APPENDIX A

Methodology Letter of Understanding
Updated Methodology Letter Of Understanding (MLOU)

Collier County, Florida

I-75 and Everglades Boulevard Interchange Justification Report

September 2010
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INTRODUCTION

Based upon current land use plans in Collier County, the County is anticipating significant growth east of I-75 and north of Alligator Alley. The area bounded by Collier Boulevard (CR 951), State Road 29 (SR 29), Immokalee Road and Interstate 75 (I-75)/Alligator Alley consists of over 100,000 acres of land with a projected 2035 population of approximately 240,000 people. This land is currently serviced through five existing interchanges along I-75: Immokalee Road, Pine Ridge Road, Golden Gate Parkway, CR 951, and SR 29.

Currently, there are approximately 21 miles between the I-75/CR 951 interchange and the I-75/SR 29 interchange. The new interchange (graphically depicted in Figure 1), is proposed to be located approximately nine miles east of the I-75/CR 951 interchange and 12 miles west of the I-75/SR 29 interchange at Everglades Boulevard. The proposed location is approximately 6.3 miles east of the existing Alligator Alley toll plaza. In addition, there is approximately 1.2 miles between the existing toll plaza and the I-75/CR 951 interchange. The proposed interchange will provide more direct access to/from the growing area north of Alligator Alley and east of CR 951, address the safety/evacuation needs of this area, relieve traffic demand on some of the existing interchanges north and west of the proposed interchange location, and provide more direct access to the Everglades Restoration Area.

This IJR process (which began in 2008) is a cooperative effort involving the Federal Highway Administration (FHWA), FDOT District One, FDOT Central Office, Collier MPO Board, Collier County Board of County Commissioners, and the Collier County Transportation Planning Department. A Methodology Letter of Understanding (MLOU) was previously prepared in April 2008 and subsequently approved by FDOT District One, FDOT Central Office, and the FHWA. The work conducted between April 2008 and August 2009 was based on this previous MLOU. In late October 2009, a meeting was held with the District Interchange Review Committee at District One headquarters in Bartow to discuss the status of the project, including the results of the preliminary travel demand modeling and the informal Agency Dispute Resolution Meetings that had been held between FDOT, FHWA, and the environmental agencies. Based on this DIRC meeting it was determined that some revisions to the previously approved MLOU would be required. This revised/updated MLOU incorporates the decisions made at the October 2009 DIRC meeting.

A base year of 2007 is being used for the IJR because this is the base year of the travel demand model that is being used to develop the future year traffic projections. An extensive effort was conducted in 2008 to validate/calibrate a travel demand model for the IJR study since the prior MPO validated model reflected a base year of 2000. This new 2007 validated base year model is also currently being used by both the Collier and Lee County MPO’s to update their previously adopted 2030 Financially Feasible Long Range Transportation Plans (LRTP’s) to the year 2035.
PURPOSE AND NEED FOR PROJECT

Collier County has an area east and north of I-75 that is referred to as the Golden Gate Area and this is illustrated on Figure 2. The easternmost portion of this area is known as Golden Gate Estates and consists primarily of platted single family lots varying in size from approximately one to five acres. This area was platted in the 1950’s and 1960s. Golden Gate Estates includes areas designated as Neighborhood Commercial to provide for local residential services. Although these areas of commercial and professional services are not yet fully developed, their intent is not to provide for regional commercial or service needs.

In addition to the platted portions of Golden Gate Estates, the land uses in the area just north of I-75 and east of CR 951 also include agricultural, industrial/mining, and public facilities (i.e., the Collier County Landfill). East of Desoto Boulevard is an area known as the Collier County Rural and Agricultural Area Assessment Stewardship Overlay (Figure 3), and the Big Cypress Area of Critical State Concern (ACSC) (Figure 4 – Collier County Future Land Use Map). The Stewardship Overlay is open to development but development within the ACSC is extremely limited. The ACSC includes the Florida Panther National Wildlife Refuge, Fakahatchee Strand State Preserve, Big Cypress National Preserve and Picayune Strand State Forest.

The estimated 2007 population of Collier County was approximately 333,900. By 2019 the population is projected to be approximately 382,000 which is consistent with the Bureau of Economic and Business Research (BEBR) medium range growth rates. The projected county-wide future growth rate between 2007 and 2019 is slightly more than one percent per year. While the overall growth rate for Collier County over the past 15 years has averaged between four percent and five percent per year, growth in the Golden Gate Estates area has been approximately 13 percent per year. In addition, new developments in the Orange tree area and Ave Maria to the east of Golden Gate Estates, are growing at strong rates as well. Although the lands within the Stewardship Overlay will be subject to local, federal and state approvals; the platted lots in the Estates area are exempt from the growth management restrictions and are projected to grow at an overall rate of approximately four percent per year for the next ten years. Future year population forecasts for Collier County were developed in five-year increments covering the years 2015, 2020, 2025, 2030, and 2035, by the Collier MPO (and the MPO’s LRTP Update Consultant) for use in developing their 2035 Financially Feasible LRTP. These future year population forecasts were developed with the explicit recognition of the ultimate buildout population forecast that had been developed previously by the Collier County Community Development/Growth Management Department. The 2019 population estimate is based on an interpolation conducted using the 2015 and 2020 Collier County forecasts.

