INTERNATIONAL DRIVE CHAMBER OF COMMERCE PRESENTATION

EXECUTIVE SUMMARY

- 1. We represent the International Drive Chamber of Commerce (hereinafter "the I-Drive Chamber"), an organization comprised of hundreds of local businesses serving the needs of millions of tourists that annually visit our community. These businesses are located in an area adjacent to or on International Drive, which includes six nationally renowned theme parks, 130 hotels, 350 restaurants and 900 retail establishments, and 35 attractions ("the Corridor"). This Corridor is also home to the Orange County Convention Center, ("Convention Center"), Orange County's largest investment. Together, we employ 75,000 people. Our stakeholders have invested billions of dollars in the Corridor and have plans to spend billions more.
- 2. The members of the I Drive Chamber have been involved in supporting rail projects in the past, and have been a champion for mass transit for decades. We have been planning for a train station at the Convention Center for over 20 years. With that vision in mind, one of the Chamber's members set aside land for that station and for the right of way westward along SR 528 in 2000. Our members have been planning for a train that would serve all of Central Florida, not just one location, for decades before Brightline came to this community with their proposal. Thus, we are supportive of a Brightline rail system that includes a station at the Convention Center.
- 3. In addition, the Chamber created a local distribution system decades ago, one that operates to this day. We tax ourselves, as part of our I Drive MSTU, in support of that transportation system. More importantly, over 20 years ago we had the vision and the plan of having that local trolley system ultimately connecting to the Convention Center multi-modal station. Make no mistake: When I use the word "we" it includes all the members of the I Drive Chamber of Commerce. To characterize this as a Disney vs. Universal dispute is to ignore the commitment of all of our members to do the right thing for this community—and to avoid addressing the problems with the SR 417 route.
- 4. Our plan has been supported for years by a variety of area business groups and elected officials, as well as the appropriate federal and state rail and environmental agencies. We have worked in the past for a rail system connecting all of Central Florida, and we want to be part of a collective and collaborative group—with Brightline--to create a comprehensive transportation solution for all, especially the amazing workforce employed in the I-Drive Corridor.
- 5. To that end, we have looked at the impact of Brightline's proposed route, and compared it to the route previously supported and approved by so many people and agencies---the Taft Vineland Road to SR 528 to the Convention Center route ("the TVR to Convention Center route"). We have looked at the impacts both of these routes would have on existing Central Florida homeowners and businesses. At your request, we have reviewed the data regarding construction costs. Our Chamber members have many decades of experience analyzing the proper way to realistically evaluate even minimally designed proposed projects.

- 6. Having developed various large projects in Central Florida, we know the importance of environmental protection and compliance. A developer can't ignore those very real and very important environmental issues. To the contrary, those issues must be addressed early in the project.
- 7. Despite our continuing philosophical support for the Brightline rail service, our members know that all of us must look at this proposal objectively and thoroughly. Currently, there are unmistakable residential, environmental and business problems with the SR 417 route that do not exist with the TVR to Convention Center route. It would be a mistake to ignore the members of the public who do not want the Brightline route in their neighborhoods, or to ignore the positions taken by the regulatory bodies. It would be a mistake to ignore environmental issues, because we know the responsible state and federal agencies will not ignore those issues when a proposal is put before it. In other words, we respectfully suggest the prudent approach is to realistically address the questions and issues now—before valuable time and resources are spent, only to realize those problems undermine the successful completion of the project.
- 8. Thus, we steadfastly believe that a Brightline Trains Florida LLC ("Brightline") train station along a route from the Orlando International Airport ("Airport") traveling west along the commercial portions of Taft Vineland Road ("TVR") to the Convention Center is the best route for many reasons, including the following:
- (a) The Florida High Speed Rail Authority, in conjunction with the Federal Railroad Administration, the U.S. Department of Transportation—and in cooperation with the Federal Highway Administration and the U.S. Army Corps of Engineers--issued a Federal Environmental Impact Statement ("EIS") in 2005, and issued a Final Reevaluation EIS and a Record of Decision in 2010, that there be a station at the Orange County Convention Center (the "Decisions"). The applicable federal and state authorities have already addressed this question twice before, and concluded that the TVR to Convention Center route is the best route for this community. Nothing has changed since those Decisions were made that would justify a reversal at this time. [Attached as Composite Exh 1 are the decisions.]
- (b) This community has also supported this TVR to the Convention Center route and the development of a station at the Convention Center. This station has also been approved for development by past Orange County Board of County Commissioners. Dating back many years, both Orange County and adjacent landowners set aside land for this station, and its ingress and egress to SR 528.
- (c) The reason for such widespread and longstanding support for a station at the Convention Center is easy to understand. As expressed by former Mayors of Orange County over the past 20 years, the Convention Center is "downtown Orange County", precisely because it is the largest financial investment made by the County of any structure that it owns. Prior Mayors have described the investment in terms of its "billion dollar investment". The Convention Center is the largest public economic engine within the County, as well as its most strategic asset. For the future of Orange County and its Convention Center, it is imperative that there be a Brightline station here, one that connects the Convention Center to the Airport.

- (d) The Convention Center station would be a multi-modal facility, one that would serve the entire Central Florida region by connecting trains, busses, trolley cars and other modes of transportation in an expansive, comprehensive and efficient network. The Convention Center multi-modal station would represent not only the vision but the implementation of a potential multiple County-wide transportation solution benefiting generations of Central Floridians for years to come. See Section E of this report, below, entitled *Creating access to and from the Convention Center: A comprehensive transportation network for all Central Floridians*
- (e) The Corridor served by the Convention Center station currently employs over 75,000 people, and is home to over 22,000 people--numbers that will increase with the completion of the affordable housing development, the Universal Epic theme park, (which will create 14,000 more jobs) and the previously approved expansion of the Convention Center (with its 18,000 seat multi-purpose venue).
- (f) With the development of a station at the Convention Center, Brightline will be able to offer its customers access to two major tourism destinations in this area, as well as to visitors coming to the Convention Center. Having that additional rail station will increase ridership for people located in South Florida seeking to visit all our theme parks, attractions and hotels, as well as people traveling to the Convention Center during their visit to Central Florida. The size and diversity of the entertainment, convention, hotel, restaurant and retail operators located near the Convention Center also lends itself to joint marketing efforts, and other "win-win" opportunities between Brightline and the major attractions and businesses in the I Drive Corridor.
- (g) A station at the Convention Center also has several environmental benefits. To the extent some suggest that rail is beneficial to the environment because people will not drive or rent a car, that benefit is heightened with the development of the station at the Convention Center site. As the home of 75,000 jobs and 22,000 residents, the Convention Center site will make it easier for employees and residents to commute to work by rail, through the multi-modal station. To the extent that convention visitors will be provided the compelling option of rail rather than being forced to rent a car, the station will effectively take even more cars off our roads.
- (h) But the most significant environmental aspects are included in the findings of the federal and state environmental agencies with jurisdictional authority over this area, agencies which carefully studied both the TVR to Convention Center route and the SR 417 route in 2005 and again in 2010. In both Decisions, the government agencies found significantly more negative environmental impacts on the SR 417 route. Thus, the route Brightline is recommending has been specifically reviewed and <u>not</u> adopted on two separate occasions by the U.S. Army Corps of Engineers ("the Corps") and the South Florida Water Management District ('SFWMD"), and nothing in Brightline's submissions offer any reason why it should not be chosen a third time.
- 9. The proposed Brightline route, which Brightline has admitted has not been finalized, and which has changed three times, is an inferior route that creates more harm than good. For example:
- (a) It negatively impacts one of Orange County's most important wetland areas—an area that supports three separate water basins. In contrast to the damage done along the 417 route, one of our Chamber members spent \$30 million for the restoration of 500 acres along Shingle Creek, one of the most critical water basins in the State. At the same time, that member preserved a

right of way immediately adjacent to SR 528 that protects Shingle Creek and provides a rail corridor for precisely this kind of transportation. No such planning, protection and restoration has taken place on the 417 route. See Section C, below, entitled *Environmental concerns*

- (b) In addition, their proposed route would also take precious Central Florida Expressway ("CFX") right of way for the construction of walls to support its tracks. This land that is currently used by CFX for stormwater retention areas, buffers, maintenance and other uses. Consequently, the Brightline route would reduce the ability of CFX to expand road facilities within its right of way. One of the reasons why developers are normally required to submit 30% design drawings, so that regulators can more easily see the pitfalls and hidden costs—not only to a proposed project but also to their own operations.
- (c) Not only is Brightline's proposal premature, but its proposed alignment must be approved by several regulatory agencies responsible for environmental protection, including the SFWMD and the Corps. Those government agencies will first ask whether there is another, less intrusive alternative. We know there is: the TVR route to the Convention Center that was previously selected and approved by those same agencies.
- (d) It negatively impacts the South Chase residential development and cuts through the heart of the 20,000+ residential Hunter's Creek community, many of whose residents are opposed to a train towering over their homes and generating unwanted noise, vibration and air pollution. The anger and indignation felt by these residents is understandable, precisely because Hunter's Creek engaged in a hotly contested transportation dispute years ago. Under the terms of the 1992 Joint Stipulation of Judgment, Hunter's Creek protected its neighborhoods and quality of life by specifically retaining the right to seek additional damages against the predecessor to CFX as a result of any high speed rail system imposed on its land, effectively making this a second taking at Hunter's Creek. See section A, below, entitled *There are many Residents adversely affected by the adoption of the Brightline route*.
- (e) This route negatively impacts other important properties in Orange County. Brightline's most recent route, provided last month, has several issues that will require approvals from various state regulatory bodies. Brightline's recently proposed alternative alignment enters and exits the Central Florida Expressway Authority right of way jurisdiction through the Florida Turnpike Authority's right of way, thus requiring approvals from the Florida Department of Transportation. Their route bisects a 34 acre wetland the Shingle Creek Wetlands Conservation Area (a wetlands mitigation area specifically created by Orange County to provide mitigation for the expansion of local roads), and thus requires approvals from the SFWMD; and some small private properties. Brightline has no approvals from any of these organizations at this time. Brightline would need to obtain all these approvals from all these agencies, which will be very time consuming, and may not occur for the reasons stated in this report.
- (f) It will cut off the Convention Center and the I Drive Corridor from the rail system, resulting in significant harm to our tourism industry, our convention business, and the employers of over 75,000 current Central Florida residents—employers that have supported this community and its governments for many, many decades. See Section E below, entitled *Future Economic Impact Concerns*

- 10. We have retained the VHB engineering firm to look at their plans and projected costs. See Section B below, entitled *Construction Cost Comparisons*. Our engineers have found Brightline's construction estimates to be understated in the following respects:
- (a) Despite submitting its unsolicited bid in 2018, Brightline has to date only completed the initial plans normally required for such a project, the 15% design drawings—and those plans have changed several times. As of this date, they have not yet submitted their complete final plans for the SR 417 corridor for anyone to review. In addition, they have redacted information given to our engineers to review, information related to their proposed connection from SR 417 to Disney World's ("Disney") property. If this were a developer making a submission to a county board, at a minimum the developer would be required to submit an environmental assessment. Brightline has failed to submit such an assessment to this board, perhaps because of the past decisions by the state and federal agencies that have compared the environmental impacts of both routes in the past. It is premature, to say the least, to approve their requested route at this time with such minimal and incomplete plans submitted to this Board.
- (b)It is also premature because the Federal Railroad Administration has indicated that it plans to soon publish a notice regarding preparation of an additional Environmental Impact Statement ("EIS") for the extension of the Brightline System from Orlando to Tampa. Under the Department of Transportation's NEPA regulations, given the changes now proposed by Brightline to the previously approved EIS and Record of Decision in 2010, including the change in alignment and the change in train technology from electric to diesel—with resulting environmental impacts—such an additional review is certain to be lengthy and require public participation and a request for public comment. Department of Transportation data from 2012 through 2019 demonstrates that, on average, it takes 41-47 months to complete the NEPA process. It should be emphasized that this time frame was not based on situations like the one before this board, where an applicant is seeking to reverse two prior Decisions by state and federal environmental protection agencies.
- (c) Brightline's engineers have exaggerated the difference in the costs of the route to the Convention Center compared to their route through Hunter's Creek, South Chase and the wetlands. Inexplicably, they have not included in their construction cost estimates for their preferred route (1) the cost of damages to the many adversely impacted residents; (2) the cost for destroying the wetlands; (3) the costs of leasing the right of way from the local utilities; and (4) the cost for protecting or replacing the existing box culverts that will be impacted by the train system, among others. In addition, no analysis has apparently been performed to determine the negative impact of Brightline's bridge and wall construction on the CFX's current and future stormwater capabilities, which may result in a large payment to CFX, if it can even find a solution to its future needs after so much stormwater capacity has been taken by Brightline.
- (d) By contrast, for the TVR to Convention Center route Brightline has (1) inflated the cost of bridges for our route by \$300 million by assuming the train will operate at much higher speeds on our proposed route than they plan to run the same train on their proposed route; (2) added \$61.5 million for land costs that have already been provided by the federal government; and (3) double counted the \$38 million Sun Rail platform costs for the Convention Center station.
- 11. VHB has calculated a more accurate difference in current construction costs between the two

routes, at around \$199 million. That difference between the costs of the two routes should decrease as Brightline is forced to add the costs to their proposed alignment mentioned above and is required to complete their 30% design drawings, to the point where the monetary differences between the two routes would be negligible.

- 12. But even if there is a modest difference in construction costs, we believe we can find a way to fund that difference, by creating a solution that works for so many people in this community. That is precisely what the companies that comprise the I-Drive Chamber have done over the last 40+ years. We already tax our members \$9 million annually in the I-Drive MSTU; an additional amount to cover the difference in cost could be achieved. As an organization that has been taxing itself for several decades to provide one transportation service, we welcome the opportunity to work with Brightline and Orange County to create a financial solution to address this transportation service. We are willing to provide financial support for the TVR route to the Convention Center.
- 13. Furthermore, we believe the additional ridership generated by the Convention Center station would generate the incremental income necessary to support the development and sustain the operation of this rail system. As a result of our members' collective efforts over many years, we have already set aside land for the station. Various private interests have and will continue to work with Orange County to support the ridership projections and financial requirements necessary to achieve success. Those efforts could completely eliminate any difference in the costs of the two routes.
- 14. Brightline tries to justify its current efforts to by-pass the Convention Center, and gain support for its divisive and destructive route, by claiming there will be an economic impact to the community. The business members of the I Drive Chamber have generated economic impact that dwarfs that of Brightline. Current on-going projects in the I Drive corridor alone are far greater than the economic impact projected by Brightline—and that doesn't take into account all the economic impact our members have generated over the past 40+ years. Our members' current projects will cost far more money, and generate far more activity, than the proposed Brightline project--yet Brightline intentionally steers away from such projects.
- 15. Unlike Brightline, we have been generating jobs, economic impact, and charitable solutions for this community's needs over the last 40+ years. We have proven—time and time again--that we work together well with government and other private businesses to solve problems affecting our area, including a number of transportation issues. We should be included to work together well again, with the creation of a station running from Taft Vineland Road to the Convention Center.
- 16. Brightline's desire to shift from the approved Convention Center route to a yet-to-be-defined SR 417 route through wetlands and residential neighborhoods should, as in the past, again be rejected. Instead, Brightline should be encouraged to work with regional business partners to complete this project on the previously approved alignment. There is no reason to ignore the careful and comprehensive work of so many state and federal agencies over so many decades.

There is no reason to turn away from the potential for a multi-modal station at the Convention Center, a station that is the key to a comprehensive transportation solution for all of Central Florida.

- 17. Finally, we have been studying rail projects for over 30 years. We know that if the Brightline train becomes a reality along SR 417 there will not be a second rail project in our lifetimes. To the extent that a Brightline representative suggested there could be a second line (one they would not fund) operating solely between the Airport and the Convention Center, as they did in the last CFX board meeting, is naïve at best and disingenuous at worst.
- 18. We recognize that this issue is of critical importance to the future of Central Florida. We need to make the right choice, as the consequences will impact future generations of residents. As a result, we have studied this proposal from several important perspectives. The rest of the document analyzes, compares and contrasts the two routes in this order:
 - (a) Financial and Quality of life impact on the residents.
 - (b) Comparison of construction costs.
 - (c) Environmental impacts.
 - (d) Economic and job impacts on the affected businesses.
 - (e) Regional benefits resulting from the creation of a multi-modal station at the Convention Center.

CONCERNS ABOUT THE NEW BRIGHTLINE ALIGNMENT

- A. There are many Residents adversely affected by the adoption of the Brightline route
- 19. Brightline made an unsolicited bid to operate a train from West Palm Beach to the Orlando International Airport, then to a station at Disney, and then on to Tampa on March 26, 2018. Brightline subsequently submitted its initial proposed alignment. These engineering drawings were only at the 15% completion stage, the initial and most minimal engineering drawings associated with any major rail project. Since then, Brightline has submitted three iterations of its proposed alignment.
- 20. Brightline's June 10, 2021 proposed alignment does not stop at the Convention Center. To the contrary, Brightline's alignment takes a tortured path that will require its noisy diesel operated trains to run high above the residential areas of South Chase, Hunter's Creek, and the large apartment developments of Camden Hunters Creek and Colonial Grand at Heather Glen.
- 21. By contrast, the local Chamber's proposed route is essentially the same one approved by all the appropriate government agencies in 2005 and reconfirmed in 2010. The only minor difference is that our proposed route would have <u>less impact on residents</u> near the Airport than the 2010 alignment. More important, our proposed alignment out of the Airport is now the <u>same</u> alignment as currently proposed by Brightline out of the Airport.
- 22. Exh 2 depicts in red the current alignment proposed by Brightline, and the I Drive Chamber's

proposed route is depicted in green. That portion of the route that is common to both routes, the OUC rail line exiting the Airport, is depicted in purple.

- 23. Brightline's proposed route, the one that has been twice rejected by state and federal transportation agencies, veers south and goes above and through the South Chase and Hunter's Creek developments. It also bisects a 34 acre Shingle Creek wetland that has previously been used by Orange County for mitigation purposes.
- 24. Attached as Exh 3 is that portion of the Brightline drawings that illustrate the infringement on the Hunter's Creek development.
- 25. Attached as Exh 4 is that portion of the Brightline drawings that illustrate the infringement on the South Chase development.
- 26. Attached as Exh 5 is that portion of the Brightline drawings that illustrate the infringement on the two apartment development.
- 27. Attached as Exh 6 is that portion of the Brightline drawings that illustrate the infringement on the wetlands area, now under the supervision of the SFWMD.
- 28. Based on the 15% design drawings provided to us only about a month ago, we have been diligently worked to determine the height and location of Brightline's proposed bridges along that new route. We have created some photographs that depict what portions of that route would look like for the people living in those residential areas. [Composite Exh 7].
- 29. Time did not permit us to add the appropriate sound to that video to capture the noise level of that train as it operates through and above those homesites. The sad irony is that for some of these people adversely affected along the Brightline route, CFX has already protected them from vehicular noise by constructing a sound wall adjacent to the highways. But Brightline is proposing their rail line will operate well <u>above</u> those sound walls, exposing all those Orange County residents in its path to loud and unnecessary noise. That irritating noise will be especially noticeable at night, when the vehicular traffic is less, and the train noise will carry across greater distances.
- 30. As for the adversely affected homes in Hunter's Creek, see Exh 3, which shows in the encircled area the affected homesites from Brightline's proposed route, one that unnecessarily runs through one of the largest residential developments in Orange County, with a total of approximately 3,000 homes. The tallest bridge within that development towers 35 feet above the ground.
- 31. As for the adversely affected homes in South Chase, see Exh 4, which shows in the encircled area homesites adjacent to the rail line, operating at heights of as much as 35 feet above the ground.

- 32. As for the number of adversely affected apartment residents near John Young Parkway, see composite Exh 5, which provides an aerial view of the apartments, the height of the proposed bridge over the current tree buffer (which trees would be eliminated by the construction of the bridge support structure).
- 33. Based on our calculations, there are at least 635 single family home sites in Hunter's Creek that will be adversely affected, at least 157 home sites in the Kempton Chase portions of South Chase that will be adversely affected, and approximately 1,000 apartment units that will be adversely affected. That is approximately 1800 homeowners and apartment residents adversely affected by Brightline's tortured alignment.
- 34. It doesn't have to be this way. There is a better solution for the residents of Orange County. There is no need to destroy the values of their homes, and the right of quiet enjoyment for those families that live in those communities. The I-Drive Chamber's alignment, depicted in green, travels through commercial—as opposed to residential—properties, and has far less impacts on the environment.
- 35. Please note the location of a SunRail station adjacent to where the OUC rail line connects with the proposed route along TVR.
- 36. Our alignment does not go through South Chase or Hunter's Creek—or any other residential areas. Instead, it improves upon the previously approved route out of the Airport by avoiding all those home sites north of the purple line. Instead, our route extends through the commercial portion of the Taft Vineland Road easement.
- 37. See Exh 8, a drone video that shows the entire length of the TVR to Convention Center route, and the absence of residential properties adjacent to it.
- 38. In contrast to the Brightline video, notice there are NO residences adversely affected. There are NO bridges towering as much as 35 feet over Orange County residents. We conclude that there are as many at least 1800 residents adversely affected by Brightline route, and no residents adversely affected by the route that was approved by the appropriate governmental agencies in 2005 and reconfirmed in 2010, as amended.

B. Construction Cost Comparisons

- 39. The I drive Chamber has retained the national engineering and planning firm of VHB to analyze the current transportation issues. Among their experts in over 30 offices across the country, we have been working with SVP Steve McElligott and the leader of VHB's Central Florida's PD&E practice team, Amy Sirmans. Their resumes are attached as Exh 9 and 10, respectively.
- 40. Thereafter, CFX asked to have our retained engineers work with Brightline's retained

engineers to determine the difference in costs between the governmental agencies' previously approved route that we recommend and the Brightline alignment submitted last month (the "delta"). To make such an "apples to apples" comparison, it is important to put several facts into context.

- 41. When designing a rail system, engineers start with a preliminary plan, commonly a set of 15% design drawings. After considerable additional engineering study, a much more detailed and accurate set of plans is thereafter developed, with amended financial analysis, known as the 30% design drawings. Further work is thereafter performed, resulting in a set of 60% design drawings. Additional work is performed to produce 90% and 100% (or complete) drawings. Typically, with each more detailed set of design drawings, there is a more well defined understanding of costs. Those construction costs typically increase from those of the preceding, less well defined, level of drawings.
- 42. Brightline has only produced the initial set of engineering drawings (15%), despite having almost three years to do so. In fact, they have submitted three separate iterations of the SR 417 route during that period of time—all at the most minimal level of specificity.
- 43. As of July 6, our engineers were advised the route is still not finalized. And what they did provide to us included redacted areas, thus preventing our engineers from having a full understanding of Brightline's proposed route.
- 44. It is difficult to provide a fully accurate comparison of costs when (a) our calculation are based on the 30% design drawings arising from the prior federal and state approval process as compared to Brightline's 15% design drawings; (b) Brightline's route keeps changing, the most recent of which was last month; and (c) Brightline has failed to provide full disclosure of the underlying data for its planned route.
- 45. Full disclosure from Brightline, an organization that initiated this process by making an unsolicited bid for this route in 2018, is necessary for the public to fully understand the route and the costs to the community, as well as the costs of the two routes under consideration. What is the cost to the neighborhoods that will be damaged by the Brightline route? Brightline has nothing in its construction cost estimates for those residents.
- 46. What is cost to the three environmentally sensitive wetlands that will be eliminated or compromised by this route? Here again, Brightline has yet to set aside a single dollar in compensation for such damages as part of its construction costs estimates.
- 47. Along the same lines, Brightline's current construction costs do not include any cost to be paid to CFX to essentially impact its stormwater retention, detention and conveyance capacity. To the extent one of our members has retained a 100 foot right of way along its property adjacent to SR 528, our recommended route has nowhere near this negative impact on CFX's stormwater capacities.

- 48. What is the cost for the leasing rights to operate on lines owned by public utilities? Our engineers, as well as our members, were stunned to learn that Brightline sought to shift these costs from construction to operation. We know of no project where such costs are characterized as operation costs. Instead, utilities prudently ask for all such access fees with an up-front full payment as part of the negotiation process. The only reason we can surmise Brightline would not include these costs is to artificially reduce its projected construction costs.
- 49. Despite the fact that there have been so many changes to the plans, despite the fact the Brightline plans are only at 15% design, despite the fact that it has not included all the known costs to its projected construction costs, and further despite the fact it refused to produce the relevant documentation in support of the numbers it wanted CFX to believe, it proposed that CFX execute a Memorandum of Understanding ("MOU"). [Exh 11.] Under the terms of that MOU, CFX would be required to enter into the sale and purchase of its easements in the CFX corridor, and hold those easements in escrow until Brightline had performed essentially all of the necessary engineering drawings for such a system, as well as conducting a ridership study to determine if such a system would generate sufficient riders to ever operate on a break even basis.
- 50. Brightline's request was, at best, very premature--especially in light of Brightline's six different requests for more time, and its failure to provide anything more than the most minimal 15% design drawings over the last several years.
- 51. Further proof that Brightline's efforts to obtain a binding MOU were very premature became apparent three days later by yet another change to Brightline's proposed alignment. As with the preceding two alignment changes, this change was offered at the most minimal, or 15%, design drawing level. Even parts of those minimal plans, at noted above, were redacted. At a meeting with Brightline's engineers and the CFX staff on July 6, 2021 our engineers were advised by Brightline that they still had not decided on the route that would link SR 417 to Disney's property.
- 52. <u>Despite having inadequate data points from which to work, our engineers with VHB—one of the largest engineering firms in the country and certainly one of the most respected in Central Florida—have concluded that the Delta could be as small as \$199 millionas explained in detail in VHB's Adendum. [See Exh 12.] However, this is a rough estimate for the following reasons:</u>
- (a) This is not a comparison of "apples to apples" in that our recommended route has been calculated using 30% design drawings, while the Brightline drawings are still at the more minimal 15% stage. In almost all projects of this size, the construction costs for a project of this complexity increase from the 15% to the 30% drawings.
- (b) We have only had the new alignment plans for the last few weeks. But when we traveled the proposed alignment, we saw several instances where Brightline has taken a less costly approach that is not justified, for example their "average" cost for bridge construction when they know the actual number will be higher than the average. According to Brightline's engineers, the cost of the bridge spanning Orange Avenue and the Florida Turnpike will be <u>twice</u> the cost of the 130 foot span Brightline is using for its estimated bridge costs.

- 53. The reductions listed in VHE's report are due to numerous factors. For example, the cost of bridge construction has been reduced by almost \$300 million. A bridge costs approximately \$98 million a mile, whereas track operating on constructed support walls costs approximately \$11 million a mile. Brightline did not engage in the CFX requested "apples to apples" comparison. For the Convention Center route, Brightline assumed the train will operate at speeds of 120 mph, yet assumed speeds of only 30 to 90mph on its route—thereby needlessly increasing the expense of the Convention Center route.
- 54. Although Brightline's engineers agreed our route out of the Airport is an improvement on the 2005/2010 approved plans, they nonetheless continued to include the cost for acquiring 11 properties on the old alignment as part of their calculations for land costs associated with our proposed alignment. That approach incorrectly inflated our land costs, and thus inflated the Delta.
- 55. Brightline has identified the path it thinks will generate the greatest cost savings in the transportation corridor for its route, but has failed to incorporate our engineers' recommended alignment for our route out of the Airport—the very same path they now propose to use. Had they done so, it would reduce the expense of the Convention Center route. For example, our engineers recommend that our route would run on the south side (rather than the north) of TVR from west of the Turnpike to the Central Florida Rail Corridor. We also advised them that we are shifting the rail to the south side of SR 528 prior to approaching 1-4, thereby keeping our route on the outside of the 1-4/ SR 528 interchange (rather than in the middle of the interchange as originally proposed). Both of these alignment amendments will result in reduced costs for the construction of the route traveling westward from the Convention Center, and thus reduce the Delta. Despite advising Brightline's engineers of these changes, those savings have not been incorporated into their cost comparison at this time.
- 56. Brightline has assessed a 24% additional cost to the properties along the Convention Center route for project fees and contingencies. Such project management fees and costs are not appropriate for the distinct task of land acquisition—and should not be included as part of our costs. The removal of this inappropriate collection of costs and fees reduces the Delta. We cannot determine if Brightline has made any calculation for the acquisition of land in their calculations for their preferred route, and if their projections include the same fees and costs they have included for the Convention Center route.

