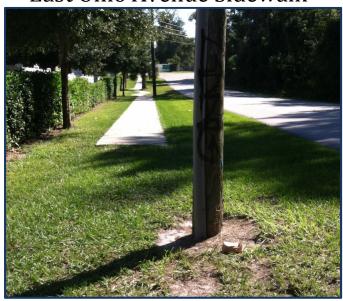
Bicycle/Pedestrian Feasibility Study

City of Orange City East Ohio Avenue Sidewalk



FINAL REPORT

Prepared By:

Reynolds, Smith and Hills, Inc.

Prepared For:

Volusia TPO





January 2013

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FINAL REPORT ii

INTRODUCTION

In an effort to improve conditions within school walk zones, a Bicycle and Pedestrian School Safety Review study report for River Springs Middle School was prepared by Lassiter Transportation Group, Inc., in September 2011, at the request of the Volusia Transportation Planning Organization (VTPO). In this report, it was noted that approximately 30% of the school's students walk or bicycle to school. Several recommendations were made to improve safety for students walking, one of which was providing continuous sidewalk coverage throughout the walk zone. East Ohio Avenue, from South Thorpe Avenue to 340 feet west of Leavitt Avenue was one location identified as needing sidewalk. In addition to providing safer access to River Springs Middle School, the proposed sidewalk will provide local residents with safer access to public transportation, retail, medical facilities, churches, and other schools in the area.

PROJECT PURPOSE AND SCOPE

Adjacent to the study corridor, there is an existing four-foot wide sidewalk along the north side of East Ohio Avenue from South Thorpe Avenue, continuing west to US 17-92. There is an additional five-foot wide sidewalk located on the north side of East Ohio Avenue from Leavitt Avenue, continuing west approximately 340 feet. The purpose of this study is to determine the feasibility of connecting the existing sidewalks along East Ohio Avenue by constructing a 950-foot long segment of five-foot wide sidewalk. This location was identified as hazardous in the 2011 Bicycle and Pedestrian School Safety Review study report for River Springs Middle School due to the missing sidewalk. Providing continuous sidewalk coverage along East Ohio Avenue will not only benefit students, but will also improve safety for local residents walking or biking to the numerous commercial properties located along US 17-92, just west of the study corridor.

A cost estimate has been prepared as part of this study for Volusia TPO's budgeting and

planning purposes. For the purposes of data collection, concept development, corridor

evaluation and cost estimation, two field visits were conducted.

The analysis conducted was essential to develop a preliminary feasibility assessment. Our

research and investigations have indicated that the concepts portrayed in this document are

feasible, and we recommend proceeding with the design and construction of the sidewalk.

The graphics within this report include notes, diagrams and callouts identifying the apparent

right-of-way, driveways, existing sidewalks, and street names. Considerations include

conformance to the requirements of the Americans with Disabilities Act (ADA), appropriate

signage along the facility and at roadway and/or driveway crossings.

This study required coordination with several agency representatives and stakeholders which

the Study Team would like to thank for their continuing interest in this project and their

assistance:

Mr. James Kerr - City of Orange City

Mr. Stephan Harris – Volusia TPO

Mr. Amir Asgarinik – FDOT

E. BLUE SPRINGS AVE. LEAVITT AVE. BLUE SPRINGS VILLAS VOLUSIA PROJECT START E. OHIO AVE W. OHIO AVE. બું GREENLEAF GARDENS APARTMENTS U.S. 17-92 PROJECT END S. THORPE AVE. E. RHODE ISLAND AVE. **Project Location** Source: Google Maps

Figure 1 – Project Location Map

PROJECT LOCATION MAP

PHYSICAL INVENTORY AND ASSESSMENT OF RIGHT-OF-WAY

GENERAL DESCRIPTION

The project corridor is located within the City of Orange City. The proposed sidewalk is 0.18 miles in length and runs from South Thorpe Avenue to approximately 340 feet west of Leavitt Avenue. Currently there exists a four-foot wide sidewalk along the north side of East Ohio Avenue from South Thorpe Avenue, continuing west to US 17-92. There is an existing five-foot wide sidewalk along the north side of East Ohio Avenue beginning at the end of the study corridor and continuing east to Leavitt Avenue. There is approximately 950 feet along East Ohio Avenue where no sidewalk is present. The lack of continuous sidewalk along this stretch of road was deemed hazardous in the Bicycle and Pedestrian School Safety Review study report for River Springs Middle School which was prepared for the Volusia TPO in 2011. In addition to River Springs Middle School, there are two elementary schools located approximately three-fourths of a mile from the project. Students for all three schools will benefit from the proposed sidewalk.

The study area traverses through a highly residential area. Directly across the street from the proposed sidewalk, there is a multi-family apartment complex. Blue Springs Villas, which is a single family home residential community, borders the north side of the corridor. There is a mobile home community just beyond the eastern terminus, at the intersection of East Ohio Avenue and Leavitt Avenue. To the west of the corridor are many single family homes as well as additional multi-family apartment buildings located at the intersection of US 17-92 and East Ohio Avenue. While this section of East Ohio Avenue is mainly residential, there are numerous commercial properties along US 17-92 including several retail locations, medical facilities, banks, restaurants, churches, and office buildings. In addition, there are multiple Votran bus stops along US 17-92 near East Ohio Avenue, which is the local public transportation system. The posted speed limit throughout the corridor is 25 mph.

A preliminary field review to scope out the project was conducted by RS&H staff on August 30, 2012, and an additional field review was conducted by RS&H staff on October 18, 2012. During these reviews, existing land uses were noted, roadway crossings were assessed, underground and overhead utilities were inventoried, stormwater drainage features were identified, distance

and offset measurements of various elements were conducted, and numerous photographs were taken.

The field reviews started from the western terminus where East Ohio Avenue intersects with South Thorpe Avenue (Figure 2). There is a four-way stop condition between the two residential streets. The existing four-foot wide sidewalk just west of South Thorpe Avenue is located approximately twelve feet from the edge of pavement.

Figure 2 - Existing sidewalk heading west at South Thorpe Ave. and East Ohio Ave.

Figure 3 - Facing east at the corner of South Thorpe Ave.
and East Ohio Ave.

The parcel at the northeast corner of this intersection, shown in Figure 3, is a residential property (short parcel ID 8011-08-29-0116) with a single owner. There were several utilities noted on the southwest corner of the lot including three watermain boxes, a buried fiber optic cable marker, a Centurylink utility box, and a power pole. All were located within seven to thirteen feet north of the edge of travel lane. There is an existing fire hydrant along South Thorpe at approximately 22 feet offset from East Ohio Avenue.

There is significant overgrowth on the perimeter of the parcel along East Ohio, as seen in Figure 4. This vegetation will need to be cleared for the construction of the sidewalk. A Biodiversity Matrix for the project area was obtained from the Florida Natural Areas Inventory website, and is included in Appendix A. The matrix identifies state and federally tracked species that have been documented or could potentially occur within a 1 square-mile area that includes the project site. The plant species identified in the matrix, are herbaceous or low-growing woody species. Based on the maintained nature



of the open area and the urban setting of the project site, it does not appear that any of these species are present on this parcel. As such, the proposed sidewalk does not appear to impact any protected plant species.



The existing driveway for the single family home on this lot is dirt with an asphalt apron, shown in Figure 5. The asphalt apron is in poor condition, with significant erosion between the apron and the driveway dirt. A new ADA compliant concrete apron is recommended.



There are two concrete driveways located along the corridor. The existing concrete aprons can remain if there is a minimum fourfoot wide area along the turnout profile that is no steeper than 2%. This is necessary to maintain ADA compliance. The first concrete driveway provides access to the Volusia County Lift Station (Figure 6). Based on field observation, the profile of the concrete apron

appears to be much steeper than 2%. As such, we recommend, at a minimum, reconstructing the apron from the edge of travel lane to the back of sidewalk to provide a five-foot wide area with a 2% profile grade which lines up with the proposed sidewalk. Additional reconstruction beyond the back of sidewalk may be needed to tie back to the existing turnout. The second concrete driveway provides an access point to the Blue Springs Villas community. It appears to be in excellent condition, with no noticeable cracks or deficiencies. The profile of the concrete also appears to be relatively flat, and may be within the limits of ADA requirements. However, this cannot be verified without accurate survey information. Both existing concrete aprons should be surveyed prior to the design of this sidewalk.