Access to downtown Naples and the urbanized portion of Collier County west of I-75 from the Golden Gate Estates area is extremely limited. The majority of the Estates area traffic travels west on Golden Gate Boulevard to CR 951. From there traffic either flows north to Immokalee Road or south to Pine Ridge Road, Golden Gate Parkway, or SR 84. A majority of the traffic in the Estates area that is destined for Lee County or Broward/Miami-Dade County accesses I-75 using these same arterial facilities. The I-75/SR 29 interchange is located in the easternmost portion of Collier County approximately 21 miles east of the I-75/CR 951 interchange. Due to the large distance between SR 29 and the Golden Gate Estates and the lack of any direct connections, SR 29 (and the I-75/SR 29 interchange) provides very poor access to this area. Consequently, a majority of the Golden Gate Estates residents that are destined for locations east of Collier County actually travel west on Golden Gate Boulevard and then south on CR 951 to access the I-75/CR 951 interchange.
Figure 2: Golden Gate Area
Figure 3: Stewardship Overlay Map
The remaining four interchange locations provide for varying level(s) of regional trips to/from the Estates area depending upon the routes used to enter/exit this area. All four of these interchanges are located within the Naples-Bonita Springs Urban area. Substantial commercial development is located immediately adjacent to three of these four interchanges. The land use in the immediate vicinity of the fourth interchange (i.e., the I-75/Golden Gate Parkway interchange) is limited by the Collier County Comprehensive Plan to the existing residential and non residential uses and current zonings. Commercial development at the I-75/Golden Gate Parkway interchange is prohibited.

These four interchanges currently experience high weekday traffic volumes that increase by as much as 30 percent or more during the peak season (i.e., from January to April). While some reduction in volume at the I-75/Pine Ridge Road interchange has occurred since the I-75/Golden Gate Parkway interchange was opened to traffic in March of 2007, projected future growth is anticipated to cause all four of these interchanges to exceed their capacities within the timeframe of the Collier MPO’s adopted 2030 Long Range Transportation Plan.

I-75 and SR 29 are the primary evacuation routes that serve the eastern portion of Collier County. SR 29 is a two-lane undivided arterial that extends from US 41 on the south in Collier County to SR 27 on the north in Glades County. I-75 has recently been widened to six lanes from the Golden Gate Parkway interchange northward into Lee County and has the capacity to serve a higher volume of evacuation traffic; however, due to the extremely limited nature of access in eastern Collier County, residents are forced to travel into the urban area to reach the evacuation route.

With more than half of the ultimate (i.e., buildout) population of Collier County projected to live in eastern Collier County, it is necessary to increase accessibility to I-75 to address regional mobility and safety evacuation needs. The new interchange that is proposed for I-75 at Everglades Boulevard will address these needs.

**PROJECT SCHEDULE**

The proposed I-75/Everglades Boulevard interchange is included in the Collier MPO’s adopted 2030 LRTP within the financially feasible projects. The anticipated schedule is listed below:

- Interchange Justification Report: FY 2008 to FY 2011
- Project Development & Environment Study: FY 2011 to FY 2014
- Preliminary Engineering: FY 2014 to FY 2016
- Right-of-Way: FY 2016 to FY 2017
- Construction: FY 2017 to FY 2019

Collier County has provided the funding for the IJR and the FDOT is funding the Project Development and Environment (PD&E) phase of the project. The County is continuing to search for additional funding sources but has the full implementation of the proposed interchange within the financial constraints of the adopted LRTP. This proposed schedule includes allowances for extensive coordination efforts between Collier County, FDOT, and FHWA. The construction efforts are expected to be managed by FDOT in accordance with state regulations concerning construction of public infrastructure.
PROJECT LOCATION

The immediate area around the proposed interchange has historically been identified as rural. Interchange spacing is defined in the FDOT Interchange Handbook - Technical Resource Document One, as the distance from the centerline of a proposed interchange to the centerlines of the cross streets at the upstream and downstream interchanges. In rural areas, a new interchange would require spacing of at least six miles from adjacent interchanges. Based on the straight line diagrams obtained from the FDOT, the existing Everglades Boulevard overpass is located at milepost 41.5, while SR 29 and CR 951 are located at milepost 29.2 and milepost 50.4, respectively. Consequently, the existing Everglades Boulevard overpass is located 12.3 miles west of SR 29 and 8.9 miles east of CR 951. The implementation of a new interchange on I-75/Alligator Alley at Everglades Boulevard would exceed the FDOT’s minimum interchange spacing criteria for a rural area. Everglades Boulevard is the only major north-south through roadway within the study area.