57. VHB and the Chamber believe the Delta will actually be less than the current \$199 million figure, for several reasons, including but not limited to the following:

- (a) Brightline has shifted certain costs generally included as construction costs into its future operating costs, which is not generally done, including the cost of leasing the OUC right of way.
- (b) Brightline has failed to add costs everyone knows it will need to pay, including the damages it will pay the homeowners in Hunter's Creek and South Chase and associated legal fees.
 - (c) Whenever Brightline determines how it will connect the western end of its route to

Disney property, and then on to Tampa (as they have represented to the public) there will be another cost incurred that is not in the present calculations.

- (d) We believe their construction cost estimates, if legitimate, will increase when the 30% design drawings are submitted.
- (e) We believe Brightline will be required to pay CFX for its use of stormwater retention and the impact on its toll revenues in lump sum payments as part of its construction costs, but none of that has been included in the current estimate.
- 58. Going back to Brightline's unorthodox approach of excluding the right of way costs within its construction costs, but instead shifting those additional costs to its subsequent operation, that behavior raises another and potentially more serious question. What other construction costs are included in its operating costs? To what additional levels has the construction cost comparison been incorrectly shifted? In light of what we have learned about the right of way costs, and the inconsistent treatment of certain costs between the two proposed alignments, our engineers need access to Brightline's underlying date to accurately vet its construction costs. Despite our best efforts, we have been wrongfully denied that access, on the dubious grounds that this information is "proprietary".
- 59. Let's put that "proprietary" argument into context. Brightline wants CFX to believe its estimated construction costs, which are based on detailed data and assumptions, and then summarized in a summary line item. Their engineers have admitted that there are hundreds of detailed line items and backup data to support each of the summary line item entries they have provided to our engineers. We have found inconsistencies, incorrect assumptions and errors. We have rightfully requested the back up data. Their engineers have refused, despite the fact Brightline wants the public to believe their representations. In light of what has transpired to date, a more thorough review of the supporting data by our engineers is warranted.
- 60. Also please remember that it was Brightline that made this request to use public right of ways for a privately operated rail line. The public, including the I Drive Chamber, has a right to know all the facts. We don't want to review this data to develop a competing rail line, so these purported concerns about "proprietary information" are unfounded. Rather than competing with Brightline's operation, we want to have their train come to the Convention Center station. We respectfully request, in the spirit of trying to determine the true costs as part of this decision making process, that CFX directs Brightline to have its engineers share all the financial data and assumptions with VHB.
- 61. As stated above, Brightline's team has failed to add certain costs that they know will be incurred, including the costs for the eminent domain litigation involving so many Orange County residents. We believe these residents will have a damage claim that Brightline has taken some of the value of their property, in that the residents' right of quiet enjoyment, and the value of their homes, will be substantially adversely affected. Brightline will be required to compensate those residents. Currently, there is no effort by Brightline to add those costs to their preferred route, which would further reduce the Delta.

- 62. As a result, we have retained one of the country's finest and highest regarded property appraisers, to provide an estimated cost for the damages Brightline will be required to pay to the adversely affected residents. Mr. Woodrow Hanson is a former President of the National Association of Real Estate Appraisers as well as a University of Florida graduate. [See Exh 13, Mr. Hanson's report.] Mr. Hanson believes the damages to those Orange County residents will alone total at least approximately \$30 million, but that figure is not included in Brightline's construction costs.
- 63. As stated in Mr. Hanson's report, this cost is much lower than Brightline will have to pay adversely affected landowners, because time did not permit him to calculate the damages to the commercial establishments in those areas, nor the owners of the two large apartment building developments.
- 64. Finally, there is a damage claim for the adverse effects to those communities, such as the adverse impact to their parks and common areas. When those damage claims are added, the total damage claims could be in the \$50-65 million range.
- 65. In addition, Brightline will be required to pay for the lawyers representing all the parties to those damage claims. Once again, Brightline has zero dollars in in its current construction projections to pay the attorney fees for the adversely affected residents and the governmental entities subject to the claims. We know of no reason why such an amount should not be included if the goal is to provide an accurate cost comparison of the two proposals.
- 66. Thus, Mr. Hanson has conducted a survey of some Central Florida lawyers, and concluded that it is appropriate to the residents project attorneys' fees equivalent to 30% of the property taken. Based upon his estimate of approximately \$30 million for damages to residential properties, Brightline's construction costs would increase by another \$9 million.
- 67. Extending that same attorney fee percentage to the owners of commercial, apartment and community losses could result in another \$6 to 10.5 million, thus raising the total fees paid to \$15-19.5 million.
- 68. When one combines the projected cost for the residential with the possible additional costs for the three additional types of affected landowners, and then add the reasonable fees for such cases in this area, the total cost could be anywhere from \$65 million to \$84.5 million. That represents a significant cost not currently in Brightline's construction estimates.
- 69. When one takes the engineers' cost comparison difference of \$199 million, and then subtracts \$65 to \$85 million for damages to the adversely affected property owners and legal fees the cost difference, or delta is reduced by more than a third, or approximately \$115-135 million. It is important to note that this revised delta still does not include (a) the payment to OUC for right of way access to its rail line; (b) the costs that will be associated with the completion of the route to Disney property; (c) the payments to CFX; (d) the costs associated with greater definition, and typically greater costs, contained within the 30% design drawings,

whenever they are finally delivered; and (e) the damages for destroying wetlands, another category of cost that has not been estimated.

- 70. Whatever the construction cost differential, if the route to the Convention Center and the Tourism Corridor is somewhat more expensive, the local Chamber and its members have already expressed a willingness to explore ways to pay for that modest additional cost. The members of the local Chamber are not only willing to work together to find an appropriate financial solution with others in this community, but we have reached out to local government officials to have such a dialogue. Working together again in a spirit of public-private partnership, we can find a solution that will work for everyone in this community.
- 71. But even if there is a modest difference in construction costs, we believe we can find a way to fund that difference--creating a solution that works for so many people in this community. That is precisely what the companies that comprise the I-Drive Chamber have done over the last 40+ years. We already tax our members \$9 million annually in the I-Drive MSTU; an additional amount to cover the difference in cost could be achieved.
- 72. Furthermore, we believe the additional ridership generated by the Convention Center station would generate the incremental income necessary to support the development and sustain the operation of this rail system. As a result of our members' collective efforts over many years, we have already set aside land for the station. Various private interests have and will continue to work with Orange County to support the ridership projections and financial requirements necessary to achieve success. Those efforts could completely eliminate any difference in the costs of the two routes.

C. Environmental concerns

- 73. There is a considerably larger adverse environmental impact to the Brightline route, than that of the Convention Center route. [See Exh 14], a map which depicts the Brightline route adjacent to a protected manatee area (in red) and several eagles' nests (in yellow), and through well-functioning wetlands—including a wetlands mitigation area created by Orange County.
- 74. The map depicting the environmental impacts, please note the lack of such environmental impacts for the Convention Center alignment (in green). This route, previously subject to the Federal Railroad Administration's Decisions—in cooperation with the Corps, does not run adjacent to areas protected for manatees or adjacent to eagles' nests. The TVR to Convention Center alignment traverses a smaller amount of wetlands, and those wetlands do not function as well as those adversely affected in the Brightline proposal.
- 75. Although one could argue that any rail system may have a beneficial impact on the natural habitat and environment of Central Florida--in that the use of trains might lessen the vehicular use--clearly the route approved by the government's environmental protection agencies, and recommended by the Chamber is far more protective of wildlife and wetlands than the Brightline proposal.

- 76. We have attached the report of a skilled environmental engineer, Mr. Maurice Pearson, who has considerable years of experience in Central Florida evaluating the quality of our wetlands. [His bio is attached as Exh 15.]
- 77. Although we have had limited time to study the new Brightline alignment, Mr. Pearson was able to obtain photographs and video of the wetlands and wildlife that would be adversely affected. [See Exh 16.]
- 78. As reflected in the Executive Summary of Mr. Pearson's report, attached as Exh 17, he estimates that the necessary mitigation costs that Brightline has failed to account for to date, its proposed alignment will require several years of negotiation with regulatory agencies prior to obtaining the requisite approvals and permits, if they are ever obtained. As such, it is premature to make any commitments relative to the proposed Brightline alignment.
- 79. Mr. Pearson further notes that the ecological impacts associated with Brightline's proposed southern alignment along SR 417 have not been fully identified or subject to required regulatory review, which includes the opportunity for public notice and input. To date, there is no existing study or analysis, such as an EIS, Environmental Assessment (EA), Project Development & Environment (PD&E) Study, or Roadway Conceptual Analysis (RCA) that identifies, quantifies, or qualifies the adverse impacts that will result from construction and operation of Brightline's proposed alignment.
- **80.** By contrast, the TVR to the Convention Center route was the subject of full review with identified impacts and established mitigation requirements in both the 2005 and 2010 Environmental Impact Statements. As such, the ecological impacts and required mitigation are known and have been conceptually approved by the regulatory agencies having jurisdiction. Further, both the 2005 and 2010 Environmental Impact Statements concluded that the northern alignment was the preferred alignment and resulted in fewer ecological impacts.
- 81. Precisely because the SR 417 alignment that is now being proposed by Brightline has not been subject to the same level of regulatory scrutiny, or opened to the public for review and input, there is significantly greater uncertainty relative to the full ecological impacts, mitigation requirements, associated costs, and project timeline. To put this in context, a NEPA review takes, on average, between 41 to 47 months to complete. This is not a normal review, as this route has already been rejected on two separate occasions in the past.
- 82. Brightline's currently proposed alignment will require permitting from the Corps (Section 404 retained wetlands at Shingle Creek), SFWMD, Florida Department of Environmental Protection (FDEP) (Section 404 Assumption wetlands), and Orange County Environmental Protection Division (OCEPD) for wetland impact authorization.
- 83. The Corps regulations require that project alternatives be identified and analyzed as part of

its review. Brightline does not appear to give any consideration to addressing this requirement. This is perplexing to us, as we know that the Corps is required to ask if there is a less damaging alternative. We also have read the 2005 EIS, reconfirmed in 2010, in which the Corps participated. We know that the Corps determined that the TVR to Convention Center route is precisely the answer to the question Brightline is required to answer. As a result, we do not know why Brightline thinks the Corps will change its position. Brightline certainly has not produced anything to date that they have shared with our engineers, or the public, to justify the Corps coming to a different conclusion than the one that reached twice in the past.

- 84. The Brightline alignment would also create a substantial negative impact on stormwater retention for the area, one that could directly affect the CFX itself. John Florio, one of Central Florida's most experienced and respected civil engineers over the last will 40+ years, will provide a brief summary of his selected projects in the Central Florida area.
- 85. It appears Brightline is proposing to significantly impact CFX's existing stormwater capacity. There are questions regarding the capacity remaining in the existing ponds. CFX will potentially have to purchase land whenever it wants to expand its highway system.
- 86. Brightline is proposing to build MSE walls on fairly narrow shoulders. This construction will be complex and take place in a very tight area alongside the existing roadways. This construction could require the closure of the lane of traffic adjacent to the MSE walls while they are being constructed. If a lane is shut down for that purpose, that could adversely affect CFX's toll revenues, as drivers take equally time consuming alternative routes and avoid paying the tolls.
- 87. By contrast to the many questions surrounding Brightline's recent interest in developing a train to serve Central Florida, J. David Thomas will testify that one of the Chamber's members, Universal Studios, has been preparing for a train route from the Convention Center westward since it purchased the Lockheed Martin property in the 19990's. [See Exh 18 for his bio and Exh 19 for his report.] Universal has simultaneously restored and continues to protect almost 500 acres of wetlands in Shingle Creek, at a cost of \$30 million. It has also preserved a right of way adjacent to the south side of SR 528.
- 88. Importantly, Universal, along with the SFWMD, the Corps and other parties in the design and execution of these projects, consistently ensured that these environmental restoration projects provided for a corridor along the north side of S.R. 528 to accommodate a future rail line to serve the Orange County Convention Center without adversely impacting Shingle Creek or the habitat being created.
- 89. These efforts by our Chamber member were acknowledged and referenced in the positions taken by the SFWMD and the Corps in both the 2005 and 2010 Environmental Impact Statements that studied alternative alignments for the proposed rail extension from Orlando to Tampa, concluded that the northern alignment using the S.R 528 is environmentally preferable to the southern, S.R. 417 alignment now being proposed by Brightline. As a result, Universal has continued to hold title to the property for the future train's right of way.

- 90. Just as the Corps will be involved in reviewing any permit application for the SR 417 route, the SFWMD will also be included, as they were in 2005 and 2010. Pursuant to their regulatory process, that governmental agency will also ask if there is an available alternative route that does not require so much environmental mitigation. For the reasons stated above, we believe it would also reject this proposal because of the less destructive TVR to Convention Center route.
- 91. Finally, for those that support the Brightline route on the basis it takes cars off the road, why wouldn't those people want to see even more cars taken off the roads by having a stop at the Convention Center? A substantial number of business visitors would no longer rent cars to attend their conventions, and an even larger number vacationers could avoid renting a car while spending time in the Tourism District and on Disney properties.
- 92. For those thinking that an additional station would somehow diminish the speed, and therefore the attractiveness of such transportation, everyone must recognize a fact buried in Brightline's engineering data: the actual projected speeds currently in the plans for Brightline's train are at only 30-90mph.

D. Future Economic Impact Concerns

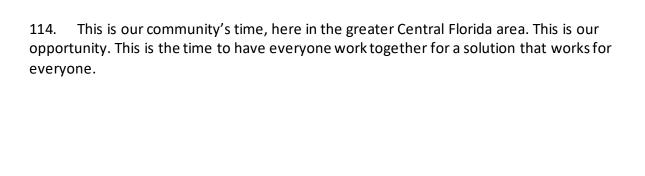
- 93. Brightline has touted the economic impact of its project to the Airport and Disney. To the extent that the CFX board considers Brightline's future economic impact claims to be an important element of its decision making process, it is important to know that their estimates pale in comparison to the actual economic impacts the I Drive stakeholders have generated over the years for this community. [Exh 20]
- 94. To provide this board with specific information about the historical and current economic impacts generated by individual members of our organization, including Universal Studios, Sea World and Rosen Hotels and Resorts. The economic impact, the generation of jobs, and the commitment to the community have been present for all on the CFX board to see—for the last several decades.
- 95. Since breaking ground in the 1980's for its first them park, Universal Studios has worked diligently to be an important leader and contributor to this community. When Universal acquired the property from Lockheed Martin, it first responded favorably to Orange County's request that it sell some of that land for the expansion of the Convention Center. It thereafter foresaw a need for a rail station at the Convention Center. Accordingly, Universal set aside land adjacent to the Orange County's newly acquired property for ingress and egress to that future train station. That access to the station also included a 100 foot right of way on its property running adjacent to SR 528. Even when Universal sold some of the land it acquired from Lockheed Martin to a developer, it held on to its ownership of that right of way—that was, and is, its level of commitment to a multi-modal Convention Center station serving all of Central Florida. Underscoring that level of

commitment, Universal is willing to donate all that land to the project at no cost. [See Mr. Sprouls' bio as Exh 21.]

- 96. When Universal speaks of a commitment to all of Central Florida, it is important to note that it recently transferred land for an affordable housing development. It also is in the process of building a new theme park and resort property, Universal Epic, which will create 14,000 full time jobs. These people, as well as many of the 75,000 people now working in the I Drive Corridor, will use the new multi-modal station to more quickly and inexpensively commute to their work and home.
- 97. Universal will add thousands of construction jobs during construction, and generate 14,000 full time jobs going forward once it opens that theme park and resort. It has also generated tens of billions of dollars of economic impact over the last 30 years. But all of that is at substantial risk if the Brightline train system intentionally avoids the Convention Center.
- 98. This need not be a situation where one company is served by this new train, and the rest of the community is left out. We support a station at both the Convention Center and at Disney. There are currently three stops on the Brightline route in South Florida, and it wants to open three more .[Exh 22] We believe the number of people using the Convention Center station will far exceed that which Brightline is currently generating in its existing locations and will exceed its projections for the three new stations. Having a station with immediate access to the Convention Center and the six major theme parks in our I Drive Corridor should actually increase the number of Brightline customers using those South Florida locations.
- 99. The concept of two stations, one at the Convention Center and another at Disney, would drive even more ticket sales. Why wouldn't any rational, civic minded citizen in this area want to have a station at both the Convention Center and Disney? Isn't the goal for all of us to work together for the common good and betterment of our entire community? The TVR route to the Convention Center achieves that goal, unlike the other route.
- 100. Sea World has been a leader and job creator since it opened in December 1973. Over that almost 50 years, Sea World has employed hundreds of thousands of people in this area, and provided millions of dollars of support to this community. Over the last decade, Sea World has continued to invest substantial sums into this property, as part of its consistent commitment to this community. [Exh 23. Bio of Elizabeth Castro Gulascy, Sea World's Chief Financial Officer.]
- 101. Sea World, like the other members of the I Drive Chamber, recognizes the importance of transportation for our community. We tax ourselves, as part of our I Drive MSTU, in support of one transportation system. We welcome the opportunity to work with Brightline and Orange County to provide financial support for the Taft Vineland Road to Convention Center route.
- 102. We have questions about Brightline's ability, as a for-profit rail provider, to serve this community. Those questions include the following:

- (a) Brightline has previously stated in public meetings that it has sufficient funds to construct this route to the Airport and then on to Tampa without any federal assistance. [Exh 24.] If that is indeed the case, why has it enlisted the support of several local Congressmen and women to specifically request that "privately funded higher-speed intercity passenger rail carriers" become eligible for federal grants? [Exh. 25.]
- (b) We assume that Brightline has sufficient financial resources to operate this proposed train for our community. We also understand that COVID caused all of us to put on pause our businesses last year for a couple of months. But why is its current train system in South Florida apparently not fully operational at this time.? [See Exh.26]
- (c) Why has Brightline intentionally ignored the Florida High Speed Rail Commission and the Federal Railroad Administration's ROD of 2005 and reconfirmed in 2010 that call for a station at the Convention Center?
- 103. Sea World also recognizes that the Convention Center is the largest economic engine within the County, as well as its most strategic asset. For the future of Orange County and its Convention Center, it is imperative that there be a Brightline station here, one that connects the Convention Center to the Airport.
- 104. The Convention Center station would be a multi-modal facility, one that would serve the entire Central Florida region by connecting trains, busses, trolley cars and other modes of transportation in an expansive, comprehensive and efficient network. The Convention Center multi-modal station would represent not only the vision but the implementation of a County-wide transportation solution benefiting generations of Central Floridians for years to come.
- 105. We have been part of a group of local entities, both private and public, that has been studying rail projects for over 30 years. We know that if the Brightline train becomes a reality along SR 417 there will not be a second rail project in our lifetimes. To the extent that a Brightline representative suggested there could be a second line (one they would not fund) operating solely between the Airport and the Convention Center, as they did in the last CFX board meeting, is naïve at best and disingenuous at worst.
- 107. Unlike Brightline, which has yet to do business in this community, our Chamber members have created hundreds of thousands of jobs over the years. But we have also engaged in many significant charitable and philanthropic activities. Harris Rosen, and the Rosen Hotels and Resorts is one such business and civic leader in the Corridor. But if Brightline intentionally avoids the Convention Center, the economic damage to some of this community's longest standing and largest employers would be unnecessarily damaging. If Brightline claims to represent the kind of great solution to our community's transportation needs for today and the future, there is no reason to intentionally exclude the businesses that have helped make this community great, and are committed to doing so well on into the future.
 - E. Creating access to and from the Convention Center: A comprehensive transportation network for all Central Floridians

- 108. At the last hearing, a few people spoke of the need for better transportation for the entire community. Having a multi-modal station at the Convention Center achieves that kind of community connectivity and solution. A station traveling non-stop from the Airport to Disney, on government owned right of ways, is not the kind of broad community based solution discussed at that hearing. This train shouldn't be about using public right of ways to get a train to one of the richest global corporations on the planet; it's about providing a better form of transportation for the regular people of this community for decades to come. Creating a multi-modal station at the Convention Center starts that process, but it cannot be a multi-modal station, and it certainly can't start construction, if Brightline intentionally avoids the most valuable and strategic asset in Orange County. [Exh 27.]
- 109. Looking over what has transpired since Maglev, it is pure folly to say we should have two systems. We don't have one yet, and we have been working on various ideas for 30 years. This is the one opportunity to get it right for the entire area, not just for Disney guests. This is the opportunity for the CFX board members to create a great vision—and then execute it--for the greater good for all in Central Florida.
- 110. The TVR to Convention Center route works for everyone. This proposal does not eliminate SunRail. To the contrary, there would be a connection to SunRail, to assist with commuter rail in our community, very geographically close to the Brightline proposed station.
- 111. The only reason Brightline has given to you not to follow the ROD of 2005 and 2010 is that they want to save themselves some money, at the expense of businesses that have served this community extremely well over the last 40 years. The VHB report clearly demonstrates that their numbers are suspect—both in the way they inexplicably avoid adding obvious costs to their construction estimates, and employ different rules for calculating our costs.
- 112. By contrast, the Chamber's members have proven ourselves to be very good corporate partners to improve the lives of so many people in our community. We have a way to address the difference between the costs of the two bids; we have taxed ourselves in the past. If given the opportunity to work with Orange County and Brightline, we believe there are also ways to eliminate all the delta, if one exists. We want to develop marketing programs and mutually beneficial business relationships between the I Drive Chamber members and Brightline, just as we have created "win-win" solutions and opportunities for many in the past.
- 113. There is no compelling public policy reason to cut out all these businesses and people that have created so many jobs and so much economic improvement, from the proposed high speed rail system. To the contrary, inclusion of the Convention Center station will serve an area that generates the most jobs in our community, while also providing the opportunity for the creation of a multi-modal station that can connect all of Central Florida through high speed rail, an expanded commuter rail system, and busses. This is our opportunity to bring everyone together to create a comprehensive transportation matrix for our community's present and future needs.



U.S. Department of Transportation Federal Railroad Administration

Record of Decision/Section 4(f) Determination

FLORIDA HIGH SPEED RAIL

Tampa to Orlando
Hillsborough, Polk, Osceola and Orange Counties, Florida

Financial Project ID No.: 411253 1 94 03 Federal Aid Project No.: N/A

Florida High Speed Rail Record of Decision

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1. SUMMARY

This document records the decision of the Federal Railroad Administration (FRA) regarding the Florida High Speed Rail Project from Tampa to Orlando proposed by the Florida Department of Transportation (FDOT). In making this decision, the agency considered the information, analysis and public comments contained in the 2005 Final Environmental Impact Statement (FEIS) and the more recent 2009 FEIS Reevaluation (2009) to determine the alignment location and station sites for further project development into design and construction. Additional coordination between FDOT, FRA and the Federal Highway Administration (FHWA) will be carried out in the design phase with respect to emergency and maintenance access, safety and security in accordance with FRA standards through the development of a Safety Plan.

This Record of Decision (ROD) has been drafted in accordance with the regulations implementing the National Environmental Policy Act (NEPA) (40 CFR Part 1505.2) and FRA's Procedures for Considering Environmental Impacts (64 Fed Reg 28545 (May 26, 1999)). Specifically, this ROD:

- Provides a background of the NEPA process for the Final Environmental Impact Statement (FEIS) and the 2009 FEIS Reevaluation
- States and reaffirms the Purpose and Need
- Presents the alternatives considered in the 2005 FEIS
- Presents the alternatives considered and dismissed in the 2005 FEIS
- Identifies the selection of the preferred alternative for the 2005 FEIS
- Identifies the environmentally preferable alternative
- Presents the Affected Environment summarizing the findings of the 2009 FEIS Reevaluation
- Presents means to avoid and minimize environmental harm
- Presents the FRA Decision, determinations and findings
- Provides a summary of the public involvement and agency coordination for the 2005 FEIS and the 2009 FEIS Reevaluation

2. INTRODUCTION

The FDOT is proposing to develop a high speed rail passenger system in the Tampa-Orlando-Miami corridor, with future extensions to other major urban areas in the state. This Tampa-Orlando-Miami corridor is a federally designated high speed rail corridor. The first phase of Florida High Speed Rail is the Tampa to Orlando project and is the subject of this ROD.

The Florida High Speed Rail (FHSR) project from Tampa to Orlando would be developed on new track, with the majority of the system located within the existing right-of-way (ROW) of Interstate 4 (I-4) and the Beachline Expressway (S.R. 528), formerly the Bee Line Expressway, a distance of 88 miles. As shown on **Figure 1**, five (5) stations are proposed and would be located in Tampa, Polk County (Lakeland), Walt Disney World, Orange County Convention Center and Orlando International Airport (OIA). The 2005 FEIS and 2009 FEIS Reevaluation includes analyses for a proposed station at the western terminus of SR 570 (Polk Parkway) and a potential station at Kathleen Road in Lakeland. Only one station site will be identified for continued development and design in coordination with Polk County and the local cities.

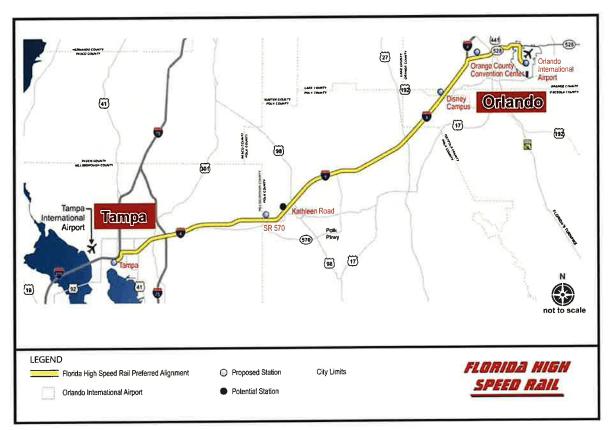


Figure 1 Project Location Map

Florida High Speed Rail Record of Decision

FDOT proposes the high speed passenger rail system would operate 16 intercity round trips per day with additional frequent shuttle service from OIA to the tourist destinations in the Orlando area. The maximum travel time will be 64 minutes with stops between Tampa and Orlando. The maximum operating speed will be 168 mph.

The initial environmental document was completed under the direction of the Florida High Speed Rail Authority (FHSRA), which was under a state constitutional mandated directive to expedite the implementation of the system. In order to complete the project in a timely manner, FHSRA selected a Design, Build, Operate, Maintain, and Finance (DBOM&F) process for implementing the project. Proposals were solicited and two were selected for evaluation in the FEIS published in 2005. The 2009 FEIS Reevaluation builds on the use of a DBOM&F process for advancing the project.

On October 2, 2009, FDOT submitted an application to the FRA under the High Speed Intercity Passenger Rail Program (HSIPR) for \$2.624B to fund the development of the Tampa-Orlando high speed rail corridor project. On January 28, 2010, FRA announced that FDOT had been selected for an award of up to \$1.25B for the Tampa-Orlando corridor. The funds will be used to complete any additional corridor level analysis respective to station sites, complete final design, and initiate construction of the FHSR project from Tampa to Orlando.

3. BACKGROUND

Following its creation in 2001, the FHSRA, with guidance from the FRA as the lead federal agency, took a number of steps to implement high speed rail within the state of Florida. The FHSRA began the planning, environmental studies, and engineering needed to prepare a Draft Environmental Impact Statement (DEIS) for the Tampa to Orlando corridor in 2002, focused on independent utility and logical termini. FRA approved the DEIS in August 2003, and signed and circulated the FEIS in 2005. However, due to the project being suspended, the FRA never issued a Record of Decision (ROD) for the project.

The major NEPA milestones are summarized in **Table 1**.

