

LEGEND

Poverty Rates

0% - 2.8%
2.9% - 6.1%
6.2% - 12%
12.1% - 72%

Data Source: FGDL (2016)

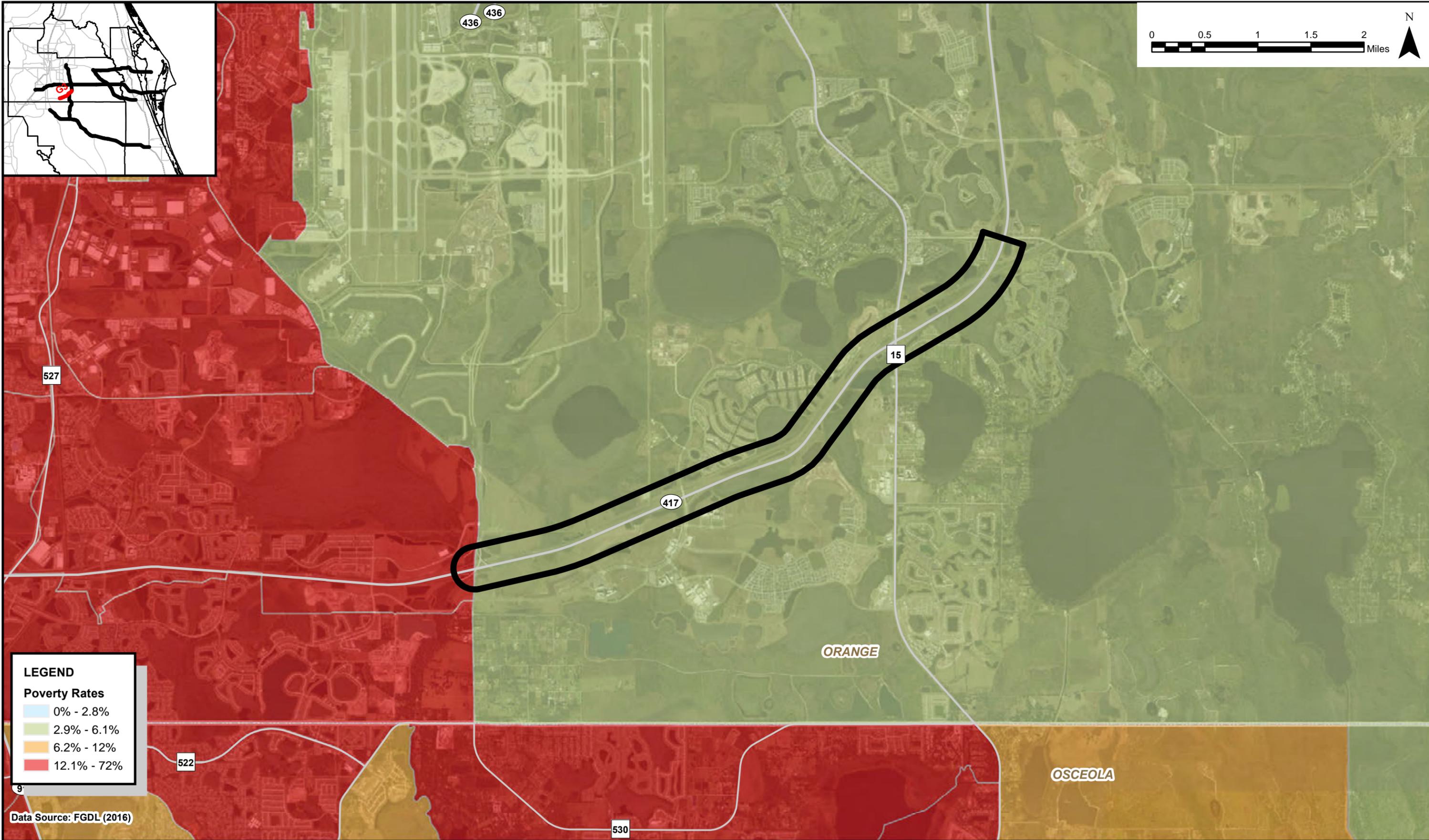
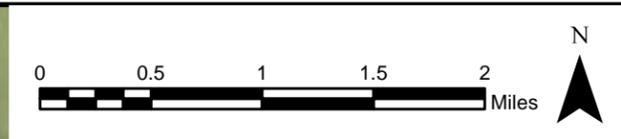
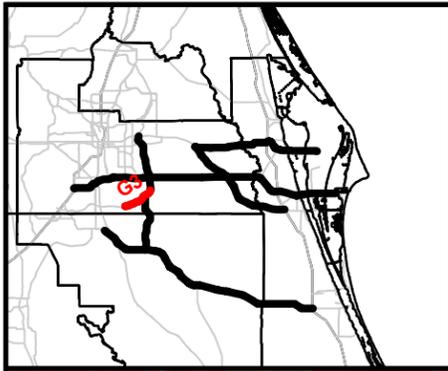


East Central Florida Corridor Evaluation Study



Corridor G Household Poverty Rates

**FIGURE
6.2-2**
SEGMENT G2



LEGEND
Poverty Rates

0% - 2.8%
2.9% - 6.1%
6.2% - 12%
12.1% - 72%

Data Source: FGDL (2016)

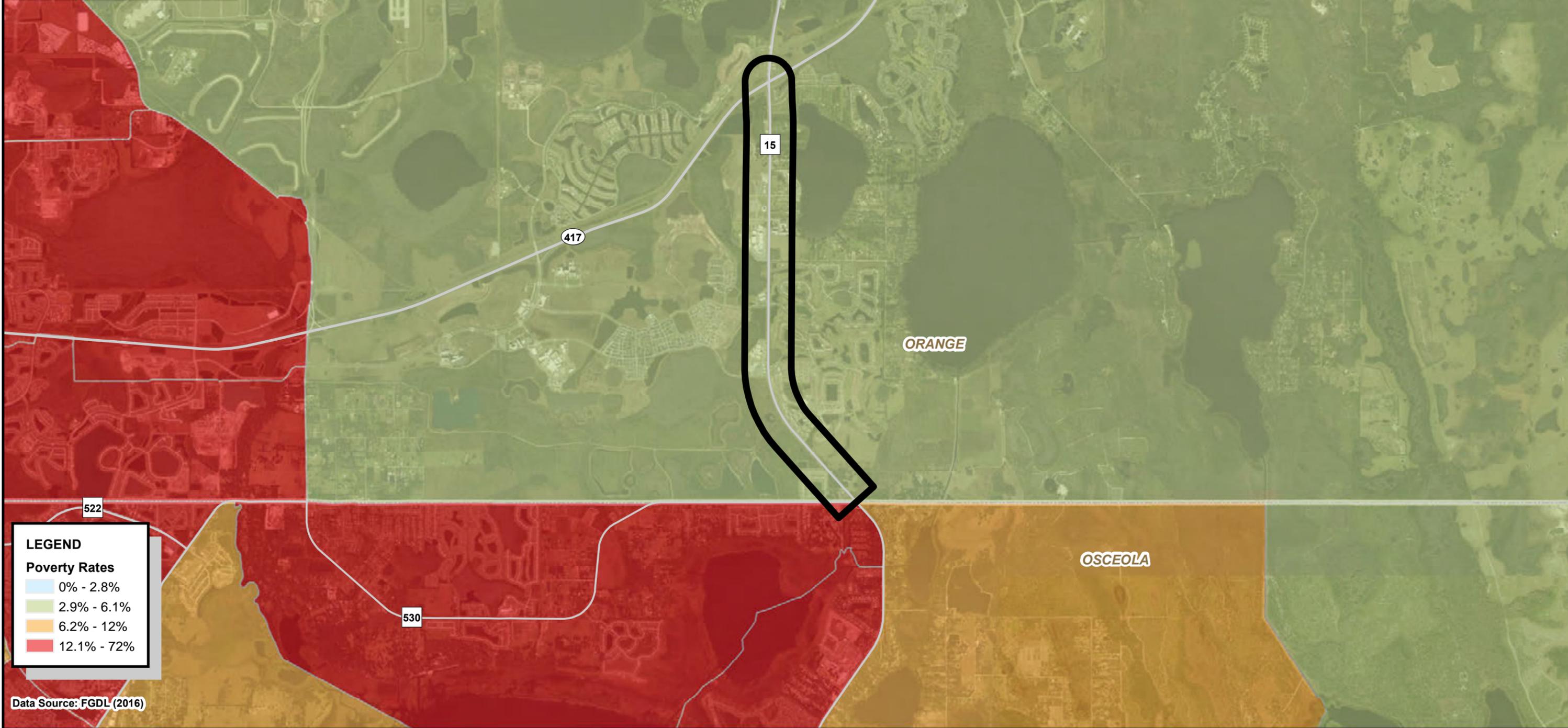
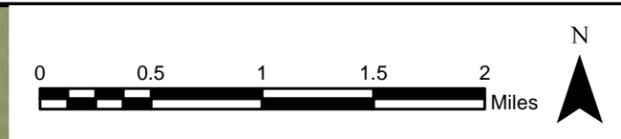
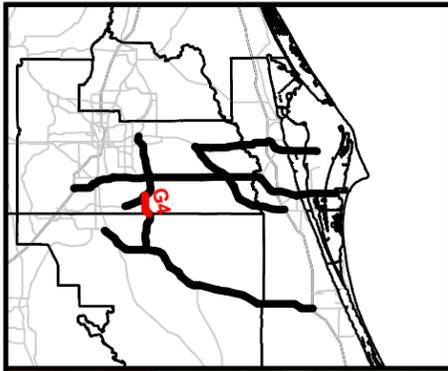


East Central Florida Corridor Evaluation Study



Corridor G Household Poverty Rates

**FIGURE
6.2-2**
SEGMENT G3



LEGEND

Poverty Rates

0% - 2.8%
2.9% - 6.1%
6.2% - 12%
12.1% - 72%

Data Source: FGDL (2016)

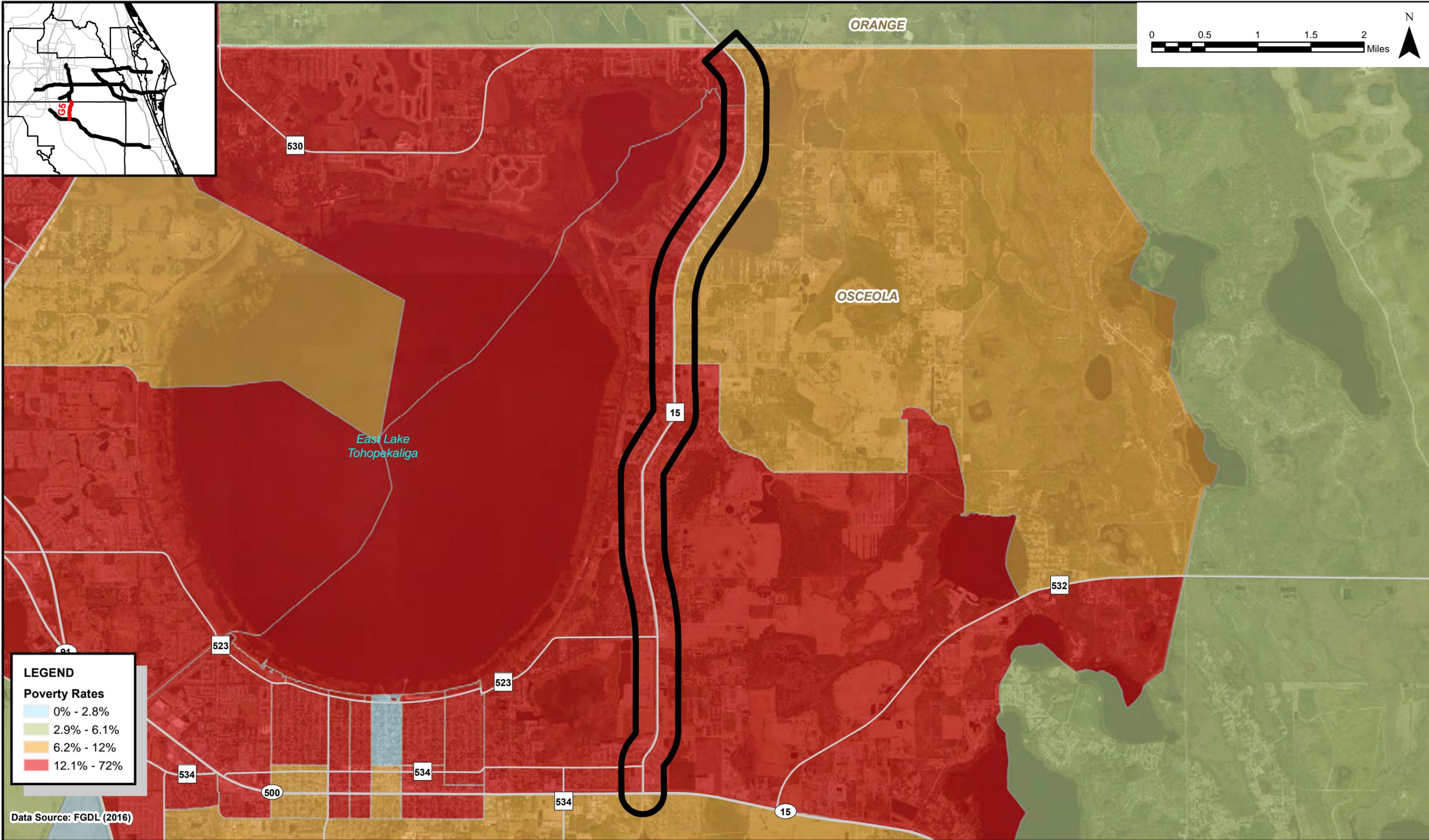
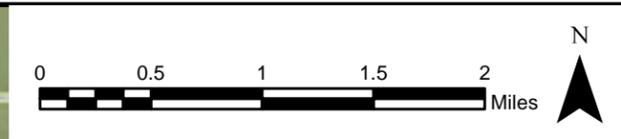
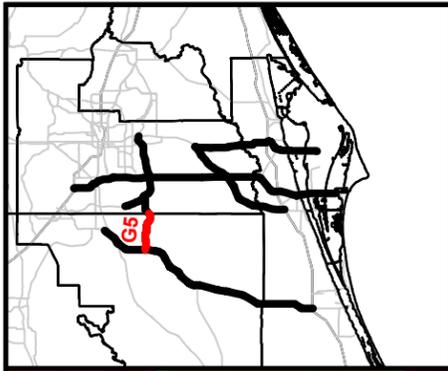


East Central Florida Corridor Evaluation Study



Corridor G Household Poverty Rates

FIGURE
6.2-2
SEGMENT G4



LEGEND

Poverty Rates

0% - 2.8%
2.9% - 6.1%
6.2% - 12%
12.1% - 72%

Data Source: FGDL (2016)

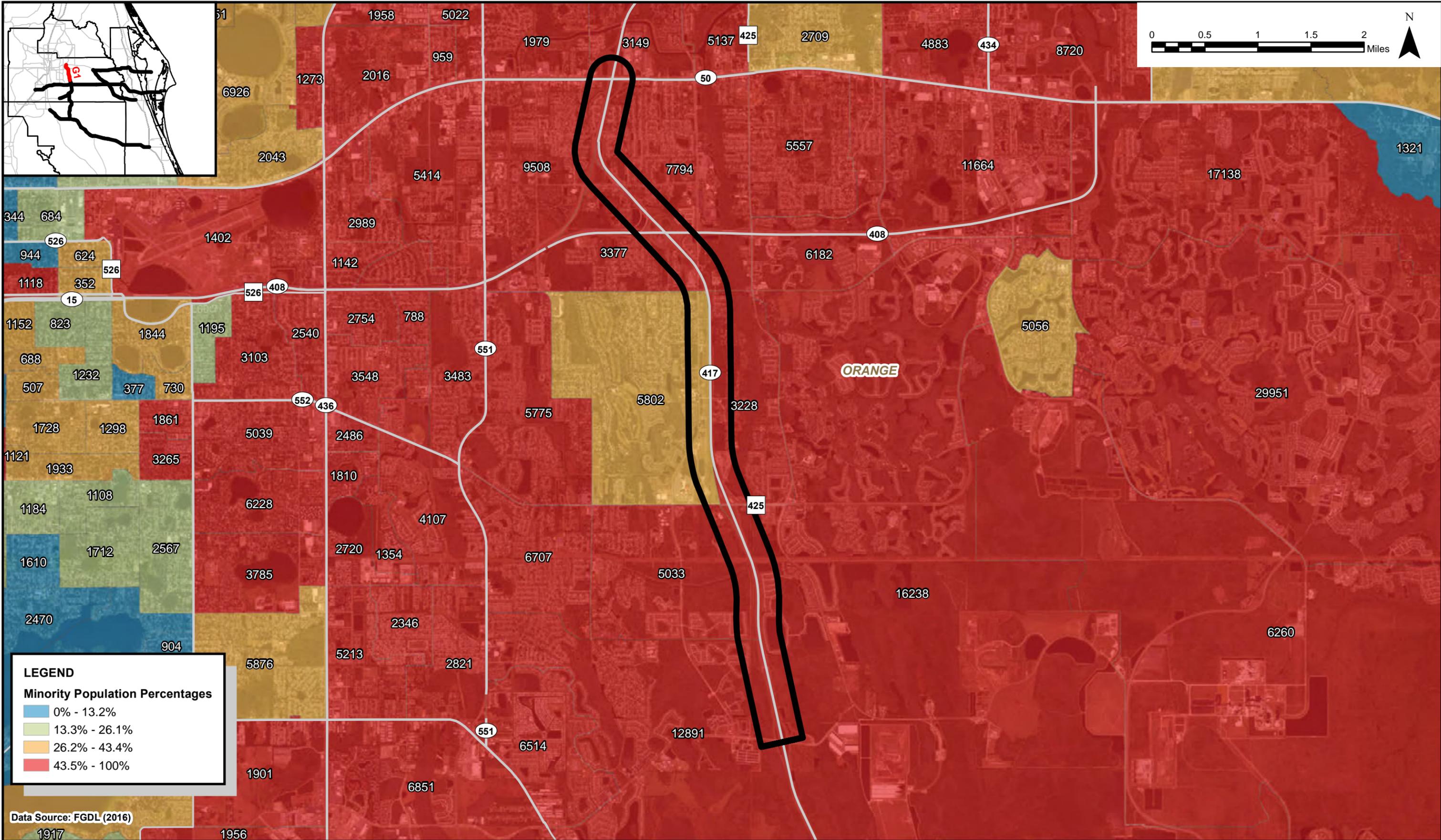


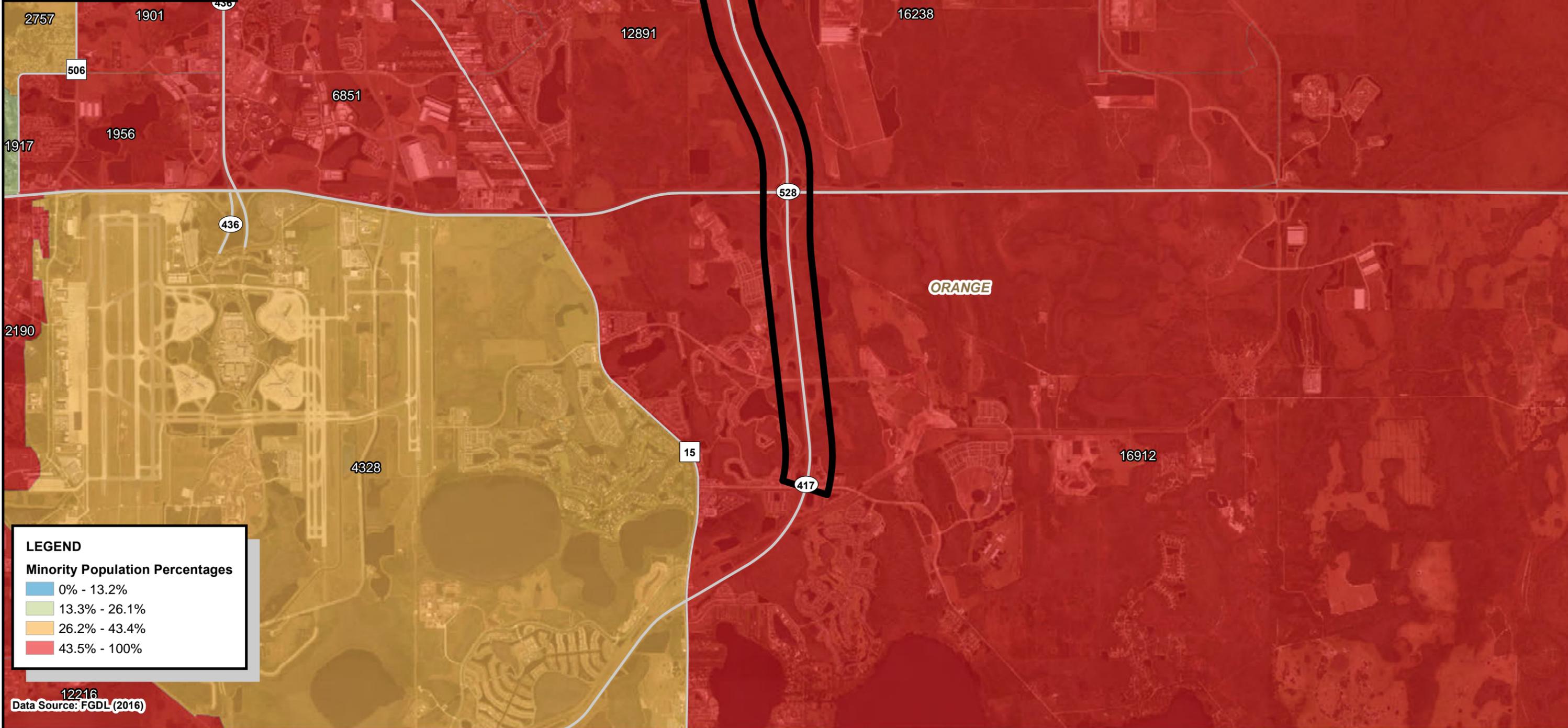
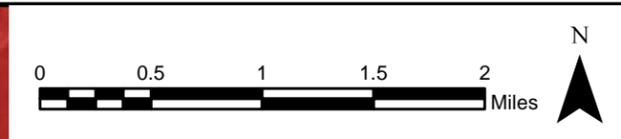
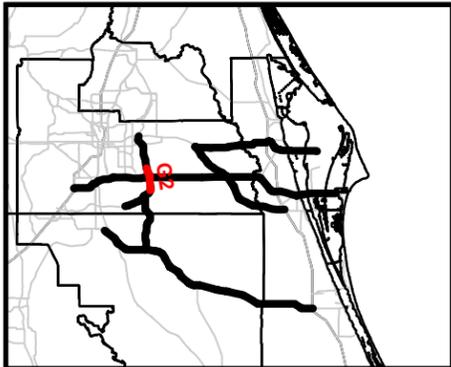
East Central Florida Corridor Evaluation Study



Corridor G Household Poverty Rates

**FIGURE
6.2-2**
SEGMENT G5





LEGEND

Minority Population Percentages

- 0% - 13.2%
- 13.3% - 26.1%
- 26.2% - 43.4%
- 43.5% - 100%

12216
Data Source: FGDL (2016)

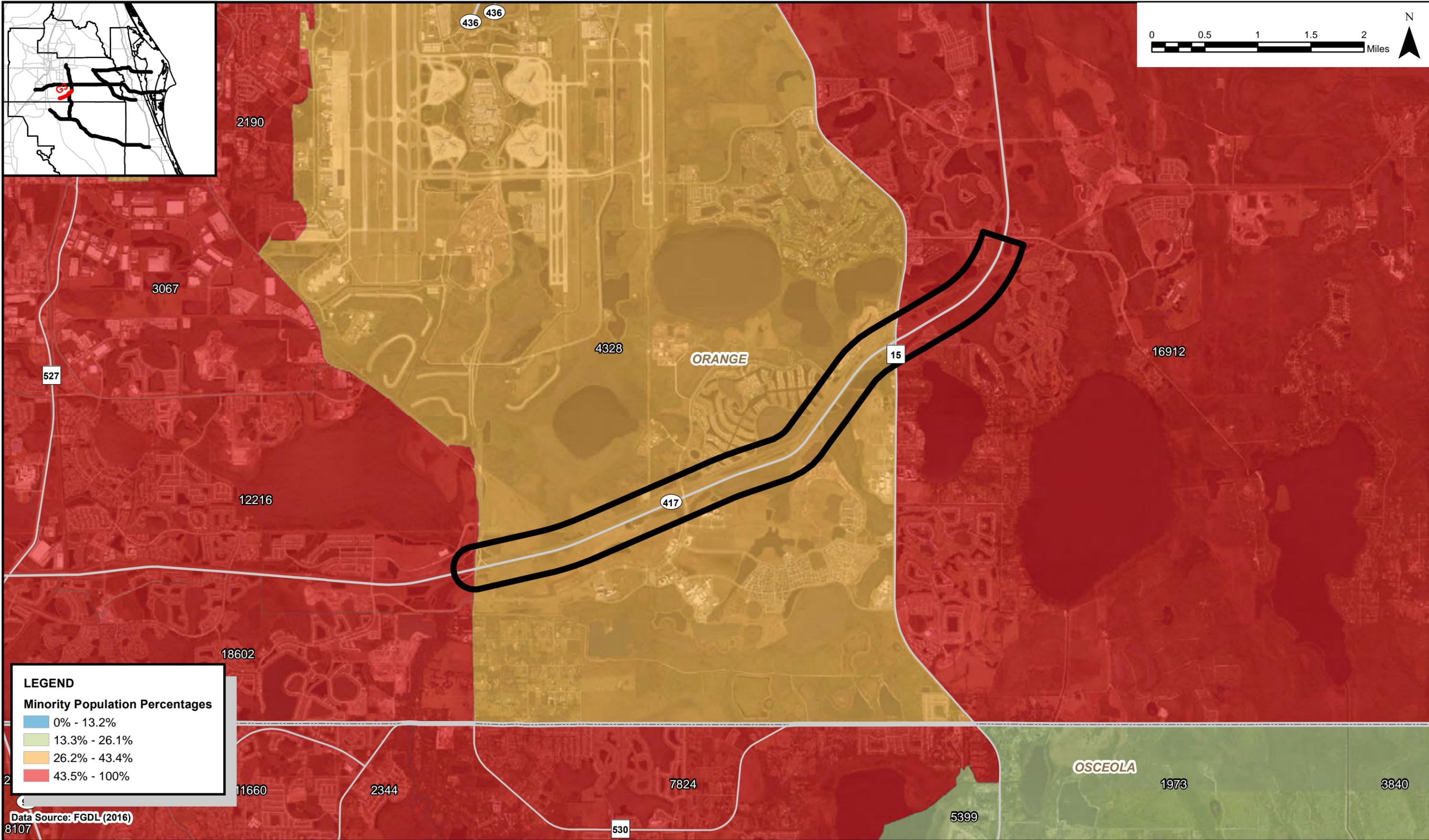
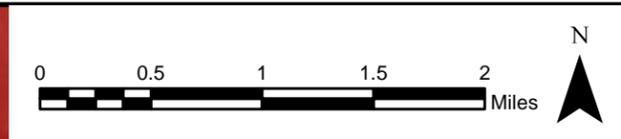
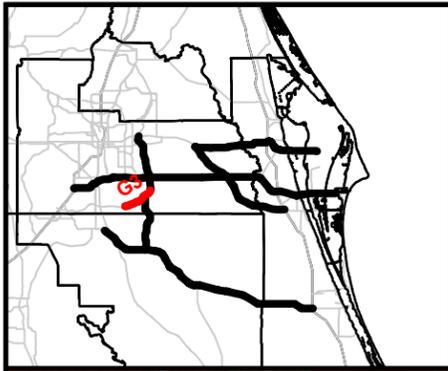


East Central Florida Corridor Evaluation Study



Corridor G
Minority Population

FIGURE
6.2-3
SEGMENT G2



LEGEND

Minority Population Percentages

- 0% - 13.2%
- 13.3% - 26.1%
- 26.2% - 43.4%
- 43.5% - 100%

Data Source: FGDL (2016)

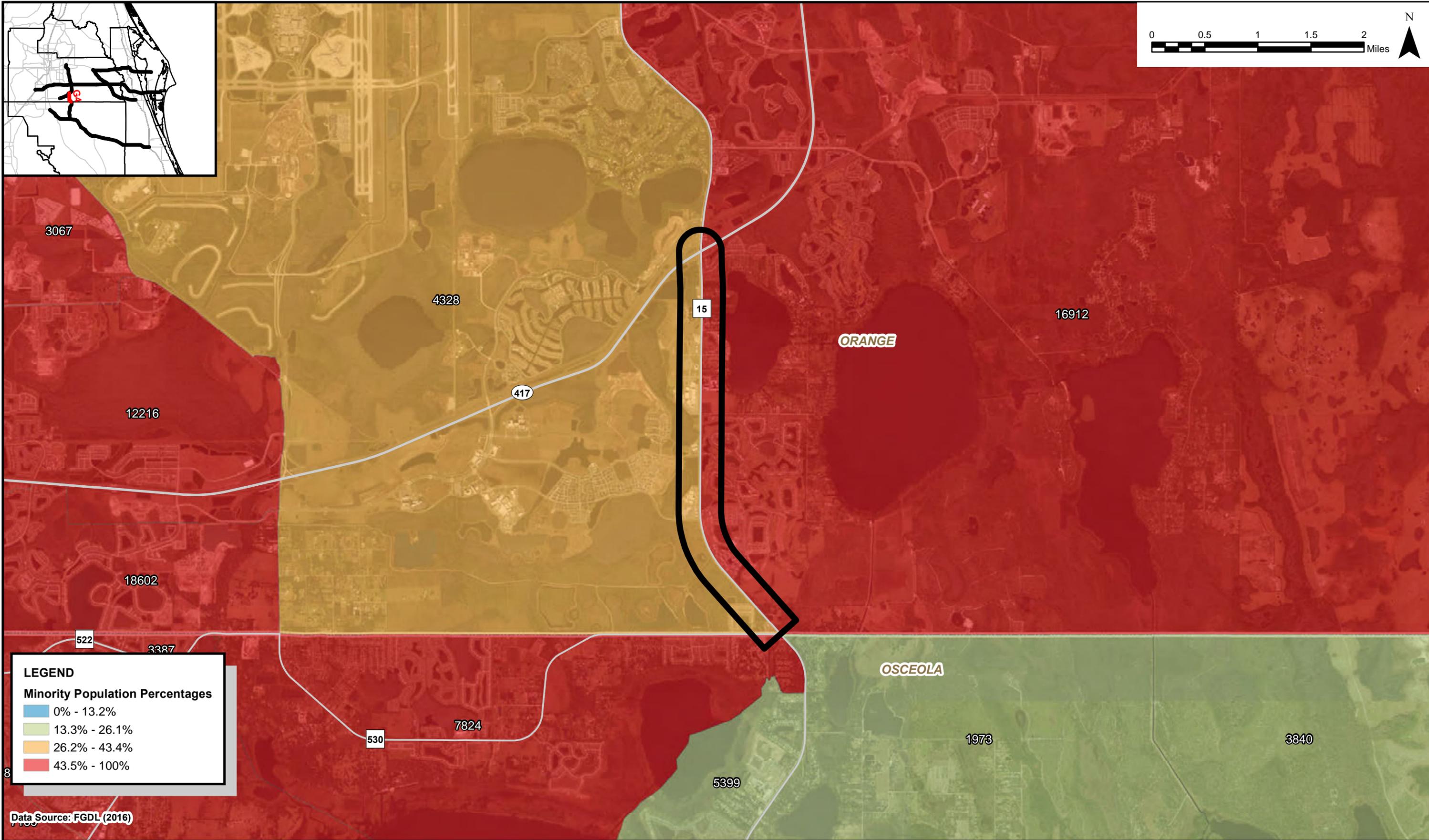
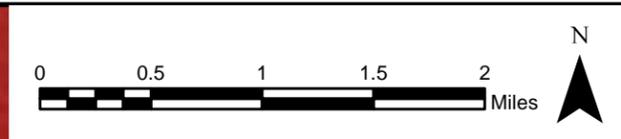
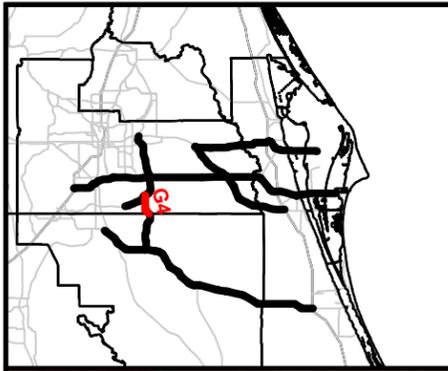


East Central Florida Corridor Evaluation Study



Corridor G Minority Population

**FIGURE
6.2-3**
SEGMENT G3



LEGEND
Minority Population Percentages

0% - 13.2%
13.3% - 26.1%
26.2% - 43.4%
43.5% - 100%

Data Source: FGDL (2016)