There are several clusters of trees along the north side of East Ohio Avenue. One of the clusters of trees is shown in Figure 7. The distance between the edge of pavement and the front of the trees varies. In some cases, the trees are as close as 15 feet. All of the trees should be avoided by meandering the sidewalk closer to the road as it traverses past the trees. There is not a defined minimum buffer between the back of sidewalk and the front of the tree. However, when space allows, it is recommended to shift the sidewalk

Figure 7 - Cluster of trees located just west of the access drive to Blue Springs Villas

at least two feet away from the tree to minimize damage to the sidewalk from the tree roots, and to minimize any negative impacts to the tree during construction. In addition, a minimum eight-foot vertical clearance must be maintained from the top of sidewalk. Any branches or protrusions from the tree located within eight feet of the top of sidewalk must be removed.

Figure 8 - Power Pole located at eastern end of project (looking east)

Multiple power poles were noted along the north side of East Ohio Avenue, within the limits of the study area, one of which can be seen in Figure 8. All were measured to be between eight and nine feet from the edge of pavement to the face of the pole.

At the eastern end of the project, the proposed sidewalk will tie to the existing five-foot wide sidewalk, which continues to Leavitt Avenue. The front edge of the existing sidewalk is located nine feet from the edge of the pavement. Large cracks were noted in two of the first three slabs. It is recommended that these slabs be replaced during construction of the new sidewalk.



RIGHT-OF-WAY

East Ohio Avenue is a city street for which the City of Orange City has maintenance responsibility. The Volusia County Property Appraiser's Land Mapping system, the plat for the Blue Springs Villas community, and information provided by Mr. James Kerr, the City Planner for Orange City, was used to assess the right-of-way width. All information used to determine the apparent right-of-way during this study is included in Appendix B. There are only two parcels along the north side of East Ohio Avenue between South Thorpe Avenue and Leavitt Avenue. The west parcel is a single family lot with one owner. The City of Orange City does not own any right-of-way along this parcel. During the scoping meeting for this project, held on August 30, 2012, Mr. Kerr indicated that the City of Orange City intends to acquire right-of-way from this parcel owner in the near future. However, as of January 28, 2013, the City had not established a timeline for this acquisition. It is recommended that 30 feet of right-of-way be acquired along the 330-foot length of the parcel for a total of 9900 square-feet. Updated right-of-way maps

should be developed by a Professional Surveyor and Mapper (PSM). Upon completion of the maps, the City can begin the acquisition process. The design and construction of this project is anticipated to be supplemented with federal funding, designating it as a Local Agency Program (LAP) project. The City of Orange City will need to coordinate with the Florida Department of Transportation (FDOT) and fill out the LAP Right-of-Way Acquisition Worksheet, which is included in Appendix C. In addition, Appendix C includes the District 5 Right-of-Way Cost Estimate Confidence Ratings information, the FDOT-approved Right of Entry Agreement form, and the FDOT-approved Donation of Property form, all of which may be useful to the City throughout the course of the project. The right-of-way acquisition may be completed prior to or during the design phase. However, if it is to be completed during design, it must be accounted for in the schedule and have the necessary funds secured. The right-of-way must be acquired and certified prior to final design. Beyond this parcel is the Blue Springs Villas community, along which the City appears to have 30 feet of right-of-way from the centerline of the road to the north. The City has 30 feet of apparent right-of-way from the centerline of the road, to the south, from South Thorpe Ave., to 630 feet east. Beyond that point, the City does not own rightof-way to the south of the East Ohio Avenue centerline. The following table summarizes the apparent right-of-way information found.

Table 1 - Existing Roadway Apparent Right-of-Way

Street R/W	From	То	Approximate Linear Distance*	Apparent R/W Width
East Ohio Ave. North of centerline	Centerline of South Thorpe Ave.	330 LF East from centerline of South Thorpe Ave.	330 ft. (0.063 mi.)	None
East Ohio Ave. North of centerline	330 LF East from centerline of South Thorpe Ave.	End of Project	620 LF (0.117 mi.)	30 FT
East Ohio Ave. North of centerline	End of Project	South Leavitt Ave.	340 LF (0.064 mi.)	30 FT
		TOTAL DISTANCE	1290 ft. (0.24 mi.)	
East Ohio Ave. South of centerline	South Thorpe Ave.	630 LF East of South Thorpe Ave.	630 LF (0.119 mi.)	30 FT
East Ohio Ave. South of centerline	630 LF East of South Thorpe Ave.	South Leavitt Ave.	630 LF (0.119 mi.)	None
		TOTAL DISTANCE	1260 ft. (0.24 mi.)	

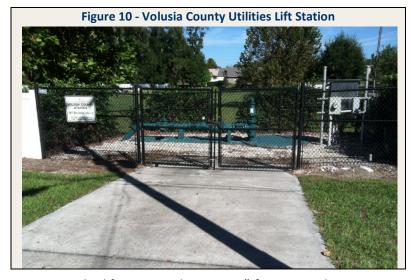
Sources: Volusia County Property Appraiser, City of Orange City

^{*}Note: The discrepancy between the total distance along the north side versus the total distance along the south side is that the right-of-way to be acquired on the north side extends to the centerline of South Thorpe Ave.

UTILITIES

The utilities assessment was made through field visits and coordination with City planning staff.

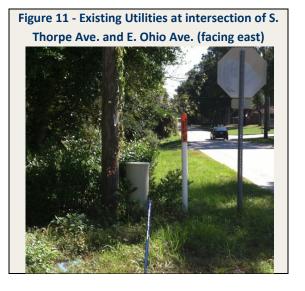
Overhead power lines are located along the entire corridor on the north side, between eight and nine feet off of the existing edge of pavement.



There is a lift station owned by Volusia County Utilities located toward the west end of the Blue Springs Villas parcel, shown in Figure 10. Based on the plat, provided by the City, Volusia County has a ten foot access easement at the back of the City's right-of-way, for

accessing the lift station. There is a 6" forcemain that crosses underneath East Ohio Avenue at the lift station, and then continues west along the south side of East Ohio Avenue to South Thorpe Avenue.

Multiple utilities were noted at the northeast corner of South Thorpe Avenue and East Ohio Avenue, some of which can be seen in Figure 11, including three watermain boxes, a buried fiber optic cable marker, a Centurylink Utility box, and overhead power lines. In addition, there is a fire hydrant on this corner. The Volusia County Property Appraiser's office was contacted to determine if there are any existing utility easements on this property. They did not have any information available in their files, nor was



there information on the historical plat they found through the Clerk of Courts records. The plat is included in Appendix B.

DRAINAGE AND PERMITTING

No existing drainage systems were identified during the field assessment of the project corridor. Based on Volusia County Geographic Information Services (GIS), it does not appear that there are any floodplains or wetlands that will be impacted by the proposed sidewalk. As such, it is anticipated that only a Permit Exemption will be needed from St. Johns River Water Management District for the design and construction of the sidewalk.

SOILS INFORMATION

The proposed sidewalk route traverses through Astatula Fine Sand (0 to 8% slopes). This is excessively drained soil with very rapid permeability. A soil map is included in Appendix D. This map was prepared through the Web Soil Survey (WSS) operated by the USDA Natural Resources Conservation Services (NCRS).

SIDEWALK CONCEPT PLAN

According to the City's application for this project, the concept is a five-foot wide sidewalk to connect the existing sidewalks located on the north side of East Ohio Avenue, between South Thorpe Avenue and Leavitt Avenue. The western end of the sidewalk shall be set back behind the existing utilities, but in front of the fire hydrant, to line up with the existing sidewalk to the west. Based on our assessment, and the proposed concept, all utilities can be avoided. Regardless, there should be coordination with the utility owners during the design phase of this project. The sidewalk will continue in an easterly direction shifting slightly closer to the road to an offset of approximately nine feet from the edge of pavement. The concept alignment maintains the nine foot grass strip between the sidewalk and travel lane throughout most of the corridor. As previously noted in this report, there are several clusters of trees along the corridor. It is our assessment that all of the trees can be avoided by meandering the sidewalk to the south, but not closer than seven feet from the edge of pavement. It is recommended that a new ADA compliant concrete apron be constructed on the parcel at the northeast corner of South Thorpe Ave. and East Ohio Ave. Based on our field observations, a portion of the existing concrete apron located at the lift station, should be reconstructed to provide an ADA complaint cross slope. The third driveway, providing emergency access to the Blue Springs Villas

community, does not appear to require any reconstruction; however, this cannot be verified without survey. The cross slopes of both existing concrete aprons should be surveyed during the design of this project to verify the assessments regarding ADA compliance made in this report. For cost estimating purposes, the concept shows all three turnouts being reconstructed. The proposed sidewalk shall tie to the existing sidewalk that currently ends approximately 340 feet west of Leavitt Avenue. As previously noted, there are large cracks in two of the last three slabs of the existing sidewalk. Therefore, it is recommended that the last three slabs be removed and reconstructed as part of this project. The concept alignment and typical section that have been developed are shown in Exhibits 1-3.