Milestone Date March 2002 Notice of Intent Advance Notification and Scoping **April 2002** August 2003 Draft EIS Signed and Circulated September 5, 2003 Draft EIS Notice of Availability October 7-9, 2003 **Public Hearings FEIS Signed and Circulated** July 2005 August 5, 2005 FEIS Notice of Availability Source: Florida High Speed Rail Tampa to Orlando FEIS Reevaluation, October, 2009

Table 1: Summary of Major NEPA Milestones

Independent documentation in support of the findings of the 2005 FEIS includes:

- The Tampa Interstate Study Environmental Impact Statement, November 1996 which includes ultimate improvements to I-4/I-275 that accommodate the high speed rail alignment
- The Intermodal Station at Orlando International Airport Environmental Assessment, September 2005 planned an intermodal station at both the OIA North Terminal and the future OIA South Terminal, and updated the HSR and light rail alignments through OIA property
- The Greater Orlando Aviation Authority Master Plan, August 2004 most current master plan incorporating multimodal station at the North Terminal, future South Terminal, and HSR rail alignments
- The Tampa Bay Intermodal Center, October 2005 multimodal station site study consistent with the location of the Tampa HSR station area that provided for the FHSR alignment
- The Canadian Court Intermodal Transportation Center Study, April 2007 multimodal station site consistent with the proposed Orange County Convention Center station that accommodates the FHSR alignment

3.1. FEIS REEVALUATION

In October 2008, a federal program to advance high speed rail corridor development was authorized under Section 501 of the Passenger Rail Investment and Improvement Act of 2008 (PRIIA). The America Recovery & Reinvestment Act of 2009 (ARRA) then made \$8 billion available for High Speed Rail (HSR). In April 2009, President Barack Obama's Administration unveiled its HSR Vision, initially highlighting federally-designated high speed rail corridors, including Tampa-Orlando-Miami in Florida. This began a national competition for federal funding.

Given this new prospect for federal funding, the Florida Department of Transportation (FDOT) began work to determine the extent of changes in potential environmental impacts and commitments since the FEIS was circulated in 2005.

FRA met with FDOT representatives on June 12, 2009 to discuss the project and the status of the NEPA documentation. FRA determined that a reevaluation of the 2005 FEIS was needed to satisfy NEPA requirements (the FEIS Reevaluation). This reevaluation was prepared in conformance with FDOT's Project Development and Environment (PD&E) Manual.

While there have been no major changes to the project location and design since the FEIS was published, several years have elapsed since publication of the FEIS, triggering the need for a reevaluation. According to FRA's Procedures for Considering Environmental Impacts (64 FR 28545 (May 26, 1999)) and FDOT's PD&E Manual, reevaluations are to be conducted under the following circumstances:

- Approval of document and authorization of the next phase is greater than one year
- A major change in the project's location or design has occurred
- If more than three (3) years have lapsed since the date of approval of the final EIS without a decision

In May 2009, FDOT initiated a qualitative review of the project to determine the level of assessment required to complete the NEPA/PD&E process and support the issuance of a ROD. The findings of this assessment were summarized in a technical memorandum, *Basis for FEIS Reevaluation Technical Memorandum* (June 29, 2009), presented and discussed with FRA. This document is located as an appendix to the FEIS Reevaluation Report. The FEIS Reevaluation is in **Appendix A** of this ROD.

The qualitative assessment indicated that minor changes in the project definition are required and small changes in the affected environment have occurred, and that a reevaluation was an appropriate course of action to determine the potential changes in environmental impacts, mitigation and commitments since the FEIS was published in 2005. Accordingly, the reevaluation focused on the following:

• Changes in the preferred technology from the gas turbine-powered technology as identified in the 2005 FEIS to the electric powered technology. Under the FEIS Reevaluation, the electric-powered technology has emerged as the preferred technology, on the same alignment, based on the current initiatives to reduce carbon emissions and dependency on foreign oil

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- Design changes needed based on surrounding infrastructure and right-of-way
- Changes in the affected environment that have occurred since the 2005 FEIS
- Changes in potential environmental impacts since the 2005 FEIS
- Changes in the mitigation and commitments compared to the 2005 FEIS
- Changes in permits needed since the 2005 FEIS
- Need for updated coordination with local jurisdictions, stakeholders, and environmental review agencies
- Need for updated public involvement
- Changes in laws, rules, and regulations since 2005

A draft FEIS Reevaluation was completed by FDOT and submitted to FRA on October 1, 2009.

4. PURPOSE AND NEED

The Purpose and Need for the FHSR project was established in the 2005 FEIS and was confirmed by the 2009 Reevaluation. The purpose of FHSR is to enhance intercity passenger mobility in Florida by expanding passenger transportation capacity and providing an alternative to highway and air travel. Increased mobility is viewed as essential for the sustained economic growth of the region, as well as the quality of life of the region's residents and visitors. Presently, passenger mobility in the Tampa-Orlando corridor is provided primarily by highways, particularly I-4. Projected transportation demand and travel growth, as prompted by social demand and economic development and compared to existing and future roadway capacity, show a serious deficit in available capacity. In addition, increasing population, employment, and tourism rates continue to elevate travel demand in the study corridor.

Although capacity improvements to the interstate system along the corridor have either recently been completed or are planned for the near future, they are not adequate to accommodate future travel demand. This need is further emphasized by high traffic volumes, congestion, and accident rates in the study corridor. Further, social and economic demands will continue to call for provision of alternative transportation choices for those individuals who cannot or choose not to drive, as well as those travelers looking for alternatives to congested highways.

4.1. Florida Passenger Rail Legislation of 2009

On December 16, 2009 Governor Charlie Crist signed legislation specifically to support the development of passenger rail systems in the state of Florida. This includes the creation of the Florida Rail Enterprise and other steps including potential funding support for a high speed rail system in the state. The passage of this legislation demonstrates Florida's commitment to work with Federal agencies and private sector partners to advance high speed rail and other passenger rail systems as an integral component of statewide transportation systems.

5. ALTERNATIVES

5.1. ALTERNATIVES CONSIDERED AND DISMISSED IN THE 2005 FEIS

The FHSRA considered several routes between Tampa and Orlando. In order to identify reasonable alternatives that could satisfy the identified project purpose and need, the FHSRA conducted a study to identify, quantify, and compare various HSR route locations. The results of the screening process are documented in the *Florida High Speed Rail Screening Report*, which was completed in October 2002. This evaluation was built on the studies undertaken for high speed rail in the Tampa – Orlando corridor since the mid 1980s. Forty-seven alignments were reduced to 20 as a result of this evaluation. **Figure 2** identifies the various segments that were eliminated from continued study and the retained alignments that were analyzed as the viable alternatives in the 2005 FEIS.

Tampa area: The FHSR study team developed 21 alignments to connect the downtown Tampa station eastward to I-75 with alignments in the I-4 and CSX rail corridors. Ten alignments were eliminated for reasons including engineering constraints, disruption of access to low-income housing and community facilities, disruption of the Ybor City National Historic Landmark District (NHLD), and causing relatively greater environmental impacts than retained alignments.

Hillsborough County: Two alignments were evaluated in rural Hillsborough County: one along the I-4 corridor and the other parallel to the CSX rail line. The CSX rail alignment was eliminated from further consideration due to proximity impacts to a significant number of community facilities in Plant City along the railroad.

Polk County: Nine alignments were evaluated in Polk County. The alignments included the I-4 and CSX rail corridors, as well as connections between the two corridors. The CSX corridor was eliminated due to proximity impacts to community facilities in Lakeland, Auburndale, Haines City, and Davenport. With the elimination of the CSX alignment, connecting alignments to the I-4 corridor were no longer viable.

Orlando area: Fifteen alignments were evaluated in Osceola and Orange counties in the Orlando area. Seven alignments were eliminated. Some of the alignments connected to eliminated alignments in Polk County and would have disrupted existing commercial development along the alignment. A new terrain connection between I-4 and the Central Florida Greeneway (S.R. 417) had the greatest amount of potential wetland and wildlife habitat impact and limited access to alternative station sites. Other alignments were eliminated due to engineering constraints.

5.2. ALTERNATIVES CONSIDERED IN THE 2005 FEIS

The alternatives selected for evaluation in the EIS include:

- No-Build Alternative, consisting of no FHSR service between Tampa and Orlando.
- Two technology alternatives, the gas-turbine powered locomotive-hauled and the electric-powered locomotive-hauled trains, reflecting the responsive proposals to the FHSRA DBOM&F solicitation. These technologies are further described below.

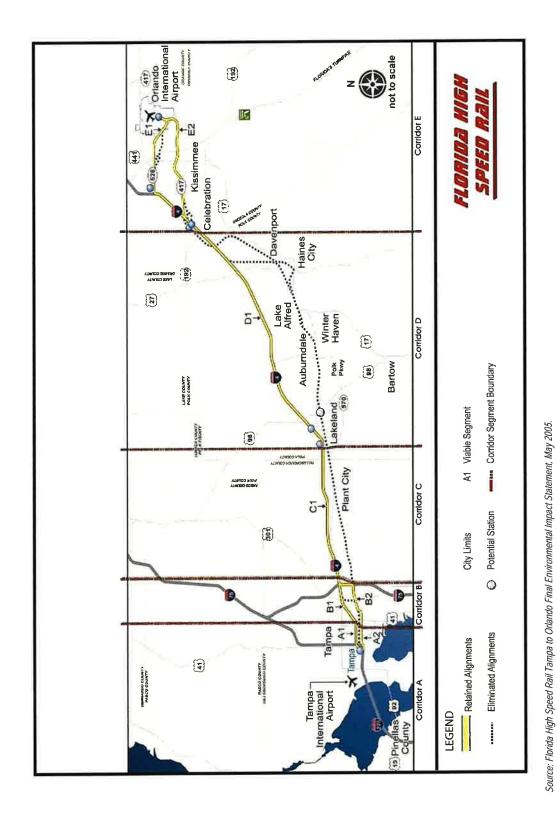


Figure 2: Corridors / Stations Considered

5-2

• Four alignment alternatives per each technology, or a total of eight design/build alternatives. A detailed summary of each alignment is available in the 2005 FEIS.

Each Alternative carried forward for consideration in the 2005 FEIS is summarized below.

5.2.1. No-Build Alternative

The No-Build Alternative assumes that a FHSR system would not be built between Tampa and Orlando. Passenger service between the two cities would instead consist of various existing bus services between Tampa and Orlando and automobile use on I-4, I-75, the Bee Line Expressway (S.R. 528), and the Central Florida Greeneway (S.R. 417). The No-Build Alternative assumes that certain planned and funded highway improvements would be undertaken between Tampa and Orlando.

The No-Build Alternative does not envision providing an alternative transportation mode between Tampa and Orlando for daily commuters, visitors, and residents of the area, and existing modes would have to satisfy all travel demand. The potential of the FHSR project to improve public transportation and increase the efficient use of the transportation system, both intercity and locally, would not be realized.

5.2.2. Technology Alternatives

The FHSRA determined that two proposals were responsive to its solicitation for DBOM&F proposals. These represented different technologies with different track systems, rail locations, maintenance facilities and station sites.

Fluor Bombardier proposed a gas turbine-powered locomotive-hauled train technology, developed by Bombardier and FRA with the trademark name of "Jet Train". The gas turbine train has passenger equipment similar to Amtrak's Acela Express trains presently operating between Washington, D.C. and Boston, Massachusetts.

The Global Rail Consortium (GRC) proposed using an electric-powered locomotive-hauled train technology, powered from an overhead catenary system similar to that in use on the Acela system and the electric train uses the French designed TGV Atlantique train sets.

Table 2 summarizes the operating features of the two proposed technologies.

Feature (FHSRA minimums)	Gas Turbine Train	Electric Train
Speed (120 mph)	125 mph	160 mph
Round trips per day (12)	14	16
Shuttle trips between Orlando International Airport and Disney (not required)	8	17
Trip time (1 hour, 10 minutes)	65–70 minutes	54-55 minutes
Seating capacity (250)	292	250
Source: Florida High Speed Rail Tampa to Orlando Fina	Environmental Impact Statement, May, 2005.	

Table 2: Summary of Operations by Technology

5.2.3. Alignment Alternatives

The alignment alternatives used varying combinations of the I-275 and CSX corridors in downtown Tampa, the I-4 corridor between Tampa and Orlando, and either the Bee Line

Expressway (S.R. 528) or Central Florida Greeneway (S.R. 417) corridor in Orlando. Design/Build Alternatives 1 through 4 consist of gas turbine technology, while Design/Build Alternatives 5 through 8 consists of the electric train technology.

The eight alternatives use varying combinations of the same alignment. The alignments associated with each alternative are illustrated in **Figure 3** and briefly summarized as follows:

Tampa area: I-275/I-4 corridor – This is a new, grade-separated alignment that runs south of and parallel to I-275 and I-4 to approximately 14th/15th Streets where the alignment crosses into the I-4 median.

Tampa area: CSX "S" line/CSX "A" line/I-75 — This is a new, grade-separated alignment that leaves the downtown station southeasterly through a commercial area to connect into the former CSX "S" line. The alignment runs eastward to connect to the existing CSX "A" line, running along the north side of the rail line to I-75. At I-75, the alignment runs in the interstate median northward to connect into the I-4 median.

Between I-75 to the Osceola/Orange county line: I-4 — This alignment between the Tampa and Orlando urban areas would use the I-4 median for the entire length.

Orlando area: Bee Line Expressway (S.R. 528)/Taft-Vineland Road — This grade-separated alignment would leave the I-4 median and follow along the north side of the Bee Line Expressway (S.R. 528), then along the median of Taft-Vineland Road, crossing new ROW to connect into a station at Orlando International Airport.

Orlando area: S.R. 536/Central Florida Greeneway (S.R. 417) — This grade-separated alignment leaves the I-4 median to run along the south side of S.R. 536, connecting to either the north side or the median of the Central Florida Greeneway (S.R. 417). From the Central Florida Greeneway (S.R. 417), the alignment would run along the east side of the South Access Road to a station at Orlando International Airport.

Station locations evaluated in the study included:

- Tampa Central Business District (CBD), south of Interstate 275 (I-275)
- I-4/Polk Parkway, west entry
- I-4/Kathleen Road (S.R. 539) in the City of Lakeland
- I-4 near Walt Disney World
- I-4 near Orange County Convention Center (OCCC)/Multi-Modal Station
- Orlando International Airport

An operation and maintenance (O&M) facility is proposed at one of two locations near the Orlando International Airport.

5.2.4. Summary of Alternatives Identified

The FEIS thus evaluated a total of eight design/build alternatives consisting of four different alignment options with two different technologies, as offered by the two proposers. Figure 3 displays the eight design/build alternatives and the station locations considered. Table 3 provides a summary of the design/build alternatives by alignment and technology.

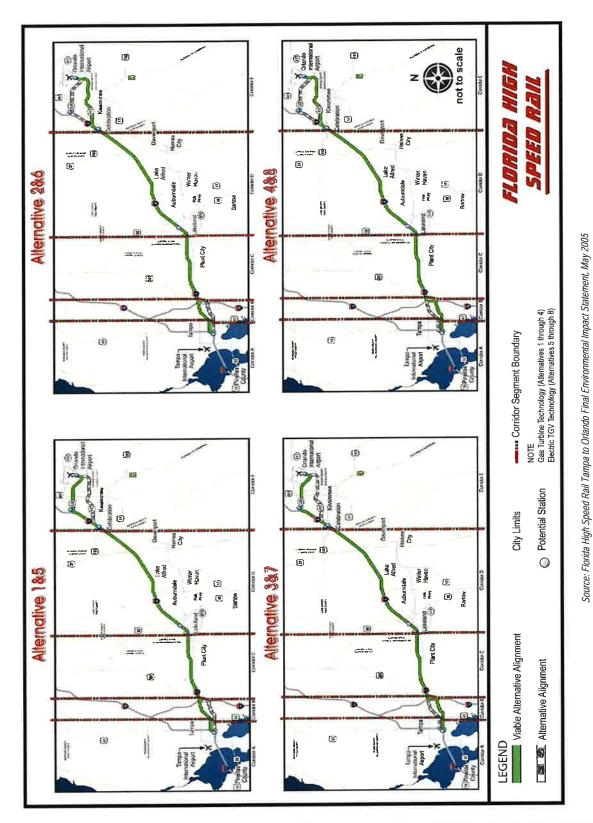


Figure 3: Design Build Alternatives

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Table 3: Summary of Design/Build Alternatives by Alignment and Technology

		Alternative						
	1	2	3	4	5	6	7	8
TECHNOLOGY								
Gas turbine	Х	х	Х	Х				
Electric train					Х	Х	х	Х
ALIGNMENT								
I-275/I-4 in Tampa	Х	Х			х	Х		
CSX Line/l-75 in Tampa			Х	Х			Х	Х
I-4 between Tampa & Orlando	Х	Х	Х	Х	Х	Х	Х	х
SR 528/Taft-Vineland Road in Orlando	Х		Х		Х		Х	
S.R. 536/SR 417 in Orlando		Х		Х		Х		Х
Source: Florida High Speed Rail Tampa to Orlando Fina	al Environmenta	ı I impact Sta	tement May	2005.				

The evaluation matrix in **Table 4** summarizes the quantifiable impacts of the proposed FHSR Design/Build Alternatives 1 through 8. The matrix provides an assessment of potential impacts for each alternative, providing the opportunity to effectively evaluate the consequences of each alternative.

Design/Build Alternatives 1 through 4 represent the four alignment combinations with the gas turbine technology. Design/Build Alternatives 5 through 8 represent the four alignment combinations with the electric train technology. The potential impacts for the FEIS Preferred Alternative, Design/Build Alternative 1, are highlighted in **Table 4**.

Physical impacts, such as wetland, wildlife, and floodplain impacts are technology neutral. The differences in impacts are due to alignment location, station sites, and O&M facility sites. In general, there are slightly more natural impacts associated with the Central Florida Greeneway (S.R. 417) alignment due to crossing relatively undisturbed land. Noise, vibration, air quality, and energy impacts are more associated with the technology. In some cases though, the technology and alignment combinations will have varying effect such as with noise and vibration.

Table 4: Design/Build Alternatives Evaluation Matrix (2005 FEIS Preferred Alternative Highlighted)

	TOTAL STATE		71.	Altern	atives		Y I W	77,115
	1	2	3	4	5	6	7	8
NATURAL ENVIRONMENT IMPACTS (AC.)								
Total Wetland Impacts (AC.)	40	31.3	39.2	30.5	25.6	24.4	30.5	23,6
High Quality Wetlands (AC.)	11	2	11	2	11	2	11	2
Protected Species Sites	9	15	10	16	9	15	10	16
FLOODPLAIN AND FLOODWAYY (AC.)								
Base Floodplain Encroachment	56.88	54.54	61.04	58,70	56,88	54.54	61,04	58.70
Base Floodway Encroachment	9.45	6.47	9.45	6.47	9.45	6.47	9.45	6.47
CONTAMINATION SITES (RANKED H)								
Potential Petroleum Sites	2	0	7	5	2	0	7	5
Potential Hazardous Materials Sites	5	5	12	12	5	5	12	12
SECTION 4(f) IMPACTS								
Recreation Facilities	1	1	0	0	1	1	0	0
Historic/Archaeological Sites	0	0	2	2	0	0	2	2
COMMUNITY SERVICES								
Schools	8	12	5	9	8	12	5	9
Community Facilities	10	9	6	5	10	9	6	5
Parks & Recreation	5	7	5	6	5	7	5	6
Cemeteries	4	6	6	6	4	6	6	6
Churches	15	16	12	13	15	16	12	13
NOISE IMPACTS (MODERATE & SEVERE								
Category 1 (Buildings and/or parks)	0	0	0	0	0	0	0	0
Category 2 (Residences, hospitals, and hotels)	15	5	16	6	53	105	38	90
Category 3 (Institutional – schools, libraries, churches, active park)	0	0	0	0	1	2	0	1
VIBRATION IMPACTS		1						
Category 1 (Buildings and/or parks)	1	0	1	0	1	0	1	0
Category 2 (Residences, hospitals, and hotels)	44	20	40	16	13	5	9	1
Category 3 (Institutional – schools, libraries, churches, active park)	0	0	0	0	0	0	0	0
AIR QUALITY EMISSIONS (Net Change in	Tons/Year)							
CO	-101.7	-64.7	-100.9	-63.8	-152.0	-114.3	-151.8	-114.1
NOX	+189.0	+188,2	+191.4	+190.6	+23,3	+24.1	+23.7	+24.5
VOC	+8.9	+10.6	+9.2	+10.9	-8.1	-6.1	-8.1	-6.1
ENERGY CONSUMPTION (Change from 2	010 No-Build)							
Millions BTU	498,855	507,770	505,658	514,574	239,820	243,623	243,314	247,124
SECTION 106 IMPACTS								
Historic Sites	5	5	7	7	5	5	7	7
Archaeological Sites	0	0	0	0	0	0	0	0
RELOCATIONS								
Residential	3	3	0	0	3	3	0	0
Business	3	8	15	23	3	8	15	23
COST								
ROW (Non-public)	\$118M	\$149M	\$150M	\$181M	\$101M	\$128M	\$134M	\$161M
Infrastructure	\$1,900M	\$2,033M	\$1,881M	\$2,015M	\$2,177M	\$2,306M	\$2,154M	\$2,284M
Mitigation	\$30M	\$30M	\$30M	\$30M	\$30M	\$30M	\$30M	\$30M
TOTAL COST	\$2.048B	\$2.212B	\$2.061B	\$2.226B	\$2.308B	\$2.464B	\$2.318B	\$2.476B

Source: Florida High Speed Rail Tampa to Orlando Final Environmental Impact Statement, May, 2005.

5.3. 2005 FEIS PREFERRED ALTERNATIVE

The 2005 FHSR FEIS resulting from the Project Development and Environment (PD&E) Study investigated the eight design/build alternatives, evaluating not only the technological differences, but also engineering, environmental impacts, costs, and other factors impacting the selection of the alignment. Development of alignments provided an analysis of socio-economic, natural, and physical environmental impacts within the proposed corridors. The potential impacts of the design/build alternatives and the No-Build Alternative are documented in Section 4 of the FEIS.

The FHSRA considered the alternatives in Tampa and Orlando in identifying a Preferred Alternative. All alternative alignments are located along I-4 through Polk and Osceola counties. Two separate alignments were considered in Tampa (Hillsborough County): the CSX and I-4 alignments. Similarly, two alternatives were considered in Orlando (Orange County): the Florida Turnpike's Bee Line Expressway (S.R. 528) and the Central Florida Greeneway (S.R. 417) alignments.

The FHSRA unanimously passed a motion identifying the I-4 alignment in Hillsborough County as the preferred alignment. Additionally, the FHSRA ranked the Fluor Bombardier Team (gas turbine technology) as the preferred proposer.

On October 27, 2003, the FHSRA originally identified the Central Florida Greeneway (S.R. 417) alignment as the preferred alignment in Orange County. The vote was subject to the following two condition Memorandums of Agreement (MOA):

- Subject to an acceptable agreement between the FHSRA and Walt Disney Company related to donation of ROW and commitments to support ridership for the project.
- Subject to an acceptable agreement between the FHSRA and OOCEA related to use of the Central Florida Greeneway (S.R. 417) ROW.

On November 10, 2004, the FHSRA revised the recommendation of the Preferred Alternative because the two conditional MOAs had not been executed. With this action, the FHSRA recommended Alternative 1 (gas turbine technology), which is the combination of the I-4 alignment in Hillsborough County and the Bee Line (now the Beachline) Expressway (S.R. 528) alignment in Orange County, as the Preferred Alternative. While the FEIS environmental analysis provided for either technology to be selected as the preferred technology to be used on the corridor, the FEIS identified Alternative 1 as the Preferred Alternative. The FEIS identified the No Build Alternative as the environmentally preferable alternative because it would result in less direct and indirect impact to the environment. However, the FEIS also noted that the No Build Alternative would fail to meet the Project purpose and need.

5.4. 2009 FEIS REEVALUATION PREFERRED ALTERATIVE

In the 2005 FEIS gas turbine-powered technology was selected as the Preferred Alternative. FDOT now prefers the electric-powered technology on the same alignment, based on the current initiatives to reduce carbon emissions and dependency on foreign oil. The 2009 FEIS Reevaluation addresses environmental impacts resulting from the change in the preferred technology, any changes to existing conditions and the minor changes to the 2005 Preferred Alternative alignment to further reduce the potential for environmental impacts.

The FHSR Preferred Alternative resulting from both the 2005 FEIS and 2009 Reevaluation would begin at the downtown Tampa station to be located between Tampa Street and Marion Street, I-275, and Fortune Street. The FHSR alignment would follow I-275 along the south and east right-of-way (ROW). The alignment would cross into the I-4 median in the area of 15th Street. The majority of the FHSR alignment would be within the ultimate ROW identified in the *Tampa Interstate Study* (TIS) for future interstate improvements; however some additional ROW would be required and has been coordinated with the City of Tampa.

The alignment would continue east within the I-4 median through Hillsborough and Polk counties. One station would be located in Polk County, where two locations were under consideration.

Entering Osceola County, the high speed rail alignment remains within the I-4 median. The proposed Walt Disney World Station would be located north of U.S. 192. The station platform would be located in the median and station facility would be located west of I-4 between U.S. 192 and the Osceola Parkway.

The alignment would continue into Orange County in the I-4 median until the I-4/Beachline Expressway (S.R. 528) interchange, where it would elevate and leave the I-4 median and run along the north side of S.R. 528 within existing ROW. The Orange County Convention Center multi-modal center site is located in the northeast quadrant of the International Drive/S.R. 528 Interchange. The Orange County Convention Center station would be located within the ROW of the interchange area.

The alignment would continue on the north side of S.R. 528 until east of the John Young Parkway (S.R. 423) Interchange where it would leave S.R. 528 and run on new alignment east to Taft-Vineland Road. The alignment would continue along Taft-Vineland Road and enter the City of Orlando property near Tradeport Drive. It would then follow the Orlando Utilities Commission rail line as a new alignment turning north crossing the Orlando International Airport (OIA) South Access Road and traversing through the limits of OIA from south to north, east of the proposed South Terminal.

The 2009 FEIS Reevaluation has determined that overall the preferred alternative alignment documented in the 2005 FEIS remains substantially unchanged; however, the preferred technology has changed. Investigation of current conditions and planned projects has resulted in some minor adjustments to the horizontal and vertical alignment. Supporting engineering plans and profiles are provided in FEIS Reevaluation. Areas where changes have occurred are:

- Station Areas: Tampa Downtown, Walt Disney World/Celebration; Orange County Convention Center; Orlando International Airport – additional right of way and some relocation required for various stations (see Station discussion)
- I-4/I-275 Interchange Ramp D adjacent to Perry Harvey Senior Park improvement to I-275 widened the existing roadway for ramp auxiliary lanes
- I-4/I-275 Proposed Flyover Ramp widening adjacent to Ybor City National Historic Landmark District – FDOT identified that the existing single lane flyover ramp needs to be widened to two lanes

- Transition to I-4 Median and Crosstown Connector minimize structure length based on the construction of the ultimate I-4 improvements
- Columbus Avenue Relocation improvements to I-4 realigned Columbus Avenue
- Emergency Median Crossovers FDOT has established emergency evacuation crossovers through the I-4 corridor that will need to be relocated
- Tradeport Drive Area minimize impacts to continued commercial development
- Orlando International Airport continue HSR alignment to the north terminal consistent with OIA Master Plan.

The above changes to the conceptual engineering plans for the Preferred Alternative as described in the 2005 FEIS are included in the FEIS Reevaluation.

5.4.1. 2009 Reevaluation Preferred Alternative Station / Maintenance Facility Areas

The 2005 FEIS initially evaluated 20-acre study areas for each of the proposed station locations. As each site was identified, the station area was finalized to take into account property lines and existing features. The following modifications to the FEIS station study areas were assessed and included in the conceptual plan revisions as part of the FEIS Reevaluation.