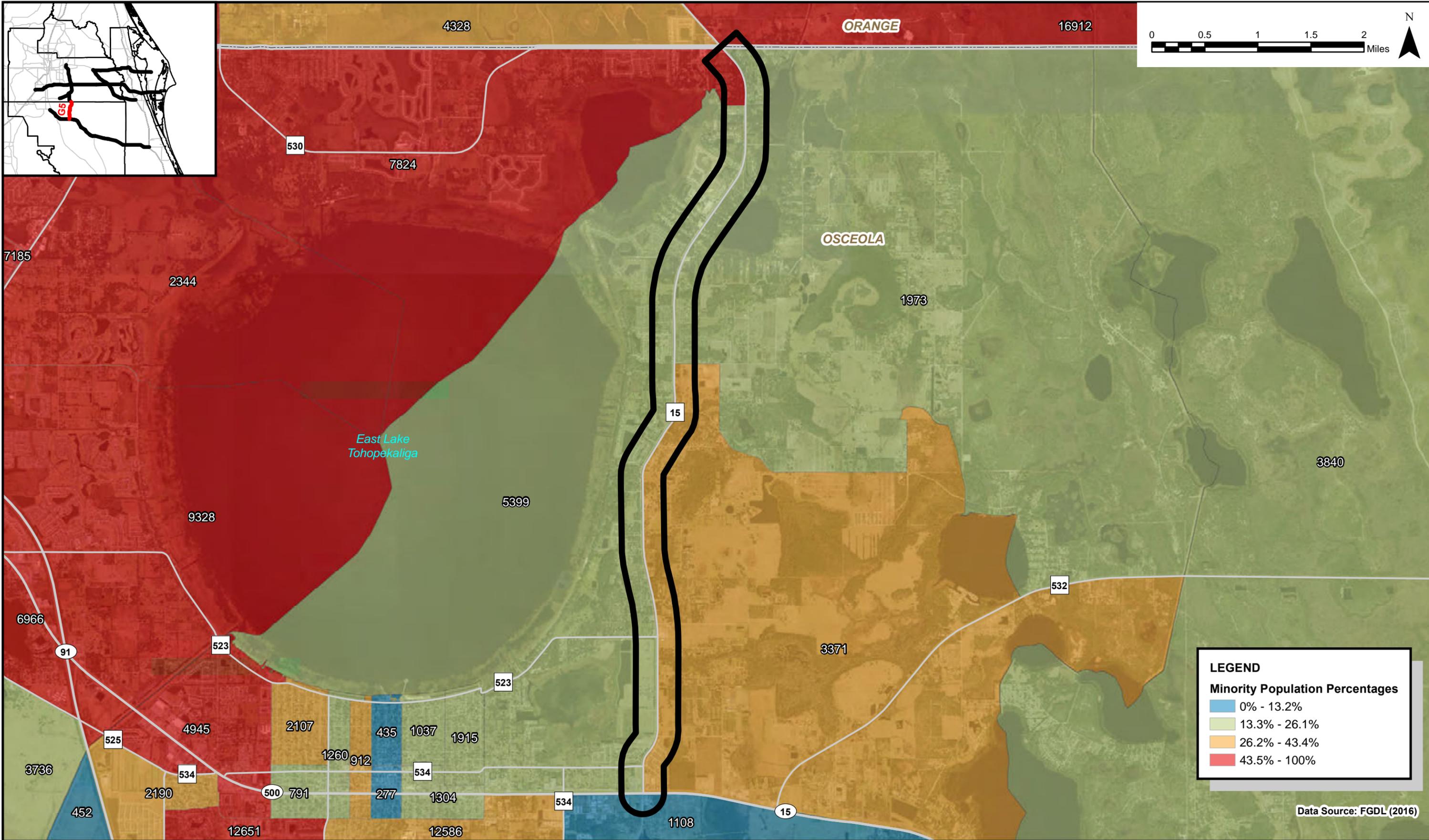
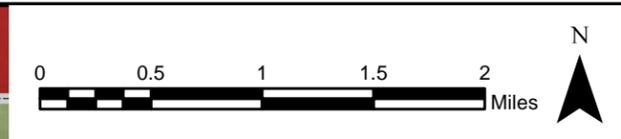
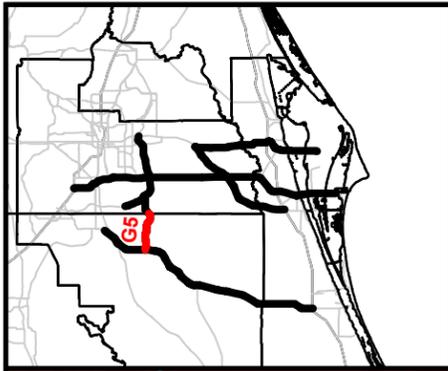


East Central Florida Corridor Evaluation Study



Corridor G Minority Population

**FIGURE
6.2-3**
SEGMENT G4



LEGEND
Minority Population Percentages

0% - 13.2%
13.3% - 26.1%
26.2% - 43.4%
43.5% - 100%

Data Source: FGDL (2016)



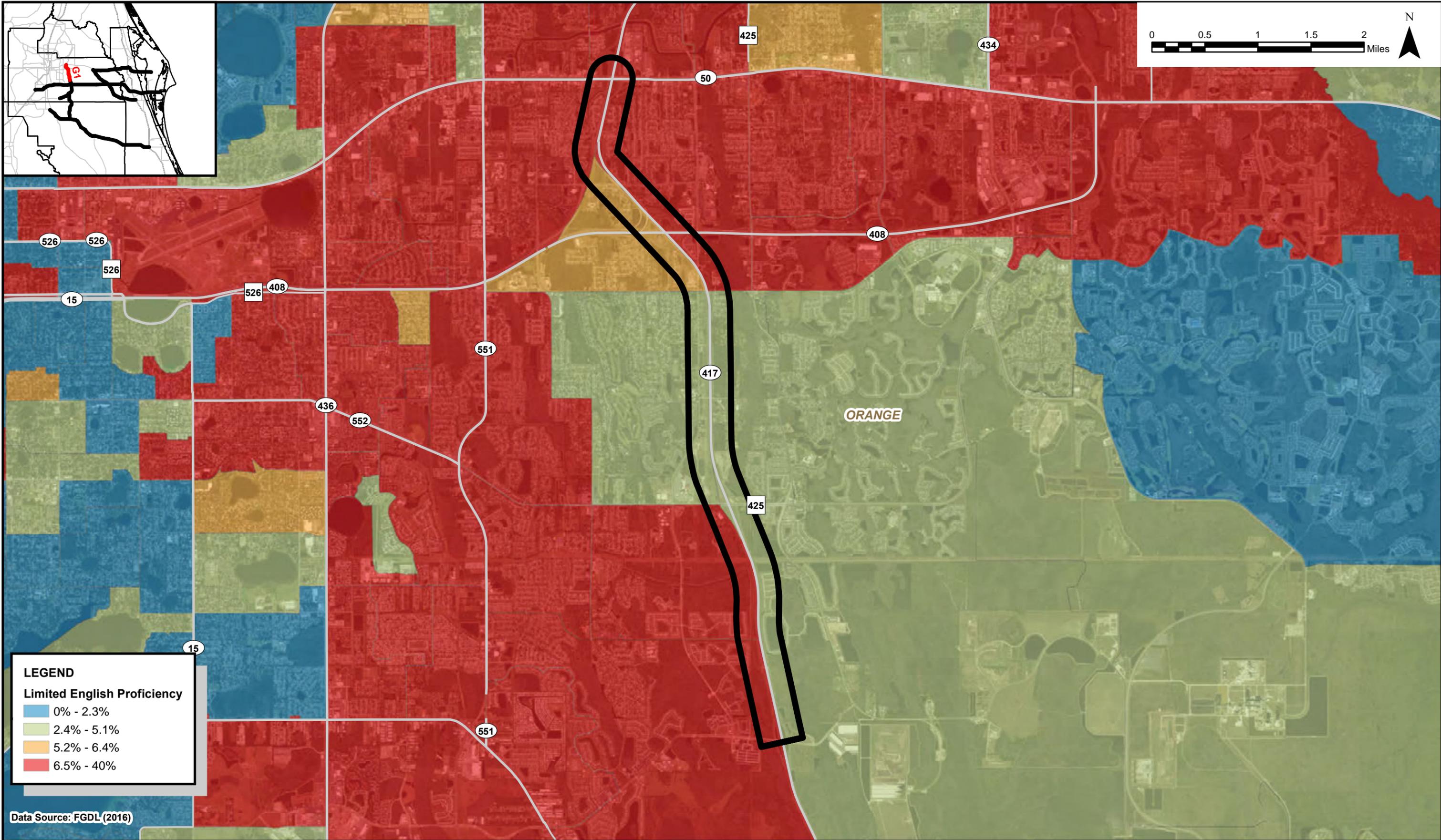
East Central Florida Corridor Evaluation Study



Corridor G Minority Population

FIGURE
6.2-3

SEGMENT G5



LEGEND
Limited English Proficiency

- 0% - 2.3%
- 2.4% - 5.1%
- 5.2% - 6.4%
- 6.5% - 40%

Data Source: FGDL (2016)

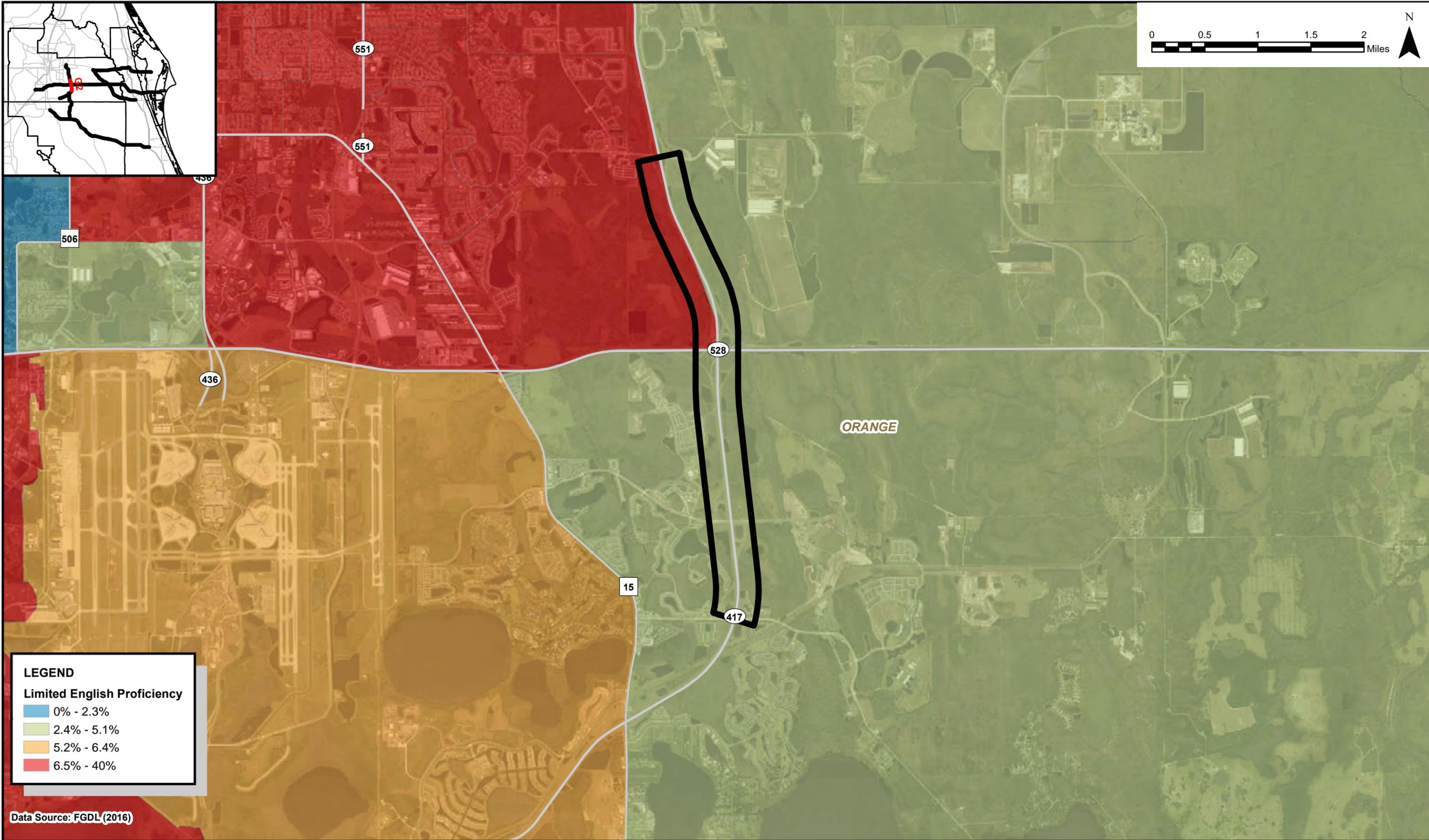
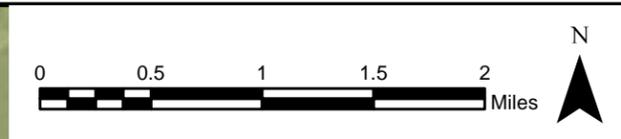
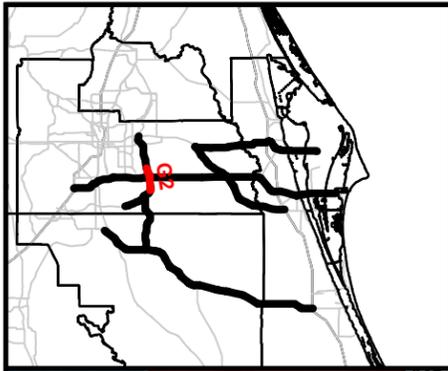


East Central Florida Corridor Evaluation Study



Corridor G
Limited English Proficiency

FIGURE
6.2-4
 SEGMENT G1



LEGEND

Limited English Proficiency

- 0% - 2.3%
- 2.4% - 5.1%
- 5.2% - 6.4%
- 6.5% - 40%

Data Source: FGDL (2016)

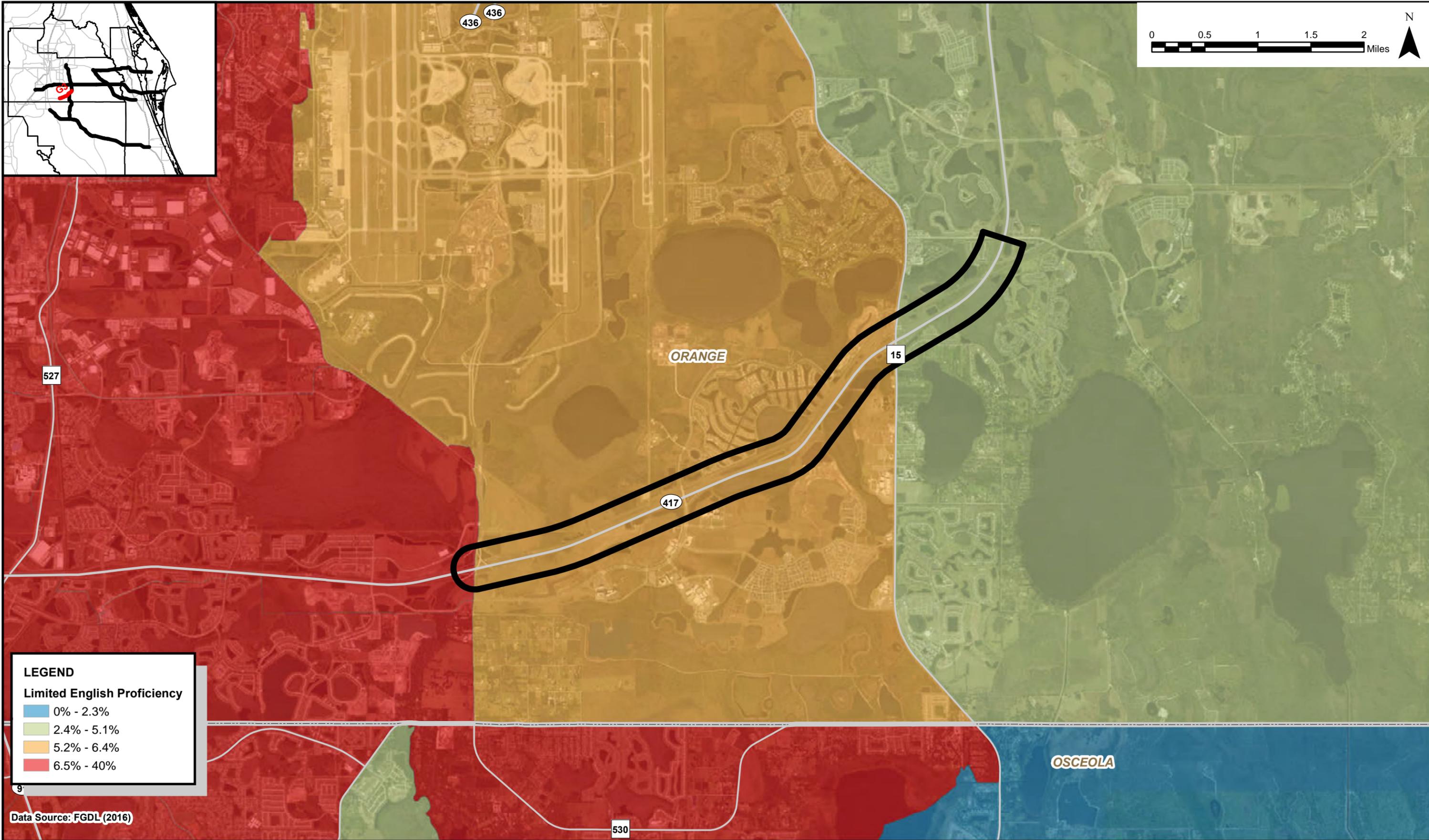
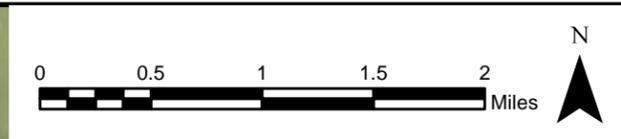
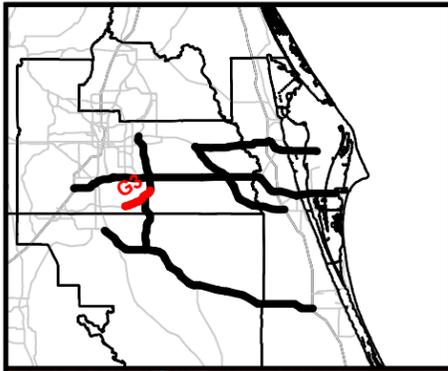


East Central Florida Corridor Evaluation Study



Corridor G Limited English Proficiency

FIGURE
6.2-4
SEGMENT G2



LEGEND
Limited English Proficiency

0% - 2.3%
2.4% - 5.1%
5.2% - 6.4%
6.5% - 40%

Data Source: FGDL (2016)

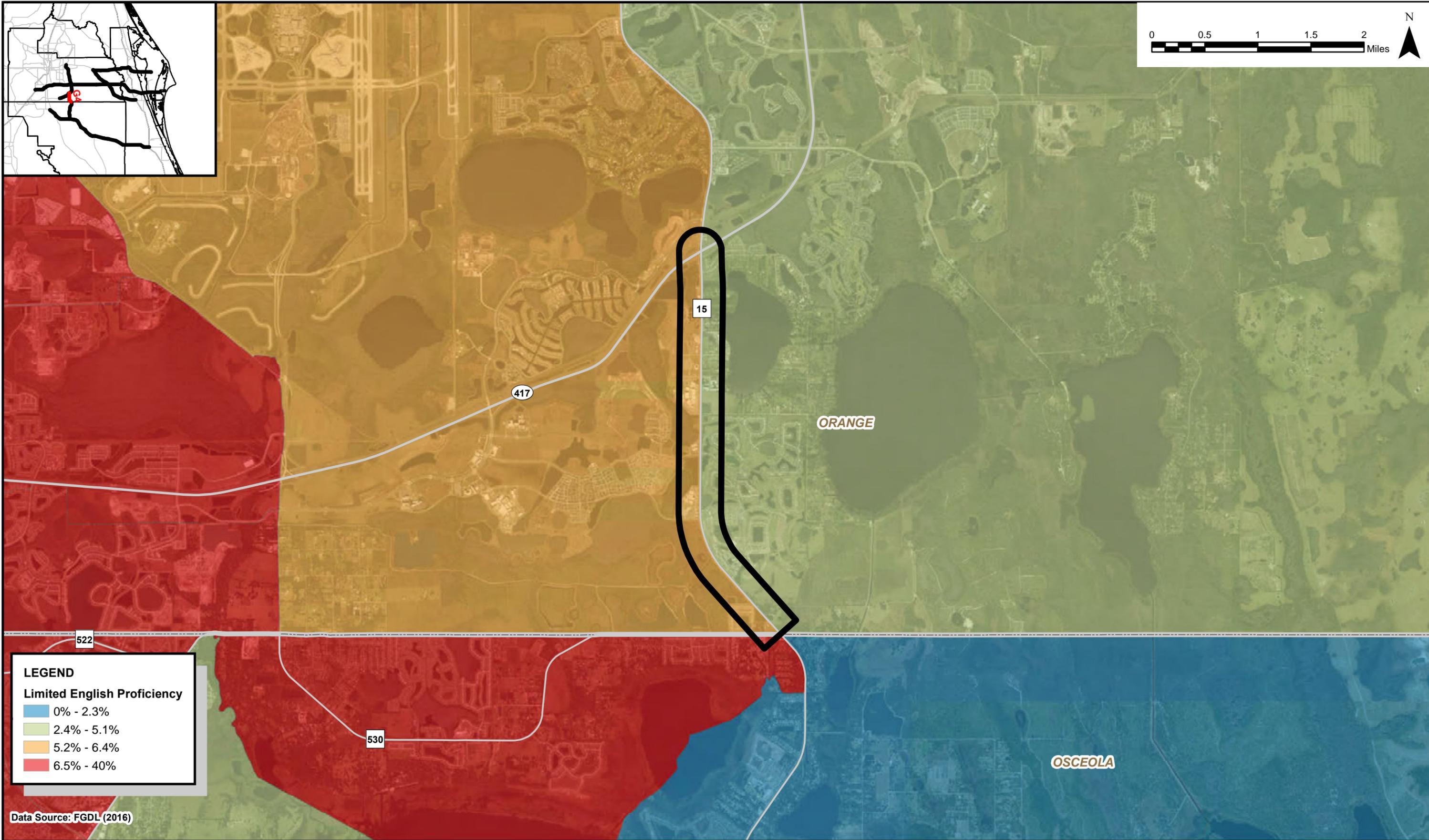
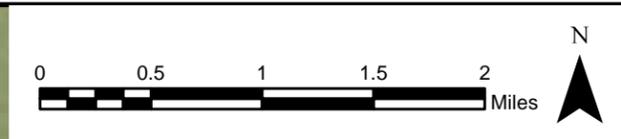
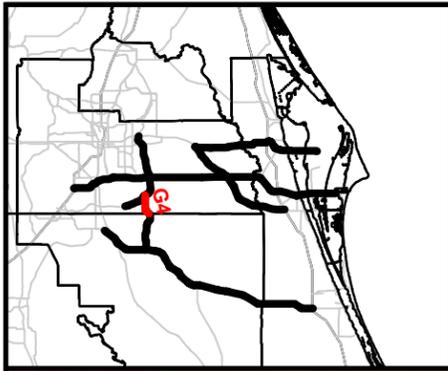


East Central Florida Corridor Evaluation Study



Corridor G Limited English Proficiency

**FIGURE
6.2-4**
SEGMENT G3



LEGEND
Limited English Proficiency

- 0% - 2.3%
- 2.4% - 5.1%
- 5.2% - 6.4%
- 6.5% - 40%

Data Source: FGDL (2016)

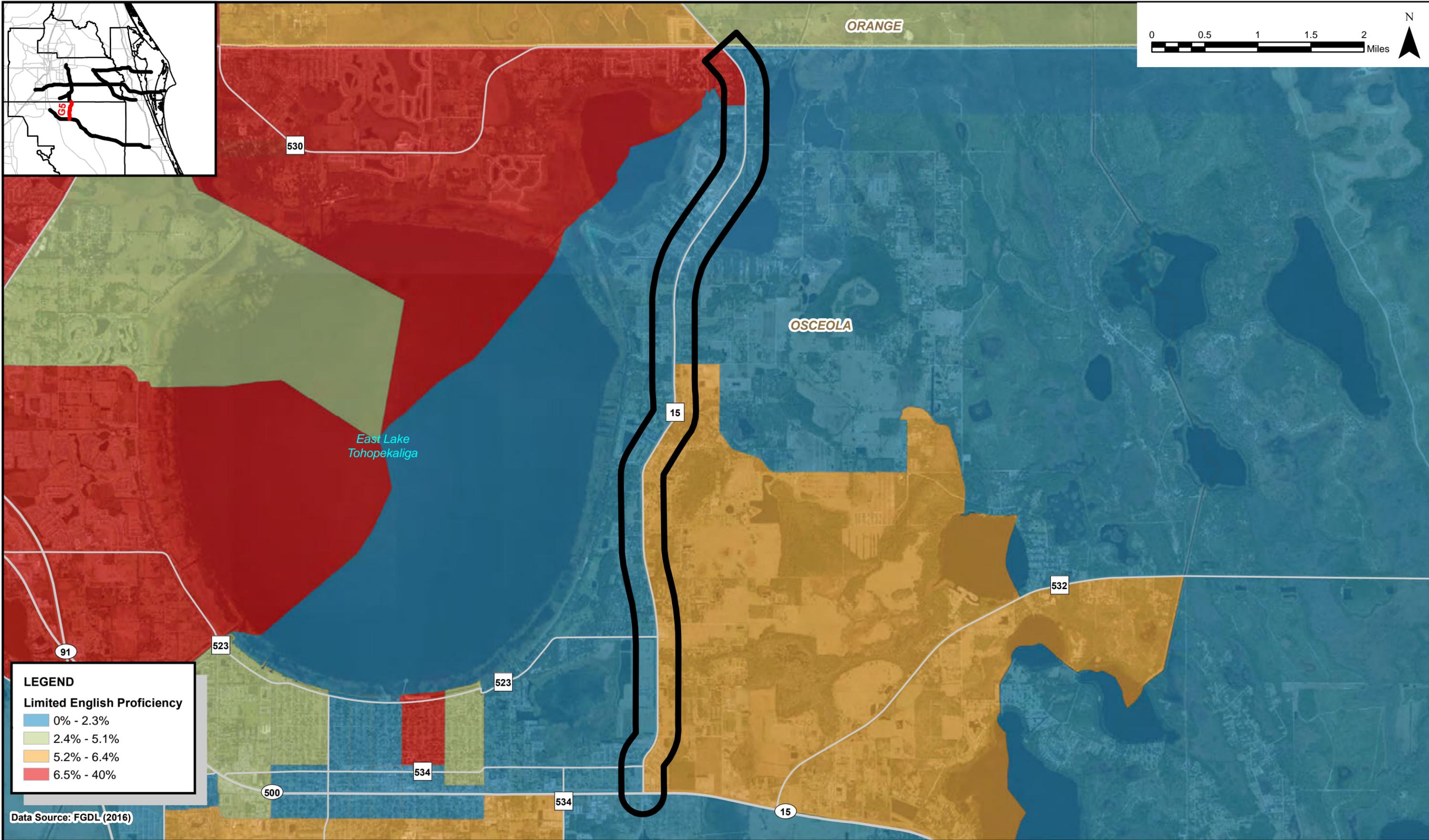
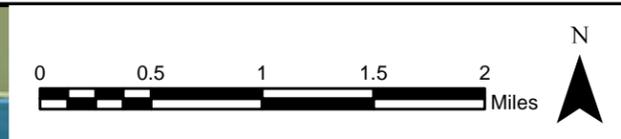
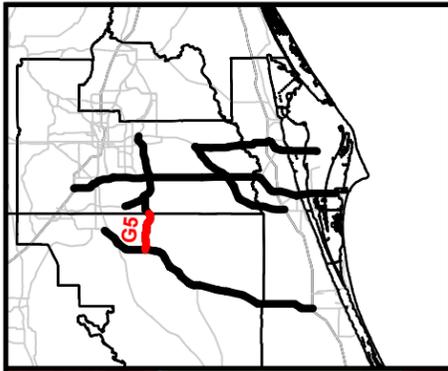


East Central Florida Corridor Evaluation Study



Corridor G Limited English Proficiency

FIGURE
6.2-4
SEGMENT G4



LEGEND

Limited English Proficiency

- 0% - 2.3%
- 2.4% - 5.1%
- 5.2% - 6.4%
- 6.5% - 40%

Data Source: FGDL (2016)

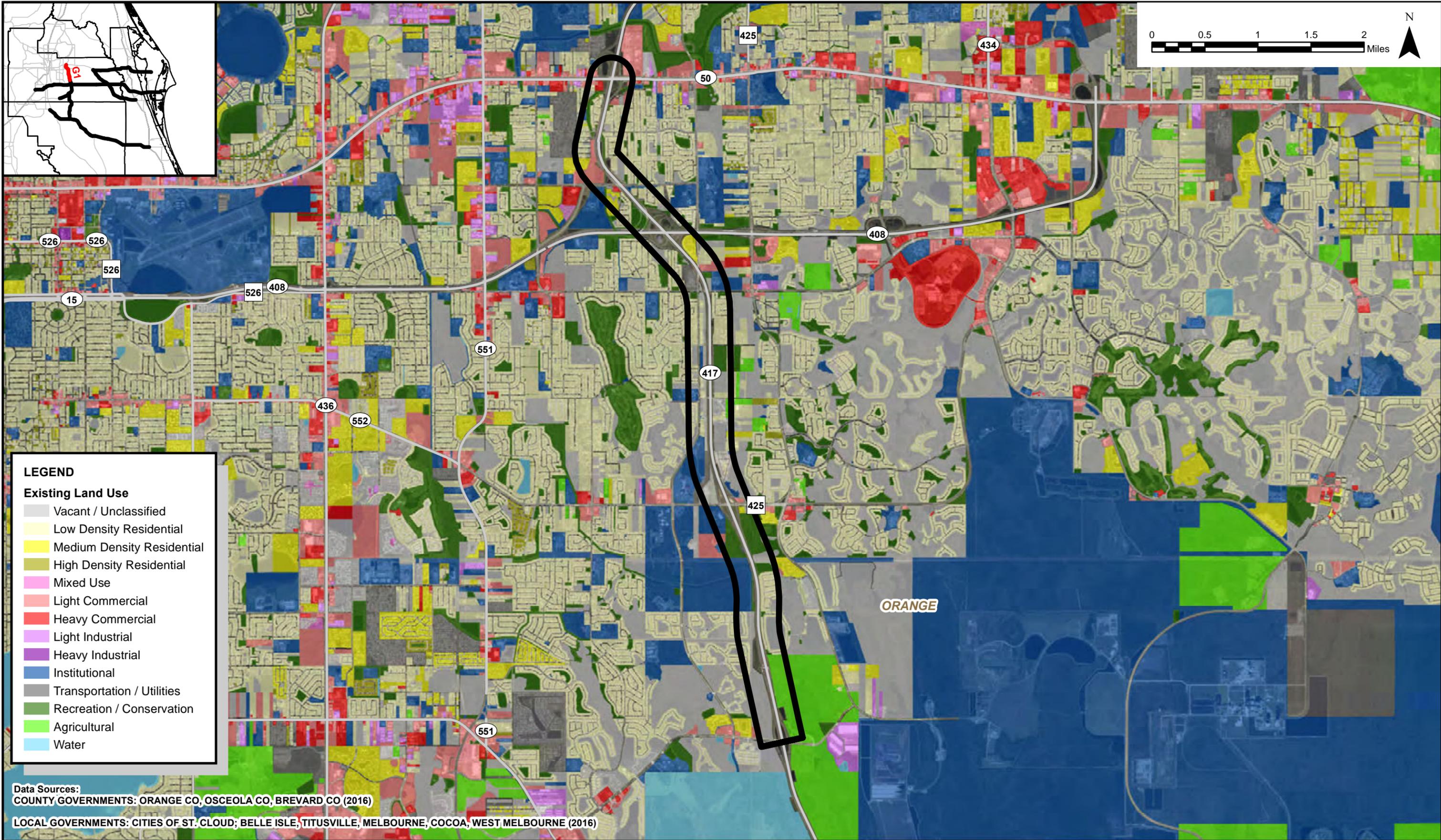


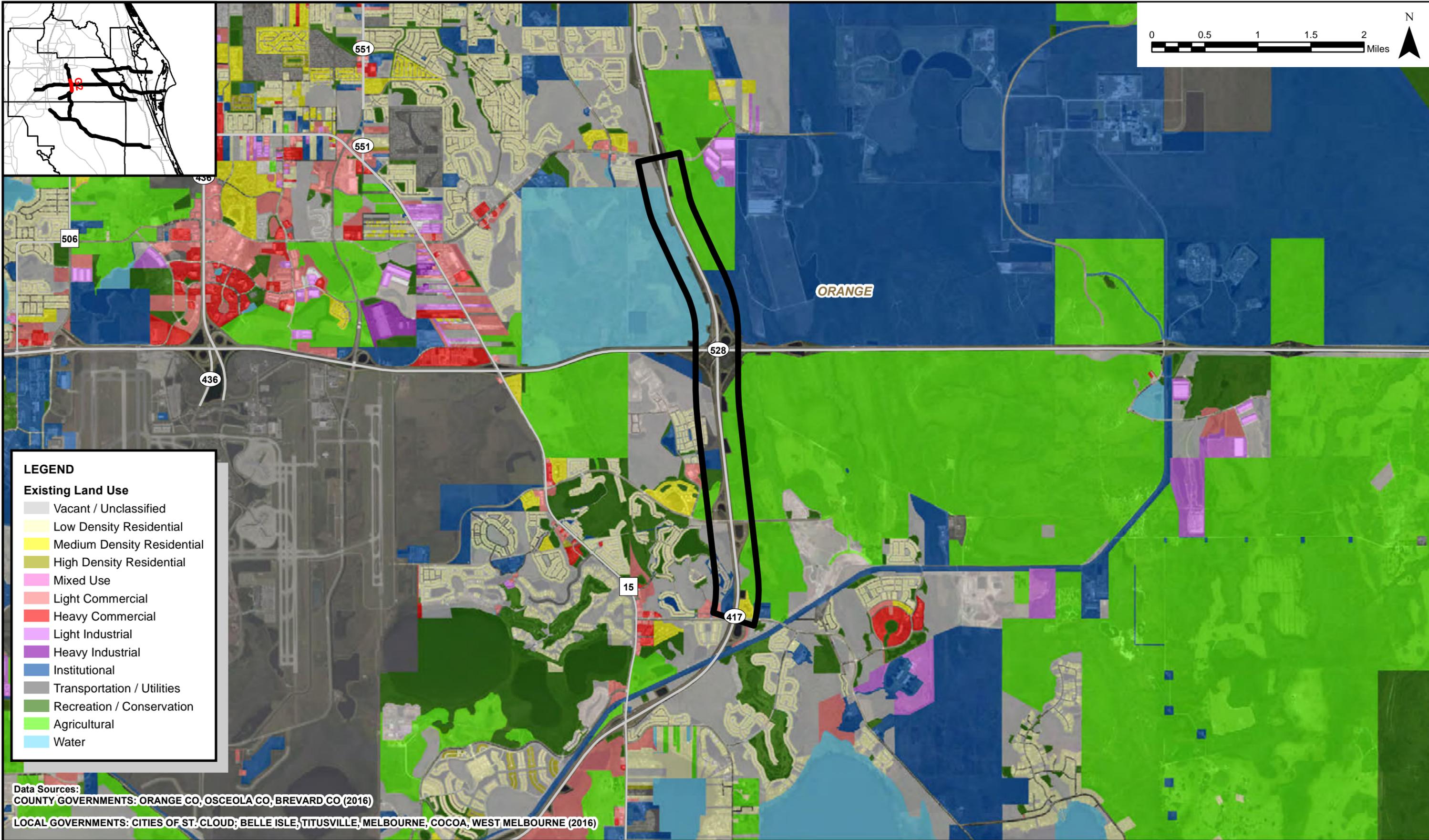
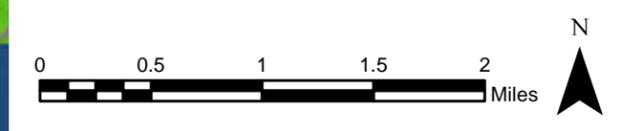
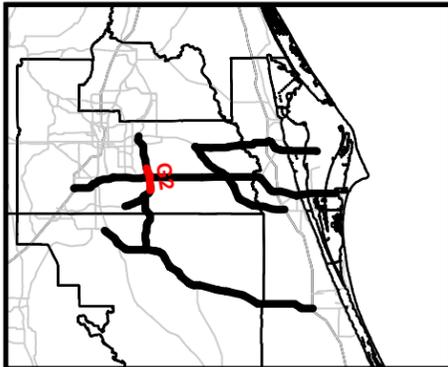
East Central Florida Corridor Evaluation Study



