

3.5.3.1 Orange County Viable Alternatives

Members of the project team met with the manager and staff of the Orange County Environmental Protection Division (OCEPD) on December 1, 2005 to discuss the initial alignment alternatives presented at the November 2005 Public Workshops. OCEPD made several requests at that meeting which were formally stated in a letter dated December 28, 2005. In the letter, OCEPD requested that the final alignment of Wekiva Parkway avoid impacts to two conservation properties known as the former “Fazio” and “Strite” properties, recently purchased by Orange County, as well as a seepage spring located on the parcel currently owned by the Strite family which is directly north of the former Strite property. OCEPD also requested that impacts to Rock Springs Run State Reserve in Lake County be avoided by having a more westerly alignment through the Neighborhood Lakes property.

Initial alignment segments OC-5 and OC-7 directly impacted the former Strite property and the seepage spring, and initial alignment segments OC-14, OC-16, and OC-18 directly impacted the former Fazio property. By eliminating those segments, 12 of the 16 initial alignment combinations were affected. The remaining initial alignment combinations all included segment OC-17, which OCEPD officially stated as their preference (or another alignment similar to it). Segment OC-17 took the alignment just to the south of the former Fazio property. OCEPD has stated that the primary access to the former Fazio property is from Rainey and Swain Roads to the north, so an alignment directly adjacent to the south property line of the former Fazio property would not cut off access to the property. That revision to OC-17 (i.e., moving it slightly north) reduced impacts to the parcels contiguous and adjacent to the south property line of the former Fazio property by leaving useable remnants of several large parcels with frontage on the north side of Boch Road. Another alternative revision to segment OC-17 (i.e., moving it south) took the alignment south of Boch Road yet avoided direct impact to the 110 year old Bock House, a historic home subsequently determined to be eligible for listing in the NRHP. Also, these revisions to OC-17 (i.e., south of and north of Boch Road) do not directly impact either the former Strite property or the seepage spring to the north of it. A realignment of Boch Road was not evaluated due to opposition expressed by residents at the Orange County Public Workshop; however, this realignment was assessed as part of the Section 106 evaluation (refer to *Sections 3.5.4.4 and 4.2.1*). The revised alignments, from west of Plymouth Sorrento Road to west of CR 435, became known as the “southern” and “northern” alignments. Prior to the Viable Alternatives Public Workshops held in July and August 2006, the alignment segments were renamed Orange County Alternative 1 and Orange County Alternative 2, respectively. **Exhibits C-2 and C-3 in Appendix C** show those revised alignments in Orange County.

Refinements to the remaining initial alignment segments were made with several constraints taken into consideration in addition to OCEPD’s requests. Alignment revisions to reduce impacts to the floodplain north of Ponkan Road were developed. The alignment concepts were further refined from south of Ponkan Road to north of Kelly Park Road to provide adequate tangent sections for interchange approaches and toll plaza concepts for each of the local access interchange options. The refined alignments are referred to as the Kelly Park Road Interchange Alignment and the Ponkan Road Interchange Alignment, and are shown in the previously referenced **Exhibits C-2 and C-3**, respectively. *The Kelly Park Road & Ponkan Road Alignment Alternatives Comparison spreadsheet follows Exhibits C-2 and C-3 in Appendix C.*

Field reviews of the scrub parcels north of Ondich Road and west of Plymouth Sorrento Road were conducted in June 2005 and March 2006 by the project team's field biologists. Those reviews indicated that the north and east portions have an extremely dense canopy and would not support a scrub jay population; however, there are areas in the south and west portions that have an open canopy with exposed white sand, and understory and groundcover, that can support scrub jays, indigo snakes, and gopher tortoises. Based on the field reviews, it was recommended that alignment and systems interchange alternatives be located as far north and east as possible, and while there would potentially be some impact to species, preserving the largest contiguous portion possible would provide an area that could be managed and improved to support scrub jays and gopher tortoises.

In consideration of the biologists' recommendation, as well as other constraints, three general configurations for the Wekiva Parkway/SR 46 Realignment Systems Interchange were developed. There are variations in those systems interchange configurations for connection to the Kelly Park Interchange Alignment or the Ponkan Road Interchange Alignment and Orange County Alternatives 1 or 2, as well as variations for connection to Lake County West Alternatives 1 or 2 (described in greater detail in the Lake County West Alternatives discussion).

The Kelly Park Road Interchange Alignment and the Ponkan Road Interchange Alignment alternatives are very similar north of Kelly Park Road; for this reason, only the Kelly Park Road Interchange Alignment was used in depictions of the Systems Interchange alternatives to assist public understanding and allow easier reference. As shown in **Exhibits C-4 through C-6 in Appendix C**, Systems Interchange Alternatives 1 through 3 connect the Kelly Park Interchange Alignment to Orange County Alternative 1, with variations for connection to Lake County West Alternatives 1 and 2. Systems Interchange Alternatives 4 through 6 connect the Kelly Park Interchange Alignment to Orange County Alternative 2, with variations for connection to Lake County West Alternatives 1 and 2, as shown in **Exhibits C-7 through C-9**. The corresponding *Orange County/Lake County West Systems Interchange Alternatives Comparison* spreadsheet is located after **Exhibit C-9 in Appendix C**.