- Tampa Downtown Station The Tampa station area was expanded to include the 3.2-acre former jail site which was purchased by FDOT for use as an intermodal center. The building is currently being demolished.
- Walt Disney World Station The Disney station area was shifted to the west to include a 5.6-acre area of open land in order to maintain a total 20-acre station area. The shift was necessary as a result of the construction of the Osceola Parkway Interchange and ramps within the 20-acre area identified in the 2005 FEIS.
- Polk County (Lakeland) Station The 2005 FEIS and the 2009 FEIS Reevaluation includes two sites for environmental analysis, west of the Polk Parkway and at Kathleen Road only one is to be selected for continued development. Included in the 2009 FEIS Reevaluation is a request by the City of Lakeland, Polk County and the University of South Florida Polytechnic for continued coordination into the design phase to verify the optimal location of a Polk County Station site to best serve Lakeland and the surrounding communities. FDOT is committed to continued coordination with the county, cities and local stakeholders in the continued project development phases. Should a station site other than the sites located at west SR 570 (Polk Parkway) or Kathleen Road be advanced, additional environmental analysis will be required.
- Orange County Convention Center Station The Orange County Convention Center station area was expanded to the east to the existing parcel property line, an additional 2.0-acre area to provide maximum flexibility and proximity for the HSR station.
- Orlando International Airport (OIA) In conformance with the OIA Master Plan, two station locations are considered under the Preferred Alternative: the future South Terminal Intermodal Center and the North Terminal Intermodal Center. The North and

South Terminal Intermodal Centers are included in the Airport Master Plan as approved through the Federal Aviation Administration (FAA). The North and South Terminal Intermodal Centers received FTA NEPA clearance under the *OIA Intermodal Station Environmental Assessment*, September 2005.

• Maintenance Facility – The Preferred Alternative identified a preference for two alternative sites for the FHSR maintenance facility site: one site located directly south of OIA (Site 3) and a site southeast of OIA, north of Boggy Creek Road (Site 2). These two sites were included in the 2005 FEIS for the gas turbine train. The 2005 FEIS also included two sites for the electric powered train: Site 3 and a site located southeast of OIA and south of Boggy Creek Road (Site 1). With continued commercial development south of Boggy Creek Road and the increase of relocations, Site 1 is removed from consideration, with Sites 2 and 3 remaining as alternative sites as analyzed in the 2005 FEIS and included in the 2009 FEIS Reevaluation.

5.4.2. Preferred Alternative Ridership

The ridership estimates for the 2005 FEIS Preferred Alternative were updated for 2009 based on the two independent, investment-grade models developed in 2002 and documented in the 2005 FEIS. The ridership estimates were based on the alignments for the Project and were not sensitive to the technologies. The models were updated to reflect the changes in the transportation network, growth and local land uses that have occurred since the 2005 FEIS was completed. Captive ridership/riders currently taking shuttle services provided by Disney and I-Drive destinations were separated from choice ridership (trips that would be diverted from other modes, such as private or rented autos, and public transit).

The results of the updated ridership and revenue forecasts are shown in **Table 5**. Annual ridership is not anticipated to change significantly from the previous 2002 forecasts. Annual revenue for the system is expected to increase.

Table 5: Changes in 2010 Tampa-Orlando Ridership and Revenue for the Preferred Alternative

	2010 Ani	nual Ridership (n	nillions)	2010 Annual Revenue (\$ millions)			
Market	2002 Study/2005 FEIS	2009 Reevaluation	Change	2002 Study/2005 FEIS	2009 Reevaluation	Change	
CHOICE MARKET	1.9 to 2.3	1.9 to 2.4	+0.0 to +0.1	32.9 to 35.4	40.5 to 46.4	+7.6 to +11.0	
CAPTIVE OIA to International Drive OIA to Disney Subtotal: Captive	0.5 <u>2.1</u> 0.5*	0.6 <u>1.9</u> 0.6*	+0.1 <u>-0.2</u> +0.1*	6.3 <u>26.3</u> 6.3*	8.0 <u>27.2</u> 8.0*	+1.7 <u>+0.9</u> +2.6*	
Total:	2.4 to 2.8	2.5 to 3.0	+0.1 to +0.2	39.3 to 41.8	48.5 to 54.5	+10.2 to +13.6	

"The 2002 Study (included in the 2005 FEIS) assumed that captive ridership associated with the OIA-Disney market would not be included, as Disney's participation in the preferred alignment was still under negotiation.

6. AFFECTED ENVIRONMENT

The changes to the 2005 Preferred Alternative were primarily to accommodate the current asbuilt conditions within the improved interstate corridor and changes to minimize potential impacts to continued development within the corridor. These changes, as stated in Chapter 2 of the FEIS Reevaluation and illustrated in the revised plans included in Appendix B of the FEIS Reevaluation and discussed in the 2009 FEIS Revaluation Preferred Alternative (Section 6.4) section of this document, are minimal within the 88-mile alternative and concentrated within the immediate Tampa CBD and in the Tradeport Drive industrial park area in Orange County.

The changes in existing conditions identified in Chapter 3 of the FEIS Reevaluation resulting in changes to the potential environmental impacts are summarized below:

- Relocations: reduction of one business impact in Tampa CBD and 3 additional business impacts in Tradeport Drive industrial area.
- Section 106: reduction of one historic structure with relocation by FDOT complete.
- Recreation and Park/Section 4(f): Changes to the City of Tampa's Perry Harvey Sr. Park boundaries since the 2005 FEIS and changes to the alternative reduce overall area of use.
- Air Quality, Noise, Vibration, Visual/Aesthetic, and Energy Consumption: changes based on technology preference from gas turbine-powered to electric-powered locomotivehauled train.
- Contamination: additional sites resulting in the same number of sites with high risk ranking and an additional one site each for medium and low risk ranking.
- Wildlife and Habitat: one additional species (Everglades snail kite) afforded protection since 2005.

The above changes to the environmental impacts do not change the mitigation and commitments identified in the 2005 FEIS with the exception of regulatory changes in the permitting of wetlands, water quality, and wildlife and habitat.

Table 6 identifies comparative analysis factors between the 2005 FEIS Preferred Alternative (gas turbine powered technology, Alternative 1) and the electric powered technology on the same alignment (Alternative 5) with the updated potential impacts assessed in the FEIS Reevaluation for the Revised Preferred Alternative (RPA).

Table 6: Change in Potential Environmental Impacts

Resource	2005 FEIS Impacts Gas Turbine FEIS Preferred Alternative (Alternative 1)	2005 FEIS Impacts Electric Technology (Alternative 5)	Change in Impacts?	Revised Preferred Alternative (RPA) Impacts Electric Technology
COMMUNITY IMPA	CTS			
Community Cohesion	Minimal impacts to adjacent neighborhoods along I-4 in Tampa and to the south of the Tradeport Industrial Park	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
Community and Land Use Impacts	Consistent with local land use plans	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
	Minimal impacts to existing land uses			
Economic Impacts	Benefits in excess of costs	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
Safety and Public Health	No adverse impacts	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
Relocation and Right-of-Way Impacts	3 residential relocations	Same as 2005 FEIS Preferred Alternative	Yes	3 residential relocations
	3 business relocations	Freierred Allerrative		5 business relocations
Impaoto	See Section 4(f) below.			
Environmental Justice	No disproportionate impacts	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
Section 106 -	Conditional Adverse Effect	Same as 2005 FEIS Preferred Alternative	Yes*	Same impacts as listed for FEIS Preferred
Archeological and Historical Resources	North Franklin Street Historic District (visual)			Alternative, less direct impact of one contributing building in Ybor City
	St. Paul AME Church Parsonage (visual)			NHLD do to relocation per TIS project*
	Oaklawn Cemetery (visual construction vibration)			
	Ybor City NHLD (direct taking of two contributing buildings; visual, construction vibration)			
	German American Club – Visual impacts, construction vibration			
Recreation and Parkland	Use of 0.184 acres, Perry Harvey Sr. Park	Use of 0.184 acres, Perry Harvey Sr. Park	Yes	Use of 0.05 acres, Perry Harvey Sr. Park

Table 6: Change in Potential Environmental Impacts

Resource	2005 FEIS Impacts Gas Turbine FEIS Preferred Alternative (Alternative 1)	2005 FEIS Impacts Electric Technology (Alternative 5)	Change in Impacts?	Revised Preferred Alternative (RPA) Impacts Electric Technology
Section 4(f) Impacts	Use of 0.184 acres, Perry Harvey Sr. Park	Use of 0.184 acres, Perry Harvey Sr. Park	Yes	Use of 0.05 acres, Perry Harvey Sr. Park
Secondary and Cumulative Impacts	No adverse impacts	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
	NATURA	L AND PHYSICAL IMPACTS		
Visual/Aesthetic	No adverse impacts	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
Air Quality	Emissions (tons/year): CO: -101.7 tons/year NOx: +189.0 VOC: +8.9	Emissions (tons/year): CO: -152.0 NOx: +23.3 VOC: -8.1	Yes	Same as 2005 FEIS Alternative 5
Noise ¹	Cat. 1: 0 Cat. 2: 15 (7 moderate, 8 severe) Cat. 3: 0	Cat. 1: 0 Cat. 2: 52 (24 moderate, 28 severe) Cat. 3: 1 (Perry Harvey Sr. Park)	Yes	Cat. 1: 0 Cat. 2: 30 (13 moderate, 17 severe) Cat. 3: 1
Vibration ¹	Cat 1: 1 Cat. 2: 44 Cat. 3: 0	Cat 1: 1 Cat. 2: 13 Cat. 3: 0	Yes	Cat. 1: 1 Cat. 2: 8 Cat. 3: 0
Wetlands	40 acres (total impacts) 11 high quality wetlands impacted	25.6 acres (total impacts) 11 high quality wetlands impacted	Yes	35.8 acres (total impacts) 11 high quality wetlands impacted.
Aquatic Preserves	No impacts	No impacts	No	No impacts
Water Quality	No adverse impacts	No adverse impacts	No	No adverse impacts
Outstanding Florida Waters	No impacts	No impacts	No	No impacts
Contamination	Risk Ranking High: 7 Medium: 0 Low: 0	Risk Ranking High: 7 Medium: 0 Low: 0	Yes	Risk Ranking High: 7 Medium: 1 Low: 1

Table 6: Change in Potential Environmental Impacts

Resource	2005 FEIS Impacts Gas Turbine FEIS Preferred Alternative (Alternative 1)	2005 FEIS Impacts Electric Technology (Alternative 5)	Change in Impacts?	Revised Preferred Alternative (RPA) Impacts Electric Technology
Wild and Scenic Rivers	No impacts	No impacts	No	No impacts
Floodplain and Floodway Impact	Base Floodplain Encroachment: 56.88 acres Base Floodway Encroachment: 9.45 acres	Base Floodplain Encroachment: 56.88 acres Base Floodway Encroachment: 9.45 acres	No	Base Floodplain Encroachment: 56.88 acres Base Floodway Encroachment: 9.45 acres
Coastal Zone Consistency	No impacts	No impacts	No	No impacts
Coastal Barrier Resources	No impacts	No impacts	No	No impacts
Wildlife and Habitat, including Protected Species	9 Protected Species No adverse impacts	9 Protected Species No adverse impacts	Yes	10 Protected Species No adverse effects
Farmlands	No impacts	No impacts	No	No impacts
Energy Consumption	498,855 Million BTU	239,820 Million BTU	Yes	Same as 2005 FEIS Alternative 5
Utilities	No adverse impacts	No adverse impacts	No	No adverse impacts
TRANSPORTATION				
Freight Rail Operations Impacts	No impacts	No impacts	No	No impacts
Highway Operations	Net reduction in VMT: 21,080,963 miles	Net reduction in VMT: 21,080,963 miles	No	Net reduction in VMT: 21,080,963 miles
Impacts	No adverse impacts	No adverse impacts		No adverse impacts
Station Access and Traffic Impacts	No adverse impacts	No adverse impacts	No	No adverse impacts
Airport Operations	No impacts	No impacts	No	No impacts
CONSTRUCTION IN	MPACTS			
Construction impacts	No adverse impacts	No adverse impacts	No	No adverse impacts

Source: Parsons, PBS&J, HMMH September 2009

Notes: Category 1 receptors are buildings and/or parks; Category 2 receptors are residences, hospitals, hotels; Category 3 receptors are schools, libraries, churches, and active parks.

6.1. Relocation and Right of Way

The 2005 FEIS indicated that the Preferred Alternative and the Revised Preferred Alternative (RPA) (Alternative 5 in the 2005 FEIS) would both require three (3) residential relocations located in two (2) structures near I-4 and 12th Avenue in the Ybor City area and three business relocations including the City of Tampa Recreation Department, the former Hillsborough County Sheriff's Office and Jail Complex, and a bail bondsman office.

Since publication of the 2005 FEIS, redevelopment of the former Hillsborough County Sheriff's Office and Jail Complex site has begun and the buildings are no longer present. Therefore, these relocations are no longer needed.

Further, since 2005 additional development has occurred in the Tradeport Industrial Park. The alignment was optimized to reduce additional right-of-way needs in this area to the extent practicable. However, three (3) additional business relocations would be needed for the project, as follows:

- At the northwest corner of Tradeport Drive and Ringhaver Drive, a large commercial distribution building (10260 Tradeport Drive) was constructed and does not appear on the project aerials. As of September 2, 2009, the building is vacant. The FHSR alignment clips the northeast corner of this building and the operation of the rear loading bays.
- Two commercial structures located in the Atlas Commercial Park (11128 and 11112 Boggy Creek Road) are also impacted. As of September 2, 2009, these building are vacant.

The ROW and relocation program will be carried out in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970.

6.2. Section 106 Consultation and Memorandum of Agreement

The FDOT coordinated the historic resources impact analysis with the Florida State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (Council).

The coordination with the SHPO and Council during analysis of the 2005 FEIS Preferred Alternative resulted in a "conditional no adverse effect" on the following five historic resources:

- North Franklin Street Historic District Visual impacts
- St. Paul AME Church Parsonage Visual impacts
- Oaklawn Cemetery Visual impacts, construction vibration
- Ybor City NHLD Direct taking of two contributing buildings: 8HI4174/916 E. 12th Avenue, and the rear building at 8HI4178/1006 E. 12th Avenue; Visual, Construction Vibration
- German American Club Visual impacts, construction vibration

The 2009 FEIS Reevaluation Revised Preferred Alternative verified that there are no changes to the impacts identified in the 2005 FEIS. The commitments stated in the 2005 FEIS remain valid.

Since publication of the 2005 FEIS, FDOT began the right-of-way acquisition process for the *Tampa Interstate Study* (TIS). As a result many of the historic structures along 12th Avenue in the Ybor City NHLD have been relocated, including the property at 1006 E. 12th Avenue (8HI4178) which was listed as a direct taking in the 2005 FEIS.

It is important to note that these impacts to historic resources were evaluated as part of a *Cultural Resource Assessment Survey* (July 2003) prepared to identify and evaluate cultural resources (historic structures and archaeological sites) within the project's Area of Potential Effect (APE). Further, a *Section 106 Consultation Case Report* (December 2003) was then prepared to evaluate potential effects for the Preferred Alternative and extensive coordination occurred with SHPO. As a result of this coordination, it was determined that the Preferred Alternative, based on a set of stipulated conditions, would have a "conditional no adverse effect" on the resources listed above.

Even though the impacts within the Ybor City NHLD included a direct taking of contributing historic resources, the SHPO determined that there would be no adverse effect because these buildings were previously identified as being acquired by the *Tampa Interstate Study Final Environmental Impact Statement and Section 4(f) Evaluation* (1996) and are located within the TIS Ultimate ROW. A Memorandum of Agreement (MOA) was prepared at that time to mitigate adverse effects to the Ybor City NHLD.

During the consultations with the SHPO, it was determined that the FHSR project would follow the requirements of this MOA. The mitigation and commitments are consistent with this MOA.

6.3. Section 4(f) Determination

Section 4(f) of the US Department of Transportation (DOT) Act of 1966 stipulates that DOT agencies cannot approve the use of land from publicly owned parks, recreation areas, wildlife refuges, or public and private historical sites unless there is no feasible and prudent alternative to such use and the project includes all possible planning to minimize the harm to the property resulting from use.

The Section 4(f) evaluation for the potential HSR alignments and stations documented in Section 5 of the FEIS and Section 4.4 of the FEIS Reevaluation indicates that one Section 4(f) resource, Perry Harvey Sr. Park, will be used by the project. The supporting information in the 2005 FEIS and the 2009 FEIS Reevaluation, summarized below, demonstrates that there are unique problems or unusual factors involved with any alternative that would avoid this Section 4(f) property. Potential avoidance alternatives fail to meet the project purpose and need, fail to meet the objectives of those responsible for the resource used, or result in impacts of extraordinary magnitude to the environment or the community.

Based on the documentation presented in the FEIS and updated in the FEIS Reevaluation, the FRA has determined that:

- The Project is a feasible and prudent alternative with the least harm to Section 4(f) resources;
- There is no feasible or prudent alternative to the use of the above Section 4(f) resources; and

• The Project includes all possible planning to minimize harm to the resources resulting from such use. These measures are identified in the Project mitigation and commitments attached as Appendix B.

During the reevaluation process, the preferred alignment shifted slightly in the vicinity of the Ybor City NHLD and Perry Harvey Sr. Park, both of which are Section 4(f) resources. Right-of-way requirements were minimized in the vicinity of these resources.

In the case of the Ybor City NHLD, the right-of-way required by the FHSR project is still within the TIS Ultimate ROW which was cleared as a part of the *Tampa Interstate Study Final Environmental Impact Statement and Section 4(f) Evaluation* (1996). Further, a Memorandum of Agreement (MOA) was negotiated with the SHPO for that project to mitigate the adverse effects to the Ybor City NHLD from taking the right-of-way. Therefore there are no changes to the Section 4(f) evaluation for the Ybor City NHLD.

In the case of Perry Harvey Sr. Park, as stated in the original Section 4(f) Evaluation in the 2005 FEIS, the FHSR project will comply with the specific commitments and stipulations identified in the existing Tampa Interstate Study (TIS) FEIS for the Ultimate ROW requirements. The commitment is based on the assumption that the FHSR will be constructed prior to the construction of the Ultimate TIS.

Since the approval of the 2005 FHSR FEIS, the interim reconstruction of I-275/I-4 interchange has occurred. In addition, FDOT has proposed a safety improvement requiring an additional lane be constructed to the outside of the ramp running from SB I-275 to EB I-4. As a result of the safety improvement, the FHSR ROW has been minimized to a ROW width of 44 feet and relocated slightly to the south and west. The FHSR ROW remains within the TIS Ultimate ROW footprint. It is anticipated that FHSR will run 18 to 24 feet above the park on an elevated track as it enters the Tampa Central Business District (CBD) station. Initial calculations indicate the potential impact to the park will be reduced from the amount of land to be acquired from 0.184 acres (2005 FEIS) to .05 acres (FEIS Reevaluation).

During the 2005 FEIS it was determined that there would be a potential for moderate noise level increases (proximity effects). An evaluation of vibration, access, aesthetics, and ecological encroachment indicates that the project will not substantially impair or diminish the use of the park, and a determination was made that there will be no constructive use. These conclusions have not changed. Coordination with the City of Tampa includes memorandum in the FEIS Reevaluation identifying the City's continued support of the project with commitment of FDOT to meet the specific commitments and stipulations identified in the TIS FEIS.

6.4. Air Quality

The US Environmental Protection Agency (EPA) regulation implementing the Clean Air Act (40 CFR Parts 51 and 93) establishes criteria for demonstrating that a federally assisted project is in conformity with the State Implementation Plan or maintenance plans developed for Hillsborough, Polk, Osceola and Orange Counties. This Project is identified in the Long Range Transportation Plans for the three Metropolitan Planning Organizations that represent the various local governments through the Project area. The General Conformity Rule (40 C.F.R. Part 93, Subpart B) is applicable to areas that have been designated as non-attainment or maintenance with respect to the National Ambient Air Quality Standards (NAAQS). Polk, Osceola and

Orange Counties were designated as in attainment of the NAAQS in the 2005 FEIS. The FEIS Revaluation identified that Hillsborough County was re-designated in attainment of the NAAQS in 2005 following completion of the 2005 FEIS. Thus, all counties in the Project are in attainment and determination of conformity with the State Implementation Plan or plan to maintain the NAAQS is not required.

The Revised Preferred Alternative would result in a net decrease in regional emissions of carbon monoxide (CO) and volatile organic compounds (VOC) and a small increase in regional emissions of nitrogen oxides (NOX). The net increase in emissions of NOX is a result of the emission rate of this pollutant from power plants that produce electricity through the combustion of fossil fuels. The emissions analysis is based on use of coal as the source for power generation; a worst case scenario.

6.5. Noise

The noise impact assessment was updated along the entire corridor to account for land use and alignment changes since the 2005 FEIS was published. In summary, there are substantially fewer predicted noise impacts than projected in the FEIS.

The 2005 FEIS predicted that the Preferred Alternative would have impacts at a total of 15 residential buildings (eight with severe impact and seven with moderate impact), one hotel (moderate impact) and one park (Perry Harvey Sr.). The FEIS also documented the impacts of Alternative 5 (the comparable alternative given the change in the preferred technology), which was predicted to have noise impacts at a total of 52 residential buildings (24 with severe impact and 28 with moderate impact), one hotel (moderate impact), and one park (Perry Harvey). The factors attributing less impact by the gas turbine-hauled train include track proximity and height as well as train speed.

The updated analysis of the Revised Preferred Alternative predicts fewer impacts when compared to the electric-hauled train (Alternative 5) in the 2005 FEIS, including 30 residential buildings (13 with moderate impacts and 17 with severe impacts); one hotel (moderate impact) and one park (Perry Harvey). Importantly, none of the newly identified sensitive receptors along the corridor were predicted to have impacts.

The lower number of predicted impacts is a result of alignment shifts away from sensitive receptors near Station 6010 (in the vicinity of the I-4/I-275 interchange in Tampa) and between Stations 7670 and 7700 in the Taft area near Orlando.

6.6. Vibration

The vibration impact assessment was updated along the entire corridor to account for land use and alignment changes since the 2005 FEIS was published. In summary, the Revised Preferred Alternative vibration impacts are expected at three residences, five hotels, and one commercial building that houses vibration sensitive equipment. In comparison, the 2005 FEIS Preferred Alternative was predicted to have 33 residences, 11 hotels, and the same commercial building and Alternative 5 was predicted to have impacts at one residence, 13 hotels and the commercial building.

The large reduction in the total number of vibration impacts is due to changes in existing conditions and the difference between the vibration characteristics of the electric and the gas turbine trains. Not only are some of the residences and hotels previously affected no longer present but new receptors were also identified, particularly in the middle section of the alignment. None of the new receptors were predicted to have vibration impacts.

Gas turbine trains have higher vibration levels at lower frequencies than electric trains. This is likely due to the difference in weight between the two vehicles; the gas turbine train consist weighs almost twice as much as the electric train consist. Furthermore, when the ground exhibits more efficient vibration propagation characteristics at low frequencies, there is a greater difference in vibration impact between the two technologies.

6.7. Wetlands

The Preferred Alternative (Alternative 1) documented in the 2005 FEIS would result in a total of 40 acres of wetland impacts to 11 high quality wetlands, while Alternative 5 was predicted to result in 25.6 acres of impacts to 11 high quality wetlands. Even though these alternatives share the same alignment and station locations, they each assumed a different maintenance facility.

The Revised Preferred Alternative would result in 35.8 acres of impacts to 11 high quality wetlands. This accounts for changes in existing conditions with the revised location for the maintenance facility for Alternative 5 since the FEIS was published and the design changes documented in Chapter 2 of the FEIS Reevaluation. The Revised Preferred Alternative with the same maintenance facility location, as identified with the 2005 FEIS Preferred Alternative 1, reduces impacts by 4.2 acres.

The 2005 FEIS indicates that either FDEP (Florida Department of Environmental Protection) or the Water Management Districts (WMD) may be the reviewing agency for the Environmental Resource Permit. Because this project crosses multiple WMD districts, the FDEP will likely take the lead on permitting so that a comprehensive review of the entire corridor can occur. However, this decision will be made during the final design and permitting phase.

The 2005 FEIS also states that "Any project which results in the disturbance of five or more acres of land would require a National Pollutant Discharge Elimination System (NPDES) permit from FDEP, pursuant to 40 C.F.R Parts 122 and 124." The regulations governing the NPDES have been modified since 2005 such that any project that results in the disturbance of one or more acre of land will require a NPDES permit. Also, because a General Permit exists for this type of work, a permit application for a NPDES will not be required. Instead, a Notice of Intent to utilize the General Permit is required to be submitted by the construction contractor 48 hours prior to construction commencement.

6.8. Contamination

The 2005 FEIS Preferred Alternative identified five potentially hazardous material contaminated sites and two potentially petroleum contaminated sites within the alignment. There are no potentially contaminated sites associated with the preferred station locations and maintenance yard.

Based on the design modifications of the Revised Preferred Alternative, a review of the potential for additional hazardous materials sites that could potentially be encountered during construction was assessed. Five additional sites were identified. Given the contamination concern at these sites and their location relative to the FHSR project, three of these sites were found to pose no risk to the project, one was found to pose a low risk and one was found to pose a medium risk.

The sites identified will be investigated further prior to any construction. Investigative work will include visual inspection, monitoring of ongoing cleanups, and possible subsurface investigations. At known contamination sites, estimated areas of contamination will be marked on design drawings. Prior to construction, any necessary cleanup plans will be developed. Actual cleanup will take place during construction, if feasible. Special provisions for handling unexpected contamination discovered during construction will be included in the construction plans package.

6.9. Floodplains

The Preferred Alternative from 2005 and the Revised Preferred Alternative would potentially impact approximately 56.88 ac. of floodplain and approximately 9.45 ac. of floodway. Subsequent to final design, during which impacts would be avoided or minimized, floodplain and floodway impacts would again be calculated and the amount of mitigation would be determined. Coordination with the water management districts will identify areas appropriate for mitigation of the volumetric impacts of the preferred alternative that will not increase or significantly change the flood elevations and/or limits.

6.10. Wildlife and Habitat, Protected Species

The expansion of the Tampa, Disney and Orange County Convention Center station areas do not result in additional protected species concern. The Tampa Jail Site is urban and developed and provides no protected species habitat. The area of expansion of the Disney Station Area does not result in a new habitat type or protected species concerns. The new additional area for the OCCC site is minimal and does not provide different habitat than what has already been considered.

Since the 2005 FEIS, the bald eagle was delisted (with the exception of the desert bald eagle in Arizona) and is no longer protected under the Endangered Species Act as of June 28, 2007. However, the bald eagle is still provided protection by two other federal laws, the Migratory Bird Treaty Act of 1918 and the Bald and Golden Eagle Protection Act, as amended. The state of Florida also delisted the bald eagle.

An additional species, the Everglades snail kite (*Rostrhamus sociabilis*) has been afforded additional protection since the 2005 FEIS. A consultation area for the snail kite is now in place over Polk County and much of Osceola County. Although it is unlikely that this species will be affected by the project as habitat in the area is suboptimal, consultation with and concurrence from the U.S. Fish and Wildlife Service (USFWS) will be required because the corridor is within the snail kite's designated consultation area.

The Revised Preferred Alternative will have no effect on the following federally protected species with potential habitat in the project vicinity: American alligator, Florida scrub-jay, Florida panther, and Florida manatee. It is also anticipated to have no effect on the following

state-only protected species: Florida pine snake, Florida burrowing owl, Southeastern American kestrel, Florida black bear, and protected plant species. The Revised Preferred Alternative may affect, but is not likely to adversely affect the following federally protected species: Eastern indigo snake, sand skink, Everglade's snail kite, and wood stork. The project may affect but is not likely to adversely affect the following state-only protected species: gopher tortoise, Florida mouse, gopher frog, Florida sandhill crane, Sherman's fox squirrel, and state protected wading bird species. As part of mitigation commitments, FDOT will continue to coordinate with the U.S. Fish and Wildlife Service (USFWS), the Water Management Districts (WMDs), and Florida Fish and Wildlife Conservation Commission (FFWCC) to develop design and construction methods to avoid and minimize impacts to these species.

