 inches below the bottom of the drainfield have been removed to the depth of slightly limited soil, drainfield sizing shall be based on the following sewage loading rates. Where severely limited soils are being removed at depths greater than 54 inches below the bottom of the drainfield, 100 percent of the severely limited soils at depths greater than 54 inches shall be removed down to the depth of an underlying slightly limited soil. Maximum sewage loading rates for standard subsurface systems installed in replacement areas shall be 0.90 gallons per square foot per day for trench systems and 0.70 gallons per square foot per day for absorption beds in slightly limited soil textures. Where moderately limited soil materials are found beneath the proposed drainfield, and where system sizing is based on that moderately limited soil, soil replacements of less than 33% may be permitted.

4. Where coarse sand, gravel, or oolitic limestone directly underlies the drainfield area, the site shall be approved provided a minimum depth of 42 inches of the rapidly percolating soil beneath the bottom absorption surface of the drainfield and a minimum 12 inches of rapidly percolating soil contiguous to the drainfield sidewall absorption surfaces, is replaced with slightly limited soil material. Where such replacement method is utilized, the drainfield size shall be determined using a maximum sewage application rate of 0.80 gallons per square foot per day of drainfield in trenches and 0.70 gallon per square foot per day for drainfield absorption beds.

5. Where more than one soil texture classification is encountered within a soil profile and it is not removed as part of a replacement, drainfield sizing for standard subsurface drainfield systems and fill drainfield systems shall be based on the most restrictive soil texture encountered within 24 inches of the bottom of the drainfield absorption surface.

(6) All materials incorporated herein may be obtained by contacting the department.

Specific Authority 381.0011(4), (13), 381.006, 381.0065(3)(a), 489.553 FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.0012, 381.0025, 381.0061, 381.0065, 381.0067, 386.041, 489.553 FS. History–New 12-22-82, Amended 2-5-85, Formerly 10D-6.48, Amended 3-17-92, 1-3-95, Formerly 10D-6.048, Amended 11-19-97, 3-22-00, 9-5-00.

64E-6.009 Alternative Systems.

When approved by the DOH county health department, alternative systems may, at the discretion of the applicant, be utilized in circumstances where standard subsurface systems are not suitable or where alternative systems are more feasible. Unless otherwise noted, all rules pertaining to siting, construction, and maintenance of standard subsurface systems shall apply to alternative systems. In addition, the DOH county health department may, using the criteria in Section 64E-6.004(4), require the submission of plans prepared by an engineer registered in the State of Florida, prior to considering the use of any alternative system. The DOH county health department shall require an engineer registered in the state of Florida to design a system having a total absorption area greater than 1000 square feet and shall require the design engineer to certify that the installed system complies with the approved design and installation requirements.

The means for reducing these concentrations and ultimately the TN loadings to the coastal embayments will be discussed in subsequent reports.

The MEP analysis generated wastewater flow estimates using average water use data for the years 1997 through 1999 (for Mashpee), 2000 (for Falmouth), or 1998-2000 (for Sandwich and Barnstable). The same data was used for the purposes of the WNMP analysis. However, the relevant data was obtained for *all* parcels in the Town of Mashpee. The same analysis methods used by MEP were followed for the WNMP analysis in order to obtain consistent flow and loading estimates PPA-wide. The following discussion describes the data and estimates used.

A. Development of Existing Wastewater Flows

- For properties with water consumption data, 90 percent of a property's water use is estimated to become wastewater.

- Properties without water consumption data were assigned an average water use based on either MEP assumptions or the land use type. The MEP reports used the following assumptions in their analysis:

TABLE 7-1

MEP WATER USE ASSUMPTIONS [1]

Land Use Type	Water Use	Wastewater Flow
Residential	154 gpd	90% of water use
Commercial/Industrial	81.5 gpd/1000 sq. ft. of building	90% of water use
(1) From Table IV-4 of the MEP technical reports.		

The following table summarizes the water use estimates used in this Report for the wastewater analysis. These averages are based on existing water users in Town. Obtaining an average for a commercial use category was desirable to obtain a more accurate estimate of nitrogen loading within the Town.

EPA 625/R-00/008-Chapter 3

Chapter 3:
Establishing treatment system performance requirements

3.1 Introduction

This chapter outlines essential steps for characterizing wastewater flow and composition and provides a framework for establishing and measuring performance requirements. Chapter 4 provides information on conventional and alternative systems, including technology types, pollutant removal effectiveness, basic design parameters, operation and maintenance, and estimated costs. Chapter 5 describes treatment system design and selection processes, failure analysis, and corrective measures.

This chapter also describes methods for establishing and ensuring compliance with wastewater treatment performance requirements that protect human health, surface waters, and ground water resources. The chapter describes the characteristics of typical domestic and commercial wastewaters and discusses approaches for estimating wastewater quantity and quality for residential dwellings and commercial establishments. Pollutants of concern in wastewaters are identified, and the fate and transport of these pollutants in the receiving environment are discussed. Technical approaches for establishing performance requirements for onsite systems, based on risk and environmental sensitivity assessments, are then presented. Finally, the chapter discusses performance monitoring to ensure sustained protection of public health and water resources.

3.2 Estimating wastewater characteristics

Accurate characterization of raw wastewater, including daily volumes, rates of flow, and associated pollutant load, is critical for effective treatment system design. Determinating treatment system performance requirements, selecting appropriate treatment processes, designing the treatment system, and operating the system depends on an accurate assessment of the wastewater to be treated. There are basically two types of onsite system wastewaters--residential and nonresidential. Single-family households, condominiums, apartment houses, multifamily households, cottages, and resort residences all fall under the category of residential dwellings. Discharges from these dwellings consist of a number of individual waste streams generated by water-using activities from a variety of plumbing fixtures and appliances. Wastewater flow and quality are influenced by the type of plumbing fixtures and appliances, their extent and frequency of use, and other factors such as the characteristics of the residing family, geographic location, and water supply (Anderson and Siegrist, 1989; Crites and Tchobanoglous, 1998; Siegrist, 1983).

A wide variety of institutional (e.g., schools), commercial (e.g., restaurants), and industrial establishments and facilities fall into the nonresidential wastewater category. Wastewater generating activities in some nonresidential establishments are similar to those of residential dwellings. Often, however, the wastewater from nonresidential establishments is quite different from that from of residential dwellings and should be characterized carefully before Onsite Wastewater Treatment System (OWTS) design. The characteristics of wastewater generated in some types of nonresidential establishments might prohibit the use of conventional systems without changing wastewater loadings through advanced pretreatment or accommodating elevated organic loads by increasing the size of the subsurface wastewater infiltration system (SWIS). Permitting agencies should note that some commercial and large-capacity septic systems (systems serving 20 or more people, systems serving commercial facilities such as automotive repair shops) might be regulated under USEPA's Class V Underground Injection Control Program (see http://www.epa.gov/safewater/uic/classv.html).

In addition, a large number of seemingly similar nonresidential establishments are affected by subtle and often intangible influences that can cause significant variation in wastewater characteristics. For example, popularity, price, cuisine, and location can produce substantial variations in wastewater flow and quality among different restaurants (University of Wisconsin, 1978). Nonresidential wastewater characterization criteria that are easily applied and accurately predict flows and pollutant loadings are available for only a few types of establishments and are difficult to develop on a national basis with any degree of confidence. Therefore, for existing facilities the wastewater to be treated should be characterized by metering and sampling the current wastewater stream. For many existing developments and for almost any new development, however, characteristics of nonresidential wastewaters should be estimated based on available data. Characterization data from similar facilities already in use can provide this information.

3.3 Estimating wastewater flow

The required hydraulic capacity for an OWTS is determined initially from the estimated wastewater flow. Reliable data on existing and projected flows should be used if onsite systems are to be designed properly and cost-effectively. In situations where onsite wastewater flow data are limited or unavailable, estimates should be developed from water consumption records or other information. When using water meter readings or other water use records, outdoor water use should be subtracted to develop wastewater flow estimates. Estimates of outdoor water use can be derived from discussions with residents on car washing, irrigation, and other outdoor uses during the metered period under review, and studies conducted by local water utilities, which will likely take into account climatic and other factors that affect local outdoor use.

Accurate wastewater characterization data and appropriate factors of safety to minimize the possibility of system failure

are required elements of a successful design. System design varies considerably and is based largely on the type of establishment under consideration. For example, daily flows and pollutant contributions are usually expressed on a per person basis for residential dwellings. Applying these data to characterize residential wastewater therefore requires that a second parameter, the number of persons living in the residence, be considered. Residential occupancy is typically 1.0 to 1.5 persons per bedroom; recent census data indicate that the average household size is 2.7 people (U.S. Census Bureau, 1998). Local census data can be used to improve the accuracy of design assumptions. The current onsite code practice is to assume that maximum occupancy is 2 persons per bedroom, which provides an estimate that might be too conservative if additional factors of safety are incorporated into the design.

For nonresidential establishments, wastewater flows are expressed in a variety of ways. Although per person units may also be used for nonresidential wastewaters, a unit that reflects a physical characteristic of the establishment (e.g., per seat, per meat served, per car stall, or per square foot) is often used. The characteristic that best fits the wastewater characterization data should be employed (University of Wisconsin, 1978).

When considering wastewater flow it is important to address sources of water uncontaminated by wastewater that could be introduced into the treatment system. Uncontaminated water sources (e.g., storm water from rain gutters, discharges from basement sump pumps) should be identified and eliminated from the OWTS. Leaking joints, cracked treatment tanks, and system damage caused by tree roots also can be significant sources of clear water that can adversely affect treatment performance. These flows might cause periodic hydraulic overloads to the system, reducing treatment effectiveness and potentially causing hydraulic failure.

3.3.2 Nonresidential wastewater flows

For nonresidential establishments typical daily flows from a variety of commercial, institutional, and recreational establishments are shown in tables 3-4 to 3-6 (Crites and Tchobanoglous, 1998; Tchobanoglous and Burton, 1991). The typical values presented are not necessarily an average of the range of values but rather are weighted values based on the type of establishment and expected use. Actual monitoring of specific wastewater flow and characteristics for nonresidential establishments is strongly recommended. Alternatively, a similar establishment located in the area might provide good information. If this approach is not feasible, state and local regulatory agencies should be consulted for approved design flow guidelines for nonresidential establishments. Most design flows provided by regulatory agencies are very conservative estimates based on peak rather than average daily flows. These agencies might accept only their established flow values and therefore should be contacted before design work begins.

Table 3-4. Typical wastewater flow rates from commercial sources[a,b]

Facility	Unit	Flow, gallons/unit/day		Flow, liters/unit/day	
		Range	Typical	Range	Typical
Airport	Passenger	2-4	3	8-15	11
Apartment house	Person	40-80	50	150-300	190
Automobile service station[c]	Vehicle served Employees	8-15 9-15	12 13	30-57 34-57	45 49
Bar	Customer Employees	1-5 10-16	3 13	4-19 38-61	11 49
Boarding house	Person	25-60	40	95-230	150
Department store	Toilet room Employee	400-600 8-15	500 10	1,500-2,300 30-57	1,900 38
Hotel	Guest Employee	40-60 8-13	50 10	150-230 30-49	190 38
Industrial building (sanitary waste only)	Employee	7-16	13	26-61	49
Laundry (self-service)	Machine Wash	450-650 45-55	550 50	1,700-2,500 170-210	2,100 190
Office	Employee	7-16	13	26-61	49
Public lavatory	User	3-6	5	11-23	19
Restaurant (with toilet) Conventional Short order Bar/cocktail lounge	Meal Customer Customer Customer	2-4 8-10 3-8 2-4	3 9 6 3	8-15 30-38 11-30 8-15	11 34 23 11
Shopping center	Employee Parking Space	7-13 1-3	10 2	26-49 4-11	38 8
Theater	Seat	2-4	3	8-15	11

[a]Some systems serving more than 20 people might be regulated under USEPA's Class V Underground Injection Control (UIC) Program. See http://www.epa.gov/safewater/uic.html for more information.

[b]These data incorporate the effect of fixtures complying with the U.S. Energy Policy Act (EPACT) of 1994.

[c]Disposal of automotive wastes via subsurface wastewater infiltration systems is banned by Class V UIC regulations to protect ground water. See http://www.epa.gov/safewater/uic.html for more information.

Source: Crites and Tchobanoglous, 1998.

Table 5-2:
Guide for Non-Residential Water Demand

Type of Establishment	Water Used (*gpd*)
Airport (per passenger)	3 - 5
Apartment, multiple family (per resident)	50
Bathhouse (per bather)	10
Boardinghouse (per boarder)	50
Additional kitchen requirements for nonresident boarders	10
Camp:	
Construction, semipermanent (per worker)	50
Day, no meals served (per camper)	15
Luxury (per camper)	100 - 150
Resort, day and night, limited plumbing (per camper)	50
Tourist, central bath and toilet facilities (per person)	35
Cottage, seasonal occupancy (per resident)	50
Club:	
Country (per resident member)	100
Country (per nonresident member present)	25
Factory (gallons per person per shift)	15 - 35
Highway rest area (per person)	5
Hotel:	
Private baths (2 persons per room)	50
No private baths (per person)	50
Institution other than hospital (per person)	75 - 125
Hospital (per bed)	250 - 400
Lawn and Garden (per 1000 sq. ft.)	600
Assumes 1-inch per day (typical)	
Laundry, self-serviced (gallons per washing [per customer]	50
Livestock Drinking (per animal):	
Beef, yearlings	20
Brood Sows, nursing	6
Cattle or Steers	12
Dairy	20
Dry Cows or Heifers	15
Goat or Sheep	2
Hogs/Swine	4
Horse or Mules	12
Livestock Facilities	
Dairy Sanitation (milkroom)	500
Floor Flushing (per 100 sq. ft.)	10
Sanitary Hog Wallow	100
Motel:	
Bath, toilet, and kitchen facilities (per bed space)	50
Bed and toilet (per bed space)	40
Park:	
Overnight, flush toilets (per camper)	25
Trailer, individual bath units, no sewer connection (per trailer)	25
Trailer, individual baths, connected to sewer (per person)	50
Picnic:	
Bathhouses, showers, and flush toilets (per picnicker)	20
Toilet facilities only (gallons per picnicker)	10

Type of Establishment	Water Used (*gpd*)
Poultry (per 100 birds):	
Chicken	5 - 10
Ducks	22
Turkeys	10 - 25
Restaurant:	
Toilet facilities (per patron)	7 - 10
No toilet facilities (per patron)	2-1/2 - 3
Bar and cocktail lounge (additional quantity per patron)	2
School:	
Boarding (per pupil)	75 - 100
Day, cafeteria, gymnasiums, and showers (per pupil)	25
Day, cafeteria, no gymnasiums or showers (per pupil)	20
Day, no cafeteria, gymnasiums or showers (per pupil)	15
Service station (per vehicle)	10
Store (per toilet room)	400
Swimming pool (per swimmer)	10
Maintenance (per 100 sq. ft.)	
Theater:	
Drive-in (per car space)	5
Movie (per auditorium seat)	5
Worker:	
Construction (per person per shift)	50
Day (school or offices per person per shift)	15

Source: Adapted from ***Design and Construction of Small Water Systems: A Guide for Managers, American Water Works Association, 1984, and Planning for an Individual Water System. American Association for Vocational Instructional Materials,*** 1982.

Appendix C

Industrial and Commercial Water Use:

Glossary, Data, and Methods of Analysis

This Appendix presents a glossary of water-conservation technologies available in the commercial, institutional, and industrial sectors, our analysis of the data on industrial water use collected by the CDWR and others, and background on our methods of analysis for this group of water users. More details on specific end-uses and methods can be found in Appendix D and E.

The glossary in this Appendix is not a comprehensive list of every water conservation technology in existence – it is a compilation of technologies that are common across several industry groups. The technologies are classified by end use. For each technology, we present a brief discussion and list the industry groups (as defined in Appendices D and E) to which it applies. The manner in which these technologies are implemented will vary among industries.

We also describe our analysis of the extensive data of industrial water use collected by the California Department of Water Resources in the 1990s (DWR 1995a) and shows the data we collected on commercial water use from various other sources. To use these data, errors had to be identified and corrected, data gaps filled, and some entries updated. Below we describe the corrections and modifications applied to these data.

Restrooms

Ultra-Low Flush Toilet (ULFT). (Type: Efficiency. Industry Groups: All)

Prior to 1978, toilets used 5 to 7 gallons per flush (gpf). A 1977 state law required that all new residential toilets use 3.5 gpf or fewer starting on January 1, 1980. In 1992, the state updated this law, mandating that all new residential toilets use 1.6 gpf. These laws shifted the state's toilet stock toward more efficient toilets. And in 1992, the transition gained momentum when the federal government passed the National Energy Policy Act, which mandated that all toilets produced in the United States use 1.6 gpf or less. These 1.6 gpf toilets are commonly referred to as ultra-low-flush toilets or ULFTs.

Ultra-Low Flush Urinals (ULFU). (Type: Efficiency. Industry Groups: All)

Low-volume urinals use 1.0 gpf or less. These urinals operate the same way as high-volume urinals except that the orifice in the valve is small. Moderate to high-volume urinals in commercial establishments have flush rates of 2.0 to 5.0 gpf (Vickers 2001).

Faucet Aerators. (Type: Efficiency. Industry Groups: All)

eration, flow-control restrictors, or spray features achieve reduced flow in low-flow restroom and kitchen faucets. Low flow faucets use about 1.0 gpm compared to

traditional faucet use of 1.3 to 3.5 gpm (Vickers 2001). Note that these are actual flow volumes, which are much lower than the rated flow volumes because people rarely run the faucets at the maximum volume.

Low-Flow Showerheads. (Type: Efficiency. Industry Groups: Hospitals and Hotels)

Low-volume showerheads use less water through improved spray patterns, aeration, and narrower spray areas. Actual flow rates in showers are at about 67 percent of rated flows. Low-flow showerheads use about 1.7 gpm (actual) while traditional showerheads use from 2.2 to 4.0 gpm (Vickers 2001).

Cooling and Cooling Towers

Conductivity Controllers. (Type: Efficiency. Industry Groups: Most Industrial Industries; Offices; Hotels; and Hospitals)

Improving water efficiency in cooling towers generally involves increasing the concentration ratio (CR) by installing a conductivity controller to measure the salt concentration in the cooling water (see Section 4). The technically achievable CR depends on the quality of the make-up water and varies among regions. In the Bay Area, which receives high-quality snowmelt from the Sierra Nevada, a CR of 6 to 8 is easily achievable, whereas in areas that use groundwater (high in salts), a CR of 2.5 to 3 is the maximum achievable (Lelic 2002).Table C-1 shows the percent of make-up water that can be saved with different concentration ratios.

Table C-1

Percent of Make-up Water Saved									
	New CR								
	CR	3	4	5	6	7	8	9	10
Old CR	2	25%	33%	38%	40%	42%	43%	44%	45%
	3		7%	11%	14%	17%	18%	20%	21%
	4			6%	10%	13%	14%	16%	17%

Source: NCDENR 1998

Improvement of Concentration Ratio Using Chemical Treatments. (Type: Efficiency. Industry Groups: Most Industrial Industries; Offices; Hotels; and Hospitals)

Concentration ratios of cooling towers can be boosted to as high as 12 to 15 percent using various types of chemical treatments. Some common treatments (NCDENR 1998) include:

- Sulfuric Acid Treatment - Dissolves scale on cooling towers but is potentially hazardous and needs careful handling and skilled workers.
- Side-stream Filtration – Uses a sand or cartridge filter to remove suspended solids.
- Ozonation – Oxidizes some of the metals and precipitates them in the form of sludge.

Improving the energy efficiency of fans, pumps etc. Type: Efficiency. Industry Groups: Most Industrial Industries; Offices; Hotels; and Hospitals)

A cooling tower is part of a heat transfer system that typically includes coils, fan, chiller, compressor and condenser. Increasing the energy efficiency of any component of the system will increase the overall energy efficiency. Increasing the overall energy efficiency will reduce evaporation losses. Reducing evaporation losses will reduce the cooling tower make up water requirements.

Reused/Reclaimed Water for Cooling Tower Make-up. (Type: Efficiency and Reclamation. Industry Groups: Most Industrial Industries; Office Buildings; Hotels; and Hospitals)

A recent trend in cooling tower water conservation involves reusing waste streams from processes in cooling towers. Some streams, such as those from reverse osmosis, reject water when creating ultra-pure water and require no additional treatment. Other waste streams may need to pass through one or more stages of filtration before they are usable in cooling towers.

Some industries are also substituting reclaimed water for cooling tower make-up. Typically, a denitrification plant must treat reclaimed water before it is used in cooling towers, but because some industries, such as refineries, use large quantities of cooling water, it is economical to set up a denitrification plant at each facility. In the future, reclaimed water use should increase for cooling at refineries and industrial parks where these economies of scale can be exploited.

Equipment Cooling. (Type: Efficiency. Industry Groups: Hospitals and Several Industrial Industries)

Many facilities use once-through cooling to cool small heat generating equipment including x-ray film processors, welders, vacuum pumps, air-compressors, etc. In most cases it is possible to connect the equipment to a recirculating cooling system or to install a cooling tower. Recirculating systems typically consume only two to three percent of the water used by single-pass systems.

X-Ray Film Processors. (Type: Efficiency. Industry Groups: Hospitals and Dental Offices)

X-ray film processors use a stream of rinse water as a part of the film-developing process. An audit of 38 x-ray units in southern California revealed that the units used from 3.2 AF to as much as 7.5 AF annually. Past conservation recommendations have included installing a sensor to interrupt the flow when the unit is not in use and adjusting the flow to the optimal flow rate. A recent development has been the introduction of units produced by a Southern California company that recirculate what has traditionally been "once-through" flow. These units, called Water Saver/Plus™, can save 98 percent of water use (CUWCC 2001).

Vacuum Pumps. (Type: Efficiency. Industry Groups: Hospitals; Paper and Pulp; and Others)

Vacuum pumps are widely used in a variety of facilities, including hospitals, research labs, and food processing plants, to create sterile environments or to remove moisture through a dehydrating process. Liquid water-ring pumps still use single-pass water for cooling and sealing. In many applications, such as hospitals and research facilities, it is desirable as well as efficient to replace water-ring pumps by air-cooled oil-ring or oil-less pumps and, consequently, these pumps have become increasingly common. In other industries, such as paper and pulp, water-based vacuum pumps remain appropriate, but their efficiencies can be considerably improved (Britain 2002).

Irrigation

Auto-Shutoff Nozzles. (Type: Efficiency. Industry Groups: Most)

Nozzles designed to shut off automatically (when not in use) can be installed on hoses and save 5 to 10 percent (or more) of water use (Vickers 2001).

Drip Irrigation. (Type: Efficiency. Industry Groups: Most)

Drip irrigation systems can be used on non-turf areas of landscaping. These systems use plastic tubes and small nozzles to deliver water to plant roots. These systems are often considered the most water-efficient of irrigation system (Vickers 2001).

Moisture Sensors. (Type: Efficiency. Industry Groups: Most)

Soil-moisture sensors and controllers measure soil moisture and control irrigation based on how much water the vegetation needs. These sensors reduce water use compared to simple timers that provide water whether or not it is needed.

Reclaimed Water. (Type: Reclaimed. Industry Groups: Schools; Hotels; Golf Courses; Office Buildings; and Some Industrial Industries)

Overall withdrawals of water can be reduced by replacing freshwater use with the use of partially treated water from a reclaimed water plant. This water is particularly appropriate for irrigating landscapes.

Reused Water. (Type: Efficiency. Industry Groups: Most)

Overall withdrawals of water can be reduced by replacing freshwater use with the use of wastewater from other on-site uses, such as washing clothes. This water is particularly appropriate for irrigating landscapes.

Reducing Water-intensive Vegetation. (Type: Efficiency. Industry Groups: All)

Although reducing water-intensive vegetation often involves planting vegetation native to a region or climate, we only consider replacing turf with a typical mix of "other" vegetation. While the "other" vegetation may not be as efficient as native vegetation, it is still more efficient than turf (see Appendix D).

Kitchen

Low-Flow Pre-Rinse Nozzles. (Type: Efficiency. Industry Groups: All with kitchens)

Pre-rinse nozzles are used in kitchens to dislodge food particles from dishes before putting them into a dishwasher. Typical pre-rinse nozzles use 1.8 to 2.5 gpm for manual nozzles and 3.0 to 6.0 gpm for automatic nozzles. Efficient pre-rinse nozzles use a fan-like spray pattern that generates the same cleaning action but uses only 1.6 gpm.

Efficient Icemakers. (Type: Efficiency. Industry Groups: All with kitchens)

Water-cooled machines typically use ten times more water than air-cooled machines but use less energy and generate less heat, which reduces air-conditioning load. Whether a water-cooled or air-cooled icemaker is more appropriate depends on the individual site. Water conservation measures in icemakers involve retrofitting once-through water-cooled refrigeration units and ice machines by using temperature controls and a recirculating chilled-water loop system (Pike et al. 1995).

Efficient Dishwashers. (Type: Efficiency. Industry Groups: All with kitchens)

Small establishments use rack or under-the-counter machines that are similar to dishwashers found in the home while larger restaurants use either conveyor-type or flight-type machines. Conveyer-type machines have a conveyer belt with racks moving along this belt and a hook-type mechanism that lifts the racks and loads then into a larger machine that can usually hold four racks. Flight-type machines, which are much bigger and used in hotels or large catering establishments, have pegs onto which the dishes are loaded.

All of these dishwashers come in efficient and inefficient models. Studies indicate that efficient dishwashers typically use 50 to 70 percent less water and energy compared to inefficient machines (Sullivan and Parker 1999). Water efficiency features in the efficient models include recirculating the final rinse water, electric eye sensors, and extra-wide conveyers (NCDENR 1998).

Laundry

Closed-loop Laundry Systems. (Type: Efficiency. Industry Groups: Hotels; Hospitals; and Laundries)

Closed-loop laundries use membrane-filtration systems that can recycle 80 to 90 percent of the water used at the facility. The main purpose of the membrane system is to remove suspended solids (TSS), oil, and grease from the laundry effluent.

Recycling Laundry Rinse Water. (Type: Efficiency. Industry Groups: Hotels; Hospitals; and Laundries)

One or more pre-treatment processes may be used to recycle part of the laundry wastewater. The steps followed include:

Stream Splitting - Segregation of wastewater streams into high and low pollutant loading streams so that relatively clean streams can be reused.

Gravity Setting – Leaving the wastewater to stand in a basin for some period of time to allow the settling of suspended solids.

Chemical Removal – Removal of various organic solids and oils using emulsion, precipitation etc.

Ozone Cleaning Systems. (Type: Efficiency. Industry Groups: Hotels; Hospitals; and Laundries)

These systems generate ozone gas, which is injected into the wash water. As an unstable gas, ozone decomposes to release elemental oxygen, a powerful cleaning agent. At 100 degrees F, ozone systems provide an equivalent cleaning of 160 degrees F, eliminating the need for steam and hot water. These systems thus save energy and water. Ozone cleaning systems use 30 percent less water than conventional systems and can use up to 80 percent less with recycling.

Membrane Treatment and Recycling. (Type: Efficiency. Industry Groups: Hotels; Hospitals; and Laundries)

A number of laundries are experimenting with recycling laundry wash water with membrane systems. Laundries in California and Seattle have recently implemented a "Vibratory Shear Enhanced Processing" system that filters suspended and dissolved solids and also removes BOD, COD, and color. The system provides a vibratory shear force ten times greater than convention cross-filtration and produces a clear reusable water stream and a concentrated sludge. An added advantage of the system is that the effluent water is soft, a desirable quality in the laundry industry.

Resource-Efficient Clothes Washers. (Type: Efficiency. Industry Groups: Coin Laundries; Hotels; and Hospitals)

Since the early 1990s, manufacturers, energy and water utilities, and public interest groups have been promoting more efficient washer technologies as a means of pursuing water and energy savings. The Horizontal-Axis (H-Axis) washer has been a popular model. These washers use a washtub that spins about a horizontal axis and cleaning action is accomplished by tumbling the clothes in and out of the water that fills half the tub. In contrast, traditional clothes washers have a vertical axis and spin the clothes around in a full tub of water. Since most of the energy use in washers is for heating water, conserving water also greatly reduces energy use. Recently some manufacturers have sold water- and energy-conserving washers that are based on the standard vertical-axis design. They use spray rinses, lowered temperatures, and innovative agitation systems to achieve savings comparable to H-Axis washers (Pope et al. 2000). Typical savings in water and energy are about 40 percent. We refer to all efficient models as resource-efficient clothes washers.

Guest Laundry Cards. (Type: Efficiency. Industry Groups: Hotels)

Some hotels ask guests staying more than one night to consider not having their bed linens changed every day. Participating hotels reported saving five percent on utility

costs along with 70 to 80 percent guest participation by using this option (Green Hotels Association 2002).

Process

Rinse Optimization. (Type: Efficiency. Industry Groups: Most Industrial Industries)

Optimizing rinse cycles can save water in several industries. This approach was originally developed and tested by the semiconductor industry and has since been transferred to other industries as well. Typical measures involve reducing the number of rinse cycles and rinse time as well as recycling water from dilute rinses. Optimization of rinses involves collecting and utilizing data on:

1. Water flow rates for process and idle flows, transfer speeds from chemical baths to rinse baths, and fluid dynamics.
2. Detailed conductivity, pH, mass-spectrometry measurements to determine the quantity and type of contaminants.
3. Device electrical characteristics to determine the effect that optimized rinse processes have on yield.

Auto-shutoff Valves. (Type: Efficiency, Industry Groups: Most Industrial)

Automatic shutoff valves use solenoid valves to stop the flow of water when production stops, sometimes by tying the valves to drive motor controls. Other related water-efficiency measures include adjusting flow in sprays and other lines to meet minimum requirements, providing surge tanks for each system to avoid overflow, and turning off all flows during shutdowns (unless flows are essential for cleanup).

Cascading Rinses. (Type: Efficiency. Industry Groups: High Technology; Metal Finishing; and Textiles)

Not all rinses require the same quality water. By cascading rinses it is possible to use rinse water from a "critical" rinse (requiring highly pure water) in a less critical rinse, reducing overall water withdrawals.

Reactive Rinses. (Type: Efficiency. Industry Groups: Metal Finishing and Printed Circuit Board Manufacturing)

In some processes it is possible to reuse acid rinse effluent as influent for the alkaline rinse tank.

Counter-current Rinses. (Type: Efficiency. Industry Groups: Food Processing; Textiles; Metal Finishing; and High Tech)

This measure is employed frequently on continuous production rinsing lines for water and energy savings. Clean city water enters at the final wash box and flows counter to the movement of the product through the wash boxes. Thus, the cleanest water contacts the cleanest product, and the more contaminated wash water contacts the product immediately as it enters the actual process. This method of water reuse differs from the traditional washing method, which supplies clean water at every stage of the washing. Water and energy savings are related to the number of boxes provided with counter flow.

Counter-current rinsing is a common practice in a number of industries where the product goes through successive baths or wash boxes. In the Food Processing industry, for example, it is used to clean fresh produce.

Recycling Dilute Rinse Water. (Type: Efficiency. Industry Groups: Most Industrial)

If recycling all rinse water is found to be impractical, some industries may consider diverting only the last few rinses, which are relatively uncontaminated, to a membrane filtration system to generate a clean stream of water. This type of system is useful in "clean-in-place" systems where the rinse water usually flows directly to the drain.

Bubbled Accelerated Floatation (BAF). (Type: Efficiency. Industry Groups: Food Processing)

This technology is used to pre-treat effluent water before passing it through a membrane system. Air is bubbled into the effluent from a lower level and the bubbles bring solid particles to the surface, which are then removed. BAF systems are an improvement over earlier Dissolved Air Flotation (DAF) systems since they allow removal of suspended solids, fats, and greases and thus prevent fouling of membranes.

Ozone Cleaning. (Type: Efficiency. Industry Groups: Food Processing)

In the Food Processing industry, ozone can reduce or eliminate the need for chemical or high-temperature disinfection processes during clean-in-place (CIP) cycles, reducing water requirements, downtime, and chemical costs. Ozone CIP is far superior to any other cleaning method because of the high oxidation power of ozone.

Reusing Evaporator Condensate. (Type: Efficiency. Industry Groups: Dairy and Fruit and Vegetable Processing)

In many Food Processing plants, fruits, vegetables, or milk are evaporated to condense or dry them. This process produces evaporator condensate, a mixture of water and some volatile organic solids, that may be reused in applications such as cooling towers, boilers, and irrigation. Some dairy plants generate so much excess water that some of it is sent to the drain. The Dairy industry has been experimenting with passing this excess water through a reverse osmosis membrane to remove the volatile organic compounds. The process generates pure water, which can replace fresh water in all processes. To date, this process has not proven cost-effective.

Reusing Reverse Osmosis Backwash From Ultra-pure Water Production. (Type: Efficiency. Industry Groups: High Tech and Hospitals)

Many industries use extremely pure water, called ultra-pure water (UPW), for critical applications. UPW is produced by running potable city water through a reverse osmosis membrane to remove impurities. The waste stream that is left behind after passing the potable water through a reverse osmosis membrane (the "retentate") is fairly clean and can be reused in cooling towers or landscaping.

Reducing Drag-out. (Type: Efficiency. Industry Groups: Metal Finishing and High Tech)

Drag-out is the residual chemical that sticks to the component, which must be removed through rinsing. By employing techniques that reduce drag-out, less water is needed in rinsing. Typical techniques involve using agents to decrease surface tension, racking parts to drain them out, optimizing the temperature of the baths to reduce viscosity, and increasing "drip time" (when the component is placed on a draining panel).

Caustic Recovery. (Type: Efficiency. Industry Groups: Food Processing)

The Food Processing industry's sanitation standards require that all equipment in contact with a fluid food product must be cleaned every 24 hours. Cleaning-in-Place (CIP) technologies using caustic and phosphate-based cleaning agents are commonly used to sanitize equipment. These technologies produce effluent that cannot be reused because of high chemical concentrations. Recent developments in membrane filtration technologies, however, have made it possible to recover some of the cleaning chemicals from the effluent stream. The resulting permeate is a relatively clean stream of water that can be reused in other processes.

Reused or Reclaimed Water in Scrubbers. (Type: Efficiency. Industry Groups: Metal Finishing; High Tech; and Textiles)

Many industries have scrubbers that spray water through exhaust air to strip it of pollutants before it leaves the facility. Wastewater from other processes can potentially be used as scrubber water make-up (Anderson 1993).

Maximize Efficiencies of Sterilizers. (Type: Efficiency. Industry Groups: Hospitals)

Many hospitals and research labs use autoclaves to sterilize equipment. Autoclaves use steam for sterilization and then freshwater to cool and recondense the steam. Typical measures for improving the water efficiency of autoclaves include: installing auto-shutoff valves to interrupt the flow when the unit is not in use; running the autoclave with full loads only; and reusing steam condensate and non-contact cooling water in cooling towers or boilers.

Digital X-Ray Machines. (Type: Efficiency. Industry Groups: Hospitals)

Digital x-ray machines are increasing in popularity because images can be stored on computers, digitally transmitted, or manipulated. Unlike conventional x-ray machines, the operation of digital machines requires almost no chemicals which significantly reduces the need for freshwater. Although digital x-ray machines are still very expensive and it will take several years before the conventional machines are replaced entirely, hospitals are gradually replacing their old machines with these more efficient models.

Future Conservation Technologies

Real-time Sensing of Contaminants. (Type: Recycling. Industry Groups: High Tech)

The High Tech industry has been a pioneer in developing water conservation technologies, but because most of its processes are extremely sensitive to water purity, recycling water has not gained widespread acceptance in this industry. Indeed, the mere suspicion that water may be contaminated may result in the destruction of an entire batch of components worth thousands of dollars. To address this issue, SEMATECH, a semiconductor industry association, has been researching use of real-time sensors, which can detect rinse water containing organic contaminants and then divert it away from the recycling loop. SEMATECH estimates that incorporation of such technology will decrease water consumption by 50 percent (SEMATECH 1994).

Dry Cleaning Technologies. (Type: Efficiency. Industry Groups: High Tech)

Researchers are exploring the possibility of using dry cleaning technologies, such as lasers or high-pressure gases, instead of chemical cleaning agents, in the High Tech industry. These processes will eliminate the need for ultra-pure water to rinse out chemicals.

Advanced Reverse Osmosis Treatments. (Type: Recycling. Industry Groups: High Tech; Food Processing; Metal Finishing; and Paper and Pulp)

A number of studies evaluating advanced reverse osmosis use on effluent are being conducted. While these systems appear to be in the demonstration stage, considerable potential exists for establishing closed-loop facilities that completely recycle process water.

Corrections and Modifications Performed on Data, Method A

Below we describe our analysis of the extensive data on industrial water use collected by the California Department of Water Resources in the 1990s (CDWR 1995a, b) and show the data we collected on commercial water use from various other sources. To use these data, errors had to be identified and corrected, data gaps filled, and some entries updated. Below we describe the corrections and modifications applied to these data. We thank Charlie Pike and other current and former CDWR employees, as well as a wide range of California water experts (listed in the Acknowledgements Section of the Report) for their help and diligence in both collecting and trying to understand these water-use data.

1. The average number of employees for the year was compared with the number of employees in any one month. Firms with any unusual deviations were checked visually for data entry errors and corrected.
2. Rows with zero water use or zero employees were eliminated.
3. Rows with coefficients of gallons per employee per day (GED) > 400,000 or < 5 were eliminated. A ceiling of 400,000 gallons was chosen because firms with higher GEDs did not exist in the literature or other surveys. The five-gallon minimum was selected based on the assumption that this is the minimum amount of water used for sanitary purposes for each employee.
4. All firms with GED coefficients greater than 10,000 were examined individually. Each firm's location, SIC code, and description were taken into consideration and if we had additional corroborating data from the firm's water supplier, then the water use was crosschecked. The following possibilities were examined: the data for the firm were erroneous and should be discarded; the firm's GED was representative of firms in that 3-digit SIC code and should be included in the sample; or the data could be correct, but the firm was not representative of the industry in general (in such cases, the firm was eliminated from the sample when computing the GED coefficient average but its water use was added to the industry total).

Table C-1
Water Use Coefficients by SIC Code, Industrial Sector

SIC	Description	Gallons per employee per day (GED)[1]
20	Food and kindred products	1,967
21	Tobacco manufactures	N/A
22	Textile mill products	1,530
23	Apparel and other textile products	37
24	Lumber and wood products	2,144
25	Furniture and fixtures	53
26	Paper and allied products	1,000
27	Printing and publishing	98
28	Chemicals and allied products	833
29	Petroleum and coal products	11,399
30	Rubber and misc. plastics products	120
31	Leather and leather products	32

32	Stone, clay, glass, and concrete prod.	1,304
33	Primary metal industries	1,318
34	Fabricated metal products	738
35	Industrial machinery and equipment	110
36	Electrical and electronic equipment	284
37	Transportation equipment	228
38	Instruments and related products	142
39	Misc. manufacturing industries	86

[1] Based on a 225-day year

Table C-2
Water Use Coefficients by SIC Code or Establishment Type in the Commercial Sector
gallons per employee per day (ged)

SIC	Description	Method A, Dziegielewski et al. 1990[1]	Davis et al. 1988[1]	Establishment Type[2]	Dziegielewski et al. 2000
41	Local and interurban passenger transit	32.6	42.2	O	221
42	Motor freight transportation and warehousing	470.9	137.2	O	221
43	U.S. Postal Service	8.3	8.3	O	221
44	Water transportation	993.6	573.9		
45	Transportation by air	326.7	278.4	O	221
46	Pipelines, except natural gas	0.0	0.0	O	221
47	Transportation services	105.0	64.6	O	221
48	Communications	79.3	76.7	O	221
49	Electric, gas, and sanitary services	52.4	82.7		
50	Wholesale trade--durable goods	32.3	47.0	W	
51	Wholesale trade--nondurable goods	389.5	140.6	W	
52	Building materials, hardware, garden supply, mobile	91.7	56.1	R	
53	General merchandise stores	57.6	75.9	R	
54	Food stores	213.0	158.8	S	284
55	Automotive dealers and gasoline service stations	101.6	79.3		
56	Apparel and accessory stores	87.6	109.8	R	
57	Furniture, home furnishings and equipment stores	128.8	67.6	R	
58	Eating and drinking places	331.3	253.4	R	
59	Miscellaneous retail	449.5	214.5	R	
60	Depository institutions	72.8	95.5	O	221

[1] Figures were converted into 225 days per year. Most of method 1 data came from Dziegielewski et al. (1990) with the exception of information on state and federal government employees.
[2] O=Office, E=School, R=Retail, W=Wholesale, M= Motel/Hotel, L=Laundromat, S = Supermarket, H= Hospital.

61	Nondepository credit institutions	169.0	253.7	O	221
62	Security, commodity brokers, and services	221.1	221.1	O	221
63	Insurance carriers	212.8	212.8	O	221
64	Insurance agents, brokers, and service	162.1	144.2	O	221
65	Real estate	987.9		O	221
66	Combined real estate and insurance			O	221
67	Holding and other investment offices			O	221
70	Hotels, rooming houses, camps, and other lodging	301.7	373.6	M	1083
72	Personal services	1,090.5	749.6	L	
73	Business services	161.7	93.9	O	221
74	Automotive repair, services, and parking	0.0	351.4		
75	Miscellaneous repair services	255.8	114.7		
78	Motion pictures	126.9	183.1		
79	Amusement and recreational services	732.8	692.9		
80	Health services	155.2	147.0	H	
81	Legal services	123.8	123.8	O	221
82	Educational services	236.5	187.9	E	553
83	Social services	341.2	172.6	O	221
84	Museums, art galleries, botanical & zoological garden	342.8	337.4		
86	Membership organizations	670.5	344.4		
87	Engineering and management services	0.0	141.3	O	221
88	Private households	0.0			
89	Miscellaneous services	178.1		O	221
90*	State govt. employees	171.5	171.5	O	221
91*	Federal govt. employees	171.5	171.5	O	221

Table C-3
Comparison of Estimated Statewide CII Water Use to Other Studies, 1995 (TAF)

Source	Commercial/ Institutional	Industrial	Total
Method A	2,002	675	2,677
Method B	2,203	763	2,966
DWR[1]	1,843	619	2,462
USGS[2]	1,544	919	2,463

[1] DWR 1994
[2] Solley et al. 1998

Note: We also compared our estimates to a statewide industrial use estimate from 1979 (CDWR 1982) and CII water use estimate for the South Coast region (MWD 2000) to resolve specific questions we had about our calculations.

Uncertainties Inherent in the Data

The full report extensively discusses uncertainties in the data, especially CII data. We add here some specific data issues related to the two approaches taken in this report.

Method A

Geographical Bias: Each industry's average GED was applied to all hydrologic regions in both the industrial and commercial sectors. This approach ironed out regional differences in industrial mix, price elasticity of demand, and aggressiveness of conservation programs, but it produces a lower degree of confidence in the regional estimates. This was particularly relevant in the commercial sector where the estimates are based on studies of the South Coast region, which we suspect to be more efficient than inland regions (see Section Four of the full report). Thus, there may be greater conservation potential than our results show.

GED Issues: The CDWR survey was biased toward more water-intensive facilities. Although this problem was corrected to some extent by estimating GEDs at the three-digit level, considerable variability was found within three-digit SIC codes in some cases. In the commercial sector, the sample sizes were fairly small and, therefore, the GED estimates have a higher degree of uncertainty than the industrial estimates. Moreover, the GED estimates were based on surveys collected in the late 1980s mostly from Southern California and may not accurately reflect the state average in 1995.

Method B

Sampling Issues. The sample used in Method B was small for several regions and may not have accurately represented a region's overall CII use per capita.

Self-Supplied Water: In the absence of survey data for the commercial sector, we applied the commercial estimate of self-supplied water recorded in the USGS report "Estimated Water Use in the United States in 1995" (Solley et al. 1998). Since we did not have access to other primary source data, we are less confident in our estimate of self-supplied water for the commercial sector.

Extrapolation: We extrapolated agency data to the state level based on population served. Population may be a fairly accurate indicator of commercial water use, but we are less confident about how well it reflects industrial use since "population served" data are known to be less reliable.