3.5.3.2 Lake County West Viable Alternatives

In Lake County West, an alignment composed mainly of segments LCW-3 and LCW-6, and portions of alternative segments LCW-7, LCW-13, and LCW-14, was evaluated for its potential as a SR 46 Realignment concept connecting the existing SR 46 corridor to the Wekiva Parkway Systems Interchange in northwest Orange County. The segment (LCW-3) which connected to the existing SR 46 corridor turned to the southeast approximately 3,000 feet west of Round Lake Road and passed through the easternmost portion of the Wolf Branch Sink Preserve. At its closest point, the conceptual alignment was approximately 2,200 feet from the sink, which discharges directly to the aquifer. The concept for the alignment was evaluated as a better alternative for overpassing the existing CSX railroad tracks and for avoiding existing residential development. However, any potential impacts to the environmentally important and sensitive Wolf Branch Sink Preserve were viewed as unacceptable. On December 6, 2005, the Mount Dora City Council passed a resolution that contained a request to eliminate the alignment alternative which passed through the Wolf Branch Sink Preserve. The Lake County Water Authority Board of Trustees, which owns and manages the Wolf Branch Sink Preserve, unanimously passed a motion on February 22,

2006 requesting elimination of the alignment alternative. On February 27, 2006, the Lake County Public Works Director indicated “no objection” to the elimination of that alignment alternative. Therefore, it was eliminated from further consideration and removed from all alternative plots before the July/ August 2006 Viable Alternatives Public Workshops. The remaining segments for the SR 46 Realignment alternatives from the existing SR 46 corridor to Wekiva Parkway were refined to minimize social and environmental impacts while providing connection options to the Systems Interchange alternatives discussed previously. Two viable alignment alternatives, as shown in the previously referenced **Exhibits C-4 through C-9 in Appendix C**, were presented as Lake County West Alternatives 1 and 2 at the July/ August 2006 Viable Alternatives Public Workshops. The impact and cost analysis for those segments is included with the *Orange County/Lake County West Systems Interchange Alternatives Comparison* spreadsheet located after **Exhibit C-9**.

The City of Mount Dora’s preference for widening SR 46 on the north side of the existing alignment from US 441 to east of Round Lake Road was indicated at a meeting between the city’s Planning and Development Director and project team members held on September 20, 2005. The majority of development along the existing alignment, both residential and commercial, is concentrated on the south side of the roadway. An initial impact assessment showed that parcel impacts and displacements were considerably higher for widening to the south. The widening to the south alternative was not eliminated, but was not evaluated for right-of-way costs due to the results of the initial impact assessment and Mount Dora’s stated preference for widening to the north. It is reasonably expected that the right-of-way costs for the south widening concept would be higher. The viable alignment alternatives for the existing SR 46 corridor are shown on **Exhibit C-10 in Appendix C**, followed by the *Lake County West Alignment Alternatives Comparison* spreadsheet.

Four US 441/SR 46 interchange modification alternatives were developed as part of the viable alternatives portion of the study: two grade-separated alternatives and two at-grade alternatives. A loop ramp in the southwest quadrant of the interchange was analyzed at the request of Mount Dora officials and, due to impacts, was later eliminated at their request. Alternatives with an at-grade intersection of US 441 and SR 46 were also developed and analyzed, including a traffic operations analysis, in response to the Mount Dora City Council’s December 6, 2005 resolution requesting examination of alternatives to discourage traffic continuing on SR 46 west of US 441. The viable alternatives include 1) a grade-separated interchange with a southbound US 441 to eastbound SR 46 flyover ramp, 2) an at-grade intersection with an outside take off southbound US 441 to eastbound SR 46 flyover ramp, and 3) an at-grade intersection with an inside take off southbound US 441 to eastbound SR 46 flyover ramp. The viable interchange modification alternatives are shown in **Exhibits C-11 through C-13 in Appendix C**, followed by the *Lake County West Interchange Alternatives Comparison* spreadsheet.

3.5.3.3 Lake County East Viable Alternatives

In Lake County East, an alignment composed mainly of segments LCE-22 and LCE-24 (referred to as the “blue” alignment) was the initial alternative farthest south of existing SR 46; it passed through the northwest portion of the Rock Springs Run State Reserve and an uplands portion of Wekiva River Mitigation Bank property (formerly New Garden Coal). Since segments of the “blue” alignment passed through the state reserve managed by the Florida Department of Environmental Protection (FDEP) Recreation and Parks Division,

several environmental groups that compose the Wekiva Coalition, the project Environmental Advisory Committee, the Seminole Soil and Water Conservation Commission, and the FDEP Park Service all objected to the “blue” alignment alternative and requested that it be removed from project maps depicting the alternatives. It was therefore eliminated from further consideration and removed from all alternative plots after the first Public Workshops in November 2005.

Several alternatives for avoiding impacts to Rock Springs Run State Reserve, and the floodplains and wetlands to the maximum extent possible, were developed through the Neighborhood Lakes parcels using the geometric criteria for an expressway typical section with a 70 mile per hour design speed. Three of these alignments were selected for further evaluation: one that was as far west as possible, one as far east as possible, and one through the central section of the parcels. The three alignments were named Neighborhood Lakes Alternatives 1 through 3, from west to east, and are shown in **Exhibits C-14 through C-16 in Appendix C**, followed by the *Lake County East Neighborhood Lakes Alignment Alternatives Comparison* spreadsheet. These alignments were tied into the remaining “red” and “green” initial alternatives from the eastern boundary of Neighborhood Lakes to the Wekiva River, and a new “blue” alignment was developed through that section. The new “blue” alignment was developed based on an alignment suggested by the Nature Conservancy. The three Neighborhood Lakes alignments combined with the southern “red” and “blue” alignments and the northern “green” alignment resulted in nine alternatives from the Orange/Lake County line to the Wekiva River.

The proposed realignment of CR 46A is shown in Figure 3 of the *Wekiva River Basin Coordinating Committee Final Report*, as endorsed from the recommendations of the Wekiva Basin Area Task Force. The recommendation was to continue the existing CR 46A alignment on approximately the same bearing as the tangent section connecting to SR 44 to the north, to an interchange with SR 46 and Wekiva Parkway in the Neighborhood Lakes area. Several potential alignments and interchange alternatives were considered in that location; however, the majority of the property through which the proposed CR 46A realignment traverses is under single ownership. Discussions with the landowner resulted in an alignment along the western boundary of the property that also provided a large remnant parcel for stormwater and floodplain compensation ponds.

Other stakeholders in the area include Easter Seals Camp Challenge on the south side of SR 46 and Florida Gas Transmission on the north side of SR 46. Efforts to avoid or minimize impacts to these properties/facilities resulted in an alternative that would hold the south gas pipeline easement line and widen the existing SR 46 more to the north than to the south, avoiding impacts to the gas pipeline and minimizing impacts to Camp Challenge. A second alternative developed for comparative analysis holds the north SR 46 right-of-way line and widens the existing corridor to the south. This alternative results in more impact to Camp Challenge; however, it lessens the impact to the landowner most impacted by the CR 46A realignment. These alternatives were presented at the Viable Alternatives Public Workshops as CR 46A Alternative 1 and Alternative 2, respectively, and are shown with the viable interchange alternative in **Exhibits C-17 and C-18 in Appendix C**, followed by the *CR 46A and Neighborhood Lakes Interchange Alignment Alternatives Comparison* spreadsheet.