The potential locations for the new interchange are east of the I-75/Alligator Alley toll plaza. The IJR will not include any type of toll feasibility analysis or traffic and revenue study. If the IJR receives conditional approval subject to the successful completion of the PD&E Study, the need for this type of analysis will be determined prior to the initiation of the PD&E Study.

ALTERNATIVES TO BE CONSIDERED

Full access to and from the proposed interchange in both directions on I-75 is proposed. The new interchange will be designed to meet or exceed current standards for Federal-aid projects on the Interstate system. Special emphasis will be placed on providing adequate deceleration distance and queue storage on the off-ramps. At a minimum, the following alternatives will be considered:

- Alternative One – No-Build Alternative;
- Alternative Two - a Transportation Systems Management (TSM) Alternative based on the No-Build Alternative Network with consideration of TSM options such as signalized intersection improvements;
- Alternative Three - New Arterial Roadway Construction and/or Improvements to Existing Roadways and Interchanges not currently in the Adopted 2030 LRTP (in lieu of constructing the new interchange);
- Alternative 4 - New Interchange at Everglades Boulevard; and
- Alternative Five - New Interchange at Desoto Boulevard.

As noted above, two different locations for the new interchange will be considered. One location is at the existing Everglades Boulevard overpass while the second location is at Desoto Boulevard (located approximately 1.8 miles east of Everglades Boulevard). Currently, the southern terminus of Desoto Boulevard is located north of Alligator Alley. Figures 5, 6, 7, and 8 graphically illustrate the proposed interchange configurations currently being considered.
Figure 5: Proposed Interchange Configuration for I-75 and Everglades Boulevard – Alternative 4a
Figure 6: Proposed Interchange Configuration for I-75 and Everglades Boulevard – Alternative 4b
ANTICIPATED AREA OF INFLUENCE

The study area for the IJR is generally bounded by Golden Gate Parkway/Golden Gate Boulevard to the north, I-75/Alligator Alley to the west and south, and SR 29 to the east. The primary roadways in the study area include the following:

- I-75/Alligator Alley
- Golden Gate Boulevard (East of CR 951)
- Golden Gate Parkway (West of CR 951)
- Collier Boulevard (CR 951)
- Wilson Boulevard
- Everglades Boulevard
- Desoto Boulevard
- SR 29

As stated previously, the distance between the proposed interchange and the two immediately adjacent interchanges (the I-75/CR 951 interchange and the I-75/SR 29 interchange) is approximately 21 miles. It is anticipated that the proposed interchange may also have some impact on the future traffic volumes associated with the I-75/Golden Gate Parkway interchange located approximately three miles northwest of the I-75/CR 951 interchange. This is because the alignment of I-75 changes from an east-west orientation to a north-south orientation between CR 951 and Golden Gate Parkway. Consequently, the I-75/Golden Gate Parkway interchange will also be included in the potential area of influence.

The area of influence for an interchange study usually extends a minimum of one-half mile from the interchange or to the first signalized intersection on the cross road, whichever is greater. The I-75/SR 29 interchange is a rural interchange and there are no cross street intersections located within a reasonable distance from the ramp terminal intersections. The closest cross street on SR 29 north of I-75/Alligator Alley is an unsignalized entrance to the Big Cypress National Preserve and this entrance is located approximately 4.1 miles north of the interchange. The closest cross street on SR 29 south of I-75/Alligator Alley is CR 837 and this unsignalized intersection is located approximately 12.8 miles south of the interchange. Therefore, the analysis will be limited to the ramp terminal intersections. There are also no signalized intersections located within a reasonable distance from the proposed new interchange. The closest signalized intersection on Everglades Boulevard is located at the intersection with Golden Gate Boulevard – approximately 5.5 miles north of the existing I-75 overpass. There are no signalized intersections on Everglades Boulevard south of the existing I-75 overpass. Due to the existing north/south canals that are located less than one-mile to the east and west of Everglades Boulevard, all of the existing cross streets on Everglades Boulevard are “dead-end” streets. The Collier MPO’s 2030 Financially Feasible LRTP does include a future eastern extension of Green Boulevard/16th Avenue that is located approximately 3.5 miles north of the existing I-75 overpass. This potential future signalized intersection will be considered in the 2029 and 2039 analyses.

In addition to the I-75/CR 951 interchange ramp terminal intersections, the CR 951 intersections located at SR 84 (Davis Boulevard), Magnolia Pond Drive/City Gate Drive, and Golden Gate Parkway will also be included in the study area. In addition to the I-75/Golden Gate Parkway interchange ramp terminal intersections, the Golden Gate Parkway intersection at Santa Barbara Boulevard will also be included in the study area.