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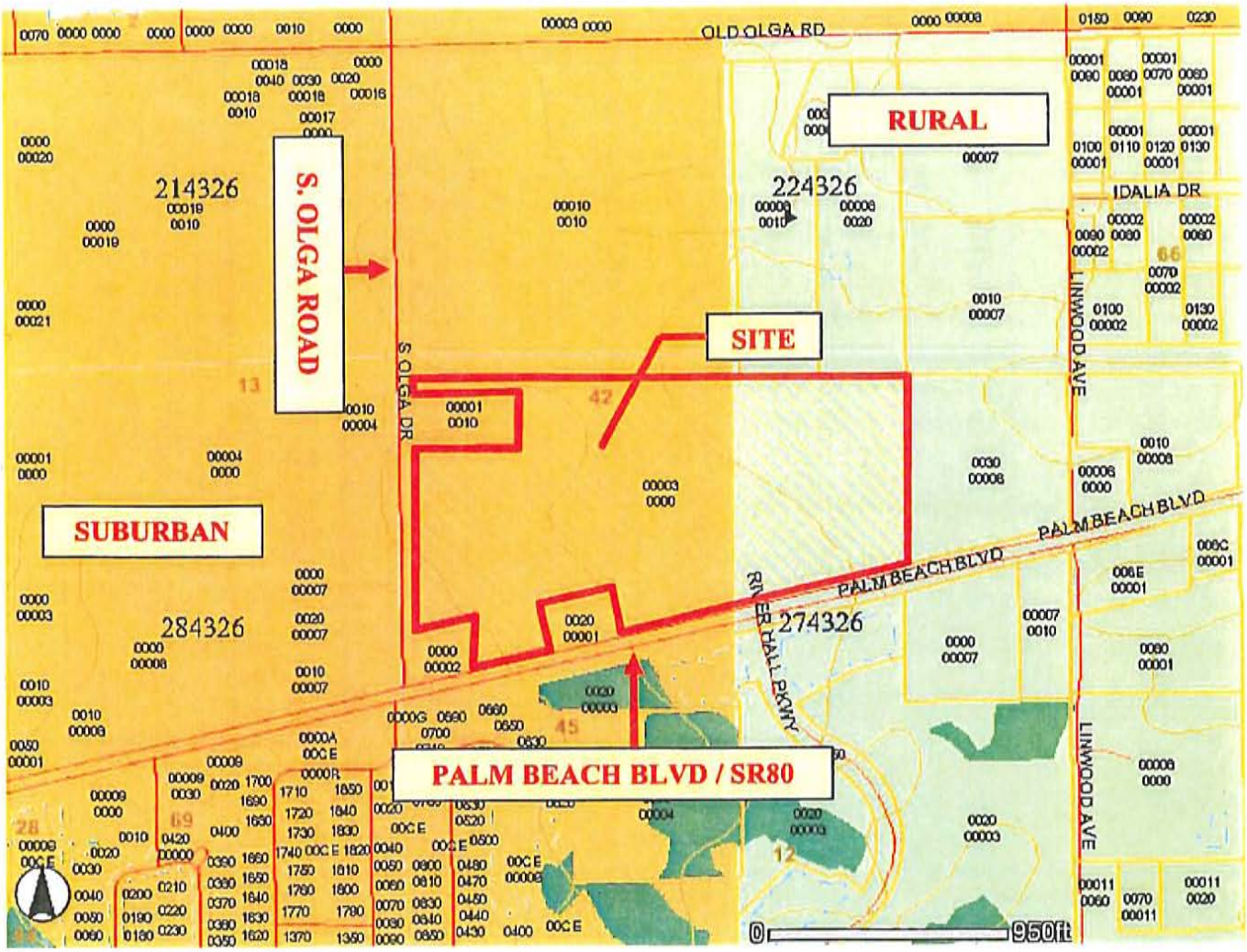
FLU Map

Strap # 27-43-26-00-00003.0000



CPA2007-00050, R&D Cattle Property
August 12, 2008

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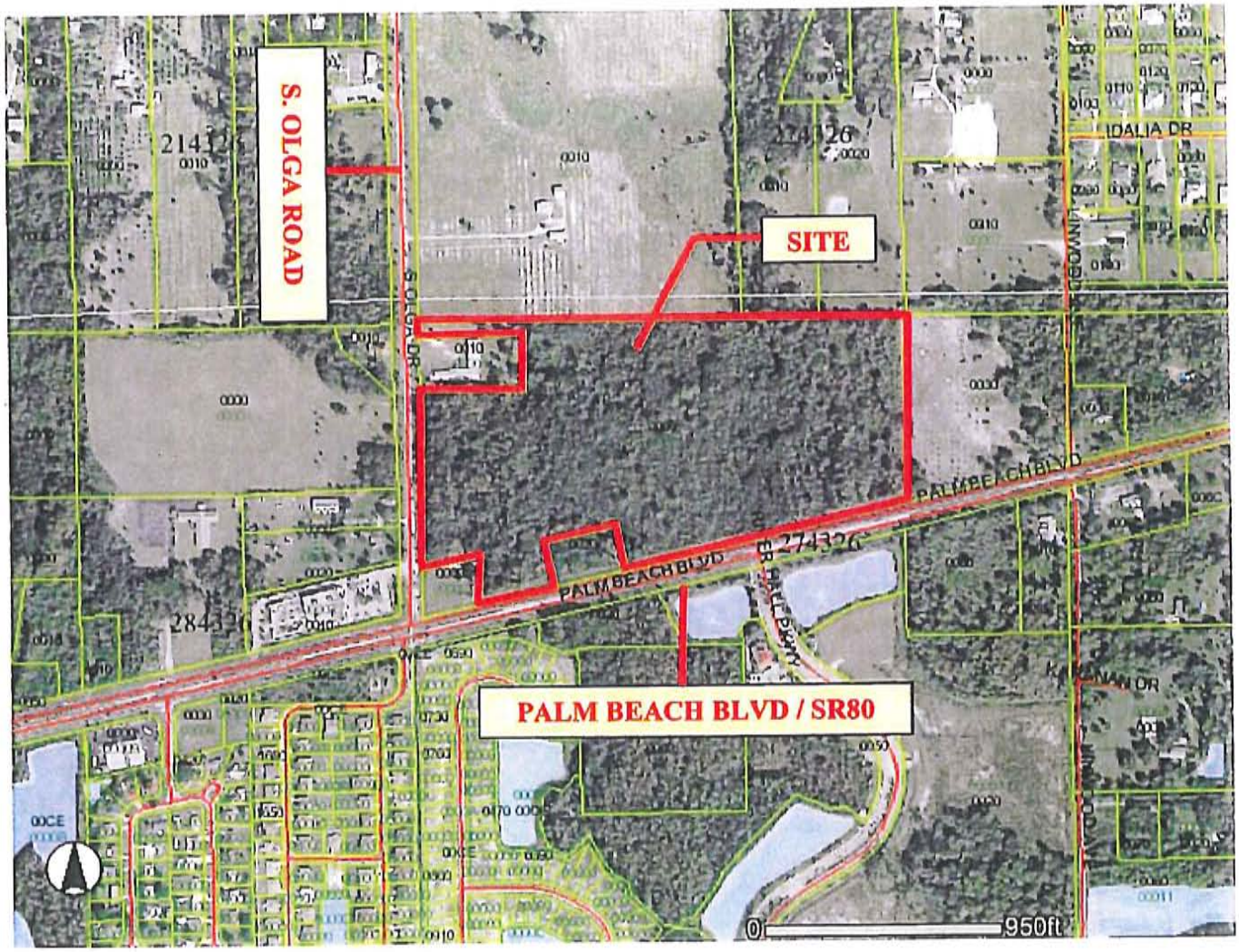
#LC26000330

Existing Land Use Map

Strap # 27-43-26-00-00003.0000



CPA2007-00050, R&D Cattle Property
August 12, 2008

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Existing Land Use Narrative

Strap # 27-43-26-00-00003.0000

The subject property identified as 27-43-26-00-00003.0000 has an existing land use of vacant, agricultural. The surrounding properties to the north and east are predominately agricultural uses. The adjacent properties to the west are vacant residential, single family residential, a church and school are located adjacent to the northwest corner of the property fronting S. Olga Drive and a retail store is located at the southwest corner at the intersection of Palm Beach Boulevard and S. Olga Drive. There are two properties adjacent to the site located on the southern boundary on the north side of Palm Beach Blvd. The property located on the southwest corner is single family residential while the property located towards the middle is vacant commercial. On the south side of Palm Beach Blvd. we have the Hawks Haven and River Hall single family residential developments. The current uses of all properties described above will be consistent with the uses associated with the Outlying Suburban Land Use Category we are proposing.

Our development will be an asset to this community conveniently providing much needed commercial and retail services to a growing area that currently lacks these resources.

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Zoning Map

Strap # 27-43-26-00-00003.0000

CPA2007-00050, R&D Cattle Property
August 12, 2008

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Zoning Narrative

Strap # 27-43-26-00-00003.0000

The subject property described as Strap # 27-43-26-00-00003.0000 has a current zoning designation of AG-2 per the current Lee County Spatial District Query Report. The adjacent properties to the north and west of the site are zoned AG-2, to the south C1A, CN-2, AG-2, RPD and CPD and to the east the adjacent properties are zoned AG-2, CR.

1891.70 / 19.20

27-43-26-00-00003.0000

RETURN TO COURTHOUSE BOX 4

This instrument Prepared by:
RICHARD W. WINESETT
Avery, Whigham & Winesett, P.A.
2248 FIRST STREET
FORT MYERS, FL 33901

INSTR # 6787671
OR BK 04706 Pgs 0849 - 850; (2pgs)
RECORDED 05/11/2005 04:16:01 PM
CHARLIE GREEN, CLERK OF COURT
LEE COUNTY, FLORIDA
RECORDING FEE 18.50
DEED DOC 0.70
DEPUTY CLERK T Kortright

CORRECTIVE DEED

THIS DEED made the 29th day of April, 2005, between **WILLIAM SCHULMAN, as Trustee**, herein called the grantor, to **R & D CATTLE COMPANY, LLC, a Florida limited liability company**, whose post office address is 4618 Sylvan Ramble Street, Tampa FL. 33609, hereinafter called the grantee.

WITNESSETH: That the grantor, for and in consideration of the sum of TEN AND 00/100 ($10.00) Dollars and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the grantee all that certain land situate in Lee County, State of Florida, described as follows:

See Exhibit "A" attached hereto and incorporated herein by reference for the legal description of the property.

The above-described property is not the homestead of the grantor but in fact is vacant land.

This is a corrective deed executed to correct the legal description of the property in Deed recorded in O. R. Book 4369, Page 60, Lee County Public Records.

TOGETHER, with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD, the same in fee simple forever.

AND, the grantor hereby covenants with said grantees that the grantor warrants the title against all persons claiming by, through, or under grantor and will defend the same against the lawful claims of all such persons whomsoever.

IN WITNESS WHEREOF, the said grantor has signed and sealed these presents the day and year first above written.

Signed, sealed and delivered in the presence of:

Witness Signature
FRANK J. MASTERSON
Printed Name

Witness Signature
ANTOINE MAAIKO
Printed Name

WILLIAM SCHULMAN, as Trustee

FRANCINE M. PANTALEO
NOTARY PUBLIC, STATE OF NEW YORK
QUALIFIED IN SUFFOLK COUNTY
REG. 01PA6045775
MY COMM. EXPIRES 7/31/06
4/29/05

STATE OF NEW YORK
COUNTY OF SUFFOLK

The foregoing instrument was acknowledged before me this 29th day of April, 2005, by **WILLIAM SCHULMAN, as Trustee**, who is [✓] personally known to me or who have produced [ ] ____________________ as identification.

I am a Notary Public in and for the State of New York and my commission expires on 7/31/06.

SEAL

NOTARY SIGNATURE

Francine M. Pantaleo
Printed Name

FRANCINE M. PANTALEO
NOTARY PUBLIC, STATE OF NEW YORK
QUALIFIED IN SUFFOLK COUNTY
REG. 01PA6045775
MY COMM. EXPIRES 7/31/06

EXHIBIT "A"

Parcel One

The NW ¼ of the NW ¼ of Section 27, Township 43 South, Range 26 East, Lee County, Florida,

Less that portion thereof which is described as follows: Begin at the east line of the right-of-way of State Road (Old Olga Road) at the north line of Section 27, thence south along the east line of said right-of-way a distance of 50 feet for a point of beginning of the land herein described; thence south parallel with the east line of said right-of-way, 210 feet; thence east parallel with the north line of said Section, 420 feet; thence north parallel with the east line of said right-of-way, 210 feet; thence west to the point of beginning.

And less one parcel of one and one-quarter acres which is described as follows:

Beginning at the NE corner of the intersection of Route 80 and Old Olga Road (formerly Highway 31), thence run northerly along Old Olga Road (formerly Highway 31), 210 feet; thence easterly and parallel with the northerly line of Route 80, 240 feet; thence southerly and parallel to Old Olga Road (formerly Highway 31) to the northern boundary of Route 80; thence westerly along the northern boundary of Route 80 to the point or place of beginning;

And less, also, approximately one acre of land described as follows: Begin at the intersection of the east line of a drainage ditch and the north line of State Road 80 in the SW 1/4 of the NW '/4 of the NW 1/4 of said Section 27; thence run easterly along the said road 80 yards; thence north parallel to Old Olga Road (formerly Highway 31), 60 yards; thence west parallel to the north line of State Road 80, 80 yards; thence south along drainage ditch to point of beginning, less the right-of-way of State Road No. 80.

EXCEPTING from the parcel conveyed the right-of-way of State Road No. 80 and Old Olga Road (formerly Highway 31).

Parcel Two

That portion of the West ½ of the NE ¼ of the NW ¼ lying North of State Road 80 in Section 27, Township 43 South, Range 26 East, Lee County, Florida.

This Instrument Prepared by and Return to.

RICHARD W. WINESETT
AVERY, WHIGHAM & WINESETT, P.A.
2248 FIRST STREET
FORT MYERS, FLORIDA 33901

INSTR # 6349770
OR BK 04359 Pgs 0060 - 61; (2pgs)
RECORDED 07/08/2004 04:07:18 PM
CHARLIE GREEN, CLERK OF COURT
LEE COUNTY, FLORIDA
DEED DOC 8,750.00
DEPUTY CLERK J Miller

Property Appraisers Parcel Identification (Folio) Numbers:
27-43-26-00-00003.0000

Grantee SS #:

SPACE ABOVE THIS LINE FOR RECORDING DATA

THIS WARRANTY DEED, made the 15th day of April, A.D. 2004 by WILLIAM SCHULMAN, as Trustee herein called the grantor, whose post office address is 149 Edwards Ave., Calverton, NY 11933, to R & D CATTLE COMPANY, LLC, a Florida Limited Liability Co. whose post office address is 4618 W. Sylvan Ramble St., Tampa, FL 33609, hereinafter called the Grantee:

(Wherever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations)

W I T N E S S E T H: That the grantor, for and in consideration of the sum of TEN AND 00/100'S ($10.00) Dollars and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the grantee all that certain land situate in LEE County, State of Florida, viz:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

THE PROPERTY CONVEYED HEREIN IS NOT THE HOMESTEAD OF THE GRANTOR NOR IS IT CONTIGUOUS TO SAME, BUT IN FACT GRANTOR IS A PERMANENT RESIDENT OF THE STATE OF NEW YORK.

TOGETHER, with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD, the same in fee simple forever.

AND, the grantor hereby covenants with said grantee that the grantor is/are lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land, and hereby warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to December 31, 2003.

IN WITNESS WHEREOF, the said grantor has signed and sealed these presents the day and year first above written.

Signed, sealed and delivered in the presence of:

Signature
JAMES YORK
Printed Signature

Signature
ROBERT DART
Printed Signature

WILLIAM SCHULMAN, TRUSTEE L.S.

STATE OF NEW YORK
COUNTY OF Suffolk

The foregoing instrument was acknowledged before me this 29th day of June, 2004 by WILLIAM SCHULMAN, who is/are [] personally known to me or has produced [] driver license(s) or [] FLORIDA STATE DL as identification.

SEAL

Notary Signature

Printed Notary Signature
My Commission Expires:

RICHARD T. RITCHIE
NOTARY PUBLIC, State of New York
No. 41-464[illegible]
Qualified in Queens County
Commission Expires [illegible]

EXHIBIT "A"

The NW ¼ of the NW ¼ of Section 27, Township 43 South, Range 26 East, Lee County, Florida,

Less that portion thereof which is described as follows: Begin at the east line of the right-of-way of State Road (Old Olga Road) at the north line of Section 27, thence south along the east line of said right-of-way a distance of 50 feet for a point of beginning of the land herein described; thence south parallel with the east line of said right-of-way, 210 feet; thence east parallel with the north line of said Section, 420 feet; thence north parallel with the east line of said right-of-way, 210 feet; thence west to the point of beginning.

And less one parcel of one and one-quarter acres which is described as follows: Beginning at the NE corner of the intersection of Route 80 and Old Olga Road (formerly Highway 31), thence run northerly along Old Olga Road (formerly Highway 31), 210 feet; thence easterly and parallel with the northerly line of Route 80, 240 feet; thence southerly and parallel to Old Olga Road (formerly Highway 31) to the northern boundary of Route 80; thence westerly along the northern boundary of Route 80 to the point or place of beginning;

And less, also, approximately one acre of land described as follows: Begin at the intersection of the east line of a drainage ditch and the north line of State Road 80 in the SW ¼ of the NW ¼ of the NW ¼ of said Section 27; thence run easterly along the said road 80 yards; thence north parallel to Old Olga Road (formerly Highway 31), 60 yards; thence west parallel to the north line of State Road 80, 80 yards; thence south along drainage ditch to point of beginning, less the right-of-way of State Road No. 80.

EXCEPTING from the parcel conveyed the right-of-way of State Road No. 80 and Old Olga Road (formerly Highway 31).

MORRIS DEPEW

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LC26000330

LETTER OF AUTHORIZATION

TO WHOM IT MAY CONCERN:

PLEASE BE ADVISED THAT I (WE) AM (ARE) THE FEE SIMPLE PROPERTY OWNER(S) OF THE PROPERTY DESCRIBED BELOW AND THAT MORRIS-DEPEW ASSOCIATES, INC. HAS BEEN AUTHORIZED TO REPRESENT ME (US) FOR THE BELOW REFERENCED PARCEL(S) IN ALL MATTERS PERTAINING TO REZONING OR DEVELOPMENT PERMITS. THIS AUTHORITY TO REPRESENT MY (OUR) INTEREST INCLUDES ANY AND ALL DOCUMENTS REQUIRED BY THE REZONING, PLANNING OR PERMITTING REQUESTS SUBMITTED ON MY (OUR) BEHALF BY MORRIS-DEPEW ASSOCIATES, INC.

STRAP NUMBER OR LEGAL DESCRIPTION:

STRAP# : 27-43-26-00-00003.

Kenneth Ralph Bond

OWNER NAME

SIGNATURE

STATE OF FL

COUNTY OF Lee

The foregoing instrument was acknowledged before me this 12th day of August, 2008, by Kenneth Ralph Bond, who is personally known to me or has produced FL. Drivers License as identification and did not take an oath.

My Commission Expires:

Sheila M Holland

Notary Public

SHEILA M. HOLLAND
MY COMMISSION # DD710278
EXPIRES September 07, 2011
(Seal)
(407) 398-0153 FloridaNotaryService.com

Sheila M Holland

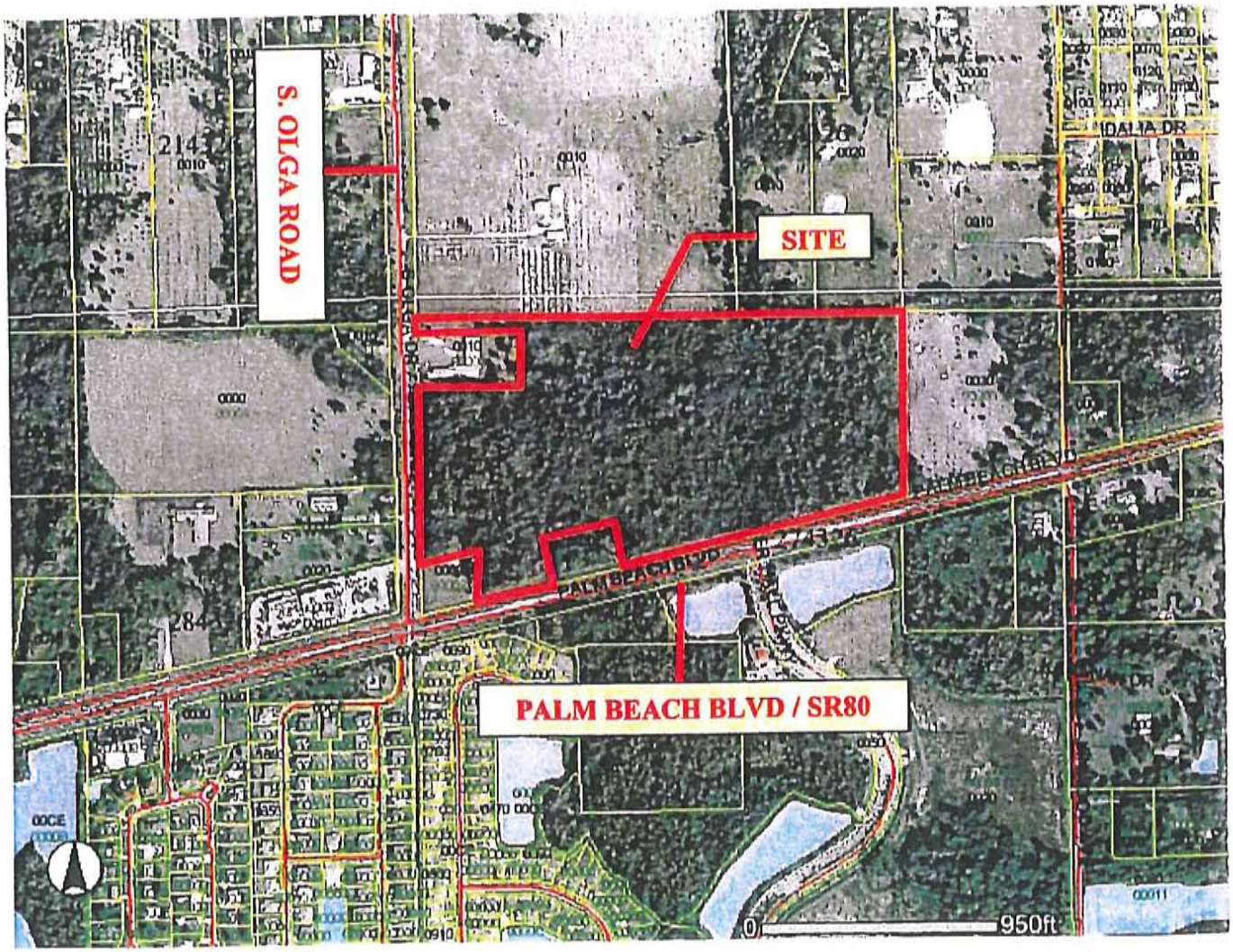
Notary Printed Name

MORRIS DEPEW

ENGINEERS • PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
#LC26000330

Aerial Map

Strap # 27-43-26-00-00003.0000



jmb transportation engineering, inc.
traffic/transportation engineering & planning

TRANSPORTATION RESPONSE

FOR

R & D CATTLE COMPANY PROPERTY COMPREHENSIVE PLAN AMENDMENT

(Project No. 080715)
August 14, 2008

Prepared By:

JMB TRANSPORTATION ENGINEERING, INC.
761 21ST Street NW
Naples, Florida 34120
239-919-2767

James M. Banks, P.E.
Reg. No. 43860

8/14/08
Date

TABLE OF CONTENTS

PURPOSE OF REPORT

The following Report has been prepared pursuant to the criteria set forth by the Lee County Government's Comprehensive Plan Amendment Application. This Report provides a response to Section B. Public Facilities Impacts, 1. Traffic Circulation Analysis of the Comprehensive Plan Amendment Application.

SCOPE OF PROJECT

The R & D Cattle Property has a developable land area of approximately 32 acres. The subject property is located at the northeast corner of South Olga Drive @ State Road 80, within Lee County, Florida (refer to Figure 1-Project Location Map).

The Applicant is requesting approval for a change in its permitted land use in order to construct 270,000 square feet of commercial retail space and 75,250 square feet of commercial office space. Vehicular ingress/egress will be provided via a full access onto State Road 80. This access will be aligned with the existing River Hall Parkway @ State Road 80 intersection. The project's access will create the north leg of the intersection.

PROJECT GENERATED TRAFFIC

Traffic which can be expected to be generated by the project has been estimated based upon the guidelines established by the Institute of Transportation Engineers, Trip Generation Manual, 7th Edition. That is, historical traffic data collected at similar land uses was relied upon in estimating the project's traffic. In referencing the historical data provided by the Trip Generation Manual, it was concluded that Land Use Codes "Shopping Center" (LUC 820) and "Office Park" (LUC 750) were most appropriate in estimating the project traffic. Table 1B provides a detail of the computations that were performed in determining the commercial retail trip generations. As shown, the retail trip generations were adjusted to reflect pass-by captured trips. Table 1C details the trip generation computations for the commercial office space. Table 1A provides a summary of the total retail plus office trip generations for the AM and PM peak hours of the adjacent street, as well as, total daily periods. The following provides a summary of the project's net new external trips.

Land Use	Build-out	New Trips Daily (ADT)	New Trips AM Peak (VPH)	New Trips PM Peak (VPH)
LUC 820	270,000 S.F.	9,196 ADT	202 VPH	856 VPH
LUC 750	75,250 S.F.	859 ADT	171 VPH	113 VPH
Totals		**10,055 ADT**	**373 VPH**	**969 VPH**

TRANSPORTATION CRITERIA & APPLICANT'S RESPONSE

B. Public Facilities Impacts

1. Traffic Circulation Analysis
   The analysis is intended to determine the effect of the land use change on the Financially Feasible Transportation Plan/Map 3A (20-year horizon) and on the Capital Improvements Element (5-year horizon). Toward that end, an applicant must submit the following information:

   Long Range – 20-year Horizon:

   a. Working with Planning Division staff, identify the traffic analysis zone (TAZ) or zones that the subject property is in and the socio-economic data forecasts for that zone or zones;

      Response: *The Applicant and Lee County Planning Division have completed this task.*

   b. Determine whether the requested change requires a modification to the socio-economic data forecasts for the host zone or zones. The land uses for the proposed change should be expressed in the same format as the socio-economic forecasts (number of units by type/number of employees by type/etc.);

      Response: *A modification to the socio-economic data forecasts for the host zone was warranted. Lee County Government will perform the modification to the socio-economic data forecasts for the host zone.*

   c. If no modification of the forecasts is required, then no further analysis for the long range horizon is necessary. If modification is required, make the change and provide to Planning Division staff, for forwarding to DOT staff;

      Response: *The information has been provided to LDOT staff.*

   d. If no modifications to the network are required, then no further analysis for the long range horizon is necessary. If modifications are necessary, DOT staff will determine the scope and cost of those modifications and the effect on the financial feasibility of the plan;

      Response: *The Applicant is awaiting results from LDOT.*

   e. An inability to accommodate the necessary modifications within the financially feasible limits of the plan will be a basis for denial of the requested land use change;

Response: *The Applicant is awaiting results from LDOT.*

f. If the proposal is based on a specific development plan, then the site plan should indicate how facilities from the current adopted Financially Feasible Plan and/or the Official Trafficways Map will be accommodated.

Response: *The proposal will not affect the adopted Financially Feasible Plan and/or the Official Trafficways Map. As such, there are no accommodations that are indicated on the site plan.*

Traffic Circulation Analysis

Short Range – 5-year CIP horizon:

a. Besides the 20-year analysis, for those plan amendment proposals that include a specific and immediate development plan, identify the existing roadways serving the site and within a 3-mile radius (indicate laneage, functional classification, current LOS, and LOS standard);

Response: *Figure 1 depicts the project's surrounding roadway conditions. Table 2A provides a detail of the roadways' laneage, functional classification and LOS standard. Figure 3 and Table 2C detail the roadways' current LOS.*

b. Identify the major road improvements within the 3-mile study area funded through the construction phase in adopted CIP's (County or Cities) and the State's adopted Five-Year Work Program; Projected 2020 LOS under proposed designation (calculate anticipated number of trips and distribution on roadway network, and identify resulting changes to the projected LOS);

Response: *Figure 3 provides a detail of the E + C road network based upon Lee County's adopted 5-Year C.I.P. As shown, the only committed improvement within the 3-mile study area is the four-laning of Buckingham Road.*

The project's traffic was distributed to the surrounding roadway network based upon logical means of ingress/egress; current and future traffic patterns in the area; demographics; business opportunities and competing markets; as well as, growth trends for the surrounding areas. Figure 2 provides a detail of the project traffic distribution based upon a percentage basis. Table 2A details the total project traffic distribution by percentage and peak hour peak direction basis for all roadway links within the 3-mile study area.

Lee County DOT will provide the projected 2020 LOS results.

c. For the five-year horizon, identify the projected roadway conditions (volumes and levels of service) on the roads within the 3-mile study area with the programmed improvements in place, with and without the proposed development project. A methodology meeting with DOT staff prior to submittal is required to reach agreement on the projection methodology;

Response: *In order to establish the 5-year horizon traffic conditions, traffic count data was adjusted for peak season conditions, peak hour conditions, peak direction, and an annual growth rate was then applied. The peak season/peak hour/peak direction factor as shown on Table 2B was derived from the 2007 Lee County Traffic Count Report. The annual growth rate was derived from historical traffic counts also described in the Traffic Count Report. After the correct adjustments were computed, the project generated traffic was then added to the 2013 Background Traffic.*

Figure 2 provides a detail of the project traffic distribution based upon a percentage basis. Table 2A details the total project traffic distribution by percentage and peak hour peak direction basis for all roadway links within the 3-mile study area. Figure 3 and Table 2C provide a detail of the 2009 traffic conditions, 2013 background traffic conditions and 2013 background traffic plus project traffic conditions. The LOS operation has also been provided by Figure 3 and Table 2C.

d. Identify the additional improvements needed on the network beyond those programmed in the five-year horizon due to the development proposal.

Response: *There are no additional improvements needed on the network beyond those programmed in the 5-year horizon due to the development of the proposal. The only 5-year transportation deficiency identified will be State Road 80 (west of Buckingham Road), which will occur regardless of the proposal. It should be noted that this segment of State Road 80 is part of the Florida Department of Transportation's Strategic Intermodal System (SIS). The segment of road has an assigned minimum level of service standard of LOS D. It was determined that State Road 80 (west of Buckingham Road) will not maintain LOS D operation during the 5-year horizon, but it will not operate at LOS F.*

APPENDIX

TABLES 1A thru 2C

FIGURES 1 thru 3

MISC. SUPPORT DOCUMENTATION

TABLE 1A
R & D Property Comprehensive Plan Amendment
Trip Generation Summary

TOTAL NEW EXTERNAL PROJECT GENERATED TRIP ENDS

Retail "+" Office Trip Generations

(Refer to Tables 1B and 1C for Trip Generation Computations)

NEW DAILY TRAFFIC (ADT)		
Daily Traffic =	(9,196 + 859) =	**10,055 ADT**
NEW AM PEAK HOUR TRAFFIC (VPH)		
AM Peak Hour =	(202)+(171) =	**373 vph**
Enter/Exit =	(123)+(152)/(79)+(19)	275/98 vph
NEW PM PEAK HOUR TRAFFIC (VPH)		
PM Peak Hour =	(856) + (113)	**969 vph**
Enter/Exit =	(411)+(16)/(445)+(97)	427/542 vph

TABLE 1B
R & D Property Comprehensive Plan Amendment
Commercial Retail Trip Generation Computations

Land Use Code	**Land Use Code Description**	**Build-out Schedule**
LUC 820	Shopping Center	270,000 Square Feet

****

Unadjusted Trip Generations

DAILY TRAFFIC (ADT)
Daily Traffic = Ln(T)=0.65Ln(X)+5.83 = 0.65Ln(270) + 5.83= **12,952 ADT**

AM PEAK HOUR TRAFFIC (VPH)
AM Peak Hour = Ln(T) = 0.60Ln(X)+2.29 = 0.60Ln(270)+2.29 = **284 vph**
61%Enter/39%Exit = 173/111 vph

PM PEAK HOUR TRAFFIC (VPH)
PM Peak Hour = Ln(T) = 0.66Ln(X) + 3.4 = 0.66Ln(270) + 3.4 = **1,206 vph**
48%Enter/52%Exit = 579/627 vph

****

Adjusted for Pass-by Capture

PASS-BY ADJUSTMENT
Pass By Percentage = Ln(T) = -0.29 Ln(270) + 5.00 = 29 %

NEW DAILY TRAFFIC (ADT)
Daily Traffic = (12,952 ADT) * 71% = **9,196 ADT**

NEW AM PEAK HOUR TRAFFIC (VPH)
AM Peak Hour = (284 vph) * 71% = **202 vph**
61%Enter/39%Exit = 123/79 vph

NEW PM PEAK HOUR TRAFFIC (VPH)
PM Peak Hour = (1,206 vph) * 71% = **856 vph**
48%Enter/52%Exit = 411/445 vph

TABLE 1C
R & D Property Comprehensive Plan Amendment
Commercial Office Trip Generation Computations

Land Use Code	**Land Use Code Description**	**Build-out Schedule**
LUC 750	Office Park	75,250 Square Feet

DAILY TRAFFIC (ADT)
LUC 750
Daily Traffic = T = 11.42(X)= 11.42(75.25) = **859 ADT**

AM PEAK HOUR TRAFFIC (VPH)
LUC 750
AM Peak Hour = Ln(T) = 0.84Ln(X) + 1.51 = 0.84Ln(75.25) + 1.51 = **171 vph**
89%Enter/11%Exit = **152/19 vph**

PM PEAK HOUR TRAFFIC (VPH)
LUC 750
PM Peak Hour = T = 1.5(X) = 1.5(75.25) = **113 vph**
14%Enter/86%Exit = **16/97 vph**

TABLE 2A
PROJECT'S AREA OF IMPACT

Project Traffic Peak Direction (vph) = 542

		Road Class	Service Volume LOS Standard	LOS Service PK Direction Volume (vph)	Project Traffic % Distribution	Project Traffic PK Direction Volume (vph)	Percentage Impact
Buckingham Road	S. of State Road 80	2LN	E	1010	15%	81	8.05%
State Road 80	W. of Buckingham Road	4LD	D	2050	45%	244	11.90%
	Buckingham Rd to Werner	4LD	D	2050	60%	325	15.86%
	Werner Rd to Joel Blvd	4LD	C	2130	20%	108	5.09%

TABLE 2B
ROADWAY LINK VOLUME/CAPACITY ANALYSIS

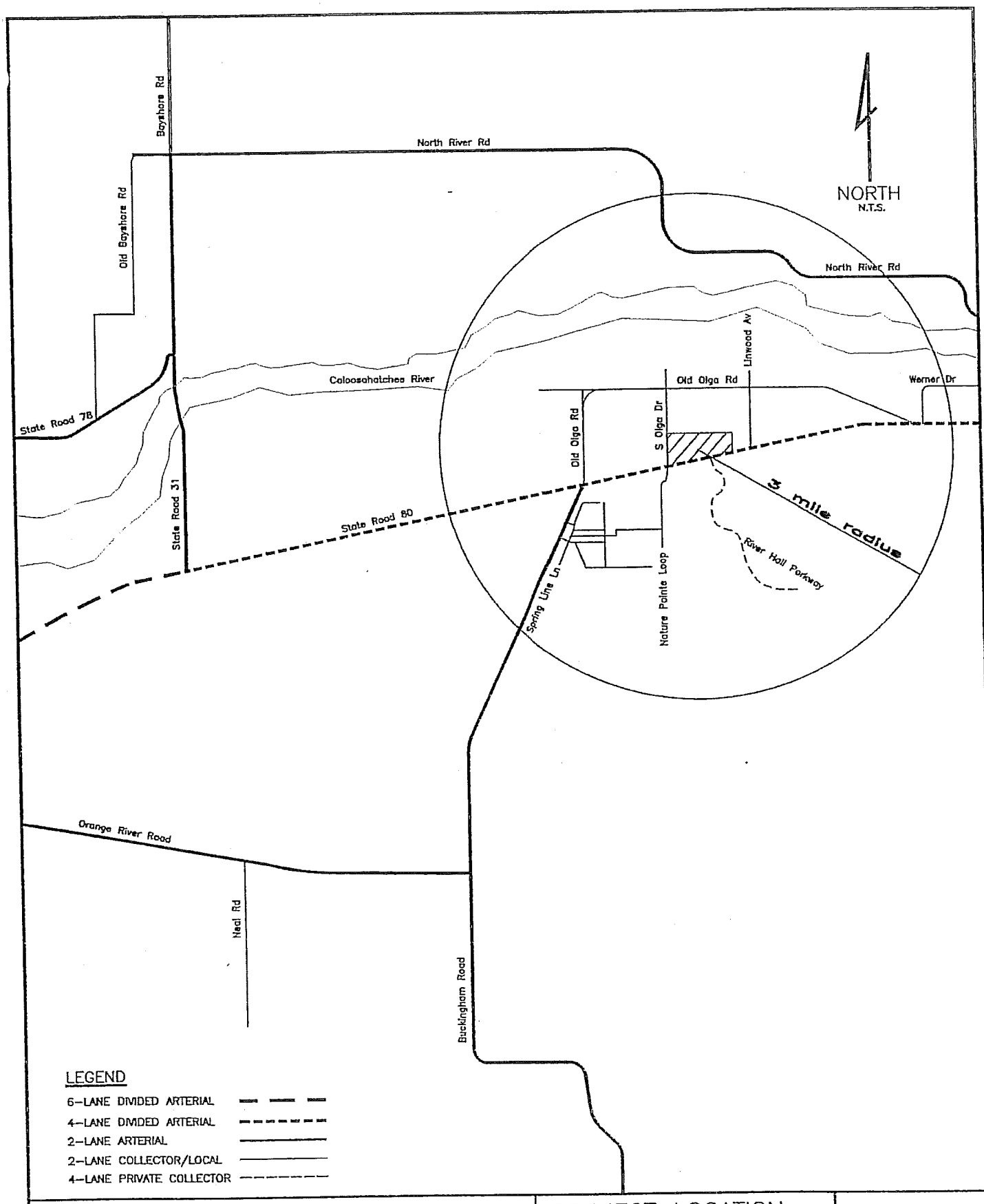
		K100 Factor	Directional Factor				
P.C.S. 3		0.095	58%				
P.C.S. 4				P.C.S. 50	0.095	60%	
P.C.S. 5							
P.C.S. 11		0.104	52%				

		Station Adjustment	1st Year Traffic Count (ADT)	2007 Traffic Count (ADT)	Years of Growth	Growth Rate	K100 Factor	Directional Factor	2007 Peak Hour PK Direction (VPH)	2009 Peak Hour PK Direction (VPH)	2013 Peak Hour PK Direction (VPH)
Buckingham Road	S. of State Road 80	11	5300	9600	9	6.82%	0.104	52%	519	592	771
State Road 80	W. of Buckingham Road	11	24700	34400	9	3.75%	0.104	52%	1750	1884	2182
	Buckingham Rd to Werner	11	14200	22900	9	5.45%	0.104	52%	1238	1377	1703
	Werner Rd to Joel Blvd	11	14200	22900	9	5.45%	0.104	52%	1238	1377	1703

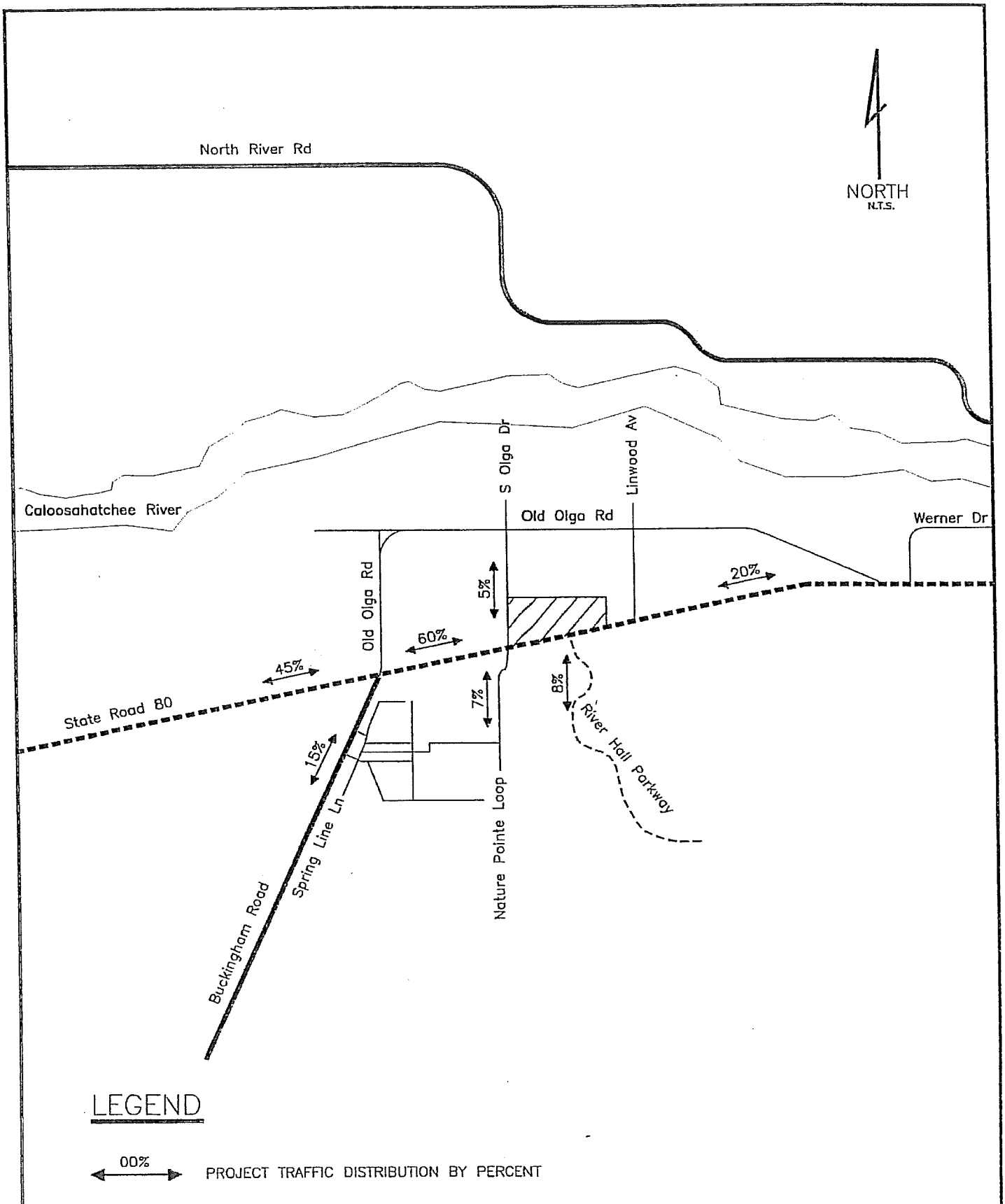
TABLE 2C
ROADWAY LINK VOLUME/CAPACITY ANALYSIS

		2009 Peak Hour PK Direction (VPH)	2009 Peak Hour PK Direction LOS	2013 Peak Hour PK Direction Background (VPH)	2013 Peak Hour PK Direction Background LOS	Project Peak Hour PK Direction (VPH)	2013 Build-Out Peak Hour PK Direction (VPH)	Service Vol. Peak Hour PK Direction (VPH)	v/c Ratio	2013 Build-Out Peak Hour PK Direction LOS
Buckingham Road	S. of State Road 80	592	B	771	B	81	853	1950	0.44	B
State Road 80	W. of Buckingham Road	1884	D	2182	E	244	2426	2050	1.18	E
	Buckingham Rd to Werner	1377	D	1703	D	325	2028	2050	0.99	D
	Werner Rd to Joel Blvd	1377	C	1703	C	108	1811	2130	0.85	C

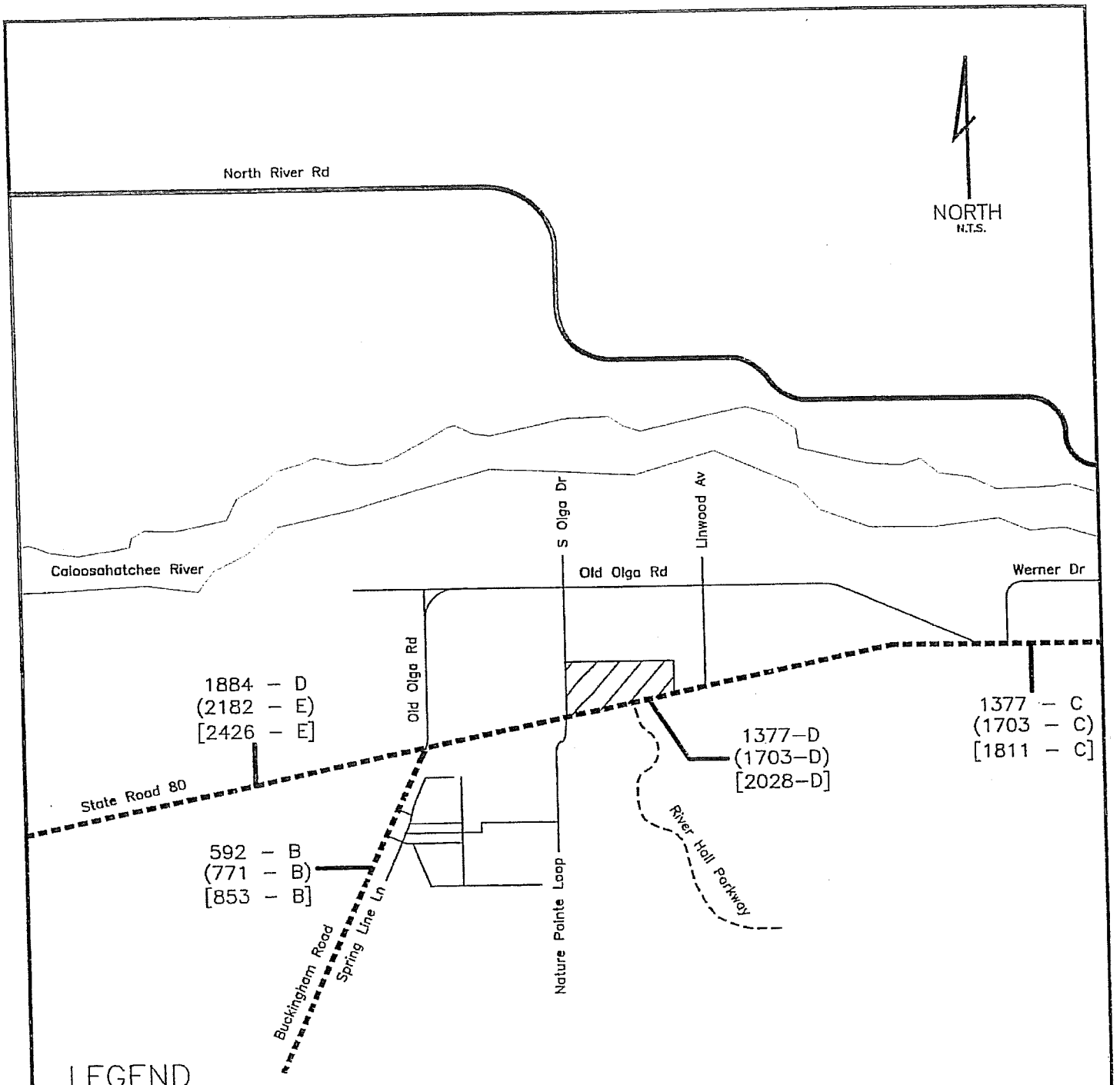
9-A



R & D PROPERTY COMPREHENSIVE PLAN AMENDMENT AUGUST 11, 2008	PROJECT LOCATION & EXISTING ROADWAY CLASSIFICATION	FIGURE 1



R & D PROPERTY COMPREHENSIVE PLAN AMENDMENT AUGUST 11, 2008	PROJECT–GENERATED TRAFFIC DISTRIBUTION	FIGURE 2



LEGEND

000 – C 2009 PK HR/PK DIRECTION TRAFFIC – LEVEL OF SERVICE
(000 – C) 2013 BACKGROUND PK HR/PK DIRECTION TRAFFIC – LEVEL OF SERVICE
[000 – C] 2013 BACKGROUND + PROJECT PK HR/PK DIRECTION TRAFFIC – LEVEL OF SERVICE