Once the Neighborhood Lakes and CR 46A alignments and interchange concepts were developed, local access interchange alternatives for the developed parcels to the east were evaluated. As stated in the Task Force recommendations endorsed by the Coordinating

Committee and the *Wekiva Parkway and Protection Act*, remnant portions of SR 46 and CR 46A could remain in place to provide local access. This area has seen high numbers of Florida black bear fatalities, and two wildlife crossings under SR 46 have been constructed in recent years to help mitigate the problem. Enhanced wildlife crossings would be integrated into the design of the Wekiva Parkway through this area. As discussed previously, CR 46A would be realigned to connect with SR 46 in the area of Neighborhood Lakes, and sections of SR 46 and CR 46A not required for local access would be removed. With these considerations in mind, options for either two half (“split”) diamond interchanges or two full interchanges were developed from east of Neighborhood Lakes to west of the Wekiva River to provide access to the developed parcels. The split diamond interchange alternatives would leave a remnant section of SR 46 open between the interchange locations so that local traffic has access to both eastbound and westbound Wekiva Parkway. The two full interchange alternatives allow for closing more of the existing roadway, but require more right-of-way and would have substantially higher construction costs. The conceptual location of the easternmost interchange just west of Wekiva River Road is common to all alternatives and differs only in that it may be a half or full interchange at that location. The conceptual locations of the interchange further to the west vary with the alignment and these could be either half or full interchanges.

Four interchange alternatives were developed for the red alignment: one split diamond configuration, two full diamond configurations, and one full diamond configuration with collector-distributor (C-D) roads. The latter alternative was eliminated prior to the Viable Alternatives Public Workshops due to the additional costs and impacts that would be associated with carrying the C-D roads on structure over the wildlife crossing east of Neighborhood Lakes, as well as the additional right-of-way that would be required. The remaining alternatives on the red alignment were presented at the Viable Alternatives Public Workshops as Local Access Interchange Alternatives 1, 2, and 3, and are shown in **Exhibits C-19, C-20, and C-21 in Appendix C**. Local Access Alternative 1 is a split diamond configuration with a half diamond interchange west of the existing SR 46/CR 46A intersection and another half diamond interchange west of Wekiva River Road. The existing section of SR 46 between the interchanges would remain open for local access. Local Access Alternative 2 is similar to Alternative 1, but has two full diamond interchanges and SR 46 is closed between the interchanges. Alternative 3 has a full diamond interchange located on Wekiva River Mitigation Bank property south of SR 46, and another west of Wekiva River Road.

Interchange alternatives for the new blue alignment were not developed prior to the Viable Alternatives Public Workshops due to the similarity with the red alignment. It was assumed that the costs and impacts associated with the interchanges for either the blue or red alignments would be similar. Two interchange configurations on the blue alignment were developed subsequent to the Public Workshops for refined impact and cost analysis. Local Access Alternative 1A is similar to Local Access Alternative 1 on the red alignment with the split diamond configuration. Likewise, Alternative 2A is similar to Alternative 2 with the two full interchanges. Alternatives 1A and 2A are shown in **Exhibits C-19a and C-20a in Appendix C**.

Three interchange alternatives were developed for the northern “green” alignment. One alternative featured a half diamond and a loop west of the existing SR 46/CR 46A intersection, and a full diamond interchange west of Wekiva River Road. This configuration

did not provide any additional benefits when compared with the two full diamond configurations, and was eliminated from further consideration prior to the Viable Alternatives Public Workshops. The remaining alternatives on the green alignment were presented at the Public Workshops as Local Access Alternatives 4 and 5, and are shown in **Exhibits C-22 and C-23 in Appendix C**. Alternative 4 is the split diamond configuration similar to Alternative 1. Alternative 5 is a full diamond configuration similar to Alternative 2.

The corresponding *Lake County East Local Access Interchange Alternatives Comparison* spreadsheet follows **Exhibits C-19 through C-23 in Appendix C**.

3.5.3.4 Seminole County Viable Alternatives

In Seminole County, the northern or “yellow” alignment (segment SC-7EX) shown at the November 2005 Initial Alternatives Public Workshops was eliminated following the Seminole County Expressway Authority (SCEA) Board meeting on December 20, 2005. At the meeting, members of the SCEA voted unanimously to have the yellow alignment removed from further consideration due to impacts to wetlands, floodplains, public lands/conservation area and the Black Bear Wilderness Area, as well as public comments against it and the potential for 32 residential displacements, adverse effects to the Port of Sanford, and interchange impacts on the St. Johns River. Given the high level of impact and the SCEA input, the yellow alignment was eliminated from further consideration.

Two concepts presented at the November 2005 Initial Alternatives Public Workshops consisted of a limited access with frontage roads typical section from the Wekiva River to a) east of Lake Markham Road or b) east of Orange Boulevard, where the typical section transitioned to a six-lane urban facility connecting to an unmodified SR 46/I-4 interchange. These alternatives were eliminated from consideration as viable alternatives due to their lack of capacity to meet projected traffic demand and resultant level of service F conditions. In addition, this type of facility would not provide a direct expressway-to-expressway connection since there would be signalized intersections along SR 46 on the six-lane urban section. These concepts were modified to eliminate the transition to a six-lane section and continue the limited access facility with frontage roads to a modified SR 46/I-4 interchange. However, this would still not provide a direct expressway-to-expressway connection, as explained later in this section.

The limited access expressway with frontage roads concept was developed for both north widening and south widening alternatives along the existing SR 46 corridor, before transitioning to a rural expressway typical section for connection to the SR 417/I-4 interchange. **Exhibits C-24 and C-25 in Appendix C** show the Wekiva Parkway with Frontage Roads North Widening and South Widening alternatives, respectively.