The new interchange is being proposed in part to relieve some of the already congested existing interchanges in Collier County. Daily traffic volumes obtained from Collier County indicate that the
volumes for CR 951 north and south of the I-75 interchange ramps are 22,900 vehicles/day and 46,000 vehicles/day, respectively, while the daily volumes on Golden Gate Parkway east and west of the I-75 interchange ramps are 37,600 vehicles/day and 29,000 vehicles/day, respectively. The daily volumes on SR 29 north and south of the I-75 interchange ramps are 2,600 vehicles/day and 1,450 vehicles/day, respectively. The low volumes on SR 29 in the vicinity of the I-75/Alligator Alley interchange document the low usage of this existing interchange as a result of its relatively remote location with respect to the existing population in eastern Collier County.

In addition to the proposed interchange, the Collier MPO’s adopted 2030 LRTP and the County’s Transportation Improvement Program (TIP) include several other local roadway improvements within the study area. These roadway improvements are listed below:

- Widening Everglades Boulevard to four lanes from I-75 to Immokalee Road (LRTP – 2030)
- Widening Golden Gate Boulevard to four lanes from Wilson Boulevard to Desoto Boulevard (2015)
- Constructing a new two-lane roadway from CR 951 to Everglades Boulevard (16th Avenue SW – LRTP – 2030)
- Constructing a new four-lane extension of Wilson Boulevard southward from Golden Gate Boulevard to north of I-75 to connect to the existing White Lakes Boulevard (Two Lanes – 2015 DCA, Four Lanes – LRTP – 2030)
- Constructing a series of new two-lane connections and extensions of two-lane local roads within the Golden Gate Estates area between CR 951 and Everglades Boulevard (Planned from 2015 through 2030). These local roads include 23rd Street SW, Brantley Boulevard, Keane Avenue, and 17th Street SW/Inez Road SW.

FUTURE ANALYSIS YEARS

The future years that will be analyzed for the project will consist of the following:

- Opening year (2019)
- Interim year (2029)
- Design year (2039)

These future years were established based on direction provided by the FDOT Central Office and FHWA during a District One Interchange Review Committee (DIRC) meeting held on October 29, 2009.

EXISTING CONDITIONS

Due to the large availability of affordable land, Collier County continues to see growth in the area east of CR 951. This growth is expected to increase the congestion at the existing interchanges unless other alternatives can be found. This area is predominantly residential with a multitude of disconnected two-lane roads surrounded by drainage canals. Everglades Boulevard is the primary north-south roadway in this area and is the only roadway between CR 951 and SR 29 that crosses over Alligator Alley and provides direct access to the Picayune Strand State Forest. Golden Gate Boulevard is the only continuous east-west roadway in the Golden Gates Estates area and extends from CR 951 on the west to Desoto Boulevard on the east.

The existing I-75/CR 951 and I-75/SR 29 interchanges are diamond interchange configurations with single lane ramps in all four quadrants. The existing I-75/Golden Gate Parkway interchange is a partial
cloverleaf interchange configuration with a loop ramp in the southeast quadrant for the eastbound-to-
northbound movement. With one exception, single lane on- and off-ramps are provided for all of the
movements at this interchange. The southbound I-75 off-ramp to Golden Gate Parkway is a two-lane off-
ramp at the mainline gore area.

TRAVEL DEMAND MODEL SELECTION AND STUDY AREA VALIDATION

The travel demand model that will be used for the IJR is based on the Collier MPO’s adopted model that
was updated to incorporate the I-75/Golden Gate Parkway interchange that was opened in March of 2007.
A 2007 model was developed and calibrated for the IJR study area using 2007/2008 traffic count data.
The 2007 IJR project model calibration was submitted to FDOT District One for review and was
approved in early 2009.

The 2007 IJR project model incorporates major modifications to the Traffic Analysis Zone (TAZ)
structure in eastern Collier County. These modifications were developed by the Collier County
Transportation Planning Department in consultation with the Collier County Community
Development/Growth Management Department. The 2007 land use data that was used during the model
calibration was developed by the County’s Growth Management Department (which is the local land use
entity in the area) and approved by the Collier MPO’s Technical and Citizen’s Advisory Committees in
January 2009.

OPENING YEAR (2019) AND INTERIM YEAR (2029) TRAVEL DEMAND FORECASTING

Traffic for the proposed alternatives will be determined using updated 2019 and 2029 zonal data from the
Collier MPO. The MPO’s adopted Interim Year 2015 highway network of the 2030 LRTP will be the
base roadway network used to forecast traffic for the opening year (2019). Since the Interim Year 2015
highway network was last updated in May of 2007 there may be projects within either the FDOT’s Work
Program or the County’s Capital Improvement Program that are not reflected within the 2015 network.
Revisions to the model network to include these new improvements will be made with the concurrence of
Collier County and the FDOT. The Collier MPO’s adopted 2030 Cost Feasible LRTP highway network
will be the base network used for the interim year (2029) travel demand forecasting. AADT volumes will
be derived using the appropriate Model Output Conversion Factor (MOCF). The directional design hour
volumes (DDHV) will be calculated using area specific K and D factors.