- 6–LANE DIVIDED ARTERIAL
- 4–LANE DIVIDED ARTERIAL
- 2–LANE ARTERIAL
- 2–LANE COLLECTOR/LOCAL
- 4–LANE PRIVATE COLLECTOR

R & D PROPERTY COMPREHENSIVE PLAN AMENDMENT AUGUST 11, 2008	E + C ROADWAYS & LOS DESIGNATION FOR 5–YEAR HORIZON	FIGURE 3

ROADWAY LINK NAME	FROM	TO	ROAD TYPE	PERFORMANCE STANDARD		2006 100th HIGHEST HR		EST 2007 100th HIGHEST HR		FORECAST FUTURE VOL		NOTES*	LINK NO.
				LOS	CAPACITY	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME		
BONITA BEACH RD	OLD 41	IMPERIAL ST	4LD	E	1,870	C	1,420	D	1,459	D	1,468	6 Ln under design, construction proposed in 2009/10	02700
BONITA BEACH RD	IMPERIAL ST	I-75	6LD	E	2,800	C	1,432	C	1,433	C	1,539		02800
BONITA BEACH RD	I-75	BONITA GRANDE DR	4LD	E	1,920	B	858	B	925	C	1,581		02900
BONITA GRANDE DR	COLLIER COUNTY LINE	BONITA BEACH RD	2LU	E	860	C	153	C	154	C	208		03000
BONITA GRANDE DR	BONITA BEACH RD	EAST TERRY ST	2LU	E	860	D	432	D	434	D	472		03100
BOY SCOUT DR	SUMMERLIN RD	US 41	6LD	E	2,710	D	1,357	D	1,363	D	1,366		03200
BRANTLEY RD	SUMMERLIN RD	US 41	2LU	E	860	C	193	C	245	C	310		03300
BRIARCLIFF DR	US 41	TRIPLE CROWN CT	2LU	E	860	C	297	C	304	C	316		03400
BROADWAY (ALVA)	PALM BEACH BL (SR 80)	NORTH RIVER RD	2LU	E	860	C	298	C	299	C	299		03500
BROADWAY (ESTERO)	LOGAN AVE	US 41	2LU	E	860	C	155	C	173	C	227		03600
BUCKINGHAM RD	IMMOKALEE RD (SR 82)	GUNNERY RD	2LU	E	1,010	D	381	D	459	D	490		03700
BUCKINGHAM RD	GUNNERY RD	ORANGE RIVER BL	2LU	E	1,010	D	381	D	381	D	381		03730
BUCKINGHAM RD	ORANGE RIVER BL	PALM BEACH BL (SR 80)	2LU	E	1,010	D	546	D	556	E	797	4 Ln proposed for construction in 2011/12	03800
BURNT STORE RD	PINE ISLAND RD (SR 78)	DIPLOMAT PKWY	2LU	E	1,010	D	591	D	591	D	617	4Ln under design, ROW scheduled 2008-2012	03900
BURNT STORE RD	DIPLOMAT PKWY	CHARLOTTE COUNTY LINE	2LU	E	1,010	C	316	C	319	D	412		04000
BUS 41 (SR 739)	SR 80	FT MYERS CITY LIMIT	6LD	E	4,170	C	2,300	C	2,300	C	2,300		04100
BUS 41 (SR 739)	FORT MYERS CITY LIMIT	PONDELLA RD	6LD	E	3,090	D	2,533	D	2,534	D	2,534		04200
BUS 41 (SR 739)	PONDELLA RD	PINE ISLAND RD	6LD	E	3,090	C	1,892	C	1,892	C	1,892		04300
BUS 41 (SR 739)	PINE ISLAND RD	LITTLETON RD	4LD	E	1,950	B	1,322	B	1,329	B	1,380	4 Ln under construction	04400
BUS 41 (SR 739)	LITTLETON RD	US 41	2LU	E	910	B	563	B	563	B	563	4 Ln Design funded in 2006/07 by County	04500
CAPE CORAL BR RD	DEL PRADO BL	McGREGOR BL	4L	E	2,120		2,345		2,345		2,345	Intersection improvement at Del Prado in 2008, possible 1-way tolling	04600
CAPTIVA RD	BLIND PASS	SOUTH SEAS PLANTATION	2LU	E	860	C	337	C	351	C	351	Constrained v/c = 0.39	04700
CEMETERY RD	BUCKINGHAM RD	HIGGINS AVE	2LU	E	860	C	268	C	335	C	335		04800
CHAMBERLIN PKWY	AIRPORT ENT	DANIELS PKWY	4LD	E	1,950	A	177	A	177	A	177	Port Authority maintained	04900
COCONUT RD	SPRING CREEK RD	US 41	2LN	E	860	C	265	C	272	C	339		05000
COCONUT RD	US 41	THREE OAKS PKWY	4LD	E	1,800	C	667	C	667	C	667	Privately maintained	05030
COLLEGE PKWY	McGREGOR BL	WINKLER RD	6LD	E	3,060	C	2,007	C	2,051	C	2,051		05100

ROADWAY LINK NAME	FROM	TO	ROAD TYPE	PERFORMANCE STANDARD		2006 100th HIGHEST HR		EST 2007 100th HIGHEST HR		FORECAST FUTURE VOL		NOTES*	LINK NO.
				LOS	CAPACITY	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME		
PALM BEACH BL (SR 80)	I-75	SR 31	6LD	D	3,080	A	1,453	A	1,579	A	1,861		20100
PALM BEACH BL (SR 80)	SR 31	BUCKINGHAM RD	4LD	D	2,050	B	1,700	B	1,750	B	1,841		20200
PALM BEACH BL (SR 80)	BUCKINGHAM RD	WERNER DR	4LD	D	2,050	A	1,241	A	1,271	F	2,141		20300
PALM BEACH BL (SR 80)	WERNER DR	JOEL BL	4LD	C	2,130	A	845	A	849	A	849		20330
PALM BEACH BL (SR 80)	JOEL BLVD	HENDRY COUNTY LINE	4LD	C	2,130	A	845	A	854	B	990		20400
PALOMINO RD	DANIELS PKWY	PENZANCE BL	2LU	E	860	C	199	C	200	C	220		20500
PARK MEADOW DR	SUMMERLIN RD	US 41	2LU	E	860	C	143	C	144	C	151		20600
PENNSYLVANIA AVE	ARROYAL ST	OLD 41	2LU	E	860	C	237	C	248	C	251		20700
PENZANCE BL	RANCHETTE RD	SIX MILE CYPRESS PKWY	2LU	E	860	C	126	C	129	C	193		20800
PINE ISLAND RD	STRINGFELLOW BL	BURNT STORE RD	2LN	E	1,010	E	590	E	591	E	598	Constrained in part v/c = 0.59	20900
PINE ISLAND RD (SR 78)	BURNT STORE RD	CHIQUITA BL	2LN	C	940	B	682	B	702	B	722		21000
PINE ISLAND RD (SR 78)	CHIQUITA BL	SANTA BARBARA BL	4LD	C	1,900	B	1,180	B	1,180	B	1,180		21100
PINE ISLAND RD (SR 78)	SANTA BARBARA BL	DEL PRADO BL	4LD	C	2,010	C	1,912	C	1,917	C	1,926		21200
PINE ISLAND RD (SR 78)	DEL PRADO BL	BARRETT RD	4LD	E	2,100	B	1,136	B	1,137	B	1,137		21300
PINE ISLAND RD (SR 78)	BARRETT RD	US 41	4LD	E	2,100	B	1,061	B	1,077	B	1,077		21400
PINE ISLAND RD (SR 78)	US 41	BUSINESS 41	4LD	E	1,990	D	1,487	D	1,500	D	1,500		21500
PINE RIDGE RD	SAN CARLOS BL	SUMMERLIN RD	2LU	E	860	D	473	D	473	D	533		21600
PINE RIDGE RD	SUMMERLIN RD	GLADIOLUS BL	2LU	E	860	C	252	C	262	C	300		21700
PINE RIDGE RD	GLADIOLUS DR	McGREGOR BL	2LU	E	860	C	284	C	284	C	284		21800
PLANTATION RD	SIX MILE CYPRESS PKWY	DANIELS PKWY	2LU	E	860	D	613	D	645	F	1,061	4 Ln construction scheduled in 2010/11	21900
PLANTATION RD	DANIELS PKWY	IDLEWILD ST	2LU	E	860	C	155	C	168	C	222		22000
PONDELLA RD	PINE ISLAND RD (SR 78)	ORANGE GROVE BL	4LD	E	2,010	C	776	C	776	C	778		22100
PONDELLA RD	ORANGE GROVE BL	US 41	4LD	E	2,010	C	1,216	C	1,217	C	1,217		22200
PONDELLA RD	US 41	BUSINESS 41	4LD	E	2,010	C	996	C	997	C	997	Hancock Br Pkwy Ext corridor study proposed in 2007/08	22300
PRICHETT PKWY	BAYSHORE RD	RICH RD	2LU	E	860	B	103	B	103	B	103		22400
RANCHETTE RD	PENZANCE BL	IDLEWILD ST	2LU	E	860	B	73	B	73	B	73		22500
RICH RD	SLATER RD	PRITCHETT PKWY	2LU	E	860	B	81	B	81	B	81		22600
RICHMOND AVE	LEELAND HEIGHTS BL	E 12th ST	2LU	E	860	B	89	C	150	C	169		22700
RICHMOND AVE	E 12th ST	GREENBRIAR BL	2LU	E	860	B	61	B	107	B	107		22800

PERIODIC COUNT STATION DATA

STREET	LOCATION	Station #	MAP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	NOTE	PERMANENT STATION
BONITA BEACH RD	E OF VANDERBILT RD	7	H	21500	24700	25300	26400	25800	25600	23900		U/C	U/C		
	E OF ARROYAL RD	221	H	20700	22000	24200	23700	24700	23600	27000	25200	25600	26300		16
	E OF OLD 41 RD	226	H	19700	25500	26000	24100	28800	26400	30900	28000	31100	33300		16
	W OF I-75	42	H	21400	24300	26900	26800	27400	28700	29100		29300	29000		
	E OF I - 75	235	H	9300	9700	10200	9900	11600	12400	15300	16500	18800	16300		16
BONITA GRANDE DR	S OF BONITA BEACH RD	493	H	2700	3100	3400	3400	3000	3000	3400	3500	2900	3600		16
	N OF BONITA BEACH RD	519	H		2100	2000	3900	5800	5400	7400	7100	8200	6800		16
BOY SCOUT DR	W OF US 41	229	B	23100	23300	23700	23200	23300	23400	28500	28000	27400	27400		35
BRAMAN AVE	W OF US 41	616	B			800	900	800	900	1000		800	1100		28
BRANTLEY RD	W OF US 41	230	B	3600	4000	3900	4100	3900	3800	4100	3500	3900	3400		35
BRIARCLIFF RD	E OF US 41	460	G	5000	4100	4200	4600	5100	5100	6400	5900	5500	5600		25
BROADWAY (ESTERO)	W OF US 41	463	H	3100	2200	2500	2700	3200	2600	3700	3400	3500	3600		25
BROADWAY AVE	S OF M.L.K. BLVD (SR 82)	600	A			3300	3600	3700	3600	4100	2600	3700	3700		28
	N OF SOLOMON AVE	601	B			6800	5600	8000	6700	8000	7700	8300	7700		28
BROADWAY RD	S OF ALVA BRIDGE	231	H	3600	5000	4800	4500	5200	5300	5700	5200	5800	4900		11
BUCKINGHAM RD	S OF PALM BEACH BLVD	11	D	5300	5700	5900	6200	6900	7300	8000	8700	9900	9600		
	E OF ALVIN AVE	232	E	3200	3000	3000	2800	3300	3600	4500	5200	7400	7600		11
BURNT STORE RD	N OF PINE ISLAND RD	233	I	3800	3700	4100	4300	5600	7600	11600	11800	12200	11800		12
	S OF CHARLOTTE CO. LINE	12	I	2900	3200	3300	3400	3800	4300	4600	5900	6100	5800		
BUSINESS 41	N OF EDISON BRIDGE	41	C	27700	29000	28300	27700	28700	29200	30800	33600	34900	29300		
	N OF PONDELLA RD	397	C	25000	26800	24200	25000	25500	26300	26900	27700	27900	24400		41
	N OF POWELL DR	394	C	17400	17900	15100	16500	16800	17000	18600	22100	19500	17400		41
	N OF LAUREL DR	396	C	9900	9900	9200	7800	9000	8200	9800	9300	8300	7700		41

PERIODIC COUNT STATION DATA

STREET	LOCATION	Station #	MAP	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	NOTE	PERMANENT STATION
ORANGE RIVER BLVD	S OF PALM BEACH BLVD	353	D	7100	7200	6900	7000	7800	7800	7400	8100	8900	8700		11
	E OF STALEY RD	352	D	4900	5000	4500	4400	5600	5800	5900	7100	8300	7800		11
ORIOLE RD	S OF ALICO RD	462	H	3000	3000	2500	2900	2600	2600	2300	2400	2800	2500		25
ORTIZ AVE	N OF COLONIAL BLVD	354	E	10400	11700	9900	12800	13500	13700	18100	18300	17600	16000		18
	N OF M.L.K. BLVD (SR 82)	355	A	11800	12100	11700	13300	13700	U/C	15100	17000	17900	16800		18
	N OF TICE ST	356	A	8300	8900	8400	8800	9200	8400	9200	9500	10100	8600		18
PALM BEACH BLVD (SR 80)	W OF TICE STREET	452	A	25500	26300	26400	27100	28700	28700	27800	29100	30100	31400		11
	E OF ORTIZ BLVD	359	A	26700	26700	27000	25800	27400	29200	27000	26000	28400	26800		11
	W OF SR 31	5	D	23800	24500	24900	25300	25000	22800	25800	23900	28100	U/C		
	E OF SR 31	360	D	24700	26000	25200	27000	27900	27900	29400	31700	35200	34400		11
	E OF BUCKINGHAM RD	362	D	14200	15400	14900	15800	16800	18100	18900	21900	25700	22900		11
	W OF HENDRY CO LINE	358	D	9700	10500	9300	9000	11200	12100		15700	17500	15100		11
PALOMINO RD	N OF DANIELS	501	E	800	600	700	700	2100			5000	4500	5100		31
PAUL J DOHERTY PKWY	S OF DANIELS PKWY	51	E					1600	1700	1400	1000	800	1300		
PARK MEADOWS DR	W OF US 41	363	B	4300	4200	4200	4700	3900	3400	3900	4000	3800	3700		9
PENNSYLVANIA AVE	W OF OLD 41	494	H	2700	4000	3700	3400	4100	4100	4000	4900	4500	4300		16
PENZANCE BLVD	W OF SIX MILE CYPRESS PKW	483	E	1000	1200	1100	1500	1600	2100	2500	2300	2400	2300		45
PERIWINKLE DR	E OF CAUSEWAY RD								4800						
	W OF CAUSEWAY RD								17800						
PINE ISLAND RD	@ MATLACHA PASS	3	I	10300	10400	10600	10900	11200	11500	12200	11900	11500	10500		

PERMANENT COUNT STATION 11
BUCKINGHAM RD S OF PALM BEACH BLVD

2007 AADT = 9600

K100 Factor - 0.104

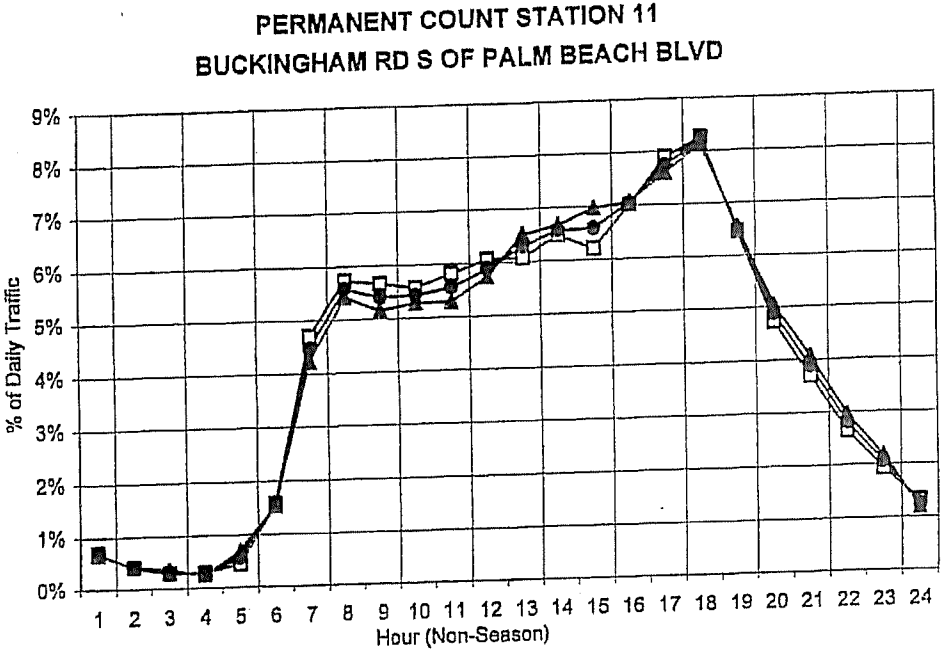
Monthly ADT as a % of Annual ADT

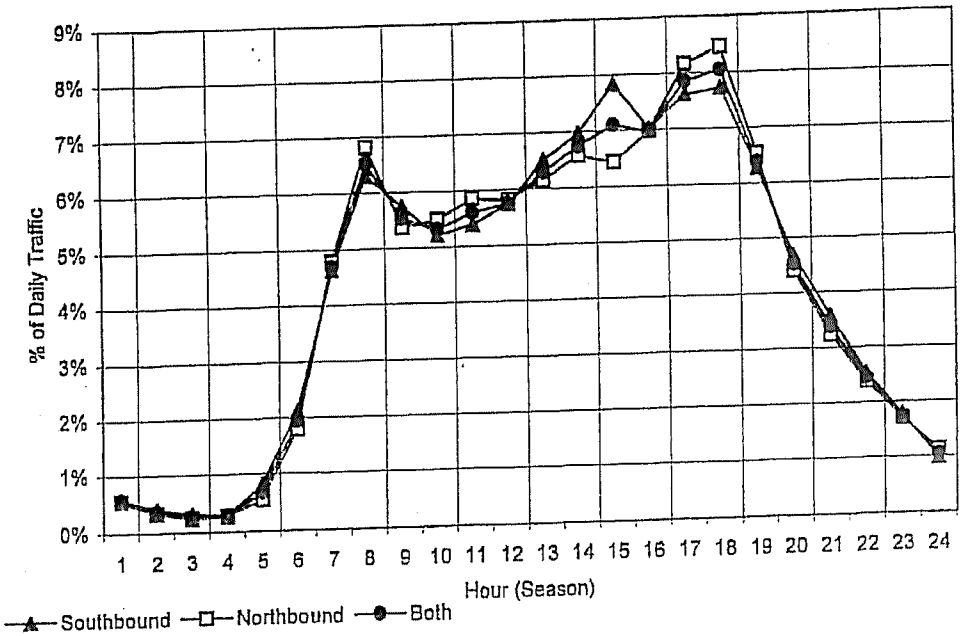
January	106%
February	113%
March	114%
April	106%
May	105%
June	91%
July	84%
August	96%
September	96%
October	100%
November	97%
December	93%

Day of Week as a % of Annual ADT

Monday	101%
Tuesday	107%
Wednesday	108%
Thursday	110%
Friday	114%
Saturday	87%
Sunday	73%

Weekday Peak Flow Characteristics	Non-Season	Season
Peak Flow between 7 a.m. and 9 a.m		
1) as a % of weekday traffic	5.5%	6.0%
2) directional Split (peak direction)	52% Northbound	50% Northbound
Peak Flow between 4 p.m. and 6 p.m.		
1) as a % of weekday traffic	8.0%	8.0%
2) directional Split (peak direction)	51% Northbound	52% Northbound





FY 06/07-10/11 CAPITAL IMPROVEMENT PROGRAM - LEE COUNTY, FLORIDA

PROJ #	17-Jan-08 PROJECT NAME	FUND. SRC.	CIP BUDGET FY 06/07	CIP BUDGET FY 07/08	CIP BUDGET FY 08/09	CIP BUDGET FY 09/10	CIP BUDGET FY 10/11	CIP BUDGET FY 06/07-10/11	CIP BUDGET YEARS 6-10	ADDITIONAL DESCRIPTION-INFORMATION
	ROADS TRANSPORTATION									
204030	Alico Road Multilaning	GT	0	0	600,000	1,000,000	400,000	2,000,000	0	2 to 6 lane widening between Dusty Ln & Three Oaks Pkwy
206002	Bicycle/Pedestrian Facilities	GT	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000	5,000,000	construct bike paths/sidewalks existing Co-maint roads
		I - 21	650	715	787	826	867	3,845	11,000,000	
		I - 22	115,000	127,500	141,250	148,813	156,753	689,316	0	
		I - 23	1,175,000	1,298,500	1,434,350	1,509,068	1,587,521	7,004,439	0	
		I - 24	535,000	596,000	663,100	700,005	738,755	3,232,860	0	
		I - 25	60,000	67,500	75,750	80,288	85,052	368,590	0	
206047	Boca Grande Drainage - Master Drainage	GT	500,000	0	0	0	0	500,000	0	master drainage plan central Boca Grande Community
	Bonita Beach Road-Phase II	TBD						0	11,097,000	Bonita Beach Rd widen 2 to 6 lane 0.9 miles
		A	0	0	0	0	0	0	100,000	
	Bonita Beach Road-Old41 to Lime St	Loan	3,300,000	0	0	0	0	3,300,000	0	
	Buckingham/Orange River-SR80	I-23				1,980,000	15,000,000	16,980,000	11,980,000	widen existing Co arterial 2 to 4 lane 2.55 miles
		A	0	0	0	0	0	0	255,000	
204088	Burnt Store Road 4 Laning	307-21	1,608,937	1,000,000	5,564,068	7,715,941	2,941,287	18,830,233	32,155,000	widen existing rural arterial 2 to 4 lane divided 3.6 miles
205061	Bus 41/Littleton-US 41	I-2	1,048,713	0	0	0	0	1,048,713	0	widen existing 2 lane State arterial to 4 lanes, 2.54 miles
		I-22	351,287	0	0	0	0	351,287	20,690,000	
205615	Cape Coral Toll Plaza Rehab	421-35	6,000,000	0	0	0	0	6,000,000	0	completely rebuild & expand Cape Coral Bridge Toll Facility
205053	Captiva Drive Shoulders	GT	0	0	596,000	0	0	596,000	0	project to add 4-foot shoulders on both sides of Captiva Dr
204054	Colonial Blvd/I75 To SR82	I-23	10,525,000	0	0	0	0	10,525,000	0	widen existing 4 lane to 6 lane rural arterial, 2.65 miles
		TRIP-SIB	3,250,000	0	0	0	0	3,250,000	0	
		A	0	221,000	0	0	0	221,000	0	
205054	Colonial /McGregor - US 41	Debt	0	0	200,000,000	0	181,900,000	381,900,000	0	grade-separation of portion of Colonial per Expressway Cor Study
		307-21	8,605,109	6,894,891	0	0	0	15,500,000		
206064	Colonial @ Metro Queue Jump	Debt	0	0	0	0	24,400,000	24,400,000	0	tolled graded separation of Colonial Blvd over Metro Pkwy
205035	Communications Plant Updates	GT	0	0	300,000	0	0	300,000	0	fiber optic connect Billy Creek-downtown-SONET & FDOT Center
	Corkscrew Curve	GT	0	1,305,000	0	0	0	1,305,000	0	project to easy severe curve on rural, 2-lane arterial
204079	CR 951 Extension South	Debt	0	1,430,000	0	0	0	1,430,000	86,100,000	4 lane CR 951ext,4.5miles inc 1.5 miles of bridging Immokalee Rd-Bonita R
	Collier County Contribution	Contribution	0	5,070,000	0	0	0	5,070,000		
	Daniels 6L/Chamberlin-Gateway	I-23	0	0	0	1,520,000	10,010,000	11,530,000	0	4 to 6 lane 1.7 miles Daniels Airport/Gateway chamberlin to Gateway
		A	0	0	0	0	0	0	200,000	

A - 15

FY 06/07-10/11 CAPITAL IMPROVEMENT PROGRAM - LEE COUNTY, FLORIDA

PROJ #	17-Jan-08 PROJECT NAME	FUND. SRC.	CIP BUDGET FY 06/07	CIP BUDGET FY 07/08	CIP BUDGET FY 08/09	CIP BUDGET FY 09/10	CIP BUDGET FY 10/11	CIP BUDGET FY 06/07-10/11	CIP BUDGET YEARS 6-10	ADDITIONAL DESCRIPTION-INFORMATION
	ROADS TRANSPORTATION									
205062	Del Prado ROW	I-5	26,222	0	0	0		26,222	0	right-of-way acquisition for improving DelPrado S of SR78
		I-22	3,973,778	0	0	0	0	3,973,778	0	
	DOT Operations Expansion	30100	0	0	0	0	700,000	700,000	0	expansion of DOT Operations Facility
205038	E-ARCS Upgrade for Leeway	421-35	768,000	0	0	0	0	768,000	0	upgrade ARCS Service Clr software to e-ARCS software
205021	Estero Parkway Extension	I - 3	454,962	0	0	0	0	454,962	0	extend 4-ln arterial across I75 Three Oaks To Ben Hill 0.7 miles
		I-24	0	14,874,533	0	0	0	14,874,533		
		I-25	0	2,200,000	0	0	0	2,200,000	0	
		A	0	0	120,000	0	0	120,000	0	
204083	Gladiolus 4 Laning/South Fort Myers	GT	0	6,603,422	0	0	0	6,603,422	0	2 lane to 6 Bass Rd - Winkler Rd/ 4 lane from Pine Is Rd - Bass Rd
		I-4	0	386,578	0	0	0	386,578	0	
		I-24	0	8,500,000	0	0	0	8,500,000	0	
		A	0	0	515,000	0	0	515,000	0	
205063	Homestead 4L/Sunrise-Alabama	I-23	2,100,000	4,740,000	7,060,000	0	0	13,900,000	0	widen existing 2 lane County arterial to 4 lane, 1.50 miles
		A	0	0	0	0	0	0	150,000	
205036	I-75 Complimentary ITS Deploy	GT	0	0	400,000	0	0	400,000	0	Install ITS devices on Co roads serving as major I75 diversion
	Joel Blvd 4L/17th street -SR 80	I-23	0	2,180,000	0	6,000,000	7,280,000	15,460,000	13,480,000	widen existing 2 lane to 4 lane, 3.24 miles
		A	0	0	0	0	0	0	300,000	
	Luckett Rd 4L/Ortiz to I-75	I-23	0	1,630,000	2,380,000	3,860,000	0	7,870,000		4 laning of existing 2 lane arterial between 2 major roads, 0.46 mi
		A	0	0	0	0	0	0	50,000	
205904	Mallacha Pass Bridge Replacement	GT	0	0	0	0	14,000,000	14,000,000	0	replacement of 2-lane, bascule Mallacha Pass Bridge
		I-22	0	0	0	0	11,000,000	11,000,000	0	
	Monitoring Camera Deployment	GT	0	130,000	0	0	0	130,000	0	Install monitor cameras at select Co locations
		182-00	0	45,000	0	0	0	45,000	0	
206750	Monitoring Station Upgrades	GT	30,000	30,000	30,000	60,000	60,000	210,000	0	convert periodic traffic counters to permanent monitor stations
204072	Ortiz Avenue - MLK To Luckett	A	0	0	0	155,000	0	155,000	0	widen existing 2 lane to 4 lane urban section, 1.25 miles
		I-23	3,500,000	0	8,935,000	0	0	12,435,000	0	
205056	Ortiz Ave/SR80 - Luckett	I-23	5,984,824	0	9,475,600	0	0	15,460,424	0	widen existing 2 lane to 4 lane urban section, 1.33 miles
		A	0	0	0	185,000	0	185,000	0	
		I -1	15,176	0	0	0	0	15,176	0	
	Ortiz 4L/Colonial-MLK	I-23	0	0	1,640,000	12,060,000	0	13,900,000	0	widen existing 2 lane to 4 lane, 1.73 miles
		A	0	0	0	0	0	0	200,000	

A-16

FY 06/07-10/11 CAPITAL IMPROVEMENT PROGRAM - LEE COUNTY, FLORIDA

PROJ #	17-Jan-08 PROJECT NAME	FUND. SRC.	CIP BUDGET FY 06/07	CIP BUDGET FY 07/08	CIP BUDGET FY 08/09	CIP BUDGET FY 09/10	CIP BUDGET FY 10/11	CIP BUDGET FY 06/07-10/11	CIP BUDGET YEARS 6-10	ADDITIONAL DESCRIPTION-INFORMATION
	ROADS TRANSPORTATION									
206751	Pine Island ITS	GT	0	169,000	0	0	120,000	309,000	0	fiber optic/radio comm plant & ITS field devices along Pine Is Rd
		182-00	21,000	0	0	0	0	21,000	0	
204085	Plantation Extension/Idlewild-Colonial	I-23	6,709,880	0	0	0	0	6,709,880	0	construct new 4 lane arterial linking Plantation to Shoemaker
		A	0	140,000	0	0	0	140,000	0	
	Plantation 4L/Six Mile-Daniels	I-24	0	0	1,910,000	1,000,000	8,360,000	11,270,000		widen existing 2 lane to 4 lane, 1.25 miles
		A	0	0	0	0	0	0	175,000	
200700	Project Planning & Pre-Design	GT	150,000	150,000	150,000	150,000	150,000	750,000	750,000	fund to support project studies-estimates & pre-design activities
204079	Right-of-Way Opportunities	GT	500,000	500,000	500,000	500,000	500,000	2,500,000	2,500,000	fund for voluntary righ-of-way purchase for future road projects
	Sandy Lane Ext North	I-24	0	0	0	0	1,410,000	1,410,000	17,260,000	extend 2 lane collector N from Corkscrew to Estero Pkwy 1.43 mi
204604	Six Mile Cypress Parkway 4 Laning	I-23	10,229,000	0	0	0	0	10,229,000	0	widen existing 2 lane rural arterial to 4 lane, 2.3 miles
		A	0	604,000	0	0	0	604,000	0	
205064	SR 82/Daniels Dual Left Lanes	I-23	200,000	800,000	0	0	0	1,000,000	0	expand intersec to include duel N bound-westbound L turn lanes
	SR82 from Ortiz to Lee Blvd (FDOT)	Loan	0	10,000,000	0	0	0	10,000,000	0	widening project SR 82 Daniels to Lee Blvd
206007	Summerlin Rd Boy Scout-University	I-23	0	30,381,000	0	0	0	30,381,000	0	widen existing 4 lane to 6 lane and add overpass at College Pkwy
		A	0	0	380,000	0	0	380,000	0	
204053	Three Oaks Parkway Extension, North	I-24	685,940	0	0	21,200,000	0	21,885,940	0	four lane arterial extension, 3.5 miles
		A	0	0	0	0	577,000	577,000	0	
204043	Three Oaks Parkway Extension, South	A	997,000	0	0	0	0	997,000	0	four lane arterial extension, 4.15 miles
206752	Traffic Building Replacement	30100	1,000,000	0	0	0	9,500,000	10,500,000	0	construct 3 story bldg & parking for traffic division
205037	Traffic Mgmt Center Update	GT	80,000	0	0	0	0	80,000	0	upgrade & enhance Billy Creek Traffic Mgmt Ctr
204068	Treeline Extension North/Daniels-Colonial	A	0	1,002,000	0	0	0	1,002,000	0	extend & expand existing 2 lane to 4 lane urban arterial, 4.2 mi
204086	Urban Street Lighting	A	1,200,000	1,200,000	700,000	700,000	700,000	4,500,000	3,500,000	install std St. lighting - existing Co-maint roads urbanized areas
205029	Veterans Parkway @ Del Prado	307-21	700,000	0	0	500,000	6,500,000	7,700,000	0	design & construction of improvements at exit ramp overpass
	Veterans/Santa Barbara Interchange	307-21	0	0	2,250,000	0	0	2,250,000	30,000,000	construction of an interchange
	CAPITAL TOTAL		77,400,478	105,296,639	247,020,905	61,924,941	299,077,235	790,720,198	246,842,000	

A-17

MORRIS DEPEW
ENGINEERS • PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
#LC26000330

August 8, 2008

Mr. Lee Horsting, Planner
Lee County Transit
P.O. Box 398
Fort Myers, FL 33902

RE: R & D Cattle Company – Comprehensive Plan Amendment
MDA # 07029

Dear Mr. Horsting:

Morris-Depew Associates, Inc. is assisting with the preparation of a Comprehensive Plan Amendment Application to change the current land uses assigned to the subject property from Suburban (66.69%) and Rural (33.31%) to a single land use designation of Outlying Suburban for a property located in Alva, FL at the intersection of Hwy 80 and South Olga Road, (STRAP 27-43-26-00-00003.0000). The site is approximately 37.6 acres and is currently vacant. We will be developing a project with approximately 345,250 square feet of commercial space.

In order to address the submittal requirements for the Lee County Application for a Comprehensive Plan Amendment I am requesting a letter from your agency determining the adequacy/provision of existing/proposed support facilities to this site.

Sincerely yours,

Morris-Depew Associates Inc.

Sheila M. Holland
Planning Technician

MORRIS DEPEW
ENGINEERS • PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
#LC26000330

August 8, 2008

Fort Myers Shores Fire Department
Attention: Fire Chief
12345 Palm Beach Blvd.
Fort Myers, FL 33905

RE: R & D Cattle Company – Comprehensive Plan Amendment
MDA # 07029

To whom it may concern:

Morris-Depew Associates, Inc. is assisting with the preparation of a Comprehensive Plan Amendment Application to change the current land uses assigned to the subject property from Suburban (66.69%) and Rural (33.31%) to a single land use designation of Outlying Suburban for a property located in Alva, FL at the intersection of Hwy 80 and South Olga Road, (STRAP 27-43-26-00-00003.0000). The site is approximately 37.6 acres and is currently vacant. We will be developing a project with approximately 345,250 square feet of commercial space.

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Sincerely yours,

Morris-Depew Associates Inc.

Sheila M. Holland

Sheila M. Holland
Planning Technician

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LANDSCAPE ARCHITECTS
#LC26000330

August 8, 2008

Ms. Dawn Gordon
The School District of Lee County
Department of Planning & School Capacity
2055 Central Avenue
Fort Myers, FL 33901

RE: R & D Cattle Company – Comprehensive Plan Amendment
MDA # 07029.p3

Dear Ms. Gordon:

Morris-Depew Associates, Inc. is assisting with the preparation of a Comprehensive Plan Amendment Application to change the current land uses assigned to the subject property from Suburban (66.69%) and Rural (33.31%) to one land use designation of Outlying Suburban for a property located in Alva, FL at the intersection of Hwy 80 and South Olga Road, (STRAP 27-43-26-00-00003.0000). The site is approximately 37.6 acres and is currently vacant. We will be developing a project with approximately 345,250 square feet of commercial space.

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Sincerely yours,

Morris-Depew Associates Inc.

Sheila M. Holland
Planning Technician

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LANDSCAPE ARCHITECTS
#LC26000330

August 8, 2008

Mr. William T. Newman
Operations Manager – Solid Waste Division
P.O. Box 398
Fort Myers, FL 33902

RE: R & D Cattle Company – Comprehensive Plan Amendment
MDA # 07029

Dear Mr. Newman:

Morris-Depew Associates, Inc. is assisting with the preparation of a Comprehensive Plan Amendment Application to change the current land uses assigned to the subject property from Suburban (66.69%) and Rural (33.31%) to a single land use designation of Outlying Suburban for a property located in Alva, FL at the intersection of Hwy 80 and South Olga Road, (STRAP 27-43-26-00-00003.0000). The site is approximately 37.6 acres and is currently vacant. We will be developing a project with approximately 345,250 square feet of commercial space.

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Sincerely yours,

Morris-Depew Associates Inc.

Sheila M. Holland
Planning Technician

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LANDSCAPE ARCHITECTS
#LC26000330

August 8, 2008

Sheriff Mike Scott
14750 Six Mile Cypress Parkway
Fort Myers, FL 33912

RE: R & D Cattle Company – Comprehensive Plan Amendment
MDA # 07029

Dear Sheriff Scott:

Morris-Depew Associates, Inc. is assisting with the preparation of a Comprehensive Plan Amendment Application to change the current land uses assigned to the subject property from Suburban (66.69%) and Rural (33.31%) to a single land use designation of Outlying Suburban for a property located in Alva, FL at the intersection of Hwy 80 and South Olga Road, (STRAP 27-43-26-00-00003.0000). The site is approximately 37.6 acres and is currently vacant. We will be developing a project with approximately 345,250 square feet of commercial space.

In order to address the submittal requirements for the Lee County Application for a Comprehensive Plan Amendment I am requesting a letter from your agency determining the adequacy/provision of existing/proposed support facilities to this site.

Sincerely yours,

Morris-Depew Associates Inc.

Sheila M. Holland
Planning Technician

MORRIS DEPEW
ENGINEERS • PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
#LC26000330

August 8, 2008

Ms. Kim Dickerson – Operations Chief
Lee County Emergency Medical Services
P.O. Box 398
Fort Myers, FL 33902

RE: R & D Cattle Company – Comprehensive Plan Amendment
MDA # 07029

Dear Ms. Dickerson:

Morris-Depew Associates, Inc. is assisting with the preparation of a Comprehensive Plan Amendment Application to change the current land uses assigned to the subject property from Suburban (66.69%) and Rural (33.31%) to a single land use designation of Outlying Suburban for a property located in Alva, FL at the intersection of Hwy 80 and South Olga Road, (STRAP 27-43-26-00-00003.0000). The site is approximately 37.6 acres and is currently vacant. We will be developing a project with approximately 345,250 square feet of commercial space.

In order to address the submittal requirements for the Lee County Application for a Comprehensive Plan Amendment I am requesting a letter from your agency determining the adequacy/provision of existing/proposed support facilities to this site.

Sincerely yours,

Morris-Depew Associates Inc.

Sheila M. Holland

Sheila M. Holland
Planning Technician

CPA2007-00050
R & D CATTLE PROPERTY

COMPREHENSIVE PLAN AMENDMENT APPLICATION ANSWERS

Boylan Environmental Consultants, Inc.
Wetland & Wildlife Surveys, Environmental Permitting, Impact Assessments

11000 Metro Parkway, Suite 4
Fort Myers, Florida, 33966
Phone:(239) 418-0671 Fax:(239) 418-0672

August 7, 2008
Revised August 21, 2008

C. ENVIRONMENTAL IMPACTS

1. **A map of the Plant Communities as defined by the Florida Land Use Cover and Classification system (FLUCFCS).**

Please see the attached FLUCFCS map (exhibit C1) and FLUCFCS aerial (exhibit C2) for community locations. The vegetation communities on site were mapped according to the Florida Land Use, Cover and Forms Classification System (FLUCFCS) (Florida Department of Transportation, 1985). The site was inspected and the mapping superimposed on 2007 digital aerial photographs. Acreages were approximated using AutoCAD (2008 version).

The following is a discussion of the existing land uses and vegetative associations found on site. The following table summarizes the FLUCFCS communities discussed below.

190 Other Open Lands (approximately 0.74 acres)
This upland community had been previously cleared and was dominated by Bahia grass (*Paspalum notatum*). This area was mowed and maintained.

211 Improved Pasture (approximately 23.24 acres)
This area had been cleared for cattle grazing and was dominated by bare ground with scattered ceaser weed (*Urena lobata*), wild balsm apple (*Momordica charantia*), sumac saplings (*Rhus sp.*), crabs eye vine (*Abrus precatorius*), Florida sandspur (*Cenchrus echinatus*), thistle (*Cirsium sp.*), dog fennel (*Eupatorium sp.*), silk reed (*neyraudia reynaudiana*) and various sedges (*Cyperus sp.*). This area will be seeded and utilized for pasture.

411E1 Pine Flatwoods w/ Exotics (<25%) (approximately 1.07 acres)
This upland community was dominated by slash pine (*Pinus elliottii*) with a saw palmetto (*Serenoa repens*) under-story. Scattered throughout the community were live oak (*Quercus virginiana*), cabbage palm (*Sabal palmetto*), brazilian pepper (*Schinus terebinthifolius*) (approximately 15% coverage), beauty berry (*Callicarpa americana*), sumac (*Rhus sp.*), rusty lyonia (*Lyonia ferruginea*), penny royal (*Piloglephis rigida*), smilax (*smilax sp.*), grape vine (*Vitis rotundifolia*) and ceaser weed (*Urena lobata*).

4119E4 Disturbed Pine Flatwoods w/ Exotics (>75%) (approximately 0.10 acres)
This upland community was dominated by slash pine (*Pinus elliottii*) with brazilian pepper (*Schinus terebinthifolius*) (approximately 80% coverage). The under-story contained saw palmetto (*Serenoa repens*), beauty berry

(*Callicarpa americana*), sumac (*Rhus sp.*), rusty lyonia (*Lyonia ferruginea*),, smilax (*smilax sp.*), grape vine (*Vitis rotundifolia*), silk reed (*neyraudia reynaudiana*) and ceaser weed (*Urena lobata*).

414E1 Pine – Mesic Oak w/ Exotics (<25%) (approximately 1.01 acres)

This upland community contained a canopy dominated by a mixture of slash pine (P*inus elliottii*), laurel oak (*Quercus laurifolia*), cabbage palms (*Sabal palmetto*), and live oak (*Quercus virginiana*). The under-story was dominated by saw palmetto (*Serenoa repens*). Gall berry (*Ilex glabra*), wax myrtle (*Myrica cerifera*), smilax (*smilax sp.),* grapevine (*Vitis rotundifolia*), and poison ivy (*Toxicodendron radicans)* were scattered throughout.

421E2 Xeric Oak w/ Exotics (25-50%) (approximately 0.96 acres)

This upland community contained a variety of oaks including live oak (*Quercus virginiana*) and sand live oak (*Quercus virginiana var. geminata*). Scattered slash pines (*Pinus elliottii*), and scattered cabbage palms (*Sabal palmetto*) were also observed. The under-story contained Brazilian pepper (*Schinus terebinthifolius*) (approximately 30% coverage) and saw palmetto (*Serenoa repens*).

425E1 Temperate Hammock w/ Exotics (<25%) (approximately 3.03 acres)

This forested community's canopy was dominated by laurel oaks (*Quercus laurifolia*), water oaks (*Quercus nigra*), live oaks (*Quercus virginiana*), and cabbage palm (*Sabal palmetto*). Slash pine (*Pinus elliottii*) was scattered throughout the canopy. Mid-story species included dahoon holly (*Ilex cassine*), sweet bay (*Magnolia virginiana*), Brazilian pepper (*Schinus terebinthifolius*), beauty berry (*Callicarpa americana*), poison ivy (*Toxicodendron radicans*), and wild coffee (*Psychotria nervosa*). Widely scattered throughout this community were cabbage palm saplings (*Sabal palmetto*) and saw palmetto (*Serenoa repens*).

428 Cabbage Palm Hammock (approximately 0.12 acres)

This forested community was dominated by cabbage palms (*Sabal palmetto*). The under-story contained beauty berry (*Callicarpa americana*), wax myrtle (*Myrica cerifera*), and wild coffee (*Psychotria nervosa*). Typically this community type occurred as a transitional area between uplands and wetlands.

428H Hydric Cabbage Palm Hammock (approximately 0.18 acres)

This wetland community was dominated by cabbage palm (*Sabal palmetto*) with a swamp fern (*Blechnum serrulatum*) under-story. This community contained signs of hydrology including adventitious rooting, staining and lichen lines.

510 Streams and Waterways (approximately 2.54 acres)

This community consisted of two streams that vertically bisected the property. The westernmost stream had been recently maintained and was relatively free of vegetation. The eastern stream contained Brazilian pepper (*Schinus terebinthifolius*) and scattered Carolina willow (*Salix caroliniana*).

615E1 Stream and Lake Swamps w/ exotics (<25%) (approximately 3.49 acres)

This wetland community consisted of a wide variety of hardwood species that are typically found in overflow or floodplain areas. The canopy was dominated by mixture of bald cypress (*Taxodium distichum*), red maple (*Acer rubrum*), laurel oak (*Quercus laurifolia*), water oak (*Quercus nigra*), cabbage palm (*Sabal palmetto*) and sweet bay (*Magnolia virginiana*). The under-story contained beauty berry (*Callicarpa americana*), wax myrtle (*Myrica cerifera*), wild coffee (*Psychotria nervosa*), salt bush (*Baccharis sp.*), shield fern (*Dryopteris ludoviciana*), leather fern (*Acrostichum sp.*) and swamp fern (*Blechnum serrulatum*).

630E3 Wetland Forested Mixed w/ Exotics (50-75%) (approximately 1.19 acres)

This wetland community was dominated by a combination of Carolina willow (*Salix caroliniana*), Brazilian pepper (*Schinus terebinthifolius*) (approximately 70% coverage), cabbage palm (*Sabal palmetto*) and Red Maple (*Acer rubrum*). The under-story contained wax myrtle (*Myrica cerifera*) and swamp fern (*Blechnum serrulatum*).