Widening the existing 200-foot SR 46 right-of-way to the north would require relocation of a 26” natural gas pipeline located in a 50-foot easement adjacent to the SR 46 northern right-of-way line and replacement of the easement. The gas line and easement run immediately adjacent to the existing SR 46 right-of-way for approximately two miles from the Wekiva River to an existing Progress Energy easement which crosses SR 46 just east of Lake Markham Road. North widening would also impact the Lower Wekiva River Preserve State Park, which is FDEP property. Widening to the south would avoid relocation of the gas pipeline and impact to FDEP property, however, most of the development through this

section is concentrated on the south side of SR 46. As a result, impacts to residential and commercial parcels would be greater with this alternative.

Exhibit C-26 in **Appendix C** shows the concept for connecting Wekiva Parkway to a modified SR 417/I-4 interchange. The concept was developed to work within the FDOT I-4 Master Plan right-of-way limits to the maximum extent possible, while providing a systems interchange between two major expressways (SR 429 and SR 417) and I-4. Approximately 12 residential displacements would be required south of SR 46 for the expressway connection to the SR 417/I-4 interchange.

For the concept of limited access with frontage roads to the SR 46/I-4 interchange, two interchange modification alternatives were developed, as shown in **Exhibits C-27** and **C-28** in **Appendix C**. Both interchange alternatives would accommodate a loop ramp in the northwest quadrant of the existing interchange that is currently in the design phase and is funded for right-of-way acquisition. Considerable impacts to commercial properties and relocation of Seminole County Fire Station #34 are unavoidable with any systems interchange concept at this location, and third level flyover ramps are necessary to minimize the impacts. Also, both concepts would require use of the I-4 corridor and local streets for east-west trips to/from Wekiva Parkway and SR 417. Alternative 1, shown in **Exhibit C-27**, has a flyover ramp that comes down to grade in the northeast quadrant of the interchange and impacts several commercial properties. Alternative 2, shown in **Exhibit C-28**, impacts the perimeter road and parking lot of Seminole Towne Center Mall. Both alternatives would impact two large automobile dealerships, one in the northwest quadrant and the other in the southwest quadrant.

The corresponding impact and cost assessment spreadsheet for the *Seminole County Alternatives Comparison (from the Wekiva River to I-4)* follows **Exhibits C-24** through **C-28** in **Appendix C**.

3.5.3.5 Coordination with Stakeholders and Viable Alternatives Public Workshops

During the process of identifying the viable alternatives, extensive project coordination was undertaken with local and state government agencies, advisory groups, and other entities. Those meetings and/or presentations provided study updates, specific information, and opportunities for feedback on the viable alternatives. After development of the viable alternatives and refinement of them based on the feedback received at many of those meetings, three workshops were held to present the viable alternatives to the public for review and comment. Those Public Workshops were on the dates and at the locations shown below:

- July 25, 2006 – Seminole County Public Workshop at the Sanford Civic Center
- July 26, 2006 – Orange County Public Workshop at Apopka High School
- August 1, 2006 – Lake County Public Workshop at Lake Receptions in Mount Dora

A total of 1,201 attendees signed in at the workshops and 573 comment forms were submitted after the workshops. All public comments were reviewed and responded to in writing. Many of the comments expressed opinions in favor of or against specific alignment alternatives or interchange concepts/locations. The public comments on the viable alternatives were analyzed by county and utilized by the project team in further evaluation and assessment of the alternatives. A complete summary and analysis of the public comments received after the workshops can be found in a separate document entitled

Wekiva Parkway PD&E Study Viable Alternatives, Summary of Public Meetings, July/August 2006 (QCA and CH2MHILL).

After the Public Workshops, the project team began attending a series of meetings with homeowners associations, property owners, and others to discuss possible refinements to the viable alternatives in specific areas. There were numerous meetings in August, September, and October of 2006, particularly with homeowners near the alignment alternative for connecting Wekiva Parkway to the SR 417/I-4 interchange. As a result, refinements and additional alignment alternatives were developed and evaluated. This was also the case in Lake County East for the CR 46A realignment and in northern Orange County for the Wekiva Parkway alignment north of Haas Road and east of Plymouth Sorrento Road.

3.5.4 Viable Alternatives Refinement

As indicated, several alternatives were refined and in some cases additional alignment concepts were developed after meetings with homeowners associations and others following the Viable Alternatives Public Workshops. This further analysis and evaluation of alternatives was undertaken for four specific areas:

- the Wekiva Parkway alignment from the SR 46 corridor southeast to the SR 417/I-4 interchange in Seminole County;
- the CR 46A Realignment in Lake County East;
- local access interchange concepts for the Wekiva Parkway alignment in Lake County East; and
- the Wekiva Parkway alignment north of Haas Road and east of Plymouth Sorrento Road in Orange County.

3.5.4.1 Seminole County

In response to concerns expressed at and after the July 25, 2006 Viable Alternatives Public Workshop in Seminole County, separate meetings were held in Sanford with the Capri Cove and Tall Trees Homeowners Associations, the pastor and members of the Lakeside Fellowship United Methodist Church, and the owner of the Twelve Oaks RV Resort to discuss possible refinements to the Wekiva Parkway alignment from the SR 46 corridor southeast to the SR 417/I-4 interchange. Alignment refinements referred to as Alternatives A, B and C, as well as Refined Viable Alternatives 1 and 2, were developed by the project team to comparatively evaluate the impacts of the adjustments requested by the various parties. Those alternatives are shown in **Exhibits D-1, D-2, D-3, D-4, and D-5** located in **Appendix D**, along with the comparative assessment spreadsheet. The results of that evaluation indicated, in most cases, refinements to satisfy one party often meant greater impacts to another party. For example, moving the roadway alignment further east away from the Capri Cove development resulted in greater impacts to the United Methodist Church. The alignment was refined to minimize impacts, as much as possible, to all parties.