FINANCIAL FEASIBILITY

Table 2 provides a preliminary cost estimate for the design and construction of the proposed sidewalk. This cost estimate is to be considered an opinion of probable cost based solely on the results of this feasibility study. The item number and unit of measure are based on the Florida Department of Transportation (FDOT) Basis of Estimates Manual. The unit prices are based on historical average costs for each pay item as provided by FDOT. Some unit prices may have been inflated due to the small nature of the project. The cost estimate does not include right-of-way acquisition or permitting fees that may be associated with the final design phase. The cost estimate for the design and construction of the proposed five-foot wide sidewalk is \$48,552.

To adjust for potential future increases in the project's cost estimate, an annual inflationary factor may be applied. The Florida Department of Transportation provides annual inflation factors for roadway construction costs which may be used as a guideline for this sidewalk project. The 2013 cost estimate provided herein may be adjusted by the FDOT inflationary factors (included in Appendix E) for the next three years as follows:

The inflation adjusted cost estimate for the East Ohio Avenue Sidewalk for 2014, 2015, and 2016 is \$50,154, \$51,805, and \$53,504, respectively.

Table 2- Quantities and Cost Estimate

	ENGINEER'S ESTIMATE O	F PROBA	BLE CONSTRU	CTIO	N COST		
PAY ITEM NO.	ITEM DESCRIPTION	UNIT	BASE QTY		SE UNIT COST	тот	AL COST
101-1	MOBILIZATION	LS	1		10%	\$	2,750
102-1	MAINTENANCE OF TRAFFIC	LS	1		10%	\$	2,750
104-10-3	SEDIMENT BARRIER	LF	960	\$	1.00	\$	960
110-1-1	CLEARING AND GRUBBING	AC	0.44	\$	7,600.00	\$	3,315
110-4	REMOVAL OF EXISTING CONCRETE PAVEMENT	SY	9	\$	13.00	\$	117
120-1	REGULAR EXCAVATION	CY	220	\$	6.00	\$	1,320
522-1	CONCRETE SIDEWALK, 4" THICK	SY	506	\$	27.00	\$	13,662
522-2	CONCRETE SIDEWALK, 6" THICK	SY	101	\$	35.00	\$	3,535
570-1-2	PERFORMANCE TURF, SOD	SY	1504	\$	3.00	\$	4,512
711-11- 123	12" WHITE SOLID STRIPE (THERMOPLASTIC)	LF	40	\$	2.00	\$	80
					SUBTOTAL	\$	33,002
N/A	ENGINEERING AND DESIGN	LS	1		35%	\$	11,551
N/A	SURVEY	LS	1	\$	4,000.00	\$	4,000
					TOTAL	\$	48,552
	FDOT Inflation-Adjusted Estimate		Inflation Factor	٨	PDC ∕Iultiplier	-	sted Cost timate
	Year 1 Inflation-adjusted Estimate (2	014)	3.3%		1.033	\$	50,154
	Year 2 Inflation-adjusted Estimate (2	015)	3.3%		1.067	\$	51,805
	Year 3 Inflation-adjusted Estimate (2	016)	3.3%		1.102	\$	53,504

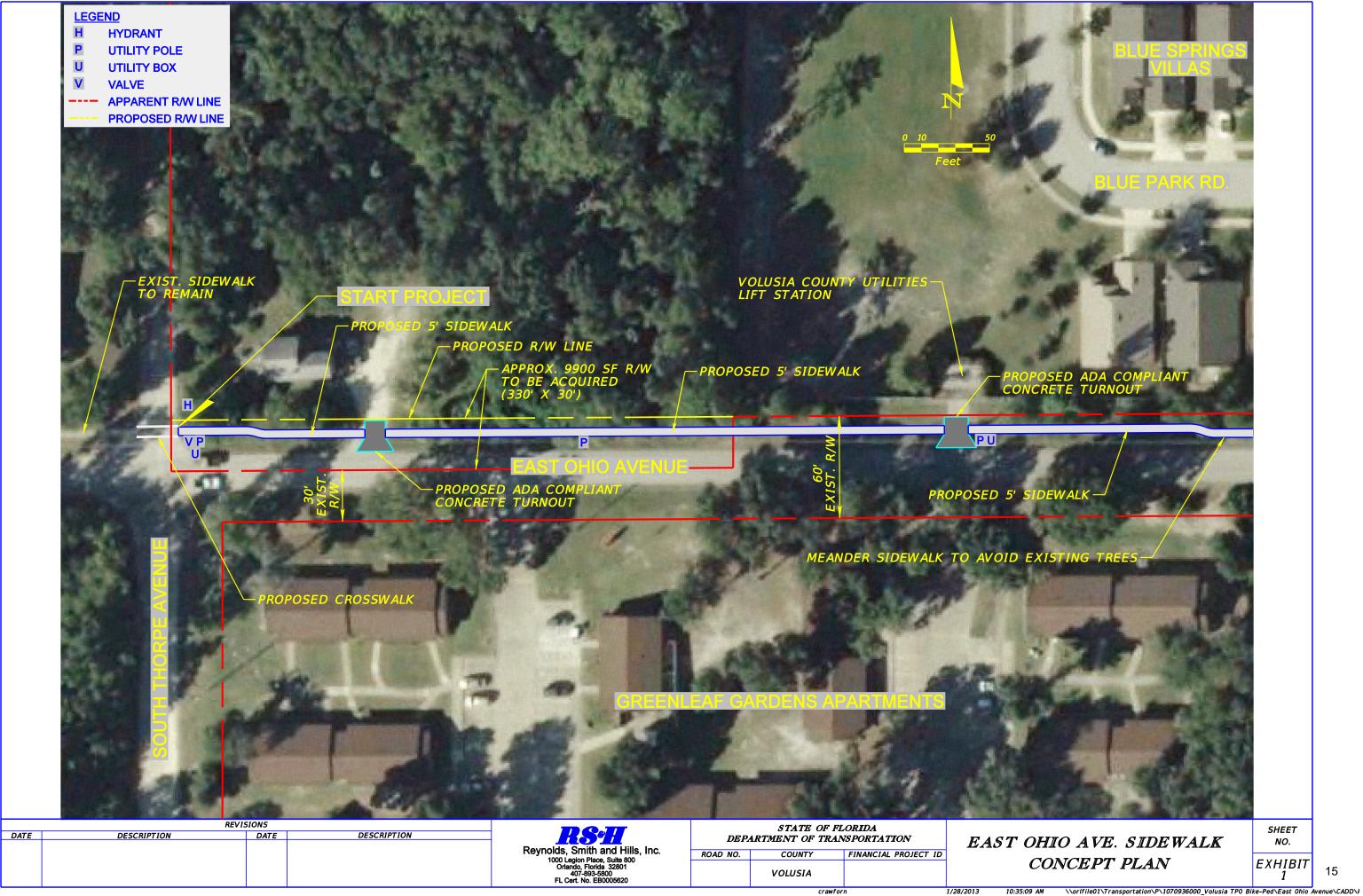
CONCLUSION

The purpose of this study was to evaluate the feasibility of connecting the existing sidewalk along the north side of East Ohio Avenue, in Orange City, Florida, from South Thorpe Avenue to just west of Leavitt Avenue. The proposed sidewalk is approximately 0.18 miles in length. As a result of this study, it has been determined that constructing this sidewalk is feasible. However, right-of-way will need to be acquired along the parcel located at the northeast corner of South Thorpe Avenue and East Ohio Avenue, prior to final design.