Corridor G Limited English Proficiency

**FIGURE
6.2-4**
SEGMENT G5





LEGEND

Existing Land Use

- Vacant / Unclassified
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mixed Use
- Light Commercial
- Heavy Commercial
- Light Industrial
- Heavy Industrial
- Institutional
- Transportation / Utilities
- Recreation / Conservation
- Agricultural
- Water

Data Sources:
 COUNTY GOVERNMENTS: ORANGE CO, OSCEOLA CO, BREVARD CO (2016)
 LOCAL GOVERNMENTS: CITIES OF ST. CLOUD; BELLE ISLE; TITUSVILLE; MELBOURNE; COCOA; WEST MELBOURNE (2016)

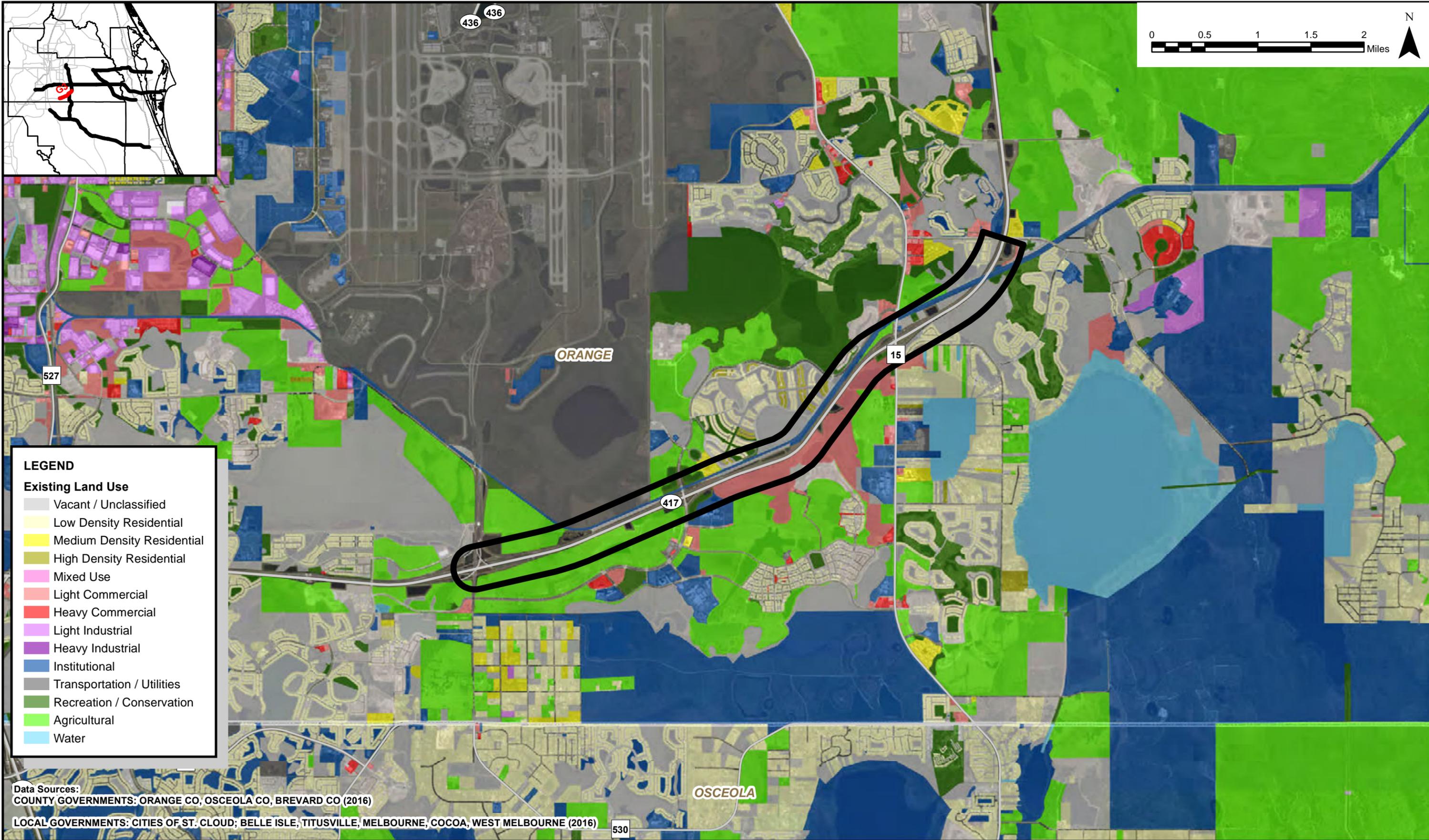
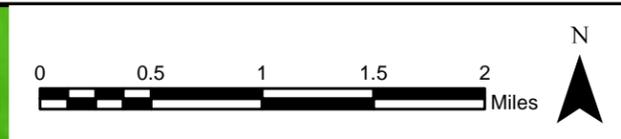
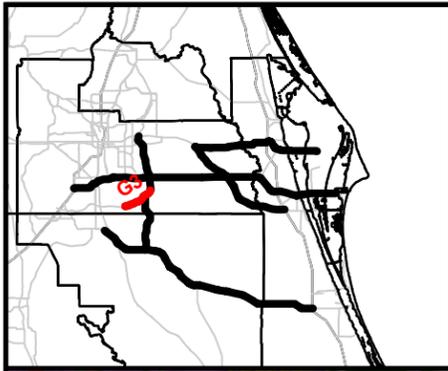


East Central Florida Corridor Evaluation Study



**Corridor G
Land Use**

**FIGURE
6.2-5
SEGMENT G2**



LEGEND

Existing Land Use

- Vacant / Unclassified
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mixed Use
- Light Commercial
- Heavy Commercial
- Light Industrial
- Heavy Industrial
- Institutional
- Transportation / Utilities
- Recreation / Conservation
- Agricultural
- Water

Data Sources:
 COUNTY GOVERNMENTS: ORANGE CO, OSCEOLA CO, BREVARD CO (2016)
 LOCAL GOVERNMENTS: CITIES OF ST. CLOUD; BELLE ISLE, TITUSVILLE, MELBOURNE, COCOA, WEST MELBOURNE (2016)

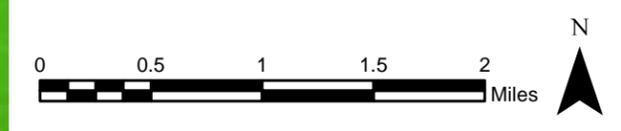
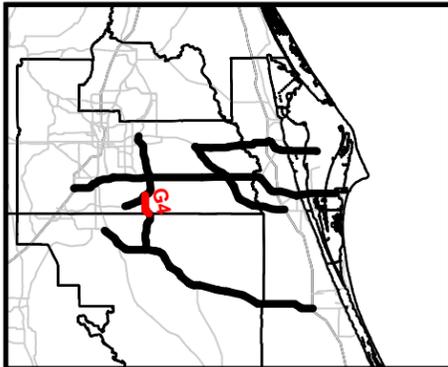


East Central Florida Corridor Evaluation Study



**Corridor G
Land Use**

**FIGURE
6.2-5
SEGMENT G3**



LEGEND

Existing Land Use

- Vacant / Unclassified
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mixed Use
- Light Commercial
- Heavy Commercial
- Light Industrial
- Heavy Industrial
- Institutional
- Transportation / Utilities
- Recreation / Conservation
- Agricultural
- Water

Data Sources:
 COUNTY GOVERNMENTS: ORANGE CO, OSCEOLA CO, BREVARD CO (2016)
 LOCAL GOVERNMENTS: CITIES OF ST. CLOUD; BELLE ISLE, TITUSVILLE, MELBOURNE, COCOA, WEST MELBOURNE (2016)

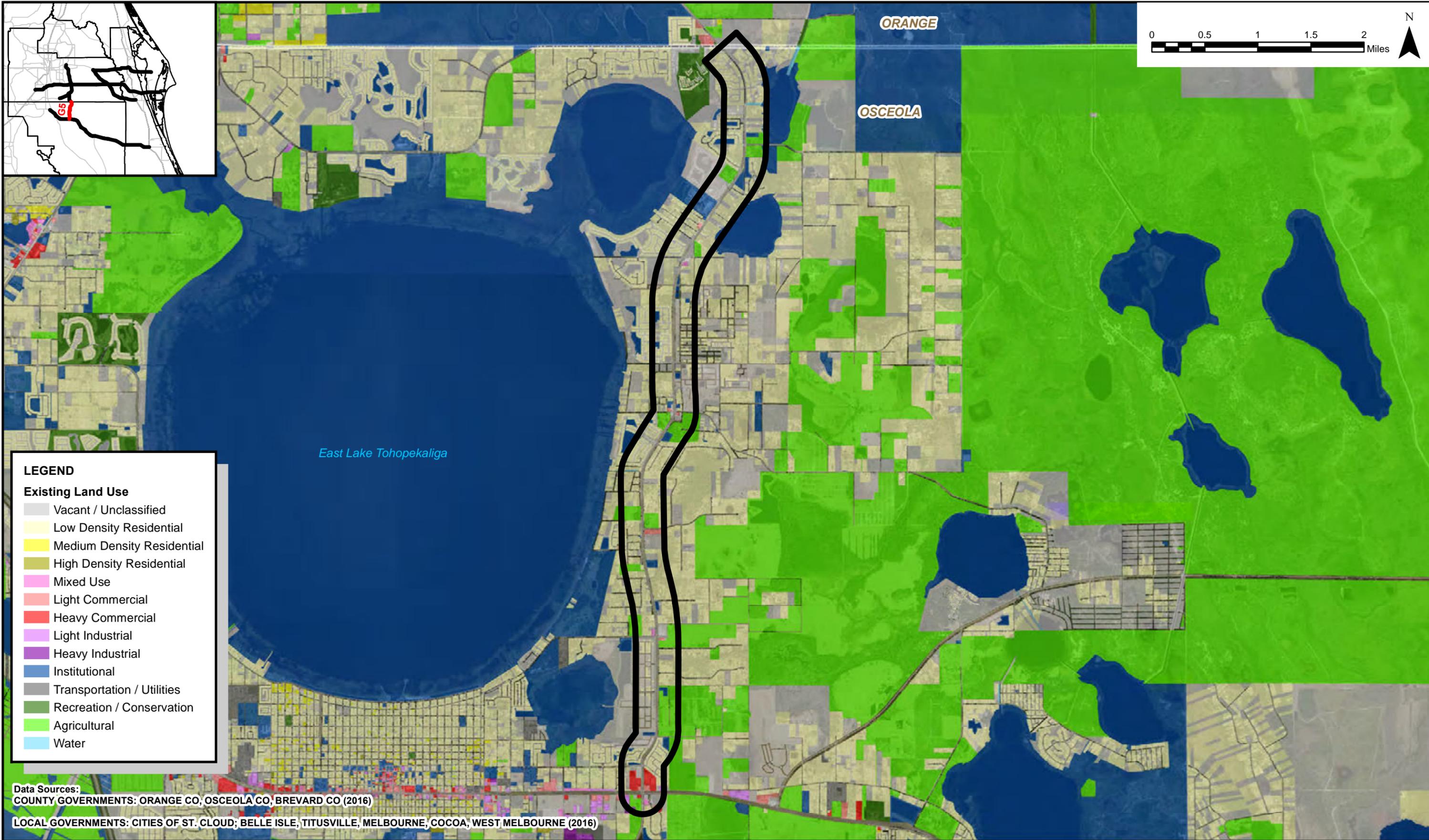
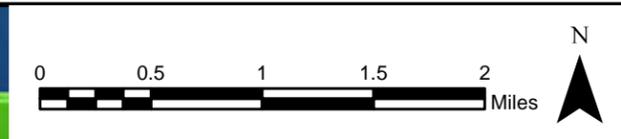
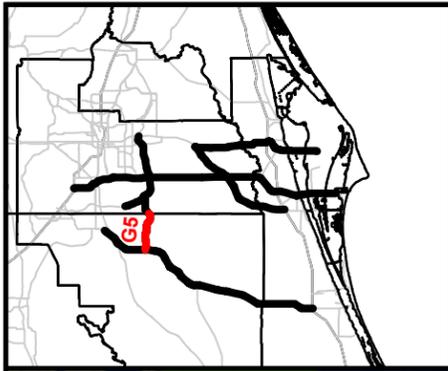


East Central Florida Corridor Evaluation Study



**Corridor G
Land Use**

**FIGURE
6.2-5
SEGMENT G4**



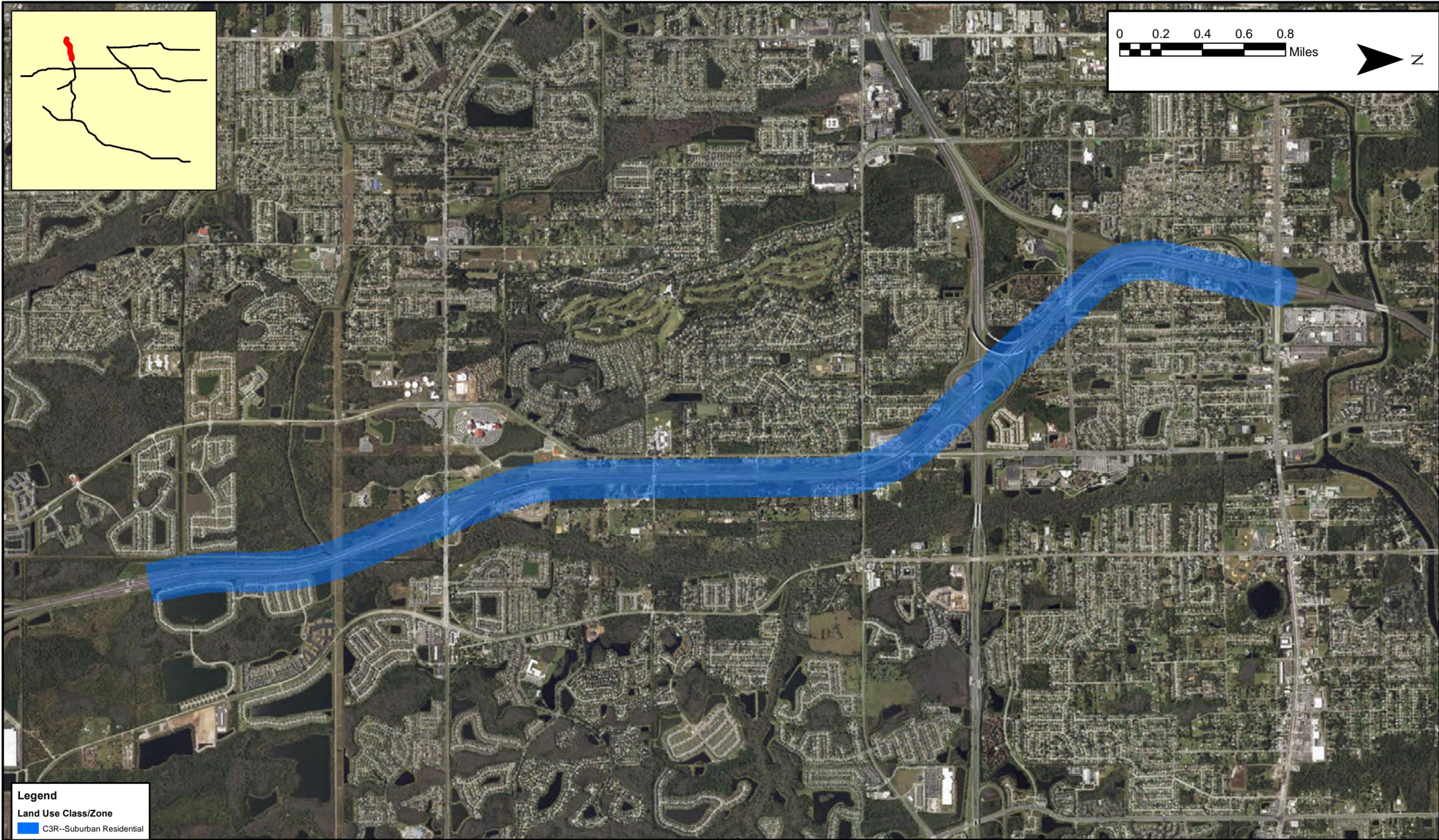
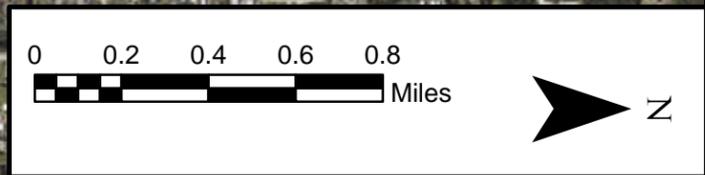
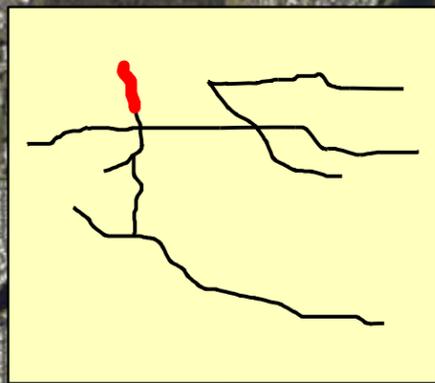
LEGEND

Existing Land Use

- Vacant / Unclassified
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mixed Use
- Light Commercial
- Heavy Commercial
- Light Industrial
- Heavy Industrial
- Institutional
- Transportation / Utilities
- Recreation / Conservation
- Agricultural
- Water

Data Sources:
 COUNTY GOVERNMENTS: ORANGE CO, OSCEOLA CO, BREVARD CO (2016)
 LOCAL GOVERNMENTS: CITIES OF ST. CLOUD; BELLE ISLE, TITUSVILLE, MELBOURNE, COCOA, WEST MELBOURNE (2016)





Legend
Land Use Class/Zone
C3R--Suburban Residential

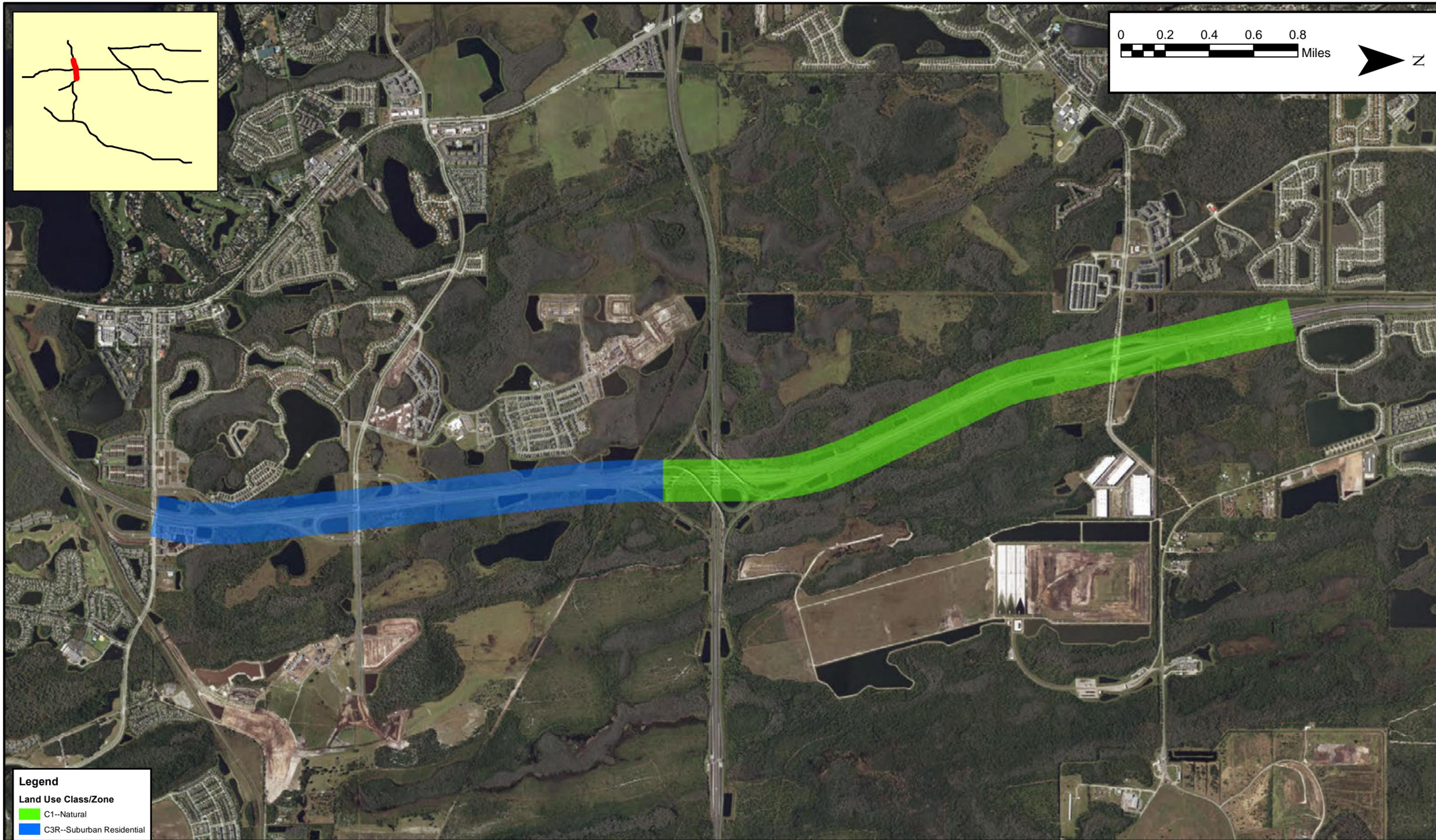
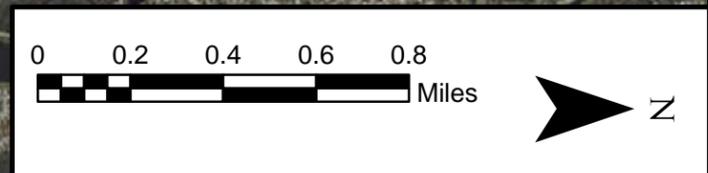
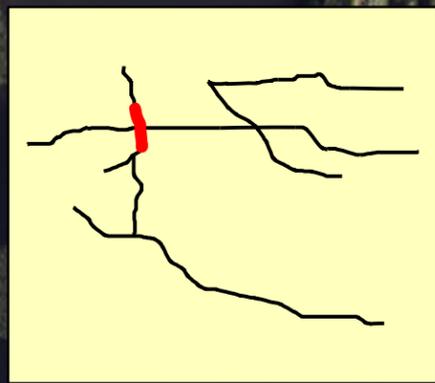


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**Corridor G
Context Zone**

**FIGURE
6.2-6
SEGMENT G1**



Legend
Land Use Class/Zone
C1--Natural
C3R--Suburban Residential

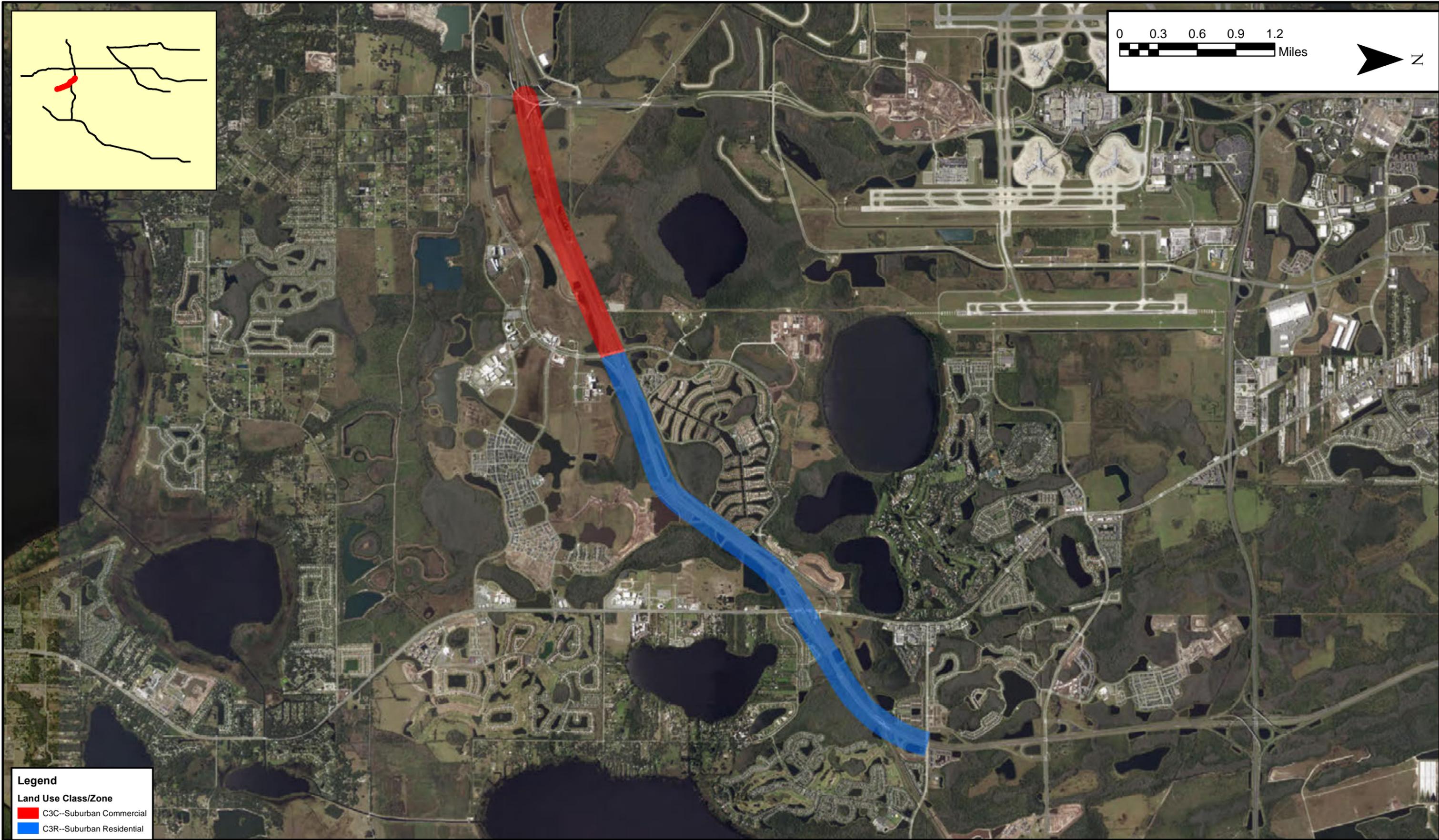
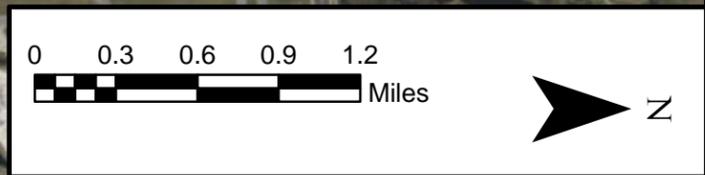
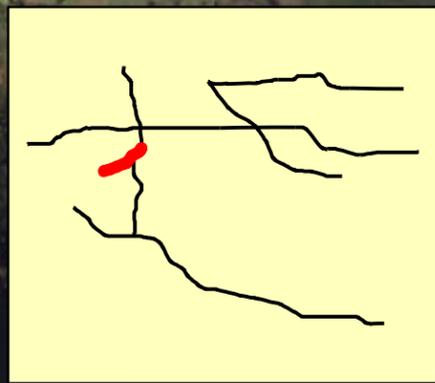


East Central Florida Corridor Evaluation Study



Corridor G Context Zone

**FIGURE
6.2-6
SEGMENT G2**



Legend
Land Use Class/Zone
C3C--Suburban Commercial
C3R--Suburban Residential



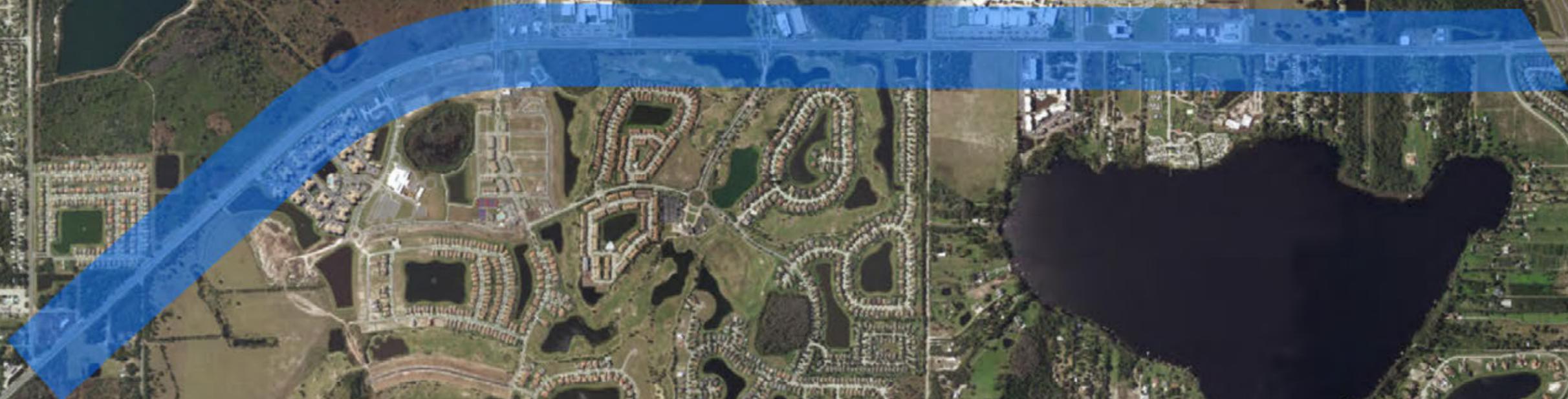
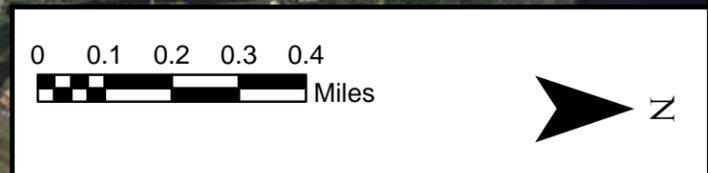
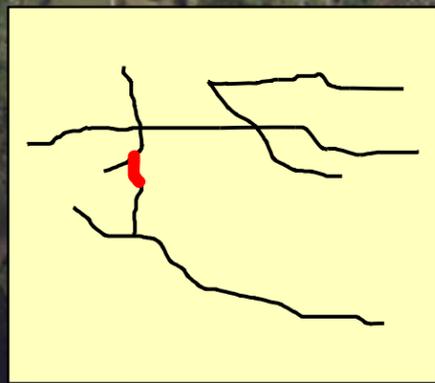
East Central Florida Corridor Evaluation Study



Corridor G Context Zone

FIGURE
6.2-6

SEGMENT G3



Legend
 Land Use Class/Zone
 C3R--Suburban Residential



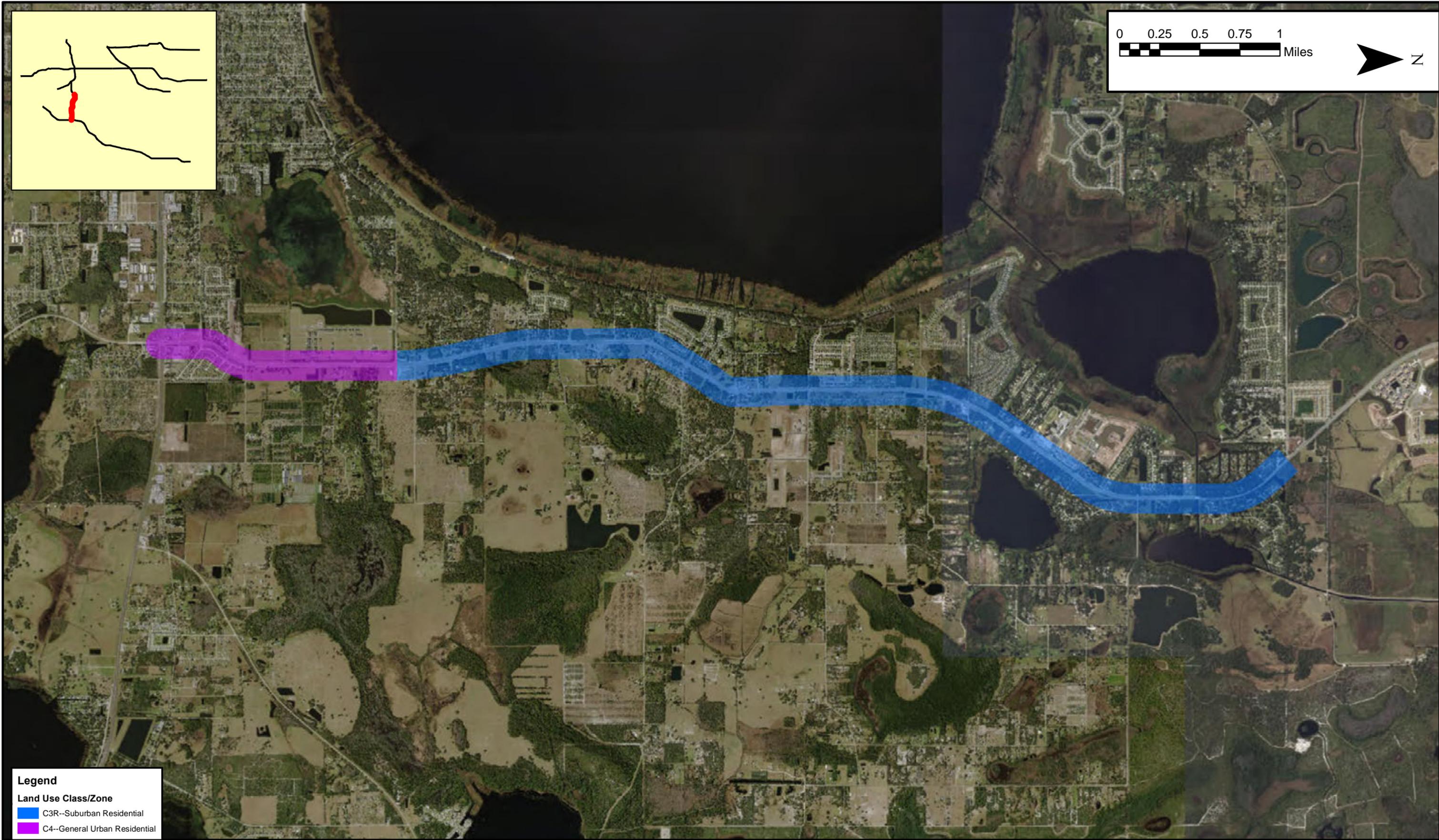
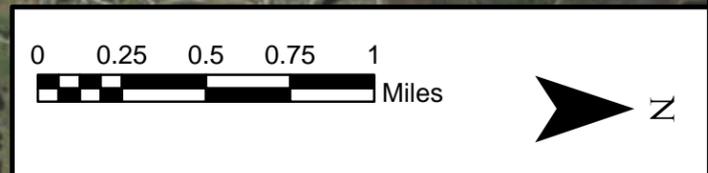
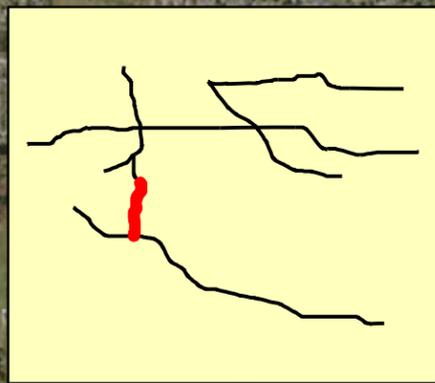
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Corridor G Context Zone

FIGURE
6.2-6

SEGMENT G4



Legend

Land Use Class/Zone

	C3R--Suburban Residential
	C4--General Urban Residential



East Central Florida Corridor Evaluation Study



Corridor G
Context Zone

FIGURE
6.2-6
SEGMENT G5

6.3 Roadway Characteristics/Operations

6.3.1 Jurisdiction and Classification

SR 417 is owned and operated by the CFX. It is designated at the state level as part of the SIS, and at the national level as part of the **National Highway System (NHS)**. Narcoossee Road is owned and operated by multiple entities. The section of interest to this study lies south of SR 417, with Segment G4 falling in Orange County and Segment G5 in Osceola County. Each county owns and operates the portion of roadway within its boundaries, though the name remains constant. Between SR 417 and SR 528, Narcoossee Road is owned by the City of Orlando. North of SR 528, it is owned and operated by FDOT. Roadway Functional Classification is primarily Principal Arterial Freeway/Expressway/Other, all within urban areas.