3.5.4.2 Lake County East

In response to concerns expressed at and after the August 1, 2006 Viable Alternatives Public Workshop in Lake County, meetings were held with the Heathrow Country Estates Homeowners Association near Mount Plymouth to discuss possible additional alternatives

for the realignment of CR 46A. The project team developed several alternative realignment concepts for comparative evaluation, including those requested by the homeowners association. Those alternatives are shown in **Exhibit D-6** located in **Appendix D**, along with the comparative assessment spreadsheet.

At the request of the Lake County Commissioners, additional meetings with the Heathrow Country Estates Homeowners Association were held to further discuss and evaluate the realignment alternatives for CR 46A. At the conclusion of that process, the Commissioners supported CR 46A Realignment Alternative 1A as the Proposed Build Alternative.

Based on the impact and cost analysis, as well as existing and future traffic projections, the recommended alternative for the local access interchange concepts in Lake County East was the split diamond interchange concept that would leave a portion of SR 46 open between the interchange locations, as documented in *Wekiva Parkway/ SR 46 Realignment: Consultant Recommendation on the Preferred Alternative*, CH2M HILL, April 2007. This concept minimized impacts to public lands and was less expensive than two full interchanges. The *Wekiva Parkway and Protection Act* allows for portions of SR 46 to remain open for local access; however, while this concept was less costly and minimized impacts to Rock Springs Run State Reserve and Seminole State Forest, the land managers from both FDEP, Division of Recreation and Parks and the Florida Department of Agriculture and Consumer Services (FDACS), Division of Forestry requested that the two full interchanges concept be selected as the Proposed Build Alternative. Several meetings were held with FDEP personnel in both Orlando and Tallahassee on the recommendation for split diamond interchanges in Lake County East. FDEP wanted no remnants of SR 46 to remain open for local access and requested full interchanges. In addition, the FDACS, Division of Forestry stated their preference for the full interchange concept based on the fact that this section of SR 46 is the location of the first wildlife structure installed on SR 46 and is the most frequently used crossing between Seminole State Forest and Rock Springs Run State Reserve. Subsequently, the Wekiva River Basin Commission and the Lake County Board of County Commissioners concurred with the position of FDEP and the Division of Forestry. Although projected traffic demand does not require full interchanges in that area of Lake County East, and the cost delta between half and full interchanges is substantial, FDOT agreed to revise the Proposed Build Alternative to include full interchanges. In this case, planning efforts that would help to reduce Section 4(f) impacts were rejected by the public land managers in order to ensure unobstructed wildlife habitat connectivity between Rock Springs Run State Reserve and Seminole State Forest. However, due to the addition of a non-tolled Service Road to the design concept in the spring of 2010 (as discussed in *Section 3.6*) those two local access interchanges are no longer needed and are not in the current Proposed Build Alternative.

3.5.4.3 Orange County

In response to a resident's request made at and after the July 26, 2006 Viable Alternatives Public Workshop in Orange County, a meeting was held with the staff of the Orange County Environmental Protection Division concerning potential use of the Orange County GreenPlace conservation parcels (formerly the Fazio property) for the Wekiva Parkway alignment north of Haas Road and east of Plymouth Sorrento Road. OCEPD had previously requested that the conservation parcels not be impacted by any of the alignment alternatives, however, it was agreed that an impact analysis would be performed for comparative evaluation with the viable alternatives for that alignment segment. The project team prepared two alternative alignment concepts; one 150 feet on and the other 300 feet on

the GreenPlace conservation property. Those alternatives are shown in **Exhibits D-7 and D-8** located in **Appendix D**, along with the comparative assessment spreadsheet. The impacts of the alternatives on the conservation parcels were determined to be unacceptable.

3.5.4.4 Section 4(f) and Section 106 Consultation Alternatives

The proposed improvements related to the Wekiva Parkway (SR 429)/SR 46 Realignment project will impact two historic resources eligible for listing in the *National Register of Historic Places* (NRHP) which are within the project area of potential effect for the Proposed Build Alternative. Those two resources are:

- Paul Bock House (8OR7946)/2626 Boch Road, Apopka, FL (8OR7946), individually eligible for listing in the NRHP, and
- Strite House (8OR9844)/6229 Plymouth-Sorrento Road (8OR9844), Apopka, FL, individually eligible for listing in the NRHP

Descriptions of the Bock House and the Strite House, as well as more detailed information on potential impacts, are provided in *Section 4.2.1* of this document.

On April 21, 2008, a Cultural Resource Consultation Meeting was held with a representative of the State Historic Preservation Office (SHPO) and local stakeholders including the property owners of the Bock House and the Strite House. That meeting was held as part of the Section 106 consultation and review process to discuss potential Section 4(f) impacts to the NRHP eligible historic resources. The meeting focused on the range and types of proposed effects to historic resources in Orange County and potential mitigation measures. The following possibly viable alternatives were discussed:

- Systems Interchange Alternative 4 (combined with Orange County Alternative 2) for the Section 106 avoidance alternative, and
- Systems Interchange Alternative 1 (combined with Orange County Alternative 1) for the build alternative.

Following the meeting, two Section 106 minimization alternatives (Alternatives 1A and 1B) were developed and evaluated at the request of the SHPO. Alternative 1A is similar to Alternative 1 but with an alignment shift further south to avoid impacts to the mature oak trees on the Bock property. Alternative 1B is similar to Alternative 1 but with an alignment shift further south to avoid impacts to the mature oak trees on the Bock property and to avoid the Strite House.

The potential effects to the two cultural resources, resulting from the Proposed Build Alternative (Alternative 1), Avoidance Alternative (Alternative 2), and the Minimization Alternatives (Alternatives 1A and 1B) were documented in the draft *Section 106 Documentation and Determination of Effects Case Study Report for the Wekiva Parkway (SR 429)/SR 46 Realignment PD&E Study* (Janus Research with CH2M HILL, July 2008). After review of that document, the SHPO concurred with the finding that Alternative 1 would have an adverse effect on both the Paul Bock House and the Strite House, indicated that Alternative 2 should be considered, and requested further coordination in a letter to FHWA dated September 10, 2008 (a copy of the letter is provided in **Appendix F**).