DESIGN YEAR (2039) TRAVEL DEMAND FORECASTING

Traffic for the design year (2039) will be developed by utilizing the Collier MPO’s adopted 2030 Cost
Feasible LRTP highway network in combination with extrapolated 2039 zonal data. The extrapolation
will be conducted using the year 2035 zonal data developed by the Collier MPO for the 2035 LRTP
Update and the estimated build-out zonal data developed by the Collier County Transportation Planning
Department.

REASONABLENESS CHECKS

The reasonableness of the 2019, 2029, and 2039 model volumes will be assessed using a combination of
techniques which may include some or all of the following:
• Comparisons of model volumes (No-Build Alternative vs. New Interchange Alternatives) on a link-by-link basis;
• Calculation of model-based traffic growth rates and comparisons between 2019, 2029, and 2039;
• Comparisons of model-based traffic growth rates with historic traffic growth rates;
• Conducting select link trace assignments for various I-75 mainline segments and interchange ramps to review projected travel paths (including comparisons of travel paths for different alternatives); and
• Review of model-based volume-to-capacity (v/c) ratios

The Peak Season Weekday Average Daily Traffic (PSWADT) volumes obtained from the travel demand models will be adjusted to AADT volumes using the appropriate Model Output Conversion Factors (MOCF’s).

TRAFFIC DATA COLLECTION SOURCES

An extensive traffic count program was conducted throughout the study area during the eight-week period from March 4, 2008 to April 24, 2008. This traffic count program was conducted to supplement the existing FDOT and Collier County traffic count databases and help facilitate the calibration/validation of the 2007 IR project model. No traffic counts were conducted during the first week of April, however, due to the Collier County public schools being closed for “Spring Break”. The traffic count program consisted of the following:

• Seventy-two (72)-hour vehicle classification counts;
• Seventy-two (72)-hour I-75 mainline counts;
• Seventy-two (72)-hour I-75 interchange ramp counts;
• Seventy-two (72)-hour intersection approach counts; and
• Four (4)-hour intersection turning movement counts (from 7:00 am to 9:00 am and 4:00 pm to 6:00 pm)

The 72-hour vehicle classification counts were conducted at the following seven (7) locations:

• CR 951 between Pine Ridge Road and Golden Gate Boulevard;
• Everglades Boulevard north of Golden Gate Boulevard;
• Golden Gate Boulevard west of 5th Street SW;
• Golden Gate Parkway west of Santa Barbara Boulevard;
• Immokalee Road west of Wilson Boulevard;
• Pine Ridge Road west of Logan Boulevard; and
• SR 29 south of Oil Well Road.

The I-75 mainline counts were conducted for the segments located between the SR 29, CR 951, and Golden Gate Parkway interchanges. No mainline counts were conducted on I-75 north of the Golden Gate Parkway interchange due to the construction associated with the widening (i.e., six-laning) of I-75 throughout the remaining portion of the County. The 72-hour ramp counts were conducted for all 21 of the on- and off-ramps associated with the five existing interchanges in Collier County. The 72-hour intersection approach counts and four (4)-hour intersection turning movement counts were conducted at 30 intersections including the ten interchange ramp terminal intersections. These counts were conducted on typical weekdays (i.e., Tuesdays, Wednesdays, and Thursdays). Heavy vehicles (i.e., trucks and buses) and pedestrians were also counted as a part of the turning movement counts. Existing I-75 classification count data was also obtained from the FDOT’s Florida Traffic Information (FTI) DVD.
TRAFFIC FACTORS

Traffic factors including K30 factors, D30 factors, and Peak Hour Truck factors will be compiled from recent Florida Traffic Information (FTI) DVD’s (2008/2009), as well as from other existing traffic count data, and will be reviewed for accuracy/applicability. These values will be compared to the acceptable traffic factor values documented in the FDOT Project Traffic Forecasting Handbook. The specific traffic factors that will be used to develop the future year peak hour traffic volumes and conduct the future year peak hour level of service analyses will be recommended by Collier County and approved by FDOT District One and Central Office prior to these work efforts being initiated.