FLUCFCS LEGEND

FLUCFCS Code	Community Description	Acres	%
190	Other Open Lands	0.74 Ac.±	1.96%
211	Improved Pasture	23.24 Ac.±	61.69%
411 E1	Pine Flatwoods w/ Exotics (<25%)	1.07 Ac.±	2.84%
4119 E4	Disturbed Pine Flatwoods w/ Exotics (>75%)	0.10 Ac.±	0.27%
414 E1	Pine - Mesic Oak w/ Exotics (<25%)	1.01 Ac.±	2.68%
421 E2	Xeric Oak w/ Exotics (25-50%)	0.96 Ac.±	2.55%
425 E1	Temperate Hammock w/ Exotics (<25%)	3.03 Ac.±	8.04%
428	Cabbage Palm Hammock	0.12 Ac.±	0.32%
428H	Hydric Cabbage Palm Hammock	0.18 Ac.±	0.48%
510	Streams and Waterways	2.54 Ac.±	6.74%
615 E1	Stream and Lake Swamps w/ Exotics (<25%)	3.49 Ac.±	9.26%
630 E3	Wetland Forested Mixed w/ Exotics (50-75%)	1.19 Ac.±	3.16%
TOTAL		**37.67 Ac.±**	**100.00%**

2. **A map and description of the soils found on the property (identify the source of the information).**

Boca Fine Sand (13)

Boca soils are moderately deep, moderately permeable and poorly drained. These soils are found in sloughs, flatwoods and depressional areas. The uppermost soil layer is fine gray sand about 3 inches thick. The next layer is approximately 6 inches think and consists of fine light gray sand that contains thick roots. From 9 to 14 inches the soil consists of light gray fine sand with medium and coarse roots. The next soil layer (14-25 inches deep) is very pale brown single grained fine sand. Limestone can be found anywhere from 25 to 40 inches in depth. The Boca soil series is nationally listed as a hydric soil however the soil is not locally considered to be a hydric soil.

Wabasso Sand, Limestone Substratum (42)

This is a deep, poorly drained soil that is slowly permeable. Slopes are smooth to slightly convex and range from 0 to 1 percent. Typically, the surface layer is dark gray sand about 6 inches thick. The subsurface layer is light brownish gray sand to a depth of 17 inches. From 17 to 24 inches the soil is light gray sand with few distinct dark grayish brown strains. The subsoil is about 38 inches thick. The upper 4 inches is dark brown sand with few iron concretions. The next 8 inches is brownish yellow sandy clay loam with light brownish gray, light gray and reddish brown mottles. The lower 26 inches is light gray sandy clay loam with pale olive and olive mottles and stains along root channels. Below that is light gray, fine, sandy loam with olive mottles extending to a depth of 80 inches or more. Under natural conditions the water table is less than 10 inches below the surface for more than 6 months. In dry periods the water table recedes to 40 inches or more below the surface. Natural vegetation consists of saw palmetto, South Florida slash pine, pineland threeawn, cabbage palm, and bluestem.

Copeland Sandy Loam, Depressional (45)

Copeland Series soils are "moderately deep, very poorly drained, moderately permeable soils that form in moderately thick beds of marine sediment over limestone." These depressional soils are smooth to concave with slopes ranging from 0 to 1 percent. The

first 8 inches consist of a weak fine granular structure very dark gray sandy loam with light gray streaks. From 8 to 20 inches the soil is a very dark gray sandy loam with light gray streaks and is a "moderate medium subangular blocky structure". The next 8 inches consist of a light brownish gray sandy clay loam with calcium carbonate. From 28 inches onward the soil is "fractured limestone bedrock". Under natural conditions the water table is above the surface for 3 to 6 months out of the year and is 10 to 40 inches below the surface for the remainder of the year. This soil is considered to be a hydric soil.

Please see the attached soil map (exhibit C3) for soil locations on the property. All information was achieved from the NRCS Hydric Soils of Florida Handbook (2000).

3. **A topographic map with property boundaries and 100-yearflood prone areas indicated (as identified by FEMA).**

   Please see the attached topography map.

4. **A map delineating wetlands, aquifer recharge areas, and rare & unique uplands.**

   The site contains five wetlands. The wetlands include; hydric cabbage palm, streamland lake swamps, and wetland forested mixed. For the wetland locations please see the attached FLUCFCS map (communities 428H, 615E1 and 630E3).

   The majority of the upland areas are highly disturbed in nature. This site does not contain any rare and unique upland communities.

   The property was mapped by SFWMD in 1995 in the lower coast surficial recharge area.

5. **A table of plant communities by FLUCFCS with potential to contain species (plant and animal) listed by federal, state or local agencies as endangered, threatened or species of special concern. The table must include the listed species by FLUCFCS and the species status (same as FLUCFCS map).**

Protected Animals by Status

FLUCFCS	SPECIES	USFWS	FFWCC
190	Burrowing Owl *(Athene cunicularia floridana)*		SSC
	Eastern Indigo Snake *(Drymarchon corais couperi)*	T	T

FLUCFCS	SPECIES	USFWS	FFWCC
190 cont.	Gopher Tortoise (*Gopherus polyphemus*)		T
	Gopher Frog *(Rana capito)*		SSC
211	Burrowing Owl *(Athene cunicularia floridana)*		SSC
	Gopher Tortoise (*Gopherus polyphemus*)		T
	Gopher Frog *(Rana capito)*		SSC
411	Eastern Indigo Snake (*Drymarchon corais couperi*)	T	T
	Gopher Tortoise (*Gopherus polyphemus*)		T
	Gopher Frog *(Rana capito)*		SSC
	Southeastern American Kestrel *(Falco sparverius paulus)*		T
	Red Cockaded Woodpecker *(Picoides borealis)*	E	SSC
	Big Cypress Fox Squirrel *(Sciurus niger avicennia)*		T
	Florida Black Bear *(Ursus americanus floridanus)*		T
414	Eastern Indigo Snake (*Drymarchon corais couperi*)	T	T
	Gopher Tortoise (*Gopherus polyphemus*)		T
	Gopher Frog *(Rana capito)*		SSC
	Southeastern American Kestrel *(Falco sparverius paulus)*		T
	Big Cypress Fox Squirrel *(Sciurus niger avicennia)*		T
	Florida Black Bear *(Ursus americanus floridanus)*		T
421	Eastern Indigo Snake (*Drymarchon corais couperi*)	T	T
	Gopher Tortoise (*Gopherus polyphemus*)		T
	Gopher Frog *(Rana capito)*		SSC

FLUCFCS	SPECIES	USFWS	FFWCC
421	Florida Scrub Jay *(Aphelocoma coerulescens)*	T	T
425	Eastern Indigo Snake *(Drymarchon corais couperi)*	T	T
	Gopher Tortoise *(Gopherus polyphemus)*		T
	Gopher Frog *(Rana capito)*		SSC
	Florida Black Bear *(Ursus americanus floridanus)*		T
428	Eastern Indigo Snake *(Drymarchon corais couperi)*	T	T
	Gopher Tortoise *(Gopherus polyphemus)*		T
	Gopher Frog *(Rana capito)*		SSC
	Florida Black Bear *(Ursus americanus floridanus)*		T
	Audubon's Crested Caracara *(Polyborus plancus audubonii)*	T	T
428H	Florida Black Bear *(Ursus americanus floridanus)*		T
	Audubon's Crested Caracara *(Polyborus plancus audubonii)*	T	T
510	American Alligator *(Alligator mississippiensis)*	T	SSC
	Roseate Spoonbill *(Platalea ajaja)*		SSC
	Limpkin *(Aramus guarauna)*		SSC
	Little Blue Heron *(Egretta caerulea)*		SSC
	Reddish Egret *(Egretta rufescens)*		SSC
	Snowy Egret *(Egretta thula)*		SSC
	Tricolored Heron *(Egretta tricolor)*		SSC
	Everglades Mink *(Mustela vison evergladensis)*		T
615	American Alligator *(Alligator mississippiensis)*	T	SSC
	Roseate Spoonbill *(Platalea ajaja)*		SSC

FLUCFCS	SPECIES	USFWS	FFWCC
615 cont.	Limpkin *(Aramus guarauna)*		SSC
	Little Blue Heron *(Egretta caerulea)*		SSC
	Reddish Egret *(Egretta rufescens)*		SSC
	Snowy Egret *(Egretta thula)*	T	T
	Tri Colored Heron *(Egretta tricolor)*		T
	Everglades Mink *(Mustela vison evergladensis)*		T
630	Little Blue Heron *(Egretta caerulea)*		SSC
	Snowy Egret *(Egretta thula)*		SSC
	Tricolored Heron *(Egretta tricolor)*		SSC
	Peregrine Falcon *(Falco peregrinus tundrius)*		E
	Everglades Mink *(Mustela vison evergladensis)*		T
	Big Cypress Fox Squirrel *(Sciurus niger avicennia)*		SSC
	American Alligator *(Alligator mississippiensis)*	T	SSC
	Limpkin *(Aramus guarauna)*		SSC
	Wood Stork *(Mycteria Americana)*	E	E
	Florida Black Bear *(Ursus americanus floridanus)*		T

FFWCC-Florida Fish and Wildlife Conservation Commission
USFWS-U.S. Fish and Wildlife Service
T- Threatened
E-Endangered
SSC-Species of Special Concern

Audubon's Crested Caracara

Audubon's Crested Caracara (*Polyborus plancus audubonii)* is a large raptor with a crest, naked face, heavy bill, elongated neck, and unusually long legs. This non-migratory species occurs in Florida as well as the southwestern U.S. and Central America. Only the Florida population, which is isolated from the remainder of the subspecies in the southwestern U.S. and Central America, is listed under the

Endangered Species Act. Typically most Caracara's inhabit the prairie area of south central Florida. Caracara could utilize the cabbage palms on the property for nesting. Caracara's have not been observed on the property.

Big Cypress Fox Squirrel

The Big Cypress Fox Squirrel (*Sciurus niger avicennia*) is larger than the gray squirrel with an average length of ten to fifteen inches, not including the tail, which can be up to fourteen inches in length. The fur coat is highly variable, including shades of reddish orange, black, and occasionally tans, with white nose, front toes and ear tips. The primary habitats utilized by the Big Cypress Fox Squirrel include; open pine flatwoods, cypress strands, broad-leaf evergreen hammocks, mangroves, and oak forests. These squirrels feed on cypress balls, pine seed and occasionally cabbage palm and saw palmetto berries. It would be possible for the fox squirrel to utilize the forested portions of the property. Big cypress fox squirrels have not been observed on the property.

Burrowing Owl

The Burrowing owl (Athene cunicularia floridana) is a small pint sized bird. That lives in open herbaceous areas. Burrowing owls have a brown with white back and a white with brown chest. They have a white chin patch, yellow beak and most have yellow eyes. Burrowing owls use burrows year round for roosting and for nesting from February to August. Burrowing owls mainly eat insects however they will also eat snakes and rodents. Burrowing owls may be found utilizing the open land and pasture areas on the property. No burrowing owls have been observed.

Eastern indigo snake

The eastern indigo snake (*Drymarchon corais*) is a non-poisonous glossy blue to black snake. It is the largest native snake in the United States and can get up to nine feet long. This snake is often found in well drained scrub and sandhill habitats and is commonly considered to be associated with gopher tortoise burrows. While unlikely due to the disturbed nature of the site, the eastern indigo snake may be found in the some of the upland communities on the property.

Everglades Mink

The everglades mink (*Mustela vison evergladensis*) is a small mammal with a slender, dark brown body up to 2 feet, short legs, and a bushy tail. The mink is slightly similar in appearance to a river otter. The everglades mink occupies shallow freshwater marshes and primarily feeds on crayfish, fish, and small mammals. The everglades mink may utilize the onsite streams and wetland areas. Everglades Minks have not been observed on the property.

Florida Black Bear

The Florida Black Bear (*Ursus americanus floridanus*) is a subspecies of the American Black Bear. These bears are black with a brown muzzle and some have a white spot on there chest. Black Bear habitat includes pine flatwoods,

hardwood hammocks, upland sand pine, and scrub oak. A male black bears home range is approximately 66 square miles.

Florida Scrub Jay

The Florida Scrub Jay (*Aphelocoma coerulescens*) is a small bird with a pale blue head, nape and wings. They have a pale gray belly and back with a white chest and throat. Scrub jays look similar to other jays but do not have a crest, tail feathers or white tipped wings. Scrub jays are found in scrub areas including oak and flatwoods. They live in families and maintain a territory of 5 to 50 acres (on average of 25 acres). Scrub Jays have not been observed on the property.

Limpkin

The limpkin (*Aramus guarauna*) is a large brown wading bird with white spots. Limpkins look superficially like an ibis. They have a piercing cry kree-ow, kra-ow. This bird is found in freshwater marshes, along the edges of ponds, and lakes, and in wooded swamps along rivers. Its preferred food source is the apple snail however it will also eat mussels, insects, crustaceans, worms, frogs, lizards, and other types of snails. Limpkins could potentially utilize the streams and wetland areas for foraging.

Little Blue Heron

The little blue heron (*Egretta caerulea*) is a medium sized slender heron whose appearance changes dramatically with age. First year herons are pure white while the adult herons appear slate blue. The little blue heron's diet includes small fish, amphibians, and aquatic invertebrates. Little blues occupy swamps, estuaries, rivers, ponds, and lakes and could potentially utilize the streams and wetland areas for foraging.

Red Cockaded Woodpecker

The red cockaded woodpecker (*Picoides borealis*) is a small, non-migratory, cavity nesting woodpecker. RCW's have a black and white ladder pattern on their back and wings. The belly and breast are white. They have a black cap, white patch on the check and a black bill. Males can be identified by a small red tuft behind the eye which is often difficult to see. RCW's live in family groups of two to five individuals and build their cavities in mature pine trees. Due to the limited quantity of mature pine trees on the property it is unlikely that RCW's would utilize the property. Cavity trees and/or RCW's were not observed on the property.

Reddish egret

The reddish egret (*Egretta rufescens*) is a large, slender egret with long legs and a long neck. There are two different distinct color patterns to this bird. The white morph is all white, while the dark morph individuals have a rust colored head and neck feathers, and slate gray body feathers. This wading bird is found primarily in coastal tidal flats, salt marshes, and lagoons. Reddish egrets utilize salt water

areas almost exclusively and typically inhabit coastal areas. There diet consists of small fish. Because of this it is unlikely that this bird would inhabit the property.

Roseate Spoonbill

The Roseate Spoonbill (*Platalea ajaja*) is a pink and white bird with a bare head. Its bill is grey to green; spoon shaped, and flattened out like a spatula. It is the only spoonbill species that lives in the western hemisphere. These birds primarily diet on small fish however crustaceans, insects, and aquatic plants may also be consumed. The roseate spoonbill primarily occupies estuaries, rivers, ponds, and marshes however it may utilize the streams and wetlands for foraging.

Southeastern American Kestrel

The Southeastern American Kestrel (Falco sparverius paulus) is the smallest member of the falcon family. It is approximately the size of a blue jay. The southeastern American kestrel is a reddish brown bird. Males have slate blue wings, a buff underside and small black spots on the lower abdomen. Females have brown streaks on their chest and black bands on their tails. Kestrels typically nest in cavities excavated by woodpeckers in dead trees. Due to the limited amount of pine areas on the property it is unlikely that the southeastern American kestrel would utilize this site.

Snowy Egret

The snowy egret (*Egretta thula*) is a small sized white heron with a black bill, black legs, and yellow feet. Snowy egrets typically eat fish, crabs, amphibians, and insects. Snowy egrets occupy salt marshes, swamps, ponds, shores, tidal flats, rice fields, and shallow coastal bays. Snowy Egrets could potentially utilize the streams and wetlands for foraging.

Tri-colored Heron

The Tricolored heron (*Egretta tricolor*) is a medium sized heron with a dark, slate gray head and upper body. They have a purplish chest and a white strip running down the front of their neck that creates their tricolor. Their diet consists of small fish, crustaceans, reptiles, amphibians, insects, snails, and other invertebrates. Tricolored Herons prefer saltwater and brackish water habitats however it forages in both freshwater and saltwater areas. Tricolored Herons can be found in salt and freshwater mudflats, marshes, swamps, and meadows. Tricolored herons could potentially utilize the streams and wetlands on the property for foraging.

Gopher Tortoise

The gopher tortoise (*Gopherus polyphemus*) is a large reptile that averages 25 cm long and 9 lbs in weight. Gopher tortoises dig burrows that extend down to the water table. A gopher tortoise burrow has a half moon shaped entry and typically contains a large sandy area outside of the burrow entrance called an apron. Their burrow creates a home for 401 species of animals. For this reason gopher tortoises are considered to be a keystone species. Gopher tortoises can be commonly found in dry scrub areas, including scrub oak, dry prairies, pine

flatwoods, and coastal dune ecosystems. Tortoises are primarily herbivorous; however, they will eat insects for protein and the bones of dead animals for calcium. Gopher tortoises could potentially utilize the pine flatwoods, oak communities and pasture portion of the property.

Gopher frog

The gopher frog (*Rana capito*) is a stout bodied cream to brown or black frog with irregular spots on its back and sides. The Florida subspecies (*Rana capito aesopus*) also features a white to cream spotted chin, and a white belly. These frogs are commonly found in moist meadows, prairies, woodlands, and pine scrub areas. Gopher frogs are a dependent upon wetlands and ponds for breeding and are typically found in gopher tortoise burrows within 2,000 meters of a wetland or pond. The gopher frog utilizes gopher tortoise burrows as a home and is often associated with gopher tortoise burrows. Since the gopher frog is associated with gopher tortoise burrows the gopher frog could potentially be found in the pine flatwoods, oak communities and pasture portion of the property.

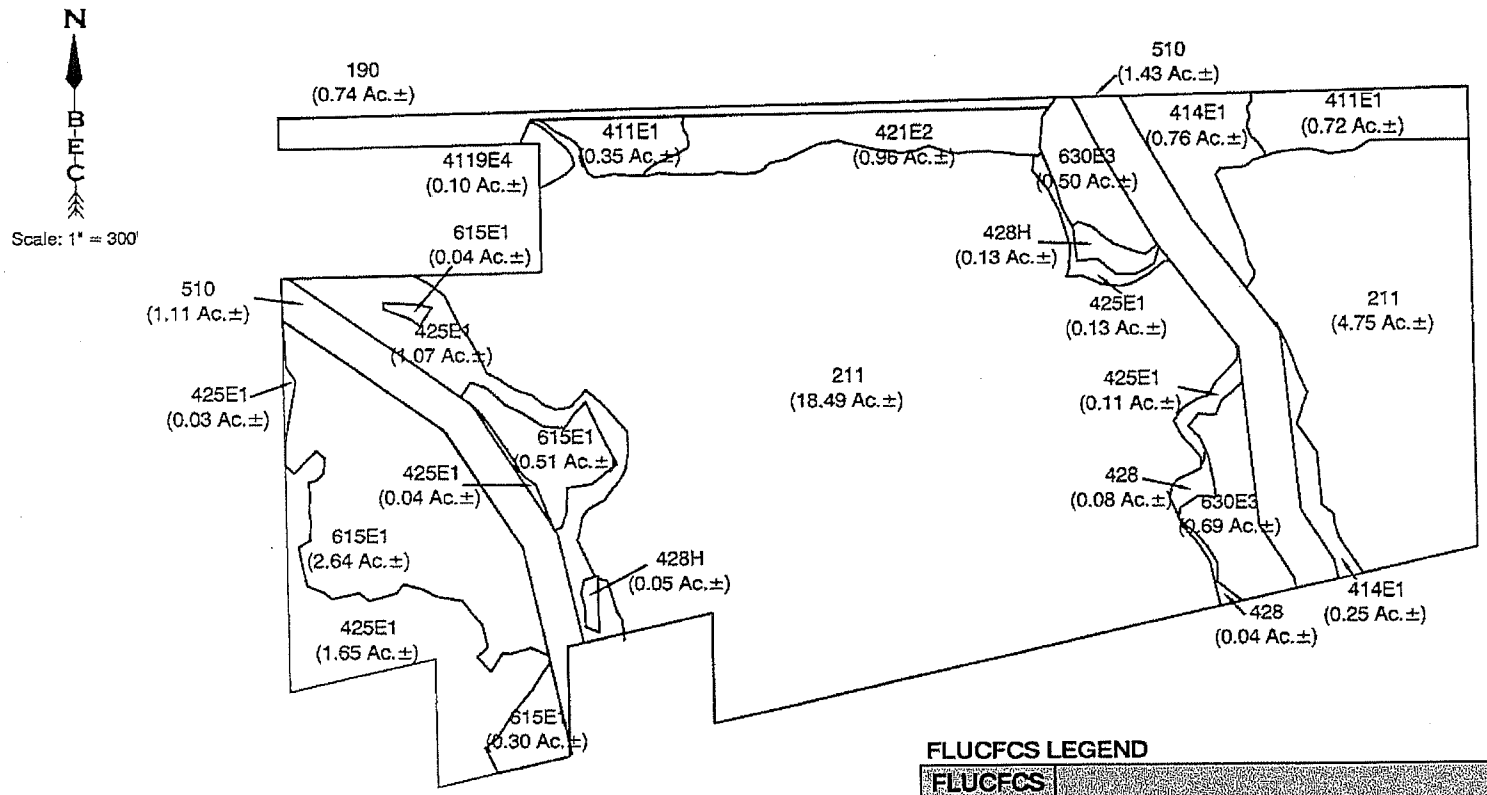
Protected Plants by status

FLUCFCS COMMUNITIES	SPECIES	USFWS	FDA
411E1, 414E1, 421E2, 4255E1, 428, 428H, 615E1 & 630E3	Twisted and banded air plant *Tillandsia flexuosa*		**E**
	Fuzzy-wuzzzy air plant *Tillandsia pruinosa*		**E**
	Giant wild pine *Tillandsia utriculata*		**E**

Listed Air Plants (*Tillandsia* spp.)

Several of the listed air plants are relatively common, but have recently been listed as a result of a weevil, which poses a potential future threat to its populations. It is likely that air plants do occur on the property, but in low numbers if they are present. Because the air plants typically cling to trees any of the forested communities on the property have the potential to contain these species.

Because of the disturbed nature of the on-site vegetation communities, the development of the site would not have any appreciable impact on listed wildlife or plant resources. There are no pristine vegetation communities on the property. Nearly 70 percent of the property has been disturbed by clearing events. Any development will likely have storm water management ponds that will satisfy wading bird usage on the property. Due to the absence or low potential of the property to support listed plant and animal species, measures to mitigate impacts to these species would be unnecessary. If any rare plants are found they can be relocated.



NOTES:

FLUCFCS lines were estimated and based on aerial photographs. The FLUCFCS boundaries are approximate.

FLUCFCS per Florida Land Use, Cover and Forms Classification System (FLUCFCS) (FDOT 1999).

Aerial photographs were acquired through Lee County Property Appraiser's office with a flight dates from 8/22/07 to 11/11/07.

Property boundary was obtained from the Starnes Surveying, Inc.

FLUCFCS LEGEND

FLUCFCS Code	Community Description	Acres	%
190	Other Open Lands	0.74 Ac.±	1.96%
211	Improved Pasture	23.24 Ac.±	61.69%
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414 E1	Pine - Mesic Oak w/ Exotics (<25%)	1.01 Ac.±	2.68%
421 E2	Xeric Oak w/ Exotics (25-50%)	0.96 Ac.±	2.55%
425 E1	Temperate Hammock w/ Exotics (<25%)	3.03 Ac.±	8.04%
428	Cabbage Palm Hammock	0.12 Ac.±	0.32%
428H	Hydric Cabbage Palm Hammock	0.18 Ac.±	0.48%
510	Streams and Waterways	2.54 Ac.±	6.74%
615 E1	Stream and Lake Swamps w/ Exotics (<25%)	3.49 Ac.±	9.26%
630 E3	Wetland Forested Mixed w/ Exotics (50-75%)	1.19 Ac.±	3.16%
TOTAL		**37.67 Ac.±**	**100.00%**

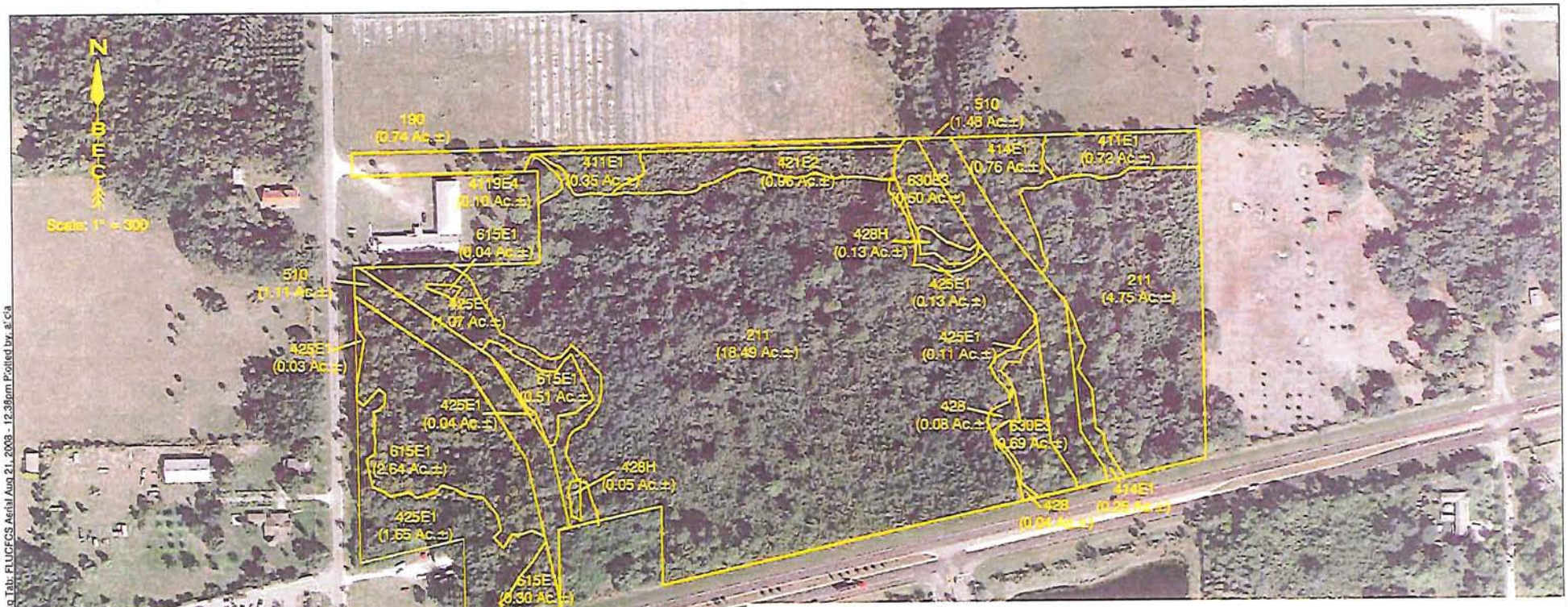
Boylan Environmental Consultants, Inc.
Wetland & Wildlife Surveys, Environmental Permitting, Impact Assessments
11000 Metro Parkway, Suite 4, Ft. Myers, FL 33966 (239) 418-0671

Drawn By:	Date:	Category
A.M.L.	7/31/08	Aerial
Job Number		Scale:
2005-208		1" = 300'
S/T/R		County
27/43S/26E		Lee

R & D Cattle/ CPA2007-00050

FLUCFCS MAP

Revisions	Date:	Page
		Exhibit
		C1



NOTES:

FLUCFCS lines were estimated and based on aerial photographs. The FLUCFCS boundaries are approximate.

FLUCFCS per Florida Land Use, Cover and Forms Classification System (FLUCFCS) (FDOT 1999).

Aerial photographs were acquired through Lee County Property Appraiser's office with a flight dates from 8/22/07 to 11/11/07.

Property boundary was obtained from Starnes Surveying, Inc.

FLUCFCS LEGEND

FLUCFCS Code	Community Description	Acres	%
190	Other Open Lands	0.74 Ac.±	1.96%
211	Improved Pasture	23.24 Ac.±	61.69%
411 E1	Pine Flatwoods w/ Exotics (<25%)	1.07 Ac.±	2.84%
4119 E4	Disturbed Pine Flatwoods w/ Exotics (>75%)	0.10 Ac.±	0.27%
414 E1	Pine - Mesic Oak w/ Exotics (<25%)	1.01 Ac.±	2.68%
421 E2	Xeric Oak w/ Exotics (25-50%)	0.96 Ac.±	2.55%
425 E1	Temperate Hammock w/ Exotics (<25%)	3.03 Ac.±	8.04%
428	Cabbage Palm Hammock	0.12 Ac.±	0.32%
428H	Hydric Cabbage Palm Hammock	0.18 Ac.±	0.48%
510	Streams and Waterways	2.54 Ac.±	6.74%
615 E1	Stream and Lake Swamps w/ Exotics (<25%)	3.49 Ac.±	9.26%
630 E3	Wetland Forested Mixed w/ Exotics (50-75%)	1.19 Ac.±	3.16%
TOTAL		**37.67 Ac.±**	**100.00%**

Boylan Environmental Consultants, Inc.
Wetland & Wildlife Surveys, Environmental Permitting, Impact Assessments
11000 Metro Parkway, Suite 4, Ft. Myers, FL 33966 (239) 418-0671

Drawn By:	Date:	Category
A.M.L.	7/31/08	Aerial
Job Number		Scale:
2005-208		1" = 300'
S/T/R		County
27/43S/26E		Lee

R & D Cattle/ CPA2007-00050

FLUCFCS AERIAL MAP

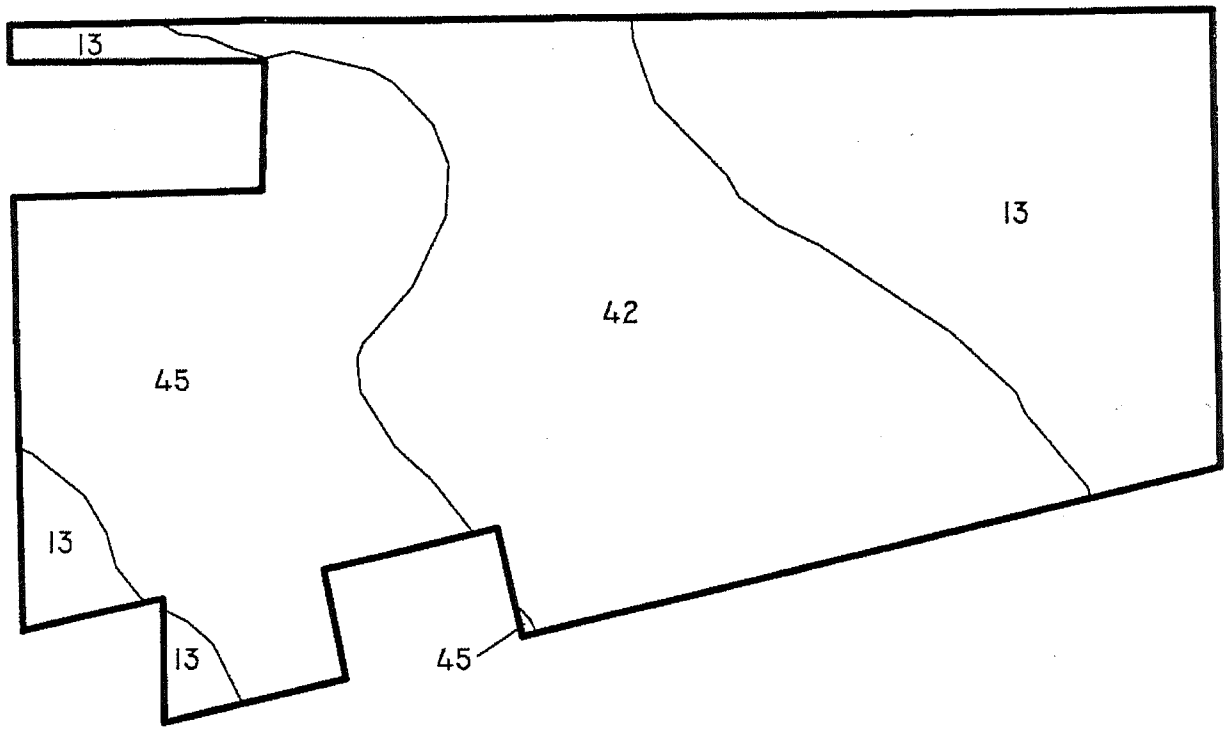
Revisions	Date:	Page
		Exhibit C2

X:\BEC\Q-R Projects\R & D Cattle\comp plan amm\ordment\comp plan set 8 21 08 recover.dwg Tab: FLUCFCS Aerial Aug 21, 2008 - 12:38pm Plotted by: a'c'a

N

BEC

Scale: 1" = 300'



Soils Legend		
Soil No	Description	Status
13	Boca Fine Sand	Non-Hydric
42	Wabasso Sand, Limestone Substratum	Non-Hydric
45	Copeland Sandy Loam, Depressional	Hydric

Notes:

Soils were acquired from the FGDL and are from the NRCS Soils Maps.

X:\BEC\C-R Projects\R & D Cattle\2008\NRCS Soils Map.dwg Tab: 8.5 x 11 Aug 21, 2008 - 1:44pm Plotted by: alicia

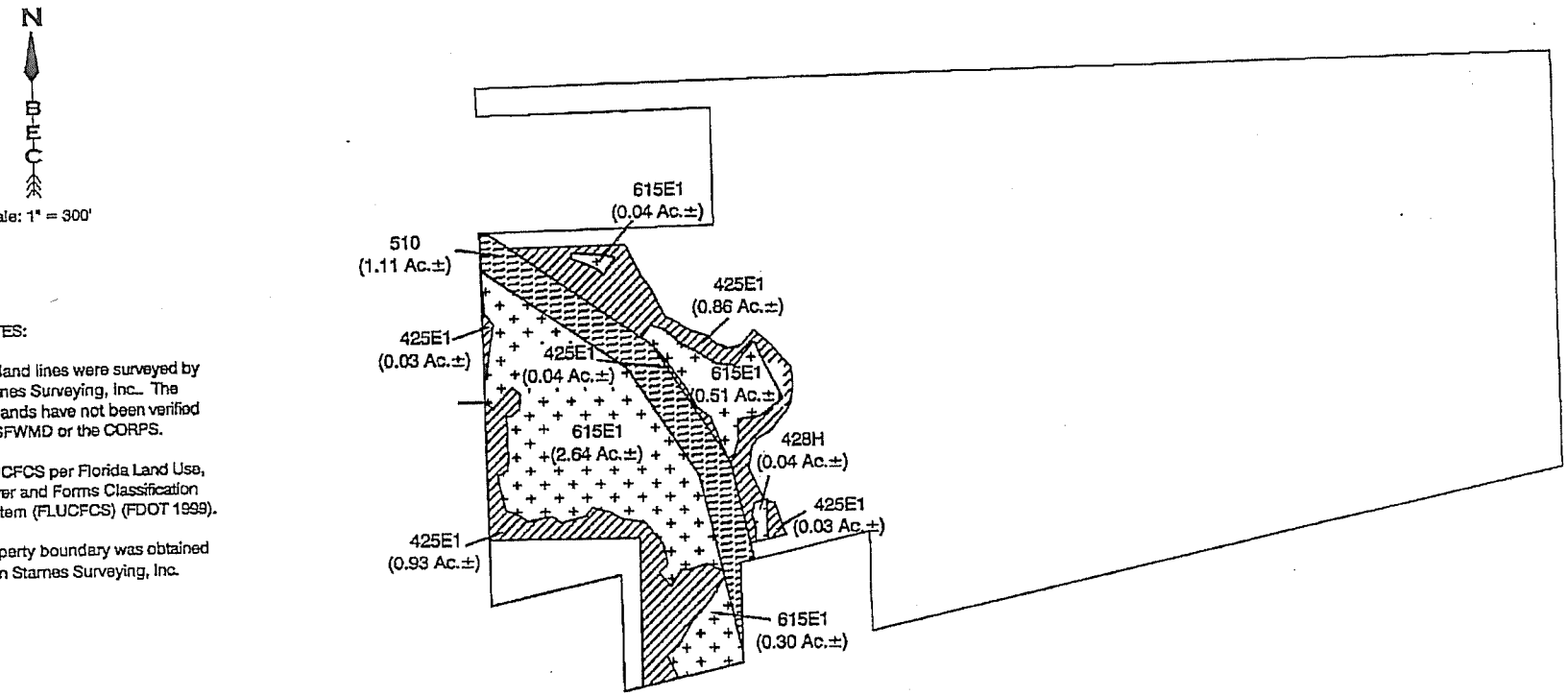
Boylan Environmental Consultants, Inc.
Wetland & Wildlife Surveys, Environmental Permitting, Impact Assessments
11000 Metro Parkway, Suite 4, Ft. Myers, FL 33966 (239) 418-0671

Drawn By:	Date:	Category
B.K.M.	7/31/08	Soils
Job Number		Scale:
2005-208		1" = 300'
S/T/R		County
27/43S/26E		Lee

R & D Cattle

NRCS Soils Map

Revisions	Date:	Page
		Exhibit
		C3



NOTES:

Wetland lines were surveyed by Stames Surveying, Inc.. The wetlands have not been verified by SFWMD or the CORPS.

FLUCFCS per Florida Land Use, Cover and Forms Classification System (FLUCFCS) (FDOT 1999).

Property boundary was obtained from Stames Surveying, Inc.

WETLAND CONSERVATION LANDS - 3.02 AC.

UPLAND CONSERVATION LANDS - 1.89 AC.

OSW CONSERVATION LANDS - 1.11 AC.

CONSERVATION LAND USE AREA LEGEND

FLUCFCS Code	Community Description	Acres
425 E1	Temperate Hammock w/ Exotics (<25%)	1.89 Ac.±
428H	Hydric Cabbage Palm Hammock	0.04 Ac.±
510	Streams and Waterways	1.11 Ac.±
615 E1	Stream and Lake Swamps w/ Exotics (<25%)	2.98 Ac.±
TOTAL		6.02 Ac.±

Boylan Environmental Consultants, Inc.
Wetland & Wildlife Surveys, Environmental Permitting, Impact Assessments
11000 Metro Parkway, Suite 4, Ft. Myers, FL 33966 (239) 418-0671

Drawn By:	Date:	Category
A.M.L.	8/21/08	Aerial
Job Number		Scale:
2005-208		1" = 300'
S/T/R		County
27/43S/26E		Lee

R & D Cattle

CONSERVATION LAND USE AREA

Revisions	Date:	Page
AML 8-28-2008		
		Exhibit

X:\BECC\A-R\ Projects\R & D Cattle\comp plan amendment\comp plan est 8.28.08.dwg Feb. conservation lands est. buffer Aug 28, 2008 - 4:51pm Plotted by: alicia

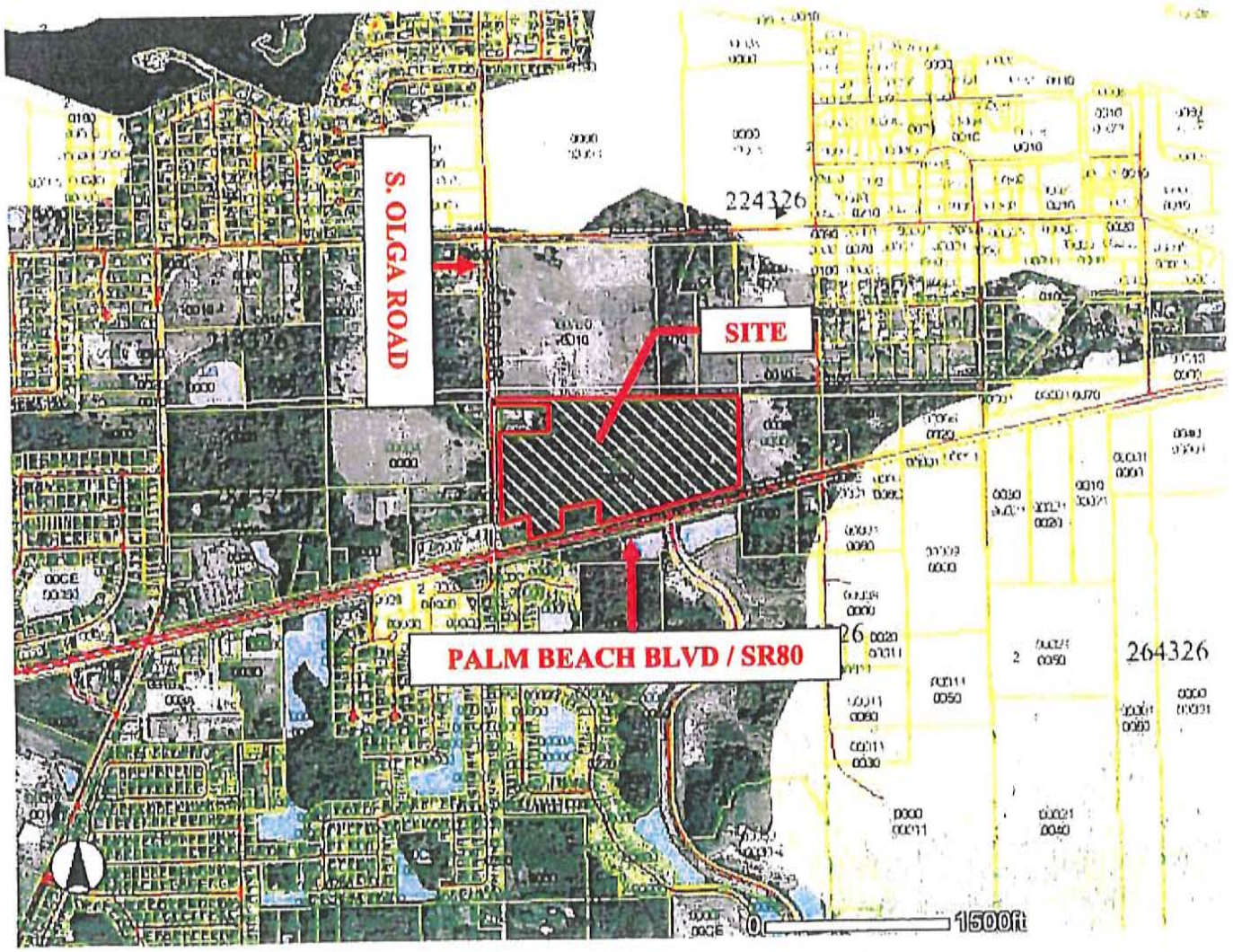
MORRIS DEPEW

ENGINEERS • PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
#LC26000330

Archeological Sensitivity Map

Strap # 27-43-26-00-00003.0000

(Subject Property is not located in the Archeologically Sensitive Area)



Florida Department of Transportation

CHARLIE CRIST
GOVERNOR

STEPHANIE KOPELOUSOS
SECRETARY

MEMORANDUM

Date: August 4, 2008

To: Rae Ann Boylan, Boylan Environmental

From: Sonshine Dupree, District One Drainage
for Carl Spirio, District Drainage Engineer

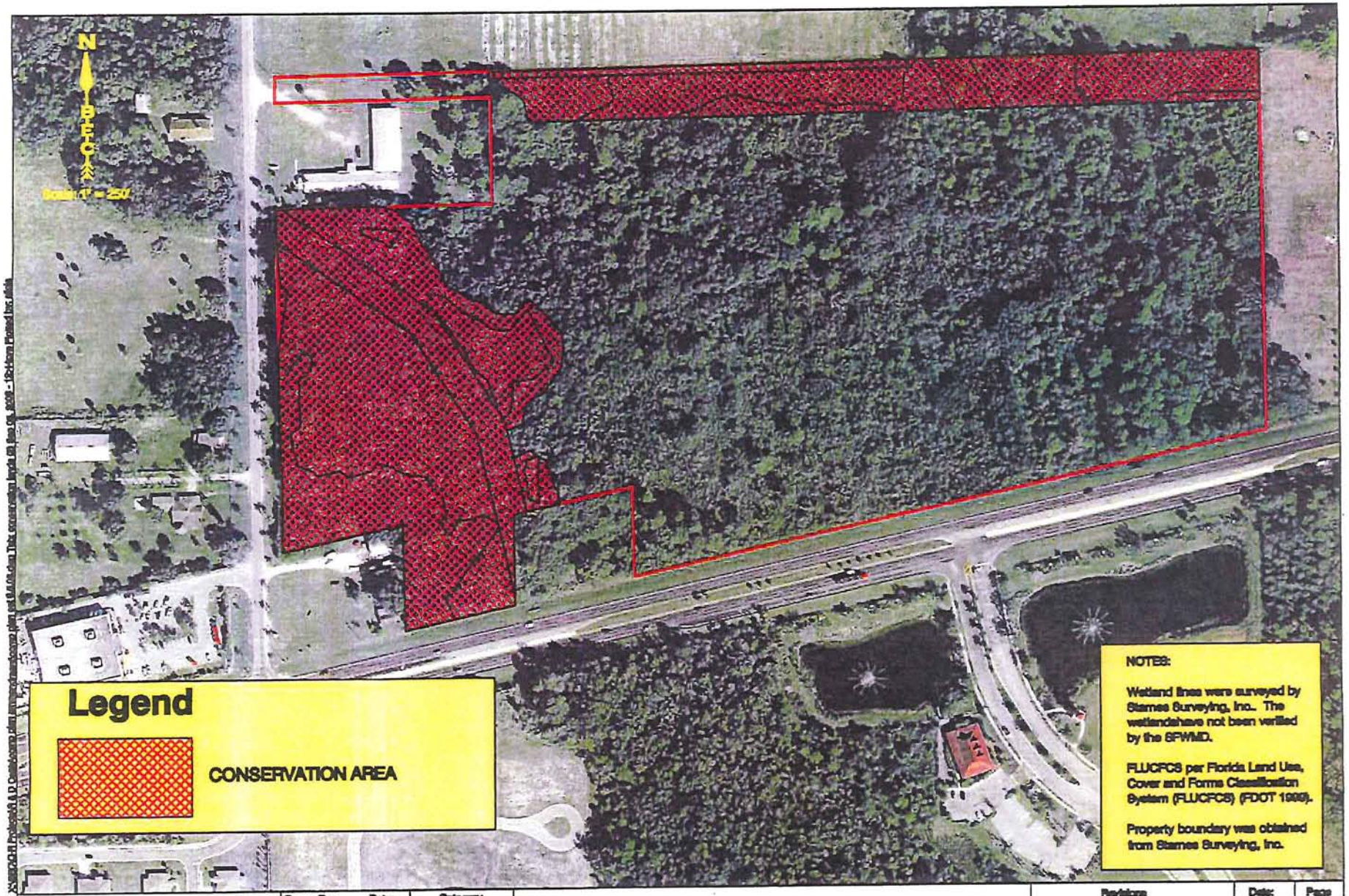
Copies: Ralph Bond, R&D Cattle Co.