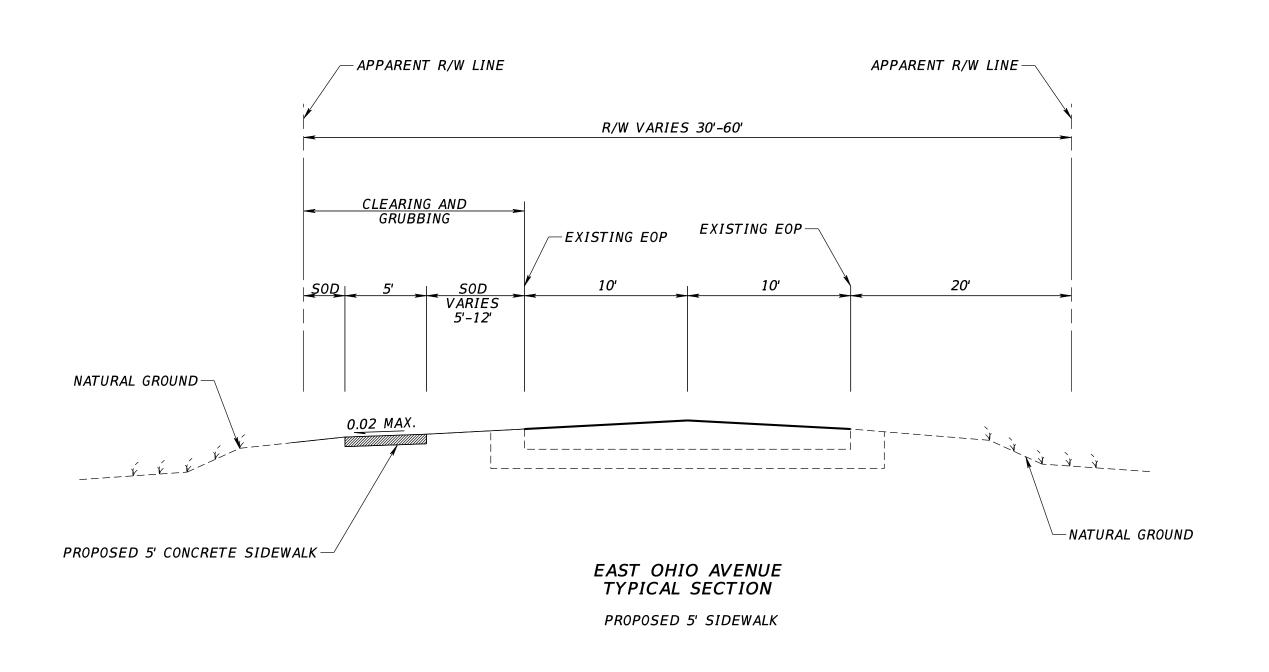
DATA COLLECTION REFERENCES

Data collection sources used in the report included the following:

- City of Orange City, http://www.ourorangecity.com/
- City of Orange City, Florida Submittal of XU Bicycle/Pedestrian Project application
- National Resources Conservation Service, Soil Survey of Volusia County (1980), http://soildatamart.nrcs.usda.gov/manuscripts/FL127/0/volusia.pdf
- Volusia TPO, http://www.volusiatpo.org/
- FDOT 2012 Basis of Estimates Manual
- Volusia County Property Appraiser's Land Mapping System
- Bicycle and Pedestrian School Safety Review Study for River Springs Middle School, Lassiter Transportation Group, Inc.
- Google Maps, https://maps.google.com/
- Volusia County Geographic Information Services (GIS)
- 2012 FDOT Volusia County Aerials, http://www.dot.state.fl.us/surveyingandmapping/
- 2010 ADA Standards for Accessible Design
- Volusia County Utilities, Wastewater Collection Atlas (provided by Jim Kerr, City Planner, City of Orange City)
- Florida Natural Areas Inventory, http://www.fnai.org/







REVISIONS DESCRIPTION DESCRIPTION DATE DATE

Reynolds, Smith and Hills, Inc. 1000 Legion Place, Suite 800 Orlando, Florida 32801 407-893-5800 FL Cert. No. EB0005620

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION FINANCIAL PROJECT ID ROAD NO. COUNTY

EAST OHIO AVE. SIDEWALK CONCEPT TYPICAL SECTION

SHEET NO. EXHIBIT 3

17

VOLUSIA

APPENDIX A

Florida Natural Areas Inventory Biodiversity Matrix



1018 Thomasville Road Tallahassee, FL 32303 850-224-8207 www.fnai.org

Florida Natural Areas Inventory

Biodiversity Matrix Query Results UNOFFICIAL REPORT

Created 1/22/2013

(Contact the FNAI Data Services Coordinator at 850.224.8207 for information on an official Standard Data Report)

NOTE: The Biodiversity Matrix includes only rare species and natural communities tracked by FNAI.

Report for 1 Matrix Unit: 48823



Descriptions

DOCUMENTED - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit.

DOCUMENTED-HISTORIC - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit; however the occurrence has not been observed/reported within the last twenty years.

LIKELY - The species or community is *known* to occur in this vicinity, and is considered likely within this Matrix Unit because:

- 1. documented occurrence overlaps this and adjacent Matrix Units, but the documentation isn't precise enough to indicate which of those Units the species or community is actually located in; or
- 2. there is a documented occurrence in the vicinity and there is suitable habitat for that species or community within this Matrix Unit.

POTENTIAL - This Matrix Unit lies within the known or predicted range of the species or community based on expert knowledge and environmental variables such as climate, soils, topography, and landcover.

Matrix Unit ID: 48823

0 **Documented** Elements Found

0 Documented-Historic Elements Found

12 Likely Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Mesic flatwoods	G4	S4	N	N
Mesic flatwoods	G4	S4	N	N
Mesic flatwoods	G4	S4	N	N

Mesic flatwoods	G4	S4	N	N
<u>Mycteria americana</u> Wood Stork	G4	S2	LE	FE
<u>Mycteria americana</u> Wood Stork	G4	S2	LE	FE
<u>Mycteria americana</u> Wood Stork	G4	S2	LE	FE
<u>Mycteria americana</u> Wood Stork	G4	S2	LE	FE
Scrub	G2	S2	N	N
Scrub	G2	S2	N	N
Scrub	G2	S2	N	N
Scrub	G2	S2	N	N

Matrix Unit ID: 48823

17 **Potential** Elements for Matrix Unit 48823

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Alligator mississippiensis American Alligator	G5	S4	SAT	FT(S/A)
Alligator mississippiensis American Alligator	G5	S4	SAT	FT(S/A)
Athene cunicularia floridana Florida Burrowing Owl	G4T3	S3	N	SSC
Athene cunicularia floridana Florida Burrowing Owl	G4T3	S3	N	SSC
Conradina grandiflora Large-flowered Rosemary	G3	S3	N	LT
Conradina grandiflora Large-flowered Rosemary	G3	S3	N	LT
<u>Deeringothamnus rugelii</u> Rugel's Pawpaw	G1	S1	LE	LE
<u>Deeringothamnus rugelii</u> Rugel's Pawpaw	G1	S1	LE	LE
<u>Drymarchon couperi</u> Eastern Indigo Snake	G3	S3	LT	FT
<u>Drymarchon couperi</u> Eastern Indigo Snake	G3	S3	LT	FT
Gopherus polyphemus Gopher Tortoise	G3	S3	С	ST
Gopherus polyphemus Gopher Tortoise	G3	S3	С	ST
Grus canadensis pratensis Florida Sandhill Crane	G5T2T3	S2S3	N	ST
<u>Grus canadensis pratensis</u> Florida Sandhill Crane	G5T2T3	S2S3	N	ST
<u>Hartwrightia floridana</u> Hartwrightia	G2	S2	N	LT
<u>Hartwrightia floridana</u> Hartwrightia	G2	S2	N	LT
<u>Heterodon simus</u> Southern Hognose Snake	G2	S2	N	N
Heterodon simus Southern Hognose Snake	G2	S2	N	N
Lechea cernua Nodding Pinweed	G3	S3	N	LT
Lechea cernua Nodding Pinweed	G3	S3	N	LT