CONSISTENCY WITH MASTER PLANS, LRTP, LGCP AND DRI

This IJR will consider all programmed and planned roadway improvements in the study area. These improvements would be consistent with those specified in the regional transportation plans including the following: Collier County 2030 Long Range Transportation Plan, Collier–Lee Bi-County Regional Transportation Network, FDOT Five Year Work Program, FDOT FFHS plans, Collier County Comprehensive Plan, Committed Improvements from local and private sources, and Collier County Access Management Plans. The proposed project is consistent with the Financially Feasible Plan of the adopted 2030 LRTP as depicted in Figure 9. Figure 9 shows the currently proposed roadway improvements adjacent to/within the study area included in the MPO’s Year 2030 Financially Feasible Highway Network.
OPERATIONAL ANALYSIS PROCEDURES

Level of service analyses will be conducted for both the am and pm peak hours for all three analysis years – 2019, 2029, and 2039. The No Build Alternative (Alternative 1) assumes that the proposed interchange will not be constructed. Two of the three Build Alternatives include the construction of a new interchange. Alternative Three will consider new arterial roadway construction and improvements to existing roadways/interchanges not currently in the LRTP in lieu of constructing the interchange. This will be included to ensure that all other reasonable alternatives in lieu of the proposed interchange have been considered. Alternative Four assumes that the proposed interchange is located at the existing Everglades Boulevard overpass. Alternative Five assumes that the proposed interchange is located at Desoto Boulevard (approximately 1.8 miles to the east of the existing Everglades Boulevard overpass). As previously illustrated, several different interchange configurations will be evaluated.

Roadway improvements listed within the first three years of the Collier MPO’s TIP and/or the FDOT’s Adopted Five-Year Work Program will be included in the operational analyses.

The future year peak hour level of service analyses will demonstrate that the proposed interchange is not projected to have any significant adverse impact on the safety and operations of I-75. In addition, the future year peak hour analyses are expected to indicate that the implementation of the proposed interchange is expected to have some positive impact on the operations at one or more of the adjacent interchanges.

The future year peak hour levels of service for the I-75 mainline segments will be estimated using the latest version of the Highway Capacity Software (HCS). The latest version of the HCS will also be used to analyze the merge and diverge levels of service at the ramp junctions. The future year peak hour levels of service for the signalized ramp terminal intersections will be estimated using a combination of the SYNCHRO and HCS software while the future year peak hour levels of service for the unsignalized ramp terminal intersections will be estimated using the HCS software.

The level of service analysis will be conducted at the following interchanges:

- I-75/Golden Gate Parkway
- I-75/CR 951
- I-75/Everglades Boulevard or Desoto Boulevard (for new interchange scenarios)
- I-75/SR 29

Level of service analysis will be conducted for the following freeway segments:

- I-75 from Golden Gate Parkway to CR 951 (all alternatives);
- I-75 from CR 951 to Everglades Boulevard or Desoto Boulevard (Alternative Two and Alternative Three only);
- I-75 from Everglades Boulevard or Desoto Boulevard to SR 29 (Alternative Two and Alternative Three only);
- I-75 from CR 951 to SR 29 (all other alternatives)

In addition to the ramp terminal intersections at the interchanges, signalized intersections of other existing and/or future roadways within the area of influence may have to be analyzed. The actual number and locations of these intersections will not be determined until after the future traffic volumes have been estimated. The need to analyze additional arterial intersections will be determined based on the
magnitude of the future year traffic volumes projected to occur for the different alternatives. Additional study area intersections that may need to be analyzed include some or all of the following:

- Golden Gate Boulevard/Everglades Boulevard
- Golden Gate Boulevard/DeSoto Boulevard
- Golden Gate Boulevard/Wilson Boulevard
- Golden Gate Boulevard/CR 951

Off-ramp queue lengths at the interchanges will also be documented as a part of the traffic analysis.

The proposed interchange is located in an area that is currently classified as a rural area. Based on Florida Rule 14-94 and the FDOT Level of Service Criteria, the I-75 mainline lanes would be required to operate at Level of Service (LOS) B or better. In addition, FHWA Policy requires that the proposed interchange must not have any adverse affect on the operation or safety of the I-75 mainline and the I-75 mainline level of service must not degrade from its current level of service with the addition of the new interchange. Since the opening year is 2019 and the design year is 2039, it is quite likely that the existing I-75 mainline between CR 951 and SR 29 will not operate at Level of Service B for one or more of the analysis years even without the new interchange. It is also quite likely that during the time period between 2019 and 2039, the area north of I-75/Alligator Alley between CR 951 and Everglades Boulevard will change from a rural area to a transitioning urban area. Therefore, the IJR will document whether the future year levels of service are projected to be different with and without the proposed interchange. The IJR will also document the future year volume-to-capacity (v/c) ratios projected for the I-75 mainline with and without the proposed interchange.

SR 29 is the only State roadway located within the study area and Level of Service C is the minimum level of service standard for this facility. The Collier County 2010 Annual Update Inventory Report indicates that with one exception, Level of Service D is the minimum level of service standard for the County roadways in the study area. The one exception is the portion of Golden Gate Parkway from I-75 to Santa Barbara Boulevard. Level of Service E is the minimum level of service standard for this segment.