6.3.2 Typical Section and Posted Speed

SR 417 is split into the first two segments of this corridor by SR 528. The typical section of Segment G1, north of SR 528 consists of a minimum 300-foot width, six 12-foot through lanes, a 28-foot median (two 12-foot paved shoulders with guard rails), 10-foot paved outside shoulders, and a 1:6 graded slope on each side to natural ground or drainage ditch. The road profile slims south of SR 528 in Segment G2, with a continued minimum right-of-way width of 300 feet, and two 12-foot lanes in either direction. It also contains a 40-foot median (20 feet between edges of curbs sloped at 1:6 to a ditch, with an eight-foot paved interior shoulder on each side) and 10-foot paved outside shoulders. The third segment, G3 is Narcoossee Road, south of SR 417. Its typical section has a minimum right-of-way width of 150 feet and six 12-foot through lanes. The median is 24 feet wide, generally consisting of turn lanes and raised cement median strips, and there are outside shoulders present, with 10-foot widths.

As shown in Figure 6.3-1, both roadways vary between four and six lanes along their lengths. SR 417 comprises six lanes of through traffic in Segment G1 from SR 50 to SR 528, and four lanes in Segments G2 and G3 surrounding Orlando International Airport. Segment G4 on Narcoossee Road is six through lanes wide from SR 417 to the Osceola/Orange County line. The lane count from there drops to four lanes to US 192.

The posted speed limit on SR 417 is 70 mph for the entire length of Corridor G. The posted speed limit on Narcoossee Road where it intersects with SR 417 is 45 mph. The limit on this roadway drops to 40 mph for less than a mile immediately south of Boggy Creek Road, then increases back to 45 mph for the remainder of the length studied.

6.3.3 Traffic Volumes

Annual Average Daily Traffic (AADT) and Level of Service (LOS) 2015 on all five segments of Corridor G are shown on Table 6.3-1 and Figure 6.3-1:

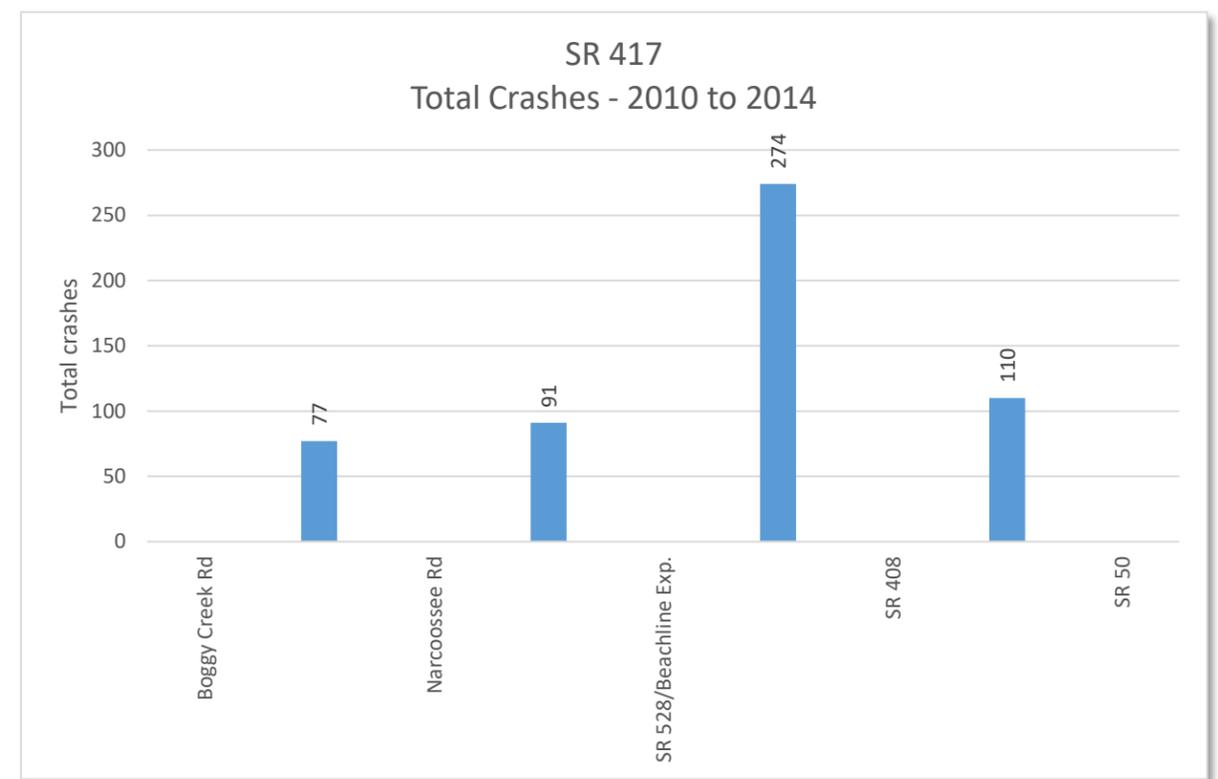
Table 6.3-1: Corridor G Annual Average Daily Traffic and Level of Service 2015

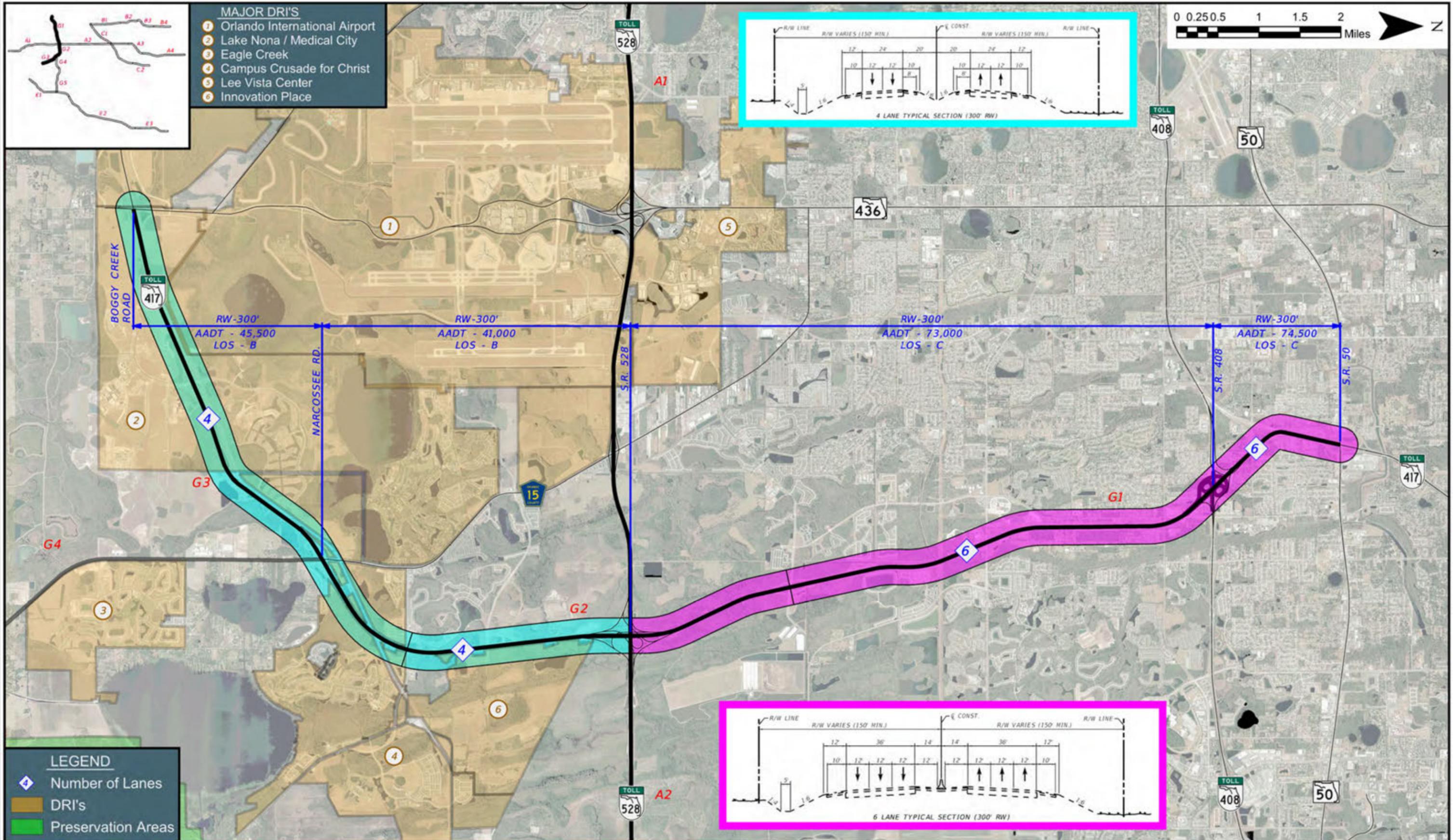
Roadway	Corridor Section	Count Location	AADT	LOS	Speed
SR 417	G1	SR 50 - SR 408	74,500	C	70
	G1	SR 408 - SR 528	73,000	C	70
	G2	SR 528 - Narcoossee Road	41,000	B	70
	G3	Narcoossee Road – Boggy Creek Road	45,500	B	70
Narcoossee Road	G4	SR 417 - Osceola County Line	30,000	D	45
	G5	Osceola County Line - US 192	17,200	D	40-45

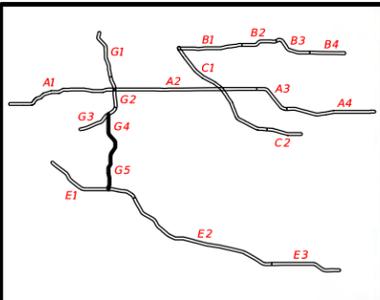
6.3.4 Safety and Crash Data

The following bar chart summarizes the total crashes for Corridor G for the five-year period between 2010 and 2014. There is no crash data for Narcoossee Road within the project limits, therefore only data for SR 417 was analyzed. As shown below, the highest number of crashes occurred between SR 408 and the SR 528 Beachline Expressway. The highest concentration of accidents occurred at the SR 417/SR 528 interchange. At this interchange there was a total of 108 crashes. Of those collisions 60% were with the face of a guardrail, guardrail end, concrete barrier or crash attenuator. The rest of the concentrations of crashes happened at major interchanges with SR 408 and SR 50.

Corridor G – SR 417/Narcoossee Road Total Crashes – 2010 to 2014

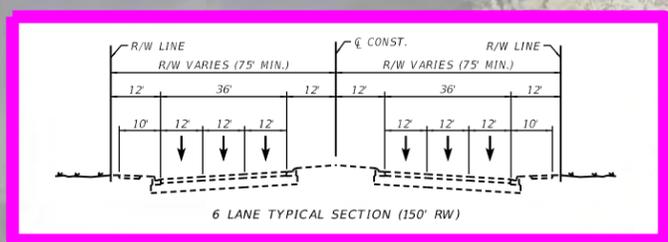
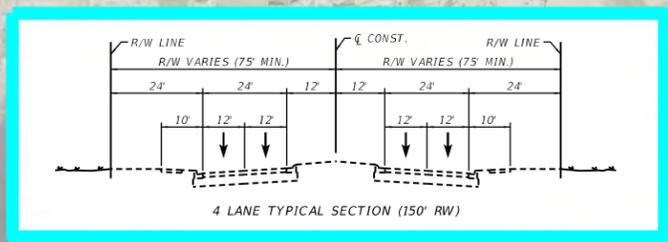
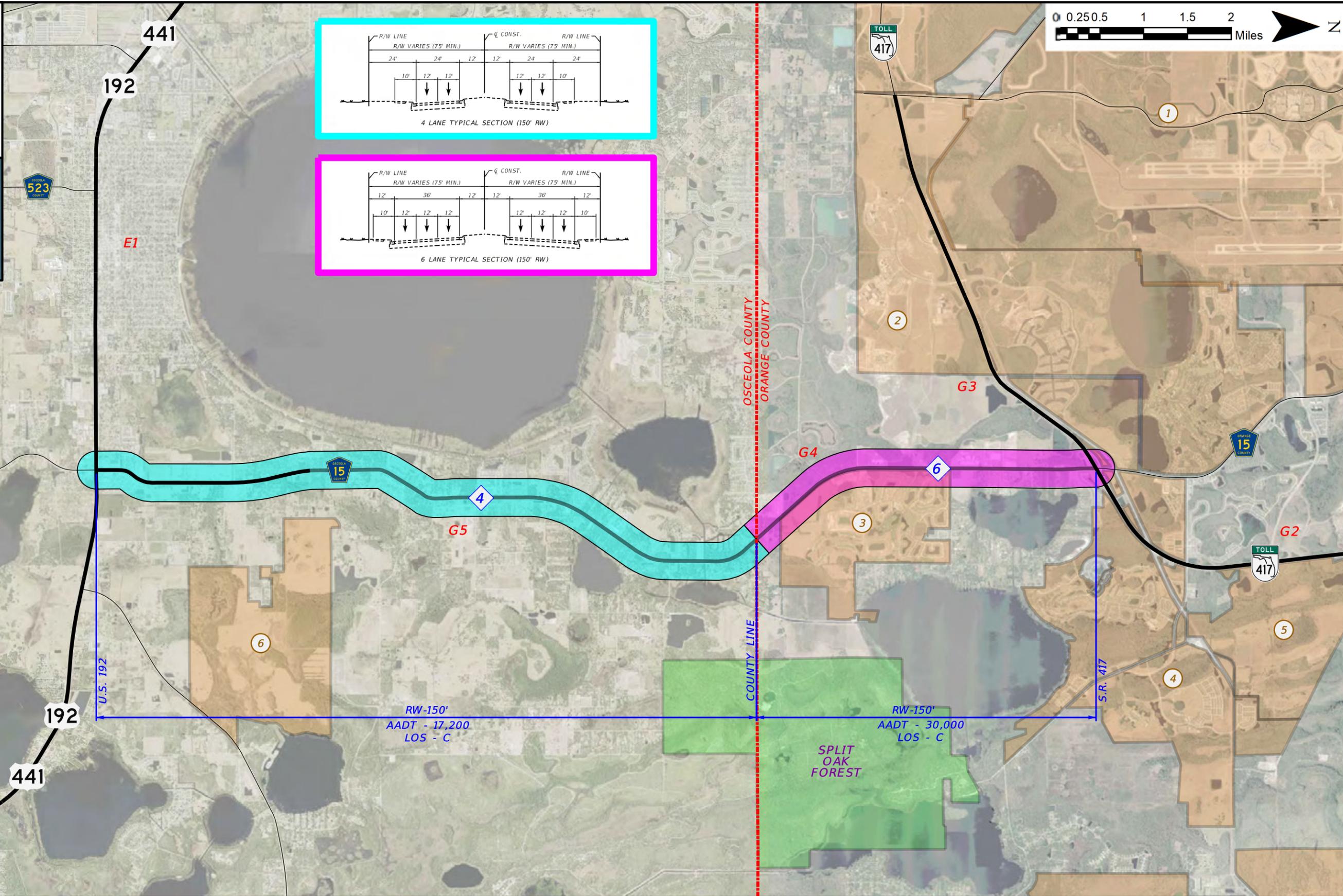






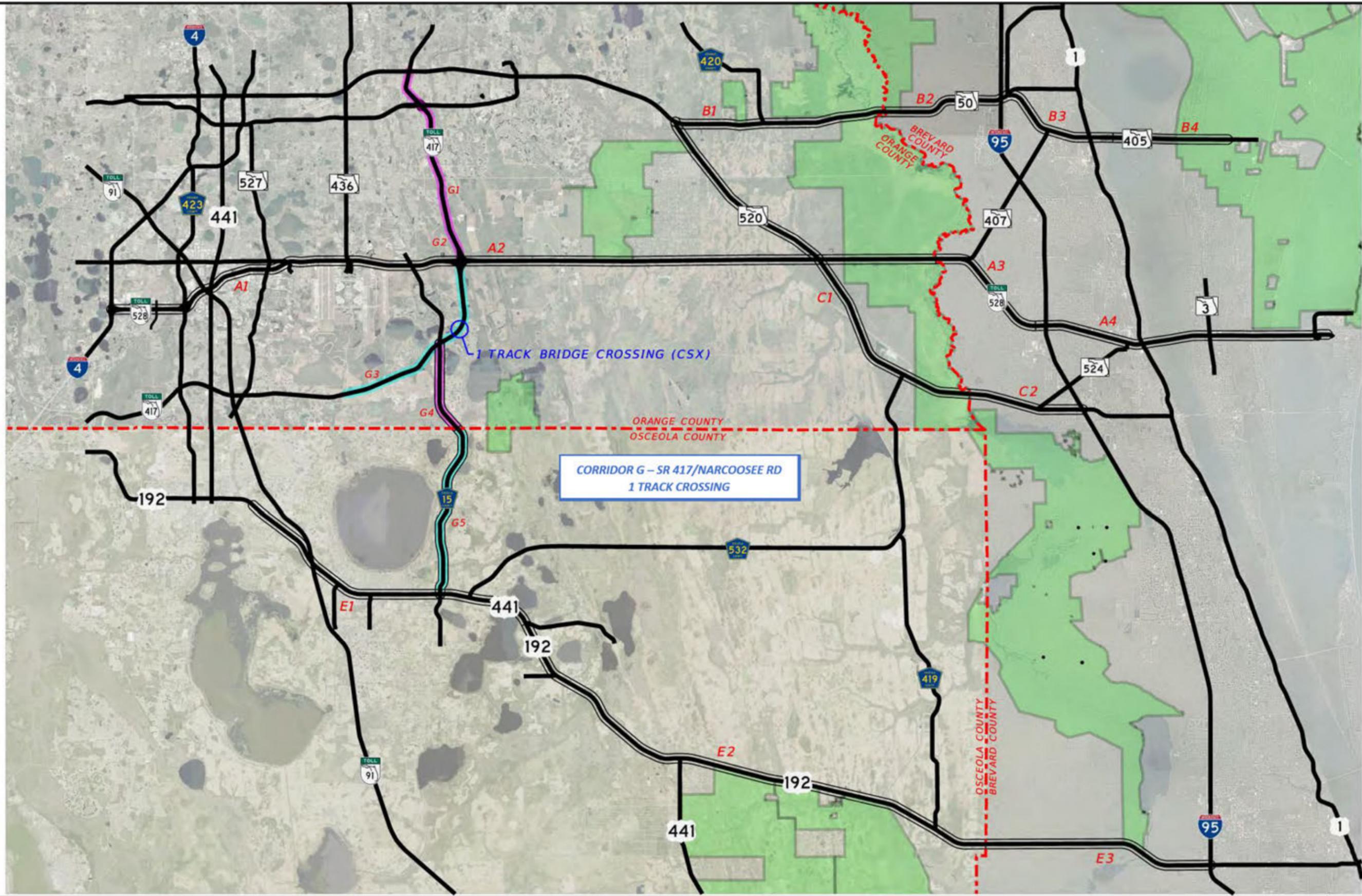
- MAJOR DRI'S**
- 1 Orlando International Airport
 - 2 Lake Nona / Medical City
 - 3 Eagle Creek
 - 4 Campus Crusade for Christ
 - 5 Innovation Place
 - 6 Center Lake

- LEGEND**
- 4 Number of Lanes
 - DRI's
 - Preservation Areas



6.4 Railroad Crossings

There is one railroad crossing along Corridor G, in Segment G2, where SR 417 passes over one track of CSX rail on a bridge. The crossing is located in Orlando in Orange County, near Lake Nona as shown in Figure 6.4-1.



**CORRIDOR G - SR 417/NARCOOSEE RD
1 TRACK CROSSING**



6.5 Engineering and Site Characteristics

As noted previously, one of the key benefits of this phase of the study is that it provides an opportunity to plan on a holistic, system-level, while also providing an opportunity to collect data, conduct analyses, and develop packages of projects and strategies to move into future project development. Engineering analyses and documentation of site characteristics is a required step in the PD&E process. The following section provides the results of the ECFCES Engineering and Site Characteristics analyses.

6.5.1 Structures

Corridor G has 18 crossings with bridges or underpasses. At these various locations, there are 41 structures. This section focuses on underpasses only. Corridor G (SR 417) underpasses Lake Nona Boulevard, SR 528 (Beachline Expressway), and SR 408. Corridor G (Narcoossee Road) underpasses SR 417. Information was collected from FDOT Straight Line Diagrams, FDOT Bridge Reports, and Google Maps.

SR 417 Underpass at Lake Nona Boulevard (Structure #755818)

- One structure at the interchange
- Structure #755818 has a vertical clearance of 16.9 feet

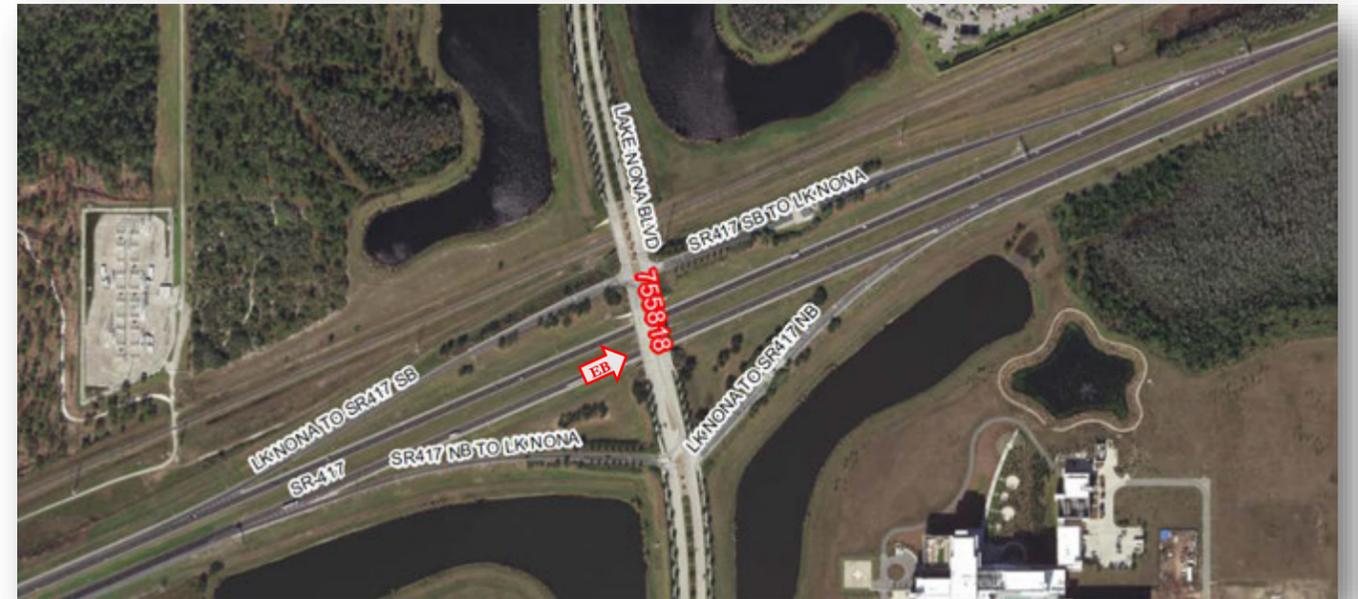
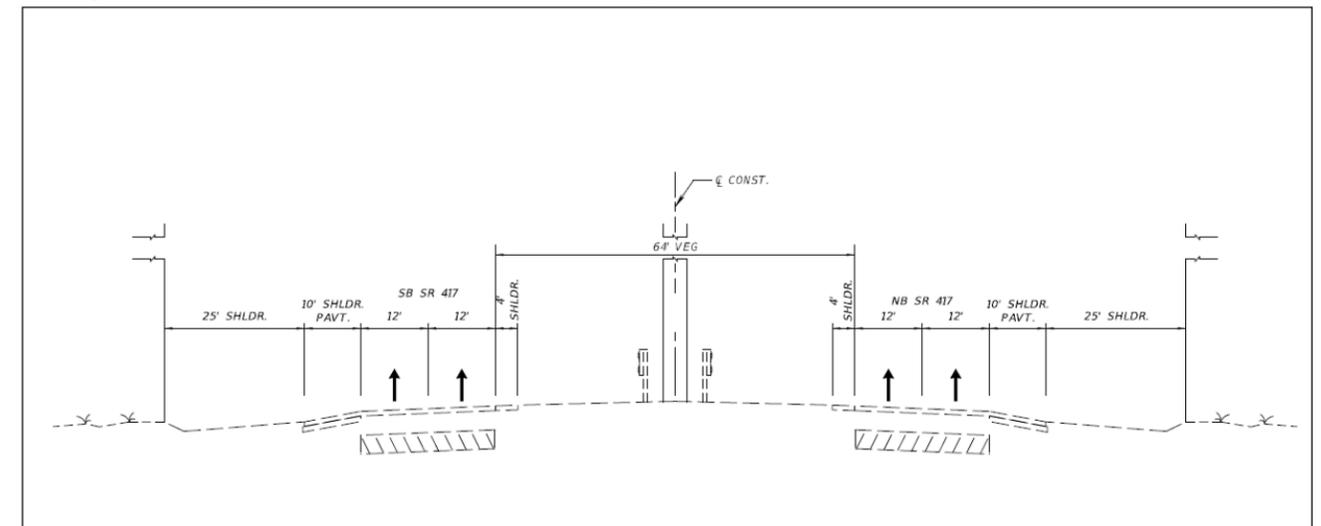


Figure 6.5-1: Typical Section at SR 417 Underpass at Lake Nona Boulevard (Structure # 755818)



SR 417 Underpass at SR 528 (Structure #s 750470, 750374)

- Two structures at the interchange
- Structure #750470 has a vertical clearance of 16.2 feet
- Structure #750374 has a vertical clearance of 17.7 feet



Figure 6.5-2: Typical Section at SR 417 Underpass at SR 528 (Structure #750470)