•				
<i>Mustela frenata peninsulae</i> Florida Long-tailed Weasel	G5T3	S3	N	N
<i>Mustela frenata peninsulae</i> Florida Long-tailed Weasel	G5T3	S3	N	N
<u>Nemastylis floridana</u> Celestial Lily	G2	S2	N	LE
<u>Nemastylis floridana</u> Celestial Lily	G2	S2	N	LE
<u>Notophthalmus perstriatus</u> Striped Newt	G2G3	S2S3	С	N
<u>Notophthalmus perstriatus</u> Striped Newt	G2G3	S2S3	С	N
<u>Picoides borealis</u> Red-cockaded Woodpecker	G3	S2	LE	FE
<u>Picoides borealis</u> Red-cockaded Woodpecker	G3	S2	LE	FE
Rana capito Gopher Frog	G3	S3	N	SSC
Rana capito Gopher Frog	G3	S3	N	SSC
<u>Sciurus niger shermani</u> Sherman's Fox Squirrel	G5T3	S3	N	SSC
<u>Sciurus niger shermani</u> Sherman's Fox Squirrel	G5T3	S3	N	SSC
<u>Ursus americanus floridanus</u> Florida Black Bear	G5T2	S2	N	ST*
<u>Ursus americanus floridanus</u> Florida Black Bear	G5T2	S2	N	ST*

Disclaimer

The data maintained by the Florida Natural Areas Inventory represent the single most comprehensive source of information available on the locations of rare species and other significant ecological resources statewide. However, the data are not always based on comprehensive or site-specific field surveys. Therefore, this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. FNAI shall not be held liable for the accuracy and completeness of these data, or opinions or conclusions drawn from these data. FNAI is not inviting reliance on these data. Inventory data are designed for the purposes of conservation planning and scientific research and are not intended for use as the primary criteria for regulatory decisions.

Unofficial Report

These results are considered unofficial. FNAI offers a Standard Data Request option for those needing certifiable data.

Using a ranking system developed by NatureServe and the Natural Heritage Program Network, the Florida Natural Areas Inventory assigns two ranks for each element. The global rank is based on an element's worldwide status; the state rank is based on the status of the element in Florida. Element ranks are based on many factors, the most important ones being estimated number of Element Occurrences (EOs), estimated abundance (number of individuals for species; area for natural communities), geographic range, estimated number of adequately protected EOs, relative threat of destruction, and ecological fragility.

FNAI GLOBAL ELEMENT RANK

- G1 = Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- G2 = Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- G3 = Either very rare and local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
- G4 = Apparently secure globally (may be rare in parts of range).
- G5 = Demonstrably secure globally.
- GH = Of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker).
- GX = Believed to be extinct throughout range.
- GXC = Extirpated from the wild but still known from captivity or cultivation.
- G#? = Tentative rank (e.g., G2?).
- G#G# = Range of rank; insufficient data to assign specific global rank (e.g., G2G3).
- G#T# = Rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1).
- G#Q = Rank of questionable species ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q).
- G#T#Q = Same as above, but validity as subspecies or variety is questioned.
- GU = Unrankable; due to a lack of information no rank or range can be assigned (e.g., GUT2).
- GNA = Ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- GNR = Element not yet ranked (temporary).
- GNRTNR = Neither the element nor the taxonomic subgroup has yet been ranked.

FNAI STATE ELEMENT RANK

- S1 = Critically imperiled in Florida because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- S2 = Imperiled in Florida because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- S3 = Either very rare and local in Florida (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
- S4 = Apparently secure in Florida (may be rare in parts of range).
- S5 = Demonstrably secure in Florida.
- SH = Of historical occurrence in Florida, possibly extirpated, but may be rediscovered (e.g., ivory-billed woodpecker).
- SX = Believed to be extirpated throughout Florida.
- SU = Unrankable; due to a lack of information no rank or range can be assigned.
- SNA = State ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- SNR = Element not yet ranked (temporary).

FEDERAL LEGAL STATUS

Legal status information provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant federal agency.

Definitions derived from U.S. Endangered Species Act of 1973, Sec. 3. Note that the federal status given by FNAI refers only to Florida populations and that federal status may differ elsewhere.

- C = Candidate species for which federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.
- LE = Endangered: species in danger of extinction throughout all or a significant portion of its range.
- LE, LT = Species currently listed endangered in a portion of its range but only listed as threatened in other areas
- LE, PDL = Species currently listed endangered but has been proposed for delisting.
- LE, PT = Species currently listed endangered but has been proposed for listing as threatened.
- LE, XN = Species currently listed endangered but tracked population is a non-essential experimental population.
- LT = Threatened: species likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.
- SAT = Treated as threatened due to similarity of appearance to a species which is federally listed such that enforcement personnel have difficulty in attempting to differentiate between the listed and unlisted species.
- SC = Not currently listed, but considered a "species of concern" to USFWS.

STATE LEGAL STATUS

Provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant state agency.

Animals: Definitions derived from "Florida's Endangered Species and Species of Special Concern, Official Lists" published by Florida Fish and Wildlife Conservation Commission, 1 August 1997, and subsequent updates.

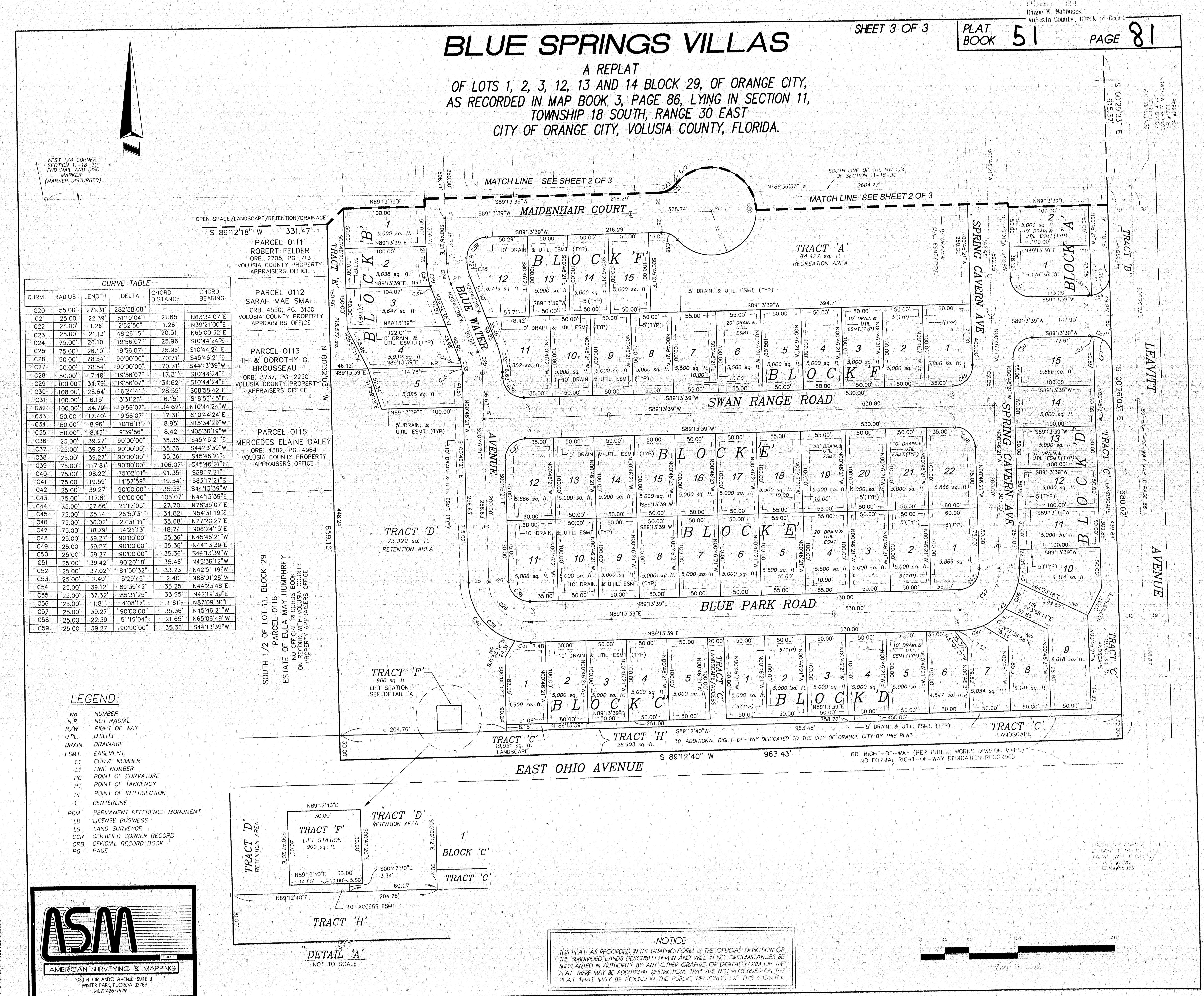
- FE = Listed as Endangered Species at the Federal level by the U. S. Fish and Wildlife Service
- FT = Listed as Threatened Species at the Federal level by the U. S. Fish and Wildlife Service
- F(XN) = Federal listed as an experimental population in Florida
- FT(S/A) = Federal Threatened due to similarity of appearance
- ST = State population listed as Threatened by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future. (ST* for Ursus americanus floridanus (Florida black bear) indicates that this status does not apply in Baker and Columbia counties and in the Apalachicola National Forest. ST* for Neovison vison pop.1 (Southern mink, South Florida population) indicates that this status applies to the Everglades population only.)
- SSC = Listed as Species of Special Concern by the FFWCC. Defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species. (SSC* indicates that a species has SSC status only in selected portions of its range in Florida. SSC* for Pandion haliaetus (Osprey) indicates that this status applies in Monroe county only.)
- N = Not currently listed, nor currently being considered for listing.