6.11. Energy

The switch to the electric train technology results in an overall lower net energy consumption since the consumption is considerably lower than the gas turbine train technology. The 2005 FEIS shows the net energy consumption dropping from 498,855 million BTU (2005 FEIS Preferred Alternative) to 239,820 million BTU (2005 Alternative 5, Revised Preferred Alternative).

These predictions factor in the reduction of gasoline consumption by diverting automobile ridership, the power required to propel the train, operate and maintain the new system and thermal losses for electric power generation. As a part of the reevaluation effort, the ridership projections were updated and show a slight increase in riders. This increase would lower VMT only slightly resulting in a negligible decrease in the energy demands of the Revised Preferred Alternative. The slight shifts in alignment and station locations also would not affect the energy consumption predictions listed above.

The total change is a very small fraction (less than 1/20th of one percent) of Florida's total energy consumption for surface transportation (all non-military vehicle operation on highways, railroads, and fixed-guideway public transportation), which is estimated to reach one quadrillion BTUs (i.e., 1,000,000,000 MBTU) by 2010.

6.12. Means to Avoid and Minimize Environmental Harm

FRA and FDOT are committed to working with our partners and stakeholders in the development of this project, and will continue to coordinate the required mitigation and commitments for the FHSR project as a means to avoid and minimize environmental harm. **Appendix B** documents the commitments and mitigation from the 2005 FEIS and any changes or updates needed based on changes in potential impacts or regulations based on the FEIS Reevaluation.

6.13 Environmentally Preferable Alternative

The environmentally preferable alternative resulting from the FEIS Reevaluation remains the same as the environmentally preferable alignment identified in the 2005 FEIS (the No Build Alternative), The No Build Alternative still has less direct and indirect impact to the environment than the build alternatives. However, as noted in the FEIS, the No Build Alternative does not

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meet the project purpose and need. It fails to enhance intercity passenger mobility in Florida by expanding passenger transportation capacity or by providing an alternative to highway and air travel. Congestion on Interstate 4 can be expected to continue to grow under the No Build Alternative.

The Revised Preferred Alternative assessed in the FEIS Reevaluation, as described above, has been developed in a manner so as to minimize environmental impacts. It would use existing transportation corridors to minimize environmental impacts and provides environmental and transportation benefits in the form of increased efficiency in energy use for transportation, decreased energy consumption, increased mobility, safety, reliability, travel times and accessibility, and reduced vehicle miles travelled for intercity trips.

The changes in existing conditions identified in Chapter 3 of the attached 2009 FEIS Reevaluation (Appendix A) of this document resulted in changes to the environmental impacts as summarized in the following:

- Relocations: reduction of one business impact in Tampa CBD and 3 additional business impacts in Tradeport Drive industrial area.
- Section 106: reduction of one historic structure with relocation by FDOT complete.
- Recreation and Park/Section 4(f): Changes to the City of Tampa's Perry Harvey Sr.
 Park boundaries since the 2005 FEIS and changes to the alternative reduce overall area of use.
- Air Quality, Noise, Vibration, Visual/Aesthetic, and Energy Consumption: changes based on technology preference from gas turbine-powered to electric-powered locomotive-hauled train.
- Contamination: additional sites resulting in the same number of sites with high risk ranking and an additional one site each for medium and low risk ranking.
- Wildlife and Habitat: one additional species (Everglade's snail kite) afforded protection since 2005.

The above changes to the environmental impacts do not change the mitigation and commitments identified in the 2005 FEIS and included as Appendix B in this document with the exception of regulatory changes in the permitting of wetlands, water quality, and wildlife and habitat.

7. DECISION

7.1. Basis for Decision

FDOT, in coordination with FRA, proposes to implement HSR service in the initial segment of the Florida High Speed Rail Corridor between Tampa and Orlando. The purpose of FHSR is to enhance intercity passenger mobility in Florida by expanding passenger transportation capacity and providing an alternative to highway and air travel. Increased mobility is viewed as essential for the sustained economic growth of the region, as well as the quality of life of the region's residents and visitors. Presently, passenger mobility in the Tampa-Orlando corridor is provided primarily by highways, particularly I-4. Projected transportation demand and travel growth, as prompted by social demand and economic development and compared to existing and future roadway capacity, show a serious deficit in available capacity. In addition, increasing population, employment, and tourism rates continue to elevate travel demand in the study corridor. Implementation of the FHSR project will help address these needs. In addition, the Passenger Rail Investment and Improvement Act of 2008 established high-speed rail corridor development as an important component of the Nation's transportation policy. Implementation of the FHSR Project is consistent with the Department of Transportation and FRA's vision of the important role high-speed intercity passenger rail can play in certain travel markets (see Vision for High-Speed Rail in America, April 2009 http://www.fra.dot.gov/downloads/rrdev/hsrstrategicplan.pdf) In the 2005 FEIS, gas turbine-powered technology was identified as the Preferred Alternative. Since then, the electric-powered technology has emerged as the preferred technology, on the same alignment, based on the current initiatives to reduce carbon emissions and dependency on foreign oil. The 2005 FEIS and the 2009 Reevaluation have shown that environmental impacts have been minimized with the selection of the alignment along existing transportation corridors.

The FRA, in accordance with NEPA and the NEPA implementing regulations (40 CFR Parts 1500-1508; 64 FR 28545 and 23 CFR Part 771), finds that the requirements of NEPA have been satisfied for FHSR Rail Tampa – Orlando project.

The environmental record for FHSR Tampa-Orlando Corridor includes the Draft EIS (August 2003), the Final EIS (July 2005), the Reevaluation to the FEIS (October 2009), and the comments from the circulation of the 2005 Final EIS. These documents represent the detailed analysis and findings required by NEPA on:

- The environmental impacts of the proposed project
- Alternatives to the proposed project
- Irreversible and irretrievable impacts on the environment which may be involved in the proposed project should it be implemented.

On the basis of the evaluation of social, economic, and environmental impacts contained in the DEIS, FEIS Reevaluation and the written and oral comments offered by the public and by other agencies, the FRA determines that:

 Adequate opportunity was afforded for the presentation of views by all parties with a significant economic, social, or environmental interest, and fair consideration was given to the preservation and enhancement of the environment and to the interest of the communities in which the proposed project is located and

 All reasonable steps were taken to minimize adverse environmental effects of the proposed project, and where adverse environmental effects remain, they have been fully reported in the DEIS, FEIS and FEIS Reevaluation.

The extensive opportunities provided for public and other stakeholder involvement in Project planning and decision-making are described in Chapter 6 of the 2005 FEIS and summarized in **Appendix C** of this ROD. The reasonable steps to minimize adverse environmental effects are described in Chapter 4 of the 2005 FEIS, Chapter 4 of the FEIS Reevaluation and are summarized in Appendix B of this ROD.

This ROD also documents compliance with other applicable federal environmental laws, rules and regulations as follows:

7.2. Section 106 of the National Historic Preservation Act

Section 106 of the NHPA of 1966 requires that any federal agency having direct or indirect jurisdiction over a proposed federal or federally assisted undertaking take into account the effect of the undertaking on any district, site, building, structure, or other object that is listed or eligible for listing on the National Register of Historic Places. Under this provision, the NEPA lead agency, the State Historic Preservation Officer (SHPO), affected Native American tribes, and other "consulting" parties participate in a consultation process regarding the potential effects of the undertaking on historic resources. Coordination with the Florida SHPO includes:

- Concurrence with Cultural Resource Assessment Survey (CRAS) Methodology and Area of Potential Effect (APE), March, 2003
- SHPO Concurrence with Corridor Study CRAS Findings, April 15, 2003
- SHPO Concurrence for PD&E CRAS Findings, September 15, 2003
- SHPO Concurrence on Section 106 Findings, January 5, 2004

Through this coordination it was determined that the Revised Preferred Alternative, based on a set of stipulated conditions, would have a "conditional no adverse effect" on historic resources.

7.3. Floodplains and Floodways Finding

DOT Order 5620.2 implements Executive Order 11988, Floodplain Management and Protection. These orders state that FRA may not approve an alternative involving a significant encroachment unless FRA can make a finding that the proposed encroachment is the only practicable alternative. The major purposes of Executive Order 11988 are to avoid Federal support for floodplain development; to prevent uneconomic, hazardous, or incompatible use of floodplains; to restore and preserve the natural and beneficial floodplain values; and to be consistent with the standards and criteria of the National Floodplain Insurance Program.

FRA concludes that the Project will not result in any substantial adverse impact on natural and beneficial values of the floodplains, will not result in a substantial change in flood risks or

damage, and will not have a substantial potential for interruption or termination of emergency service and evacuation routes.

7.4. Wetlands Finding

Presidential Executive Order 11990, "Protection of wetlands," directs federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative. The following sets forth the basis for this finding for the Project.

The Revised Preferred Alternative (Alternative 5) would result in 35.8 acres of potential wetland impacts resulting from the electric powered technology, of which 11 are considered high quality wetlands. Wetland impacts, which would result from the construction of FHSR, are proposed to be mitigated pursuant to S. 373.4138 F.S. to satisfy all mitigation requirements of Part IV, Chapter 373, F.S. and 33 U.S.C.1344. Impacts to wetlands by the Project cannot be practicably avoided or minimized beyond present efforts and identified mitigation measures are included in Appendix B.

Based upon the above considerations, FRA determines that, under the requirements of Executive Order 11990, there are no practicable alternatives to the proposed construction in wetlands, and that the proposed action includes all practicable measures to minimize harm to these resources.

7.5. Endangered Species Finding

There are 24 federal and/or state protected species that have the potential or are known to occur within the FHSR study area. Six of those species are reptiles and amphibians, eleven are birds, five are mammals, and the remaining two are plants. Because the design/build alternatives use existing transportation corridors that pass through potential habitat, any of the alternatives may affect some potential sites, but it is not likely to adversely affect any of the species. Furthermore, the FDOT has committed to providing wildlife crossings in Polk County along I-4 during construction of the ultimate interstate improvements, including the FHSR project.

The Revised Preferred Alternative will have "no effect" on the following species: American alligator, Everglades snail kite, Florida pine snake, Florida scrub jay, Florida burrowing owl, Southeastern American kestrel, Florida panther, manatee, Florida black bear, and protected plant species. The Revised Preferred Alternative "may affect, is not likely to adversely affect" the following species: Eastern indigo snake, gopher tortoise, Florida mouse, gopher frog, sand skink, Florida sandhill crane, bald eagle, wood stork, state protected wading bird species, and Sherman's fox squirrel. As part of mitigation commitments, FDOT will continue to coordinate with USFWS, the WMDs, and FFWCC to develop design and construction methods to avoid and minimize impacts to these species."

FRA has determined that no formal consultation in accordance with Section 7 of the Endangered Species Act is required based upon the findings summarized above.

7.6. Environmental Justice Finding

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires that each Federal Agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

The Project is within an existing transportation corridor and would not bisect any minority or low-income neighborhoods nor require the displacement of any residences in those neighborhoods. The anticipated human and environmental effects of the Project would not be disproportionately borne by the minority or low-income populations within the study area. Based upon these findings, FRA determines that the Project is in accordance with requirements of Executive Order 12898.

7.7. Section 4(f) Determination

Section 4(f) of the US Department of Transportation (DOT) Act of 1966 stipulates that DOT agencies cannot approve the use of land from publicly owned parks, recreation areas, wildlife refuges, or public and private historical sites unless there is no feasible and prudent alternative to such use and the project includes all possible planning to minimize the harm to the property resulting from use.

The Section 4(f) evaluation for the potential HSR alignments and stations documented in Section 5 of the FEIS and Section 4.4 of the FEIS Reevaluation indicates that one Section 4(f) resource, Perry Harvey Sr. Park, will be used by the project. The supporting information in the FEIS Reevaluation, summarized below, demonstrates that there are unique problems or unusual factors involved with any alternative that would avoid this Section 4(f) property. Potential avoidance alternatives fail to meet the project purpose and need, fail to meet the objectives of those responsible for the resource used, or result in impacts of extraordinary magnitude to the environment or the community.

Based on the documentation presented in the FEIS and updated in the FEIS Reevaluation, the FRA has determined that:

- The Project is a feasible and prudent alternative with the least harm to Section 4(f) resources;
- There is no feasible or prudent alternative to the use of the above Section 4(f) resources;
- The Project includes all possible planning to minimize harm to the resources resulting from such use. These measures are identified included in Attachment A.

During preparation of the 2005 FEIS it was determined that there would be a potential for moderate noise level increases (proximity effects). An evaluation of vibration, access, aesthetics, and ecological encroachment indicates that the Project will not substantially impair or diminish the use of the park, and a determination was made that there will be no constructive use. These conclusions have not changed. Coordination with the City of Tampa includes a memorandum in the FEIS Reevaluation identifying the continued commitment of FDOT to meet the specific commitments and stipulations identified in the TIS FEIS.

8. CONCLUSION

The FRA has reached a decision based on the information and analysis contained in the 2005 FEIS and the 2009 FEIS Reevaluation. FRA selects the FEIS Reevaluation Revised Preferred Alternative, also described in this document as 2005 FEIS Alternative 5, with electric powered technology, because this alternative: 1) best satisfies the Purpose and Need, 2) minimizes impacts to the natural and human environment through the use of existing transportation corridors and other adopted mitigation measures, 3) has been selected based on processes in compliance with NEPA and other applicable requirements, and 4) may be advanced.

Joseph C. Szabo Administrator

Federal Railroad Administration

Date:

Attachments:

Appendix A - Final Environmental Impact Statement Reevaluation

Appendix B - Mitigation and Commitments

Appendix C - Public Involvement/Comment Summary

U.S. Department of Transportation Federal Railroad Administration

Record of Decision/Section 4(f) Determination

FLORIDA HIGH SPEED RAIL

Tampa to Orlando
Hillsborough, Polk, Osceola and Orange Counties, Florida

Financial Project ID No.: 411253 1 94 03 Federal Aid Project No.: N/A

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APPENDIX A - FINAL ENVIRONMENTAL IMPACT STATEMENT REEVALUATION

APPENDIX B - MITIGATION AND COMMITMENTS

APPENDIX C - PUBLIC INVOLVEMENT/COMMENT SUMMARY

1. SUMMARY

This document records the decision of the Federal Railroad Administration (FRA) regarding the Florida High Speed Rail Project from Tampa to Orlando proposed by the Florida Department of Transportation (FDOT). In making this decision, the agency considered the information, analysis and public comments contained in the 2005 Final Environmental Impact Statement (FEIS) and the more recent 2009 FEIS Reevaluation (2009) to determine the alignment location and station sites for further project development into design and construction. Additional coordination between FDOT, FRA and the Federal Highway Administration (FHWA) will be carried out in the design phase with respect to emergency and maintenance access, safety and security in accordance with FRA standards through the development of a Safety Plan.

This Record of Decision (ROD) has been drafted in accordance with the regulations implementing the National Environmental Policy Act (NEPA) (40 CFR Part 1505.2) and FRA's Procedures for Considering Environmental Impacts (64 Fed Reg 28545 (May 26, 1999)). Specifically, this ROD:

- Provides a background of the NEPA process for the Final Environmental Impact Statement (FEIS) and the 2009 FEIS Reevaluation
- States and reaffirms the Purpose and Need
- Presents the alternatives considered in the 2005 FEIS
- Presents the alternatives considered and dismissed in the 2005 FEIS
- Identifies the selection of the preferred alternative for the 2005 FEIS
- Identifies the environmentally preferable alternative
- Presents the Affected Environment summarizing the findings of the 2009 FEIS Reevaluation
- Presents means to avoid and minimize environmental harm
- Presents the FRA Decision, determinations and findings
- Provides a summary of the public involvement and agency coordination for the 2005 FEIS and the 2009 FEIS Reevaluation

2. INTRODUCTION

The FDOT is proposing to develop a high speed rail passenger system in the Tampa-Orlando-Miami corridor, with future extensions to other major urban areas in the state. This Tampa-Orlando-Miami corridor is a federally designated high speed rail corridor. The first phase of Florida High Speed Rail is the Tampa to Orlando project and is the subject of this ROD.

The Florida High Speed Rail (FHSR) project from Tampa to Orlando would be developed on new track, with the majority of the system located within the existing right-of-way (ROW) of Interstate 4 (I-4) and the Beachline Expressway (S.R. 528), formerly the Bee Line Expressway, a distance of 88 miles. As shown on **Figure 1**, five (5) stations are proposed and would be located in Tampa, Polk County (Lakeland), Walt Disney World, Orange County Convention Center and Orlando International Airport (OIA). The 2005 FEIS and 2009 FEIS Reevaluation includes analyses for a proposed station at the western terminus of SR 570 (Polk Parkway) and a potential station at Kathleen Road in Lakeland. Only one station site will be identified for continued development and design in coordination with Polk County and the local cities.

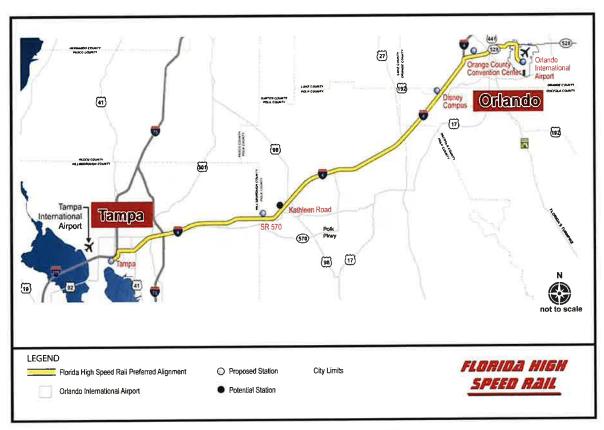


Figure 1 Project Location Map

Florida High Speed Rail Record of Decision

FDOT proposes the high speed passenger rail system would operate 16 intercity round trips per day with additional frequent shuttle service from OIA to the tourist destinations in the Orlando area. The maximum travel time will be 64 minutes with stops between Tampa and Orlando. The maximum operating speed will be 168 mph.

The initial environmental document was completed under the direction of the Florida High Speed Rail Authority (FHSRA), which was under a state constitutional mandated directive to expedite the implementation of the system. In order to complete the project in a timely manner, FHSRA selected a Design, Build, Operate, Maintain, and Finance (DBOM&F) process for implementing the project. Proposals were solicited and two were selected for evaluation in the FEIS published in 2005. The 2009 FEIS Reevaluation builds on the use of a DBOM&F process for advancing the project.

On October 2, 2009, FDOT submitted an application to the FRA under the High Speed Intercity Passenger Rail Program (HSIPR) for \$2.624B to fund the development of the Tampa-Orlando high speed rail corridor project. On January 28, 2010, FRA announced that FDOT had been selected for an award of up to \$1.25B for the Tampa-Orlando corridor. The funds will be used to complete any additional corridor level analysis respective to station sites, complete final design, and initiate construction of the FHSR project from Tampa to Orlando.

3. BACKGROUND

Following its creation in 2001, the FHSRA, with guidance from the FRA as the lead federal agency, took a number of steps to implement high speed rail within the state of Florida. The FHSRA began the planning, environmental studies, and engineering needed to prepare a Draft Environmental Impact Statement (DEIS) for the Tampa to Orlando corridor in 2002, focused on independent utility and logical termini. FRA approved the DEIS in August 2003, and signed and circulated the FEIS in 2005. However, due to the project being suspended, the FRA never issued a Record of Decision (ROD) for the project.

The major NEPA milestones are summarized in Table 1.

Date Milestone March 2002 Notice of Intent April 2002 Advance Notification and Scoping August 2003 Draft EIS Signed and Circulated September 5, 2003 Draft EIS Notice of Availability October 7-9, 2003 Public Hearings July 2005 FEIS Signed and Circulated August 5, 2005 FEIS Notice of Availability Source: Florida High Speed Rail Tampa to Orlando FEIS Reevaluation, October, 2009

Table 1: Summary of Major NEPA Milestones

Independent documentation in support of the findings of the 2005 FEIS includes:

- The Tampa Interstate Study Environmental Impact Statement, November 1996 which includes ultimate improvements to I-4/I-275 that accommodate the high speed rail alignment
- The Intermodal Station at Orlando International Airport Environmental Assessment, September 2005 planned an intermodal station at both the OIA North Terminal and the future OIA South Terminal, and updated the HSR and light rail alignments through OIA property
- The Greater Orlando Aviation Authority Master Plan, August 2004 most current master plan incorporating multimodal station at the North Terminal, future South Terminal, and HSR rail alignments
- The Tampa Bay Intermodal Center, October 2005 multimodal station site study consistent with the location of the Tampa HSR station area that provided for the FHSR alignment
- The Canadian Court Intermodal Transportation Center Study, April 2007 multimodal station site consistent with the proposed Orange County Convention Center station that accommodates the FHSR alignment

3.1. FEIS REEVALUATION

In October 2008, a federal program to advance high speed rail corridor development was authorized under Section 501 of the Passenger Rail Investment and Improvement Act of 2008 (PRIIA). The America Recovery & Reinvestment Act of 2009 (ARRA) then made \$8 billion available for High Speed Rail (HSR). In April 2009, President Barack Obama's Administration unveiled its HSR Vision, initially highlighting federally-designated high speed rail corridors, including Tampa-Orlando-Miami in Florida. This began a national competition for federal funding.

Given this new prospect for federal funding, the Florida Department of Transportation (FDOT) began work to determine the extent of changes in potential environmental impacts and commitments since the FEIS was circulated in 2005.

FRA met with FDOT representatives on June 12, 2009 to discuss the project and the status of the NEPA documentation. FRA determined that a reevaluation of the 2005 FEIS was needed to satisfy NEPA requirements (the FEIS Reevaluation). This reevaluation was prepared in conformance with FDOT's Project Development and Environment (PD&E) Manual.

While there have been no major changes to the project location and design since the FEIS was published, several years have elapsed since publication of the FEIS, triggering the need for a reevaluation. According to FRA's Procedures for Considering Environmental Impacts (64 FR 28545 (May 26, 1999)) and FDOT's PD&E Manual, reevaluations are to be conducted under the following circumstances:

- Approval of document and authorization of the next phase is greater than one year
- A major change in the project's location or design has occurred
- If more than three (3) years have lapsed since the date of approval of the final EIS without a decision

In May 2009, FDOT initiated a qualitative review of the project to determine the level of assessment required to complete the NEPA/PD&E process and support the issuance of a ROD. The findings of this assessment were summarized in a technical memorandum, *Basis for FEIS Reevaluation Technical Memorandum* (June 29, 2009), presented and discussed with FRA. This document is located as an appendix to the FEIS Reevaluation Report. The FEIS Reevaluation is in **Appendix A** of this ROD.

The qualitative assessment indicated that minor changes in the project definition are required and small changes in the affected environment have occurred, and that a reevaluation was an appropriate course of action to determine the potential changes in environmental impacts, mitigation and commitments since the FEIS was published in 2005. Accordingly, the reevaluation focused on the following:

 Changes in the preferred technology from the gas turbine-powered technology as identified in the 2005 FEIS to the electric powered technology. Under the FEIS Reevaluation, the electric-powered technology has emerged as the preferred technology, on the same alignment, based on the current initiatives to reduce carbon emissions and dependency on foreign oil

Florida High Speed Rail Record of Decision

- Design changes needed based on surrounding infrastructure and right-of-way
- Changes in the affected environment that have occurred since the 2005 FEIS
- Changes in potential environmental impacts since the 2005 FEIS
- Changes in the mitigation and commitments compared to the 2005 FEIS
- Changes in permits needed since the 2005 FEIS
- Need for updated coordination with local jurisdictions, stakeholders, and environmental review agencies
- Need for updated public involvement
- Changes in laws, rules, and regulations since 2005

A draft FEIS Reevaluation was completed by FDOT and submitted to FRA on October 1, 2009.

4. PURPOSE AND NEED

The Purpose and Need for the FHSR project was established in the 2005 FEIS and was confirmed by the 2009 Reevaluation. The purpose of FHSR is to enhance intercity passenger mobility in Florida by expanding passenger transportation capacity and providing an alternative to highway and air travel. Increased mobility is viewed as essential for the sustained economic growth of the region, as well as the quality of life of the region's residents and visitors. Presently, passenger mobility in the Tampa-Orlando corridor is provided primarily by highways, particularly I-4. Projected transportation demand and travel growth, as prompted by social demand and economic development and compared to existing and future roadway capacity, show a serious deficit in available capacity. In addition, increasing population, employment, and tourism rates continue to elevate travel demand in the study corridor.

Although capacity improvements to the interstate system along the corridor have either recently been completed or are planned for the near future, they are not adequate to accommodate future travel demand. This need is further emphasized by high traffic volumes, congestion, and accident rates in the study corridor. Further, social and economic demands will continue to call for provision of alternative transportation choices for those individuals who cannot or choose not to drive, as well as those travelers looking for alternatives to congested highways.

4.1. Florida Passenger Rail Legislation of 2009

On December 16, 2009 Governor Charlie Crist signed legislation specifically to support the development of passenger rail systems in the state of Florida. This includes the creation of the Florida Rail Enterprise and other steps including potential funding support for a high speed rail system in the state. The passage of this legislation demonstrates Florida's commitment to work with Federal agencies and private sector partners to advance high speed rail and other passenger rail systems as an integral component of statewide transportation systems.

5. ALTERNATIVES

5.1. ALTERNATIVES CONSIDERED AND DISMISSED IN THE 2005 FEIS

The FHSRA considered several routes between Tampa and Orlando. In order to identify reasonable alternatives that could satisfy the identified project purpose and need, the FHSRA conducted a study to identify, quantify, and compare various HSR route locations. The results of the screening process are documented in the *Florida High Speed Rail Screening Report*, which was completed in October 2002. This evaluation was built on the studies undertaken for high speed rail in the Tampa – Orlando corridor since the mid 1980s. Forty-seven alignments were reduced to 20 as a result of this evaluation. **Figure 2** identifies the various segments that were eliminated from continued study and the retained alignments that were analyzed as the viable alternatives in the 2005 FEIS.

Tampa area: The FHSR study team developed 21 alignments to connect the downtown Tampa station eastward to I-75 with alignments in the I-4 and CSX rail corridors. Ten alignments were eliminated for reasons including engineering constraints, disruption of access to low-income housing and community facilities, disruption of the Ybor City National Historic Landmark District (NHLD), and causing relatively greater environmental impacts than retained alignments.

Hillsborough County: Two alignments were evaluated in rural Hillsborough County: one along the I-4 corridor and the other parallel to the CSX rail line. The CSX rail alignment was eliminated from further consideration due to proximity impacts to a significant number of community facilities in Plant City along the railroad.

Polk County: Nine alignments were evaluated in Polk County. The alignments included the I-4 and CSX rail corridors, as well as connections between the two corridors. The CSX corridor was eliminated due to proximity impacts to community facilities in Lakeland, Auburndale, Haines City, and Davenport. With the elimination of the CSX alignment, connecting alignments to the I-4 corridor were no longer viable.

Orlando area: Fifteen alignments were evaluated in Osceola and Orange counties in the Orlando area. Seven alignments were eliminated. Some of the alignments connected to eliminated alignments in Polk County and would have disrupted existing commercial development along the alignment. A new terrain connection between I-4 and the Central Florida Greeneway (S.R. 417) had the greatest amount of potential wetland and wildlife habitat impact and limited access to alternative station sites. Other alignments were eliminated due to engineering constraints.

5.2. ALTERNATIVES CONSIDERED IN THE 2005 FEIS

The alternatives selected for evaluation in the EIS include:

- No-Build Alternative, consisting of no FHSR service between Tampa and Orlando.
- Two technology alternatives, the gas-turbine powered locomotive-hauled and the electric-powered locomotive-hauled trains, reflecting the responsive proposals to the FHSRA DBOM&F solicitation. These technologies are further described below.