In summary, the current level of service criteria for the study area roadways is as follows:

- I-75 from SR 29 to CR 951 (LOS B)
- I-75 from CR 951 to Golden Gate Parkway (LOS C)
- SR 29 (LOS C)
- CR 951 (LOS D)
- Everglades Boulevard (LOS D)
- Golden Gate Parkway from I-75 to Santa Barbara Boulevard (LOS E)
- Golden Gate Parkway from Santa Barbara Boulevard to CR 951 (LOS D)

The IJR will document the projected levels of service on the existing I-75/Alligator Alley mainline and adjacent interchanges and document that the new interchange is not expected to have any negative impact on driver safety. The evaluation process will include all of the measures of effectiveness included in an IJR as defined in the Interchange Handbook. The IJR will also document the following:
- The proposed interchange will provide increased access to the primary hurricane evacuation route in Collier County.
- The proposed interchange will greatly improve the mobility for the eastern portion of Collier County.
- The proposed interchange has sufficient local support to ensure that the project is a viable project.
- Funding currently exists for the subsequent PD&E Study and Final Design phases of the project.

ENVIRONMENTAL CONSIDERATIONS

The proposed interchange was originally submitted to the FDOT District One Environmental Technical Advisory Team (ETAT) for review through the Efficient Transportation Decision Making (ETDM) Planning Screen in April 2006. None of the twenty-one Direct Effects were identified as potential dispute; however, six were identified as substantial. These areas were wetlands, water quality and habitat, recreation areas, Section 4(f) potential, land use, and potential secondary and cumulative effects to environmental resources. Within all comments from the reviewing agencies, there were no definitive fatal flaws. Many of the issues were identified as either able to be mitigated or avoidable depending on final action.

The proposed interchange was subsequently submitted for further environmental review through the ETDM Programming Screen in April 2009. Several project effects were identified as requiring dispute resolution by the Florida Department of Environmental Protection, US Fish and Wildlife Service, and Florida Fish and Wildlife Conservation Commission. One issue that was prevalent through many agency comments was the potential impacts to the Picayune Strand State Forest by allowing increased access. Access to and from the south of the proposed interchange will be discussed in the IJR. All of the project effects that were identified by the ETAT members as requiring dispute resolution will be identified and documented in the IJR as “potential fatal flaws” that will need to be resolved during the PD&E Study if conditional approval of the IJR is obtained.

CONCEPTUAL FUNDING PLAN/CONSTRUCTION SCHEDULE

The proposed interchange is anticipated to be funded by Collier County including the possibility of grant funding, federal authorization, federal and state attributable funds to the MPO area, and local funding. This is consistent with the Collier MPO’s adopted 2030 LRTP that includes the I-75/Everglades Boulevard interchange in the financially feasible or constrained component of the plan. In addition, the current interim year (2015) component of the LRTP includes this interchange through the design phase.

Currently, there are no Florida Intrastate Highway System (FIHS) funds available for this interchange. Since the proposed interchange would be located on Alligator Alley (i.e., the tolled portion of I-75) tolling might be an option to fund the design and construction of this interchange. A toll feasibility study will not be conducted as a part of the IJR, however, this type of study may be conducted later on during the PD&E Study (if conditional approval of the IJR is obtained).

ANTICIPATED EXCEPTIONS

All the anticipated exceptions (if any) associated with the proposed interchange construction will be identified in the IJR.
CONSIDERATION OF OTHER INTERCHANGE PROPOSALS

There are currently no other new I-75 interchange proposals within Collier County. The I-75/Everglades Boulevard interchange is the only new interchange on I-75 that is included in the Collier MPO’s adopted 2030 LRTP. The purpose of the LRTP is not to limit the location of this new interchange but rather to identify the need for this new interchange with the understanding that the specific location approval is subject to the successful completion and approval of the IJR.

FHWA POLICY REQUIREMENTS AND GUIDELINES

The following eight requirements/guidelines established by the FHWA for consideration of new access points to the Federal Interstate System will be addressed in the I-75/Everglades Boulevard IJR:

1. The existing system can neither provide the necessary access nor be improved to satisfactorily accommodate the design year travel demand while at the same time provide the access intended by the new interchange

New access to I-75 is proposed to help reduce traffic demand needs on the north and west of the existing interchanges on I-75. By providing the proposed access, several of the existing interchanges will see reduced demand. Also, the proposed access has the potential for reducing system wide vehicle hours of travel by allowing regional access without traveling through the congested localized network to access the interstate.

2. All reasonable alternatives to a new interchange have been considered including improvements to existing local roadways

The IJR documentation will show that all reasonable alternatives, including improvements to the adjacent interchanges and existing roadway network, have been considered. Improvements to the existing roadway network and existing interchanges that are not included in the LRTP will be evaluated.

3. The proposed new interchange does not have a significant adverse impact on the safety and operation of the interstate facility

Due to the location of the proposed interchange and the alignment/orientation of the existing freeway system, this interchange is primarily expected to serve regional needs north of Alligator Alley and east of CR 951. Due to the large distances between the proposed interchange and the adjacent existing interchanges, it is anticipated that the proposed interchange will not have any adverse impacts on the existing freeway system (including the existing eastbound toll plaza east of the I-75/CR 951 interchange).