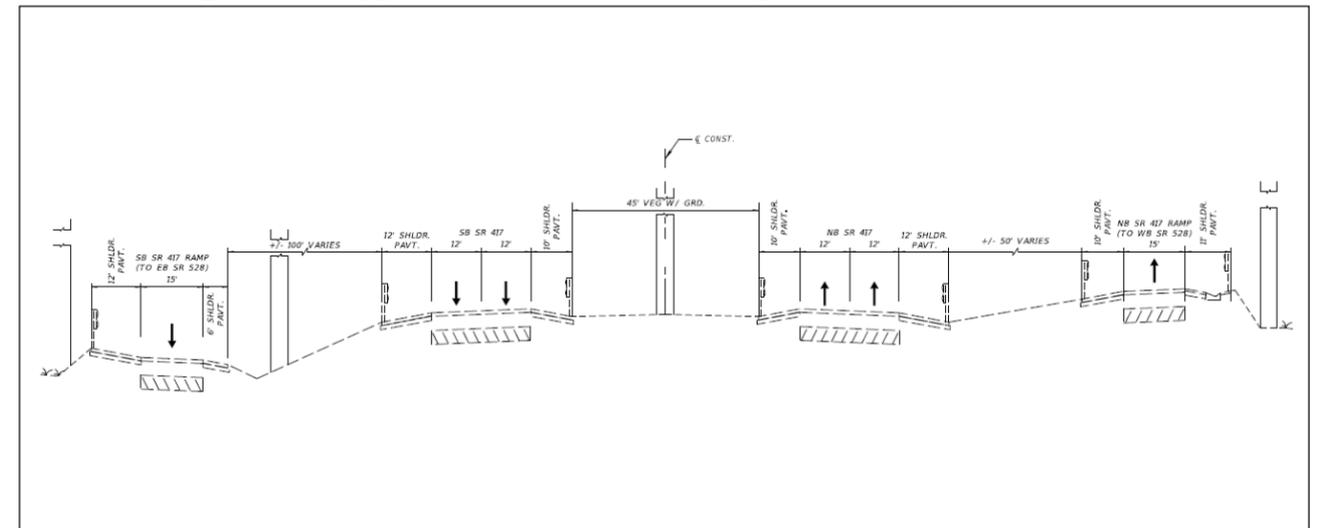
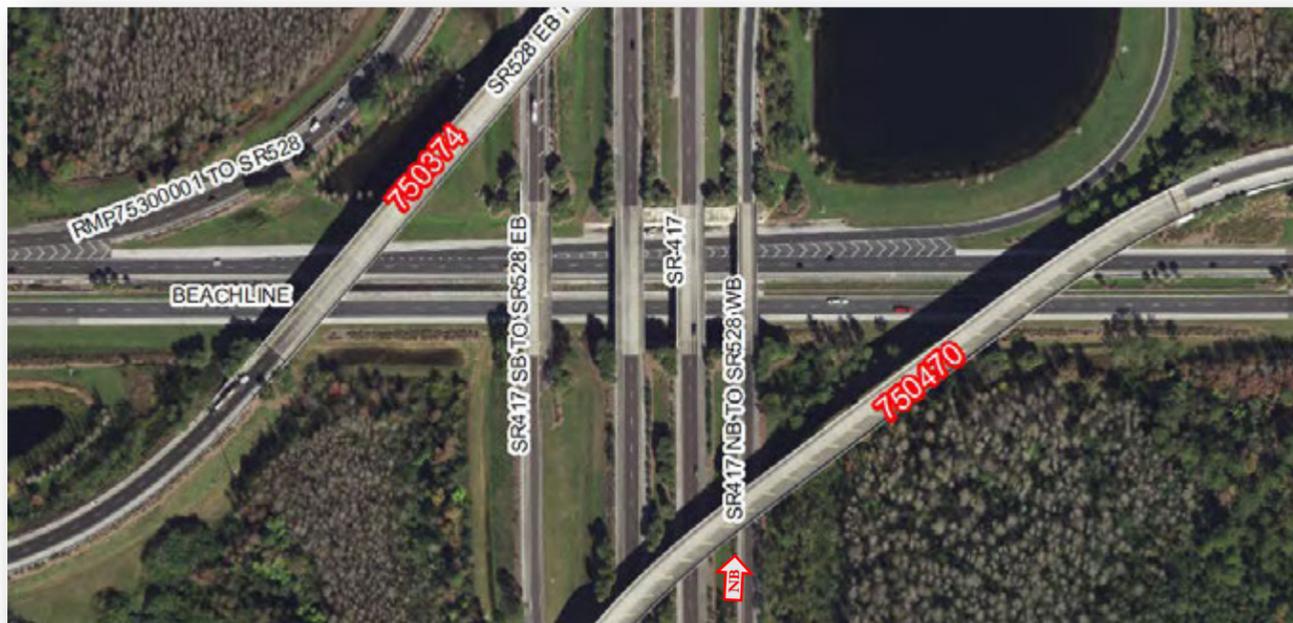
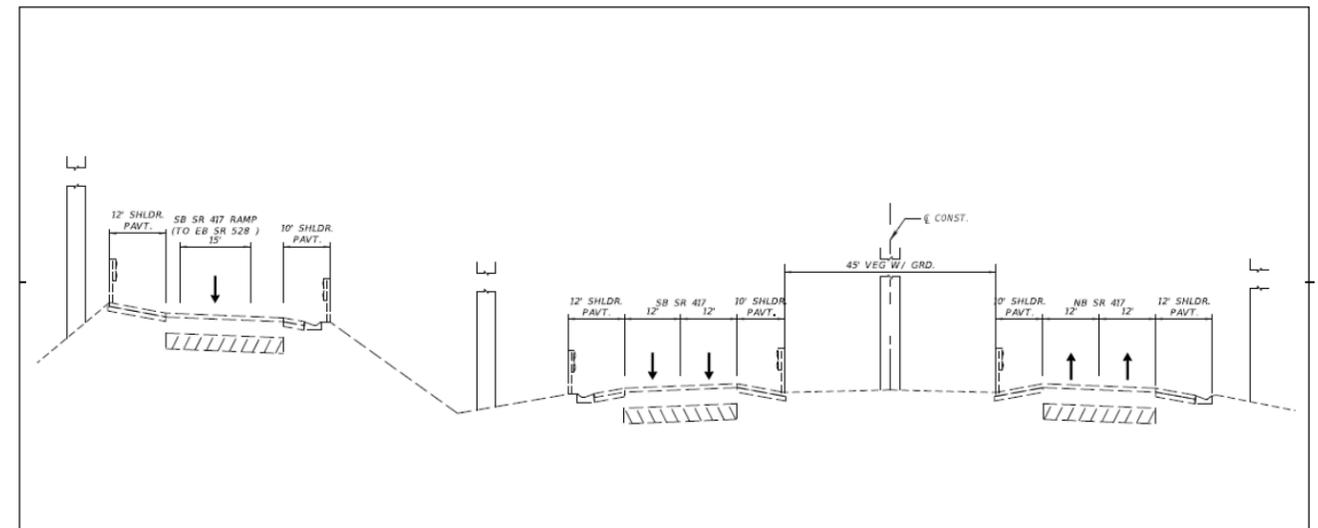


Figure 6.5-3: Typical Section at SR 417 Underpass at SR 528 (Structure #750374)



SR 417 Underpass at SR 408 (Structure #s 750353, 750825)

- Two structures at the interchange
- Structure #750353 has a vertical clearance of 16.2 feet
- Structure #750825 has a vertical clearance of 20.7 feet



Figure 6.5-4: Typical Section at SR 417 Underpass at SR 408 (Structure #750353)

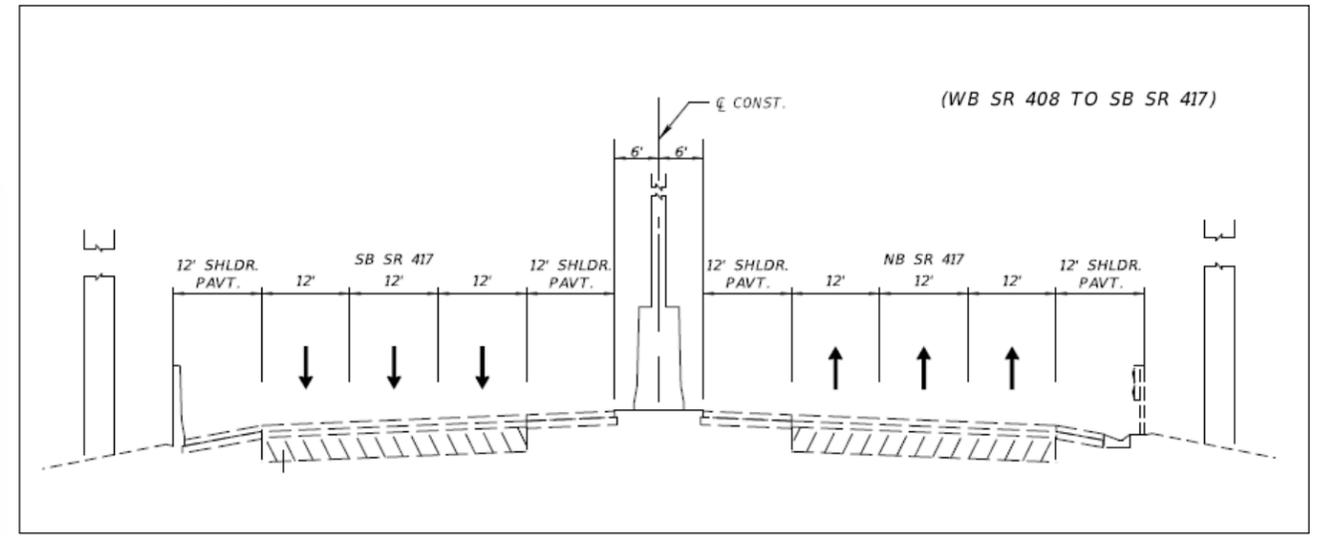
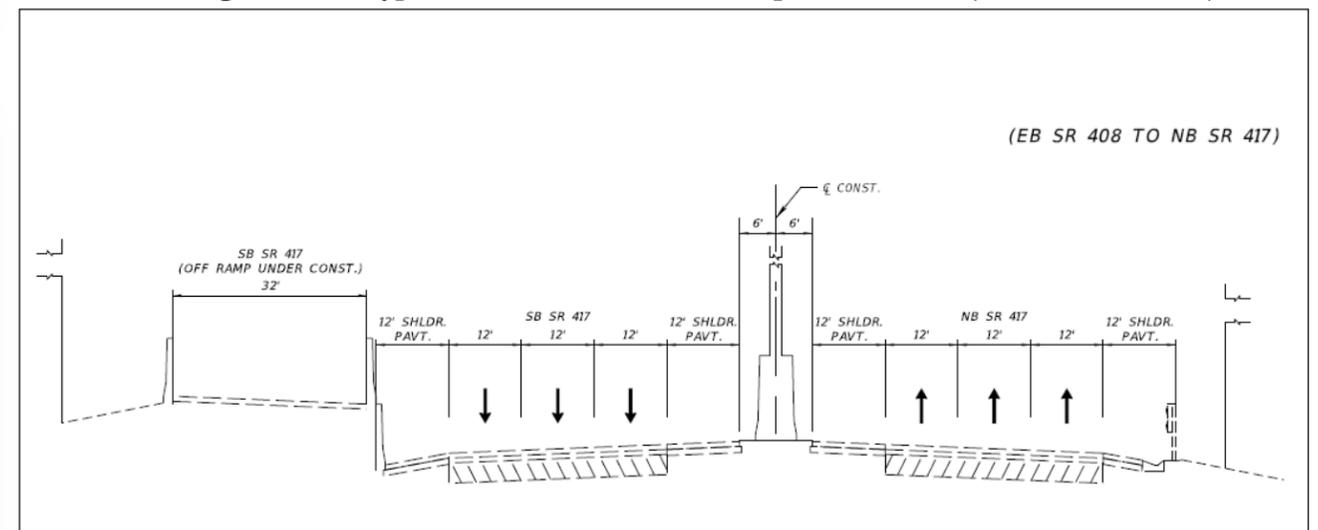


Figure 6.5-5: Typical Section at SR 417 Underpass at SR 408 (Structure #750825)

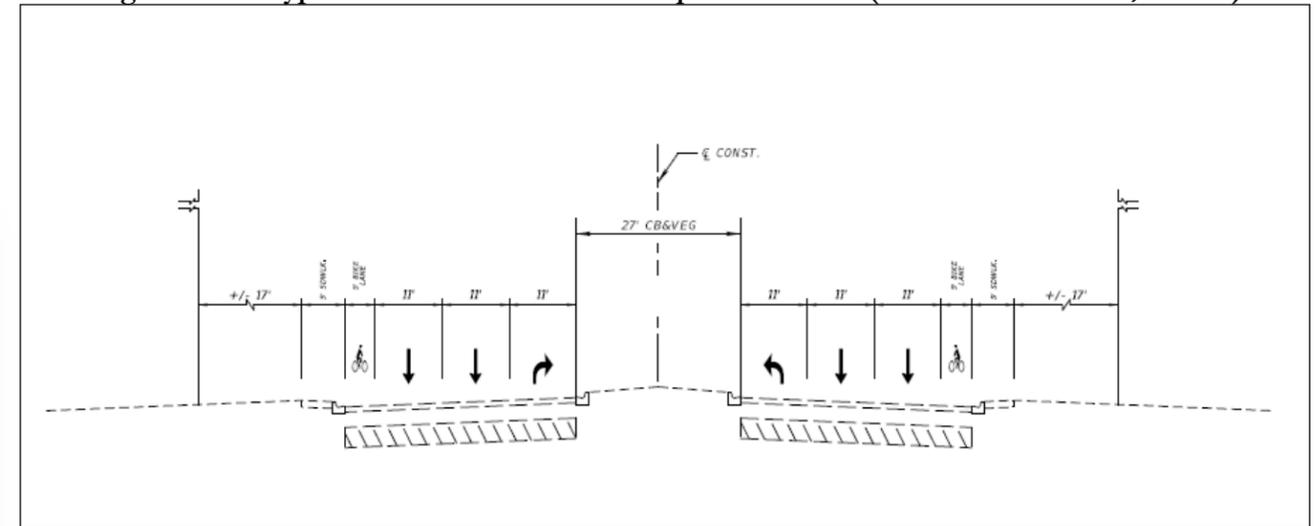


Narcoossee Road Underpass at SR 417 (Structure #s 750457, 750458)

- Two structures at the interchange
- Structure #750457 has a vertical clearance of 17 feet
- Structure #750458 has a vertical clearance of 17 feet



Figure 6.5-6: Typical Section at SR 417 Underpass at SR 408 (Structure #s 750457, 750458)



Sufficiency Rating for Bridges

Sufficiency Rating is essentially an overall rating of a bridge's fitness for the duty that it performs based on factors derived from over 20 NBI data fields. Ratings reported in this report are based on the FDOT's 2017 3rd Quarter Bridge Information Report. The designation of a bridge as Structurally Deficient (SD) or Functionally Obsolete (FO) has impact on decisions for bridge maintenance, rehabilitation or replacement. According to the FHWA Highway Bridge Replacement and Rehabilitation Program (23 CFR 650.409), highway bridges are considered eligible for rehabilitation or replacement with a sufficiency rating of less than 50.0. Highway bridges with a sufficiency rating of 80.0 or less will be eligible for rehabilitation. Ratings are on a scale of 1 to 100, with 100 considered as an entirely sufficient bridge, usually new. The Sufficiency Rating for each bridge along Corridor G is identified in Table 6.5-1

Table 6.5-1: Corridor G Sufficiency Ratings for Bridges

Roadway Name	County	Roadway ID	Interchange/Intersection	Structure #	Sufficiency Rating (%)
SR 417	Orange	75301000	Boggy Creek Road	750450	98.9
				750451	98.9
				750453	100
				750454	100
SR 417	Orange	75301000	Lake Nona Boulevard	755818	97.1
SR 417	Orange	75301000	Narcoossee Road	750457	99
				750458	99
SR 417	Orange	75301000	Ouc R/R	750459	99.1
				750460	99.1
SR 417	Orange	75301000	Moss Park Road	750462	98.1
				750461	98.1
SR 417	Orange	75301000	Innovation Way/Dowden	750463	98.1
				750464	98.1
SR 417	Orange	75301000	Beachline Expressway	750465	99.1
				750466	99.1
				750470	87.6
				750467	99.1
				750468	99.1
				750374	96.3
SR 417	Orange	75300000	Lee Vista Boulevard	750375	95
				750376	95
SR 417	Orange	75300000	Curry Ford Road	750378	91.9
				750379	91.2
SR 417	Orange	75300000	Berry-Dease Road	750380	93.3
				750381	93.3
SR 417	Orange	75300000	Lake Underhill Road	750382	96.4
				750383	96.4
SR 417	Orange	75300000	Econlockhatchee Trail	750384	98.4
				750385	98.4
SR 417	Orange	75300000	SR 408	750355	99
				750354	98
				750353	94.5
				750825	83.8
SR 417	Orange	75300000	Valencia College Ln	750350	99.4
				750351	97.3
SR 417	Orange	75300000	SR 50/Colonial Drive	750343	99
				750342	100
Narcoossee Rd	Osceola	92050000	Canal 23 B (N of Waterside Vista Lane)	924191	84.9
Narcoossee Rd	Osceola	92050000	Canal (S of Tyson Road)	Not Available	
Narcoossee Rd	Orange	75080000	SR 417	750457	99
				750458	99

6.5.2 Drainage

In Orange County, Corridor G extends through two major surface water management basins as defined by the Florida Department of Environmental Protection (FDEP): the Kissimmee River Basin and the Middle St. Johns River Basin. Stormwater in the Kissimmee River Basin generally flows southward through a chain of lakes and into the Kissimmee River. Stormwater from this portion of the Middle St. Johns River Basin generally flows east to the Little Econlockhatchee River, then into the Econlockhatchee River which flows into the St. Johns River. There are 11 major (greater than five-foot diameter pipe equivalent opening) drainage crossings, including two bridges, five bridge culverts, three box culvert crossings, and one large diameter pipe combination within the Orange County portion of the corridor. Ten of these major drainage crossings are associated with SR 417 and one is associated with Narcoossee Road. These drainage crossings are noted in Figure 6.5-7. Table 6.5-2 denotes impaired drainage basins, as defined by FDEP, through which the corridor passes. Corridor G north of SR 528 lies within the St. Johns River Water Management District’s designated Econlockhatchee River Hydrologic Basin.

Table 6.5-2: Corridor G Orange County, Impaired Waterbodies

Waterbody Name	Group Name	Water Body ID	Impairment Parameter
Little Econlockhatchee River	Middle St. Johns River	3001	Fecal Coliform
Boggy Creek	Kissimmee River	3168B	Fecal Coliform

Corridor G in Osceola County lies entirely within the FDEP-defined Kissimmee River Basin. Stormwater in the Kissimmee River Basin generally flows southward through a chain of lakes and into the Kissimmee River. The Osceola County portion of Corridor G includes six major drainage crossings, including one bridge, two bridge culverts, two box culvert crossings, and one large pipe culvert. All of the major drainage crossings are associated with Narcoossee Road. Figure 6.5-7 depicts the drainage crossing locations. Table 6.5-3 denotes impaired drainage basins, as defined by FDEP, through which the corridor passes.

Table 6.5-3: Corridor G Osceola County, Impaired Waterbodies

Waterbody Name	Group Name	Water Body ID	Impairment Parameter
None	None	None	None



6.5.3 Utilities

The most urbanized corridor being considered, CR 15, otherwise known as Narcoossee Road, starts out within the City of St. Cloud and continues north amongst developments that include residential subdivisions and commercial properties. A mixture of utilities appear within or adjacent to the right-of-way including overhead electric transmission lines as well as distribution networks for electric, communications, gas, water and sewer. As the corridor transitions from CR 15 to SR 417, an expressway, the types of utilities remains consistent with the roadway acting as a conduit for the surrounding, highly populated area. The most common type of utilities include:



- Electric transmission and distribution.
- Water and sanitary sewer mains from local municipalities. Both potable and reclaimed water appear as well as sanitary sewer configured as gravity lines and force mains.
- Communications lines are located throughout in various forms. This includes aerial and underground transmission and distribution lines for telephone and internet services. Fiber optic cables, mainly underground, are attributed to multiple communications and internet providers as well as FDOT and other agencies for traffic control and Intelligent Transportation Systems. In many instances, several communications lines would appear in a particular segment of the corridor in different aspects and locations.
- Gas transmission pipelines cross the corridor at several locations, while distribution pipes appear in and around the population centers.

The initial listing of utilities within the corridors were obtained employing the Sunshine State One-Call system. Those utilities having a major presence in the study areas were contacted to verify the location and configuration of their facilities. The significant utilities are summarized for each of the corridor’s counties.

The following table lists the primary utilities acknowledging a presence in Orange County as well as their general locations:

Table 6.5-4: Corridor G Orange County, Primary Utilities

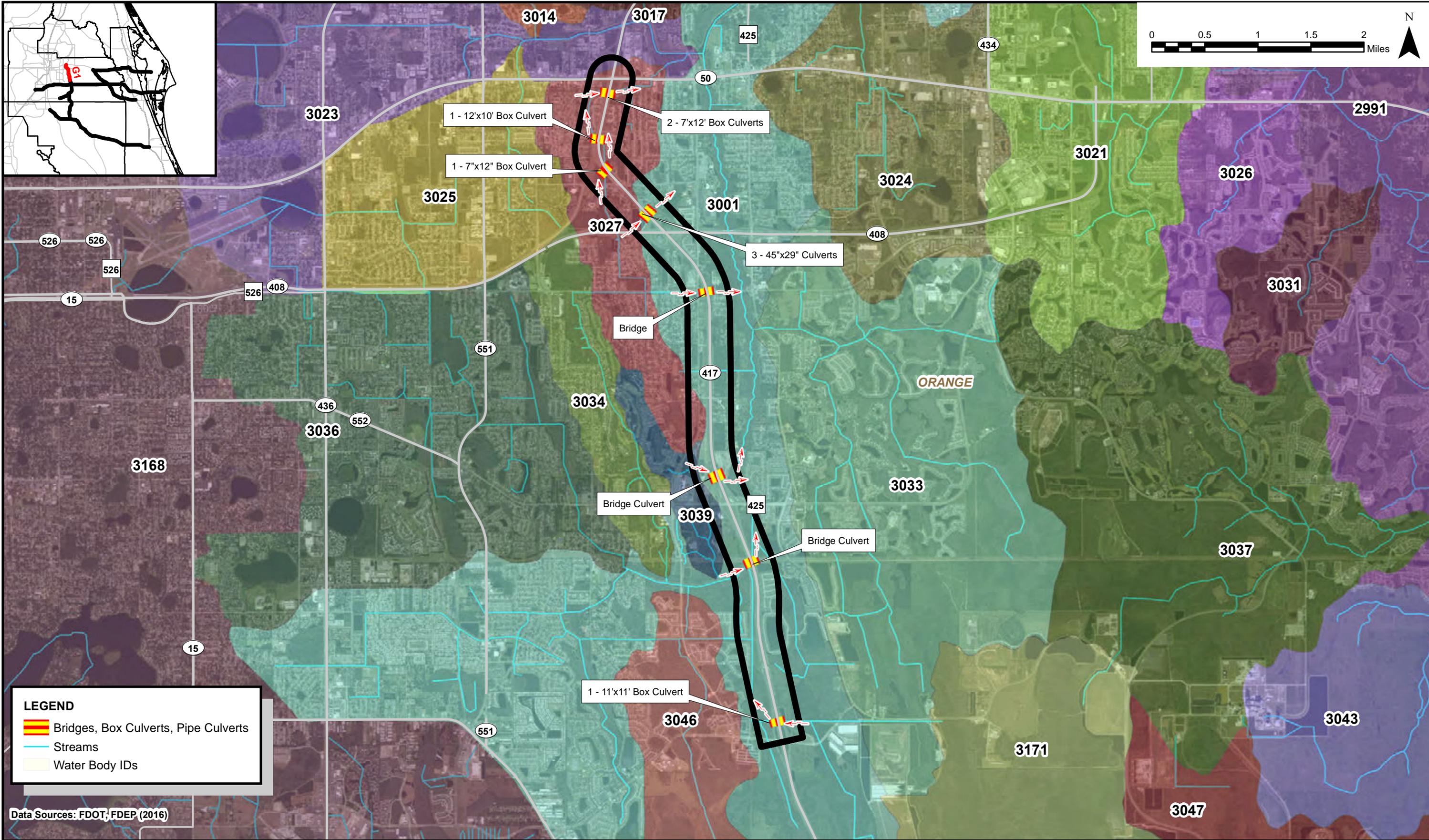
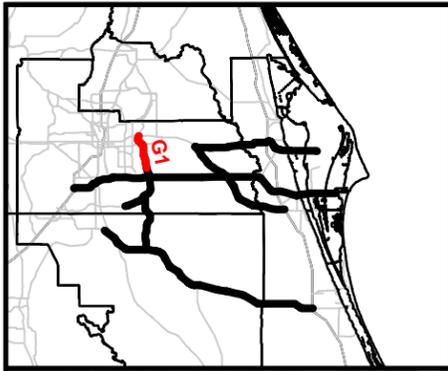
Utility Name	Utility Type	Parallel or Crossing	Roadway	Cross Road/Extent
CenturyLink	Fiber	Parallel	CR 15	SR 417 to County Line
CenturyLink	Fiber	Crossings (2)	SR 417	Lake Underhill Rd, CR 15
City of Orlando - BoWW	San. FM	Crossings (2)	SR 417	SR 50 (2)

Utility Name	Utility Type	Parallel or Crossing	Roadway	Cross Road/Extent
City of Orlando - BoWW	Reclaim	Crossings (2)	SR 417	S of Curry Ford Rd, Lake Nona Blvd
City of Orlando - BoWW	Gravity Sewer	Parallel	SR 417	E & W of Lake Nona Blvd
City of Orlando - BoWW	Lift Station/San. FM	Parallel	SR 417	Near Lake Nona Blvd
Duke Energy	Electric - OH	Crossings (5)	SR 417	SR 528, N of Curry Ford Rd, Near Lake Underhill Rd Substation (3)
Duke Energy	Electric - OH	Parallel	SR 417	Curry Ford Rd to Lake Underhill Rd Substation
Florida Gas Transmission	Gas	Crossing	SR 417	South of SR 528
Orange County Utilities	Reclaim	Parallel	CR 15	Eagle Creek Sanctuary Blvd to SR 417
Orange County Utilities	San. FM	Crossings (2)	SR 417	Curry Ford Rd, Berry Dease Rd
Orange County Utilities	Raw Water	Crossing	SR 417	Lake Underhill Rd
Orange County Utilities	Water	Crossings (4)	SR 417	Leevista Blvd, Curry Ford Rd, Berry Dease Rd, Lake Underhill Rd
Orlando Utilities Commission	Electric - OH	Parallel	CR 15	County Line to SR 417
Orlando Utilities Commission	Electric - OH	Parallel	SR 417	E and W of Lake Nona Blvd
Orlando Utilities Commission	Electric - OH	Crossings (2)	SR 417	Moss Park Rd, Curry Ford Rd
Summit Broadband	Phone/Fiber	Parallel	CR 15	Tavistock Blvd to SR 417
Summit Broadband	Phone/Fiber	Crossings (6)	SR 417	Moss Park Rd, Curry Ford Rd, Valencia College Ln, Lake Nona Blvd, Boggy Creek Rd, CR 15
Summit Broadband	Phone/Fiber	Parallel	SR 417	Lake Nona Blvd to Boggy Creek Rd

The following table lists the primary utilities acknowledging a presence in Osceola County as well as their general locations:

Table 6.5-5: Corridor G Osceola County, Primary Utilities

Utility Name	Utility Type	Parallel or Crossing	Roadway	Cross Road/Extent
CenturyLink	Fiber	Parallel	CR 15	Multiple Throughout County
CenturyLink	Phone (Copper)	Parallel	CR 15	Multiple Throughout County
Orlando Utilities Commission	Electric - OH	Parallel	CR 15	US 192 to Ralph Miller Rd, Cyrils Dr to County Line
Orlando Utilities Commission	Electric - OH	Crossings (2)	CR 15	N of Ashton Park Blvd (2)



LEGEND

-  Bridges, Box Culverts, Pipe Culverts
-  Streams
-  Water Body IDs

Data Sources: FDOT, FDEP (2016)

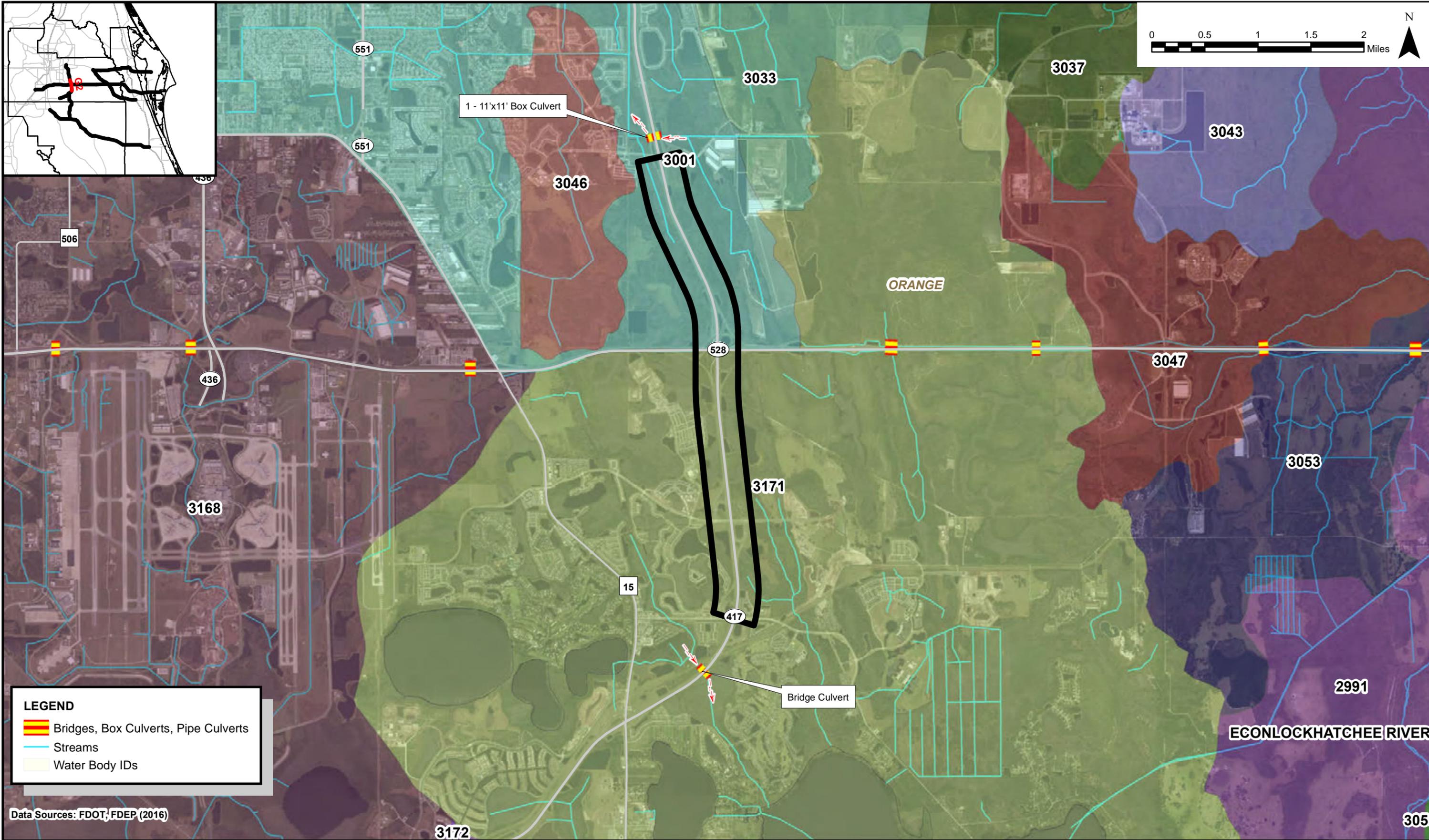
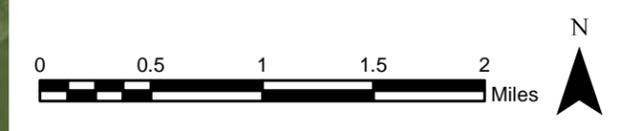
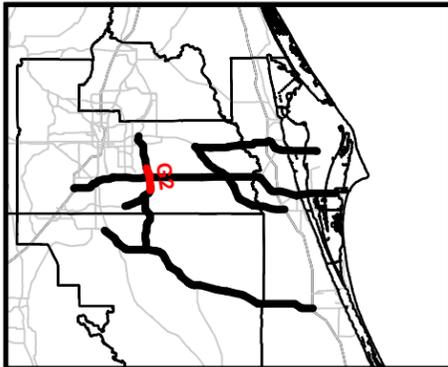


East Central Florida Corridor Evaluation Study



Corridor G Existing Drainage Conditions

**FIGURE
6.5-7**
SEGMENT G1



LEGEND

-  Bridges, Box Culverts, Pipe Culverts
-  Streams
-  Water Body IDs

Data Sources: FDOT, FDEP (2016)

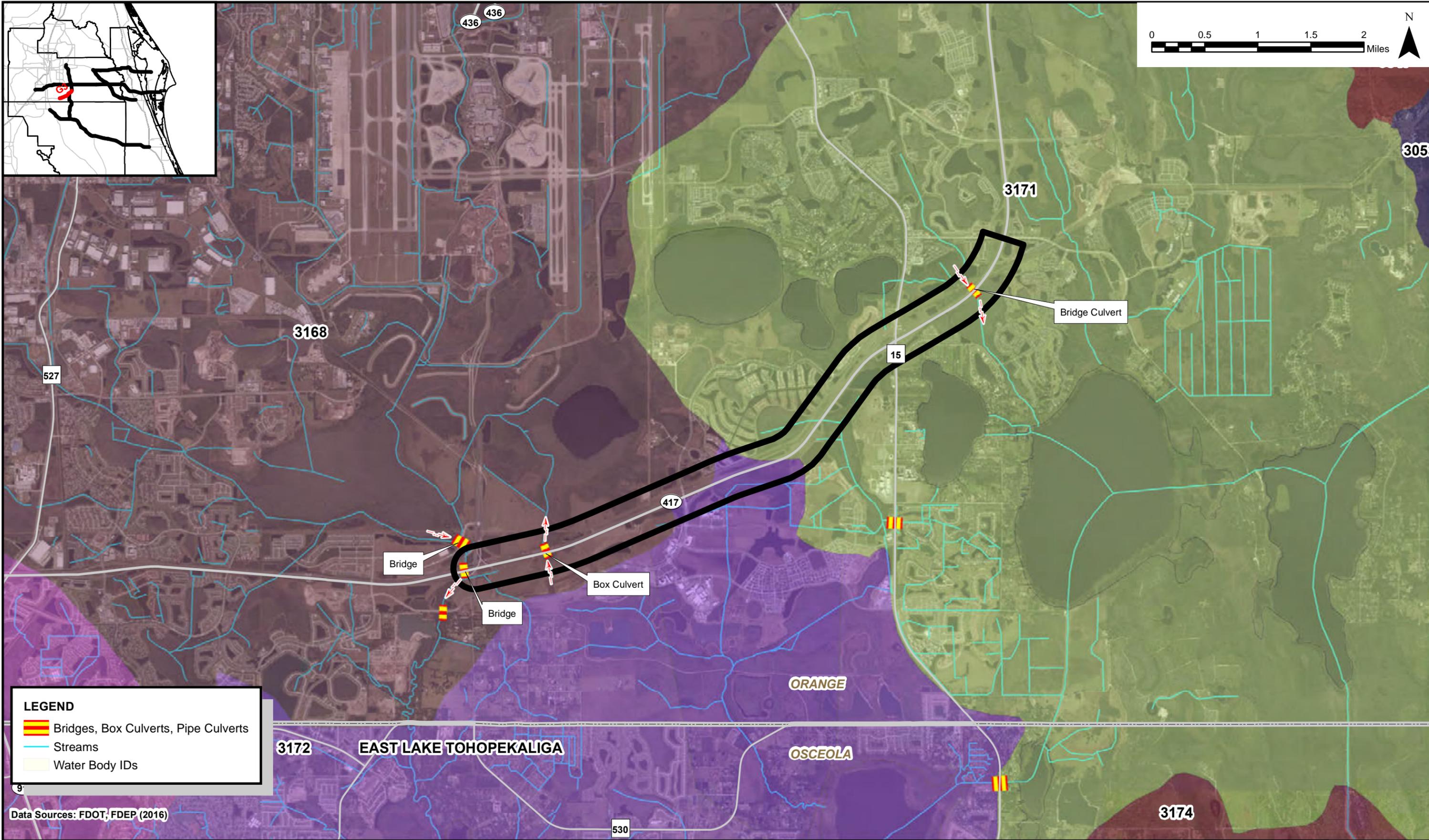
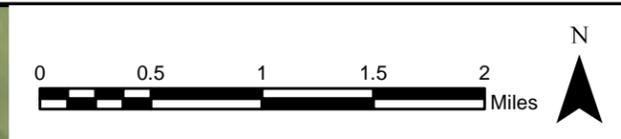
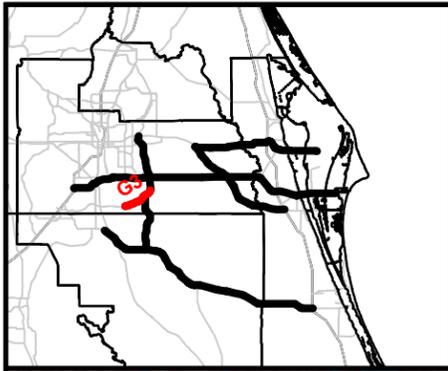