Subject: **SR 80, Palm Beach Blvd.**
12020 M.P 11.270 – M.P. 11.802

The FDOT Drainage dept is fine with relocating the drainage easement for the above subject, however, the easement is to be maintained and preserved by Ralph Bond at R & D Cattle Co.

If you should need any other assistance, please call.

District One, Drainage Office
801 North Broadway Avenue * Post Office Box 1249 * Bartow, FL 33831-1249
(863) 519-2621 * (863) 534-7039 (Fax) * MS 1-37
www.shuana.dupree@dot.state.fl.us



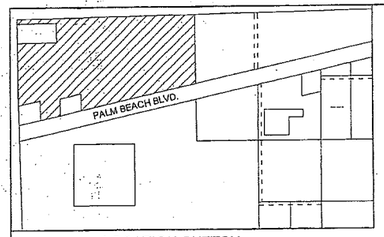
Boylan Environmental Consultants, Inc.
Wetland & Wildlife Surveys, Environmental Permitting, Impact Assessments
11969 Metro Parkway, Suite 4, Ft. Myers, FL 33966 (239) 418-0971

Drawn By:	Date:	Category
A.M.L.	8/21/06	Aerial
Job Number		Scale:
2005-208		1" = 250'
S/T/R		County
27/43S/26E		Lee

R & D Cattle

CONSERVATION LAND USE AREA

Revisions	Date:	Page
AML 9.4.06		
AML 9.5.06		Exhibit



LOCATION SKETCH

FLOOD INFORMATION:

ZONE: A7
BASE ELEVATION: 8'
MAP: 125124 0250 B
DATE: 9-19-84

THE BEARINGS AS SHOWN HEREON ARE BASED ON THE CENTERLINE OF PALM BEACH BLVD. AS BEING N 77 °11'00" E.

NOTE:
1) THE LOCATION OF THE SECOND ONE ACRE PARCEL THAT IS LESSED OUT IS VAGUE. A BETTER DESCRIPTION IS IN O.R. 3295, P. 1001.
2) PARCEL NO. 9 SHOULD HAVE A NOTE THAT STATES "LYING NORTH OF PALM BEACH BLVD." ADDED TO THE DESCRIPTION.
3) THE ENTRANCE DRIVEWAY TO THE CHURCH LOCATED AT THE N.W. CORNER OF THIS PARCEL ENCROACHES ONTO THIS PARCEL

ALL OF THAT LAND IN TOWNSHIP 43 SOUTH, RANGE 26 EAST, LEE COUNTY FLORIDA, TO WIT:

LEGAL DESCRIPTION AS PER O.R. 976 PAGE 553

PARCEL NO. 8: THE NW-1/4 OF THE NW-1/4 OF SECTION 27, LESS THAT PORTION THEREOF WHICH IS DESCRIBED AS FOLLOWS: BEGIN AT THE EAST LINE OF THE RIGHT-OF-WAY OF STATE ROAD NO. 2 AT THE NORTH LINE OF SECTION 27, THENCE SOUTH ALONG THE EAST LINE OF SAID RIGHT-OF-WAY A DISTANCE OF 50 FEET FOR A POINT OF BEGINNING OF THE LAND HEREIN DESCRIBED; THENCE SOUTH PARALLEL WITH THE EAST LINE OF SAID RIGHT-OF-WAY, 210 FEET; THENCE EAST PARALLEL WITH THE NORTH LINE OF SAID SECTION, 420 FEET; THENCE NORTH PARALLEL WITH THE EAST LINE OF SAID RIGHT-OF-WAY, 210 FEET; THENCE WEST TO THE POINT OF BEGINNING.

AND LESS ONE PARCEL OF ONE AND ONE-QUARTER ACRES WHICH IS DESCRIBED AS FOLLOWS: BEGINNING AT THE NE CORNER OF THE INTERSECTION OF ROUTE 80 AND HIGHWAY 31, THENCE RUN NORTHERLY ALONG HIGHWAY 31 , 210 FEET; THENCE EASTERLY AND PARALLEL WITH THE NORTHERLY LINE OF ROUTE 80, 240 FEET; THENCE SOUTHERLY AND PARALLEL TO HIGHWAY 31 TO THE NORTHERN BOUNDARY OF ROUTE 80; THENCE WESTERLY ALONG THE NORTHERN BOUNDARY OF ROUTE 80 TO THE POINT OR PLACE OF BEGINNING.

AND LESS, ALSO, APPROXIMATELY ONE ACRE OF LAND DESCRIBED AS FOLLOWS: BEGIN AT THE INTERSECTION OF THE EAST LINE OF A DRAINAGE DITCH AND THE NORTH LINE OF STATE ROAD 80 IN THE SW-1/4 OF THE NW-1/4 OF THE NW-1/4 OF SAID SECTION 27; THENCE RUN EASTERLY ALONG THE SAID ROAD 80 YARDS; THENCE NORTH PARALLEL TO STATE ROAD 31, 60 YARDS; THENCE WEST PARALLEL TO THE NORTH LINE OF STATE ROAD 80, 80 YARDS; THENCE SOUTH ALONG DRAINAGE DITCH TO POINT OF BEGINNING, LESS THE RIGHT-OF-WAY OF STATE ROAD 80. EXCEPTING THERE FROM THE RIGHT-OF-WAY OF STATE ROAD NO. 80 AND STATE ROAD NO. 31

PARCEL NO. 9: THE W-1/2 OF THE NE-1/4 OF THE NW-1/4 OF SECTION 27.

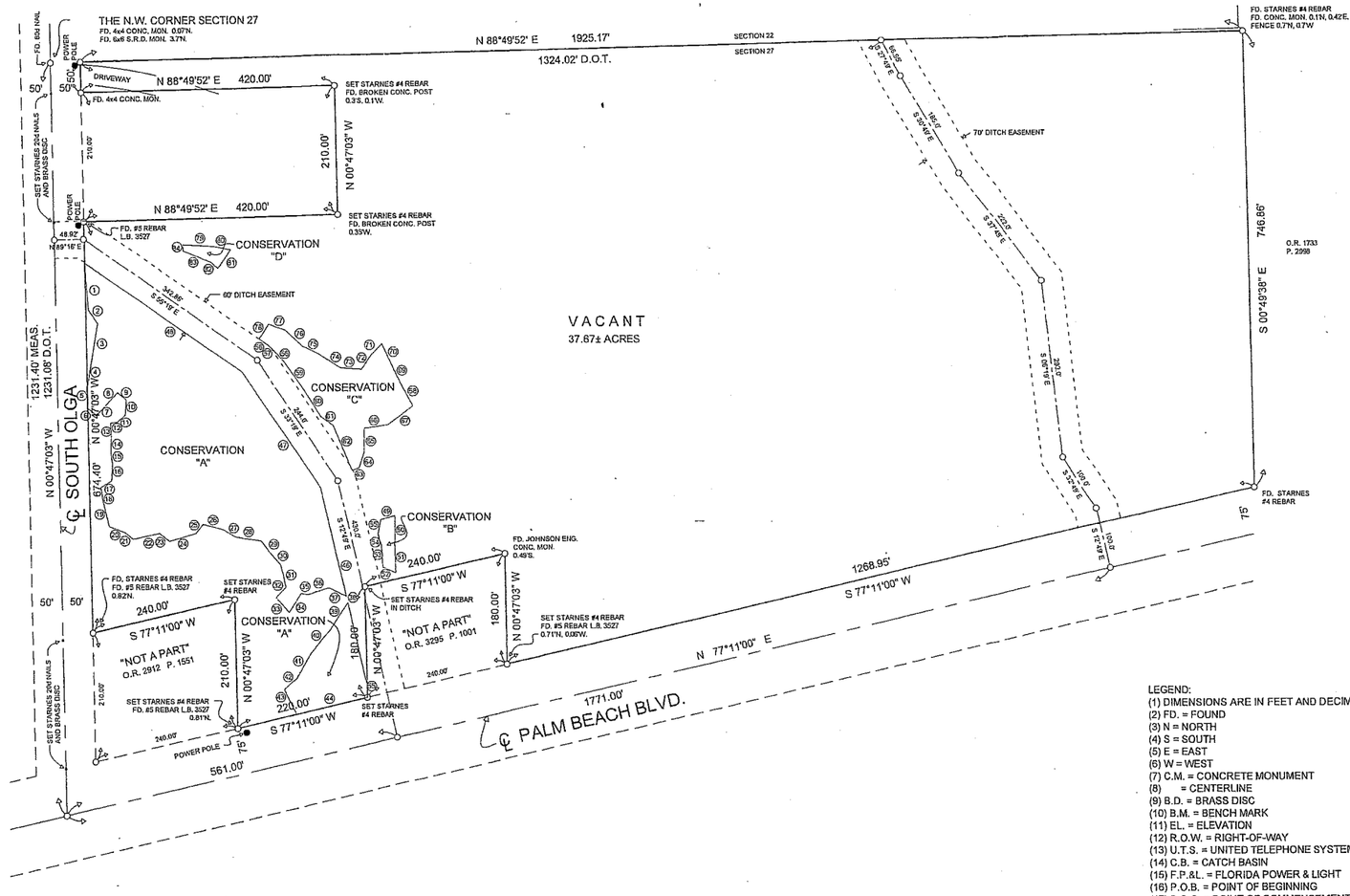
N
W — E
S

SCALE: 1" = 100'

I **HEREBY CERTIFY** THAT THE SURVEY HEREON WAS MADE UNDER MY DIRECTION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I DO NOT CERTIFY THAT THE ZONING REQUIREMENTS HAVE BEEN MET. I ALSO CERTIFY THAT THIS SURVEY HEREON MEETS THE MINIMUM TECHNICAL STANDARDS FOR LAND SURVEYING IN THE STATE OF FLORIDA, AS SET FORTH IN SECTION 472.027, FLORIDA STATUTES AND ACCORDING TO CHAPTER 61G17-6 BOARD OF LAND SURVEYORS.

REGISTERED LAND SURVEYOR P.L.S. #4869
STATE OF FLORIDA JAMES R. STARNES

NOTE: THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.



VACANT
37.67± ACRES

LEGEND:
(1) DIMENSIONS ARE IN FEET AND DECIMALS THEREOF.
(2) FD. = FOUND
(3) N = NORTH
(4) S = SOUTH
(5) E = EAST
(6) W = WEST
(7) C.M. = CONCRETE MONUMENT
(8) ℄ = CENTERLINE
(9) B.D. = BRASS DISC
(10) B.M. = BENCH MARK
(11) EL. = ELEVATION
(12) R.O.W. = RIGHT-OF-WAY
(13) U.T.S. = UNITED TELEPHONE SYSTEM
(14) C.B. = CATCH BASIN
(15) F.P.&L. = FLORIDA POWER & LIGHT
(16) P.O.B. = POINT OF BEGINNING
(17) P.O.C. = POINT OF COMMENCEMENT
(18) P.R.M. = PERMANENT REFERENCE MARKER
(19) P.C.P. = PERMANENT CONTROL POINT
(20) P.U.E. = PUBLIC UTILITY EASEMENT
(21) CALC. = CALCULATED
(22) MEAS. = MEASURED
(23) PRO. = PRORATED
(24) STARNES #4 REBAR = A #4 REBAR AND METAL CAP STAMPED STARNES
(25) STARNES MON. = CONCRETE MONUMENT WITH A METAL PLATE, STAMPED STARNES
(26) N.G.V.D. = NATIONAL GEODETIC VERTICAL DATUM
(28) M.H.T. = MEAN HIGH TIDE
(29)△ = DELTA
NOTE: UNDER GROUND IMPROVEMENTS THAT ARE NOT SHOWN, IF ANY WERE NOT LOCATED.

BOUNDARY SURVEY

Sheet 1 of 2

Field Book 24 - 25 Page 74 - 75 W.O. 5755

According to the Plat thereof as recorded in Plat Book _____, at Page _____
Public Records of LEE County, Florida.
FOR: RALPH BOND
DATE 3 - 7 - 04
UPDATED: 8 - 8 - 08

Starnes Surveying , Inc.
L.B. 6766
Surveying Engineering Land Planning
18571 DURRANCE ROAD • N. FORT MYERS, FLORIDA • (239) 543-3335

1	S 04°07'09" E	76.56'
2	S 34°47'22" E	26.89'
3	S 09°50'11" W	71.24'
4	S 09°08'21" W	36.90'
5	S 00°47'03" E	31.17'
6	S 49°48'13" E	19.11'
7	N 43°31'44" E	27.82'
8	N 42°59'46" E	23.26'
9	S 48°52'41" E	18.50'
10	S. 04°09'44" W	25.08'
11	S 46°27'55" W	17.97'
12	S 79°07'13" W	11.23'
13	S 03°51'40" E	23.46'
14	S 02°56'17" W	25.75'
15	S 07°59'34" E	17.69'
16	S 02°41'20" W	29.20'
17	S 58°30'20" W	20.92'
18	S 07°47'52" E	21.45'
19	S 13°09'42" E	43.69'
20	S 67°53'41" E	27.32'
21	S 51°05'06" E	17.88'
22	N 77°44'15" E	44.59'
23	S 51°36'56" E	20.81'
24	N 74°14'09" E	45.60'
25	N 38°19'19" E	19.34'
26	S 75°06'02" E	32.20'
27	S 59°07'20" E	25.15'
28	S 80°33'51" E	42.70'
29	S 36°36'20" E	23.83'
30	S 40°57'47" E	26.62'
31	S 12°57'44" E	37.27'
32	S 44°58'57" W	23.00'
33	S 41°15'48" E	32.77'
34	N 31°42'04" E	36.52'
35	S 79°40'41" E	12.05'
36	N 72°55'44" E	35.87'
37	S 64°44'37" E	31.30'
38	S 12°49'00" E	10.80'
39	S 33°16'13" W	54.28'
40	S 40°28'31" W	47.86'
41	S 30°17'35" W	47.32'
42	S 49°59'59" W	27.50'
43	S 25°57'45" E	45.64'
44	N 77°11'00" E	120.00'
45	N 00°47'03" W	18.66'
46	N 12°49'00" W	331.33'
47	N 33°19'00" W	232.74'
48	N 55°19'00" W	313.91'
49	N 74°17'55" E	24.20'
50	S 00°30'57" W	56.65'
51	S 02°49'29" E	37.13'
52	N 66°26'07" W	23.84'
53	N 03°15'02" W	35.45'
54	N 16°03'19" W	20.03'
55	N 11°43'50" E	23.51'
56	S 55°19'00" E	18.38'
57	S 46°44'24" E	15.84'
58	S 40°30'38" E	24.66'
59	S 34°35'17" E	54.85'
60	S 31°23'17" E	50.48'
61	S 53°21'21" E	25.89'
62	S 21°28'50" E	80.89'
63	N 67°04'27" E	12.68'
64	N 18°58'33" E	27.46'
65	N 00°52'55" E	38.97'
66	N 81°18'53" E	40.13'
67	N 52°06'27" E	51.89'
68	N 27°15'41" W	41.59'
69	N 25°51'08" W	25.34'
70	N 24°57'59" W	46.56'
71	S 44°06'17" W	27.16'
72	S 35°08'52" W	26.82'
73	N 86°00'55" W	34.39'
74	N 57°38'11" W	44.09'
75	N 63°56'13" W	28.59'
76	N 46°41'53" W	38.42'
77	N 70°48'49" W	28.69'
78	S 33°58'05" W	28.53'
79	S 87°00'00" E	50.00'
80	S 78°58'41" E	28.87'
81	S 33°53'21" W	36.73'
82	N 48°46'21" W	15.58'
83	N 68°15'47" W	49.57'
84	N 00°10'00" W	10.00'

CONSERVATION EASEMENT "A"

AN EASEMENT LYING IN SECTION 27, TOWNSHIP 43 SOUTH, RANGE 26 EAST, LEE COUNTY, FLORIDA. BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 27; THENCE RUN N.88°49'52"E. FOR 50 FEET TO THE EAST RIGHT OF WAY LINE OF FORMER STATE ROAD 31; THENCE RUN S.00°47'03"E. ALONG SAID RIGHT OF WAY LINE FOR 327.43 FEET TO IT'S INTERSECTION WITH THE SOUTHERLY SIDE OF A 60 FOOT WIDE DRAINAGE EASEMENT AND THE POINT OF BEGINNING OF THE HEREIN DESCRIBED EASEMENT.
FROM SAID POINT OF BEGINNING RUN S.04°07'09"E. FOR 76.56 FEET; THENCE RUN S.34°47'22"E. FOR 26.89 FEET; THENCE RUN S.09°50'11"W. FOR 71.24 FEET; THENCE RUN S.09°08'21"W. FOR 36.90 FEET; THENCE RUN S.00°47'03"E. ALONG SAID AFOREMENTIONED RIGHT OF WAY LINE FOR 31.17 FEET; THENCE RUN S.49°48'13"E. FOR 19.11 FEET; THENCE RUN N.43°31'44"E. FOR 27.82 FEET; THENCE RUN N.42°59'46"E. FOR 23.26 FEET; THENCE RUN S.48°52'41"E. FOR 18.50 FEET; THENCE RUN S.04°09'44"W. FOR 25.08 FEET; THENCE RUN S.46°27'55"W. FOR 17.97 FEET; THENCE RUN S.79°07'13"W. FOR 11.23 FEET; THENCE RUN S.03°51'40"E. FOR 23.46 FEET; THENCE RUN S.02°56'17"W. FOR 25.75 FEET; THENCE RUN S.07°59'34"E. FOR 17.69 FEET; THENCE RUN S.02°41'20"W. FOR 29.20 FEET; THENCE RUN S.58°30'20"W. FOR 20.92 FEET; THENCE RUN S.07°47'52"E. FOR 21.45 FEET; THENCE RUN S.13°09'42"E. FOR 43.69 FEET; THENCE S.67°53'41"E. FOR 27.32 FEET; THENCE RUN S.51°05'06"E. FOR 17.88 FEET; THENCE RUN N.77°44'15"E. FOR 44.59 FEET; THENCE RUN S.51°36'56"E. FOR 20.81 FEET; THENCE RUN N.74°14'09"E. FOR 45.60 FEET; THENCE RUN N.38°19'19"E. FOR 19.34 FEET; THENCE RUN S.75°06'02"E. FOR 32.20 FEET; THENCE RUN S.59°07'20"E. FOR 25.15 FEET; THENCE RUN S.80°33'51"E. FOR 42.70 FEET; THENCE RUN S.36°36'20"E. FOR 23.83 FEET; THENCE RUN S.40°57'47"E. FOR 26.62 FEET; THENCE RUN S.12°57'44"E. FOR 37.27 FEET; THENCE RUN S.44°58'57"W. FOR 23.00 FEET; THENCE RUN S.41°15'48"E. FOR 32.77 FEET; THENCE RUN N.31°42'04"E. FOR 36.52 FEET; THENCE RUN S.79°40'41"E. FOR 12.05 FEET; THENCE RUN N.72°55'44"E. FOR 35.87 FEET; THENCE RUN S.64°44'37"E. FOR 31.30 FEET; THENCE RUN S.12°49'00"E. FOR 10.80 FEET; THENCE RUN S.33°16'13"W. FOR 54.28 FEET; THENCE RUN S.40°28'31"W. FOR 47.86 FEET; THENCE RUN S.30°17'35"W. FOR 47.32 FEET; THENCE RUN S.49°59'59"W. FOR 27.50 FEET; THENCE RUN S.25°57'45"E. FOR 45.64 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF STATE ROAD 80; THENCE RUN N.77°11'00"E. ALONG SAID RIGHT OF WAY LINE FOR 120.00 FEET TO THE WEST LINE OF THAT PARCEL AS DESCRIBED IN OFFICIAL RECORDS BOOK 3295 AT PAGE 1001 OF THE PUBLIC RECORDS OF LEE COUNTY, FLORIDA; THENCE RUN N.00°47'03"W. ALONG THE WEST LINE OF SAID PARCEL FOR 18.66 FEET TO IT'S INTERSECTION OF THE WESTERLY LINE OF A 60 FOOT WIDE DRAINAGE EASEMENT; THENCE RUN N.12°49'00"W. ALONG SAID EASEMENT LINE FOR 331.33 FEET; THENCE RUN N.33°19'00"W. ALONG SAID EASEMENT LINE FOR 232.74 FEET; THENCE RUN N.55°19'00"W. FOR 313.91 FEET TO THE POINT OF BEGINNING.

SAID EASEMENT CONTAINS 2.935 ACRES

CONSERVATION EASEMENT "B"
AN EASEMENT LYING IN SECTION 27, TOWNSHIP 43 SOUTH, RANGE 26 EAST, LEE COUNTY, FLORIDA. BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 27; THENCE RUN S.35°37'28"E. FOR 925.23 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED EASEMENT.
FROM SAID POINT OF BEGINNING RUN N.74°17'55"E. FOR 24.20 FEET; THENCE RUN S.00°30'57"W. FOR 56.65 FEET; THENCE RUN S.02°49'29"E. FOR 37.13 FEET; THENCE RUN N.66°26'07"W. FOR 23.84 FEET; THENCE RUN N.03°15'02"W. FOR 35.45 FEET; THENCE RUN N.16°03'19"W. FOR 20.03 FEET; THENCE RUN N.11°43'50"E. FOR 23.51 FEET TO THE POINT OF BEGINNING.
NOTE THE NORTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 27 BEARS N.88°49'52"E.

SAID EASEMENT CONTAINS 0.046 ACRES

CONSERVATION EASEMENT "C"
AN EASEMENT LYING IN SECTION 27, TOWNSHIP 43 SOUTH, RANGE 26 EAST, LEE COUNTY, FLORIDA. BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS.
COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 27; THENCE RUN S.37°03'32"E. FOR 566.21 FEET TO A POINT LYING ON THE NORTHERLY LINE OF A 60 FOOT WIDE DRAINAGE EASEMENT AND THE POINT OF BEGINNING OF THE HEREIN DESCRIBED EASEMENT.
FROM SAID POINT OF BEGINNING RUN S.55°19'00"E. ALONG SAID DRAINAGE EASEMENT FOR 18.38 FEET; THENCE RUN S.46°44'24"E. FOR 15.84 FEET; THENCE RUN S.40°30'38"E. FOR 24.66 FEET; THENCE RUN S.34°35'17"E. FOR 54.85 FEET; THENCE RUN S.31°23'17"E. FOR 50.48 FEET; THENCE RUN S.53°21'21"E. FOR 25.89 FEET; THENCE RUN S.21°28'50"E. FOR 80.89 FEET; THENCE RUN N.67°04'27"E. FOR 12.68 FEET; THENCE RUN N.18°58'33"E. FOR 27.46 FEET; THENCE RUN N.00°52'55"E. FOR 38.97 FEET; THENCE RUN N.81°18'53"E. FOR 40.13 FEET; THENCE RUN N.52°06'27"E. FOR 51.89 FEET; THENCE RUN N.27°15'41"W. FOR 41.59 FEET; THENCE RUN N.25°51'08"W. FOR 25.34 FEET; THENCE RUN N.24°57'59"W. FOR 46.56 FEET; THENCE RUN S.44°06'17"W. FOR 27.16 FEET; THENCE RUN S.35°08'52"W. FOR 26.82 FEET; THENCE RUN N.86°00'55"W. FOR 34.39 FEET; THENCE RUN N.57°38'11"W. FOR 44.09 FEET; THENCE RUN N.63°56'13"W. FOR 28.59 FEET; THENCE RUN 46°41'53"W. FOR 38.42 FEET; THENCE RUN N.70°48'49"W. FOR 28.69 FEET; THENCE RUN S.33°58'05"W. FOR 28.53 FEET TO THE POINT OF BEGINNING.

SAID EASEMENT CONTAINS 0.512 ACRES

NOTE THE NORTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 27 BEARS N. 88°49'52"E.

CONSERVATION EASEMENT "D"

AN EASEMENT LYING IN SECTION 27, TOWNSHIP 43 SOUTH, RANGE 26 EAST, LEE COUNTY, FLORIDA. BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 27; THENCE RUN S.36°05'03"E. FOR 368.57 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED EASEMENT.
FROM SAID POINT OF BEGINNING RUN S.87°00'00"E. FOR 50.00 FEET; THENCE RUN S.78°58'41"E. FOR 28.87 FEET; THENCE RUN S.33°53'21"W. FOR 36.73 FEET; THENCE RUN N.68°15'47"W. FOR 49.57 FEET; THENCE RUN N.00°10'00"W. FOR 10.00 FEET TO THE POINT OF BEGINNING.

SAID PARCEL CONTAINS 0.035 ACRES

NOTE THE NORTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 27 BEARS N.88°49'52"E.

I HEREBY CERTIFY THAT THE SURVEY HEREON WAS MADE UNDER MY DIRECTION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I DO NOT CERTIFY THAT THE ZONING REQUIREMENTS HAVE BEEN MET. I ALSO CERTIFY THAT THIS SURVEY HEREON MEETS THE MINIMUM TECHNICAL STANDARDS FOR LAND SURVEYING IN THE STATE OF FLORIDA, AS SET FORTH IN SECTION 472.027, FLORIDA STATUTES AND ACCORDING TO CHAPTER 61G17-6 BOARD OF LAND SURVEYORS.

REGISTERED LAND SURVEYOR P.L.S. #4869
STATE OF FLORIDA JAMES R. STARNES

NOTE: THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

BOUNDARY SURVEY

Field Book 24 - 25 Page 74 - 75 W.O. 5755 Sheet 2 of 2

Starnes Surveying, Inc. L.B. 6756
Surveying Engineering Land Planning
18571 DURRANCE ROAD • N. FORT MYERS, FLORIDA • (239) 543-3335

According to the Plat thereof as recorded in Plat Book ____, at Page ____
Public Records of LEE County, Florida.
FOR RALPH BOND
DATE 3 - 7 - 04
UPDATED: 8 - 8 - 08

NORTH

0 200'

SCALE: 1" = 200'

AG-2
AGRICULTURAL / VACANT
FLUM: SUBURBAN

AG-2
VACANT
FLUM: RURAL

50'

100' NATIVE BUFFER

100' NATIVE BUFFER

AG-2
CHURCH
FLUM: SUBURBAN

SOUTH OLGA DR

AG-2
RESIDENTIAL / VACANT
FLUM: SUBURBAN

8' FDOT DRAINAGE DITCH

50'

AG-2
AGRICULTURAL
FLUM: RURAL

C-1A
VACANT
FLUM: SUBURBAN

15' TYPE "D" BUFFER

15' TYPE "D" BUFFER

CN-2
VACANT
FLUM: SUBURBAN

PALM BEACH BLVD

AG-2
RESIDENTIAL / VACANT
FLUM: RURAL

CR
COMMERCIAL
FLUM: SUBURBAN

RIVER HALL PKWY

CPD
VACANT
FLUM: RURAL

RPD
RESIDENTIAL/VACANT
FLUM: SUBURBAN

REVISED 09/08/08

NORTHERN PRESERVE PLAN

R & D CATTLE CO.
Section 27, T-43-S, R-26-E, Lee County, Florida

• Fort Myers
• Tallahassee
• Gainesville

MORRIS DEPEW

ENGINEERS • PLANNERS • SURVEYORS

3804 Clemens Avenue
Fort Myers, Florida 33901
(239) 337-3993
Fax: (239) 337-3994
Toll free 866-337-7541

MDA PROJECT:
07029

DRAWN BY: DWD | DESIGNED BY: AN

DATE:
9/04/08

SHEET
1

DeLisi Fitzgerald, Inc.
Planning – Engineering – Project Management

BYRUS OLGA
HISTORIC RESOURCES

The subject property contains no historic structures or districts, and is outside the Archaeological Sensitivity 2 area. The proposed commercial area will not have an impact on historical or archaeological resources. Refer to maps 10 and 11.

CPA 2007-00060

LEE COUNTY
SOUTHWEST FLORIDA

October 12, 2007

Ms. Jane Nicholson
DeLisi Fitzgerald, Inc.
1500 Royal Palm Square Blvd., Suite 101
Fort Myers, FL 33919

SUBJECT: Comp Plan Amendment, Byrus Olga Letter of Availability

Dear Ms. Nicholson:

The Lee County Solid Waste Division is capable of providing solid waste collection service for the additional commercial area proposed for the subject property located at 208 Linwood Avenue, Alva FL through our franchised hauling contractors. Disposal of the solid waste from these developments will be accomplished at the Lee County Resource Recovery Facility and the Lee-Hendry Regional Landfill. Plans have been made, allowing for growth, to maintain long-term disposal capacity at these facilities.

The Solid Waste Ordinance (05-13, Section 21) and the Lee County Land Development Code, Chapter 10, Section 10-261 have requirements for providing on-site space for placement and servicing of certain commercial solid waste containers. Please review these requirements when planning the project. If you have any questions, please call me at (239) 338-3302.

Sincerely,

William T. Newman
Operations Manager
Solid Waste Division

CPA 2007-00060

LEE COUNTY
SOUTHWEST FLORIDA

BOARD OF COUNTY COMMISSIONERS

Janes
District One

A. Brian Bigelow
District Two

Ray Judah
District Three

Tammy Hall
District Four

Frank Mann
District Five

Donald D. Stilwell
County Manager

David M. Owen
County Attorney

Diana M. Parker
County Hearing Examiner

October 15, 2007

Ms. Jane Nicholson
DeLisi Fitzgerald, Inc.
1500 Royal Palm Square Blvd.
Suite 101
Fort Myers, FL 33919

Re: Byrus Olga Letter of Availability
STRAP No.: 27-43-26-00-00006.0030

Ms. Nicholson:

Lee County Transit received your letter dated October 5, 2007 in reference to the Comprehensive Plan Amendment Application for the subject property. Lee County does not currently provide public transportation services to the subject property. The nearest existing services are approximately 8/10ths of a mile west on Palm Beach Boulevard at Old Olga Road. Planning studies have not identified the need to extend local bus service to the subject site anytime within the existing Lee County Transit Development Plan, which goes through 2015. The Lee County Long Range Transportation Plan, which has a planning horizon through 2030 only indicates the need for express commuter service through this corridor in the future. Any increase in demand for public transit services as a result of the proposed change to the Future Land Use Map will not be met.

If you have any questions please contact me at (239) 533-0333 or you can send an e-mail to mhorsting@leegov.com .

Sincerely,

Michael Horsting, AICP
Principal Planner
Lee County Transit

RECEIVED
NOV 13 2007
PERMIT COUNTER

CPA 2007-00060

EXHIBIT "A"

DESCRIPTION:

A TRACT OR PARCEL SITUATED IN THE STATE OF FLORIDA, COUNTY OF LEE, LYING IN SECTION 27, TOWNSHIP 43 SOUTH, RANGE 26 EAST, BEING FURTHER DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTH QUARTER CORNER OF SAID SECTION 27; THENCE S.88°48'43"W. A DISTANCE OF 20.00 FEET TO THE WEST RIGHT OF WAY OF LINWOOD AVENUE AND THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL; THENCE S.00°52'22"E ALONG THE WEST RIGHT OF WAY LINE OF LINWOOD AVENUE A DISTANCE OF 615.35 FEET TO THE NORTH RIGHT OF WAY OF PALM BEACH BOULEVARD (SR 80); THENCE S.77°08'36"W. ALONG SAID RIGHT OF WAY LINE A DISTANCE OF 653.15 FEET; THENCE N.00°49'59"W. A DISTANCE OF 747.45 FEET; THENCE N.88°48'43"E. A DISTANCE OF 538.41 FEET TO THE WEST RIGHT OF WAY OF LINWOOD AVENUE AND THE POINT OF BEGINNING.

PA 2007-00060

SURVEY PLAT

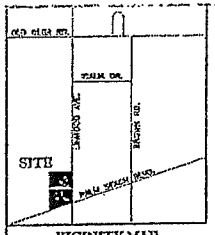
OF

A PARCEL OF LAND

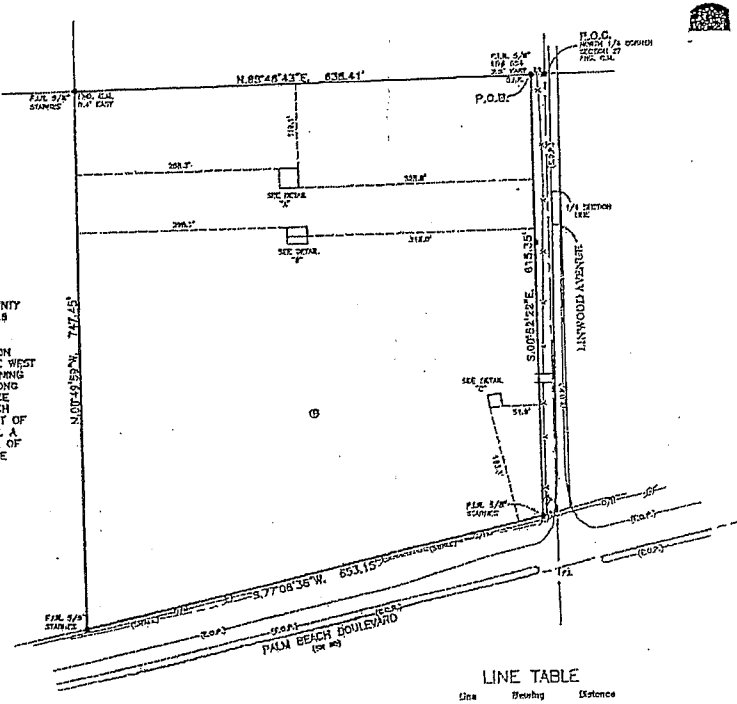
LYING IN

SECTION 27, TOWNSHIP 43 SOUTH, RANGE 26 EAST,

LEE COUNTY, FLORIDA



VICINITY MAP
NOT TO SCALE



DESCRIPTION:

A TRACT OR PARCEL SITUATED IN THE STATE OF FLORIDA, COUNTY OF LEE, LYING IN SECTION 27, TOWNSHIP 43 SOUTH, RANGE 26 EAST, BEING FURTHER DESCRIBED AS FOLLOWS:

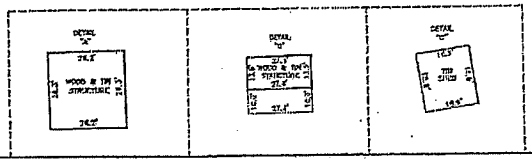
COMMENCING AT THE NORTH QUARTER CORNER OF SAID SECTION 27; THENCE S.08°40'43"W. A DISTANCE OF 20.00 FEET TO THE WEST RIGHT OF WAY OF LINWOOD AVENUE AND THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL; THENCE S.01°52'22"E ALONG THE WEST RIGHT OF WAY LINE OF LINWOOD AVENUE A DISTANCE OF 615.35 FEET TO THE NORTH RIGHT OF WAY OF PALM BEACH BOULEVARD (SR 80); THENCE S.77°08'36"W. ALONG SAID RIGHT OF WAY LINE A DISTANCE OF 653.15 FEET; THENCE N.00°49'59"W. A DISTANCE OF 747.45 FEET; THENCE N.88°48'43"E. A DISTANCE OF 638.41 FEET TO THE WEST RIGHT OF WAY OF LINWOOD AVENUE AND THE POINT OF BEGINNING.

LEGEND:

S.I.R. = SET 5/8" IRON ROD & CAP, LB #7071
P.O.C. = POINT OF COMMENCEMENT
P.O.B. = POINT OF BEGINNING
P.I. = POINT OF INTERSECTION
C.M. = CONCRETE MONUMENT
FND. = FOUND
E.O.P. = EDGE OF PAVEMENT
F.I.R. = FOUND IRON ROD & CAP
= FIRE HYDRANT
—x— = FENCE LINE
—O/H— = OVERHEAD UTILITY LINES
= WOOD UTILITY POLE
= STREET SIGN
= WELL

LINE TABLE

Line	Bearing	Distance
L1	S.88°48'43"W.	20.07'



NOTES:

SURVEY BASED ON THE DESCRIPTION AS SHOWN, AND EXISTING MONUMENTATION.

BEARINGS BASED ON THE NORTH RIGHT OF WAY OF PALM BEACH BOULEVARD AS BEARING S.77°08'36"W.

PARCEL LIES IN FLOOD ZONE "A7" HAVING A BASE FLOOD ELEVATION OF +8'. THIS INFORMATION TAKEN FROM FLOOD INSURANCE RATE MAP 125124 0250 B REVISED 09-19-1984.

THE F.E.M.A. FLOOD ZONE INFORMATION INDICATED HEREON IS BASED ON MAPS SUPPLIED BY THE FEDERAL GOVERNMENT. THIS FLOOD INFORMATION MUST BE VERIFIED WITH ALL PERMITTING REGULATORY ENTITIES PRIOR TO COMMENCING ANY WORK OR APPLICATION DEPENDENT ON SAID FLOOD INFORMATION.

ABOVE GROUND OR UNDERGROUND IMPROVEMENTS, UTILITIES AND/OR FOUNDATIONS WERE NOT LOCATED UNLESS OTHERWISE NOTED.

THIS PLAT PREPARED AS A BOUNDARY SURVEY AND IS NOT INTENDED TO DELINEATE THE JURISDICTION OR JURISDICTIONAL AREAS OF ANY FEDERAL, STATE, REGIONAL OR LOCAL AGENCY, BOARD, COMMISSION OR OTHER ENTITY.

SUBJECT TO EASEMENTS, RESTRICTIONS, RESERVATIONS AND RIGHTS-OF-WAY (RECORDED AND UNRECORDED, WRITTEN AND UNWRITTEN).

DURING THE COURSE OF THIS SURVEY, NO DOCUMENTATION COULD BE FOUND OR WAS PROVIDED PERTAINING THE RIGHT OF WAY OF LINWOOD AVENUE. THE RIGHT OF WAY OF LINWOOD AVENUE SHOWN HEREON IS BASED ON ADJOINING DEEDS AND FOUND MONUMENTATION.

ALL DIMENSIONS PLAT AND FIELD VERIFIED, UNLESS OTHERWISE SHOWN.

DATE OF LAST FIELD WORK: 4-25-2005.

PARCEL CONTAINS 10.0 ACRES, MORE OR LESS.

FOR THE EXCLUSIVE USE OF:
- WILLIAM BYRUS

BY: _____
SCOTT M. SHORE
PROFESSIONAL SURVEYOR AND MAPPER
FLORIDA CERTIFICATE NO. LS #5743

DATE SIGNED: 4-26-2005

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

THIS BOUNDARY SURVEY IS ONLY FOR THE LANDS AS DESCRIBED. IT IS NOT A CERTIFICATE OF TITLE, ZONING, EASEMENTS OR FREEDOM OF ENCUMBRANCES.

THIS SURVEY WAS PREPARED WITHOUT BENEFIT OF AN ABSTRACT OF TITLE AND ALL MATTERS OF TITLE SHOULD BE REFERRED TO AN ATTORNEY AT LAW.