During project sponsor consultation with FHWA from September 2008 to April 2010, the potential environmental effects to these two cultural resources have been analyzed further and documented as part of the draft *Individual Section 4(f) Evaluation for Historic Resources*

(April 2010). Those additional analyses are also included in the revised draft *Section 106 Documentation and Determination of Effects Case Study Report for the Wekiva Parkway (SR 429)/SR 46 Realignment PD&E Study* (Janus Research with CH2M HILL, June 2010).

The “Determination of Effects”, documented in Section 4.4 of the revised draft *Case Study Report*, indicates that the minimization alternatives (Alternative 1A and 1B) would result in minimized effects to the Bock House (decreased right-of-way impacts, noise effects and visual effects) as compared to Alternative 1; however, these alternatives would also result in increased effects to the Strite House. Alternative 2 avoids direct use of both the Bock House and Strite House properties, but would have cumulative environmental, community disruption, social, and cost impacts of extraordinary magnitude in comparison to Alternative 1.

FHWA is engaged in on-going consultation with the SHPO as required by 36 CFR, Part 800 and regulations implementing Section 106 of the National Historic Preservation Act of 1966, as amended, regarding the potential impacts of the proposed project and its alternatives on significant historic resources. An update on the project study was provided to SHPO staff in a conference call on March 9, 2010. After SHPO review of the revised draft *Case Study Report*, a second Section 106 Consultation Meeting with the affected property owners, the SHPO, FHWA, FDOT, OOCEA and other stakeholders will be scheduled to address and resolve issues concerning adverse effects.

3.6 Proposed Build Alternative

Based upon comparative assessment of the results of the engineering/environmental analysis and the evaluation of impacts/costs, and after extensive coordination with stakeholders, the Expressway Authority and FDOT, District Five identified the overall Proposed Build Alternative for the proposed Wekiva Parkway (SR 429) and SR 46 Realignment project in April 2007. Subsequent coordination with state and local agencies, residents, homeowners associations, and other stakeholders resulted in some refinements to or further evaluation of portions of the overall alternative, as discussed below.

Seminole County Alternative Evaluation

In May of 2008, the SCEA Board asked FDOT to analyze and evaluate several Wekiva Parkway alignment alternatives in Seminole County proposed by a group of homeowners and others called the Wekiva Parkway Community Coalition (WPCC). Initially, the WPCC proposed nine alternative alignments which FDOT analyzed and evaluated for several months. After a meeting with FDOT to review the results of the alignment analyses, the WPCC then requested that only one specific alignment alternative (referred to as the Northern Alternative or Map G) be further evaluated. The WPCC requested that FDOT perform a detailed assessment of the Map G alternative, including environmental and social impacts, traffic operations, construction costs, etc. After the evaluation was completed, FDOT met again with the WPCC to advise them of the estimated additional costs and substantial environmental impacts of the Map G alternative, as well as the undesirable traffic operations of the concept, compared to the Proposed Build Alternative. FDOT indicated to the WPCC that because of those factors, as well as environmental justice issues, the Map G concept could not be considered a viable alternative. FDOT recommended to the

SCEA Board in November 2008 that the Map G concept be eliminated from further consideration and the Proposed Build Alternative was maintained in Seminole County.