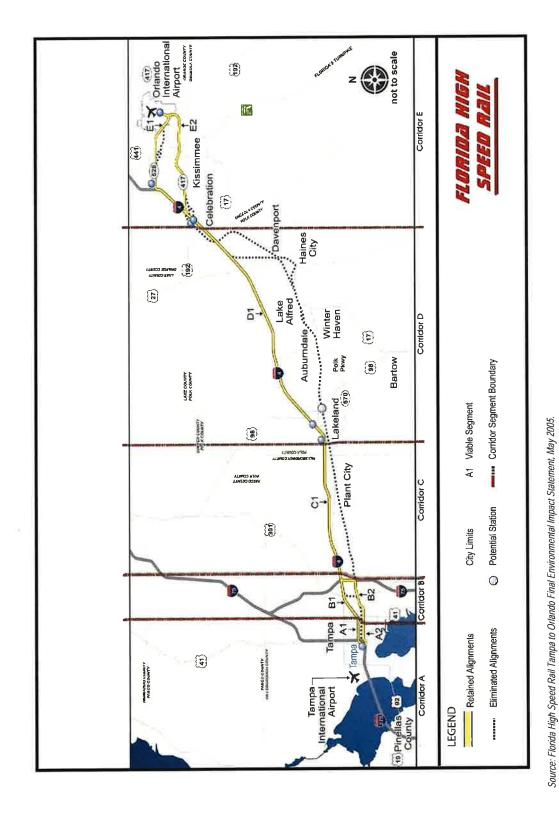


Figure 2: Corridors / Stations Considered

• Four alignment alternatives per each technology, or a total of eight design/build alternatives. A detailed summary of each alignment is available in the 2005 FEIS.

Each Alternative carried forward for consideration in the 2005 FEIS is summarized below.

5.2.1. No-Build Alternative

The No-Build Alternative assumes that a FHSR system would not be built between Tampa and Orlando. Passenger service between the two cities would instead consist of various existing bus services between Tampa and Orlando and automobile use on I-4, I-75, the Bee Line Expressway (S.R. 528), and the Central Florida Greeneway (S.R. 417). The No-Build Alternative assumes that certain planned and funded highway improvements would be undertaken between Tampa and Orlando.

The No-Build Alternative does not envision providing an alternative transportation mode between Tampa and Orlando for daily commuters, visitors, and residents of the area, and existing modes would have to satisfy all travel demand. The potential of the FHSR project to improve public transportation and increase the efficient use of the transportation system, both intercity and locally, would not be realized.

5.2.2. Technology Alternatives

The FHSRA determined that two proposals were responsive to its solicitation for DBOM&F proposals. These represented different technologies with different track systems, rail locations, maintenance facilities and station sites.

Fluor Bombardier proposed a gas turbine-powered locomotive-hauled train technology, developed by Bombardier and FRA with the trademark name of "Jet Train". The gas turbine train has passenger equipment similar to Amtrak's Acela Express trains presently operating between Washington, D.C. and Boston, Massachusetts.

The Global Rail Consortium (GRC) proposed using an electric-powered locomotive-hauled train technology, powered from an overhead catenary system similar to that in use on the Acela system and the electric train uses the French designed TGV Atlantique train sets.

Table 2 summarizes the operating features of the two proposed technologies.

	-	
Feature (FHSRA minimums)	Gas Turbine Train	Electric Train
Speed (120 mph)	125 mph	160 mph
Round trips per day (12)	14	16
Shuttle trips between Orlando International Airport and Disney (not required)	8	17
Trip time (1 hour, 10 minutes)	65–70 minutes	54-55 minutes
Seating capacity (250)	292	250
Source: Florida High Speed Rail Tampa to Orlando Final	Environmental Impact Statement, May, 2005.	

Table 2: Summary of Operations by Technology

5.2.3. Alignment Alternatives

The alignment alternatives used varying combinations of the I-275 and CSX corridors in downtown Tampa, the I-4 corridor between Tampa and Orlando, and either the Bee Line

Expressway (S.R. 528) or Central Florida Greeneway (S.R. 417) corridor in Orlando. Design/Build Alternatives 1 through 4 consist of gas turbine technology, while Design/Build Alternatives 5 through 8 consists of the electric train technology.

The eight alternatives use varying combinations of the same alignment. The alignments associated with each alternative are illustrated in Figure 3 and briefly summarized as follows:

Tampa area: I-275/I-4 corridor — This is a new, grade-separated alignment that runs south of and parallel to I-275 and I-4 to approximately 14th/15th Streets where the alignment crosses into the I-4 median.

Tampa area: CSX "S" line/CSX "A" line/I-75 – This is a new, grade-separated alignment that leaves the downtown station southeasterly through a commercial area to connect into the former CSX "S" line. The alignment runs eastward to connect to the existing CSX "A" line, running along the north side of the rail line to I-75. At I-75, the alignment runs in the interstate median northward to connect into the I-4 median.

Between I-75 to the Osceola/Orange County line: I-4 — This alignment between the Tampa and Orlando urban areas would use the I-4 median for the entire length.

Orlando area: Bee Line Expressway (S.R. 528)/Taft-Vineland Road — This grade-separated alignment would leave the I-4 median and follow along the north side of the Bee Line Expressway (S.R. 528), then along the median of Taft-Vineland Road, crossing new ROW to connect into a station at Orlando International Airport.

Orlando area: S.R. 536/Central Florida Greeneway (S.R. 417) — This grade-separated alignment leaves the I-4 median to run along the south side of S.R. 536, connecting to either the north side or the median of the Central Florida Greeneway (S.R. 417). From the Central Florida Greeneway (S.R. 417), the alignment would run along the east side of the South Access Road to a station at Orlando International Airport.

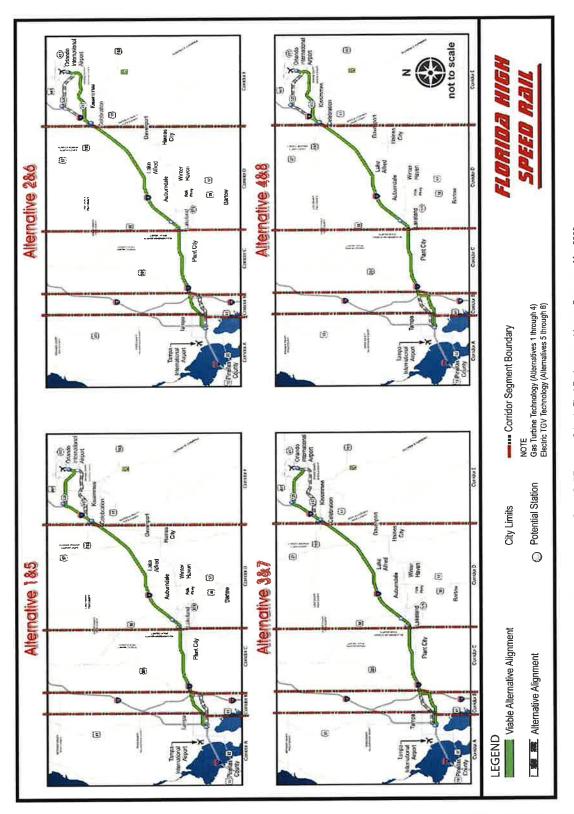
Station locations evaluated in the study included:

- Tampa Central Business District (CBD), south of Interstate 275 (I-275)
- I-4/Polk Parkway, west entry
- I-4/Kathleen Road (S.R. 539) in the City of Lakeland
- I-4 near Walt Disney World
- I-4 near Orange County Convention Center (OCCC)/Multi-Modal Station
- Orlando International Airport

An operation and maintenance (O&M) facility is proposed at one of two locations near the Orlando International Airport.

5.2.4. Summary of Alternatives Identified

The FEIS thus evaluated a total of eight design/build alternatives consisting of four different alignment options with two different technologies, as offered by the two proposers. Figure 3 displays the eight design/build alternatives and the station locations considered. Table 3 provides a summary of the design/build alternatives by alignment and technology.



Source: Florida High Speed Rail Tampa to Orlando Final Environmental Impact Statement, May 2005

Figure 3: Design Build Alternatives

Table 3: Summary of Design/Build Alternatives by Alignment and Technology

Alternative							
1	2	3	4	5	6	7	8
Х	Х	Х	Х				
				Х	Х	Х	Х
Х	х			х	Х		
		х	Х			Х	Х
Х	х	х	х	х	Х	Х	Х
х		Х		Х		Х	
	х		х		Х		х
	X	x x x x x x x x	x x x x x x x x x x x x x x x x x x x	1 2 3 4 X X X X X X X X X X X X X X X X	1 2 3 4 5 X X X X X X X X X X X X X X X X X X X X X X X X	1 2 3 4 5 6 X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X	1 2 3 4 5 6 7 X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X

The evaluation matrix in **Table 4** summarizes the quantifiable impacts of the proposed FHSR Design/Build Alternatives 1 through 8. The matrix provides an assessment of potential impacts for each alternative, providing the opportunity to effectively evaluate the consequences of each alternative.

Design/Build Alternatives 1 through 4 represent the four alignment combinations with the gas turbine technology. Design/Build Alternatives 5 through 8 represent the four alignment combinations with the electric train technology. The potential impacts for the FEIS Preferred Alternative, Design/Build Alternative 1, are highlighted in **Table 4**.

Physical impacts, such as wetland, wildlife, and floodplain impacts are technology neutral. The differences in impacts are due to alignment location, station sites, and O&M facility sites. In general, there are slightly more natural impacts associated with the Central Florida Greeneway (S.R. 417) alignment due to crossing relatively undisturbed land. Noise, vibration, air quality, and energy impacts are more associated with the technology. In some cases though, the technology and alignment combinations will have varying effect such as with noise and vibration.

Table 4: Design/Build Alternatives Evaluation Matrix (2005 FEIS Preferred Alternative Highlighted)

	Alternatives							
	1	2	3	4	5	6	7	8
NATURAL ENVIRONMENT IMPACTS (AC.)								
Total Wetland Impacts (AC.)	40	31.3	39.2	30.5	25.6	24.4	30.5	23.6
High Quality Wetlands (AC.)	11	2	11	2	11	2	11	2
Protected Species Sites	9	15	10	16	9	15	10	16
FLOODPLAIN AND FLOODWAYY (AC.)								
Base Floodplain Encroachment	56,88	54.54	61.04	58.70	56.88	54.54	61.04	58.70
Base Floodway Encroachment	9.45	6.47	9,45	6.47	9.45	6,47	9.45	6.47
CONTAMINATION SITES (RANKED H)		**						
Potential Petroleum Sites	2	0	7	5	2	0	7	5
Potential Hazardous Materials Sites	5	5	12	12	5	5	12	12
SECTION 4(f) IMPACTS								
Recreation Facilities	1	1	0	0	1	1	0	0
Historic/Archaeological Sites	0	0	2	2	0	0	2	2
COMMUNITY SERVICES								
Schools	8	12	5	9	8	12	5	9
Community Facilities	10	9	6	5	10	9	6	5
Parks & Recreation	5	7	5	6	5	7	5	6
Cemeteries	4	6	6	6	4	6	6	6
Churches	15	16	12	13	15	16	12	13
NOISE IMPACTS (MODERATE & SEVERE)								
Category 1 (Buildings and/or parks)	0	0	0	0	0	0	0	0
Category 2 (Residences, hospitals, and hotels)	15	5	16	6	53	105	38	90
Category 3 (Institutional – schools, libraries, churches, active park)	0	0	0	0	1	2	0	1
VIBRATION IMPACTS								
Category 1 (Buildings and/or parks)	1	0	1	0	1	0	1	0
Category 2 (Residences, hospitals, and hotels)	44	20	40	16	13	5	9	1
Category 3 (Institutional – schools, libraries, churches, active park)	0	0	0	0	0	0	0	0
AIR QUALITY EMISSIONS (Net Change in	Tons/Year)	4						
CO	-101.7	-64.7	-100.9	-63.8	-152,0	-114.3	-151.8	-114.1
NOX	+189.0	+188.2	+191.4	+190.6	+23.3	+24.1	+23.7	+24.5
VOC	+8.9	+10.6	+9.2	+10,9	-8.1	-6.1	-8.1	-6.1
ENERGY CONSUMPTION (Change from 2	010 No-Build)							
Millions BTU	498,855	507,770	505,658	514,574	239,820	243,623	243,314	247,124
SECTION 106 IMPACTS								
Historic Sites	5	5	7	7	5	5	7	7
Archaeological Sites	0	0	0	0	0	0	0	0
RELOCATIONS								
Residential	3	3	0	0	3	3	0	0
Business	3	8	15	23	3	8	15	23
COST								
ROW (Non-public)	\$118M	\$149M	\$150M	\$181M	\$101M	\$128M	\$134M	\$161M
Infrastructure	\$1,900M	\$2,033M	\$1,881M	\$2,015M	\$2,177M	\$2,306M	\$2,154M	\$2,284M
Mitigation	\$30M	\$30M	\$30M	\$30M	\$30M	\$30M	\$30M	\$30M
TOTAL COST	\$2.048B	\$2.212B	\$2.061B	\$2.226B	\$2.308B	\$2.464B	\$2.318B	\$2.476B

Source: Florida High Speed Rail Tampa to Orlando Final Environmental Impact Statement, May, 2005.

5.3. 2005 FEIS PREFERRED ALTERNATIVE

The 2005 FHSR FEIS resulting from the Project Development and Environment (PD&E) Study investigated the eight design/build alternatives, evaluating not only the technological differences, but also engineering, environmental impacts, costs, and other factors impacting the selection of the alignment. Development of alignments provided an analysis of socio-economic, natural, and physical environmental impacts within the proposed corridors. The potential impacts of the design/build alternatives and the No-Build Alternative are documented in Section 4 of the FEIS.

The FHSRA considered the alternatives in Tampa and Orlando in identifying a Preferred Alternative. All alternative alignments are located along I-4 through Polk and Osceola counties. Two separate alignments were considered in Tampa (Hillsborough County): the CSX and I-4 alignments. Similarly, two alternatives were considered in Orlando (Orange County): the Florida Turnpike's Bee Line Expressway (S.R. 528) and the Central Florida Greeneway (S.R. 417) alignments.

The FHSRA unanimously passed a motion identifying the I-4 alignment in Hillsborough County as the preferred alignment. Additionally, the FHSRA ranked the Fluor Bombardier Team (gas turbine technology) as the preferred proposer.

On October 27, 2003, the FHSRA originally identified the Central Florida Greeneway (S.R. 417) alignment as the preferred alignment in Orange County. The vote was subject to the following two condition Memorandums of Agreement (MOA):

- Subject to an acceptable agreement between the FHSRA and Walt Disney Company related to donation of ROW and commitments to support ridership for the project.
- Subject to an acceptable agreement between the FHSRA and OOCEA related to use of the Central Florida Greeneway (S.R. 417) ROW.

On November 10, 2004, the FHSRA revised the recommendation of the Preferred Alternative because the two conditional MOAs had not been executed. With this action, the FHSRA recommended Alternative 1 (gas turbine technology), which is the combination of the I-4 alignment in Hillsborough County and the Bee Line (now the Beachline) Expressway (S.R. 528) alignment in Orange County, as the Preferred Alternative. While the FEIS environmental analysis provided for either technology to be selected as the preferred technology to be used on the corridor, the FEIS identified Alternative 1 as the Preferred Alternative. The FEIS identified the No Build Alternative as the environmentally preferable alternative because it would result in less direct and indirect impact to the environment. However, the FEIS also noted that the No Build Alternative would fail to meet the Project purpose and need.

5.4. 2009 FEIS REEVALUATION PREFERRED ALTERATIVE

In the 2005 FEIS gas turbine-powered technology was selected as the Preferred Alternative. FDOT now prefers the electric-powered technology on the same alignment, based on the current initiatives to reduce carbon emissions and dependency on foreign oil. The 2009 FEIS Reevaluation addresses environmental impacts resulting from the change in the preferred technology, any changes to existing conditions and the minor changes to the 2005 Preferred Alternative alignment to further reduce the potential for environmental impacts.

The FHSR Preferred Alternative resulting from both the 2005 FEIS and 2009 Reevaluation would begin at the downtown Tampa station to be located between Tampa Street and Marion Street, I-275, and Fortune Street. The FHSR alignment would follow I-275 along the south and east right-of-way (ROW). The alignment would cross into the I-4 median in the area of 15th Street. The majority of the FHSR alignment would be within the ultimate ROW identified in the *Tampa Interstate Study* (TIS) for future interstate improvements; however some additional ROW would be required and has been coordinated with the City of Tampa.

The alignment would continue east within the I-4 median through Hillsborough and Polk counties. One station would be located in Polk County, where two locations were under consideration.

Entering Osceola County, the high speed rail alignment remains within the I-4 median. The proposed Walt Disney World Station would be located north of U.S. 192. The station platform would be located in the median and station facility would be located west of I-4 between U.S. 192 and the Osceola Parkway.

The alignment would continue into Orange County in the I-4 median until the I-4/Beachline Expressway (S.R. 528) interchange, where it would elevate and leave the I-4 median and run along the north side of S.R. 528 within existing ROW. The Orange County Convention Center multi-modal center site is located in the northeast quadrant of the International Drive/S.R. 528 Interchange. The Orange County Convention Center station would be located within the ROW of the interchange area.

The alignment would continue on the north side of S.R. 528 until east of the John Young Parkway (S.R. 423) Interchange where it would leave S.R. 528 and run on new alignment east to Taft-Vineland Road. The alignment would continue along Taft-Vineland Road and enter the City of Orlando property near Tradeport Drive. It would then follow the Orlando Utilities Commission rail line as a new alignment turning north crossing the Orlando International Airport (OIA) South Access Road and traversing through the limits of OIA from south to north, east of the proposed South Terminal.

The 2009 FEIS Reevaluation has determined that overall the preferred alternative alignment documented in the 2005 FEIS remains substantially unchanged; however, the preferred technology has changed. Investigation of current conditions and planned projects has resulted in some minor adjustments to the horizontal and vertical alignment. Supporting engineering plans and profiles are provided in FEIS Reevaluation. Areas where changes have occurred are:

- Station Areas: Tampa Downtown, Walt Disney World/Celebration; Orange County Convention Center; Orlando International Airport – additional right of way and some relocation required for various stations (see Station discussion)
- I-4/I-275 Interchange Ramp D adjacent to Perry Harvey Senior Park improvement to I-275 widened the existing roadway for ramp auxiliary lanes
- I-4/I-275 Proposed Flyover Ramp widening adjacent to Ybor City National Historic Landmark District – FDOT identified that the existing single lane flyover ramp needs to be widened to two lanes

- Transition to I-4 Median and Crosstown Connector minimize structure length based on the construction of the ultimate I-4 improvements
- Columbus Avenue Relocation improvements to I-4 realigned Columbus Avenue
- Emergency Median Crossovers FDOT has established emergency evacuation crossovers through the I-4 corridor that will need to be relocated
- Tradeport Drive Area minimize impacts to continued commercial development
- Orlando International Airport continue HSR alignment to the north terminal consistent with OIA Master Plan.

The above changes to the conceptual engineering plans for the Preferred Alternative as described in the 2005 FEIS are included in the FEIS Reevaluation.

5.4.1. 2009 Reevaluation Preferred Alternative Station / Maintenance Facility Areas

The 2005 FEIS initially evaluated 20-acre study areas for each of the proposed station locations. As each site was identified, the station area was finalized to take into account property lines and existing features. The following modifications to the FEIS station study areas were assessed and included in the conceptual plan revisions as part of the FEIS Reevaluation.

- Tampa Downtown Station The Tampa station area was expanded to include the 3.2-acre former jail site which was purchased by FDOT for use as an intermodal center. The building is currently being demolished.
- Walt Disney World Station The Disney station area was shifted to the west to include a 5.6-acre area of open land in order to maintain a total 20-acre station area. The shift was necessary as a result of the construction of the Osceola Parkway Interchange and ramps within the 20-acre area identified in the 2005 FEIS.
- Polk County (Lakeland) Station The 2005 FEIS and the 2009 FEIS Reevaluation includes two sites for environmental analysis, west of the Polk Parkway and at Kathleen Road only one is to be selected for continued development. Included in the 2009 FEIS Reevaluation is a request by the City of Lakeland, Polk County and the University of South Florida Polytechnic for continued coordination into the design phase to verify the optimal location of a Polk County Station site to best serve Lakeland and the surrounding communities. FDOT is committed to continued coordination with the county, cities and local stakeholders in the continued project development phases. Should a station site other than the sites located at west SR 570 (Polk Parkway) or Kathleen Road be advanced, additional environmental analysis will be required.
- Orange County Convention Center Station The Orange County Convention Center station area was expanded to the east to the existing parcel property line, an additional 2.0-acre area to provide maximum flexibility and proximity for the HSR station.
- Orlando International Airport (OIA) In conformance with the OIA Master Plan, two station locations are considered under the Preferred Alternative: the future South Terminal Intermodal Center and the North Terminal Intermodal Center. The North and

South Terminal Intermodal Centers are included in the Airport Master Plan as approved through the Federal Aviation Administration (FAA). The North and South Terminal Intermodal Centers received FTA NEPA clearance under the *OIA Intermodal Station Environmental Assessment*, September 2005.

• Maintenance Facility – The Preferred Alternative identified a preference for two alternative sites for the FHSR maintenance facility site: one site located directly south of OIA (Site 3) and a site southeast of OIA, north of Boggy Creek Road (Site 2). These two sites were included in the 2005 FEIS for the gas turbine train. The 2005 FEIS also included two sites for the electric powered train: Site 3 and a site located southeast of OIA and south of Boggy Creek Road (Site 1). With continued commercial development south of Boggy Creek Road and the increase of relocations, Site 1 is removed from consideration, with Sites 2 and 3 remaining as alternative sites as analyzed in the 2005 FEIS and included in the 2009 FEIS Reevaluation.

5.4.2. Preferred Alternative Ridership

The ridership estimates for the 2005 FEIS Preferred Alternative were updated for 2009 based on the two independent, investment-grade models developed in 2002 and documented in the 2005 FEIS. The ridership estimates were based on the alignments for the Project and were not sensitive to the technologies. The models were updated to reflect the changes in the transportation network, growth and local land uses that have occurred since the 2005 FEIS was completed. Captive ridership/riders currently taking shuttle services provided by Disney and I-Drive destinations were separated from choice ridership (trips that would be diverted from other modes, such as private or rented autos, and public transit).

The results of the updated ridership and revenue forecasts are shown in **Table 5**. Annual ridership is not anticipated to change significantly from the previous 2002 forecasts. Annual revenue for the system is expected to increase.

Table 5: Changes in 2010 Tampa-Orlando Ridership and Revenue for the Preferred Alternative

	2010 Anı	nual Ridership (n	nillions)	2010 Annual Revenue (\$ millions)			
Market	2002 Study/2005 FEIS	2009 Reevaluation	Change	2002 Study/2005 FEIS	2009 Reevaluation	Change	
CHOICE MARKET	1.9 to 2.3	1.9 to 2.4	+0.0 to +0.1	32.9 to 35.4	40.5 to 46.4	+7.6 to +11.0	
CAPTIVE OIA to International Drive OIA to Disney Subtotal: Captive	0.5 <u>2.1</u> 0.5*	0.6 <u>1.9</u> 0.6*	+0.1 - <u>0.2</u> +0.1*	6.3 <u>26.3</u> 6.3*	8.0 <u>27.2</u> 8.0*	+1.7 +0.9 +2.6*	
Total:	2.4 to 2.8	2.5 to 3.0	+0.1 to +0.2	39.3 to 41.8	48.5 to 54.5	+10.2 to +13.6	

*The 2002 Study (included in the 2005 FEIS) assumed that captive ridership associated with the OIA-Disney market would not be included, as Disney's participation in the preferred alignment was still under negotiation.

6. AFFECTED ENVIRONMENT

The changes to the 2005 Preferred Alternative were primarily to accommodate the current asbuilt conditions within the improved interstate corridor and changes to minimize potential impacts to continued development within the corridor. These changes, as stated in Chapter 2 of the FEIS Reevaluation and illustrated in the revised plans included in Appendix B of the FEIS Reevaluation and discussed in the 2009 FEIS Revaluation Preferred Alternative (Section 6.4) section of this document, are minimal within the 88-mile alternative and concentrated within the immediate Tampa CBD and in the Tradeport Drive industrial park area in Orange County.

The changes in existing conditions identified in Chapter 3 of the FEIS Reevaluation resulting in changes to the potential environmental impacts are summarized below:

- Relocations: reduction of one business impact in Tampa CBD and 3 additional business impacts in Tradeport Drive industrial area.
- Section 106: reduction of one historic structure with relocation by FDOT complete.
- Recreation and Park/Section 4(f): Changes to the City of Tampa's Perry Harvey Sr. Park boundaries since the 2005 FEIS and changes to the alternative reduce overall area of use.
- Air Quality, Noise, Vibration, Visual/Aesthetic, and Energy Consumption: changes based on technology preference from gas turbine-powered to electric-powered locomotivehauled train.
- Contamination: additional sites resulting in the same number of sites with high risk ranking and an additional one site each for medium and low risk ranking.
- Wildlife and Habitat: one additional species (Everglades snail kite) afforded protection since 2005.

The above changes to the environmental impacts do not change the mitigation and commitments identified in the 2005 FEIS with the exception of regulatory changes in the permitting of wetlands, water quality, and wildlife and habitat.

Table 6 identifies comparative analysis factors between the 2005 FEIS Preferred Alternative (gas turbine powered technology, Alternative 1) and the electric powered technology on the same alignment (Alternative 5) with the updated potential impacts assessed in the FEIS Reevaluation for the Revised Preferred Alternative (RPA).