East Central Florida Corridor Evaluation Study



Corridor G
Existing Drainage Conditions

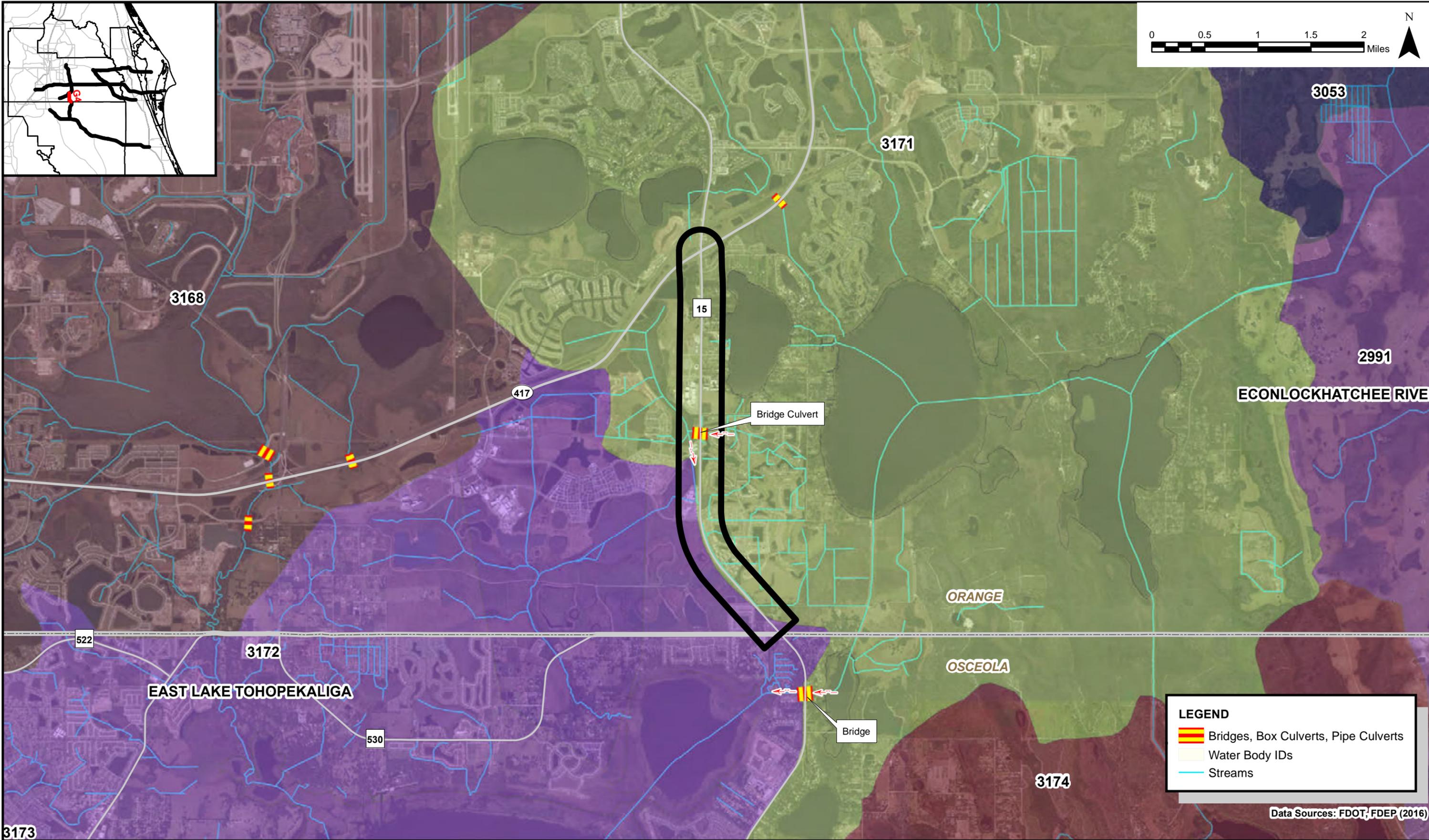
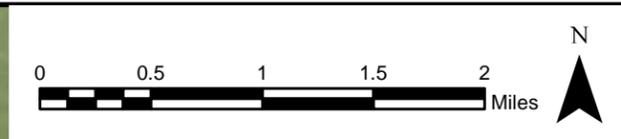
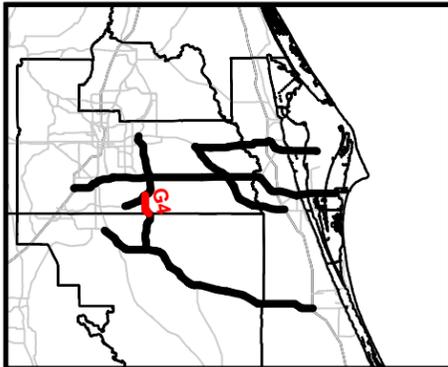
FIGURE
6.5-7
 SEGMENT G2



LEGEND

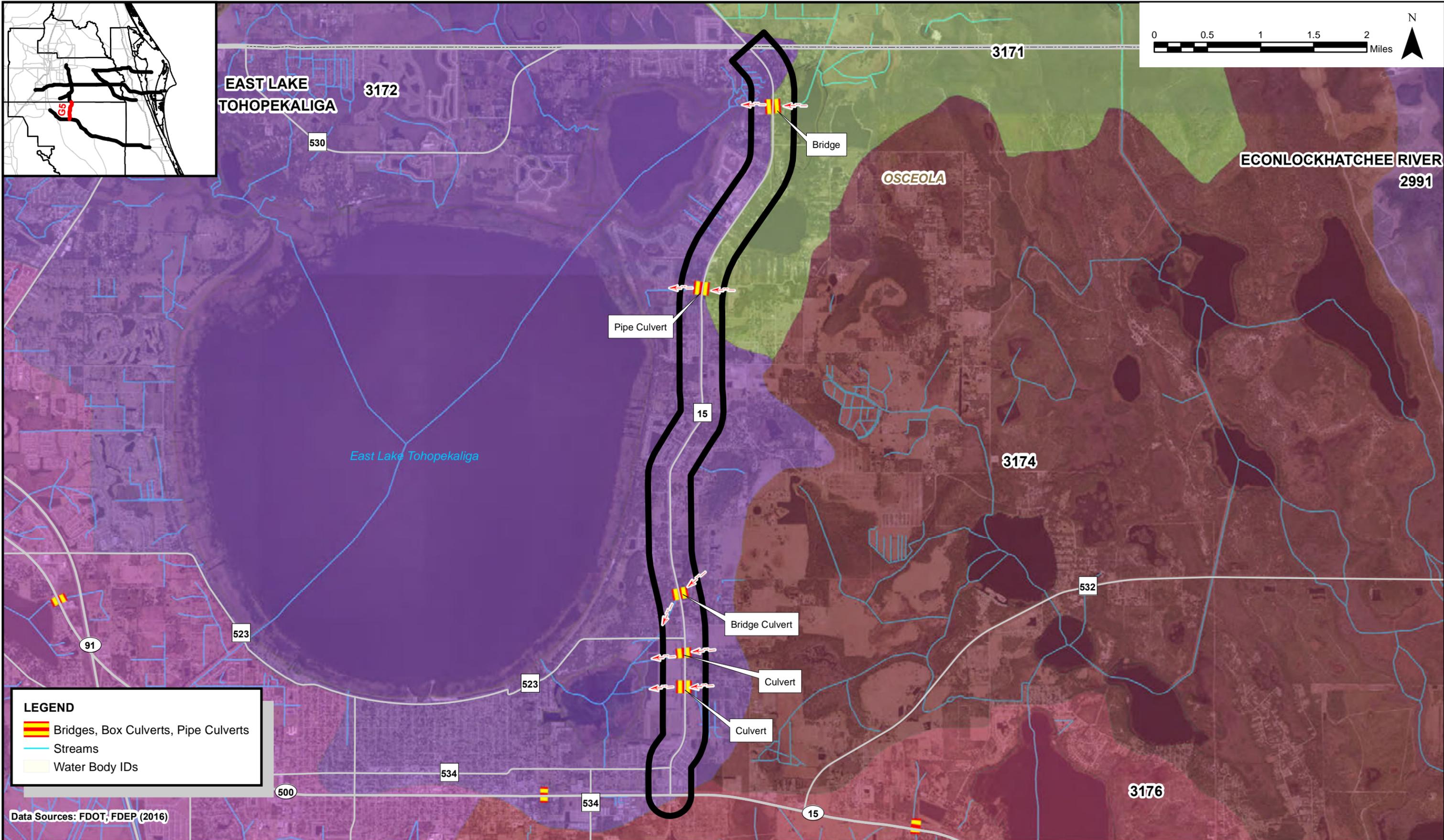
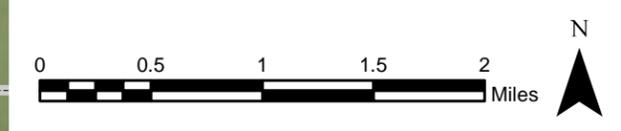
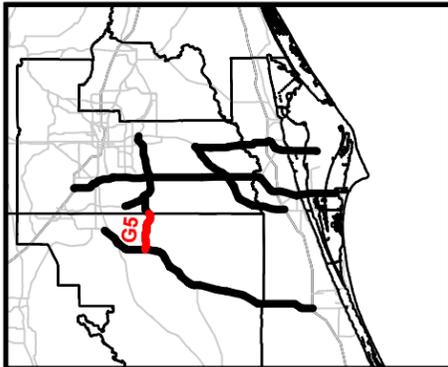
-  Bridges, Box Culverts, Pipe Culverts
-  Streams
-  Water Body IDs

Data Sources: FDOT, FDEP (2016)



Data Sources: FDOT, FDEP (2016)





LEGEND

-  Bridges, Box Culverts, Pipe Culverts
-  Streams
-  Water Body IDs

Data Sources: FDOT, FDEP (2016)



East Central Florida Corridor Evaluation Study



Corridor G
Existing Drainage Conditions

FIGURE
6.5-7
 SEGMENT G5

6.6 Environmental Characteristics

6.6.1 Wetlands

All five segment buffers traverse wetlands and the 100-year floodplain. Wetlands are dispersed evenly throughout the segments; however, they are most prevalent in Segments G2 and G3 (Table 6.6-1).

Table 6.6-1: Corridor G Wetlands

Segment	Wetland Type	Acres
G1	Freshwater Emergent Wetland	18.87
	Freshwater Forested/Shrub Wetland	26.08
	Freshwater Pond	49.93
	Riverine	4.56
G2	Freshwater Emergent Wetland	0.92
	Freshwater Forested/Shrub Wetland	96.52
G3	Freshwater Emergent Wetland	18.10
	Freshwater Forested/Shrub Wetland	83.96
G4	Freshwater Emergent Wetland	9.44
	Freshwater Forested/Shrub Wetland	20.99
	Freshwater Pond	1.38
G5	Freshwater Emergent Wetland	3.55
	Freshwater Forested/Shrub Wetland	8.43
	Freshwater Pond	2.49
	Lake	1.00

6.6.2 Floodplains

Flood zone acres are highest in Segment G3, which is surrounded by lakes and ponds, and Segment G2, which goes through a stretch of swamp land (Table 6.6-2 and Figure 6.6-6).

Table 6.6-2: Corridor G Flood Zones

Segment	Flood Zone	Acres
G1	A	10.75
	AE	69.24
G2	A	146.98
	AE	10.08
G3	A	12.65
	AE	165.09
G4	A	15.44
	AE	37.25

Segment	Flood Zone	Acres
G5	A	97.19
	AE	27.86

6.6.3 Historic and Cultural Resources

Historic resources in Corridor G include 16 historic structures, nine archaeological sites and 39 recorded surveys. Most historic structures occur in Segment G5. These structures include the 1886 Narcoossee Schoolhouse (5026 Yukon St) which is located directly along the east side of the existing roadway. This structure has already been relocated for a previous expansion of the roadway and is in the process of being restored by the Osceola County Historical Society. One archaeological site exists along Segment G2 to the east side of the existing roadway, just south of the interchange with SR 528.

Four archaeological sites exist along Segment G3. The first two are on the north side of the existing roadway between the intersection with Narcoossee Road and Lake Nona Boulevard. The second two are on near the intersection with Lake Nona Boulevard, one between the south exit ramp and Lake Nona Boulevard, and one to the north of the existing roadway to the west of Lake Nona Boulevard. All archaeological sites along Segment G5 are on the west side of the existing roadway. The first is to the north of the Narcoossee Elementary School, The second is under and to the west of the existing roadway between Spiral Way and Thompkins Road, the third is near the intersection with East Lake Reserve Boulevard, and the fourth is north of Sunset Road. Due to the large number of historical features, the corresponding table can be found in Appendix E.

6.6.4 Threatened and Endangered Species

Corridor G goes through consultation areas for the Caracara, Florida grasshopper sparrow (Segments G4 and G5), Lake Wales Ridge plants, red-cockaded woodpecker, sand skink, scrub jay, and snail kite. Corridor G also notably crosses through wood stork core foraging area. Four black bear nuisance instances have been reported in the corridor buffer (Table 6.6-3 and Figure 6.6-4).

Table 6.6-3: Corridor G Biological Evaluation

Feature	Acres				
	G1	G2	G3	G4	G5
Atlantic Coast Plants Consultation Area	0	0	0	0	0
Audubon’s Crested Caracara Occurrences in Florida (1992-2009)	0	0	0	0	0
Bald Eagle Nesting Territories	0	0	0	0	0
Black Bear Range	0	0	0	0	0
Black Bear Road Kills	0	0	0	0	0
Caracara Consultation Area	0.03	632.41	749.78	453.70	908.20
Critical Habitat for the Reticulated Flatwoods Salamander and Frosted Flatwoods	0	0	0	0	0

Feature	Acres				
	G1	G2	G3	G4	G5
Critical Habitat in Florida for the West Indian Manatee - 2005	0	0	0	0	0
Crocodile Consultation Area	0	0	0	0	0
Ecosystem Management Areas	726.07	639.66	749.78	453.70	908.20
FWC 1999 Wading Bird Rookery Surveys	0	0	0	0	0
FWC Black Bear Nuisance Reports	2	0	1	1	0
Final Designation of Critical Habitat in Florida for the Elkhorn and Staghorn Corals - 2009	0	0	0	0	0
Final Designation of Critical Habitat in Florida for the Smalltooth Sawfish - 2009	0	0	0	0	0
Florida Forever BOT Projects	0	0	0	0	0
Florida Grasshopper Sparrow Consultation Area	0	0	0	172.75	908.20
Florida Managed Areas	0	0	0	0	0
Florida National Wildlife Refuges	0	0	0	0	0
Florida Panther Mortality (1972 through August 2010)	0	0	0	0	0
Florida Sand Skink and Blue-tailed (Bluetail) Mole Skink Suitability	45.65	86.86	154.91	34.83	0
Florida State Parks	0	0	0	0	0
Freshwater Mussels Critical Habitat	0	0	0	0	0
Gopher Tortoise Relocation Permit Recipient Sites in Florida	0	0	0	0	0
Gulf Sturgeon Critical Marine Habitat	0	0	0	0	0
Gulf Sturgeon Critical Riverine Habitat	0	0	0	0	0
Lake Wales Ridge Plants Consultation Area	283.51	639.67	749.78	453.70	908.20
Manatee Consultation Area	0	0	0	0	0
National Park Projects	0	0	0	0	0
National Parks and Seashores	0	0	0	0	0
Okeechobee Gourd Consultation Area	0	0	0	0	0
Panther Consultation Area	0	0	0	0	0
Panther Zones	0	0	0	0	0
Piping Plover Locations	0	0	0	0	0
Piping Plover Consultation Area	0	0	0	0	0
Piping Plover Critical Habitat	0	0	0	0	0
Public Land	0	0	0	0	0
Rare and Imperiled Fish	0	0	0	0	0
Red-Cockaded Woodpecker Consultation Area	701.53	639.67	749.78	453.70	908.20
Red-cockaded Woodpecker Active and Inactive Occurrences in Florida - 2005	0	0	0	0	0
Sand Skink Consultation Area	726.07	639.67	749.78	315.98	0.04
Scrub Jay Consultation Area	726.64	640.17	750.37	454.06	908.91
Scrub Jay Occurrences in Florida (1992-1993)	0	0	0	0	0
Short-Tailed Hawk and Swallow-Tailed Kite Nests	0	0	0	0	0

Feature	Acres				
	G1	G2	G3	G4	G5
Snail Kite Consultation Area	726.07	639.67	749.78	453.70	908.20
Snail Kite Critical Habitat	0	0	0	0	0
Snail Kite Priority Management Zones	0	0	0	0	0
Snowy Plover Nest Locations 2006	0	0	0	0	0
TNC Ecological Resource Conservation Areas	186.26	0	157.97	212.55	908.20
Wood Stork Core Foraging Areas	726.07	639.67	749.78	453.70	908.20
Wood Stork Nests	0	0	0	0	0

6.6.5 Noise Evaluation

Potential noise sensitive receptors within the segment buffers are comprised mostly of residential parcels; 484 residential parcels are within Segment G1, 3 are within Segment G2, 95 are within Segment G3, 109 are within Segment G4, and 685 are within Segment G5 (Table 6.6-4 and Figure 6.6-5). Most of these are single family residential; however, Segment G5 contains 107 mobile home parcels.

Table 6.6-4: Corridor G Potential Noise Sensitive Receptors

Segment	Type	Name	Count
G1	Assisted Housing	Valencia Trace	
	School	Hindu University Of America Inc.	
	Housing Parcels	Single Family Residential	428
	Housing Parcels	Single Family Residential- Lake Front	40
	Housing Parcels	Single Family Residential- Town Home	11
	Housing Parcels	Manufactured Home	1
	Housing Parcels	Low Income Apartments	3
	Housing Parcels	Multi-Family Residential	1
G2	Housing Parcels	Single Family Residential	2
	Housing Parcels	Multi-Family Residential	1
G3	Housing Parcels	Single Family Residential	37
	Housing Parcels	Single Family Residential- Town Home	57
	Housing Parcels	Multi-Family Residential	1
G4	Culture Center	Valencia College - Lake Nona Campus Library	
	Group Care	Lake Nona High	
	Group Care	Lake Nona Middle	
	School	Lake Nona High	
	School	Lake Nona Middle	
	Housing Parcels	Single Family Residential	64
	Housing Parcels	Single Family Residential - Lake Front	14
	Housing Parcels	Single Family Residential - Golf	24
	Housing Parcels	Modern Apartment Complex	3
	Housing Parcels	Multi-Family Residential	1
	Housing Parcels	Mobile Home Park	3

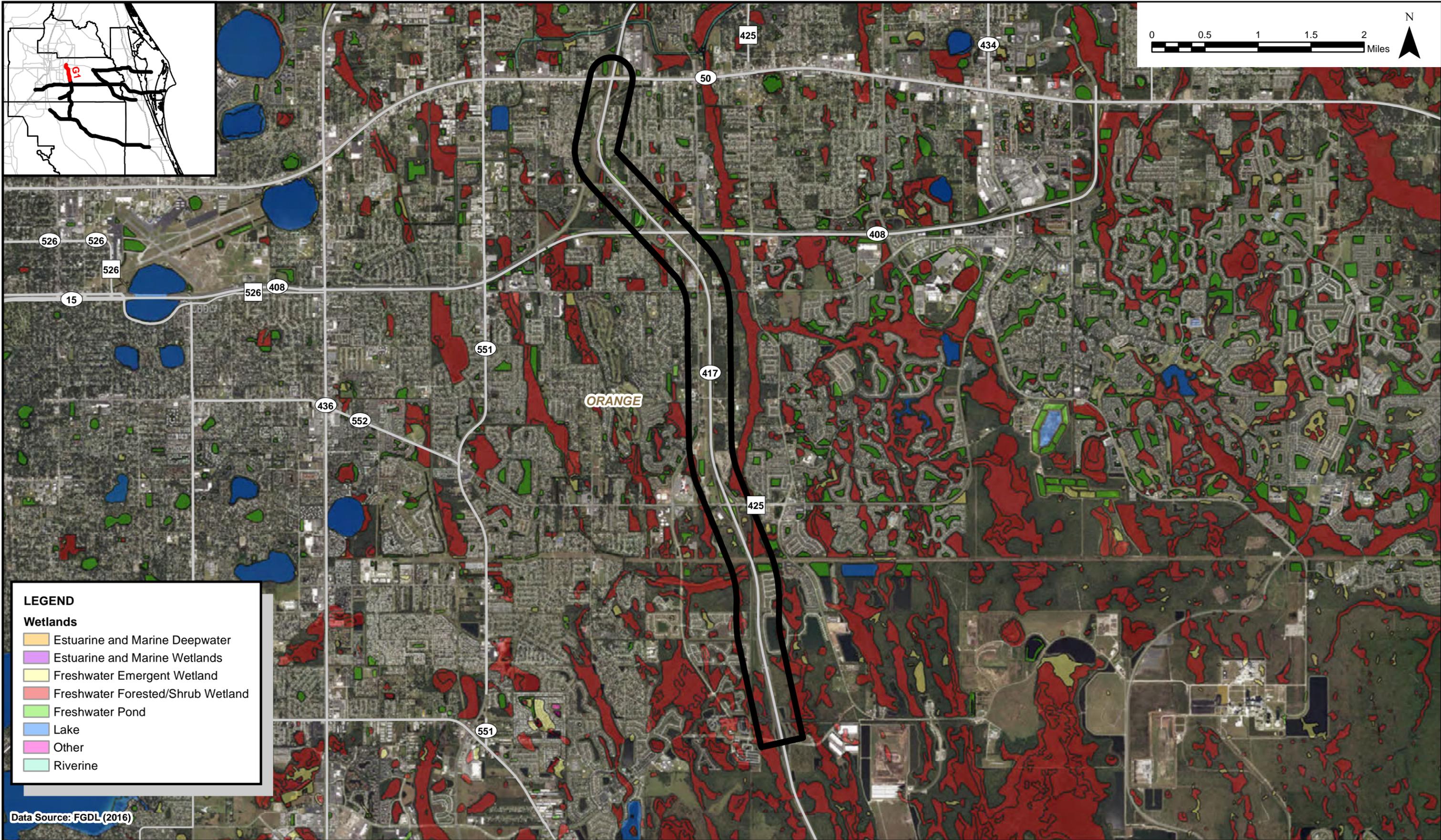
Segment	Type	Name	Count
G5	Health Care Facility	Park Place Behavioral Health Care	
	Culture Center	Narcoossee Library Annex	
	Group Care	Narcoossee Elementary School	
	Group Care	Narcoossee Middle School	
	School	Narcoossee Elementary School	
	School	Narcoossee Middle School	
	Housing Parcels	Single Family Residential	578
	Housing Parcels	Mobile Homes	107

6.6.6 Contamination

The number of potential sources of contamination sites is greatest in Segments G4 and G5, although there are not many and they are mostly spread out (Table 6.6-5 and Figure 6.6-6).

Table 6.6-5: Corridor G Potential Sources of Contamination

Segment	Type	Name	Acres
G1	N/A		
G2	Brownfield	Innovation Way ROCC	
	DEP Cleanup Site	Kenan Transport Co 05-7I-3166	
G3	NPDES Facility	SR-417 - Boggy Creek Interchange	
G4	NPDES Facility	Vickrey Place Narcoossee	
	NPDES Facility	Lake Nona at Laureate Park	
	Small Quantity Generator	Wawa Food Market #5187	
G5	DEP Cleanup Site	7-Eleven Food Store #32645	
	DEP Cleanup Site	Narcoossee Grocery LLC	
	DEP Cleanup Site	Store #11	
	NPDES Facility	Waterside Vista	
	NPDES Facility	Turtle Creek	
	NPDES Facility	Terra Vista	
	Solid Waste Facility	R & B Properties	



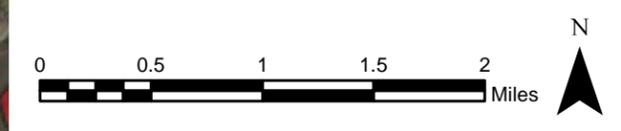
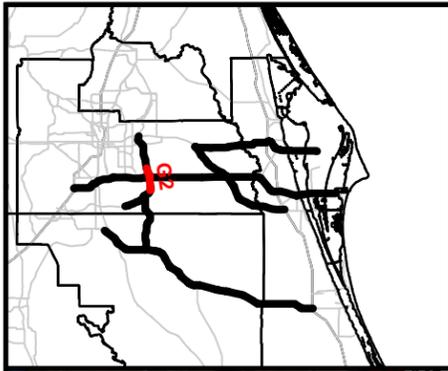
LEGEND

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetlands
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Data Source: FGDL (2016)





LEGEND

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetlands
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Data Source: FGDL (2016)

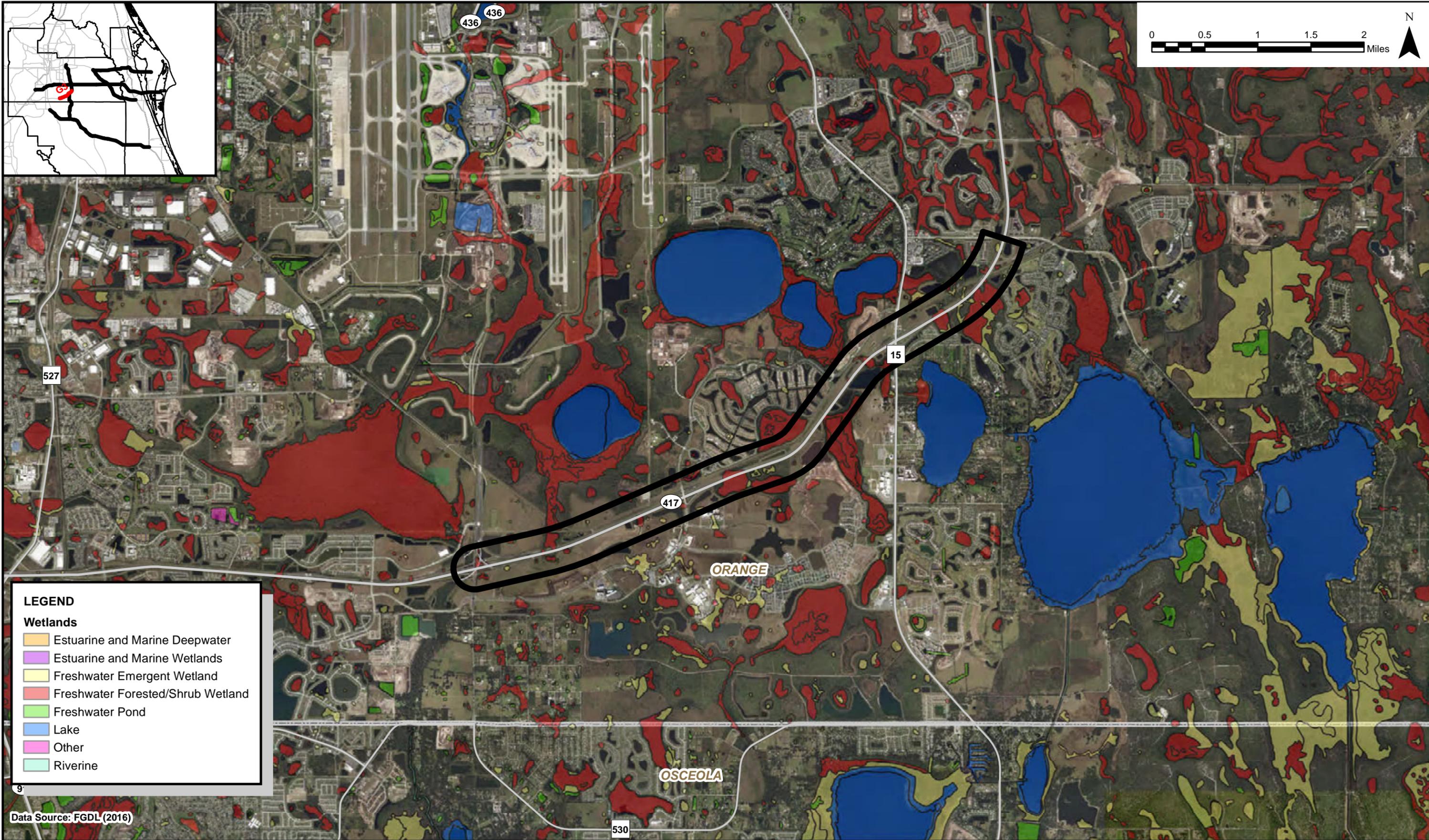
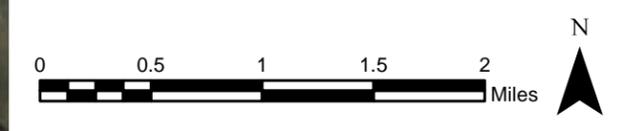
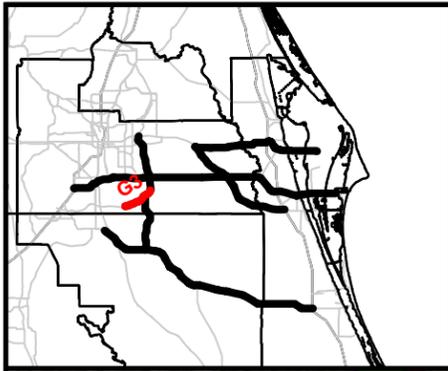


East Central Florida Corridor Evaluation Study



**Corridor G
Wetlands**

**FIGURE
6.6-1
SEGMENT G2**



LEGEND

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetlands
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Data Source: FGDL (2016)

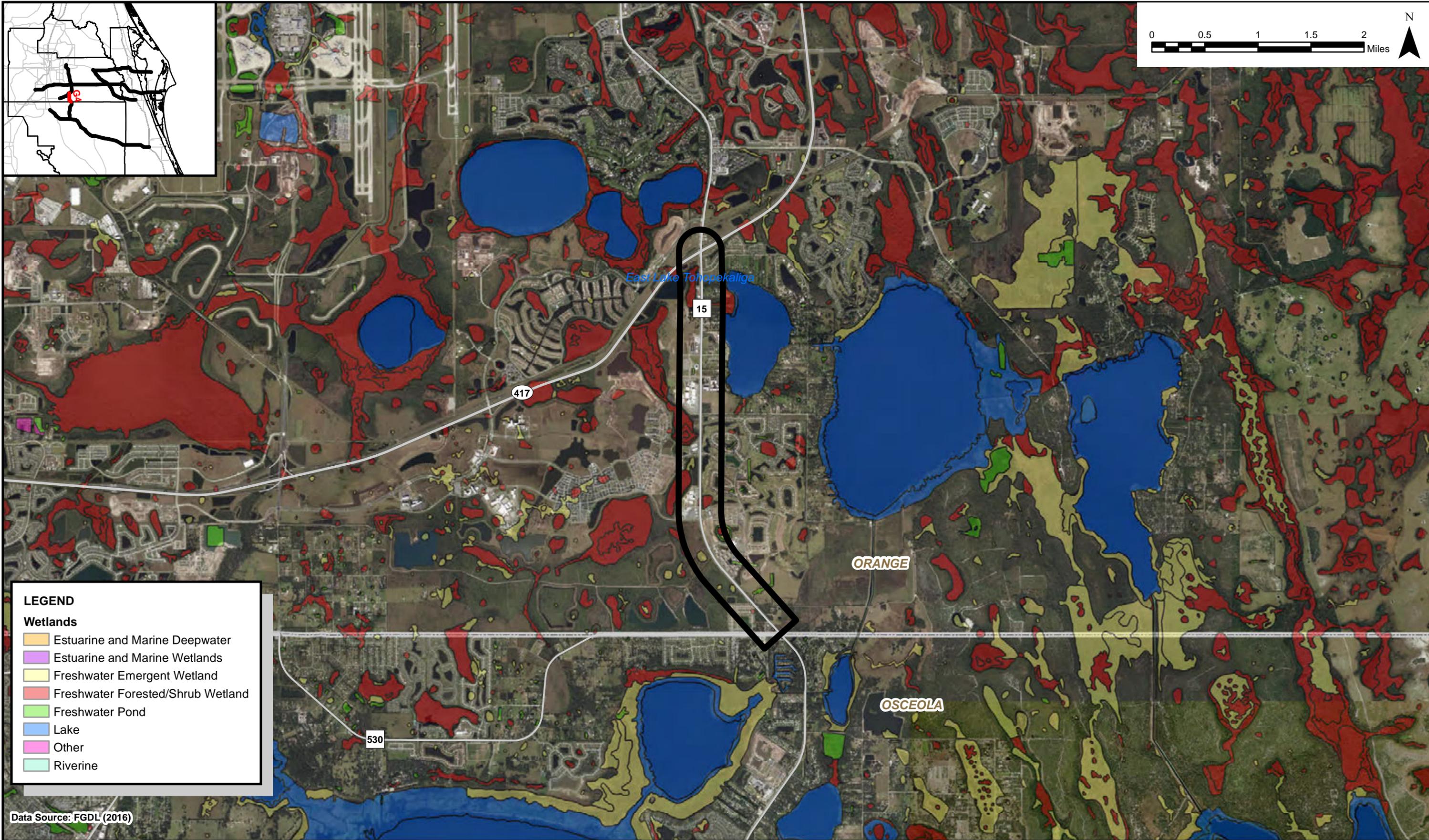
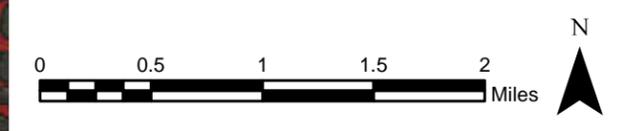
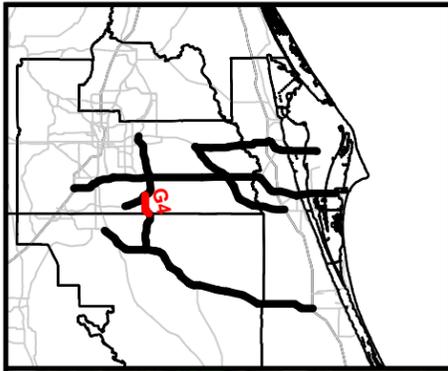