4. A full interchange at a public road is provided

The proposed interchange will be a full interchange with I-75/Alligator Alley. Access to and from I-75/Alligator Alley will be provided in both the eastbound and westbound directions. The new interchange alternatives will only consider locations that have a connection to a public road (i.e., Everglades Boulevard and Desoto Boulevard).

5. Consistency with regional land use and transportation plans

The proposed interchange is consistent with both local and regional transportation plans. The interchange is currently included in the adopted 2030 Financially Feasible LRTP for Collier County and the Collier/Lee Bi-County Regional Transportation Network. The proposed interchange is also consistent with Collier County’s Comprehensive Plan.
6. A comprehensive interstate network study has been conducted in areas where the potential exists for future multiple interchange additions

There are no other new interchanges currently being planned or programmed within Collier County. The IJR will include a comprehensive evaluation of the I-75 mainline, two existing interchanges located north/west of the proposed interchange (Golden Gate Parkway and CR 951), and one existing interchange located east of the proposed interchange (SR 29).

7. Requests for new interstate access that are made due to new or expanded private development must demonstrate appropriate coordination between the private development and the transportation system improvements.

The request for this new interchange is not being driven by any specific private development. The need for the new interchange is being driven by the inability of the existing interchanges to provide adequate access for the existing residents in eastern Collier County. The continued growth in residential land use that is projected to occur for the eastern portion of Collier County will only further increase the need for improved access to I-75/Alligator Alley. The overall transportation system in Collier County was subject to a comprehensive evaluation during the development of the 2030 LRTP. The utilization of improved existing facilities to limit the need for new facilities was considered throughout the LRTP development process. The 2030 LRTP includes improvements to numerous existing roadways located in the eastern portion of Collier County. In consideration of the extensive trip lengths associated with travel to/from the Golden Gate Estates area, current and projected future congestion levels within the urban areas that affect the travel patterns to/from the primary regional facility in the County (i.e., I-75), and the need to improve accessibility for emergency evacuation situations (e.g., hurricanes, forest fires), the construction of several new facilities in the eastern portion of Collier County is also incorporated into the 2030 LRTP. These new facilities included an eastern extension of Vanderbilt Beach Road from east of CR 951 to Desoto Boulevard, a SR 29 By-Pass Roadway around the town of Immokalee, and an additional interchange with I-75/Alligator Alley east of CR 951. Since Everglades Boulevard is the primary north-south roadway in the study area and currently has an overpass at I-75/Alligator Alley, this location was identified in the adopted 2030 LRTP and the Bi-County Regional Transportation Network as the location for the new interchange.

8. Requests for new interstate access need to consider planning and environmental constraints

The proposed interchange project was submitted for environmental review through the ETDM Programming Screen in April 2009. Several project effects were identified as requiring dispute resolution by the Florida Department of Environmental Protection, US Fish and Wildlife Service, and Florida Fish and Wildlife Conservation Commission. All of the project effects that were identified by the ETAT members as requiring dispute resolution will be identified and documented in the IJR as “potential fatal flaws” that will need to be resolved prior to or during the PD&E Study if conditional approval of the IJR is obtained. FDOT District One has recently initiated a Cumulative Environmental Effects Study that will serve to evaluate the potential environmental impacts of several planned/programmed transportation improvements (including the I-75/Everglades Boulevard interchange) located in eastern Collier County. Coordination between the IJR Study and the Cumulative Environmental Effects Study will occur.

PUBLIC INVOLVEMENT

The I-75/Everglades Boulevard interchange has been endorsed by both the Collier MPO Board as well as the Lee County MPO Board through its inclusion in both the Collier MPO’s adopted 2030 LRTP and the Collier/Lee County MPO’s Joint Regional Transportation Network. The Collier County Board of County Commissioners has also endorsed the new interchange and are actively pursuing additional funding to ensure its implementation. Due to the regional importance of the proposed interchange, a public meeting was held in June 2009 to gauge the continued interest of the residents and property owners.
overwhelming majority of the meeting attendees expressed their support for the new interchange. This public support is primarily based on the residents’ desire for more direct access to I-75/Alligator Alley for both daily travel needs as well as potential future evacuation needs.

CONCEPTUAL SIGNING PLAN

A conceptual signing plan will be prepared as a part of this IJR and included in an Appendix to ensure that the proposed interchange does not have any “fatal flaws” with respect to signing.

SIGNATURE BLOCK

This MLOU will not be binding upon the FDOT to approve the Interchange Proposal under any circumstances nor will it nullify the FDOT’s right to request changes to the study design, additional data collection, analyses or documentation that may be required at any point during the Interchange Proposal process. Full compliance with all MLOU requirements does not obligate FDOT or FHWA to approve the Interchange Proposal. Signing by FDOT is nonbinding to approve the Interchange Proposal under any circumstances.

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* Traffic factors must be approved by FHWA. (p. 17)