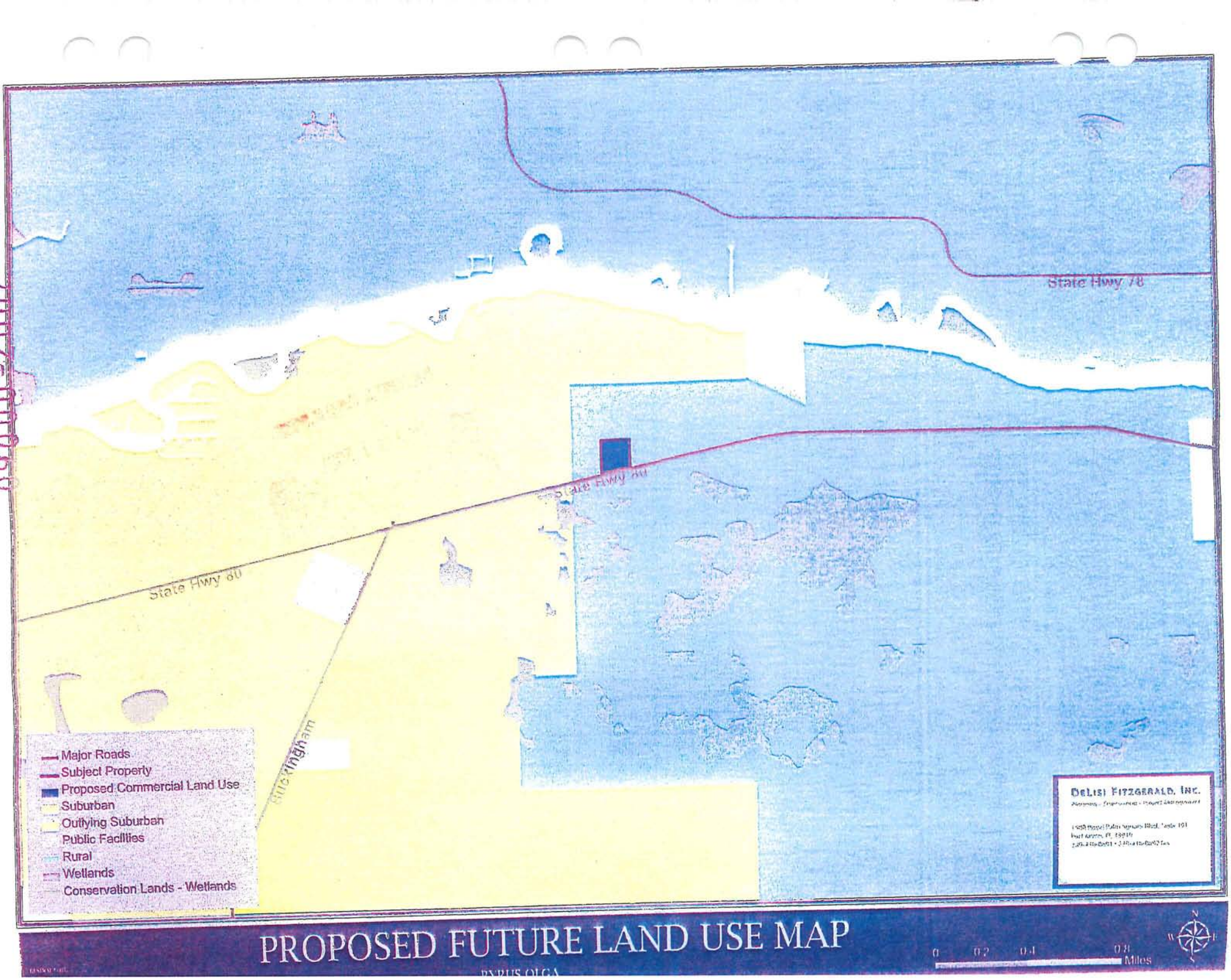
TITLE: BOUNDARY SURVEY

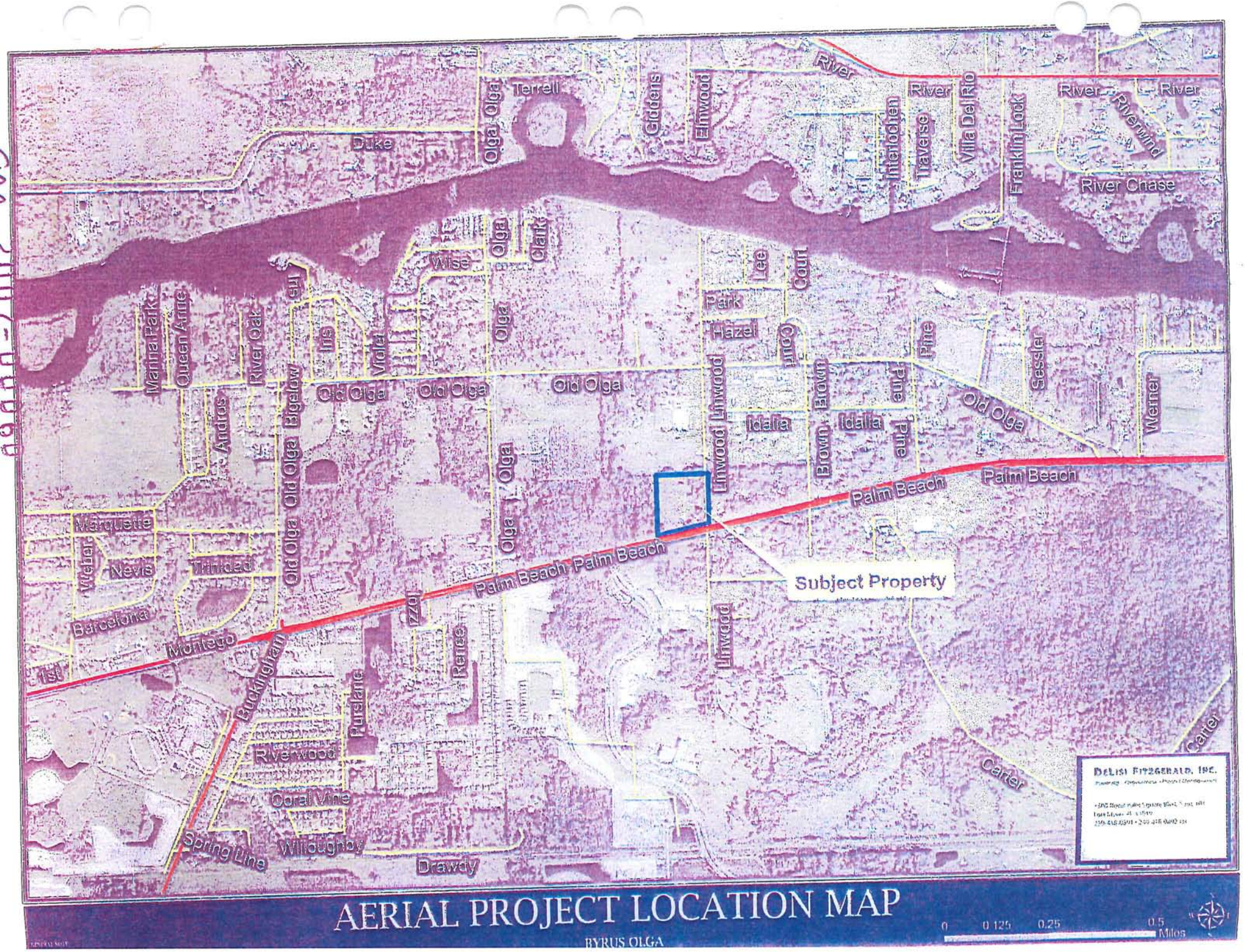
METRON
SURVEYING & MAPPING, LLC
LAND SURVEYORS-PLANNERS
LB #7071

9245 RANDEY WAY, SUITE 52
FORT MYERS, FLORIDA 33967
PHONE: (239) 275-8575
FAX: (239) 275-8457
www.metronfl.com

FILE NAME:	FIELD BOOK/PAGES	PROJECT NO.:	SHEET:
7763SR.DWG	279/64	7763	1 OF 1
SURVEY DATE:	DRAWN BY:	SCALE:	CHECKED BY:	FILE NO. (S-T-R)
4-11-05	RY	1"= 100'	SMS	27-43-26

C PA 2007-00060


State Hwy 78
State Hwy 60
State Hwy 60
Buckingham
Major Roads
Subject Property
Proposed Commercial Land Use
Suburban
Outlying Suburban
Public Facilities
Rural
Wetlands
Conservation Lands - Wetlands
DeLisi Fitzgerald, Inc.
PROPOSED FUTURE LAND USE MAP
PARCEL OF CA
0 0.2 0.4 0.8
Miles
N
W
E
S

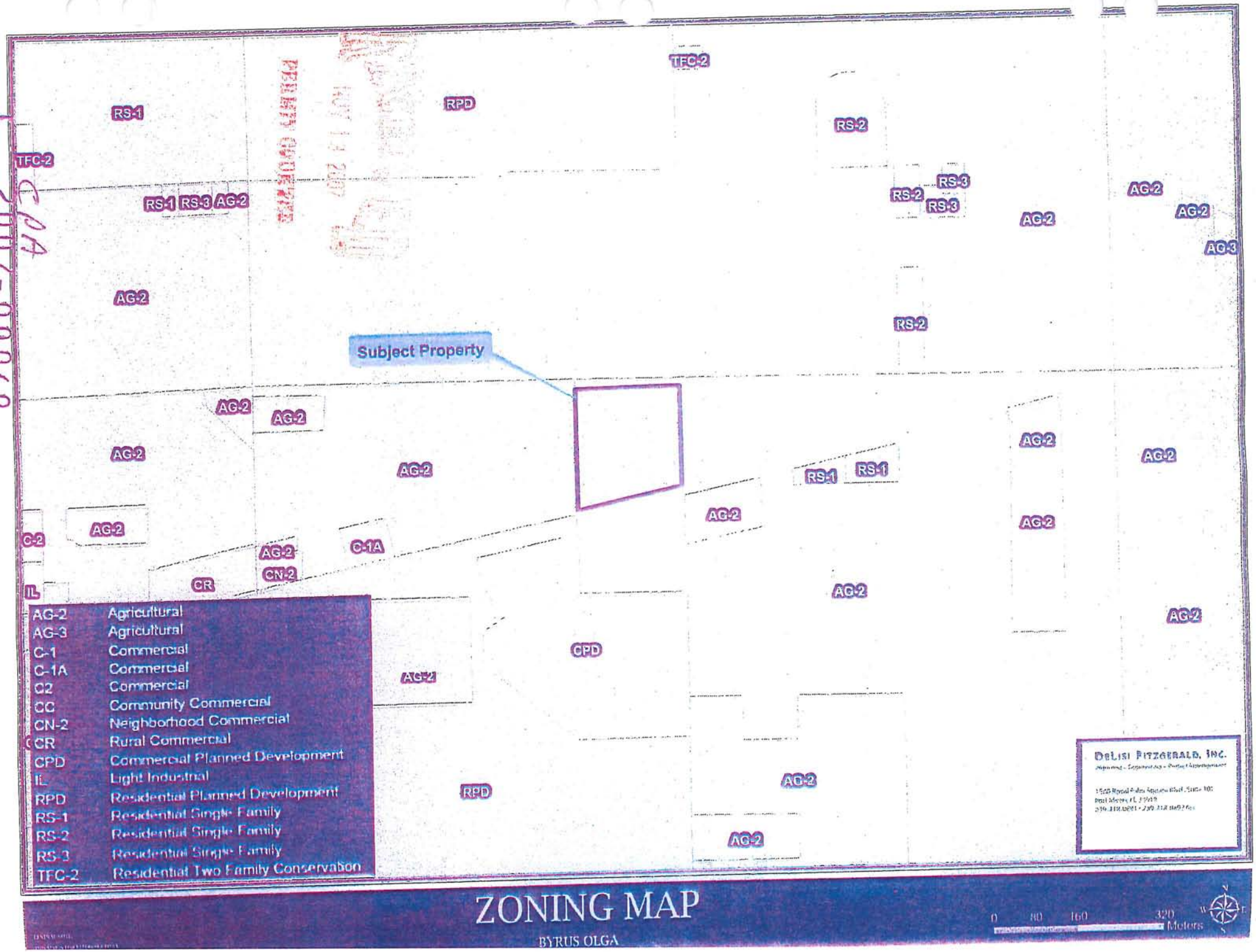


AERIAL PROJECT LOCATION MAP

BYRUS OLGA

EXISTING FUTURE LAND USE MAP

BYRUS OLGA

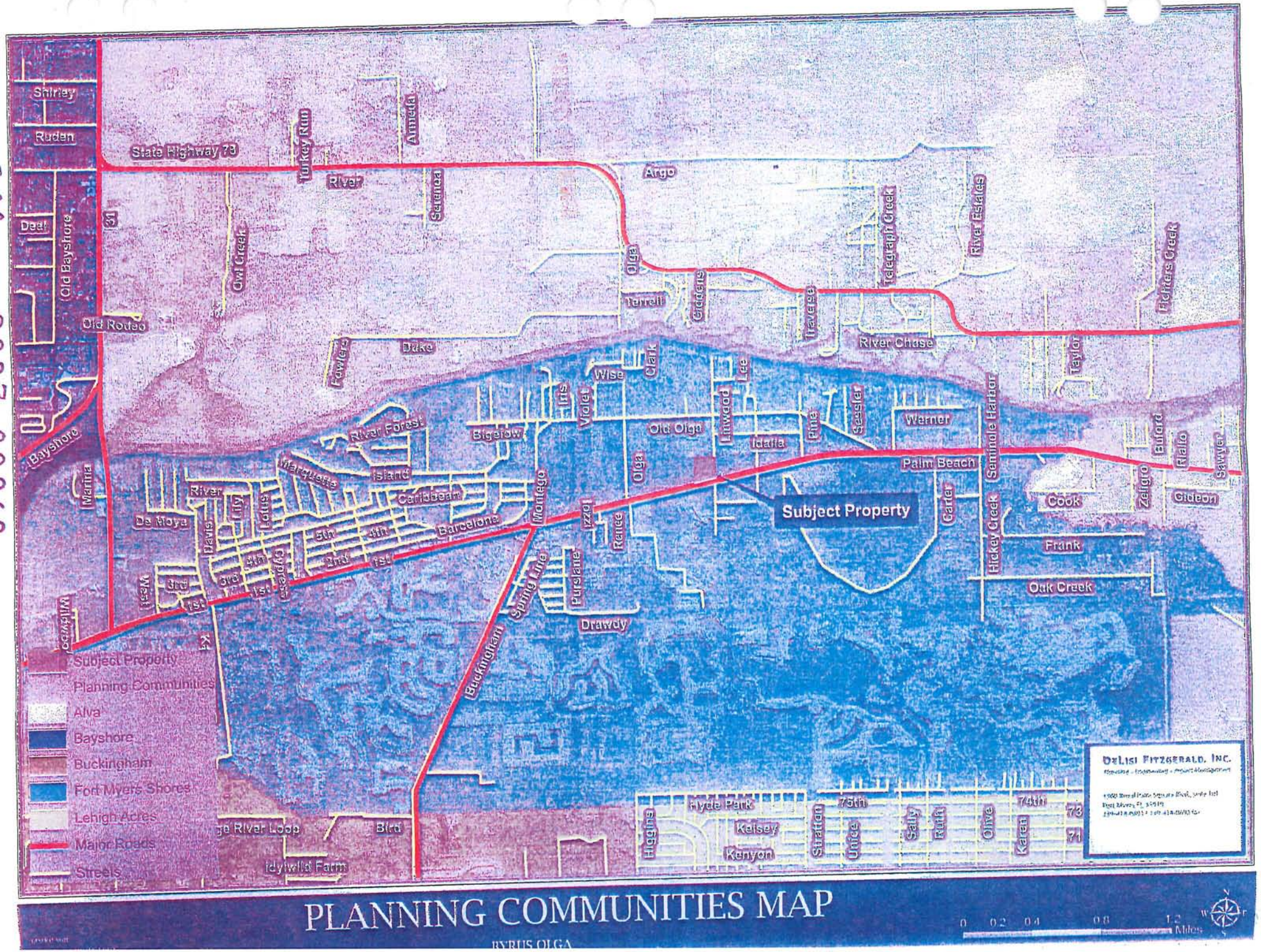


ZONING MAP

BYRUS OLGA

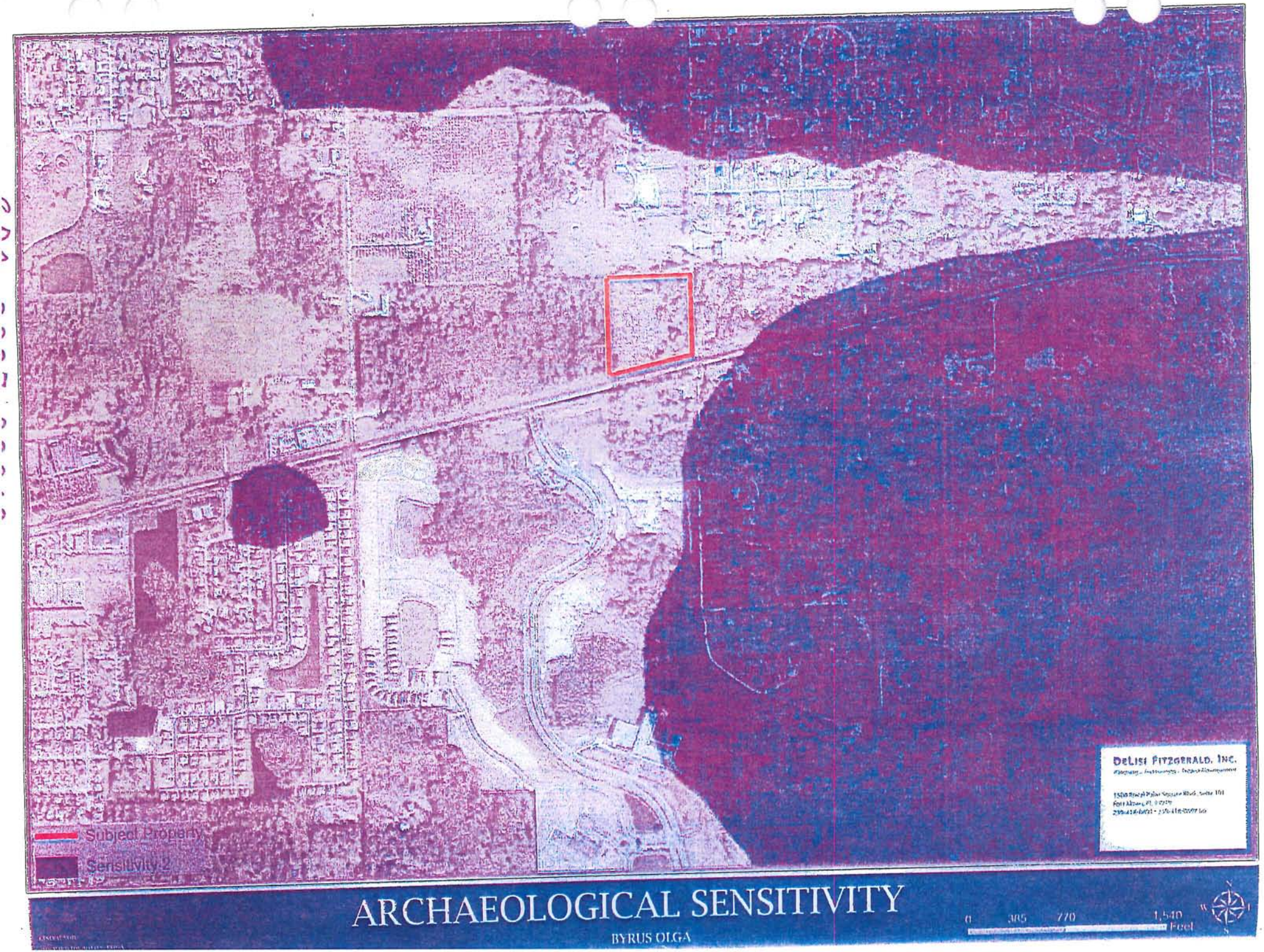
EXISTING LAND USE

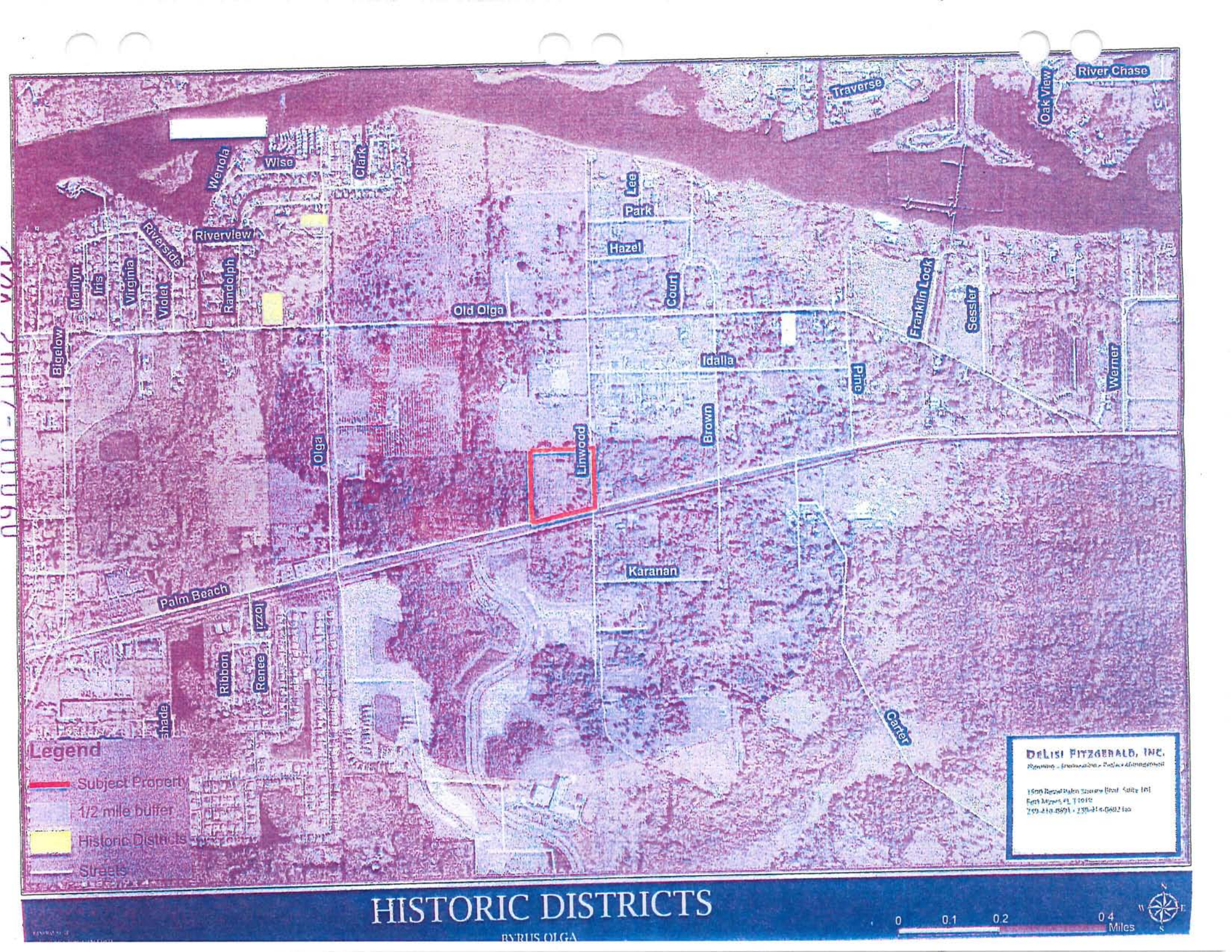
BYRUS OLGA

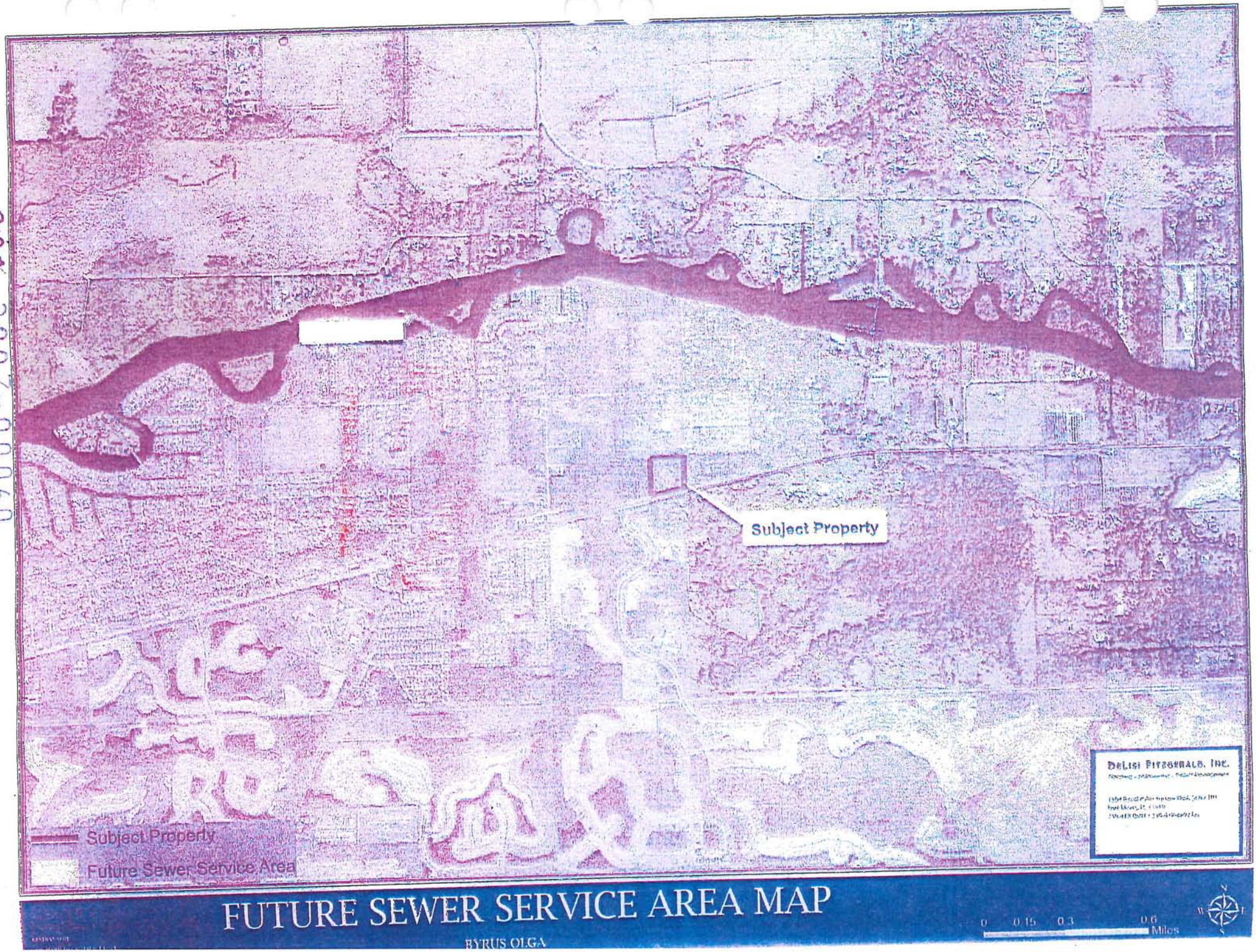


PLANNING COMMUNITIES MAP

BYRUS OLGA

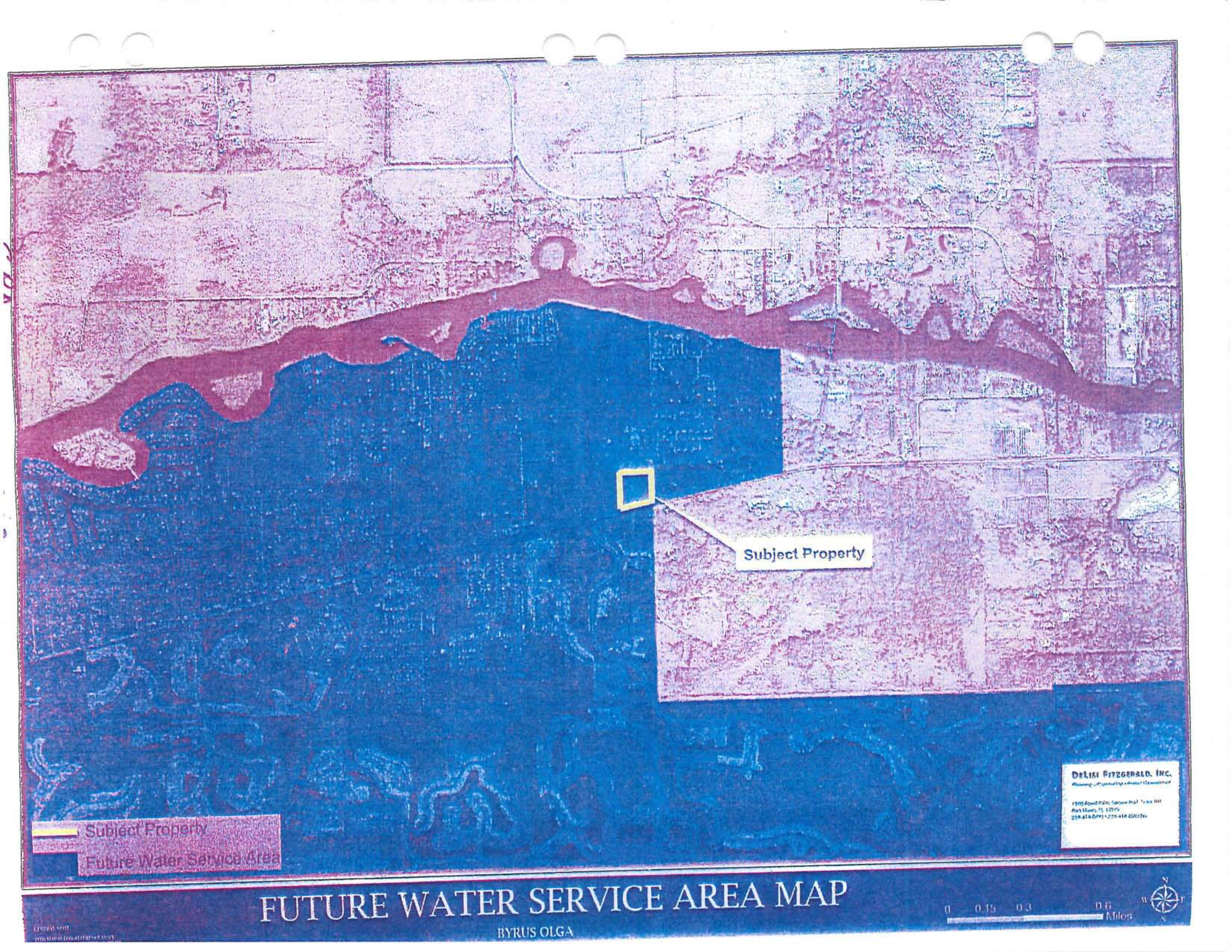

Subject Property
Sensitivity-2
DeLisi Fitzgerald, Inc.
ARCHAEOLOGICAL SENSITIVITY
BYRUS OLGA
0
385
770
1,540
Feet


Traverse
River Chase
Oak View
Wenona
Wise
Clark
Lee
Park
Hazel
Court
Riverview
Riverside
Marilyn
Iris
Virginia
Violet
Randolph
Old Olga
Bigelow
Franklin Lock
Sessler
Idalia
Pine
Werner
Brown
Olga
Linwood
Karanan
Palm Beach
Izzi
Ribbon
Renee
Carter
Legend
Subject Property
1/2 mile buffer
Historic Districts
Streets
DeLisi Fitzgerald, Inc.
HISTORIC DISTRICTS
BYRUS OLGA
0
0.1
0.2
0.4
Miles



FUTURE SEWER SERVICE AREA MAP

BYRUS OLGA



FUTURE WATER SERVICE AREA MAP

BYRUS OLGA

DeLisi Fitzgerald, Inc.
Planning · Engineering · Project Management

BYRUS OLGA
COMPREHENSIVE PLAN AMENDMENT

INTRODUCTION

The subject site for this amendment to the Lee County Comprehensive Plan is located within Section 27, Township 43 and Range 26. More specifically, the site is located along Palm Beach Boulevard, three miles east of State Highway 31 at the intersection of Palm Beach and Linwood Avenue. The property is approximately one half mile south of the Caloosahatchee River and is in the Fort Myers Shores planning community. The total area of the property is 9.99 acres. Map 1 shows an aerial location of the subject property with the surrounding road network.

The request of this application is to change the designation of the subject property on the Lee County Future Land Use Map from Rural to Commercial. The proposed amendment would allow for a maximum of 62,500 square feet of office floor area, and 30,000 square feet of retail floor area. It is structured as solely a map amendment due to the scale of the project. The intent of the request is to work with Lee County and the surrounding community to implement county goals through the development of this property- to provide commercial uses that will enhance and serve the residential community.

Surrounding Land Uses, Compatibility, and Area Context

The Bryus Olga property is located in an emerging growth corridor in Lee County. The property is located along Palm Beach Boulevard, a major thoroughfare that connects the Alva community to the City of Fort Myers. West of the property are State Road 31 and Buckingham Road, and extends across the state to Palm Beach County. While rural in character, the historic Olga community remains a predominantly residential area. Larger residential subdivisions exist just west of the property including River Hall/ Hawks Haven. Located along Palm Beach Boulevard and Buckingham Road and southwest of the subject property, River Hall/Hawks Haven is comprised 2,000 acres and approximately 1600 residential units and no commercial component in the surrounding area to serve the residents.

The subject property is a central location between two densely populated communities- the City of LaBelle which is thirteen miles east, and the City of Fort Myers which is seven miles west. The Olga community lies directly to the west which is an area comprised of low density residential.

Community Planning and Coordination

The applicant has been maintained continuous involvement with the creation and revisions to the Olga Community plan. Over the course of the most recent planning process, the creation of a commercial node at this location was the subject of significant discussion. On June 9, 2007 a community meeting was held to determine the level of acceptance for a commercial node at this location and the extension of a collector road through the adjacent property. While the property that is the subject of this application was not the property discussed, the

CPA 2007-00060

subject property has been part of the conversation throughout the planning process. At the June 9th meeting, an overwhelming majority of the participants were in favor of designating the property as commercial.

In conversations with community members, there were two primary benefits to having the subject property designated as commercial. The applicant is committed to continuing to work with the community to enhance the area.

1. Decrease in potential residential units allowed in the area.

2. Limited areas of environmental significance. While other properties in the area have significant vegetation and wetland area, the subject property has limited areas that are valuable as preserve and the small area in the northeast portion of the property that is wetland can be preserved.

Land Use Change Analysis

The Byrus Olga property is currently designated as *Rural* on the Lee County Future Land Use Map and the applicant is requesting a change to Commercial designation. Policy 1.4.1 describes the Rural Land Use Designation and Policy 1.1.10 describes the Commercial Land Use Designation as adopted by the Board of County Commissioners on May 16, 2007.

Policy 1.4.1: The Rural areas are to remain predominantly rural--that is, low density residential, agricultural uses, and minimal non-residential land uses that are needed to serve the rural community. Maximum density in the Rural area is one dwelling unit per acre (1 du/acre).

Policy 1.4.1 states that these areas are not to be programmed to receive urban-type capital improvements, and they can anticipate a continued level of public services below that of the urban areas; however, the subject property is along a major arterial road and the urban infrastructure necessary to support the property is available. The subject property is in an area that no longer fits the rural character described in Policy 1.4.1. With the increase in residential development along Palm Beach Boulevard, the area is transitioning from rural to suburban character. It is important to note that the property is within the Lee County utility service area for both water and sewer (see Map 12- Future Utilities Service Area).

Policy 1.1.10: The Commercial areas are located in close proximity to existing commercial areas or corridors accommodating employment centers, tourist oriented areas, and where commercial services are necessary to meet the project needs of the residential areas of the County. These areas are designated for commercial uses. Residential uses, other than bona fide caretaker residences, are not permitted in this future land use category except to the extent provided in Chapter XIII of the Plan. The Commercial areas are areas where residential uses are not expected or compatible due to the nature of the surrounding land uses and their location along major travel corridors. The commercial designation is intended for use where residential development would increase densities in areas such as the Coastal High Hazard Areas of the County or areas such as Lehigh Acres where residential uses are abundant and existing commercial areas service the residential needs are extremely limited.

The requisite infrastructure needed for commercial development is generally planned or in place. New developments in this category must connect to a potable water and sanitary sewer

system. Commercial retail developments, hotels and motels, banks, all types of office development, research and development, public, and other similar development will predominate in the commercial areas. Limited light industrial uses are also permitted, excluding outdoor storage type uses. Any redesignation of land to the Commercial land use category should occur along major travel corridors and at road intersections. The planned development rezoning process must be used to prevent adverse impacts to the surrounding areas and to ensure that appropriate site development regulations are incorporated into the development plans of each site. A maximum Floor Area Ratio (FAR) of 1 will be used as an index of intensity of development in the commercial category. Development in this future land use category is not required to comply with the site location criteria provided in Goal 6. When appropriate, site development regulations are incorporated into the planned development.

The subject property, as described in Policy 1.1.10, is in close proximity to existing corridors of commercial activity; however, an uneven balance exists between residential development and commercial activity with residential development being the majority of all new development in this area. The proposed plan for the property will provide accessible retail and office space to meet the needs of the residential areas. Located on a major travel corridor and at the intersection of Palm Beach Boulevard and Linwood Avenue, the subject property will be a convenient location for commercial activity for locals and tourists. New office space will allow businesses to locate near residential communities, thus creating a mixed-use hub in this area of Alva.

Policy 6.1.2: All commercial development must be consistent with the location criteria in this policy, except where specifically accepted by this policy or by Policy 6.1.7, or in Lehigh Acres by Policies 1.8.1 through 1.8.3.

2. Neighborhood Commercial: The major function of the Neighborhood Commercial development is to provide for the sale of convenience goods and personal services such as food, drugs, sundries, and hardware items. Supermarket and drug stores are the typical leading tenants on a site area ranging from 2 to 10 acres. The property must be located as follows (except where this plan provides specific exceptions): At the intersection of an arterial and a collector or two arterials so that direct access is provided to both intersecting roads. Such direct access may be provided via an internal access road to either intersecting road. Range of Gross 30,000 to 100,000 square feet of Floor Area.

The subject property is in compliance with the criteria in Policy 6.1.2. The property is located at the intersection of State Highway 80 and Linwood Avenue, which will provide direct access at two key points. There is limited retail in this area, and the subject property will provide neighborhood commercial conveniences for the surrounding residential community. Additionally, the plan for the site is to create a retail and office commercial site of 9.9 acres, thus maintaining the neighborhood commercial scale.

Justification of Commercial Square Foot

Policy 1.1.10 states that a Floor Area Ratio (FAR) of 1.0 will be used as an index of intensity of development in the commercial category; however, Policy 6.1.2 limits property to 30,000 square feet of retail. Since the subject property is in a non-central urban area, the FAR of 1.0 is both not realistic and appropriate. The proposed square footage for the subject property

was derived using planning standards of 8,000 sq.ft./acre for retail and 10,000 sq.ft./acre for office. These are suburban standards that assumes parking, water management and open ,paces.

Spot Planning/Smart Growth

The request for this application is to designate the subject property Commercial. A commercial category cannot be defined as Spot Planning because the subject property creates a shopping node, not a giant commercial area. Rural areas need commercial areas so commuter distances to services can diminish. A single node, such as the subject property, can serve a wide area without being a large commercial center.

DeLisi Fitzgerald, Inc.
Planning – Engineering – Project Management

BYRUS OLGA
UTILITIES ANALYSIS

Under the current land use designation of the Comprehensive Plan, the subject property can be developed with 9 units generating an approximate water and wastewater demand of 2,250 gallons-per-day (GPD). With the amendment, 62,500 square-feet of office and 30,000 square-feet of retail will be allowed which increases the demands by 10,125 GPD, for a total demand of 12,375 GPD.

Wastewater service will be provided by Lee County Utilities (LCU) via the City of Fort Myers Central Plant which has a permitted capacity of 6.0 million gallons per day (MGD) while currently operating at 3.69 MGD. There is an existing force main located approximately 700' to the west on the north side of SR80.

Water service will be provided by LCU via the Olga Water Treatment Plant which has a permitted capacity of 5.39 MGD while currently operating at 2.88 MGD. An existing 24" water main is located on the north side of SR 80, abutting the southern property line of the subject property.

Based on current capacities, there will be excess capacity for each utility serving the demand of the proposed development. There will be nearly 2.3 MGD of excess capacity available for wastewater service and 2.5 MGD of excess capacity for potable water service.

CPA 2007-00060

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DeLisi Fitzgerald, Inc.
Planning – Engineering – Project Management

BYRUS OLGA
DRAINAGE FACILITIES ANALYSIS

Existing Facilities

The subject property consists mostly of fallow farm fields with the remainder comprised of hardwood forest and various agriculture related structures. There are no dedicated water management facilities that currently exist on the property which allows surface water run-off and pollutants to discharge directly to the Palm Beach Boulevard (SR 80) ROW and ultimately the Caloosahatchee River.

Proposed Facilities

The proposed development will include a water management system consisting of lakes and dry detention areas that will provide water quality and quantity treatment prior to discharge into the Caloosahatchee River. The ability to incorporate a modern water management system in place of the uncontrolled surface discharge from the developed areas of the property should allow for the reduction of pollutants discharging directly to the surrounding water bodies.

Level of Service

The proposed project will provide water quality volume in the amount of 2.5" over the impervious area of the site, attenuation for the 25 year, 3 day storm event, and flood protection from the 100 year storm event. All proposed works will follow the current South Florida Water Management District requirements as a minimum. These include meeting the 5 year, 1 day design storm stage for the road centerlines and parking, the 25 year, 3 day design storm event for allowable discharge control, and the 100 year, 3 day and FEMA flood zones for finished floor elevations.

CPA 2007-00060

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TR TRANSPORTATION CONSULTANTS, INC.

13881 PLANTATION ROAD, SUITE 11
FORT MYERS, FL 33912-4339
OFFICE 239.278.3090
FAX 239.278.1906

TRAFFIC ENGINEERING
TRANSPORTATION PLANNING
SIGNAL SYSTEMS/DESIGN

MEMORANDUM

TO: Mr. Daniel DeLisi, AICP
DeLisi Fitzgerald, Inc.

FROM: David L. Wheeler, E.I.
Transportation Consultant

Ted B. Treesh
President

DATE: September 21, 2007

CPA 2007-00060

RE: Byrus Olga Property
Small Scale Comprehensive Plan Amendment
Lee County, Florida

TR Transportation Consultants, Inc. has completed a traffic circulation analysis for the Byrus Olga Property pursuant to the requirements outlined within the application document for Comprehensive Plan Amendment requests. This analysis will determine the impacts of the requested land use change from Rural to Commercial. The approximately 9.99-acre site is located on the north side of Palm Beach Boulevard (S.R. 80) just west of its intersection with Linwood Avenue in Lee County, Florida.

The transportation related impacts of the proposed Comprehensive Plan Amendment were evaluated pursuant to the criteria in the application document. This included an evaluation of the long range impact (20-year horizon) and short range impact (5-year horizon) the proposed amendment would have on the existing and future roadway infrastructure.

The proposed Map Amendment would change the future land use designation on the subject site from Rural to Commercial. Based on the existing land use designation (Rural) the subject site could be developed with up to approximately 10 single-family dwelling units. Based on the proposed land use designation (Commercial) the subject site could be developed with up to approximately 62,500 square feet of office uses and up to approximately 30,000 square feet of retail uses. **Table 1** highlights the intensity of uses that could be constructed under the existing land use designation and the intensity of uses under the proposed land use designation.

Table 1
Land Uses
Byrus Olga Property

Land Use Category	Intensity
Existing Land Uses	10 single-family dwelling units
Proposed Land Uses	62,500 sq. ft. of retail uses
	30,000 sq. ft. of office uses

The trip generation for the site was determined by referencing the Institute of Transportation Engineer's (ITE) report, titled *Trip Generation*, 7th Edition. Land Use Code 210 (Single-Family Detached Housing) was utilized for the trip generation purposes of the uses permitted under the existing Rural land use designation. Land Use Code 710 (General Office Building) and Land Use Code 820 (Shopping Center) were utilized for the trip generation purposes of the uses permitted under the proposed Commercial land use designation. **Table 2** indicates the potential trip generation of the Byrus Olga Property based on the existing land use designation (Rural).

Table 2
Trip Generation
Existing Land Use Designation
Byrus Olga Property

Land Use	A.M. Peak Hour			P.M. Peak Hour			Daily (2-way)
	In	Out	Total	In	Out	Total	
Single-Family Housing (10 dwelling units)	5	10	15	10	5	15	125

Table 3 indicates the potential trip generation of the Byrus Olga Property based on the proposed land use designation (Commercial).

Table 3
Trip Generation
Proposed Land Use Designation
Byrus Olga Property

Land Use	A.M. Peak Hour			P.M. Peak Hour			Daily (2-way)
	In	Out	Total	In	Out	Total	
General Office (62,500 square feet)	115	15	130	25	125	150	930
Retail (30,000 square feet)	45	30	75	135	150	285	3,105
Total Trips	**160**	**45**	**205**	**160**	**275**	**435**	**4,035**

Table 4 indicates the trip generation difference between the proposed and existing land use designations.

Table 4
Trip Generation
Byrus Olga Property

Land Use	A.M. Peak Hour			P.M. Peak Hour			Daily (2-way)
	In	Out	Total	In	Out	Total	
Proposed Land Use Designation (62,500 s.f. office & 30,000 s.f. retail)	160	45	205	160	275	435	4,035
Existing Land Use Designation (10 single-family dwelling units)	-5	-10	-15	-10	-5	-15	-125
Resultant Trip Change	**155**	**35**	**190**	**150**	**270**	**420**	**3,910**

Long Range Impacts (20-year horizon)

The Lee County Metropolitan Planning Organization's (MPO) 2030 Long Range Transportation Plan was reviewed to determine if any future roadway improvements were planned in the vicinity of the subject site. Based on the review there are no roadway improvements programmed within the vicinity of the subject site that are designated as financially feasible. However, there are two improvements currently programmed within the 2030 Long Range Transportation Plan in the vicinity of the subject site that are designated as Contingent based upon additional funding. These improvements include the widening of Palm Beach Boulevard (S.R. 80) from its existing four-lane cross section to six-lanes from Arcadia Road (S.R. 31) to Buckingham Road and the widening of Buckingham Road from its existing two-lane cross section to four-lanes from Palm Beach Boulevard (S.R. 80) to Gunnery Road.

The Lee County Metropolitan Planning Organization's (MPO) long range transportation travel model was also reviewed in order to determine the impacts the amendment would have on the surrounding area. The subject site lies within Traffic Analysis Zone (TAZ) 1305. The model has both productions and attractions included in this zone. The productions include both single-family homes and multi-family units. The attractions include industrial employment, commercial employment, and service employment. **Table 5** identifies the land uses currently contained in the long range travel model utilized by the MPO and Lee County for the Long Range Transportation Analysis.

Table 5
TAZ 1305
Land Uses in Existing Travel Model (2030)

Land Use Category	Intensity
Single Family Homes	116 dwelling units
Multi-Family Homes	3 dwelling units
Industrial Employment	54 employees
Commercial Employment	52 employees
Service Employment	80 employees

The proposed change in land use designation on the subject site from Rural to Commercial would change the site into an attraction of trips instead of a production of trips. More specifically, the proposed small scale map amendment would attract approximately 287 commercial and service employees to TAZ 1305. However, based on the uses currently existing within TAZ 1305, there are very few sources of employment. Therefore, the majority of the commercial and service employees that would be generated by the proposed development are already accounted for in the travel model. It is not anticipated that the minor increase in employment, beyond the employment already accounted for within TAZ 1305, would have a significant impact to the existing 2030 travel model. Therefore, no modifications to the existing 2030 travel model are warranted as a result of this analysis.

Short Range Impacts (5-year horizon)

The 2006/2007-2010/2011 Lee County Transportation Capital Improvement Plan and the 2007-2011 Florida Department of Transportation Adopted Work Program were reviewed to determine the short term impacts the proposed land use change would have on the surrounding roadways. Based on this review there are no programmed improvements in the vicinity of the subject site.

The proposed map amendment will increase the overall trip generation of the subject site by approximately 190 vehicles during the A.M. peak hour and approximately 420 vehicles during the P.M. peak hour. **Table 1A** and **Table 2A** attached to this report indicate the projected 5-year planning Level of Service on Palm Beach Boulevard (S.R. 80) based on the uses that would be permitted under the proposed land use designation. From Table 2A, Palm Beach Boulevard (S.R. 80) is anticipated to operate at a Level of Service "C" in 2012 both with and without the trips from the proposed development. Therefore, based on this analysis no modifications will be necessary to the Lee County or FDOT short term capital improvement program.

Conclusion

The proposed Comprehensive Plan Amendment is to modify the future land use designation on the subject site from Rural to Commercial. The approximately 9.99-acre site is located on the north side of Palm Beach Boulevard (S.R. 80) just west of its intersection with Linwood Avenue in Lee County, Florida. Based on the analysis, no modifications are necessary to the Short Term or the Long Range Transportation plan to support the proposed Comprehensive Plan Amendment. In addition, no modifications to the socio-economic data forecasts are necessary as a result of this application as the proposed Comprehensive Plan Amendment is not anticipated to significantly increase the employment within TAZ 1305. Site specific road improvements such as turn lanes, traffic control devices, etc. will be further evaluated at the re-zoning and Development Order stages as the property is developed. The project will proceed through the zoning and Development Order process and be subject to the Concurrency Management System requirements in effect at the time of this process.