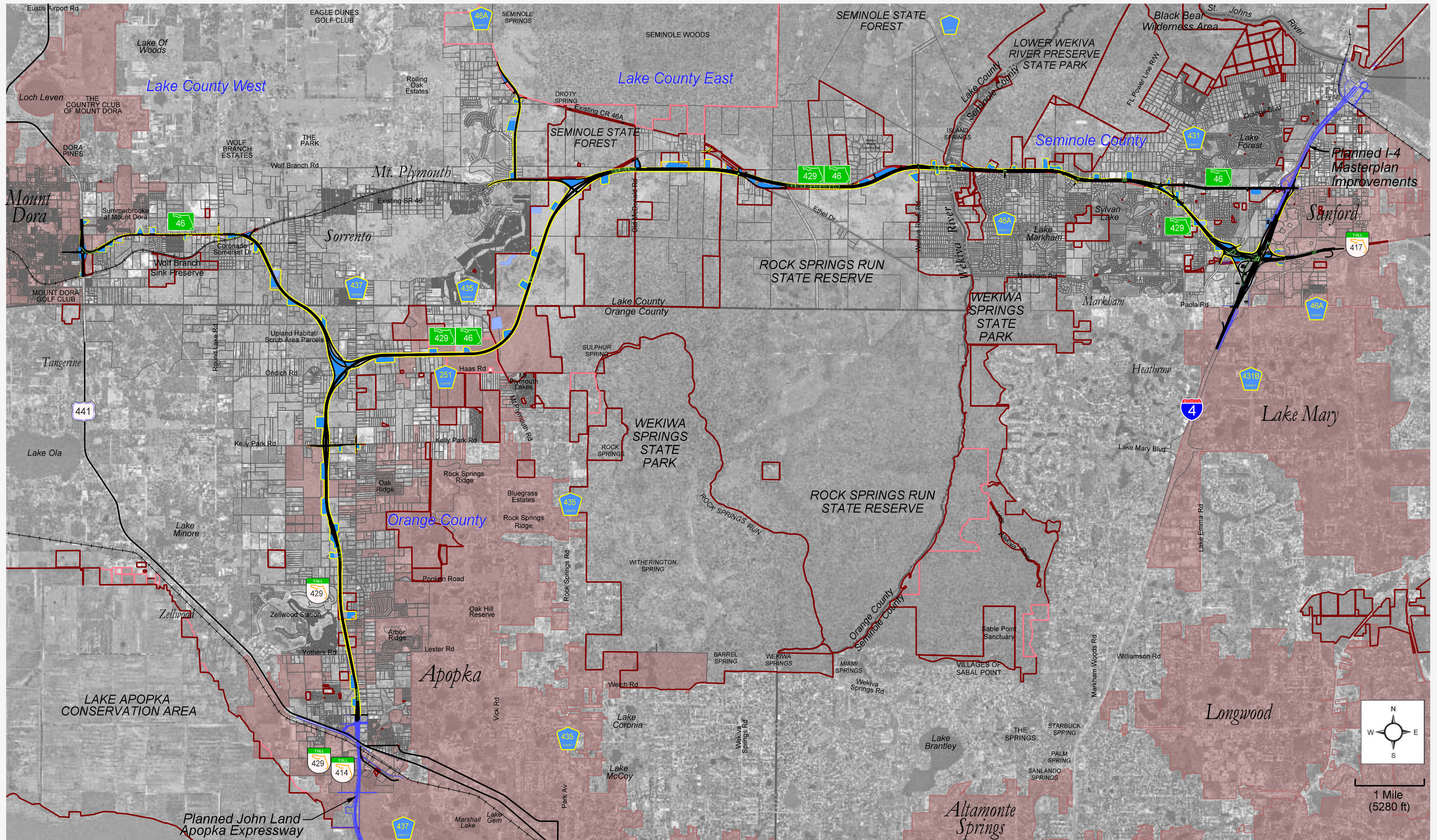
Lake County East Alternative Revision

Following the identification of the Proposed Build Alternative for the overall project, extensive discussions on funding options reached a crucial decision point in early 2009. Due to declining transportation dollars available to FDOT, it was determined that the preliminary estimated cost of the project (\$1.8 billion) would not be financially feasible to fund without tolls on the Wekiva Parkway in Lake and Seminole Counties.

As stated in the purpose and need for the Wekiva Parkway, a higher capacity east-west facility is needed in east Lake County and west Seminole County. The PD&E Study initially assumed that Wekiva Parkway would be a non-tolled expressway upgrade for SR 46 through the Wekiva River Protection Area, and in compliance with the *Wekiva Parkway and Protection Act*, only those sections of SR 46 needed for local access would remain open to traffic. As such, this was the only area within the proposed project where an alternative route to the expressway would not be provided.

In response to residents in the east Lake County area who expressed concerns over paying a toll for a local trip, FDOT and the Expressway Authority analyzed options to provide a non-tolled alternative for local trips. After several meetings during mid to late 2009 with area residents, local government officials, the Florida Department of Environmental Protection, and representatives of the environmental stakeholder community, a two-lane, two-way service road concept parallel to the Wekiva Parkway was developed. To minimize impacts, the service road is proposed to be within the previously identified Wekiva Parkway right-of-way. The service road would extend from just north of the Wekiva Parkway interchange near Neighborhood Lakes to just east of the Wekiva River in Seminole County; that concept was presented at a Public Workshop in Lake County on December 17, 2009. Public comments resulting from the workshop were reviewed and incorporated into the preliminary design of the service road and the Wekiva Parkway mainline. The incorporation of the service road eliminates the need for the local access interchange concepts that were previously discussed in Sections 3.5.3.3 and 3.5.4.2.

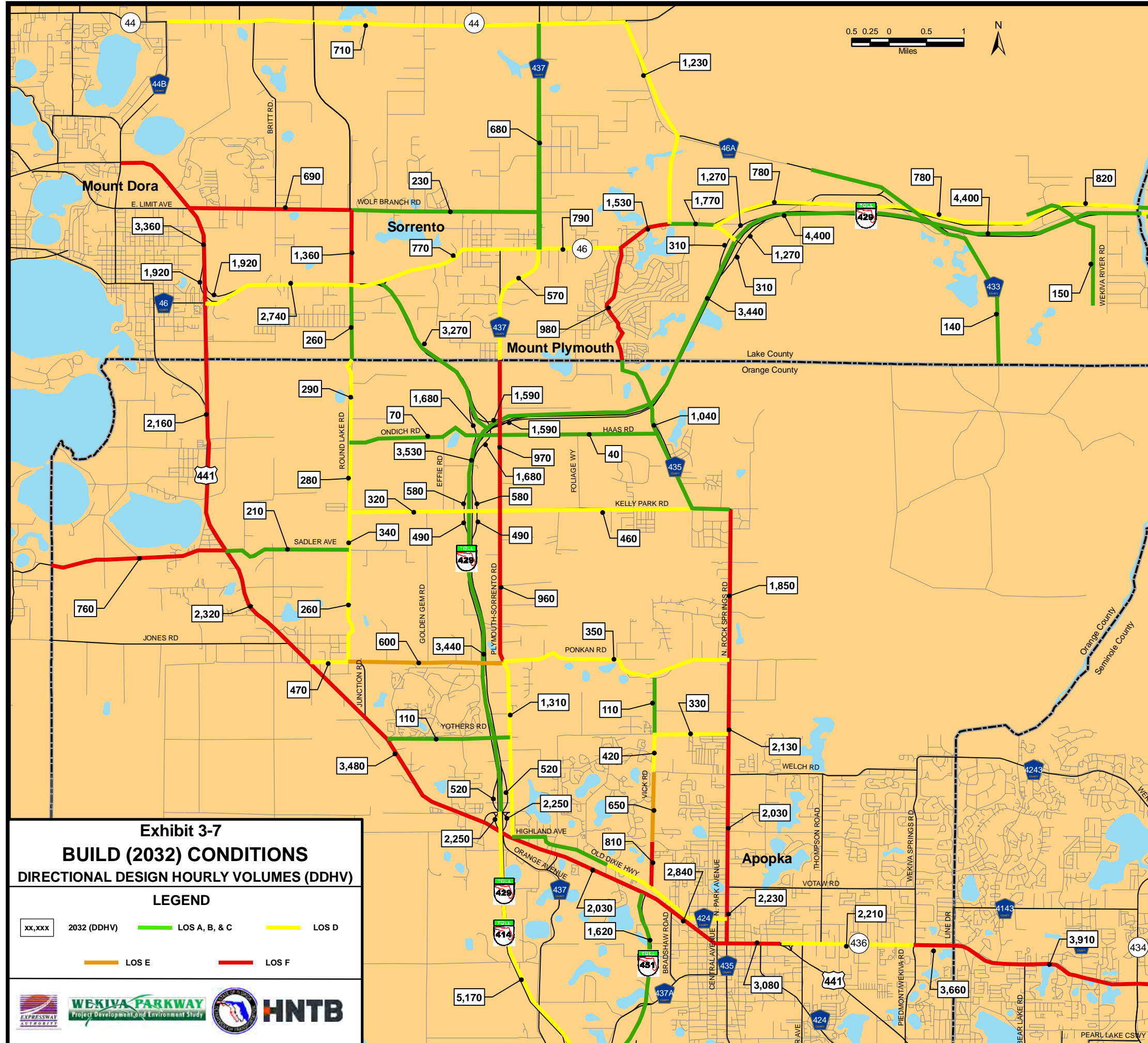
The overall Proposed Build Alternative is depicted in **Exhibit 3-6**. The comparative assessment spreadsheets prepared for the viable and refined viable alternatives, as well as the projected design year (2032) traffic, were analyzed to assist in identification of the Proposed Build Alternative. In most cases, the alternative components selected for each sub-area have the least number of overall impacts and/or the lowest total estimated cost. Future traffic operations were especially important in the evaluation of I-4 connection alternatives. The projected 2032 (design year) conditions for study area roadways under the Build scenario for the Proposed Build Alternative are shown in **Exhibits 3-7** and **3-8**. The components of the Proposed Build Alternative in each of the study sub-areas are described in the following subsections.