Table 6: Change in Potential Environmental Impacts

Resource	2005 FEIS Impacts Gas Turbine FEIS Preferred Alternative (Alternative 1)	2005 FEIS Impacts Electric Technology (Alternative 5)	Change in Impacts?	Revised Preferred Alternative (RPA) Impacts Electric Technology
COMMUNITY IMPA	стѕ			
Community Cohesion	Minimal impacts to adjacent neighborhoods along I-4 in Tampa and to the south of the Tradeport Industrial Park	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
Community and Land Use Impacts	Consistent with local land use plans Minimal impacts to existing land uses	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
Economic Impacts	Benefits in excess of costs	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
Safety and Public Health	No adverse impacts	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
Relocation and Right-of-Way Impacts	3 residential relocations 3 business relocations See Section 4(f) below.	Same as 2005 FEIS Preferred Alternative	Yes	3 residential relocations 5 business relocations
Environmental Justice	No disproportionate impacts	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
Section 106 - Archeological and Historical Resources	Conditional Adverse Effect North Franklin Street Historic District (visual) St. Paul AME Church Parsonage (visual) Oaklawn Cemetery (visual construction vibration) Ybor City NHLD (direct taking of two contributing buildings; visual, construction vibration) German American Club – Visual impacts, construction vibration	Same as 2005 FEIS Preferred Alternative	Yes*	Same impacts as listed for FEIS Preferred Alternative, less direct impact of one contributing building in Ybor City NHLD do to relocation per TIS project*
Recreation and Parkland	Use of 0.184 acres, Perry Harvey Sr. Park	Use of 0.184 acres, Perry Harvey Sr. Park	Yes	Use of 0.05 acres, Perry Harvey Sr. Park

Table 6: Change in Potential Environmental Impacts

Resource	2005 FEIS Impacts Gas Turbine FEIS Preferred Alternative (Alternative 1)	2005 FEIS Impacts Electric Technology (Alternative 5)	Change in Impacts?	Revised Preferred Alternative (RPA) Impacts Electric Technology
Section 4(f) Impacts	Use of 0.184 acres, Perry Harvey Sr. Park	Use of 0.184 acres, Perry Harvey Sr. Park	Yes	Use of 0.05 acres, Perry Harvey Sr. Park
Secondary and Cumulative Impacts	No adverse impacts	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
	NATURA	L AND PHYSICAL IMPACTS		
Visual/Aesthetic	No adverse impacts	Same as 2005 FEIS Preferred Alternative	No	Same as 2005 FEIS Preferred Alternative
Air Quality	Emissions (tons/year): CO: -101.7 tons/year NOx: +189.0 VOC: +8.9	Emissions (tons/year): CO: -152.0 NOx: +23.3 VOC: -8.1	Yes	Same as 2005 FEIS Alternative 5
Noise ¹	Cat. 1: 0 Cat. 2: 15 (7 moderate, 8 severe) Cat. 3: 0	Cat. 1: 0 Cat. 2: 52 (24 moderate, 28 severe) Cat. 3: 1 (Perry Harvey Sr. Park)	Yes	Cat. 1: 0 Cat. 2: 30 (13 moderate, 17 severe) Cat. 3: 1
Vibration ¹	Cat 1: 1 Cat. 2: 44 Cat. 3: 0	Cat 1: 1 Cat. 2: 13 Cat. 3: 0	Yes	Cat. 1: 1 Cat. 2: 8 Cat. 3: 0
Wetlands	40 acres (total impacts) 11 high quality wetlands impacted	25.6 acres (total impacts) 11 high quality wetlands impacted	Yes	35.8 acres (total impacts) 11 high quality wetlands impacted.
Aquatic Preserves	No impacts	No impacts	No	No impacts
Water Quality	No adverse impacts	No adverse impacts	No	No adverse impacts
Outstanding Florida Waters	No impacts	No impacts	No	No impacts
Contamination	Risk Ranking High: 7 Medium: 0 Low: 0	Risk Ranking High: 7 Medium: 0 Low: 0	Yes	Risk Ranking High: 7 Medium: 1 Low: 1

Table 6: Change in Potential Environmental Impacts

Resource	2005 FEIS Impacts Gas Turbine FEIS Preferred Alternative (Alternative 1)	2005 FEIS Impacts Electric Technology (Alternative 5)	Change in Impacts?	Revised Preferred Alternative (RPA) Impacts Electric Technology
Wild and Scenic Rivers	No impacts	No impacts	No	No impacts
Floodplain and Floodway Impact	Base Floodplain Encroachment: 56.88 acres Base Floodway Encroachment: 9.45 acres	Base Floodplain Encroachment: 56.88 acres Base Floodway Encroachment: 9.45 acres	No	Base Floodplain Encroachment: 56.88 acres Base Floodway Encroachment: 9.45 acres
Coastal Zone Consistency	No impacts	No impacts	No	No impacts
Coastal Barrier Resources	No impacts	No impacts	No	No impacts
Wildlife and Habitat, including Protected Species	9 Protected Species No adverse impacts	9 Protected Species No adverse impacts	Yes	10 Protected Species No adverse effects
Farmlands	No impacts	No impacts	No	No impacts
Energy Consumption	498,855 Million BTU	239,820 Million BTU	Yes	Same as 2005 FEIS Alternative 5
Utilities	No adverse impacts	No adverse impacts	No	No adverse impacts
TRANSPORTATION				
Freight Rail Operations Impacts	No impacts	No impacts	No	No impacts
Highway Operations	Net reduction in VMT: 21,080,963 miles	Net reduction in VMT: 21,080,963 miles	No	Net reduction in VMT: 21,080,963 miles
Impacts	No adverse impacts	No adverse impacts		No adverse impacts
Station Access and Traffic Impacts	No adverse impacts	No adverse impacts	No	No adverse impacts
Airport Operations	No impacts	No impacts	No	No impacts
CONSTRUCTION IN	MPACTS			1
Construction impacts	No adverse impacts	No adverse impacts	No	No adverse impacts
Source: Parsons, PBS&J	, HMMH September 2009			

¹Notes: Category 1 receptors are buildings and/or parks; Category 2 receptors are residences, hospitals, hotels; Category 3 receptors are schools, libraries, churches, and active parks.

6.1. Relocation and Right of Way

The 2005 FEIS indicated that the Preferred Alternative and the Revised Preferred Alternative (RPA) (Alternative 5 in the 2005 FEIS) would both require three (3) residential relocations located in two (2) structures near I-4 and 12th Avenue in the Ybor City area and three business relocations including the City of Tampa Recreation Department, the former Hillsborough County Sheriff's Office and Jail Complex, and a bail bondsman office.

Since publication of the 2005 FEIS, redevelopment of the former Hillsborough County Sheriff's Office and Jail Complex site has begun and the buildings are no longer present. Therefore, these relocations are no longer needed.

Further, since 2005 additional development has occurred in the Tradeport Industrial Park. The alignment was optimized to reduce additional right-of-way needs in this area to the extent practicable. However, three (3) additional business relocations would be needed for the project, as follows:

- At the northwest corner of Tradeport Drive and Ringhaver Drive, a large commercial distribution building (10260 Tradeport Drive) was constructed and does not appear on the project aerials. As of September 2, 2009, the building is vacant. The FHSR alignment clips the northeast corner of this building and the operation of the rear loading bays.
- Two commercial structures located in the Atlas Commercial Park (11128 and 11112 Boggy Creek Road) are also impacted. As of September 2, 2009, these building are vacant.

The ROW and relocation program will be carried out in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970.

6.2. Section 106 Consultation and Memorandum of Agreement

The FDOT coordinated the historic resources impact analysis with the Florida State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (Council).

The coordination with the SHPO and Council during analysis of the 2005 FEIS Preferred Alternative resulted in a "conditional no adverse effect" on the following five historic resources:

- North Franklin Street Historic District Visual impacts
- St. Paul AME Church Parsonage Visual impacts
- Oaklawn Cemetery Visual impacts, construction vibration
- Ybor City NHLD Direct taking of two contributing buildings: 8HI4174/916 E. 12th Avenue, and the rear building at 8HI4178/1006 E. 12th Avenue; Visual, Construction Vibration
- German American Club Visual impacts, construction vibration

The 2009 FEIS Reevaluation Revised Preferred Alternative verified that there are no changes to the impacts identified in the 2005 FEIS. The commitments stated in the 2005 FEIS remain valid.

Since publication of the 2005 FEIS, FDOT began the right-of-way acquisition process for the *Tampa Interstate Study* (TIS). As a result many of the historic structures along 12th Avenue in the Ybor City NHLD have been relocated, including the property at 1006 E. 12th Avenue (8HI4178) which was listed as a direct taking in the 2005 FEIS.

It is important to note that these impacts to historic resources were evaluated as part of a *Cultural Resource Assessment Survey* (July 2003) prepared to identify and evaluate cultural resources (historic structures and archaeological sites) within the project's Area of Potential Effect (APE). Further, a *Section 106 Consultation Case Report* (December 2003) was then prepared to evaluate potential effects for the Preferred Alternative and extensive coordination occurred with SHPO. As a result of this coordination, it was determined that the Preferred Alternative, based on a set of stipulated conditions, would have a "conditional no adverse effect" on the resources listed above.

Even though the impacts within the Ybor City NHLD included a direct taking of contributing historic resources, the SHPO determined that there would be no adverse effect because these buildings were previously identified as being acquired by the *Tampa Interstate Study Final Environmental Impact Statement and Section 4(f) Evaluation* (1996) and are located within the TIS Ultimate ROW. A Memorandum of Agreement (MOA) was prepared at that time to mitigate adverse effects to the Ybor City NHLD.

During the consultations with the SHPO, it was determined that the FHSR project would follow the requirements of this MOA. The mitigation and commitments are consistent with this MOA.

6.3. Section 4(f) Determination

Section 4(f) of the US Department of Transportation (DOT) Act of 1966 stipulates that DOT agencies cannot approve the use of land from publicly owned parks, recreation areas, wildlife refuges, or public and private historical sites unless there is no feasible and prudent alternative to such use and the project includes all possible planning to minimize the harm to the property resulting from use.

The Section 4(f) evaluation for the potential HSR alignments and stations documented in Section 5 of the FEIS and Section 4.4 of the FEIS Reevaluation indicates that one Section 4(f) resource, Perry Harvey Sr. Park, will be used by the project. The supporting information in the 2005 FEIS and the 2009 FEIS Reevaluation, summarized below, demonstrates that there are unique problems or unusual factors involved with any alternative that would avoid this Section 4(f) property. Potential avoidance alternatives fail to meet the project purpose and need, fail to meet the objectives of those responsible for the resource used, or result in impacts of extraordinary magnitude to the environment or the community.

Based on the documentation presented in the FEIS and updated in the FEIS Reevaluation, the FRA has determined that:

- The Project is a feasible and prudent alternative with the least harm to Section 4(f) resources;
- There is no feasible or prudent alternative to the use of the above Section 4(f) resources; and

• The Project includes all possible planning to minimize harm to the resources resulting from such use. These measures are identified in the Project mitigation and commitments attached as Appendix B.

During the reevaluation process, the preferred alignment shifted slightly in the vicinity of the Ybor City NHLD and Perry Harvey Sr. Park, both of which are Section 4(f) resources. Right-of-way requirements were minimized in the vicinity of these resources.

In the case of the Ybor City NHLD, the right-of-way required by the FHSR project is still within the TIS Ultimate ROW which was cleared as a part of the *Tampa Interstate Study Final Environmental Impact Statement and Section 4(f) Evaluation* (1996). Further, a Memorandum of Agreement (MOA) was negotiated with the SHPO for that project to mitigate the adverse effects to the Ybor City NHLD from taking the right-of-way. Therefore there are no changes to the Section 4(f) evaluation for the Ybor City NHLD.

In the case of Perry Harvey Sr. Park, as stated in the original Section 4(f) Evaluation in the 2005 FEIS, the FHSR project will comply with the specific commitments and stipulations identified in the existing Tampa Interstate Study (TIS) FEIS for the Ultimate ROW requirements. The commitment is based on the assumption that the FHSR will be constructed prior to the construction of the Ultimate TIS.

Since the approval of the 2005 FHSR FEIS, the interim reconstruction of I-275/I-4 interchange has occurred. In addition, FDOT has proposed a safety improvement requiring an additional lane be constructed to the outside of the ramp running from SB I-275 to EB I-4. As a result of the safety improvement, the FHSR ROW has been minimized to a ROW width of 44 feet and relocated slightly to the south and west. The FHSR ROW remains within the TIS Ultimate ROW footprint. It is anticipated that FHSR will run 18 to 24 feet above the park on an elevated track as it enters the Tampa Central Business District (CBD) station. Initial calculations indicate the potential impact to the park will be reduced from the amount of land to be acquired from 0.184 acres (2005 FEIS) to .05 acres (FEIS Reevaluation).

During the 2005 FEIS it was determined that there would be a potential for moderate noise level increases (proximity effects). An evaluation of vibration, access, aesthetics, and ecological encroachment indicates that the project will not substantially impair or diminish the use of the park, and a determination was made that there will be no constructive use. These conclusions have not changed. Coordination with the City of Tampa includes memorandum in the FEIS Reevaluation identifying the City's continued support of the project with commitment of FDOT to meet the specific commitments and stipulations identified in the TIS FEIS.

6.4. Air Quality

The US Environmental Protection Agency (EPA) regulation implementing the Clean Air Act (40 CFR Parts 51 and 93) establishes criteria for demonstrating that a federally assisted project is in conformity with the State Implementation Plan or maintenance plans developed for Hillsborough, Polk, Osceola and Orange Counties. This Project is identified in the Long Range Transportation Plans for the three Metropolitan Planning Organizations that represent the various local governments through the Project area. The General Conformity Rule (40 C.F.R. Part 93, Subpart B) is applicable to areas that have been designated as non-attainment or maintenance with respect to the National Ambient Air Quality Standards (NAAQS). Polk, Osceola and

Orange Counties were designated as in attainment of the NAAQS in the 2005 FEIS. The FEIS Revaluation identified that Hillsborough County was re-designated in attainment of the NAAQS in 2005 following completion of the 2005 FEIS. Thus, all counties in the Project are in attainment and determination of conformity with the State Implementation Plan or plan to maintain the NAAQS is not required.

The Revised Preferred Alternative would result in a net decrease in regional emissions of carbon monoxide (CO) and volatile organic compounds (VOC) and a small increase in regional emissions of nitrogen oxides (NOX). The net increase in emissions of NOX is a result of the emission rate of this pollutant from power plants that produce electricity through the combustion of fossil fuels. The emissions analysis is based on use of coal as the source for power generation; a worst case scenario.

6.5. Noise

The noise impact assessment was updated along the entire corridor to account for land use and alignment changes since the 2005 FEIS was published. In summary, there are substantially fewer predicted noise impacts than projected in the FEIS.

The 2005 FEIS predicted that the Preferred Alternative would have impacts at a total of 15 residential buildings (eight with severe impact and seven with moderate impact), one hotel (moderate impact) and one park (Perry Harvey Sr.). The FEIS also documented the impacts of Alternative 5 (the comparable alternative given the change in the preferred technology), which was predicted to have noise impacts at a total of 52 residential buildings (24 with severe impact and 28 with moderate impact), one hotel (moderate impact), and one park (Perry Harvey). The factors attributing less impact by the gas turbine-hauled train include track proximity and height as well as train speed.

The updated analysis of the Revised Preferred Alternative predicts fewer impacts when compared to the electric-hauled train (Alternative 5) in the 2005 FEIS, including 30 residential buildings (13 with moderate impacts and 17 with severe impacts); one hotel (moderate impact) and one park (Perry Harvey). Importantly, none of the newly identified sensitive receptors along the corridor were predicted to have impacts.

The lower number of predicted impacts is a result of alignment shifts away from sensitive receptors near Station 6010 (in the vicinity of the I-4/I-275 interchange in Tampa) and between Stations 7670 and 7700 in the Taft area near Orlando.

6.6. Vibration

The vibration impact assessment was updated along the entire corridor to account for land use and alignment changes since the 2005 FEIS was published. In summary, the Revised Preferred Alternative vibration impacts are expected at three residences, five hotels, and one commercial building that houses vibration sensitive equipment. In comparison, the 2005 FEIS Preferred Alternative was predicted to have 33 residences, 11 hotels, and the same commercial building and Alternative 5 was predicted to have impacts at one residence, 13 hotels and the commercial building.

The large reduction in the total number of vibration impacts is due to changes in existing conditions and the difference between the vibration characteristics of the electric and the gas turbine trains. Not only are some of the residences and hotels previously affected no longer present but new receptors were also identified, particularly in the middle section of the alignment. None of the new receptors were predicted to have vibration impacts.

Gas turbine trains have higher vibration levels at lower frequencies than electric trains. This is likely due to the difference in weight between the two vehicles; the gas turbine train consist weighs almost twice as much as the electric train consist. Furthermore, when the ground exhibits more efficient vibration propagation characteristics at low frequencies, there is a greater difference in vibration impact between the two technologies.

6.7. Wetlands

The Preferred Alternative (Alternative 1) documented in the 2005 FEIS would result in a total of 40 acres of wetland impacts to 11 high quality wetlands, while Alternative 5 was predicted to result in 25.6 acres of impacts to 11 high quality wetlands. Even though these alternatives share the same alignment and station locations, they each assumed a different maintenance facility.

The Revised Preferred Alternative would result in 35.8 acres of impacts to 11 high quality wetlands. This accounts for changes in existing conditions with the revised location for the maintenance facility for Alternative 5 since the FEIS was published and the design changes documented in Chapter 2 of the FEIS Reevaluation. The Revised Preferred Alternative with the same maintenance facility location, as identified with the 2005 FEIS Preferred Alternative 1, reduces impacts by 4.2 acres.

The 2005 FEIS indicates that either FDEP (Florida Department of Environmental Protection) or the Water Management Districts (WMD) may be the reviewing agency for the Environmental Resource Permit. Because this project crosses multiple WMD districts, the FDEP will likely take the lead on permitting so that a comprehensive review of the entire corridor can occur. However, this decision will be made during the final design and permitting phase.

The 2005 FEIS also states that "Any project which results in the disturbance of five or more acres of land would require a National Pollutant Discharge Elimination System (NPDES) permit from FDEP, pursuant to 40 C.F.R Parts 122 and 124." The regulations governing the NPDES have been modified since 2005 such that any project that results in the disturbance of one or more acre of land will require a NPDES permit. Also, because a General Permit exists for this type of work, a permit application for a NPDES will not be required. Instead, a Notice of Intent to utilize the General Permit is required to be submitted by the construction contractor 48 hours prior to construction commencement.

6.8. Contamination

The 2005 FEIS Preferred Alternative identified five potentially hazardous material contaminated sites and two potentially petroleum contaminated sites within the alignment. There are no potentially contaminated sites associated with the preferred station locations and maintenance yard.

Based on the design modifications of the Revised Preferred Alternative, a review of the potential for additional hazardous materials sites that could potentially be encountered during construction was assessed. Five additional sites were identified. Given the contamination concern at these sites and their location relative to the FHSR project, three of these sites were found to pose no risk to the project, one was found to pose a low risk and one was found to pose a medium risk.

The sites identified will be investigated further prior to any construction. Investigative work will include visual inspection, monitoring of ongoing cleanups, and possible subsurface investigations. At known contamination sites, estimated areas of contamination will be marked on design drawings. Prior to construction, any necessary cleanup plans will be developed. Actual cleanup will take place during construction, if feasible. Special provisions for handling unexpected contamination discovered during construction will be included in the construction plans package.

6.9. Floodplains

The Preferred Alternative from 2005 and the Revised Preferred Alternative would potentially impact approximately 56.88 ac. of floodplain and approximately 9.45 ac. of floodway. Subsequent to final design, during which impacts would be avoided or minimized, floodplain and floodway impacts would again be calculated and the amount of mitigation would be determined. Coordination with the water management districts will identify areas appropriate for mitigation of the volumetric impacts of the preferred alternative that will not increase or significantly change the flood elevations and/or limits.

6.10. Wildlife and Habitat, Protected Species

The expansion of the Tampa, Disney and Orange County Convention Center station areas do not result in additional protected species concern. The Tampa Jail Site is urban and developed and provides no protected species habitat. The area of expansion of the Disney Station Area does not result in a new habitat type or protected species concerns. The new additional area for the OCCC site is minimal and does not provide different habitat than what has already been considered.

Since the 2005 FEIS, the bald eagle was delisted (with the exception of the desert bald eagle in Arizona) and is no longer protected under the Endangered Species Act as of June 28, 2007. However, the bald eagle is still provided protection by two other federal laws, the Migratory Bird Treaty Act of 1918 and the Bald and Golden Eagle Protection Act, as amended. The state of Florida also delisted the bald eagle.

An additional species, the Everglades snail kite (*Rostrhamus sociabilis*) has been afforded additional protection since the 2005 FEIS. A consultation area for the snail kite is now in place over Polk County and much of Osceola County. Although it is unlikely that this species will be affected by the project as habitat in the area is suboptimal, consultation with and concurrence from the U.S. Fish and Wildlife Service (USFWS) will be required because the corridor is within the snail kite's designated consultation area.

The Revised Preferred Alternative will have no effect on the following federally protected species with potential habitat in the project vicinity: American alligator, Florida scrub-jay, Florida panther, and Florida manatee. It is also anticipated to have no effect on the following

state-only protected species: Florida pine snake, Florida burrowing owl, Southeastern American kestrel, Florida black bear, and protected plant species. The Revised Preferred Alternative may affect, but is not likely to adversely affect the following federally protected species: Eastern indigo snake, sand skink, Everglade's snail kite, and wood stork. The project may affect but is not likely to adversely affect the following state-only protected species: gopher tortoise, Florida mouse, gopher frog, Florida sandhill crane, Sherman's fox squirrel, and state protected wading bird species. As part of mitigation commitments, FDOT will continue to coordinate with the U.S. Fish and Wildlife Service (USFWS), the Water Management Districts (WMDs), and Florida Fish and Wildlife Conservation Commission (FFWCC) to develop design and construction methods to avoid and minimize impacts to these species.

6.11. Energy

The switch to the electric train technology results in an overall lower net energy consumption since the consumption is considerably lower than the gas turbine train technology. The 2005 FEIS shows the net energy consumption dropping from 498,855 million BTU (2005 FEIS Preferred Alternative) to 239,820 million BTU (2005 Alternative 5, Revised Preferred Alternative).

These predictions factor in the reduction of gasoline consumption by diverting automobile ridership, the power required to propel the train, operate and maintain the new system and thermal losses for electric power generation. As a part of the reevaluation effort, the ridership projections were updated and show a slight increase in riders. This increase would lower VMT only slightly resulting in a negligible decrease in the energy demands of the Revised Preferred Alternative. The slight shifts in alignment and station locations also would not affect the energy consumption predictions listed above.

The total change is a very small fraction (less than 1/20th of one percent) of Florida's total energy consumption for surface transportation (all non-military vehicle operation on highways, railroads, and fixed-guideway public transportation), which is estimated to reach one quadrillion BTUs (i.e., 1,000,000,000 MBTU) by 2010.

6.12. Means to Avoid and Minimize Environmental Harm

FRA and FDOT are committed to working with our partners and stakeholders in the development of this project, and will continue to coordinate the required mitigation and commitments for the FHSR project as a means to avoid and minimize environmental harm. **Appendix B** documents the commitments and mitigation from the 2005 FEIS and any changes or updates needed based on changes in potential impacts or regulations based on the FEIS Reevaluation.

6.13 Environmentally Preferable Alternative

The environmentally preferable alternative resulting from the FEIS Reevaluation remains the same as the environmentally preferable alignment identified in the 2005 FEIS (the No Build Alternative). The No Build Alternative still has less direct and indirect impact to the environment than the build alternatives. However, as noted in the FEIS, the No Build Alternative does not

meet the project purpose and need. It fails to enhance intercity passenger mobility in Florida by expanding passenger transportation capacity or by providing an alternative to highway and air travel. Congestion on Interstate 4 can be expected to continue to grow under the No Build Alternative.

The Revised Preferred Alternative assessed in the FEIS Reevaluation, as described above, has been developed in a manner so as to minimize environmental impacts. It would use existing transportation corridors to minimize environmental impacts and provides environmental and transportation benefits in the form of increased efficiency in energy use for transportation, decreased energy consumption, increased mobility, safety, reliability, travel times and accessibility, and reduced vehicle miles travelled for intercity trips.

The changes in existing conditions identified in Chapter 3 of the attached 2009 FEIS Reevaluation (Appendix A) of this document resulted in changes to the environmental impacts as summarized in the following:

- Relocations: reduction of one business impact in Tampa CBD and 3 additional business impacts in Tradeport Drive industrial area.
- Section 106: reduction of one historic structure with relocation by FDOT complete.
- Recreation and Park/Section 4(f): Changes to the City of Tampa's Perry Harvey Sr. Park boundaries since the 2005 FEIS and changes to the alternative reduce overall area of use.
- Air Quality, Noise, Vibration, Visual/Aesthetic, and Energy Consumption: changes based on technology preference from gas turbine-powered to electric-powered locomotive-hauled train.
- Contamination: additional sites resulting in the same number of sites with high risk ranking and an additional one site each for medium and low risk ranking.
- Wildlife and Habitat: one additional species (Everglade's snail kite) afforded protection since 2005.

The above changes to the environmental impacts do not change the mitigation and commitments identified in the 2005 FEIS and included as Appendix B in this document with the exception of regulatory changes in the permitting of wetlands, water quality, and wildlife and habitat.

7. DECISION

7.1. Basis for Decision

FDOT, in coordination with FRA, proposes to implement HSR service in the initial segment of the Florida High Speed Rail Corridor between Tampa and Orlando. The purpose of FHSR is to enhance intercity passenger mobility in Florida by expanding passenger transportation capacity and providing an alternative to highway and air travel. Increased mobility is viewed as essential for the sustained economic growth of the region, as well as the quality of life of the region's residents and visitors. Presently, passenger mobility in the Tampa-Orlando corridor is provided primarily by highways, particularly I-4. Projected transportation demand and travel growth, as prompted by social demand and economic development and compared to existing and future roadway capacity, show a serious deficit in available capacity. In addition, increasing population, employment, and tourism rates continue to elevate travel demand in the study corridor. Implementation of the FHSR project will help address these needs. In addition, the Passenger Rail Investment and Improvement Act of 2008 established high-speed rail corridor development as an important component of the Nation's transportation policy. Implementation of the FHSR Project is consistent with the Department of Transportation and FRA's vision of the important role high-speed intercity passenger rail can play in certain travel markets (see Vision for High-Speed Rail in America, April 2009 http://www.fra.dot.gov/downloads/rrdev/hsrstrategicplan.pdf) In the 2005 FEIS, gas turbine-powered technology was identified as the Preferred Alternative. Since then, the electric-powered technology has emerged as the preferred technology, on the same alignment, based on the current initiatives to reduce carbon emissions and dependency on foreign oil. The 2005 FEIS and the 2009 Reevaluation have shown that environmental impacts have been minimized with the selection of the alignment along existing transportation corridors.

The FRA, in accordance with NEPA and the NEPA implementing regulations (40 CFR Parts 1500-1508; 64 FR 28545 and 23 CFR Part 771), finds that the requirements of NEPA have been satisfied for FHSR Rail Tampa – Orlando project.

The environmental record for FHSR Tampa-Orlando Corridor includes the Draft EIS (August 2003), the Final EIS (July 2005), the Reevaluation to the FEIS (October 2009), and the comments from the circulation of the 2005 Final EIS. These documents represent the detailed analysis and findings required by NEPA on:

- The environmental impacts of the proposed project
- Alternatives to the proposed project
- Irreversible and irretrievable impacts on the environment which may be involved in the proposed project should it be implemented.

On the basis of the evaluation of social, economic, and environmental impacts contained in the DEIS, FEIS, FEIS Reevaluation and the written and oral comments offered by the public and by other agencies, the FRA determines that:

• Adequate opportunity was afforded for the presentation of views by all parties with a significant economic, social, or environmental interest, and fair consideration was given

to the preservation and enhancement of the environment and to the interest of the communities in which the proposed project is located and

• All reasonable steps were taken to minimize adverse environmental effects of the proposed project, and where adverse environmental effects remain, they have been fully reported in the DEIS, FEIS and FEIS Reevaluation.

The extensive opportunities provided for public and other stakeholder involvement in Project planning and decision-making are described in Chapter 6 of the 2005 FEIS and summarized in **Appendix C** of this ROD. The reasonable steps to minimize adverse environmental effects are described in Chapter 4 of the 2005 FEIS, Chapter 4 of the FEIS Reevaluation and are summarized in Appendix B of this ROD.

This ROD also documents compliance with other applicable federal environmental laws, rules and regulations as follows:

7.2. Section 106 of the National Historic Preservation Act

Section 106 of the NHPA of 1966 requires that any federal agency having direct or indirect jurisdiction over a proposed federal or federally assisted undertaking take into account the effect of the undertaking on any district, site, building, structure, or other object that is listed or eligible for listing on the National Register of Historic Places. Under this provision, the NEPA lead agency, the State Historic Preservation Officer (SHPO), affected Native American tribes, and other "consulting" parties participate in a consultation process regarding the potential effects of the undertaking on historic resources. Coordination with the Florida SHPO includes:

- Concurrence with Cultural Resource Assessment Survey (CRAS) Methodology and Area of Potential Effect (APE), March, 2003
- SHPO Concurrence with Corridor Study CRAS Findings, April 15, 2003
- SHPO Concurrence for PD&E CRAS Findings, September 15, 2003
- SHPO Concurrence on Section 106 Findings, January 5, 2004

Through this coordination it was determined that the Revised Preferred Alternative, based on a set of stipulated conditions, would have a "conditional no adverse effect" on historic resources.

7.3. Floodplains and Floodways Finding

DOT Order 5620.2 implements Executive Order 11988, Floodplain Management and Protection. These orders state that FRA may not approve an alternative involving a significant encroachment unless FRA can make a finding that the proposed encroachment is the only practicable alternative. The major purposes of Executive Order 11988 are to avoid Federal support for floodplain development; to prevent uneconomic, hazardous, or incompatible use of floodplains; to restore and preserve the natural and beneficial floodplain values; and to be consistent with the standards and criteria of the National Floodplain Insurance Program.

FRA concludes that the Project will not result in any substantial adverse impact on natural and beneficial values of the floodplains, will not result in a substantial change in flood risks or

damage, and will not have a substantial potential for interruption or termination of emergency service and evacuation routes.

7.4. Wetlands Finding

Presidential Executive Order 11990, "Protection of wetlands," directs federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative. The following sets forth the basis for this finding for the Project.

The Revised Preferred Alternative (Alternative 5) would result in 35.8 acres of potential wetland impacts resulting from the electric powered technology, of which 11 are considered high quality wetlands. Wetland impacts, which would result from the construction of FHSR, are proposed to be mitigated pursuant to S. 373.4138 F.S. to satisfy all mitigation requirements of Part IV, Chapter 373, F.S. and 33 U.S.C.1344. Impacts to wetlands by the Project cannot be practicably avoided or minimized beyond present efforts and identified mitigation measures are included in Appendix B.