Attachments

AERIAL PR

DELISI FITZGERALD
PROJECT MANAGEMENT, LLC
Planning – Engineering – Project Management

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TABLE 1A
PEAK DIRECTION PROJECT TRAFFIC VS. 10% LOS C LINK VOLUMES
BYRUS OLGA PROPERTY

TOTAL AM PEAK HOUR PROJECT TRAFFIC = 190 VPH IN= 155 OUT= 35

TOTAL PM PEAK HOUR PROJECT TRAFFIC = 420 VPH IN= 150 OUT= 270

ROADWAY	SEGMENT	ROADWAY CLASS	LOS A VOLUME	LOS B VOLUME	LOS C VOLUME	LOS D VOLUME	LOS E VOLUME	PERCENT PROJECT TRAFFIC	PROJECT TRAFFIC	PROJ/ LOS C
Palm Beach Blvd (S.R. 80)	E. of Linwood Ave.	4LD	1,690	2,040	2,050	2,050	2,050	10%	27	1.3%
	W. of Linwood Ave.	4LD	1,690	2,040	2,050	2,050	2,050	90%	243	11.9%

* Level of Service Thresholds obtained from Lee County Link Specific Peak Hour Directional Service Volumes

TABLE 2A
LEE COUNTY TRAFFIC COUNTS AND CALCULATIONS
BYRUS OLGA PROPERTY

TOTAL PROJECT TRAFFIC AM = 190 VPH IN = 155 OUT = 35

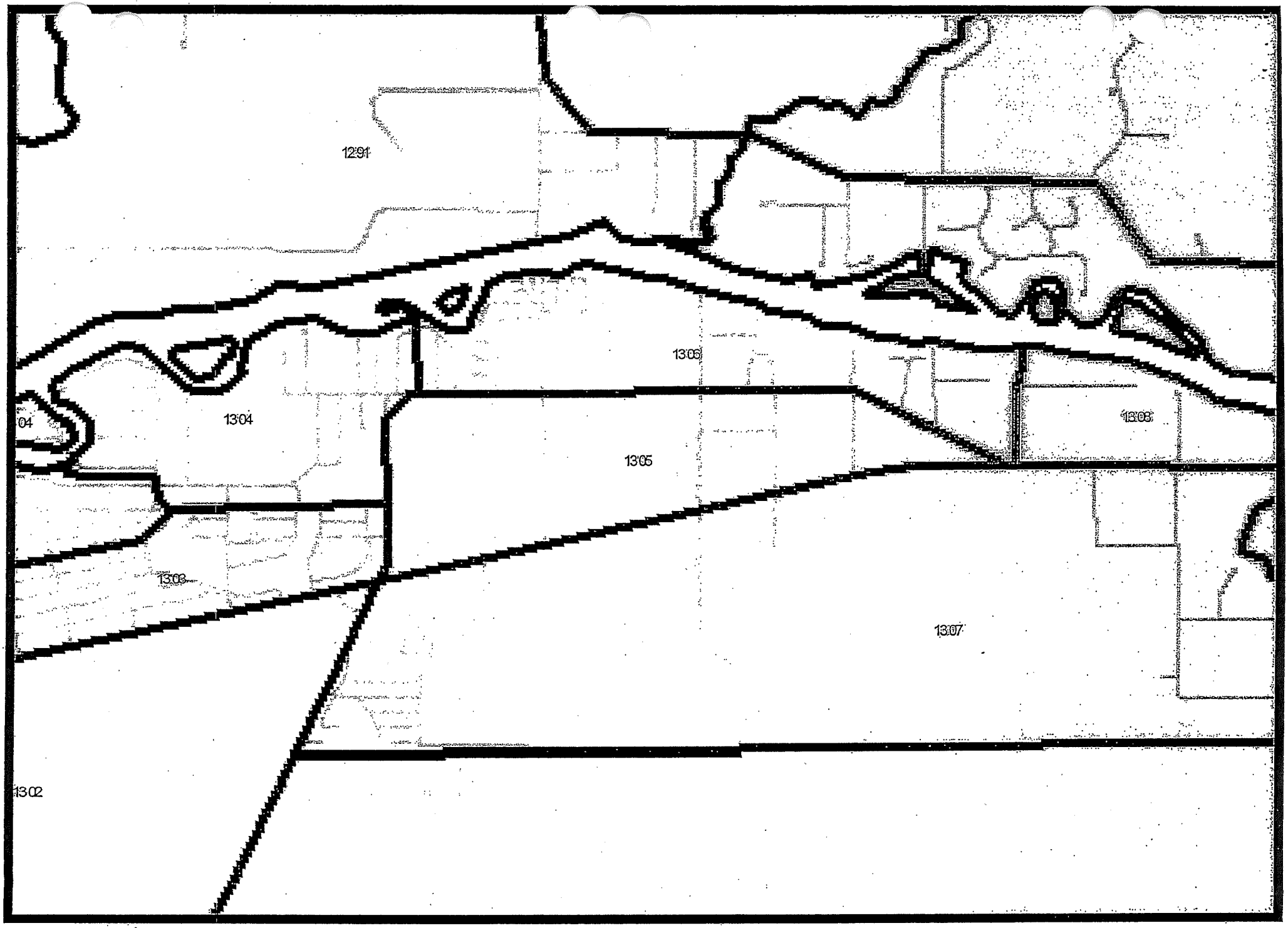
TOTAL PROJECT TRAFFIC PM = 420 VPH IN = 150 OUT = 270

ROADWAY	SEGMENT	PCS	BASE YR ADT	2006 ADT	YRS OF GROWTH	ANNUAL RATE	2007 PK HR PK SEASON PEAK DIR.	2012 PK HR PK SEASON PEAK DIR.	PERCENT PROJECT TRAFFIC	AM PROJ TRAFFIC	PM PROJ TRAFFIC	2012 BCKGRND + AM PROJ TRAFFIC	2012 BCKGRND + PM PROJ TRAFFIC
Palm Beach Blvd (S.R. 80)	E. of Linwood Ave.	5	13,700	25,700	9	7.24%	1,271	1,803	10%	16	27	1,818	1,830
	W. of Linwood Ave.	5	13,700	25,700	9	7.24%	1,271	1,803	90%	140	243	1,942	2,046

* The 2007 Peak Hour, Peak Season, Peak Direction Traffic Volume was obtained from the 2006/2007-2007/2008 Lee County Concurrency Management Inventory and Projections Report, dated June 2007

100TH HIGHEST HOUR LOS ANALYSIS

		2012 BCKGRND TRAFFIC LOS	2012 BCKGRND + AM PROJ LOS	2012 BCKGRND + PM PROJ LOS
Palm Beach Blvd (S.R. 80)	E. of Linwood Ave.	B	B	B
	W. of Linwood Ave.	B	B	C


12.91
13.05
13.04
13.03
13.05
13.03
13.07
13.02

TYPICAL EMPLOYMENT CONVERSION FACTORS

(October, 1991)

Land Use	Employees/ 1,000 Sq. Ft.[1]	Source[2]
Industrial		
Industrial	1.89	DCA
General Light Industrial	2.16	ITE, p. 82
Industrial Park	2.00	ITE, p. 125
Warehousing	1.28	ITE, p. 183
Office		
General Office, Below 100,000	3.39 4.80	ITE, p. 940 DCA
General Office, 100,000-200,000	3.84 4.40	ITE, p. 940 DCA
General Office, 201,000-500,000	3.22 3.50	ITE, p. 940 DCA
General Office, Above 500,000	2.88 3.50	ITE, p. 940 DCA
General Office, Average	3.29 4.00	ITE, p. 940 DCA
Medical-Dental Office Building	4.83	ITE, p. 975
Office Park	3.59	ITE, p. 1036
Research and Development Center	2.47	ITE, p. 1058
Retail/Commercial		
Retail/Commercial	2.50	DCA

LINK-SPECIFIC SERVICE VOLUMES ON ARTERIALS IN LEE COUNTY (2004 DATA)

ROAD SEGMENT	FROM	TO	TRAFFIC DISTRIC	LENGTH (MILE)	ROAD TYPE	SERVICE VOLUMES (PEAK HOUR PEAK DIRECTION)					SERVICE VOLUMES (PEAK HOUR--BOTH DIRECTION				
						A	B	C	D	E	A	B	C	D	E
PINE ISLAND RD/ BAYSHORE RD (SR 78)	SANTA BARBARA BLVD	DEL PRADO BLVD	5	2.3	4LD	0	1,360	2,010	2,100	2,100	0	2,420	3,580	3,740	3,74
	DEL PRADO BLVD	BARNETT RD	5	2.1	4LD	0	1,360	2,010	2,100	2,100	0	2,420	3,580	3,740	3,74
	BARNETT RD	US 41	2	0.5	4LD	0	1,360	2,010	2,100	2,100	0	2,420	3,580	3,740	3,74
	US 41	BUSINESS 41	2	1.2	4LD	0	0	1,250	1,900	1,990	0	0	2,440	3,720	3,90
	BUSINESS 41	HART RD	2	1.1	4LD	0	0	1,250	1,900	1,990	0	0	2,440	3,720	3,90
	HART RD	BREWERS RD	2	0.4	4LD	0	0	1,250	1,900	1,990	0	0	2,440	3,720	3,90
	BREWERS RD	SLATER RD	2	0.8	4LD	0	0	1,250	1,900	1,990	0	0	2,440	3,720	3,90
	SLATER RD	I-75	2	2.9	4LD	450	1,630	1,900	1,950	1,950	840	3,020	3,510	3,600	3,60
	I-75	NALLE RD	2	0.6	2LN	120	260	420	670	1,080	240	500	830	1,310	2,11
	NALLE RD	SR 31	2	2.7	2LN	120	260	420	670	1,080	240	500	830	1,310	2,11
PONDELLA RD	SR 78	WESTWOOD RD	5	0.9	4LD	0	0	1,380	1,920	2,010	0	0	2,510	3,490	3,65
	WESTWOOD RD	ORANGE GROVE BLVD	2	0.6	4LD	0	0	1,380	1,920	2,010	0	0	2,510	3,490	3,65
	ORANGE GROVE BLVD	US 41	2	1.6	4LD	0	0	1,380	1,920	2,010	0	0	2,510	3,490	3,65
	US 41	BUS 41	2	0.6	4LD	0	0	1,380	1,920	2,010	0	0	2,510	3,490	3,65
SAN CARLOS BLVD	ESTERO BLVD	MAIN ST	4	0.6	2LB	90	280	590	850	1,080	170	550	1,160	1,660	2,12
	MAIN ST	SUMMERLIN RD	4	2.5	4LD	0	1,530	1,910	1,980	1,980	0	3,000	3,750	3,880	3,88
	SUMMERLIN RD	KELLY RD	4	1.1	2LN	0	670	960	1,000	1,000	0	1,260	1,810	1,890	1,89
	KELLY RD	McGREGOR BLVD	4	0.6	2LN	0	670	960	1,000	1,000	0	1,260	1,810	1,890	1,89
SANDY LN	CORKSCREW RD	SOUTH END	4	2.7	4LD	0	0	1,240	1,710	1,800	0	0	2,290	3,160	3,34
SANIBEL CAUSEWAY	SANIBEL SHORELINE	TOLL PLAZA	4	2.9	2LN	0	170	520	730	930	0	310	970	1,360	1,73
SIX MILE CYPRESS	US 41	METRO PKWY	4	1.2	4LD	460	1,680	1,960	2,020	2,020	890	3,230	3,780	3,880	3,88
	METRO PKWY	DANIELS PKWY	4	1.8	4LD	460	1,680	1,960	2,020	2,020	890	3,230	3,780	3,880	3,88
	DANIELS PKWY	WINKLER EXT.	4	3.7	4LD	270	1,620	1,970	2,030	2,030	500	3,000	3,650	3,760	3,76
	WINKLER EXT.	CHALLENGER BLVD	4	0.8	4LD	840	1,760	1,830	1,830	1,830	1,560	3,260	3,390	3,390	3,39
	CHALLENGER BLVD	COLONIAL BLVD	4	0.5	6LD	1,260	2,650	2,740	2,740	2,740	2,330	4,910	5,080	5,080	5,08
SLATER RD	SR 78	NALLE GRADE RD	2	4.0	2LN	0	170	380	570	970	0	340	740	1,120	1,91
SR 31	SR 80	SR 78	2 & 3	1.4	2LN	120	240	390	620	1,010	200	400	650	1,040	1,68
	SR 78	N. RIVER RD	2	1.3	2LN	120	240	390	620	1,010	200	400	650	1,040	1,68
	N. RIVER RD	COUNTY LINE	2	2.0	2LN	120	240	390	620	1,010	200	400	650	1,040	1,68
SR 80	PROSPECT AVE	ORTIZ AVE	1	1.3	4LD	0	810	1,790	1,980	2,030	0	1,360	2,980	3,300	3,38
	ORTIZ AVE	I-75	1	1.2	6LD	0	1,230	2,730	2,970	3,040	0	2,040	4,550	4,950	5,07
	I-75	SR 31	3	2.7	6LD	2,570	3,070	3,080	3,080	3,080	4,280	5,110	5,130	5,130	5,13
	SR 31	BUCKINGHAM RD	3	2.5	4LD	1,690	2,040	2,050	2,050	2,050	2,810	3,410	3,420	3,420	3,42
	BUCKINGHAM RD	HICKEY CREEK RD	3	2.5	4LD	1,690	2,040	2,050	2,050	2,050	2,810	3,410	3,420	3,420	3,42
	HICKEY CREEK RD	MITCHELL AVE	3	0.9	4LD	910	1,470	2,130	2,760	3,130	1,520	2,460	3,550	4,600	5,22
	MITCHELL AVE	JOEL BLVD	3	4.0	4LD	910	1,470	2,130	2,760	3,130	1,520	2,460	3,550	4,600	5,22
	JOEL BLVD	COUNTY LINE	3	2.2	4LD	910	1,470	2,130	2,760	3,130	1,520	2,460	3,550	4,600	5,22
STRINGFELLOW RD	1ST AVE	PINE ISLAND RD	6	7.9	2LN	0	150	350	550	1,010	0	260	620	990	1,80
	PINE ISLAND RD	PINELAND RD	6	3.3	2LN	0	150	350	550	1,010	0	260	620	990	1,80
	PINELAND RD	MAIN ST	6	3.7	2LN	0	150	350	550	1,010	0	260	620	990	1,80

PERIODIC COUNT STATION DATA

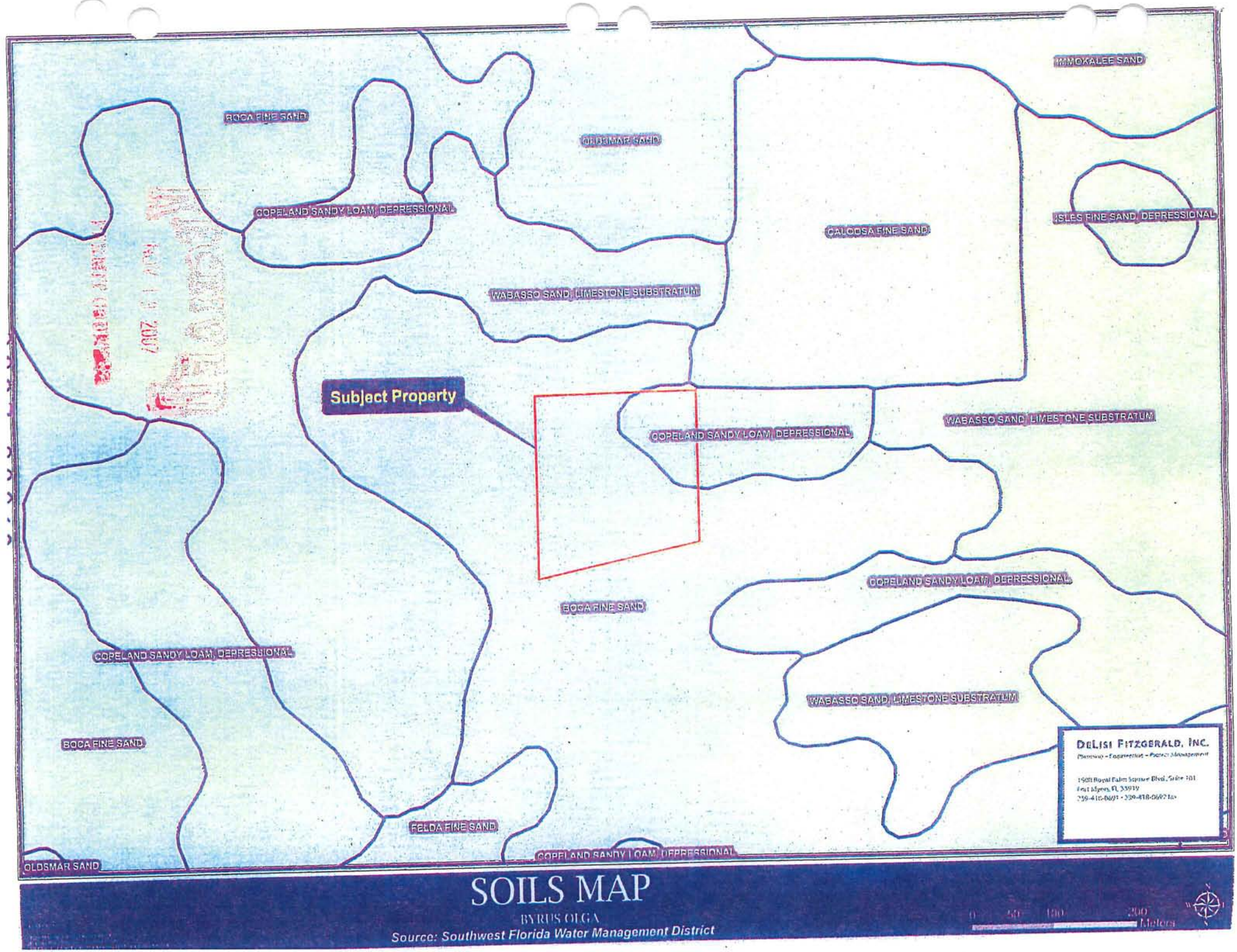
STREET	LOCATION	Sta	MAP	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	PERMANENT STATION
				Daily Traffic Volume (AADT)										
ORANGE RIVER BLVD	E OF PALM BEACH BLVD	353	D	7400	7100	7200	6900	7000	7800	7800	7400	8100	8300	5
	E OF STALEY RD	352	D	4800	4900	5000	4500	4400	5600	5800	5900	7100	8300	5
ORIOLE RD	S OF ALICO RD	462	H	1800	3000	3000	2500	2900	2600	2600	2300	2400	2800	25
ORTIZ AVE	N OF COLONIAL BLVD	354	E	11000	10400	11700	9900	12800	13500	13700	18100	18300	17600	18
	N OF M L K BLVD (SR 82)	355	A	11700	11600	12100	11700	13300	13700	U/C	15100	17000	17900	18
	N OF TICE ST	356	A	7500	8100	8900	8400	8800	9200	8400	9200	9500	10100	18
PALM BEACH BLVD	W OF ORTIZ BLVD		A											
(SR 80)	W OF TICE STREET	452	A	24800	25500	26300	26400	27100	28700	28700	27800	29100	30100	5
	E OF ORTIZ BLVD	359	A	24500	26700	25700	27000	25800	27400	29200	27000	28000	28400	5
	W OF SR 31	5	D	22700	23800	24500	24900	25300	25000	22800	25800	23900	28100	
	E OF SR 31	360	D	24700	24700	25000	26200	27000	27900	27900	29400	31700	35200	5
	E OF BUCKINGHAM RD	362	D	13700	14200	15400	14900	15800	16800	18100	18900	21900	25700	5
	W OF HENDRY CO LINE	358	D	9200	9700	10500	9300	9000	11200	12100		15700	17500	5
PALOMINO RD	N OF DANIELS	501	E	600	800	600	700	700	2100			5000	4500	31
PAUL J DOHERTY PKWY	S OF DANIELS PKWY	61	E						1600	1700	1400	1000	800	1
PARK MEADOWS DR	W OF US 41	363	E	4300	4500	4200	4200	4700	3900	3400	3900	4000	3800	9
PENNSYLVANIA AVE	W OF OLD 41	464	H	3300	2700	4000	3700	3400	4100	4100	4000	4900	4500	16
PENZANCE BLVD	W OF SIX MILE CYPRESS PKW	483	E	900	1000	1200	1100	1500	1600	2100	2500	2300	2400	45
PERIWINKLE DR	E OF CAUSEWAY RD									4800				
	W OF CAUSEWAY RD									17800				
PINE ISLAND RD	@ MATLACHA PASS	3	I	10000	10300	10400	10600	10900	11200	11500	12200	11900	11500	

ROADWAY LINK NAME	FROM	TO	ROAD TYPE	PERFORMANCE STANDARD		2006 100th HIGHEST HR		EST 2007 100th HIGHEST HR		FORECAST FUTURE VOL		NOTES*	LINK NO.
				LOS	CAPACITY	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME		
PALM BEACH BL (SR 80)	I-75	SR 31	6LD	D	3,080	A	1,453	A	1,579	A	1,861		20100
PALM BEACH BL (SR 80)	SR 31	BUCKINGHAM RD	4LD	D	2,050	B	1,700	B	1,750	B	1,841		20200
PALM BEACH BL (SR 80)	BUCKINGHAM RD	WERNER DR	4LD	D	2,050	A	1,241	A	1,271	F	2,141		20300
PALM BEACH BL (SR 80)	WERNER DR	JOEL BL	4LD	C	2,130	A	845	A	849	A	849		20330
PALM BEACH BL (SR 80)	JOEL BLVD	HENDRY COUNTY LINE	4LD	C	2,130	A	845	A	854	B	990		20400
PALOMINO RD	DANIELS PKWY	PENZANCE BL	2LU	E	860	C	199	C	200	C	220		20500
PARK MEADOW DR	SUMMERLIN RD	US 41	2LU	E	860	C	143	C	144	C	151		20600
PENZANCE BL	RANCHETTE RD	SIX MILE CYPRESS PKWY	2LU	E	860	C	126	C	129	C	193		20800
PINE ISLAND RD	STRINGFELLOW BL	BURNT STORE RD	2LN	E	1,010	E	590	E	591	E	598	Constrained in part v/c = 0.59	20900
PINE ISLAND RD (SR 78)	BARRETT RD	US 41	4LD	E	2,100	B	1,061	B	1,077	B	1,077		21400
PINE ISLAND RD (SR 78)	US 41	BUSINESS 41	4LD	E	1,990	D	1,487	D	1,500	D	1,500		21500
PINE RIDGE RD	SAN CARLOS BL	SUMMERLIN RD	2LU	E	860	D	473	D	473	D	533		21600
PINE RIDGE RD	SUMMERLIN RD	GLADIOLUS BL	2LU	E	860	C	252	C	282	C	300		21700
PINE RIDGE RD	GLADIOLUS DR	McGREGOR BL	2LU	E	860	C	284	C	284	C	284		21800
PLANTATION RD	SIX MILE CYPRESS PKWY	DANIELS PKWY	2LU	E	860	D	613	D	645	F	1,061	4 Ln construction scheduled in 2010/11	21900
PLANTATION RD	DANIELS PKWY	IDLEWILD ST	2LU	E	860	C	155	C	188	C	222		22000
PONDELLA RD	ORANGE GROVE BL	US 41	4LD	E	2,010	C	1,216	C	1,217	C	1,217		22200
PONDELLA RD	US 41	BUSINESS 41	4LD	E	2,010	C	996	C	997	C	997	Hancock Br Pkwy Ext corridor study proposed in 2007/08	22300
PRICHETT PKWY	BAYSHORE RD	RICH RD	2LU	E	860	B	103	B	103	B	103		22400
RANCHETTE RD	PENZANCE BL	IDLEWILD ST	2LU	E	860	B	73	B	73	B	73		22500
RICH RD	SLATER RD	PRITCHETT PKWY	2LU	E	860	B	81	B	81	B	81		22600
RICHMOND AVE	LEELAND HEIGHTS BL	E 12th ST	2LU	E	860	B	89	C	150	C	169		22700
RICHMOND AVE	E 12th ST	GREENBRIAR BL	2LU	E	860	B	61	B	107	B	107		22800

TRIP GENERATION EQUATIONS

BYRUS OLGA PROPERTY – COMPREHENSIVE PLAN AMENDMENT
ITE TRIP GENERATION REPORT, 7th EDITION

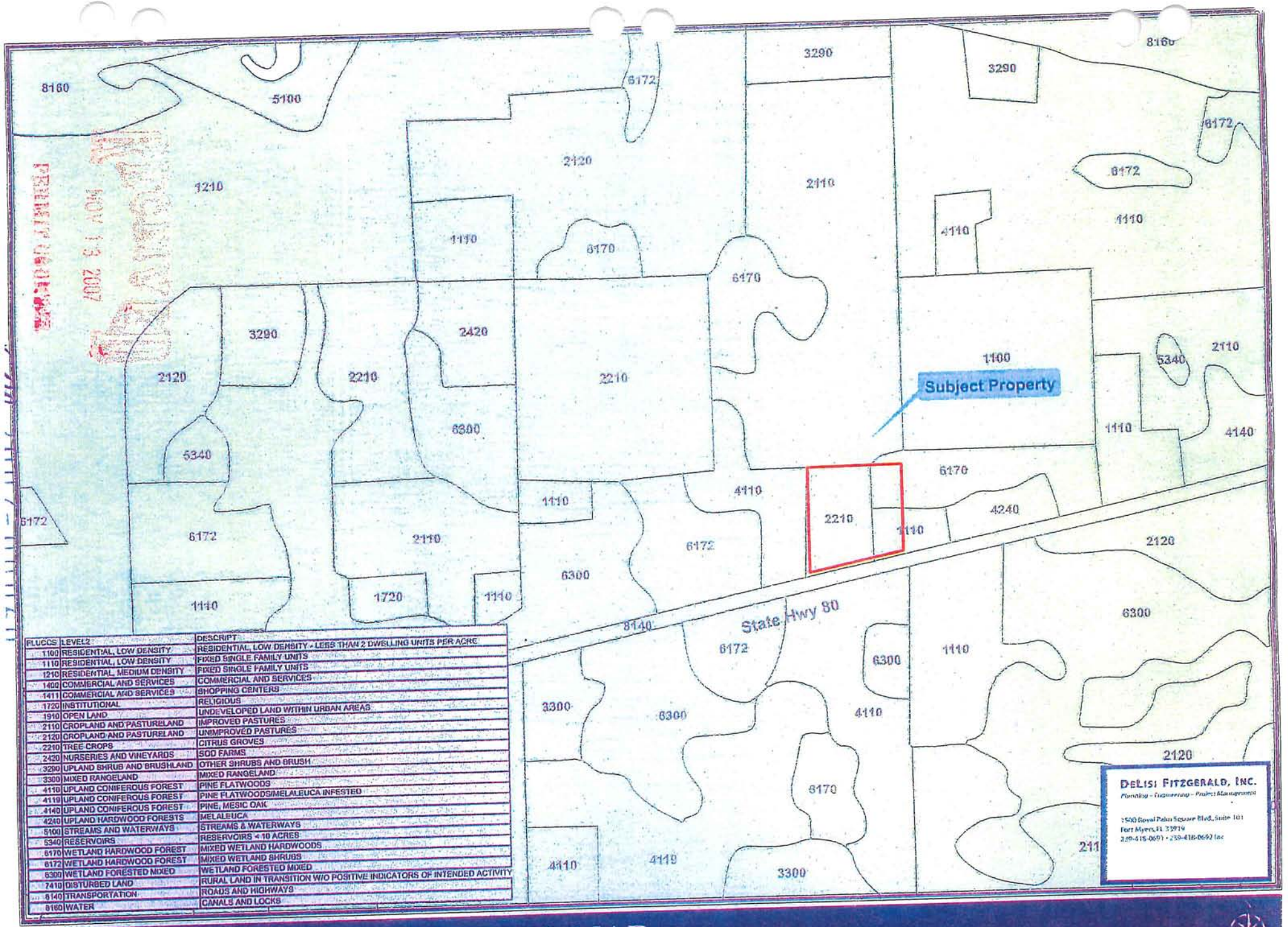
Land Use	Weekday AM Peak Hour	Weekday PM Peak Hour	Weekday
Single-Family Detached Housing (LUC 210)	T = 0.70 (X) + 9.43 (25% In/75% Out)	Ln (T) = 0.90 Ln (X) + 0.53 (63% In/37% Out)	Ln (T) = 0.92 Ln (X) + 2.71
T = Number of Trips, X = Number of Dwelling Units			
General Office Building (LUC 710)	Ln (T) = 0.80 Ln (X) + 1.55 (88% In/12% Out)	T = 1.12 (X) + 78.81 (17% In/83% Out)	Ln (T) = 0.77 Ln (X) + 3.65
T = Number of Trips, X = 1000's of Square Feet of Gross Leasable Area (GLA)			
Shopping Center (LUC 820)	Ln (T) = 0.60 Ln (X) + 2.29 (61% In/39% Out)	Ln (T) = 0.66 Ln (X) + 3.40 (48% In/52% Out)	Ln (T) = 0.65 Ln (X) + 5.83
T = Number of Trips, X = 1000's of Square Feet of Gross Leasable Area (GLA)			



SOILS MAP

BYRUS OLGA

Source: Southwest Florida Water Management District



FLUCCS	LEVEL2	DESCRIPT
1100	RESIDENTIAL, LOW DENSITY	RESIDENTIAL, LOW DENSITY - LESS THAN 2 DWELLING UNITS PER ACRE
1110	RESIDENTIAL, LOW DENSITY	FIXED SINGLE FAMILY UNITS
1210	RESIDENTIAL, MEDIUM DENSITY	FIXED SINGLE FAMILY UNITS
1400	COMMERCIAL AND SERVICES	COMMERCIAL AND SERVICES
1411	COMMERCIAL AND SERVICES	SHOPPING CENTERS
1720	INSTITUTIONAL	RELIGIOUS
1910	OPEN LAND	UNDEVELOPED LAND WITHIN URBAN AREAS
2110	CROPLAND AND PASTURELAND	IMPROVED PASTURES
2120	CROPLAND AND PASTURELAND	UNIMPROVED PASTURES
2210	TREE CROPS	CITRUS GROVES
2420	NURSERIES AND VINEYARDS	SOD FARMS
3290	UPLAND SHRUB AND BRUSHLAND	OTHER SHRUBS AND BRUSH
3300	MIXED RANGELAND	MIXED RANGELAND
4110	UPLAND CONIFEROUS FOREST	PINE FLATWOODS
4119	UPLAND CONIFEROUS FOREST	PINE FLATWOODS/MELALEUCA INFESTED
4140	UPLAND CONIFEROUS FOREST	PINE, MESIC OAK
4240	UPLAND HARDWOOD FORESTS	MELALEUCA
5100	STREAMS AND WATERWAYS	STREAMS & WATERWAYS
5340	RESERVOIRS	RESERVOIRS < 10 ACRES
6170	WETLAND HARDWOOD FOREST	MIXED WETLAND HARDWOODS
6172	WETLAND HARDWOOD FOREST	MIXED WETLAND SHRUBS
6300	WETLAND FORESTED MIXED	WETLAND FORESTED MIXED
7410	DISTURBED LAND	RURAL LAND IN TRANSITION W/O POSITIVE INDICATORS OF INTENDED ACTIVITY
8140	TRANSPORTATION	ROADS AND HIGHWAYS
8160	WATER	CANALS AND LOCKS

DELISI FITZGERALD, INC.
Planning - Engineering - Project Management
1500 Royal Palm Square Blvd., Suite 101
Fort Myers, FL 33919
239-418-0691 • 239-418-0692 fax

FLUCCS MAP

BYRUS OLGA

0 415 830 1,660 Feet

September 2, 2008

DeLisi Fitzgerald, Inc.
Planning – Engineering – Project Management

Ms. Brandy Gonzalez
Principal Planner
Lee County Department of Community Development, Division of Planning
PO Box 398
Fort Myers, FL 33902-0398

Re: CPA2007-60
Byrus Small Scale Comprehensive Plan Amendment

Dear Ms. Gonzalez:

In response to the comment letter dated April 3, 2008 in regard to the above referenced project, please find the following responses in order as received:

PART III

Comment B
This section of the application provides that there are a total of 1.77 acres of wetlands located on the subject property. Staff is requesting the delineation of the jurisdictional wetland lines as part of the staff's review of the proposed amendment. Such information will assist staff in determining the potential maximum allowable development under the proposed FLUM.

Please see the attached environmental assessment conducted by Boylan Environmental.

Comment E.2.
The application provides the maximum allowable commercial intensity of the site as 92,500 square feet. Staff notes that the proposed Commercial designation has a maximum Floor Area Ratio of 1. Staff calculates the maximum commercial intensity of the site at 358,063 square feet. Please provide a discussion of the methodology used to calculate the maximum allowable commercial development under the proposed future land use category. Several aspects of the application, such as potable water and sanitary sewer, and staff's review of the amendment rely on the maximum intensity. As part of a future land use map amendment, staff review and the applicant's analysis must evaluate the maximum allowable use of the proposed land use category as it relates to public facilities impacts. Please update the application to address the maximum allowable commercial intensity of the site as proposed.

It is our understanding that the Olga Community has proposed that the commercial land use category in this area would limit this site to a FAR of 0.25. Given the 1 acre wetland on the property, the maximum development would be limited to 98,010 square feet of commercial floor area, essentially the same assumption made in the original submittal. A FAR of 0.25 is much more consistent with the type/intensity of commercial development found outside of central urban type areas.

2007-00060

1500 Royal Palm Square Blvd., Suite 101 • Fort Myers, FL 33919 • 239-418-0691 • 239-418-0692 fax

PART IV

Comment A.8.
The plan amendment application is signed by William C. Byrus in his individual capacity, while the property owner is BJZ, LLC. In order for the affidavit to be property executed, William C. Byrus must execute the affidavit in his capacity as Managing Member of the Limited Liability Company.

Please see the attached revised affidavit and cover page.

Comment B.1.
See the attached memo from the Lee County Department of Transportation.

Our understanding is that Lee County will model the transportation based on the revised FAR of 0.25. The TIS that was submitted in the original application remains essentially the same with a relatively minor increase in total allowable office area.

Comment B.2.
Please update the utilities analysis providing the maximum allowable commercial intensity of the site as well as the projected LOS under the proposed designation for services. In addition, please provide a letter of availability from the utility provider.

Planning staff is requesting additional information with regard to water supply based on changes made by Senate Bill 360 to improve the coordination between water supply and land use planning. Please determine the availability of water supply to support the desired level of development within the franchise area using the current water use allocation (Consumptive Use Permit) based on the annual average daily withdrawal rate. Include the current demand and the projected demand under the existing designation, and the projected demand under the proposed designation. Include the availability of treatment facilities and transmission lines for reclaimed water irrigation. Include any other water conservation measures that will be applied to the site (see Lee Plan Goal 54).

Please see the attached revised utility analysis.

Comment B.3.b.
Staff has not received a letter for fire protection provisions as part of the submitted application from the appropriate agency determining support facilities.

Please see the attached letter from the Fire District.

Comment C.
See the attached memo from the Lee County Division of Environmental Sciences.

Please see the attached environmental assessment conducted by Boylan Environmental that includes a FLUCCS map.

Comment E.1.-4.
Please include the required analysis concerning internal consistency with the Lee Plan.

Please see the attached Lee Plan Analysis.

Comment F.2.
Please include the required analysis for requests moving lands from a Non-Urban area to a Future Urban area demonstrating why the proposed change does not constitute Urban Sprawl.

Please see the attached revised narrative, which now includes additional information for the Growth Management Analysis.

Comment G.
Please provide the required justification for the proposed plan amendment based on sound planning principals, including adequate data and analysis supporting all conclusions.

Please see the attached revised narrative, which now includes additional information for the Growth Management Analysis.

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

Sincerely,
DeLisi Fitzgerald, Inc.

Daniel DeLisi, AICP
Principal

DD/av

Project No.: 21061

cc: Mr. Bill Byrus, with attachments

LEE COUNTY
SOUTHWEST FLORIDA

Lee County Board of County Commissioners
Department of Community Development
Division of Planning
Post Office Box 398
Fort Myers, FL 33902-0398
Telephone: (239) 479-8585
FAX: (239) 479-8519

APPLICATION FOR A COMPREHENSIVE PLAN AMENDMENT

(To be completed at time of intake)

DATE REC'D _____ REC'D BY: _____

APPLICATION FEE _____ TIDEMARK NO: _____

THE FOLLOWING VERIFIED:
Zoning ☐ Commissioner District ☐

Designation on FLUM ☐

(To be completed by Planning Staff)

Plan Amendment Cycle: ☐ Normal ☐ Small Scale ☐ DRI ☐ Emergency

Request No: _____

APPLICANT PLEASE NOTE:
Answer all questions completely and accurately. Please print or type responses. If additional space is needed, number and attach additional sheets. The total number of sheets in your application is: _____

Submit **6** copies of the complete application and amendment support documentation, including maps, to the Lee County Division of Planning. Additional copies may be required for Local Planning Agency, Board of County Commissioners hearings and the Department of Community Affairs' packages.

I, the undersigned owner or authorized representative, hereby submit this application and the attached amendment support documentation. The information and documents provided are complete and accurate to the best of my knowledge.

8/22/08 William C Byrum managing member BIZ LLC
DATE SIGNATURE OF OWNER OR AUTHORIZED REPRESENTATIVE

3. Requests involving lands in critical areas for future water supply must be evaluated based on policy 2.4.2.

4. Requests moving lands from Density Reduction/Groundwater Resource must fully address Policy 2.4.3 of the Lee Plan Future Land Use Element.

G. Justify the proposed amendment based upon sound planning principles. Be sure to support all conclusions made in this justification with adequate data and analysis.

Item 1: Fee Schedule

Map Amendment Flat Fee	$2,000.00 each
Map Amendment > 20 Acres	$2,000.00 and $20.00 per 10 acres up to a maximum of $2,255.00
Small Scale Amendment (10 acres or less)	$1,500.00 each
Text Amendment Flat Fee	$2,500.00 each

AFFIDAVIT

I, _____, certify that I am the owner or authorized representative of the property described herein, and that all answers to the questions in this application and any sketches, data, or other supplementary matter attached to and made a part of this application, are honest and true to the best of my knowledge and belief. I also authorize the staff of Lee County Community Development to enter upon the property during normal working hours for the purpose of investigating and evaluating the request made through this application.

William C Byrus managing member BIZ LLC 8/22/08

Signature of owner or owner-authorized agent — Date

William C Byrus managing member BIZ LLC

Typed or printed name

STATE OF FLORIDA)
COUNTY OF LEE)

The foregoing instrument was certified and subscribed before me this 22nd day of August 20 2008 by William C. Byrus, who is personally known to me or who has produced _____ as identification.

(SEAL) AMY VETTER MY COMMISSION #DD800137 EXPIRES: JUN 23, 2012 Bonded through 1st State Insurance

Signature of notary public

Amy Vetter

Printed name of notary public

BYRUS OLGA
COMPREHENSIVE PLAN AMENDMENT
INTERNAL CONSISTENCE WITH THE LEE PLAN

Land Use Change Analysis

The Byrus Olga property is currently designated as *Rural* on the Lee County Future Land Use Map. The applicant is requesting a change to the *Commercial* designation, consistent with the Olga Community Plan. The following is a narrative describing how the proposed amendment is internally consistent with the Lee County Comprehensive Plan.

Policy 1.4.1: The Rural areas are to remain predominantly rural--that is, low density residential, agricultural uses, and minimal non-residential land uses that are needed to serve the rural community. Maximum density in the Rural area is one dwelling unit per acre (1 du/acre).

Policy 1.4.1 states that these areas are not to be programmed to receive urban-type capital improvements, and they can anticipate a continued level of public services below that of the urban areas; however, the subject property is along a major arterial road and the urban infrastructure necessary to support the property is available. It is important to note that the property is within the Lee County utility service area for both water and sewer (see Map 12-Future Utilities Service Area). The subject property is in an area that no longer fits the rural character described in Policy 1.4.1. With the increase in residential development along Palm Beach Boulevard, the area is transitioning from rural to suburban character. There is a need to provide for commercial development to meet the needs of the surrounding suburban development.

Policy 1.1.10: The Commercial areas are located in close proximity to existing commercial areas or corridors accommodating employment centers, tourist oriented areas, and where commercial services are necessary to meet the project needs of the residential areas of the County. These areas are designated for commercial uses. Residential uses, other than bona fide caretaker residences, are not permitted in this future land use category except to the extent provided in Chapter XIII of the Plan. The Commercial areas are areas where residential uses are not expected or compatible due to the nature of the surrounding land uses and their location along major travel corridors. The commercial designation is intended for use where residential development would increase densities in areas such as the Coastal High Hazard Areas of the County or areas such as Lehigh Acres where residential uses are abundant and existing commercial areas service the residential needs are extremely limited.

The requisite infrastructure needed for commercial development is generally planned or in place. New developments in this category must connect to a potable water and sanitary sewer system. Commercial retail developments, hotels and motels, banks, all types of office development, research and development, public, and other similar development will predominate in the commercial areas. Limited light industrial uses are also permitted, excluding outdoor storage type uses. Any re-designation of land to the Commercial land use category should occur along major travel corridors and at road intersections. The planned

development rezoning process must be used to prevent adverse impacts to the surrounding areas and to ensure that appropriate site development regulations are incorporated into the development plans of each site. A maximum Floor Area Ratio (FAR) of 1 will be used as an index of intensity of development in the commercial category. Development in this future land use category is not required to comply with the site location criteria provided in Goal 6. When appropriate, site development regulations are incorporated into the planned development.

The subject property, as described in Policy 1.1.10, is in close proximity to existing corridors of commercial activity, however an uneven balance exists between residential development and commercial activity with residential development being the majority of all new development in this area. The property is located along State Road 80, a major east-west travel corridor. The proposed plan for the property will provide accessible retail and office space to meet the needs of the surrounding residential areas. Located on a major travel corridor and at the intersection of State Road 80 (Palm Beach Boulevard) and Linwood Avenue, the subject property will be a convenient location for commercial activity for locals and tourists. New office space will allow businesses to locate near residential communities, thus creating a mixed-use hub in this area of Alva.

Policy 6.1.2: All commercial development must be consistent with the location criteria in this policy, except where specifically accepted by this policy or by Policy 6.1.7, or in Lehigh Acres by Policies 1.8.1 through 1.8.3.

> *1. Minor Commercial: "... On or near the intersection (within 330 feet of the adjoining rights-of-way of the intersection roads) of local and collector, local and arterial, or collector and collector roads. In Commercial Planned Developments where future road improvements that are included in the Capital Improvement Program will enable the property to qualify for the higher level of commercial development specified in Subsection 2 below, and which are conditioned to allow the increased commercial intensity when the roadway actually functions at the higher level of a collector road, the Minor Commercial use may extend beyond 330 feet of such intersections provided the Master Concept plan specifically indicates the phasing of the development from Minor to Neighborhood Commercial use. Proposed interconnections of future internal access roads or driveways servicing only the subject parcel with an arterial or collector will not comply with the requirements of this section..."*

The subject property is in compliance with the criteria in Policy 6.1.2. The property is located at the intersection of State Highway 80 and Linwood Avenue, which will provide direct access to a local and arterial road. There is limited retail in this area, and the subject property will provide minor commercial conveniences for the surrounding residential community, in accordance with site location standards. Additionally, the plan for the site is to create a retail and office commercial site of approximately 9 acres, with the retail in compliance with this policy thus maintaining the neighborhood commercial scale. In the future, the property may be allowed to develop with neighborhood levels of retail if and when a collector road extends through this or an adjacent property. If and when that happens additional analysis would need to be conducted to meet concurrency requirements.

GOAL 2: GROWTH MANAGEMENT. To provide for an economically feasible plan which coordinates the location and timing of new development with the provision of infrastructure by government agencies, private utilities, and other sources.

The proposed amendment has urban infrastructure in place to serve development. The River Hall development is adjacent to the property on the south side of State Road 80 and has extended utility lines in close proximity to the subject property. The subject property is already within the County's utility service area and adequate supply is available. Similarly, the subject property is located along State Road 80 and roadway capacity exists to serve new development.

OBJECTIVE 2.1: DEVELOPMENT LOCATION. Contiguous and compact growth patterns will be promoted through the rezoning process to contain urban sprawl, minimize energy costs, conserve land, water, and natural resources, minimize the cost of services, prevent development patterns where large tracts of land are by-passed in favor of development more distant from services and existing communities. (Amended by Ordinance No. 94-30, 00-22)

The subject property is in an area with existing development. Directly south, across State Road 80 is the River Hall development. To the north is the South Olga Community with residential uses. The subject property itself is located along State Road 80, a major east-west travel corridor, and at the intersection of a local and arterial road. The location of the property lends itself to minor commercial development.

OBJECTIVE 2.2: DEVELOPMENT TIMING. Direct new growth to those portions of the Future Urban Areas where adequate public facilities exist or are assured and where compact and contiguous development patterns can be created.

The proposed amendment has urban infrastructure in place to serve development. The River Hall development is adjacent to the property on the south side of State Road 80 and has extended utility lines in close proximity to the subject property. The subject property is already within the County's utility service area and adequate supply is available. Similarly, the subject property is located along State Road 80 and roadway capacity exists to serve new development.

POLICY 2.4.4: Lee Plan amendment applications to expand the Lee Plan's employment centers, which include light industrial, commercial retail and office land uses, will be evaluated by the Board of County Commissioners in light of the locations and cumulative totals already designated for such uses, including the 1994 addition of 1,400 acres to the Tradeport category just south of the Southwest Florida International Airport.

The proposed amendment will contain only minor levels of commercial development and office space. There is not a significant increase from what is already allowable under the Rural land use category and what is being requested. The retail development is intended to service the immediately surrounding neighborhood of South Olga. The Tradeport category in south Lee County has no impact on the proposed amendment.

Policy 4.1.1: requires development to be integrated with the natural features of the site.

There is no plan to impact the 1 acre wetland on the property. The rest of the property has been cleared by historic agricultural uses.

Policy 6.1.3: requires that commercial developments protect natural resources.

An environmental study has been conducted for the subject property. There is no plan to impact the 1 acre of wetland area on the subject property. At the time of rezoning, the wetland area will need to be preserved in accordance with the County's indigenous preservation requirements.

Objective 11.1: WATER.

1. Any new residential development that exceeds 2.5 dwelling units per gross acre, and any new single commercial or industrial development in excess of 30,000 square feet of gross leasable (floor) area per parcel, must connect to a public water system (or a "community" water system as that is defined by Chapter 17-22, F.A.C.).

Future development can and will connect to central water.

Objective 11.2: SEWER.

1. Any new residential development that exceeds 2.5 dwelling units per gross acre, and any new single commercial or industrial development that generates more than 5,000 gallons of sewage per day, must connect to a sanitary sewer system.

Future development can and will connect to central sewer.

Goal 107: Resource Protection - manage county's wetland and upland ecosystems to maintain and enhance native habitats, floral and faunal species diversity, water quality and natural surface water characteristics.

An environmental study has been conducted for the subject property. There is no plan to impact the 1 acre of wetland area on the subject property. At the time of rezoning, the wetland area will need to be preserved in accordance with the County's indigenous preservation requirements.

BYRUS OLGA
GROWTH MANAGEMENT ANALYSIS

INTRODUCTION

The subject site for this amendment to the Lee County Comprehensive Plan is located within Section 27, Township 43 and Range 26. More specifically, the site is located along Palm Beach Boulevard, three miles east of State Highway 31 at the intersection of Palm Beach and Linwood Avenue. The property is approximately one half mile south of the Caloosahatchee River and is in the Fort Myers Shores planning community. The total area of the property is 9.99 acres, of which approximately 1 acre is designated as Wetland. Map 1 shows an aerial location of the subject property with the surrounding road network.

The request of this application is to change the designation of the subject property on the Lee County Future Land Use Map from Rural to Commercial. The proposed amendment would allow for a maximum of 68,010 square feet of office floor area, and 30,000 square feet of retail floor area. It is structured as solely a map amendment due to the scale of the project. The intent of the request is to work with Lee County and the surrounding community to implement county goals through the development of this property - to provide commercial uses that will enhance and serve the residential community.