East Central Florida Corridor Evaluation Study



Corridor G Wetlands

**FIGURE
6.6-1**
SEGMENT G3



LEGEND

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetlands
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Data Source: FGDL (2016)

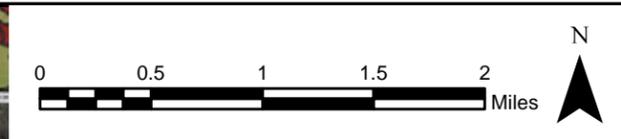
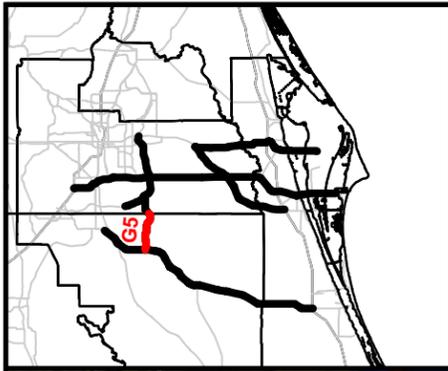


East Central Florida Corridor Evaluation Study



Corridor G Wetlands

**FIGURE
6.6-1**
SEGMENT G4



LEGEND

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetlands
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Data Source: FGDL (2016)

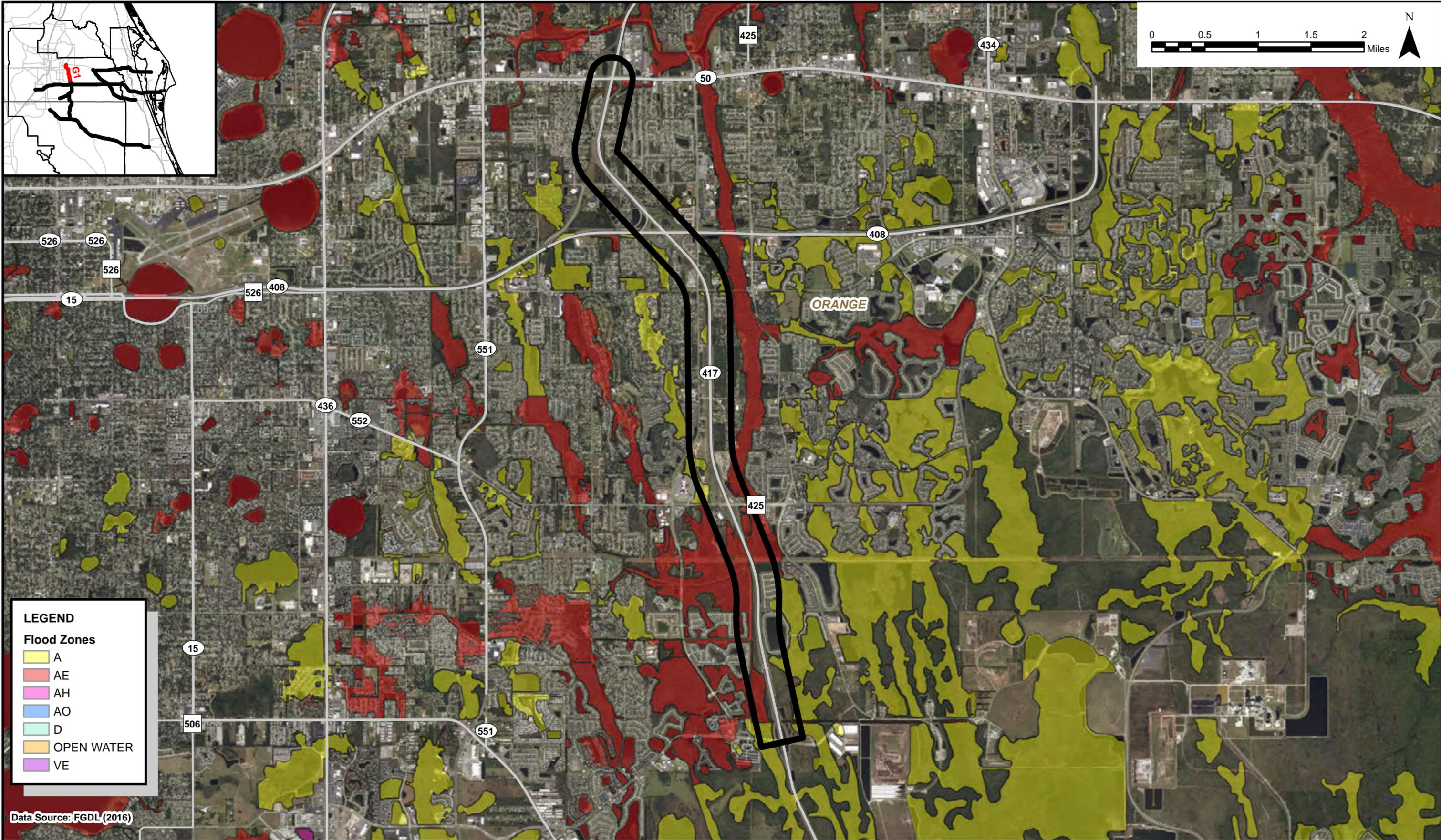


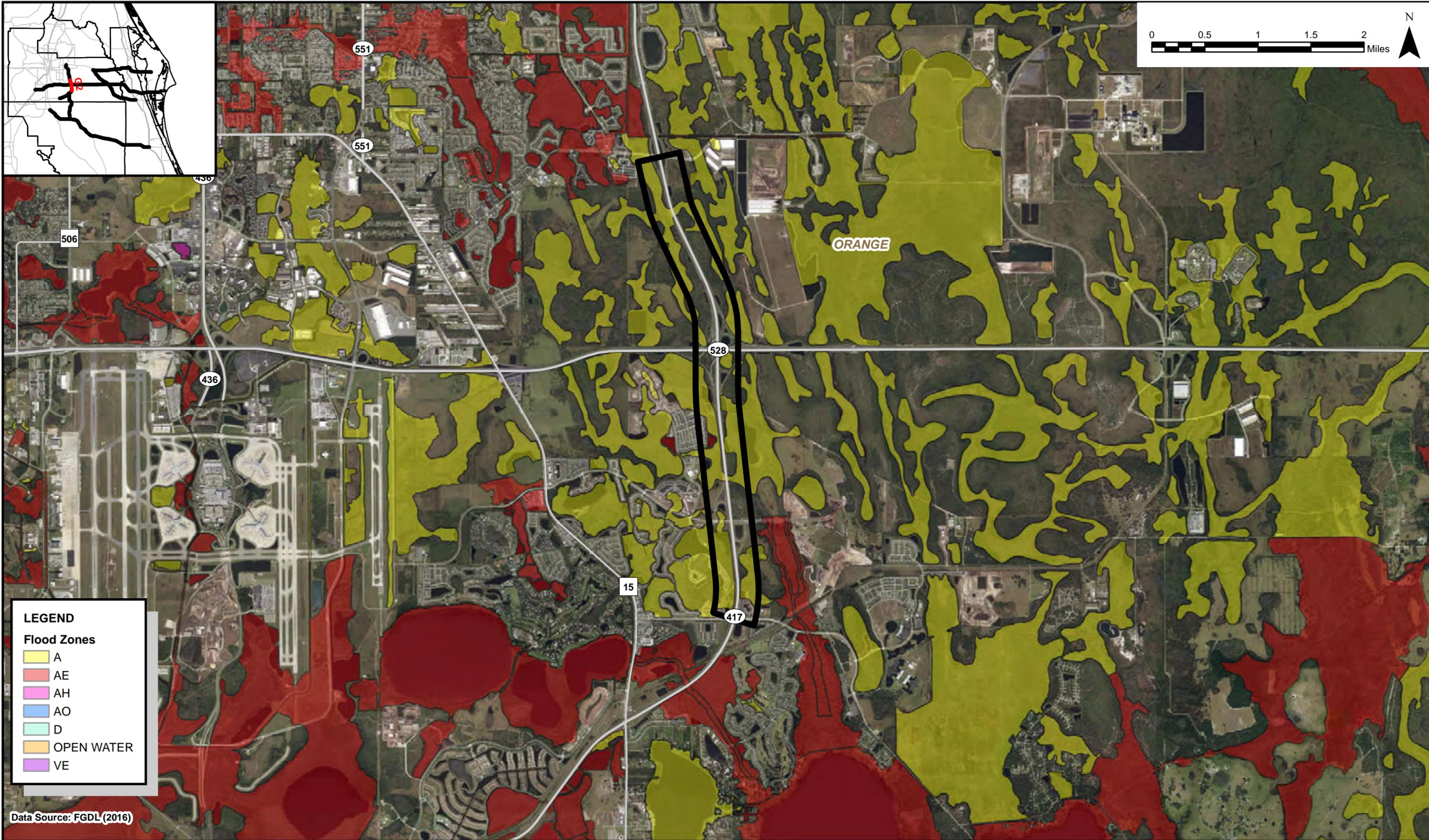
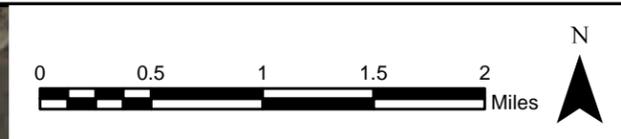
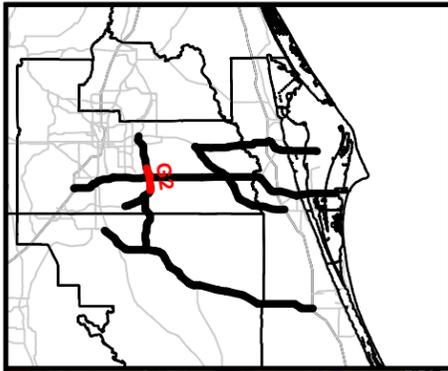
East Central Florida Corridor Evaluation Study



Corridor G Wetlands

**FIGURE
6.6-1
SEGMENT G5**





LEGEND

Flood Zones

- A
- AE
- AH
- AO
- D
- OPEN WATER
- VE

Data Source: FGDL (2016)

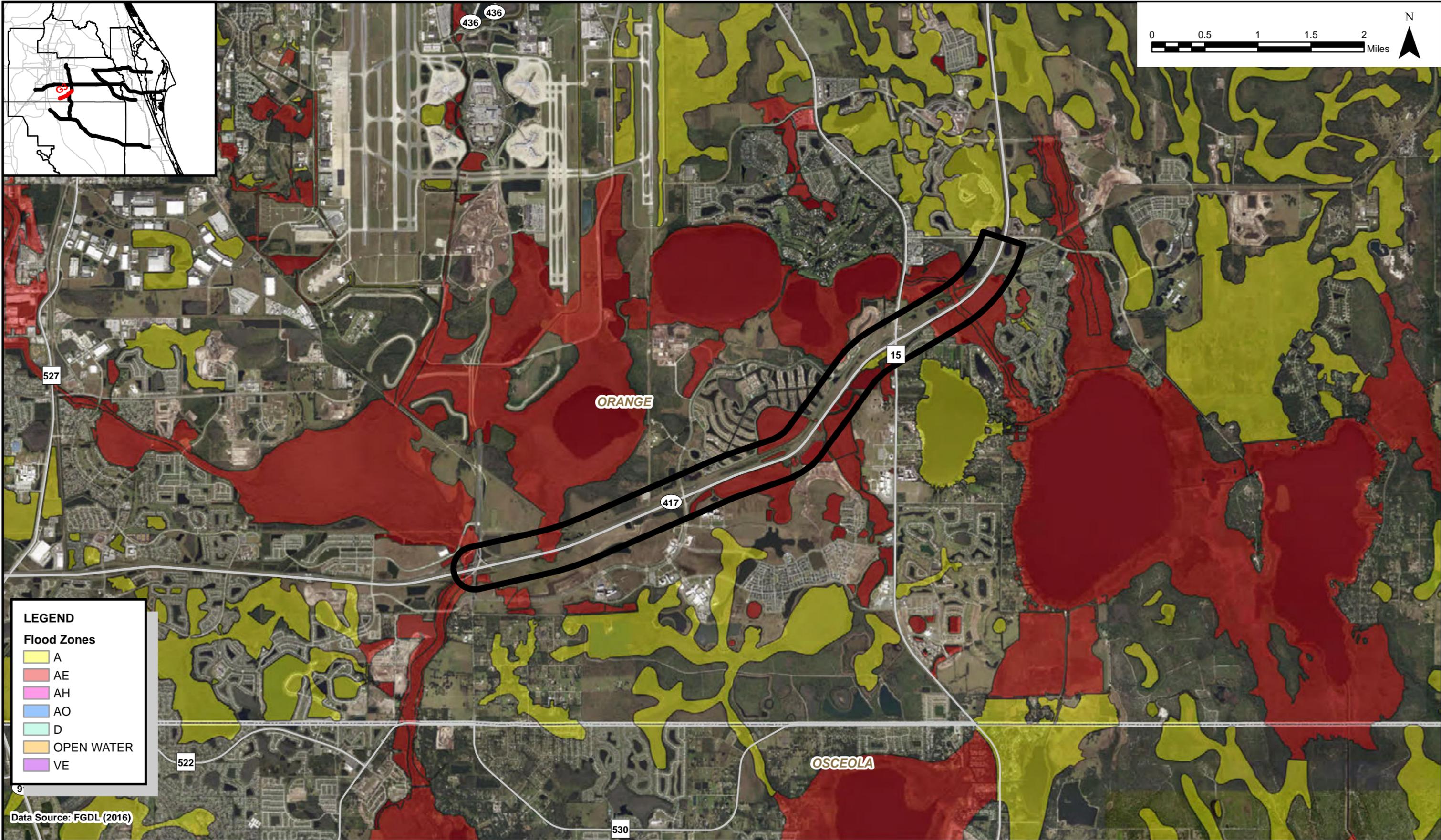


East Central Florida Corridor Evaluation Study



Corridor G Flood Zones

FIGURE
6.6-2
SEGMENT G2



LEGEND

Flood Zones

- A
- AE
- AH
- AO
- D
- OPEN WATER
- VE

Data Source: FGDL (2016)

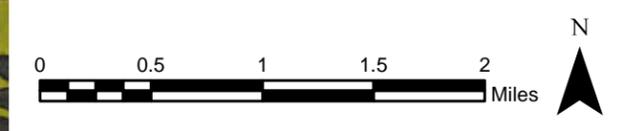
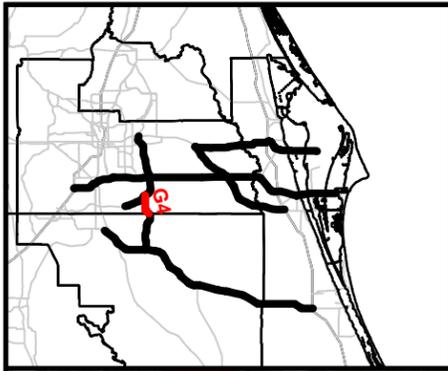


East Central Florida Corridor Evaluation Study



**Corridor G
Flood Zones**

**FIGURE
6.6-2
SEGMENT G3**



LEGEND

Flood Zones

Yellow	A
Red	AE
Pink	AH
Blue	AO
Light Blue	D
Orange	OPEN WATER
Purple	VE

Data Source: FGDL (2016)



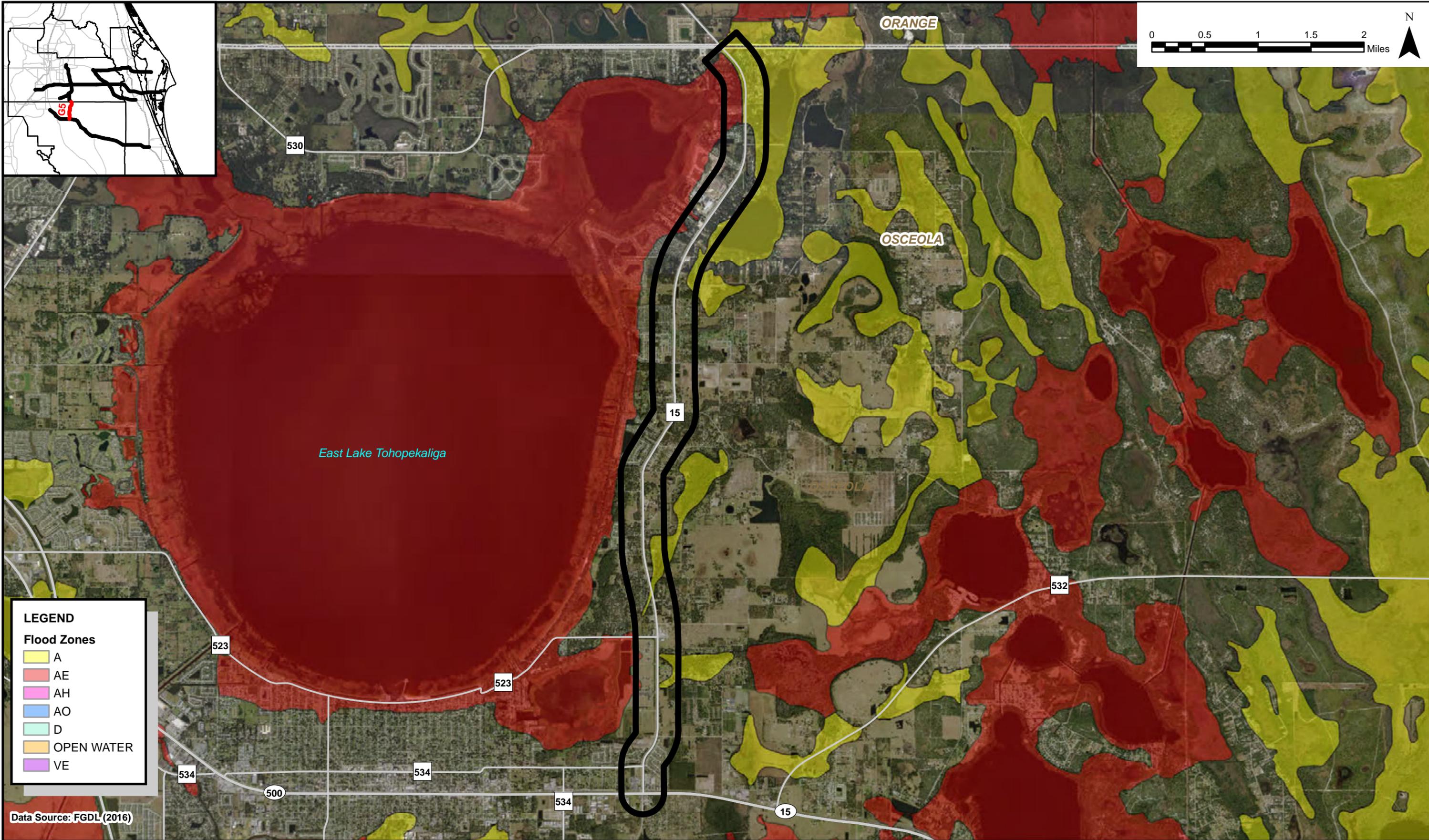
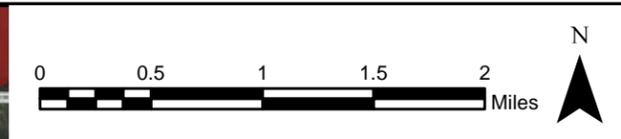
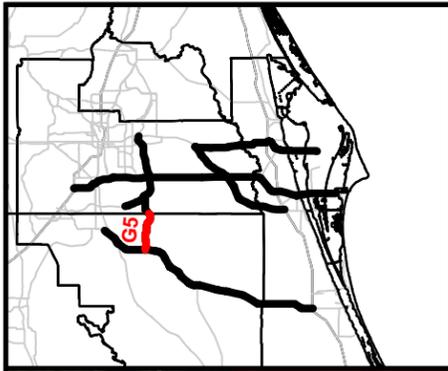
East Central Florida Corridor Evaluation Study



Corridor G Flood Zones

FIGURE
6.6-2

SEGMENT G4



LEGEND

Flood Zones

Yellow	A
Red	AE
Pink	AH
Blue	AO
Cyan	D
Orange	OPEN WATER
Purple	VE

Data Source: FGDL (2016)

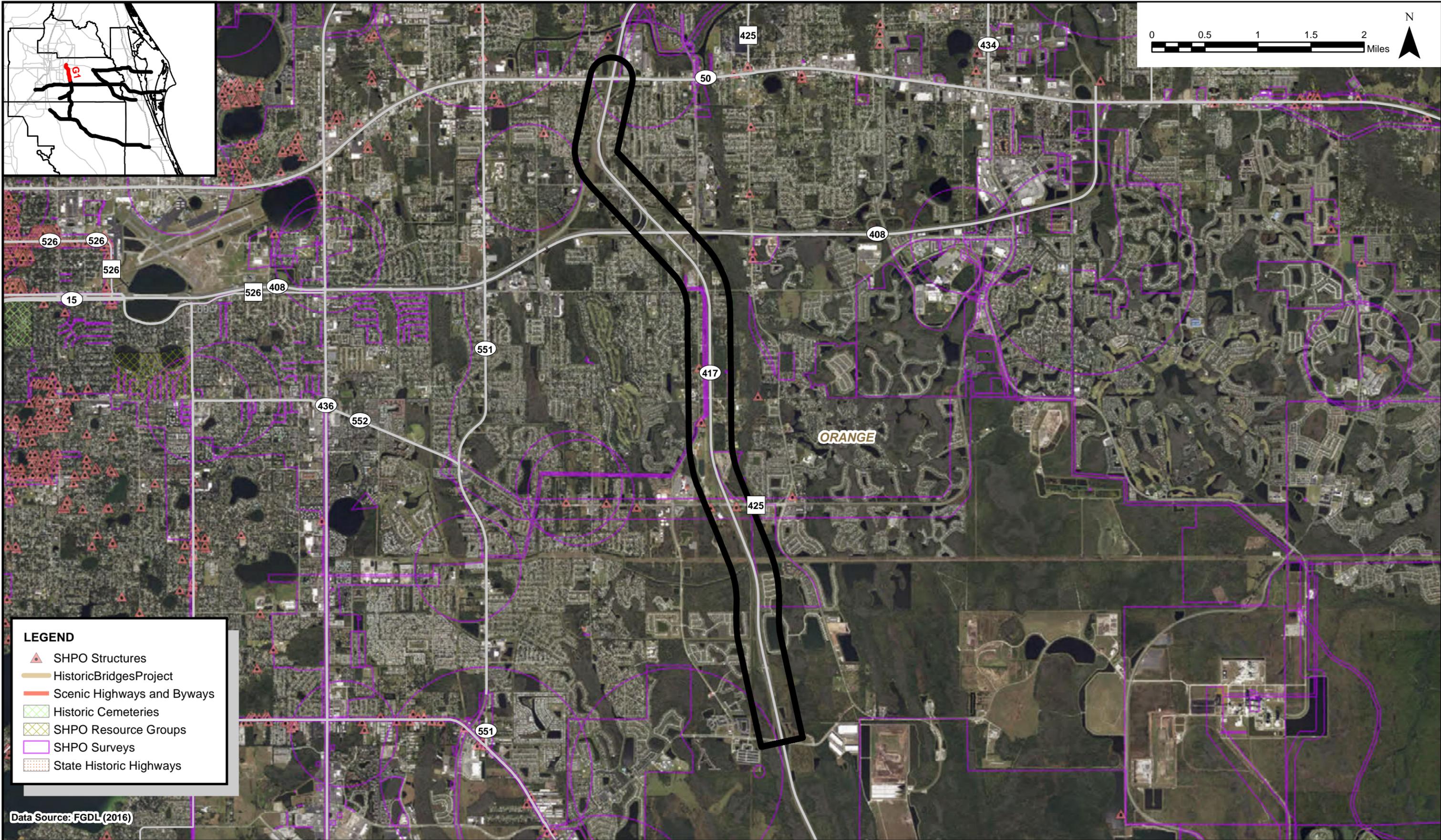


East Central Florida Corridor Evaluation Study



Corridor G Flood Zones

**FIGURE
6.6-2**
SEGMENT G5

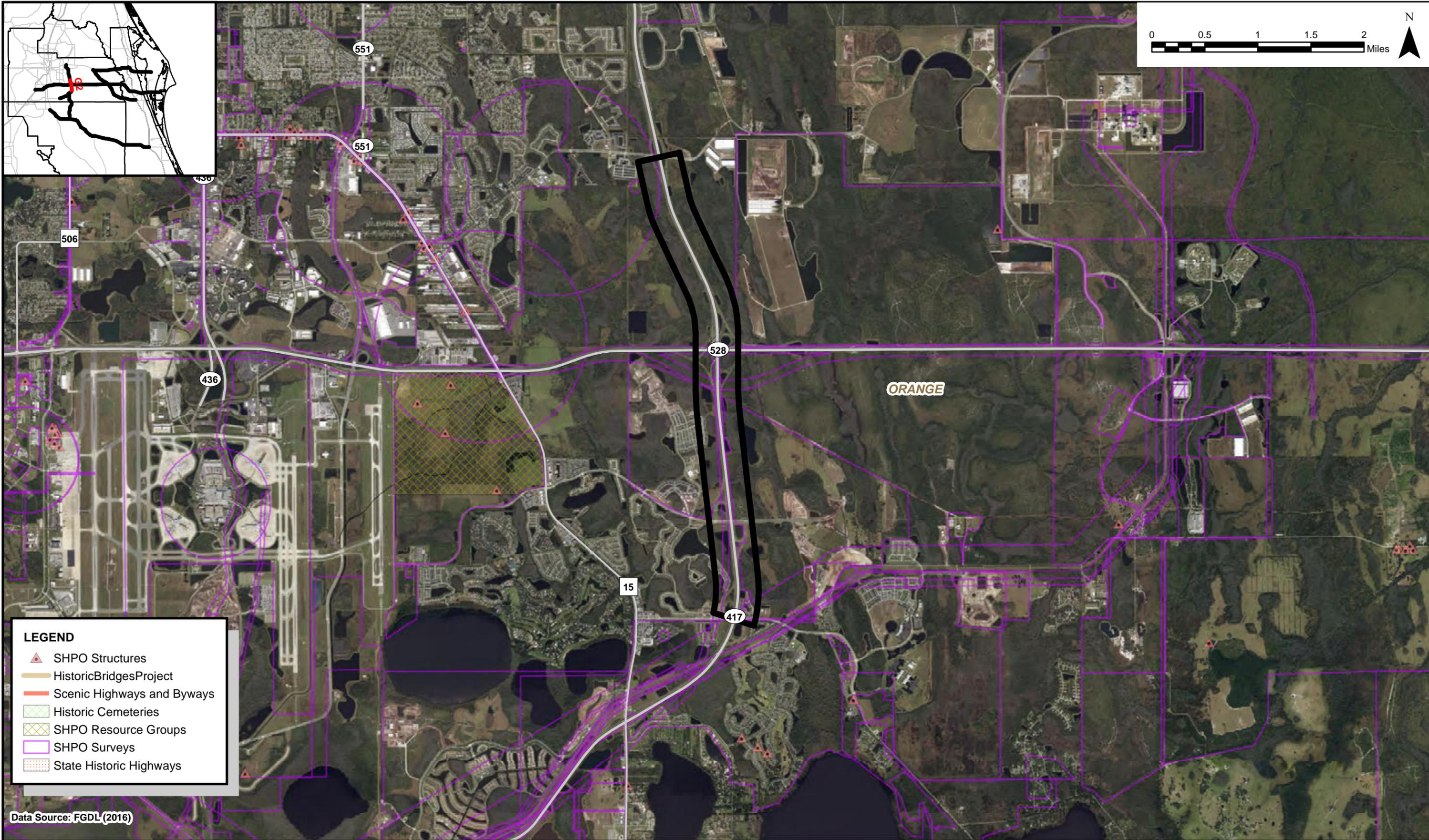
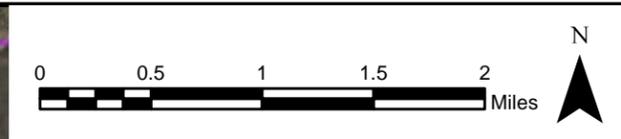
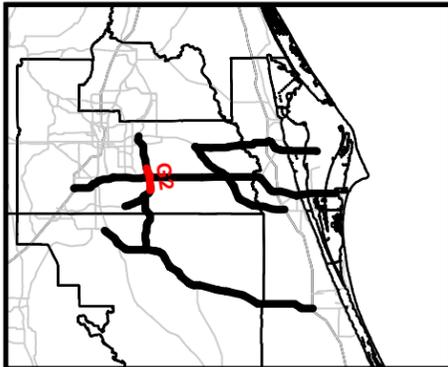


LEGEND

- ▲ SHPO Structures
- Historic Bridges Project
- Scenic Highways and Byways
- ▨ Historic Cemeteries
- ▨ SHPO Resource Groups
- ▭ SHPO Surveys
- ▨ State Historic Highways

Data Source: FGDL (2016)





LEGEND

-  SHPO Structures
-  Historic Bridges Project
-  Scenic Highways and Byways
-  Historic Cemeteries
-  SHPO Resource Groups
-  SHPO Surveys
-  State Historic Highways

Data Source: FGDL (2016)

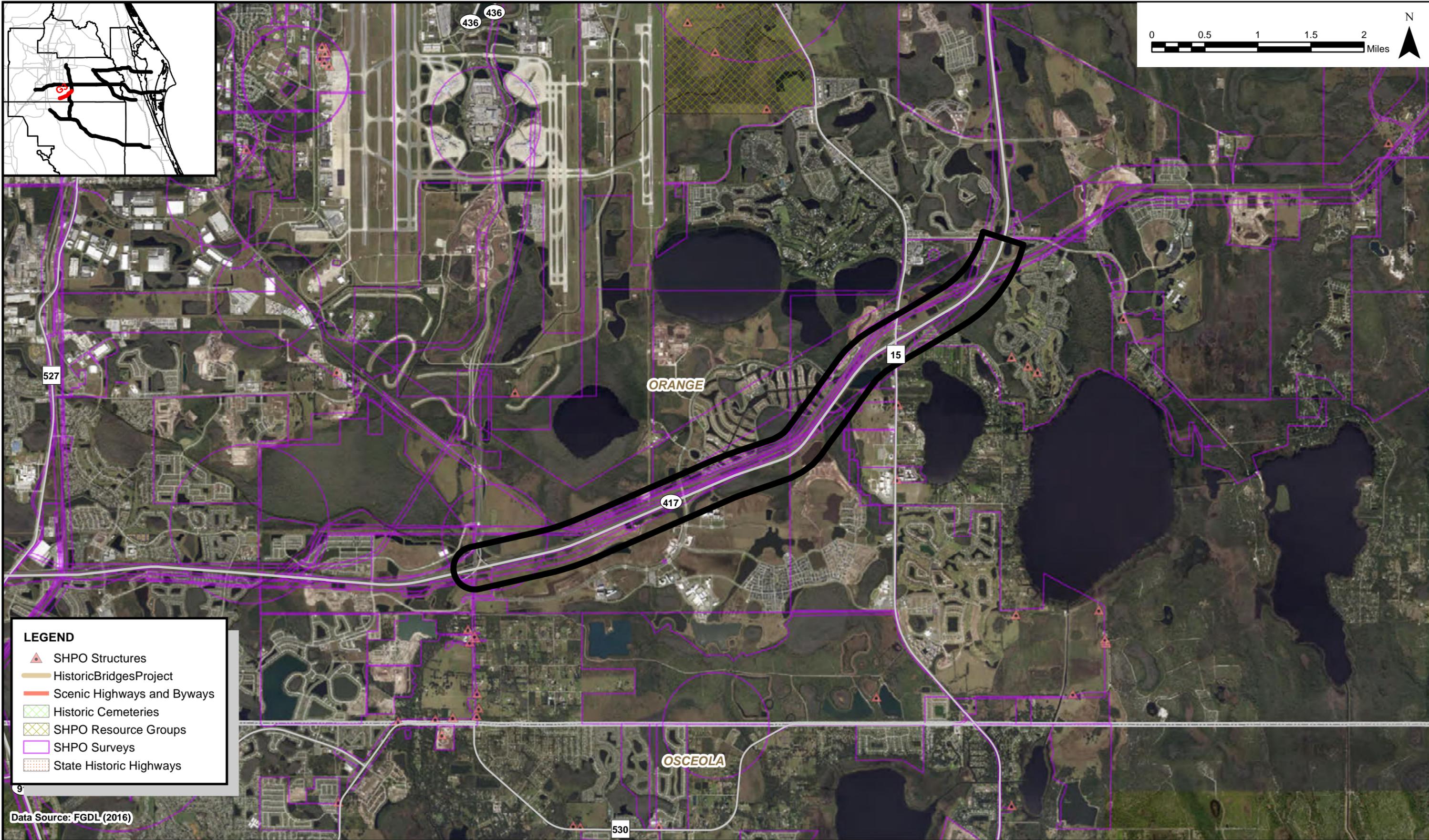
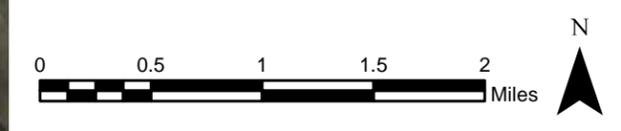
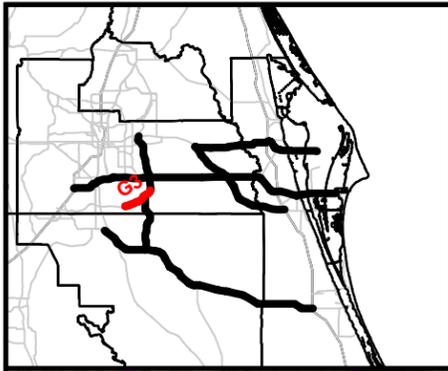