Plants: Definitions derived from Sections 581.011 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Florida Division of Plant Industry, 352-372-3505 or see: http://www.doacs.state.fl.us/pi/.

- LE = Endangered: species of plants native to Florida that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue; includes all species determined to be endangered or threatened pursuant to the U.S. Endangered Species Act.
- LT = Threatened: species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in number as to cause them to be Endangered.
- N = Not currently listed, nor currently being considered for listing.

APPENDIX B

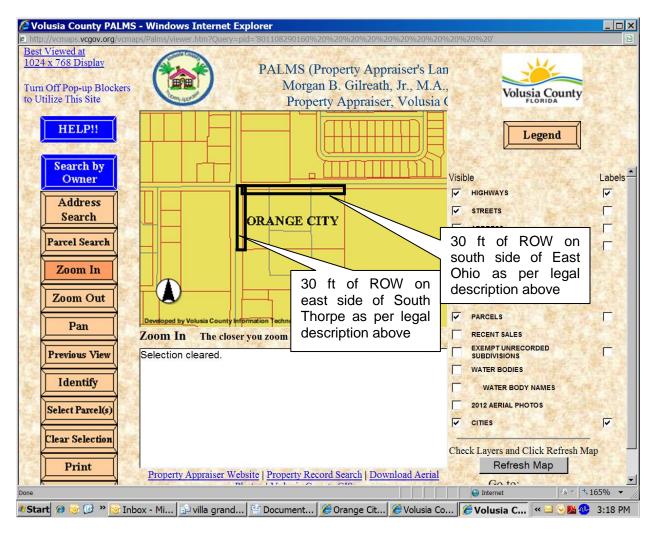
Historical Plats and Parcel Information



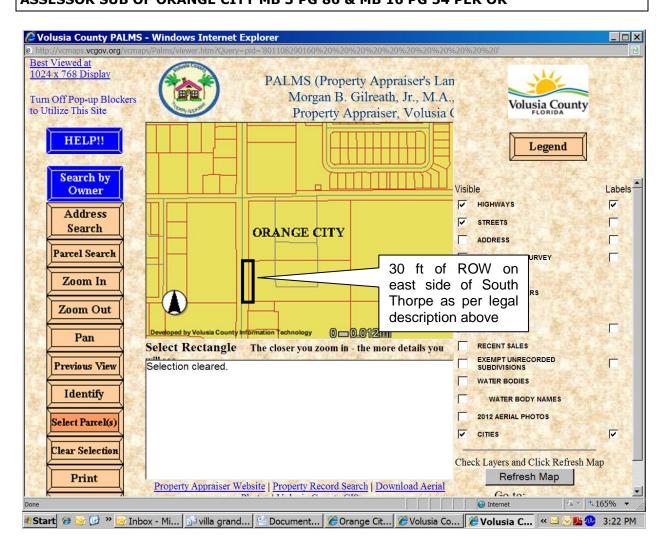
1 48/8/11 SPRINGS V4.48 FP FAGE 12.8 3 dwg. 62/20341115 07 4

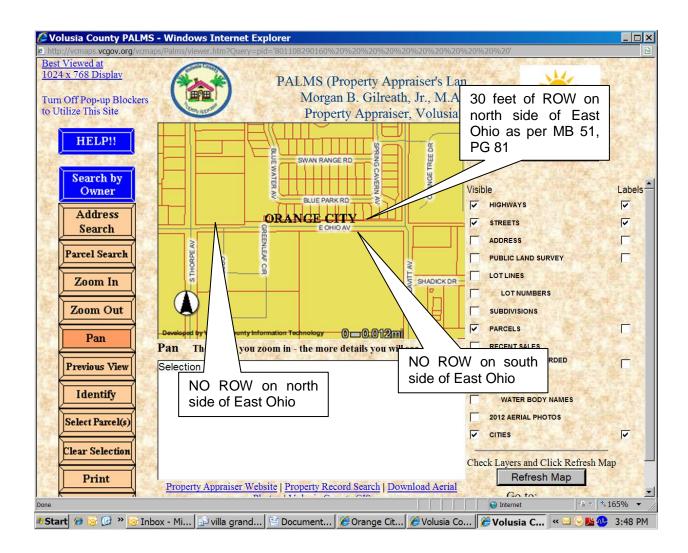
Full Parcel ID	11-18-30-08-29-0160	Mill Group	014 Overse City
Short Parcel ID	8011-08-29-0160	willi Group	014 Orange City

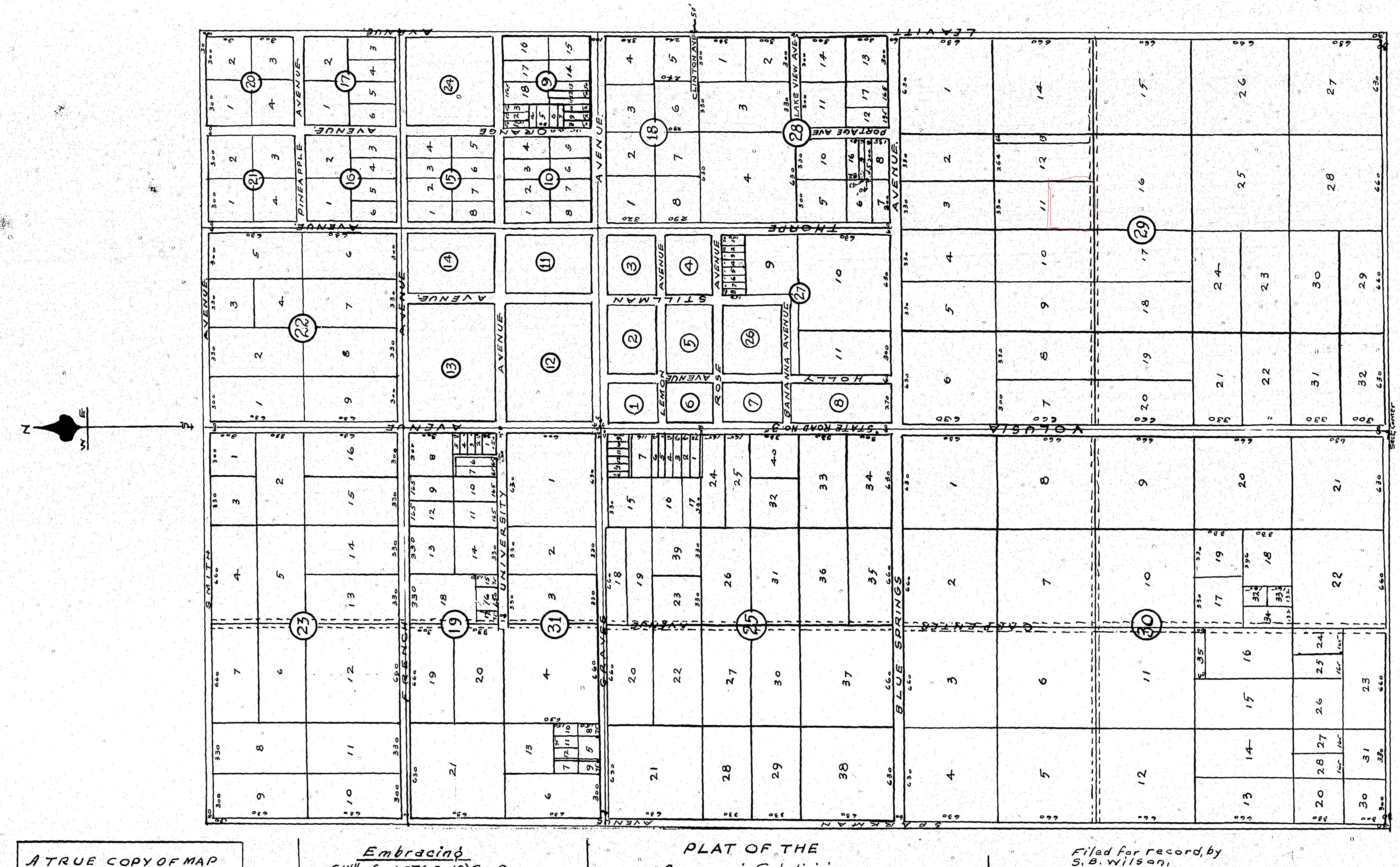
N	390 FT	OF LOT	Г 16 EXC I	N 30 FT W 30 FT 8	& E 30 FT BLK 29			
A:	SSESSO	R SUB	OF ORAN	GE CITY MB 3 PG	86 & MB 16 PG 54	PER OF	₹	
S	ALES	HIS	TORY					
#	воок	PAGE	DATE	INSTRUMENT	QUALIFICATION	IMPR	OVED?	SALE PRICE
1	2963	1850	4/1987	Warranty Deed	Unqualified Sale Yes			100
2	2482	1104	8/1983	Warranty Deed	Unqualified Sale	No		100
3	2473	0807	7/1983	Warranty Deed	Multi parcel sale	No		
	Alternate	e Key	2376546	3	2012 Final Millage	Rate	25.11	130
	Parcel S	tatus	Active Pa	arcel	PC Code		03	
	Date Cre	eated	18 DEC 1	.981				
	Owner N	Name	GREENLE	AF GARDENS LT)	•		