Surrounding Land Uses, Compatibility, and Area Context

The Bryus Olga property is located in an emerging growth corridor in Lee County. The property is located along Palm Beach Boulevard, a major thoroughfare that connects the Alva community to the City of Fort Myers. West of the property are State Road 31 and Buckingham Road, and extends across the state to Palm Beach County. While rural in character, the historic Olga community remains a predominantly residential area. Larger residential subdivisions exist just west of the property including River Hall/ Hawks Haven. Located along Palm Beach Boulevard and Buckingham Road and southwest of the subject property, River Hall/Hawks Haven is comprised 2,000 acres and approximately 1,600 residential units and no commercial component in the surrounding area to serve the residents.

The subject property is a central location between two densely populated communities- the City of LaBelle which is thirteen miles east, and the City of Fort Myers which is seven miles west. The Olga community lies directly to the west which is an area comprised of low density residential.

Community Planning and Coordination

The applicant has maintained continuous involvement with the creation and revisions to the Olga Community plan. Over the course of the most recent planning process, the creation of a commercial node at this location was the subject of significant discussion. On June 9, 2007 a community meeting was held to determine the level of acceptance for a commercial node at this location and the extension of a collector road through the adjacent property. While the property that is the subject of this application was not the property discussed, the subject

property has been part of the conversation throughout the planning process. At the June 9th meeting, an overwhelming majority of the participants were in favor of designating the property as commercial. This decision was reaffirmed at a community meeting on August 2nd, where the Olga residents specifically voted to designate this property and the property to the west as a commercial node.

In conversations with community members, there were two primary benefits to having the subject property designated as commercial. The applicant is committed to continuing to work with the community to enhance the area.

1. Decrease in potential residential units allowed in the area.

2. Limited areas of environmental significance. While other properties in the area have significant vegetation and wetland area, the subject property has limited areas that are valuable as preserve and the small area in the northeast portion of the property that is wetland can be preserved.

GROWTH MANAGEMENT ANALYSIS (LEE PLAN OBJECTIVES 2.1 AND 2.2)

FAC 9J-5.006(5) provides specific guidance for reviewing plan amendments to determine how well they discourage urban sprawl. The purpose of the referenced subsection of 9J-5 is stated as to "give guidance to local governments and other interested parties about how to make sure that plans and plan amendments are consistent with relevant provisions of the state comprehensive plan, regional policy plans, Chapter 163, Part II, Florida Statutes, and the remainder of this chapter [9J-5] regarding discouraging urban sprawl, including provisions concerning the efficiency of land use, the efficient provisions of public facilities and services, the separation of urban and rural land uses, and the protection of agriculture and natural resources."

Lee County implements this section of 9J-5 through Objectives 2.1 and 2.2 in the Lee Comprehensive Plan. Objective 2.1 deals with Development Location and the need for development to be located in such a way that development does not create sprawl and public facilities to become financially feasible. Objective 2.2 deals with Development Timing and is primarily implemented through the rezoning process.

The following point-by-point analysis demonstrates how the proposed amendment not only discourages sprawl, but helps the county transition from a plan that currently calls for low density residential development along State Road 80 within limited commercial opportunity in South Olga, to specifically identifying a commercial area in the most logical location and capturing commercial trips locally. While this analysis is structured as a point-by-point answer as to how this proposal implements 9J5, the comments point out how this proposal is consistent with Objectives 2.1 and 2.2.

9J-5 lists thirteen "Primary Indicators" of urban sprawl. These are provided below with a brief analysis of how each is relevant to the proposed amendment.

1. *Promotes, allows, or designates for development substantial areas of the jurisdiction to develop as low-intensity, low-density, or single-use development or uses in excess of demonstrated need. (Restated in Lee Plan Objective 2.1)*

The current comprehensive plan allows for primarily single use development at low densities on the subject property. The current Lee Plan promotes a scattering of low density residential subdivisions with few to no service or commercial areas. Under this pattern of development, the costs of infrastructure increases significantly, making most services financially infeasible.

The proposed change to commercial allows for a use other than low density single family to specifically be designated and promoted at this location in order to allow for a mixing of uses and services to the local community.

2. *Promotes, allows, or designates significant amounts of urban development to occur in rural areas at substantial distances from existing urban areas while leaping over undeveloped lands which are available and suitable for development. (Restated in Lee Plan Objective 2.1)*

   The subject property is in an area with existing development. Adjacent to the site on the south side of State Road 80 is the River Hall development, consisting of approximately 1,600 units. To the north of the property is the South Olga community. The subject property is within the county's utility service area and represents a logical extension of the commercial uses that are along State Road 80. The designation of a commercial node at this location cannot be considered "leap frog development" because it simply extends the development pattern that already exists. Urban services are available to adjacent properties and the extension of urban services would not require "leaping" over undeveloped areas.

3. *Promotes, allows, or designates urban development in radial, strip, isolated or ribbon patterns generally emanating from existing urban developments.*

   The proposed future land use map amendment creates a commercial node. The proposed amendment has been changed from the original proposal of designating a "strip" of commercial along State Road 80 to designating a specific node of commercial development.

4. *As a result of premature or poorly planned conversion of rural land to other uses, fails adequately to protect and conserve natural resources, such as wetlands, floodplains, native vegetation, environmentally sensitive areas, natural groundwater aquifer recharge areas, lakes, rivers, shorelines, beaches, bays, estuarine systems, and other significant natural systems.*

   According to the environmental survey, there is approximately 1 acre of wetland area on the subject property. The intention is to preserve that area. The rest of the property has been cleared and impacted by historic agricultural uses. Natural resources would not be impacted by this land use change.

5. *Fails to adequately protect adjacent agricultural areas and activities, including silviculture, and including active agricultural and silviculture activities as well as passive agricultural activities and dormant, unique and prime farmlands and soils.*

   The subject property is not surrounded by active agricultural uses. The property is surrounded by development, roadways and proposed development.

6. *Fails to maximize use of existing public facilities and services. (Restated in Lee Plan Objective 2.2)*

   The proposed amendment extends the limits of the urban designated areas out to the limits of the utility service area, thereby maximizing existing utility capacity. The subject property is located along a road that has existing capacity and in an area that has existing and planned capacity for all other public infrastructure and services (i.e. fire) that would be needed for commercial development.

7. *Fails to maximize use of future public facilities and services. (Restated in Lee Plan Objective 2.2)*

   The proposed amendment extends the limits of the urban designated areas out to the limits of the utility service area, thereby maximizing existing utility capacity. The subject property is located along a road that has existing capacity and in an area that has existing and planned capacity for all other public infrastructure and services (i.e. fire) that would be needed for commercial development.

8. *Allows for land use patterns or timing which disproportionately increase the cost in time, money and energy, of providing and maintaining facilities and services, including roads, potable water, sanitary sewer, stormwater management, law enforcement, healthcare, fire and emergency response, and general government. (Restated in Lee Plan Objective 2.2)*

   Please see responses to statements 7 & 8. Any development here would simply make better use of existing facilities.

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

   The subject property would be the limit of the urban area and would create a separation consistent with the County's existing utility service area map.

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

    The proposed amendment simply promotes the development of a minor commercial node in order to provide services to the local community. This change in land use category would have no impact on in-fill or redevelopment.

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

    Creating a commercial designation ensures that the community will have a functional mix of uses rather than only low density residential uses, as promoted in the Rural land use category. The idea is to allow for shopping and services locally so that residents of South Olga do not have to leave the area for shopping and service needs.

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

The proposed land use amendment does not have any impact on linked or related land uses.

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

The property is currently being used for tree farming. The current condition of the site contains no functional open space. The proposed development will not create a loss in functional open space.

DeLisi Fitzgerald, Inc.
Planning - Engineering - Project Management

1500 Royal Palm Square Blvd., Suite 101
Fort Myers, FL 33919
239-418-0691 • 239-418-0692 fax

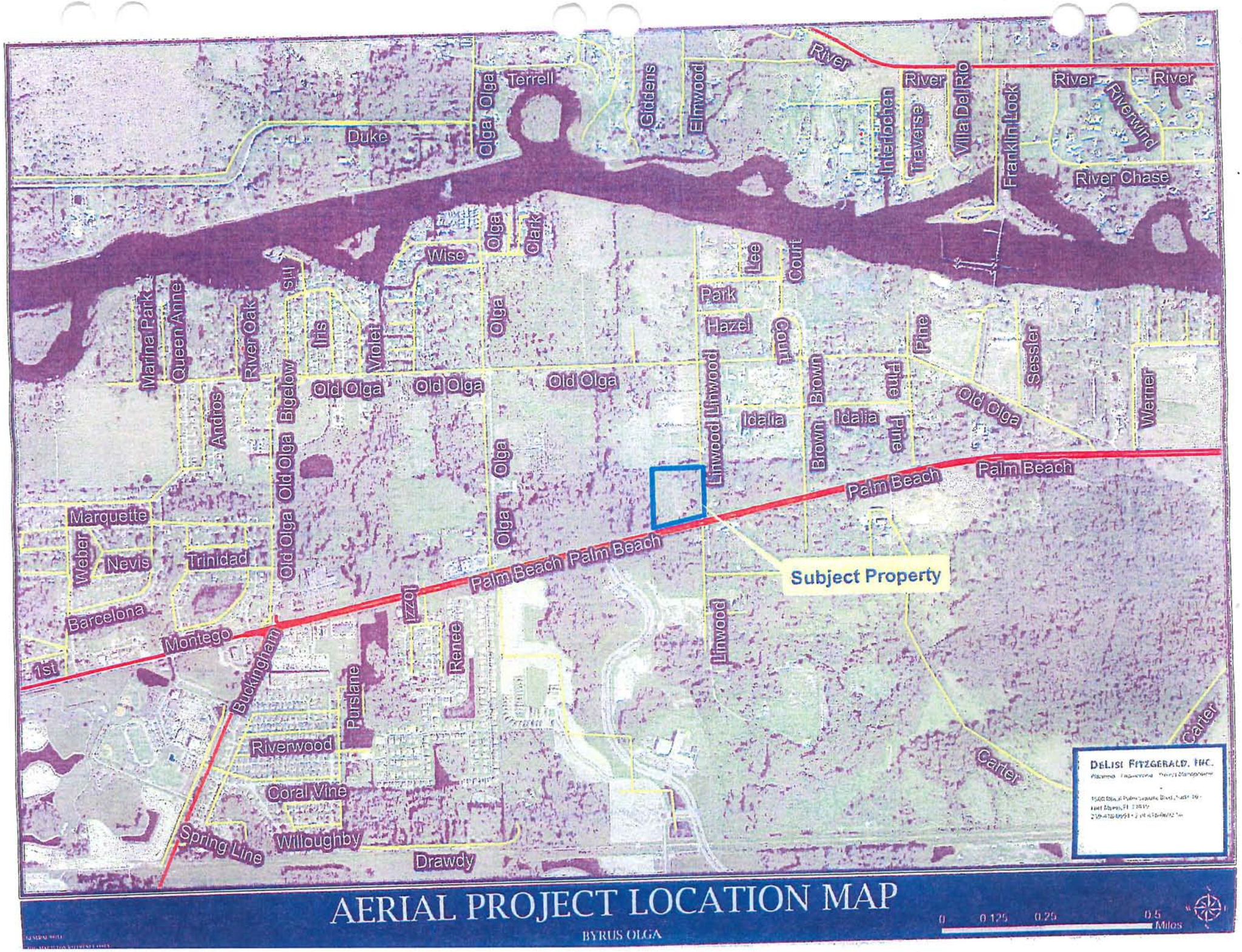
Utilities Analysis

With the proposed amendment to the Comprehensive Plan, the subject property can be developed with 98,010 square-feet of commercial retail and office generating an approximate water and wastewater demand of 14,702 gallons-per-day (GPD). The projected build-out year for the development is 2012.

Potable water and wastewater service will be provided by Lee County Utilities (LCU). For potable water, the property will connect to LCU's water main provided along State Road 80 adjacent to the property. The property will be served by LCU"s interconnected water system with a permitted capacity of 38.12 million gallons per day (MGD). According to LCU, the current demand on the system is 24.3 MGD. Based on the information provided, there is sufficient capacity to serve this project with potable water.

For wastewater service, the property will connect to the LCU's forcemain transmission system located along State Road 80. LCU's transmission system connects to the City of Fort Myers Central Wastewater Treatment Facility with a permitted capacity to treat 11.0 MGD. The plant operated at 6.92 MGD during 2007. According to the City's Wastewater Master Plan prepared in 2005, the Central Plant is projected to operate at an average daily flow of approximately 5.6 MGD in 2012. The projected flow rate is estimated under the assumption that the City will have completed its construction of the East wastewater treatment plant which is currently in the design and permitting process.

Based on current capacities and planned expansions of the utilities that will serve the property, there will be excess capacity for water and sewer to serve the demand of the proposed development. For potable water, there will be nearly 13.8 MGD of permitted excess capacity available to the project. For wastewater, there will be as much as 5.4 MGD of projected excess capacity provided to the property by the City of Fort Myers.



AERIAL PROJECT LOCATION MAP

BYRUS OLGA

F.M.S.F.D.

Ft. Myers Shores Fire Protection and Rescue Service District
12345 Palm Beach Blvd S.E. Ft. Myers Fl. 33905
Phone (239) 694-2833
Fax (239) 694-3355

August 26, 2008

Daniel DeLisi
DeLisi Fitzgerald, Inc.
1500 Royal Palm square Blvd., Suite 101
Fort Myers, FL 33919

Re: Byrus Olga / Impact Verification
Project NO., 21061
Parcel Strap No.:27-43-26-00-0006.0030
Property Address 208 Linwood Avenue, Alva, FL

Dear Daniel DeLisi,

In regards to the Byrus Olga Development, and how it will impact the Fort Myers Shores Fire Department (FMSFD). Currently the Agency's staff does not foresee any service interruption due to the increased demand from the proposed development.

Additionally FMSFD plans to build a new fire station approximately ¼ mile from the above mentioned project beginning in 2010. The new station will increase our agency's ability to maintain service in the midst of current and future growth. This addition also furthers our agency's ability to provide improved service to the community with additional manning and equipment.

Please do not hesitate to contact my office for additional information or questions.

Sincerely,

Walter S. Gee IV (Pete)
Division Chief

BYRUS OLGA

COMPREHENSIVE PLAN AMENDMENT APPLICATION ANSWERS

Boylan Environmental Consultants, Inc.
Wetland & Wildlife Surveys, Environmental Permitting, Impact Assessments

11000 Metro Parkway, Suite 4
Fort Myers, Florida, 33966
Phone:(239) 418-0671 Fax:(239) 418-0672

July 28, 2008

C. ENVIRONMENTAL IMPACTS

1. **A map of the Plant Communities as defined by the Florida Land Use Cover and Classification system (FLUCFCS).**

Please see the attached FLUCFCS map (exhibit C1) and FLUCFCS aerial (exhibit C2) for community locations. The vegetation communities on site were mapped according to the Florida Land Use, Cover and Forms Classification System (FLUCFCS) (Florida Department of Transportation, 1985). The site was inspected and the mapping superimposed on 2007 digital aerial photographs. Acreages were approximated using AutoCAD (2008 version).

The following is a discussion of the existing land uses and vegetative associations found on site. The following table summarizes the FLUCFCS communities discussed below.

2211 Abandoned Citrus Grove (approximately 4.61 acres)
This upland community historically consisted of a citrus grove. Remnant furrows and scattered citrus trees were all that remained. The community was dominated by Bahia grass (*Paspalum notatum*), rag weed (*Ambrosia sp.*), Spanish needles (*Bidens bipinnata*), torpedo grass (*Panicum repens*), finger grass (*Eustachys sp.*), Florida sandspur (Cenchrus echinatus), ceaser weed (*Urena lobata*), carpet grass (*Axonopus sp.*), various sedges (*cyperus sp.),* sharp edge sedge (*cyperus sp.*), and silk reed (*neyraudia reynaudiana*).

4279 Live Oak, Disturbed (approximately 2.46 acres)
This upland community's canopy was dominated by live oak (*Quercus virginiana*) with scattered laurel oak (*Quercus laurifolia*), cabbage palms (*Sabal palmetto*), slash pine (*Pinus elliottii*), Hawaiian orchid (*Bauhinia variegata*) and mimosa (*Mimosa sp.).* The under-story had been cleared and contained Bahia grass (*Paspalum notatum*), ceaser weed (*Urena lobata*), crabs eye vine (*Abrus precatorius*), wild balsm apple (*Momordica charantia*), wild sensitive plant (*Chamaecrista nictitans*), mother in laws tongue (*Sansevieria trifasciata*), wild taro (*Colocasia esculenta*) and silk reed (*neyraudia reynaudiana*).

617E2 Mixed Wetland Hardwoods w/ Exotics 25-50% (approximately 0.99 acres)
This wetland community contained cabbage palms (*Sabal palmetto*), laurel oak (*Quercus laurifolia*), red maple (*Acer rubrum*) and cypress trees (*Taxodium distichum*). The exterior of the under-story contained Brazilian pepper (*Schinus terebinthifolius*) (approximately 28% coverage), salt bush (*Baccharis halmifolia*), wild coffee (*Psychotria sp.*), dog fennel (*Eupatorium sp.*), thistle (*Cirsium sp.*) and wild taro (*Colocasia*

esculenta). The under-story of the interior of the wetland contained button bush (*Cephalanthus occidentalis*), primrose willow (*Ludwigia sp.*), and arrowhead (*Sagittaria lancifolia*).

740 **Disturbed Lands (approximately 1.94 acres)**
This area contained some abandoned structures. The ground cover was similar to the abandoned citrus community. The community was dominated by Bahia grass (*Paspalum notatum*), rag weed (*Ambrosia sp.*), Spanish needles (*Bidens bipinnata*), torpedo grass (*Panicum repens*), finger grass (*Eustachys sp.*), Florida sandspur (Cenchrus echinatus), ceaser weed (*Urena lobata*), carpet grass (*Axonopus sp.*), various sedges (*cyperus sp.),* sharp edge sedge (*cyperus sp.*), and silk reed (*neyraudia reynaudiana*).

FLUCFCS TABLE

FLUCFCS	COMMUNITY DESCRIPTION	ACRES	%
2211	Abandoned Citrus Grove	4.61 Ac.±	46.10%
4279	Live Oak, Disturbed	2.46 Ac.±	24.60%
617 E2	Mixed Wetland Hardwoods w/ Exotics (25-50%)	0.99 Ac.±	9.90%
740	Disturbed lands	1.94 Ac.±	19.40%
TOTAL		**10.00 Ac.±**	**100.00%**

2. **A map and description of the soils found on the property (identify the source of the information).**

Boca Fine Sand (13)

Boca soils are moderately deep, moderately permeable and poorly drained. These soils are found in sloughs, flatwoods and depressional areas. The uppermost soil layer is fine gray sand about 3 inches thick. The next layer is approximately 6 inches think and consists of fine light gray sand that contains thick roots. From 9 to 14 inches the soil consists of light gray fine sand with medium and coarse roots. The next soil layer (14-25 inches deep) is very pale brown single grained fine sand. Limestone can be found anywhere from 25 to 40 inches in depth. The Boca soil series is nationally listed as a hydric soil however the soil is not locally considered to be a hydric soil.

Copeland Sandy Loam, Depressional (45)

Copeland Series soils are "moderately deep, very poorly drained, moderately permeable soils that form in moderately thick beds of marine sediment over limestone." These depressional soils are smooth to concave with slopes ranging from 0 to 1 percent. The

first 8 inches consist of a weak fine granular structure very dark gray sandy loam with light gray streaks. From 8 to 20 inches the soil is a very dark gray sandy loam with light gray streaks and is a "moderate medium subangular blocky structure". The next 8 inches consist of a light brownish gray sandy clay loam with calcium carbonate. From 28 inches onward the soil is "fractured limestone bedrock". Under natural conditions the water table is above the surface for 3 to 6 months out of the year and is 10 to 40 inches below the surface for the remainder of the year.

** Hydric Soil

Please see the attached soil map (exhibit C3) for soil locations on the property. All information was achieved from the NRCS Hydric Soils of Florida Handbook (2000).

3. **A topographic map with property boundaries and 100-yearflood prone areas indicated (as identified by FEMA).**

   Please see the attached topography map.

4. **A map delineating wetlands, aquifer recharge areas, and rare & unique uplands.**

   The site contains one wetland. The wetland is a mixed hardwoods wetland with exotics. For the wetland location please see the attached FLUCFCS map (community 617E2).

   The upland areas are highly disturbed in nature. The site does not contain any rare and unique upland communities.

   The property was mapped by SFWMD in 1995 in the lower coast surficial recharge area.

5. **A table of plant communities by FLUCFCS with potential to contain species (plant and animal) listed by federal, state or local agencies as endangered, threatened or species of special concern. The table must include the listed species by FLUCFCS and the species status (same as FLUCFCS map).**

Protected Animals by Status

FLUCFCS	SPECIES	USFWS	FFWCC
2211	Audubon's Crest. Caracara *Polyborus plancus audubonii*		T
	Gopher Tortoise *Gopherus polyphemus*		T
	Gopher Frog *Rana capito*		SSC
4279	Gopher Tortoise *Gopherus polyphemus*		T
	Gopher Frog *Rana capito*		SSC
617E2	Limpkin *Aramus guarauna*		SSC
	Little blue heron *Egretta caerulea*		SSC
	Reddish egret Egretta rufescens		SSC
	Snowy Egret *Egretta thula*		SSC
	Tri Colored Heron *Egretta tricolor*		SSC
740	Eastern Indigo Snake *Drymarchon corais couperi*	T	T
	Gopher Tortoise *Gopherus polyphemus*		T
	Gopher Frog *Rana capito*		SSC

FFWCC-Florida Fish and Wildlife Conservation Commission
USFWS-U.S. Fish and Wildlife Service
T- Threatened
E-Endangered
SSC-Species of Special Concern

Audubon's Crested Caracara

The Audubon's Crested Caracara (*Polyborus plancus audubonii)* is a large raptor with a crest, naked face, heavy bill, elongate neck, and unusually long legs. This non-migratory species occurs in Florida as well as the southwestern U.S. and Central America. Only the Florida population, which is isolated from the remainder of the subspecies in the southwestern U.S. and Central America, is listed under the Endangered Species Act. Typically most Caracara's inhabit the prairie area of south central Florida. Caracara could utilize the cabbage palms on the property for nesting.

Eastern indigo snake
The eastern indigo snake (*Drymarchon corais*) is a non-poisonous glossy blue-black snake. It is the largest snake in the United States and can get up to nine feet long. This snake is often found in well drained scrub and sandhill habitats and is commonly considered to be associated with gopher tortoise burrows. The eastern indigo snake could potentially occur in the old agricultural lands and disturbed portions of the property, however, the potential is low. The majority of these upland habitats provide no cover for itself or any prey species.

Limpkin
The limpkin (*Aramus guarauna*) is a large brown with white spots wading bird that looks superficially like an ibis. Limpkins have a piercing cry kree-ow, kra-ow. This bird is found in freshwater marshes, along the edges of ponds, and lakes, and in wooded swamps along rivers. Its preferred food source is the apple snail however it will also eat mussels, insects, crustaceans, worms, frogs, lizards, and other types of snails. Limpkins could potentially utilize the wetland as a foraging area.

Little Blue Heron
The little blue heron (*Egretta caerulea*) is a medium sized slender heron whose appearance dramatically different with age. First year herons are pure white while the adults appear slate blue. The little blue heron's diet includes small fish, amphibians, and aquatic invertebrates. Little blues occupy swamps, estuaries, rivers, ponds, and lakes and could potentially utilize the wetland as a foraging area.

Reddish egret
The reddish egret (*Egretta rufescens*) is a large, slender egret with long legs and a long neck. There are two different distinct color patterns to these birds. The white morph is all white, while dark morph individuals have a rust colored head and neck feathers, and slate gray body feathers. This wading bird is found primarily in coastal tidal flats, salt marshes, and lagoons.. These wading birds utilize salt water areas almost exclusively. There diet consists of small fish. This wading bird typically inhabits coastal areas. Because of this it is unlikely that this bird would inhabit the property.

Snowy Egret
The snowy egret (*Egretta thula*) is a small sized white heron with a black bill, black legs, and yellow feet. Snowy egrets typically eat fish, crabs, amphibians, and insects. Snowy egrets occupy salt marshes, swamps, ponds, shores, tidal flats, rice fields, and shallow coastal bays. Snowy Egrets could potentially utilize the wetland as a foraging area.

Tri-colored Heron
The Tricolored heron (*Egretta tricolor*) is a medium sized heron with a dark slate gray head and upper body with a purplish chest. These herons have a white strip

running down the front of their neck that creates their tricolor. Their diets consist of small fish, crustaceans, reptiles, amphibians, insects, snails, and other invertebrates. Tricolored Herons prefer saltwater and brackish water habitats however it forages in both freshwater and saltwater areas. Tricolored Herons can be found in salt and freshwater mudflats, marshes, swamps, and meadows. Tricolored herons could potentially utilize the wetland as a foraging area.

Gopher Tortoise

The gopher tortoise (*Gopherus polyphemus*) is a large reptile that averages 25 cm long and 9 lbs in weight. Wild tortoises can live up to 60 years old. Gopher tortoises dig approximately 4.5 meter long burrows which have a half moon shaped entry and a large apron. Tortoise burrows create homes for 401 species of animals. These tortoises can be commonly found in dry scrub areas, including scrub oak, dry prairies, pine flatwoods, and coastal dune ecosystems. Tortoises are primarily herbivorous; however, they will eat the bones of dead animals for calcium. Gopher tortoises could potentially utilize the abandoned agricultural area and the disturbed portions of the property.

Gopher frog

The gopher frog (*Rana capito*) is a stout bodied cream to brown or black frog with irregular spots on its back and sides. The Florida subspecies (Rana capito aesopus) also features a white to cream spotted chin, and a white belly. These frogs are commonly found in moist meadows, prairies, woodlands, and pine scrub areas. The gopher frog utilizes gopher tortoise burrows as a home and is often associated with gopher tortoise burrows. The gopher frog is associated with gopher tortoise and could potentially be found in the abandoned agricultural area and the disturbed portions of the property.

Protected Plants by status

FLUCFCS	SPECIES	USFWS	FDA
4279	Twisted and banded air plant *Tillandsia flexuosa*		E
	Fuzzy-wuzzzy air plant *Tillandsia pruinosa*		E
	Giant wild pine *Tillandsia utriculata*		E
617E2	Twisted and banded air plant *Tillandsia flexuosa*		E
	Fuzzy-wuzzzy air plant *Tillandsia pruinosa*		E
	Giant wild pine *Tillandsia utriculata*		E

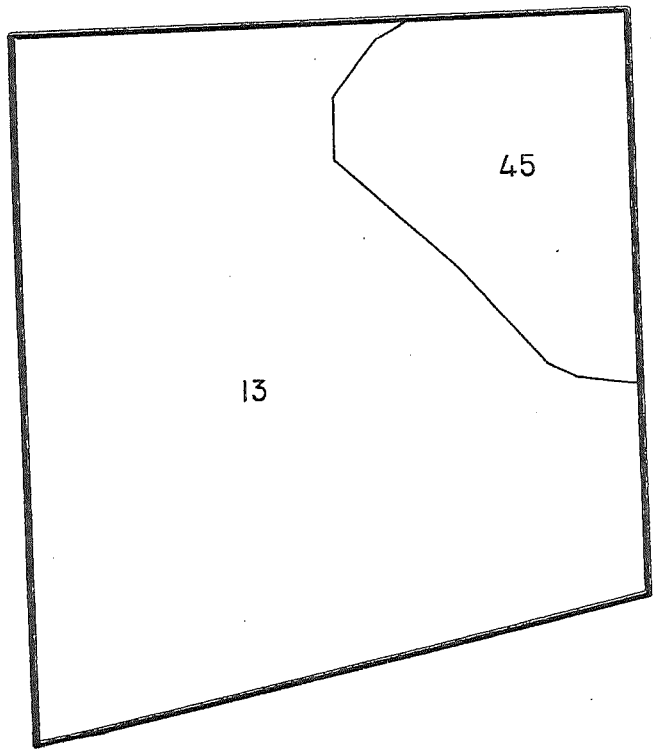
Listed Air Plants (*Tillandsia* spp.)
Several of the listed air plants are relatively common, but have recently been listed as a result of a weevil, which poses a potential future threat to its populations. It is likely that air plants do occur on the property, but in low numbers if they are present. Because the air plants typically cling to trees, and the abandoned citrus and disturbed areas on the property have very few trees, the presence of any air plants would be limited.

Because of the disturbed nature of the on-site vegetation communities, the development of the site would not have any appreciable impact on listed wildlife or plant resources. There are no pristine vegetation communities on the property. Nearly 90 percent of the property has been disturbed by clearing events. Any development will likely have storm water management ponds that will satisfy wading bird usage on the property. Due to the absence or low potential of the property to support listed plant and animal species, measures to mitigate impacts to these species would be unnecessary. If any rare plants are found they can be relocated.

N

B-E-C

Scale: 1" = 200'



Soil No	Description	Status
13	Boca Fine Sand	Non-Hydric
45	Copeland Sandy Loam, Depressional	Hydric

NOTES:

Soils were acquired from the FGD and are NRCS mappings.

Property boundary was obtained from Delisi Fitzgerald, Inc. on July 23, 2008 Drawing 7763SR-Eng.dw

Boylan Environmental Consultants, Inc.
Wetland & Wildlife Surveys, Environmental Permitting, Impact Assessments
11000 Metro Parkway, Suite 4, Ft. Myers, FL 33966 (239) 418-0671

Drawn By:	Date:	Category
B.K.M.	7/28/08	Soils
Job Number		Scale:
2008-32		1" = 200'
S/T/R		County
27/43S/26E		Lee

BYRUS OLGA

NRCS SOILS MAP

Revisions	Date:	Pags
		Exhit
		C

STAFF REPORT
FROM
DEPARTMENT OF COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL SCIENCES

Date: September 04, 2008
To: Jim Mudd, Senior Planner

From: Brad Browning, Senior Environmental Planner BWB
Phone: (239) 533- 8157
e-mail:bbrowning@leegov.com

Project: R & D Cattle Company / Byrus
Case: CPA2007-00050
STRAP: 27-43-26-00-00003.0000 and 27-43-26-00-00006.0030

The Division of Environmental Sciences (ES) staff has reviewed the proposed R & D Cattle Company/ Byrus Comprehensive Plan Amendment and offer the following analysis and recommended conditions:

PROJECT SITE:
The ± 49.00 acre project is located on the north side of S. R. 80, east of South Olga Road, west of Linwood Avenue. The properties are zoned AG-2. The Comprehensive Plan Amendment is for two parcels, the R & D Cattle Company property and the Byrus property. The current future land use designation is suburban and rural for the properties. The request is to change the Future Land Use Map (FLUM) from Suburban/Rural to Commercial to allow for future development. A Vegetative Community Assessment was performed by Boylan Environmental Consultants Inc. on August 7, 2008 for the R and D Cattle property, July 28, 2008 for the Byrus property and field verified by ES Staff.

The assessment and the Florida Land Use Cover and Forms Classification System (FLUCCS) map was provided by the applicant. The site consist of 23.20 acres of improved pasture (FLUCCS 211),1.19 acres of open lands (FLUCCS 190), 4.61 acres of abandoned citrus grove (FLUCCS 221) and 1.94 acres of disturbed lands(FLUCCS 740) but also contains a variety of indigenous communities including: 1.13 acres Pine Flatwoods (FLUCCS 411E1), 1.35 acres Pine Mesic Oak (FLUCCS 414E1), 0.96 acres Xeric Oak (FLUCCS 421E2), 3.97 acres Temperate Hammock (FLUCCS 425E1), 0.12 acres Cabbage Palm Hammock (FLUCCS 428), 0.18 acres Hydric Cabbage Palm Hammock (FLUCCS 428H), 1.05 Stream and Waterways (FLUCCS 510), 4.00 acres Stream and Lake Swamps (FLUCCS 615E1), 1.70 acres Wetland Forested Mixed (FLUCCS 630 E3), 2.46 acres of Live Oak disturbed (FLUCCS 4279), 0.99 acres of Mixed Wetland Hardwoods (FLUCCS 617E2).

A field inspection was conducted by ES staff on August 15, 2008 to confirm the FLUCCS mapping and verify protected species survey. No protected species were observed during the site inspection. The majority of the site had been previously cleared for agriculture use, but the site

does contain areas of existing vegetation along the north and west property lines. The central portion of the property contains a Florida Department of Transportation drainage easement over a flow-way which contains approximately 2.76 acres of indigenous plant communities. The western portion of the property contains Olga Creek with indigenous plant communities. This area is approximately 8.25 acres of indigenous plant communities that could create a buffer from the commercial development to the single family homes along S. Olga Drive and also provide protection for Olga Creek. Olga Creek flows along the western property line and continues through the property to the south property line where the creek goes under S.R. 82 and connects with the River Hall RPD to the south. The northern portion of the property contains 3.6 acres of indigenous plant communities. This area could create a buffer from the commercial development to the single family home along the northern property line. The Byrus property contains ± 3.45 acres of indigenous plant communities.

The Conservation Lands land use categories were created to accurately depict the use of lands for conservation purposes. Conservation Lands include uplands and wetlands that are owned and used for long range conservation purposes. The Conservation Lands FLUM category are for lands that are primarily used to conserve important natural resources, environmentally sensitive areas, significant archeological or historical resources, or other conservation uses. Conservation Lands typically include such uses as wildlife preserves; large wetland and upland mitigation areas; natural resource based parks; and water conservation lands such as aquifer recharge areas, flow-ways, flood prone areas and well fields.

The Conservation Lands objective is to put into the public domain private lands that provide the following public benefits:

Sustain native plant and animal populations;

Help protect people and property from flooding;

Help replenish our underground drinking water supply;

Help to improve or sustain the water quality of our coastal bays, inlets;

Provide ecotourism opportunities, and

Provide local environmentally oriented recreational and educational opportunities.

The Board of County Commissioners has provided policy guidance to staff to maintain wildlife corridors and green space connections to ensure the preservation of indigenous plant and animal habitat throughout the County.

The following Comprehensive Plan Goals, Objectives and Policies further support ES Staff's recommendation for the conservation land use category for this project:

Policy 1.4.6: *Conservation Lands land use category was created to accurately depict the use of lands for conservation purposes. Conservation Lands include uplands and wetlands that are owned and used for long range conservation purposes. The Conservation Lands FLUM category is for lands that are primarily used to conserve important natural resources, environmentally sensitive areas, significant archeological or historical resources, or other conservation uses. Conservation Lands typically include such uses as wildlife preserves; large wetland and upland mitigation areas; natural resource based parks; and water conservation lands such as aquifer recharge areas, flow-ways, flood prone areas and well fields.*

The owners of R & D property and staff have worked diligently to agree on conservation lands on the parcel. Please see the attached exhibit which indicates the areas for conservation lands. The indigenous open space on the Byrus property will need to be addressed during the rezoning process.

Policy 6.1.6: *The land development regulations will require that commercial development provide adequate and appropriate landscaping, open space, and buffering.*

The utilization of conservation lands for the northern and western indigenous areas will provide buffers from the commercial development for the adjacent residential homes.

Standard 11.4: Environmental Review Factors. *In any case where there exists or there is the probability of environmentally sensitive areas the developer must propose means to protect, conserve, or preserve the environmental and natural resources.*

The utilization of conservation lands will assist to provide protection measures for these areas.

Objective 60.5: Incorporation of Green Infrastructure into the Surface Water Management Plan. *The long-term benefits of green infrastructure as part of the surface water management system includes improved water quality, improved infiltration, wild life habitat and recreational opportunities. Policy 60.5.3: states that the County encourages the preservation of existing natural flow-ways and restoration of historic natural flow-ways.*

Olga Creek is a natural flow-way and as such should be placed in the conservation lands future land use category to provide a wildlife corridor and protect drainage flow in the area.

Objective 61.2: Mimicking the function of natural systems. *Support a surface water management strategy that relies on natural features (flow-ways, sloughs, creeks, etc.) to help manage storm and surface water. Objective 61.3: Lee County will continue to provide design standards for development protective of the function of natural drainage systems.*

Olga Creek, a natural waterway, should be incorporated into the surface water management system to help maintain the historic flow-way.

Objective 77.3: *New developments must use innovative open space design to preserve existing native vegetation and buffer adjacent uses.* **Policy 77.3.3:** *The County encourages new developments to incorporate large contiguous open space areas in their development design.*

Placing the northern and western portions into conservation land use category will provide interconnectivity for wildlife and provide a transitioning buffer between the residential and commercial uses. This will provide for a large open space, which could be utilized as a contiguous wildlife corridor.

Goal 107: Resource Management Plan. *The county will continue to implement a resource management program that ensures the long-term protection and enhancement of the natural upland and wetland habitats through the retention of interconnected, functioning, and maintainable hydro ecological systems where the remaining wetlands and uplands function as a productive unit resembling the original landscape.*

Placing Olga Creek and the indigenous area around the creek into conservation land use category will ensure the protection of the flow-way and the indigenous plant community.

Policy 107.3.1: *Encourage upland preservation in and around preserved wetlands to provide habitat diversity, enhance edge effect, and promote wildlife conservation.*

The northern and western conservation lands will preserve the wetlands and uplands on site, which in turn will retain valuable habitats for wildlife to use.

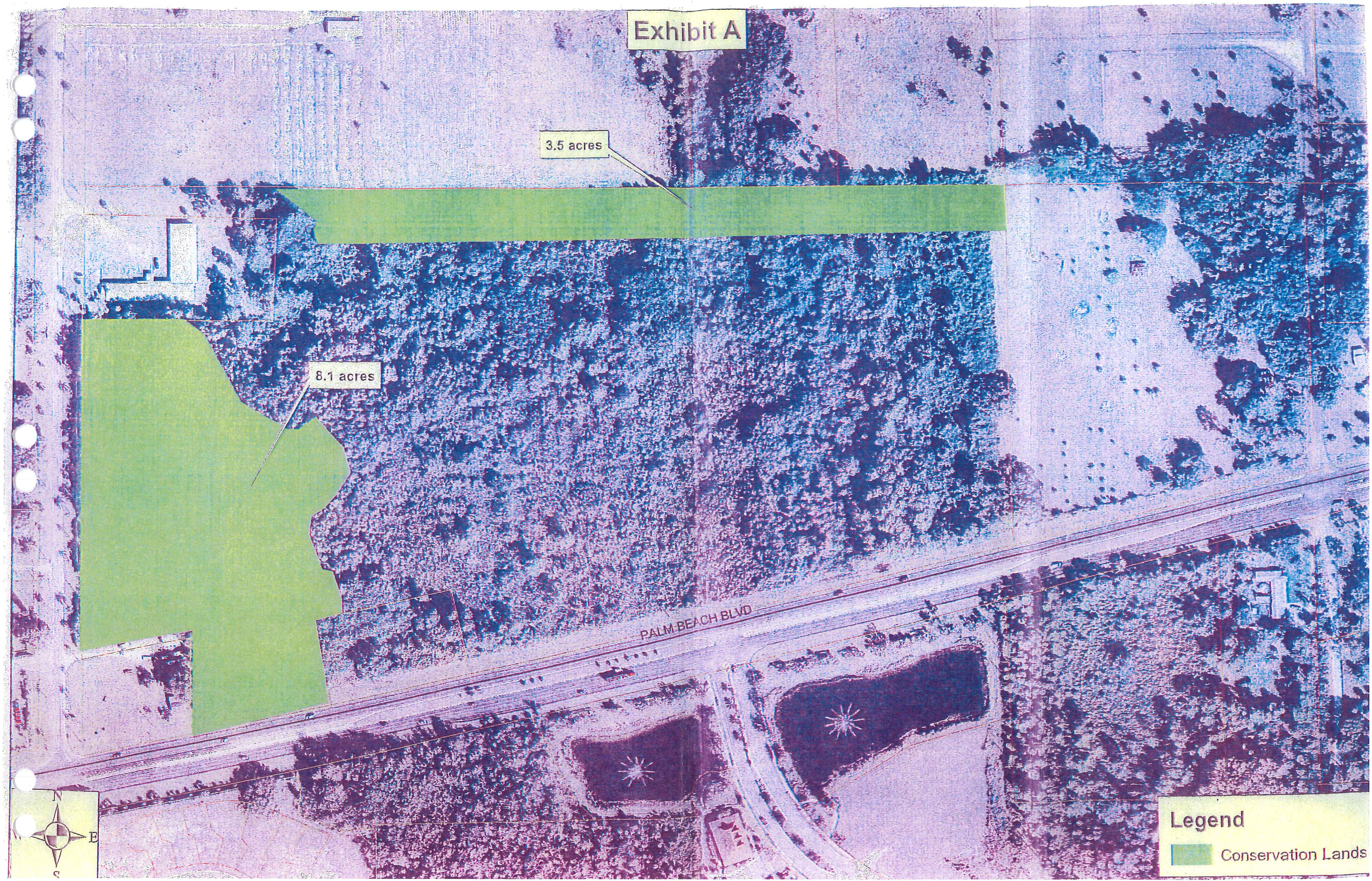
Utilizing the conservation lands future land use category for the northern and the western portions of the project, as shown on the attached exhibit, will provide:

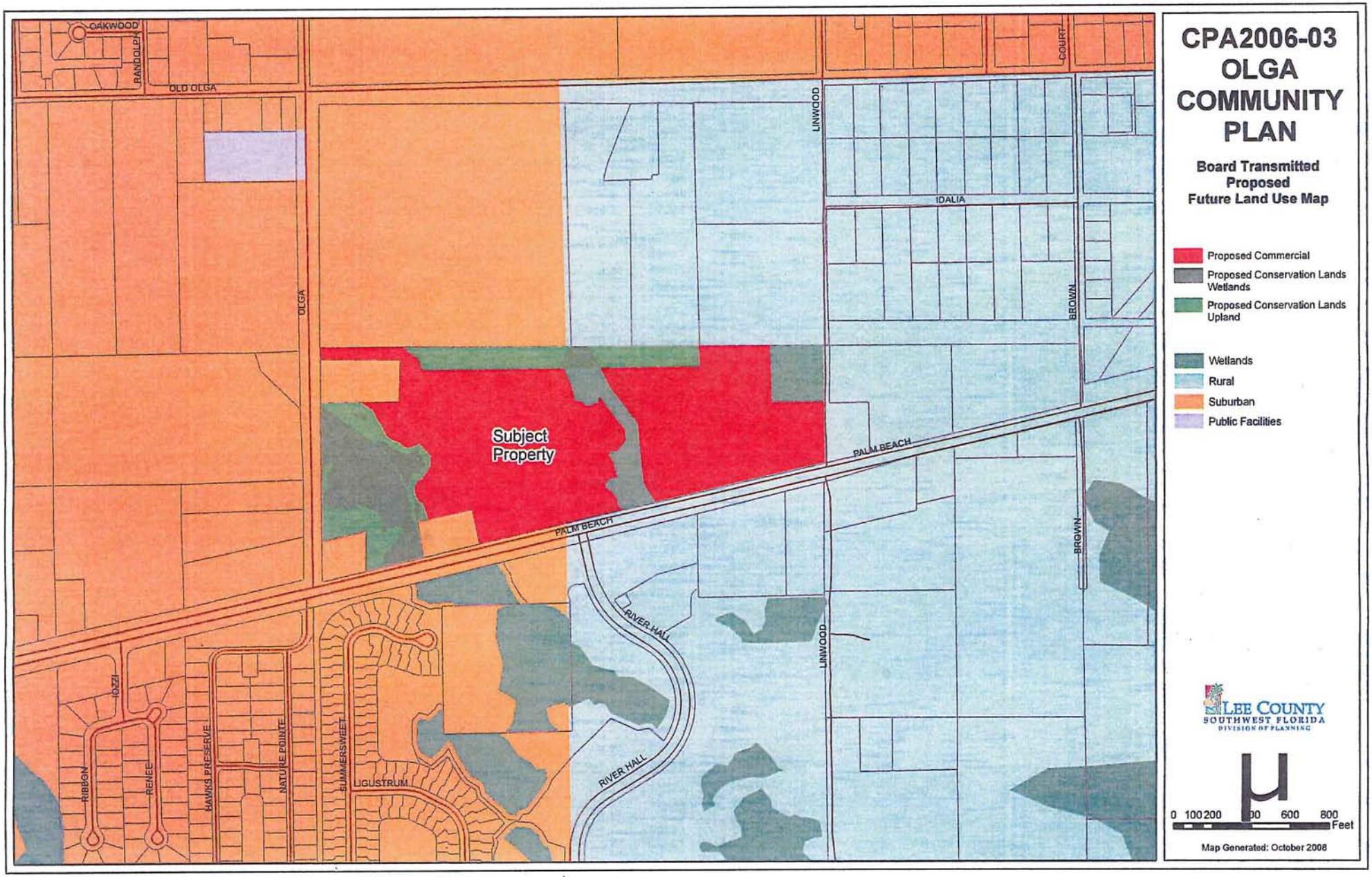
A natural transitional zone between residential and commercial use;

An indigenous high quality upland and wetland habitats for wildlife;

A protected buffer for the Olga Creek flow-way and drainage area;

Exhibit A


3.5 acres
8.1 acres
PALM BEACH BLVD
N
E
S
Legend
Conservation Lands


OAKWOOD
RANDOLPH
OLD OLGA
OLGA
LINWOOD
COURT
IDALIA
BROWN
Subject Property
PALM BEACH
PALM BEACH
BROWN
RIVER HALL
LINWOOD
RIVER HALL
IZZI
RIBBON
RENEE
HAWKS PRESERVE
NATURE POINTE
SUMMERSWEET
LIGUSTRUM
CPA2006-03
OLGA
COMMUNITY
PLAN
Board Transmitted
Proposed
Future Land Use Map
Proposed Commercial
Proposed Conservation Lands Wetlands
Proposed Conservation Lands Upland
Wetlands
Rural
Suburban
Public Facilities
LEE COUNTY
SOUTHWEST FLORIDA
DIVISION OF PLANNING
0 100 200 600 800
Feet
Map Generated: October 2008