East Central Florida Corridor Evaluation Study



Corridor G Historic and Cultural Resources

**FIGURE
6.6-3**
SEGMENT G2



LEGEND

-  SHPO Structures
-  Historic Bridges Project
-  Scenic Highways and Byways
-  Historic Cemeteries
-  SHPO Resource Groups
-  SHPO Surveys
-  State Historic Highways

Data Source: FGD (2016)

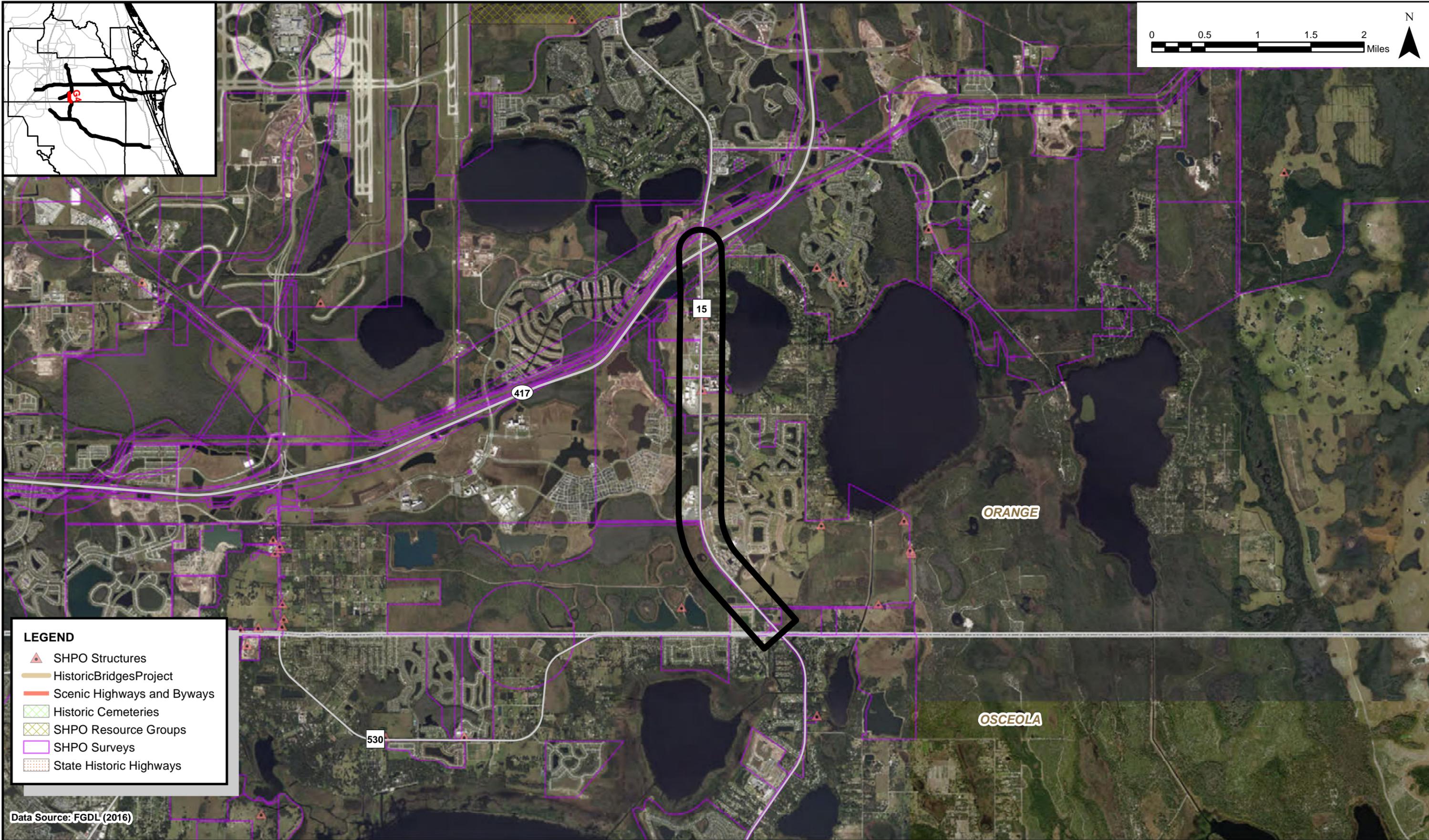
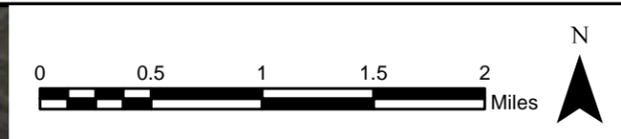
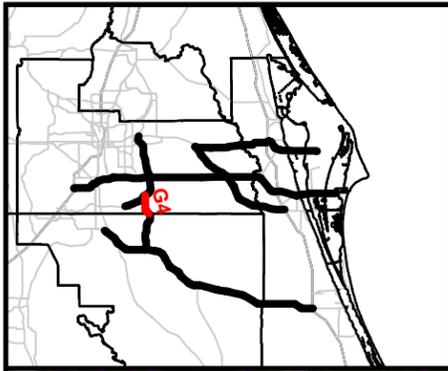


East Central Florida Corridor Evaluation Study



Corridor G Historic and Cultural Resources

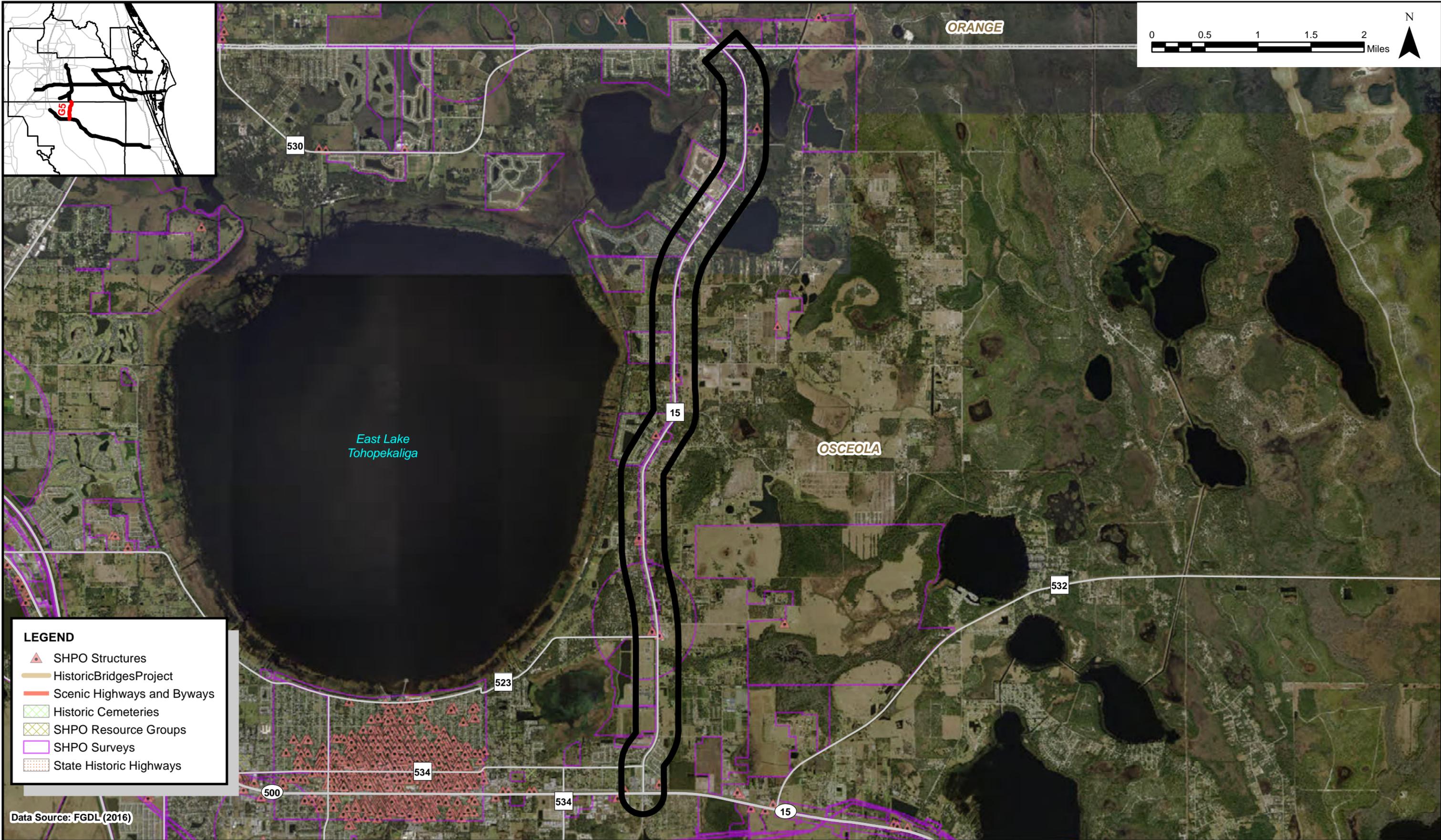
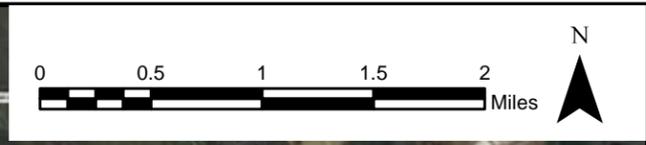
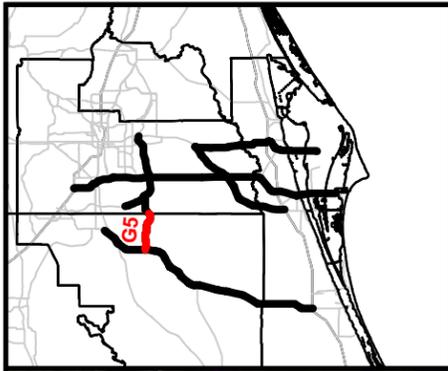
**FIGURE
6.6-3**
SEGMENT G3



LEGEND

-  SHPO Structures
-  Historic Bridges Project
-  Scenic Highways and Byways
-  Historic Cemeteries
-  SHPO Resource Groups
-  SHPO Surveys
-  State Historic Highways

Data Source: FGDL (2016)



LEGEND

-  SHPO Structures
-  Historic Bridges Project
-  Scenic Highways and Byways
-  Historic Cemeteries
-  SHPO Resource Groups
-  SHPO Surveys
-  State Historic Highways

Data Source: FGDL (2016)

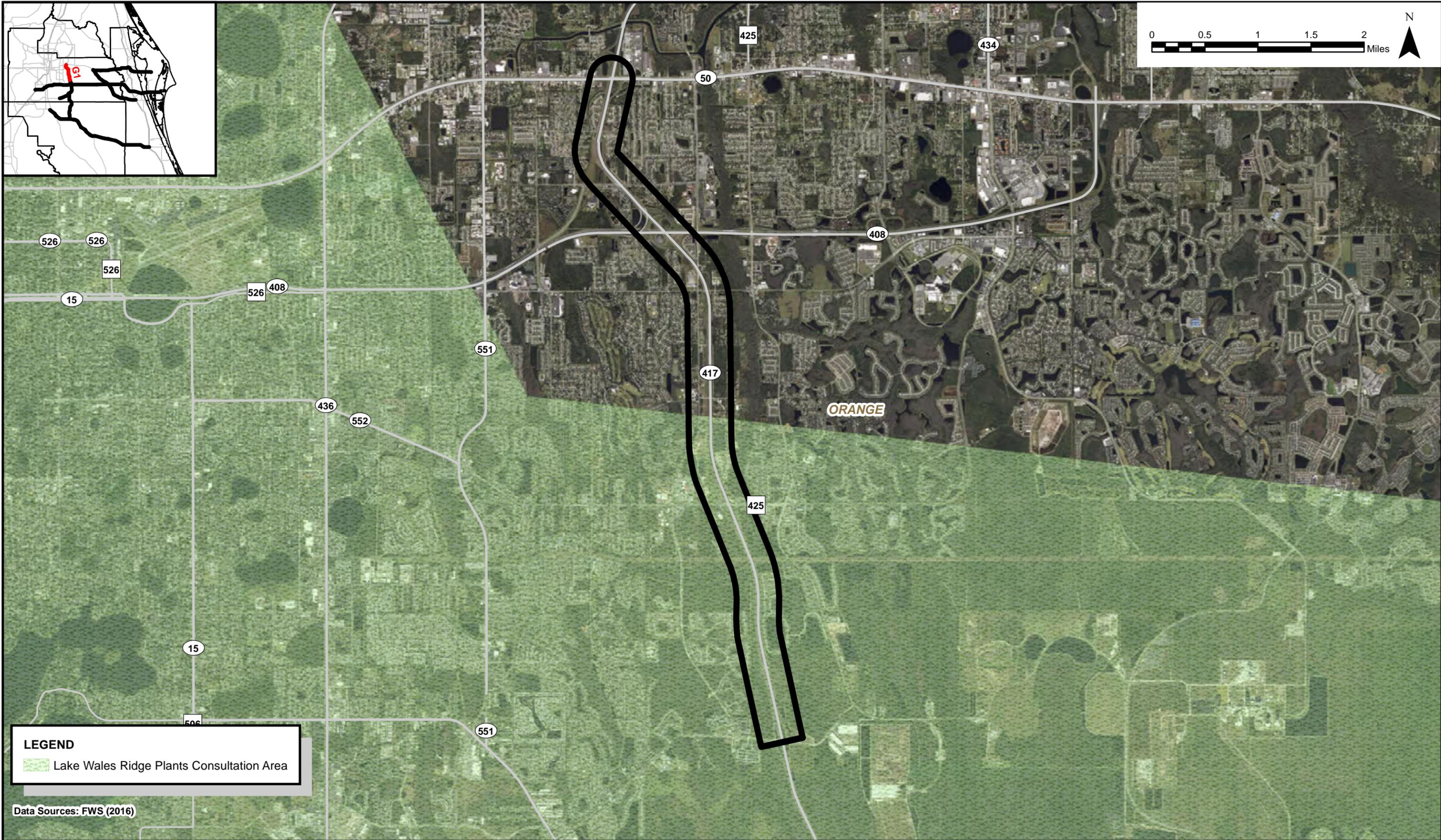
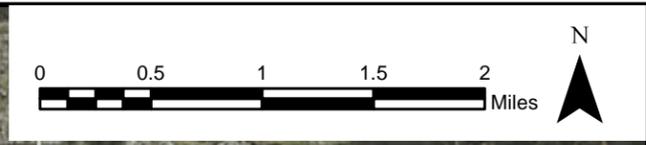
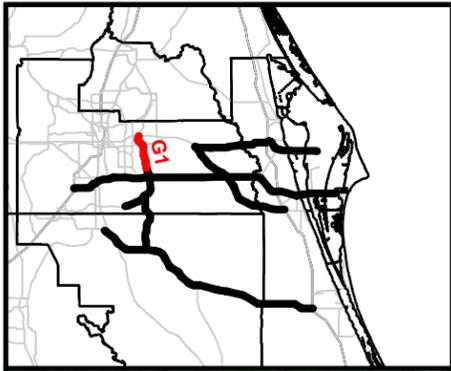


East Central Florida Corridor Evaluation Study



Corridor G
Historic and Cultural Resources

FIGURE
6.6-3
SEGMENT G5



LEGEND
 Lake Wales Ridge Plants Consultation Area

Data Sources: FWS (2016)

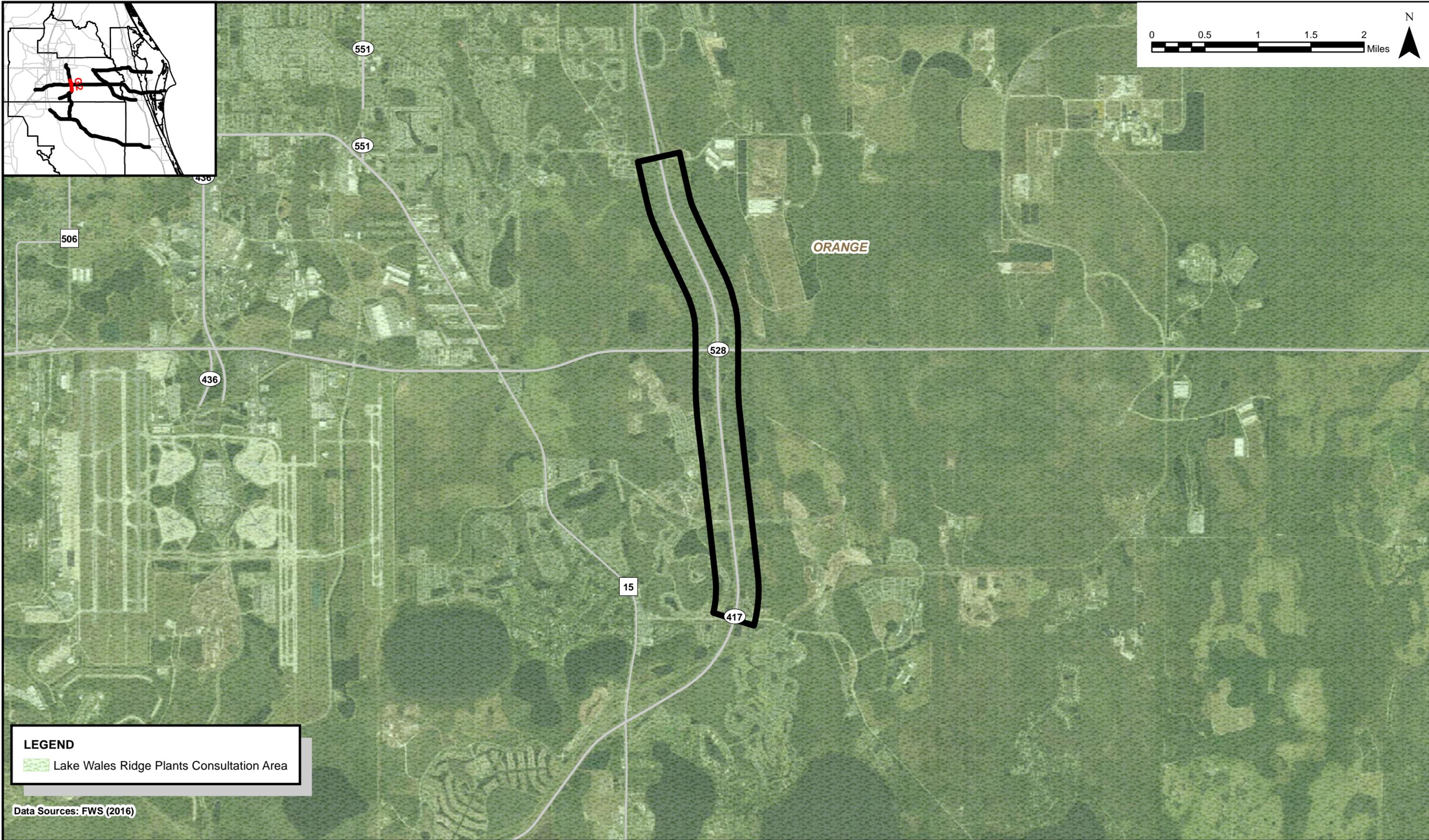
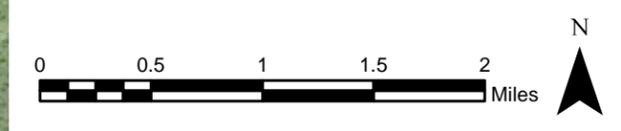
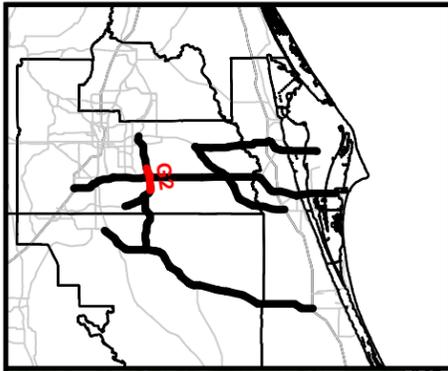


East Central Florida Corridor Evaluation Study



Corridor G
Threatened and Endangered Species (Plants)

FIGURE
6.6-4
 SEGMENT G1



LEGEND
 Lake Wales Ridge Plants Consultation Area

Data Sources: FWS (2016)

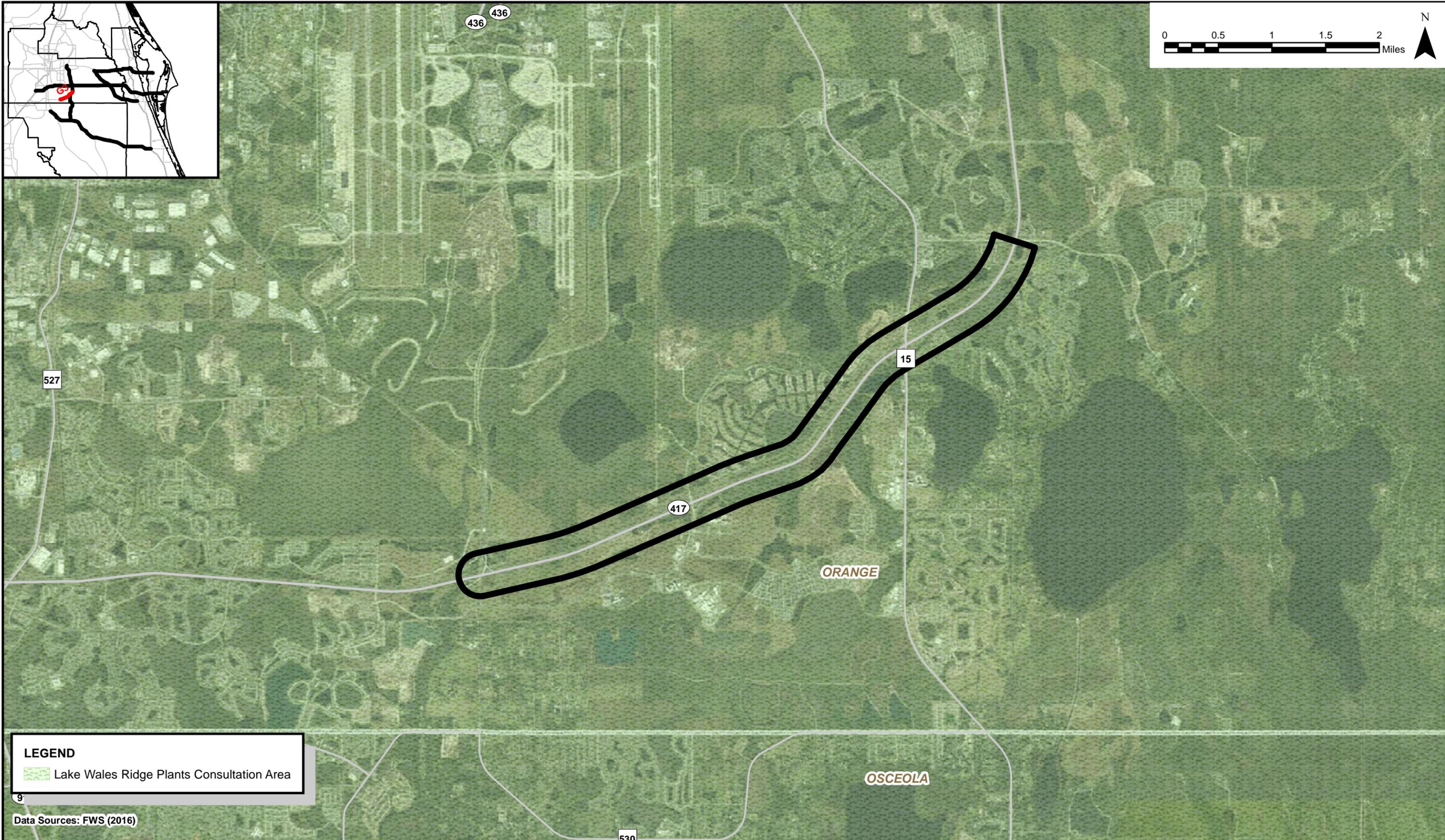
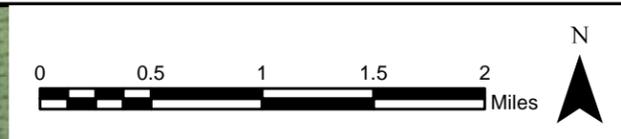
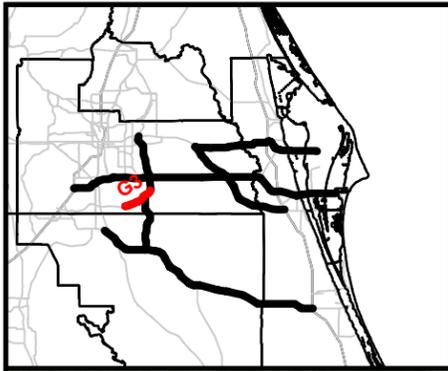


East Central Florida Corridor Evaluation Study



Corridor G
Threatened and Endangered Species (Plants)

FIGURE
6.6-4
 SEGMENT G2



LEGEND
 Lake Wales Ridge Plants Consultation Area

Data Sources: FWS (2016)

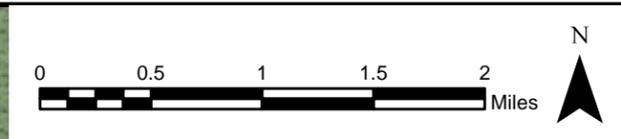
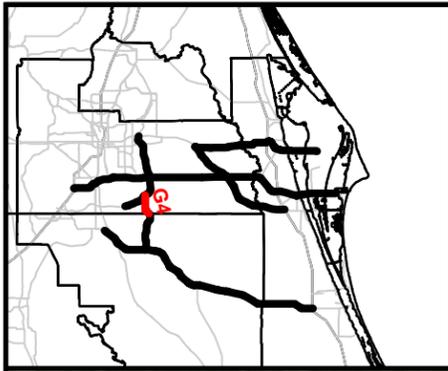


East Central Florida Corridor Evaluation Study



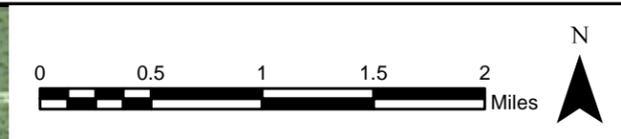
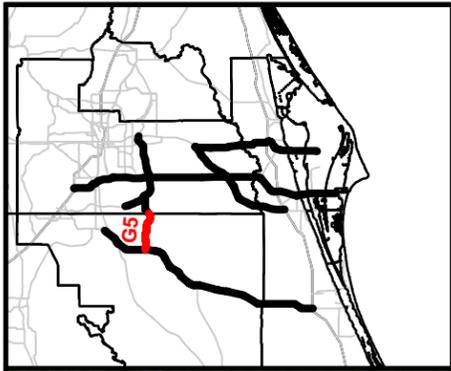
Corridor G
Threatened and Endangered Species (Plants)

FIGURE
6.6-4
 SEGMENT G3



LEGEND
 Lake Wales Ridge Plants Consultation Area

Data Sources: FWS (2016)



LEGEND

 Lake Wales Ridge Plants Consultation Area

Data Sources: FWS (2016)

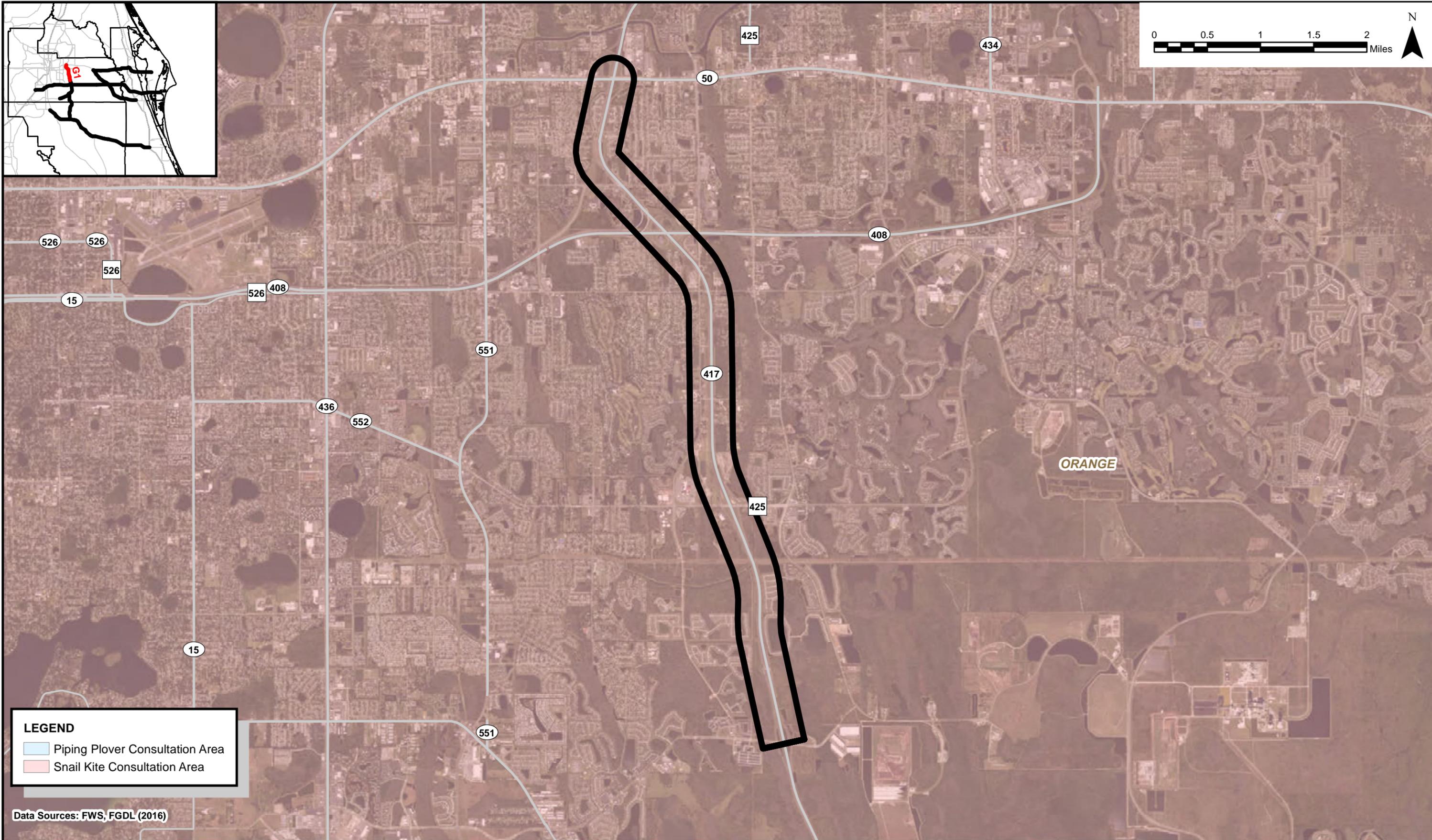
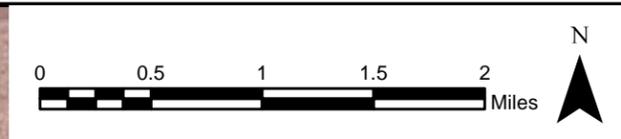
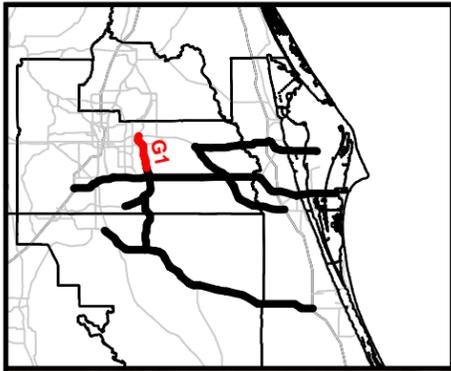


East Central Florida Corridor Evaluation Study



Corridor G
Threatened and Endangered Species (Plants)

FIGURE
6.6-4
 SEGMENT G5



LEGEND

- Piping Plover Consultation Area
- Snail Kite Consultation Area

Data Sources: FWS, FGDL (2016)

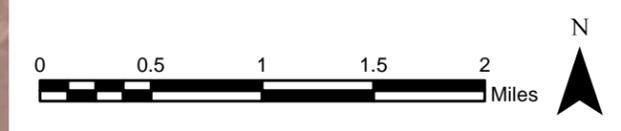
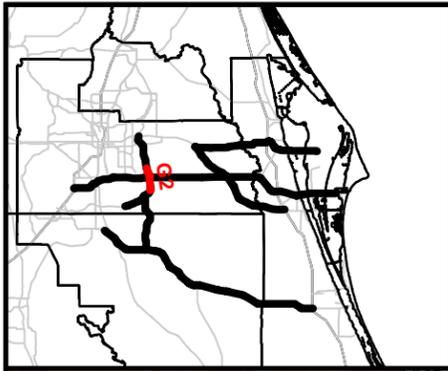


East Central Florida Corridor Evaluation Study



Corridor G
Threatened and Endangered Species
(Piping Plover and Snail Kite)

FIGURE
6.6-4
SEGMENT G1



LEGEND

- Piping Plover Consultation Area
- Snail Kite Consultation Area

Data Sources: FWS, FGDL (2016)



East Central Florida Corridor Evaluation Study



Corridor G
Threatened and Endangered Species
(Piping Plover and Snail Kite)

FIGURE
6.6-4
SEGMENT G2