LEGEND

- PROPOSED BUILD ALTERNATIVE RIGHT-OF-WAY
- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINE
- PROPOSED BRIDGE
- PROPOSED STORMWATER POND
- PROPOSED FLOODPLAIN COMPENSATION POND
- PUBLIC LAND
- POTENTIAL PUBLIC LAND ACQUISITION
- MUNICIPAL BOUNDARY

Exhibit 3-6
Overall Layout of Proposed Build Alternative



**SEE EXHIBIT 3-8
FOR
SEMINOLE COUNTY**

**Exhibit 3-7
BUILD (2032) CONDITIONS
DIRECTIONAL DESIGN HOURLY VOLUMES (DDHV)**

LEGEND

xx,xxx	2032 (DDHV)	LOS A, B, & C	LOS D
		LOS E	LOS F

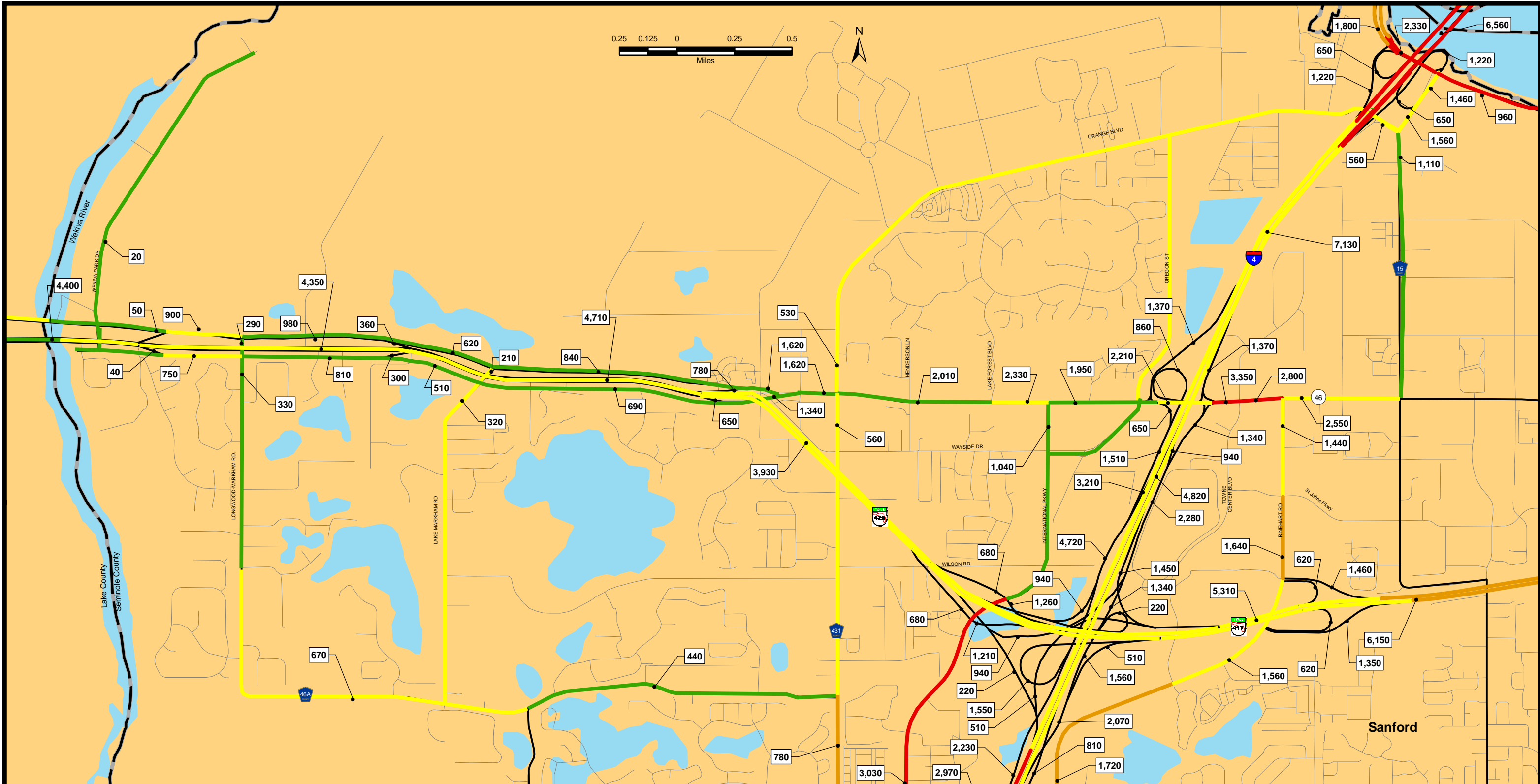


Exhibit 3-8
BUILD (2032) CONDITIONS
 DIRECTIONAL DESIGN HOURLY VOLUMES (DDHV)

LEGEND

xx,xxx	2032 (DDHV)	— LOS A, B, & C	— LOS D
		— LOS E	— LOS F