Full Parcel ID Short Parcel ID	11-18-30-08-29-0161 8011-08-29-0161	Mill Group	014 Orange City
Alternate Key	4937196	2012 Final Millage Rate	25.11130
Parcel Status	Active Parcel	PC Code	03
Date Created	03 JUN 1987		
Owner Name	GREENLEAF GARDENS R	RH LTD II	
Owner Name/Address 1	C/O FLYNN MANAGEME	NT CORP	
Owner Address 2	516 LAKEVIEW RD STE	8	
Owner Address 3	CLEARWATER FL		
Owner Zip Code	33756		
Location Address	957 GREENLEAF GARDE	N CT ORANGE CITY 32:	763
LEGAL DESCR	IPTION		
LOT 16 EXC N 390 FT 8	& EXC W 30 FT & EXC E 30	0 FT BLK 29	,
ASSESSOR SUB OF OR	ANGE CITY MB 3 PG 86 &	MB 16 PG 54 PER OR	







ATRUE COPY OF MAP IN BOOK NO. 3 PAGE NO. 86 CLERK D,C,

S.W/4. (or L.OTS, 9+10) Sec 2, and S.E/4(or L.ots; 7+8) Sec 3, and W/2 of Sec. 1/4 E/2 Sec 10 Twp. 18, S.R. 30 East.


Blocks, 1-2-3-4-5-6-7-8-11-12-13-14 and part 18, are same as in E.R. Trafford's Map of Orange City, Map Book 1- Page 7.

Assessors Subidivision... ORANGE GITTE Volusia County,

ooo FILORIDA oo Scale-500'=1" Orawn From Original, by. J.F. Miccorkel, 1941. Filed for record, by 5. B. Wilson, Tax Assessor Yol. County, Florida

Filed in Office
1895.
1818 Jondon Blk
1848 Jondon DE.

This Supersedes Map In Map Book 3. Page 39.



APPENDIX C

FDOT Right-of-Way Forms and Confidence Ratings

District 5 Right of Way Cost Estimate Confidence Ratings:

Introduction: The development of a right of way cost estimate is the product of four (4) essential components consisting of:

- (1) Quality and availability of the engineering or right of way exhibits.
- (2) Quality and availability of market data.
- (3) Time frame with which to develop the estimate.
- (4) Ability and experience of the individual cost estimator.

The combination of these four essential elements serves as the foundation for the overall reliability of the right of way cost estimate. The following confidence levels represent a summation of these essential elements as they pertain to the development and reliability of an individual right of way cost estimate.

- A High level of confidence Usually prepared from 100% Right of Way Maps with excellent topography identified along with parcel sizes. Adequate sales and listing data are available. Adequate time is allowed to research available data and develop the estimate.
- B Good level of confidence Prepared from maps which have identified parcels and definite acquisition areas. Adequate sales and listing data are available. Adequate time is allowed to research available data and develop the estimate.
- C Average level of confidence Prepared from plans or maps which have identified parcels and definite acquisition areas. However, limited data and/or inadequate time required to analyze data typifies this confidence level.
- D Fair level of confidence Much of the needed data is lacking. Parcels may not be individually identified. A lack of project information as well as market data typifies this confidence level. Data lacking may include maps, sales, or adequate listing information. Time allowed to develop the estimate is not adequate to overcome these as well as other obstacles necessary to produce a more reliable estimate.
- E Poor level of confidence Plans or aerial maps usually lack any identified parcels and have only approximate R/W widths or take areas to work from. Market data and processing time are inadequate to produce a more reliable estimate.
- F No confidence None of the three elements consisting of plans/maps, market data, or adequate time necessary for the development of an accurate cost estimate are provided or available for consideration by the estimator.

Local Agency Program Right of Way Acquisition Worksheet	gram Right of Way Acq	cquisitic	n Worksheet
Agency: Project No.:	Parcel No.:		Consultant/Agent:
	1		
FDOT Item/Segment No.: FAP No.:	Owner:		IN Date:
QA Review by: QA Review Date:			
I. Property Owner Notification	Yes	No N/A	A Comments
1. Was Notice to Owner (FDOT Form No. 575-030-031(32) or equivalent) delivered at or before Negotiations? <i>Date Delivered:</i>			
2. Was the Notice sent to the owner's last known address listed on the county ad valorem tax roll?			
3. Was the Notice personally delivered or sent certified mail, return receipt requested?			
4. Was ownership in the form of a representative capacity, i.e., corporation, partnership or trust?			
5. If answer to #4 is yes, was Public Disclosure Notice (FDOT Form No. 575-030-18 or equivalent), delivered to the owner?			
II. Business Owner Notification	Yes	No N/A	A Comments
1. Are there any businesses located on this parcel?			
2. If answer to #1 is yes, was Notice to Business Owner (FDOT Form No. 575-030-033(34) or equivalent) delivered at or after I.N.? Date Delivered:	4)		
3. Based on the Secretary of State, Division of Corporations, was the registered agent notified?			
4. Was the business eligible for business damages?			
5. Was a business damage claim paid?			
III. Offer(s)	Yes	No N/A	A Comments
1. Was Offer and Purchase Agreement (FDOT Form No. 575-030-07 or equivalent) delivered directly to the Property Owner?			
2. Did we obtain a written acknowledgement of the Property Owner's receipt of the Offer? If property owner refused to sign, note in comment section.			
3. Was the offer amount based on recommended compensation?			
4. Was use of Appraisal Waiver properly executed?			
5. If an uneconomic remnant was identified by the review appraiser, was an offer to purchase the uneconomic remnant made?			
IV. Good Faith Negotiations	Yes	No N/A	Comments
1. Were good faith negotiations carried out with representative after Representative Authorization (FDOT Form No. 575-030-02 or equivalent) was received? If property owner was not represented, write "N/A" in the comment section.			
2. Did property owner request copies of appraisal, maps or plans?			
3. If answer to #2 is yes, were copies provided within 15 days of owner's request?			
4. Were good faith negotiations conducted with current appraisal values?			
5. If real property was donated, was the owner informed of his/her right to have an appraisal performed and a right to compensation?			
6. Did the Agency provide any construction or regulatory elements in lieu of compensation that exceeded the value of the real estate?			

V. Suit	Yes	0 N	Z/Z	Comments
1. Did 30 days pass after offer was made before suit was filed?				
2. If applicable, was notice to business owner delivered prior to filing of suit?				
3. Was the Public Disclosure Affidavit returned within 48 hours after OT deposit was made for ownerships in the form of a representative capacity such as a corporation, partnership or trust?				
VI. Agreement	Yes	2	۷ Z	Comments
1. Was an Agreement reached?				
2. Was Agreement inclusive of Fees & Costs?				
3. Was Agreement reviewed by Legal?				
4. Was Final Agency Acceptance granted at least 30 days after agreement was signed by both parties? FAA Date				
VII. Closing	Yes	9	A/A	Comments
1. Was Closing Statement (FDOT Form No. 575-030-16 or equivalent) prepared? Date of Closing_				
2. Did the closing take place within 60 days after Final Agency Acceptance?				
3. Were documents accurate and properly executed?				
4. Were all closing documents recorded no later than 48 hours after closing?				
Was the Public Disclosure Affidavit returned at least 10 days prior to closing for ownerships in the form of a representative capacity, such as a corporation, partnership or trust?				
VIII. Settlements	Yes	No	A/A	Comments
1. Was Settlement Approval (FDOT Form No. 575-030-24 or equivalent) approved by the proper authority?				
2. Was the settlement a justifiable expenditure based on settlement criteria?				
IX. Fees and Costs	Yes	No	N/A	Comments
1. Were fees and costs based on an invoice or statutory formula? Method Used:				
2. Were fees and costs identified on the Purchase Agreement/Supplemental Agreement?				
X. 1099S	Yes	No	A/A	Comments
 Was Request for Taxpayer ID (FDOT Form No. 575-030-27 or equivalent) delivered to non-excluded property owners? (Excluded = de minimis transactions and exempt transferors) 				
2. Was Form 1099S delivered to the property owner at closing or before December 31 of the calendar year in which the closing was held?. 1099S Delivery Date:				
XI. LAP Certification	Yes	No	A/A	Comments
1. Was the Right of Way Certification (FDOT Form No. 575-095-05 or equivalent) executed, accurate, and submitted to the Right of Way Office prior to letting? Date Certified:				
Additional Comments:				

NOTE: THIS FORM SHOULD BE PRINTED ON OFFICIAL LETTERHEAD

Donation of Property to the County / or City

USE THIS AREA FOR TYPING NAME & ADDRESS

ITEM/SEGMENT NO.:
F.A.P. NO.:
COUNTY / CITY ROAD NO. or PROPERTY ADDRESS:
COUNTY/CITY:
PARCEL NO.:
INTEREST CONVEYED:
This is to advise that the undersigned, as owner of the property or property interest referenced above and as shown on Right of Way maps for referenced project, desires to make a voluntary donation of said property or property interest to the County / City for the use and benefit of the County / City.
The undersigned hereby acknowledges that he/she has been fully advised by a City / County representative of his/her right to have the referenced property or property interest appraised, to accompany the appraiser during the appraisal inspection of the property, to receive full compensation for the above referenced property, and to receive reimbursement for reasonable fees and costs incurred, if any. Having been fully informed of the above rights, I hereby waive those rights unless otherwise noted below.
Owner's Signature
Type or Print Property Owner's Name
Street Address
City, State, Zip Code
Date

RIGHT OF ENTRY AGREEMENT

Name (Please print or type)	Name (Please print or ty		
Signature Date	Signature	Date	
By:	DEPARTMENT OF TRABE		
	STATE OF FLORIDA		
OWNER:	DWNER: DEPARTMENT:		
*3. This right of entry is limited to demolonly (consisting of fencing, a light post, 10'cl re-seeding with grass.	=	= = = = = = = = = = = = = = = = = = = =	
*2. The contractor shall contact the owner owner's property.	at 407/831-4053, prior to com	mencing any work on the	
*1. The contractor shall maintain access to with FDOT regulations.	1311 Windsor Avenue during	demolition in accordance	
NOW, THEREFORE, in consideration Department hereby agree that the Department right to enter upon the Owner's remaining large noted below*. It is further understood and representative will restore the remaining lands	t and/or its duly authorized rep nds for the purpose of performing agreed that the Department a	oresentative shall have the ng demolition activities as and/or its duly authorized	
WHEREAS, the Department is con referenced project; and	ducting roadway improvemen	nts relative to the above	
	TITNESSETH:		
Hereinafter called the "owner" and the Staticalled the 'DEPARTMENT".	e of Florida Department of Tr	ransportation, herein after	
THIS AGREEMENT, made and enter and between	red into on the day of	, 2009, by	
STATE OF Florida COUNTY OF Seminole			
County: Parcel No.:			
Financial Project ID: County Road:			

APPENDIX D

Soil Survey Map



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Units

Special Point Features

Blowout

■ Borrow Pit

Closed Depression

Gravel Pit

.. Gravelly Spot

Landfill

∧ Lava Flow

علد Marsh or swamp

Mine or Quarry

Miscellaneous Water

Rock Outcrop

Perennial Water

•

+ Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Spoil Area

Stony Spot

...

Very Stony Spot

٠

Wet Spot

Other

Special Line Features

 \sim

Gully

Short Steep Slope

1

Other

Political Features

0

Cities

Water Features

_

Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

MAP INFORMATION

Map Scale: 1:2,470 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Volusia County, Florida Survey Area Data: Version 10, Sep 27, 2012

Date(s) aerial images were photographed: 11/5/2007

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Volusia County, Florida (FL127)				
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI	
4	Astatula fine sand, 0 to 8 percent slopes	18.2	100.0%	
Totals for Area of Interest		18.2	100.0%	

APPENDIX E

FDOT Inflation Factor Table

FLORIDA DEPARTMENT OF TRANSPORTATION



TRANSPORTATION COSTS REPORTS

Inflation Factors

This "Transportation Costs" report is one of a series of reports issued by the Office of Policy Planning. It provides information on inflation factors and other indices that may be used to adjust project costs.

Please note that the methodology for Inflationary adjustments relating to specific transportation projects should be addressed with the district office where the project will be located. For general use or non-specific areas, the general guidelines provided herein may be used for inflationary adjustments.

Construction Cost Inflation Factors

The table below includes the inflation factors and present day cost (PDC) multipliers that are applied to the Department's Work Program for highway construction costs expressed in Fiscal Year 2012 dollars.

Fiscal Year	Inflation Factor	PDC Multiplier	
2012	Base	1.000	
2013	3.3%	1.033	
2014	3.3%	1.067	
2015	3.3%	1.102	
2016	3.3%	1.139	
2017	3.3%	1.176	
2018	3.3%	1.215	
2019	3.3%	1.255	
2020	3.3%	1.297	
2021	3.3%	1.339	
2022	3.3%	1.384	
Source: Office of Financial Development, (Fiscal Year 2012 is July 1, 2011 to June 30, 2012)			

Other Transportation Cost Inflation Factors

Other indices may be used to adjust project costs for other transportation modes or non construction costs. Examples are as follows:

8/2/2010 Page 1 of 2

The <u>Consumer Price Index</u> (CPI, also retail price index) is a weighted average of prices of a specified set of products and services purchased by wage earners in urban areas. Restated, it is a price index which tracks the prices of a specified set of consumer products and services, providing a measure of inflation. The CPI is a fixed quantity price index and a reasonable cost-of-living index.

The <u>Employment Cost Index</u> (ECI) is based on the National Compensation Survey. It measures quarterly changes in compensation costs, which include wages, salaries, and other employer costs for civilian workers (nonfarm private industry and state and local government).

The <u>Producer Price Index for Highways and Streets</u> (PPI) is maintained annually by the U.S. Department of Commerce's Bureau of Economic Analysis (BEA). It is part of the National Income Product Accounts Table. Unfortunately, the U.S. Department of Labor's Bureau of Labor Statistics (BLS) has recently discontinued the monthly series, <u>Producer Price Index for Highway and Street Construction</u>. Although a new monthly series, <u>Producer Price Index for Other Non-residential Construction</u>, is now available from BLS, we recommend the BEA's PPI as a record of cost escalation in highway construction costs since 1997.

Advisory Inflation Factors For Previous Years

Another "Transportation Costs" report is available covering highway construction cost inflation for previous years. "Advisory Inflation Factors For Previous Years (1987-2011) provides Present Day Cost (PDC) multipliers that enable project cost estimates from previous years to be updated to FY 2011. For the table and text providing this information, please go to http://www.dot.state.fl.us/planning/policy/costs/RetroCostInflation.pdf.

This report is one in a series on transportation costs. The latest version of this and other reports are available at http://www.dot.state.fl.us/planning/policy/costs/default.asp