Based upon the above considerations, FRA determines that, under the requirements of Executive Order 11990, there are no practicable alternatives to the proposed construction in wetlands, and that the proposed action includes all practicable measures to minimize harm to these resources.

7.5. Endangered Species Finding

There are 24 federal and/or state protected species that have the potential or are known to occur within the FHSR study area. Six of those species are reptiles and amphibians, eleven are birds, five are mammals, and the remaining two are plants. Because the design/build alternatives use existing transportation corridors that pass through potential habitat, any of the alternatives may affect some potential sites, but it is not likely to adversely affect any of the species. Furthermore, the FDOT has committed to providing wildlife crossings in Polk County along I-4 during construction of the ultimate interstate improvements, including the FHSR project.

The Revised Preferred Alternative will have "no effect" on the following species: American alligator, Everglades snail kite, Florida pine snake, Florida scrub jay, Florida burrowing owl, Southeastern American kestrel, Florida panther, manatee, Florida black bear, and protected plant species. The Revised Preferred Alternative "may affect, is not likely to adversely affect" the following species: Eastern indigo snake, gopher tortoise, Florida mouse, gopher frog, sand skink, Florida sandhill crane, bald eagle, wood stork, state protected wading bird species, and Sherman's fox squirrel. As part of mitigation commitments, FDOT will continue to coordinate with USFWS, the WMDs, and FFWCC to develop design and construction methods to avoid and minimize impacts to these species."

FRA has determined that no formal consultation in accordance with Section 7 of the Endangered Species Act is required based upon the findings summarized above.

7.6. Environmental Justice Finding

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires that each Federal Agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

The Project is within an existing transportation corridor and would not bisect any minority or low-income neighborhoods nor require the displacement of any residences in those neighborhoods. The anticipated human and environmental effects of the Project would not be disproportionately borne by the minority or low-income populations within the study area. Based upon these findings, FRA determines that the Project is in accordance with requirements of Executive Order 12898.

7.7. Section 4(f) Determination

Section 4(f) of the US Department of Transportation (DOT) Act of 1966 stipulates that DOT agencies cannot approve the use of land from publicly owned parks, recreation areas, wildlife refuges, or public and private historical sites unless there is no feasible and prudent alternative to such use and the project includes all possible planning to minimize the harm to the property resulting from use.

The Section 4(f) evaluation for the potential HSR alignments and stations documented in Section 5 of the FEIS and Section 4.4 of the FEIS Reevaluation indicates that one Section 4(f) resource, Perry Harvey Sr. Park, will be used by the project. The supporting information in the FEIS Reevaluation, summarized below, demonstrates that there are unique problems or unusual factors involved with any alternative that would avoid this Section 4(f) property. Potential avoidance alternatives fail to meet the project purpose and need, fail to meet the objectives of those responsible for the resource used, or result in impacts of extraordinary magnitude to the environment or the community.

Based on the documentation presented in the FEIS and updated in the FEIS Reevaluation, the FRA has determined that:

- The Project is a feasible and prudent alternative with the least harm to Section 4(f) resources;
- There is no feasible or prudent alternative to the use of the above Section 4(f) resources;
- The Project includes all possible planning to minimize harm to the resources resulting from such use. These measures are identified included in Attachment A.

During preparation of the 2005 FEIS it was determined that there would be a potential for moderate noise level increases (proximity effects). An evaluation of vibration, access, aesthetics, and ecological encroachment indicates that the Project will not substantially impair or diminish the use of the park, and a determination was made that there will be no constructive use. These conclusions have not changed. Coordination with the City of Tampa includes a memorandum in the FEIS Reevaluation identifying the continued commitment of FDOT to meet the specific commitments and stipulations identified in the TIS FEIS.

8. CONCLUSION

The FRA has reached a decision based on the information and analysis contained in the 2005 FEIS and the 2009 FEIS Reevaluation. FRA selects the FEIS Reevaluation Revised Preferred Alternative, also described in this document as 2005 FEIS Alternative 5, with electric powered technology, because this alternative: 1) best satisfies the Purpose and Need, 2) minimizes impacts to the natural and human environment through the use of existing transportation corridors and other adopted mitigation measures, 3) has been selected based on processes in compliance with NEPA and other applicable requirements, and 4) may be advanced.

Joseph C. Szabo Administrator

Federal Railroad Administration

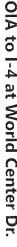
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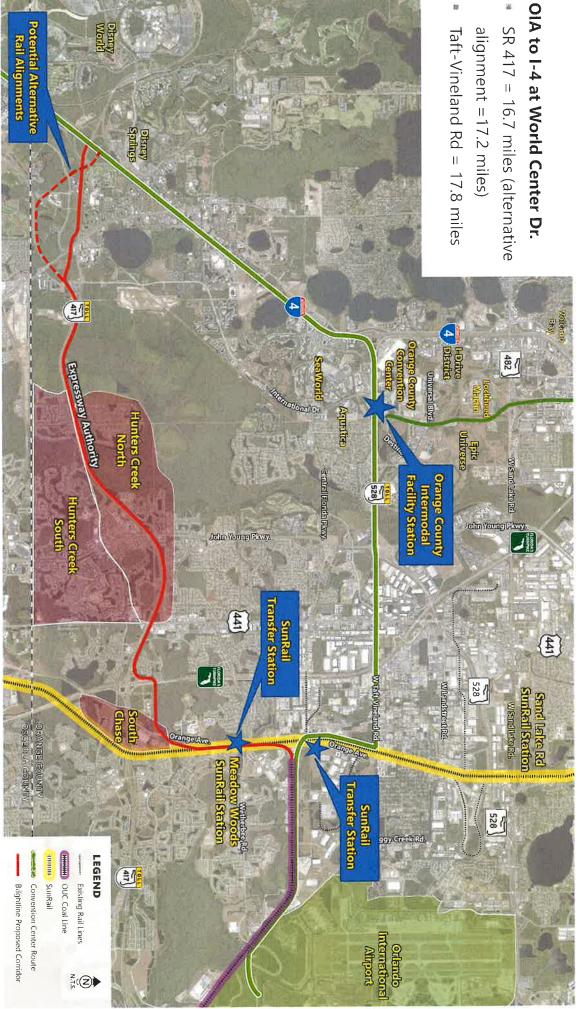
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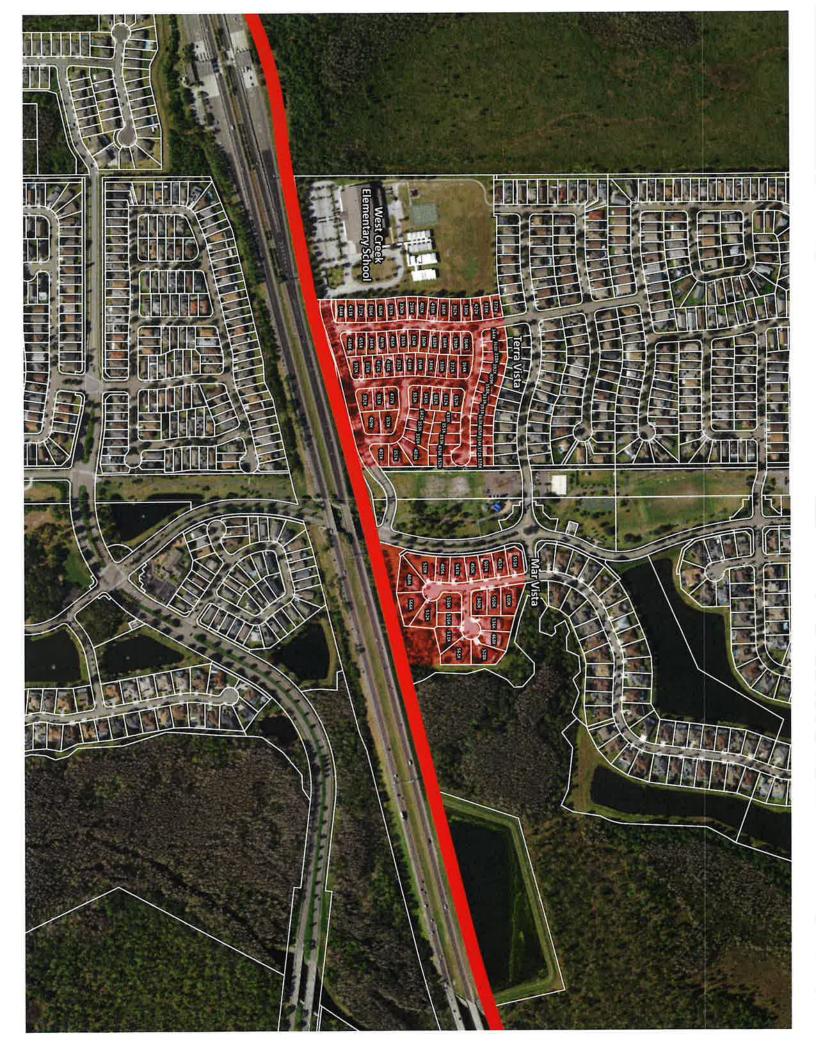
Appendix A - Final Environmental Impact Statement Reevaluation

Appendix B - Mitigation and Commitments

Appendix C - Public Involvement/Comment Summary

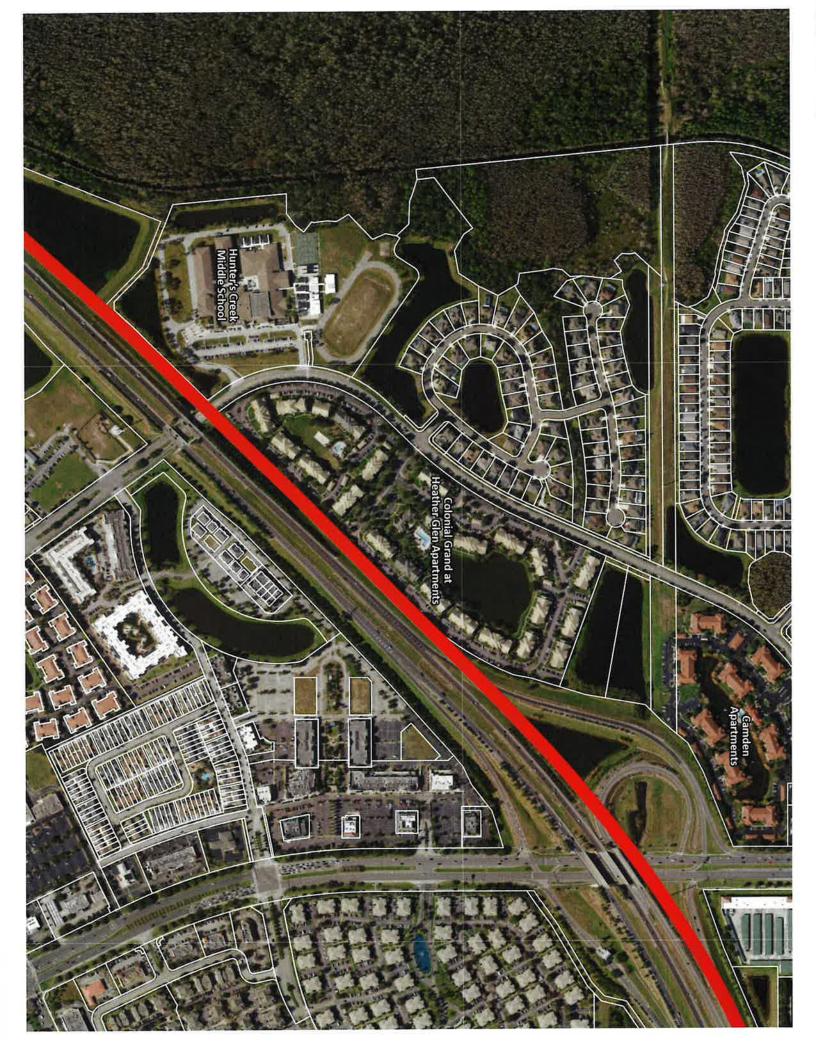




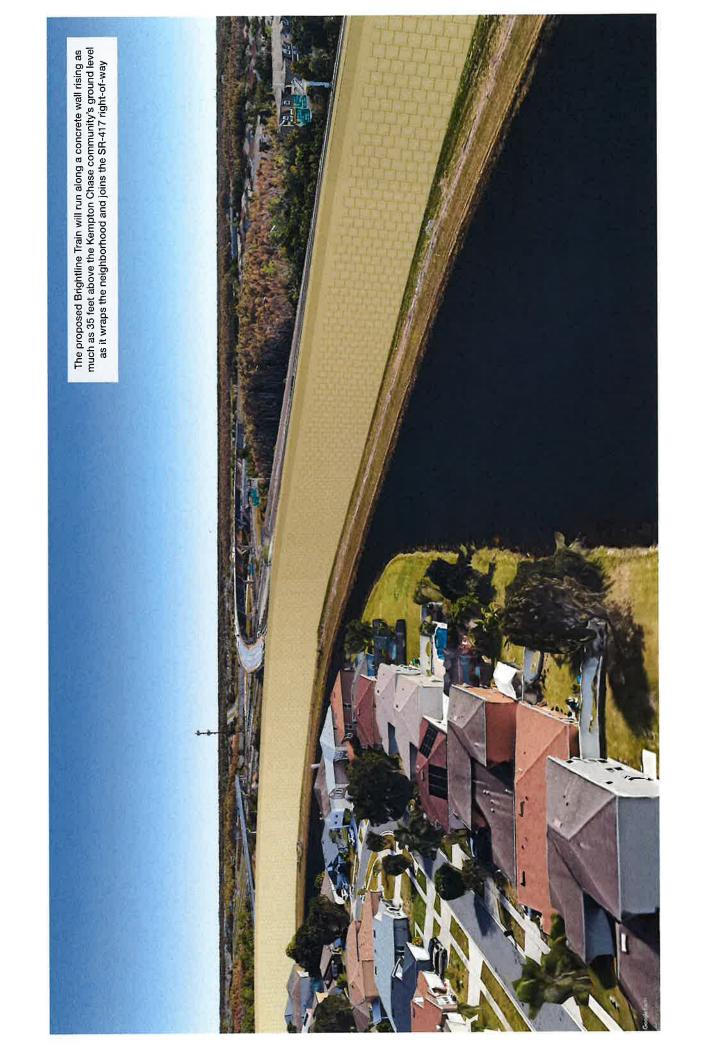


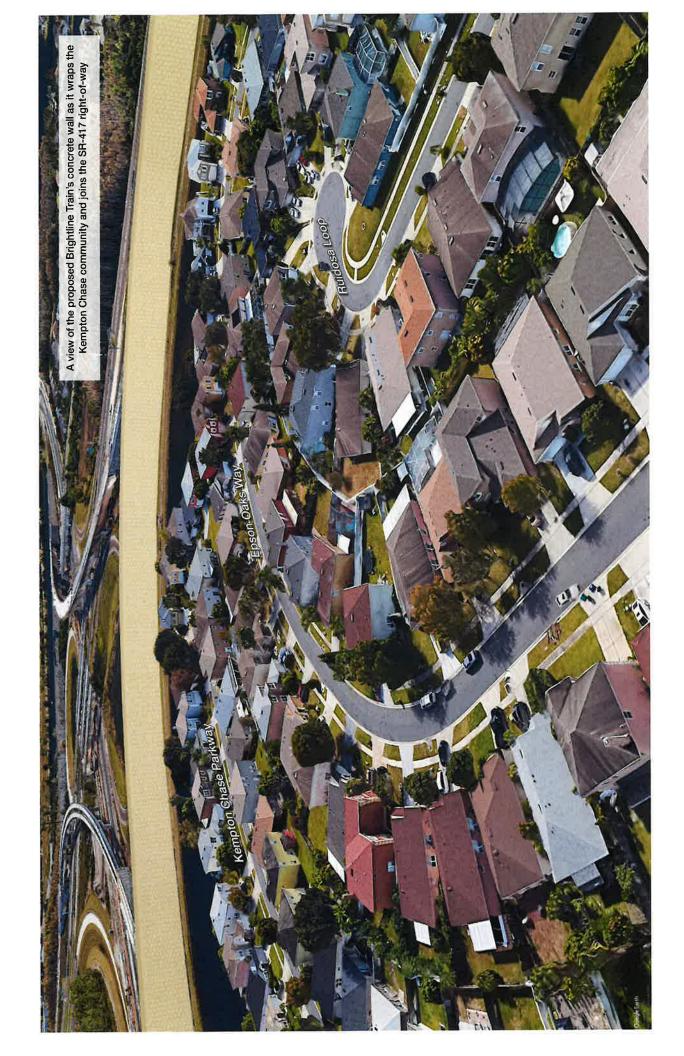


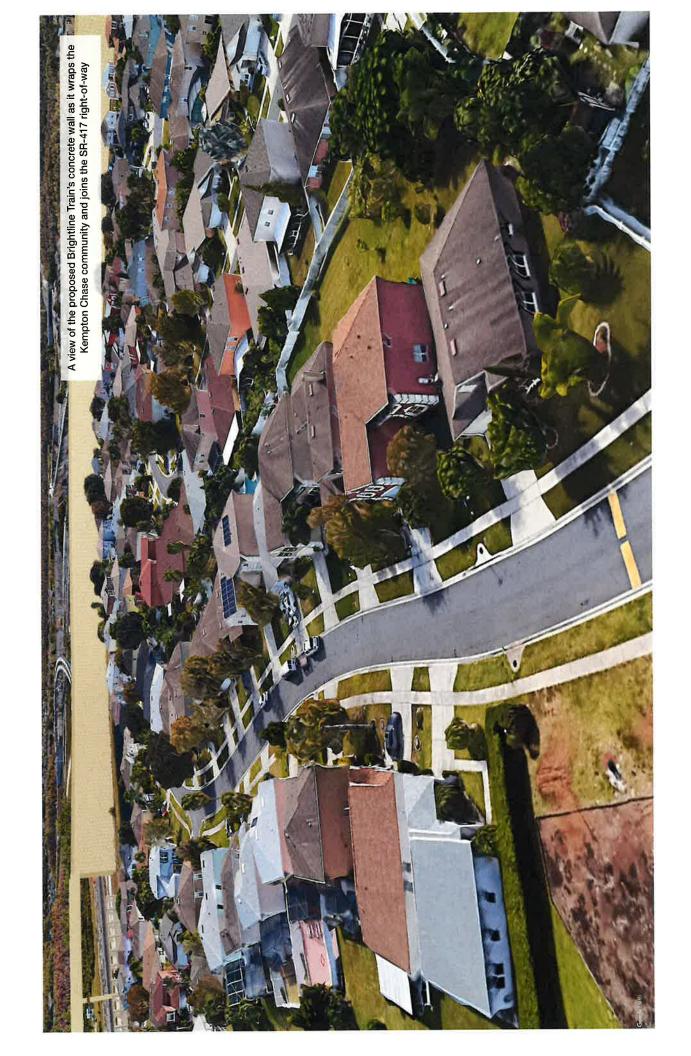










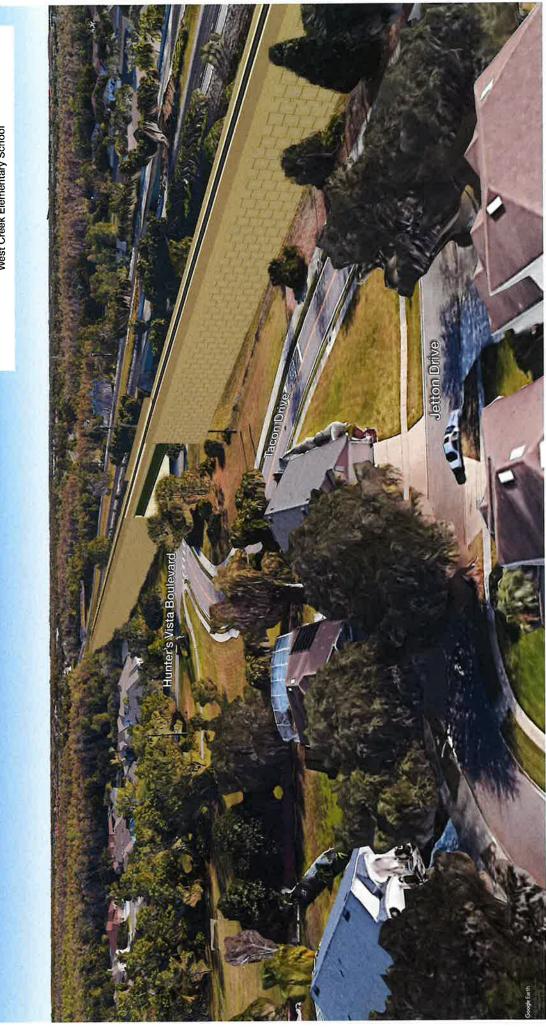




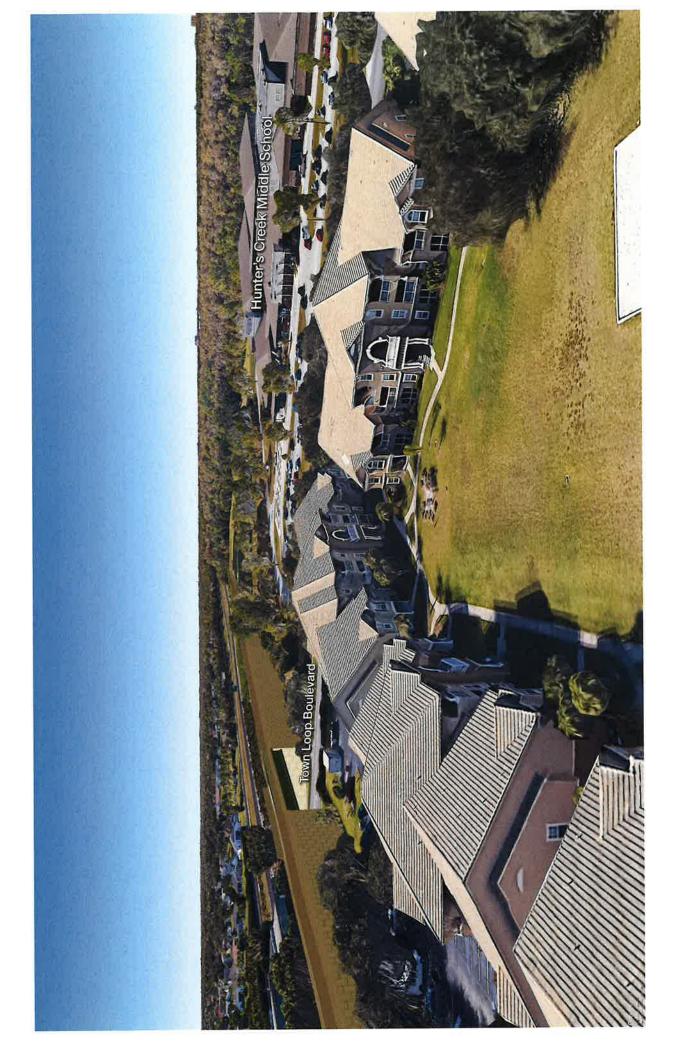


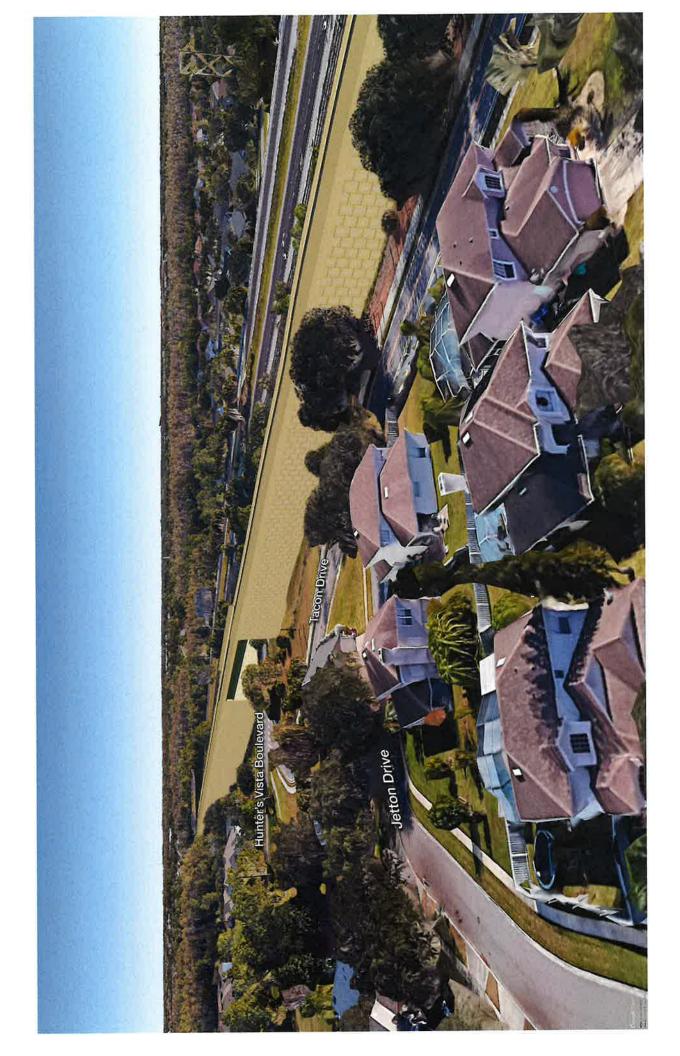
A view of the proposed Brightline Train's elevated wall as it runs adjacent to Hunter's Creek Middle School and crosses 30 feet above Town Loop Boulevard





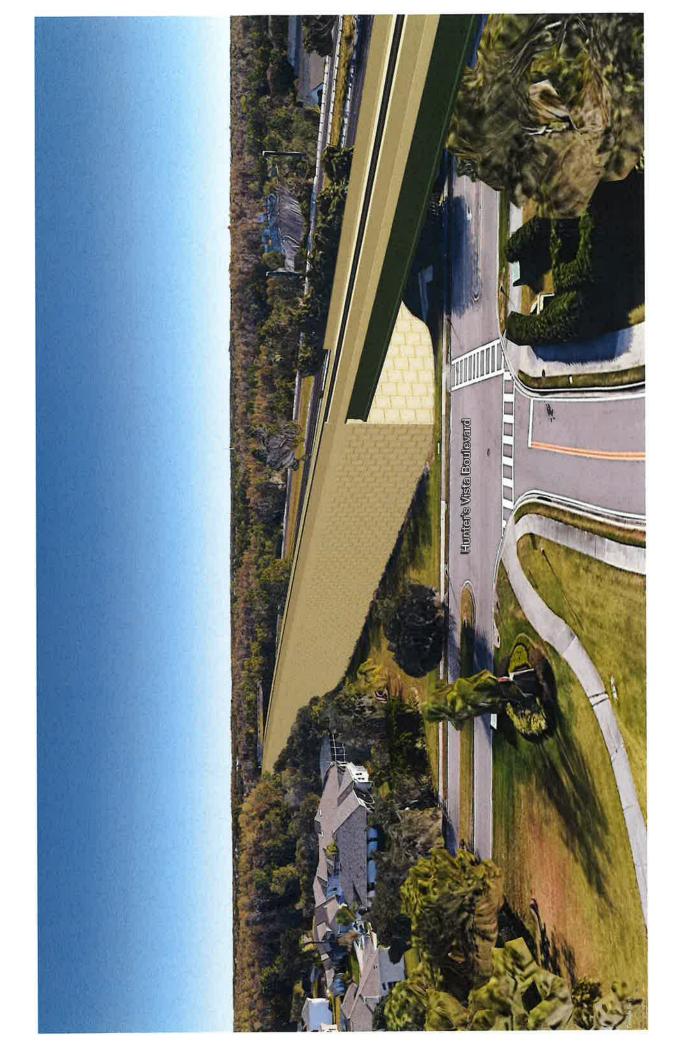
A view of the Brightline Train's elevated wall as it crosses 30 feet above Hunter's Vista Boulevard. It runs adjacent to Tacon Drive and descends to just above ground level at West Creek Elementary School

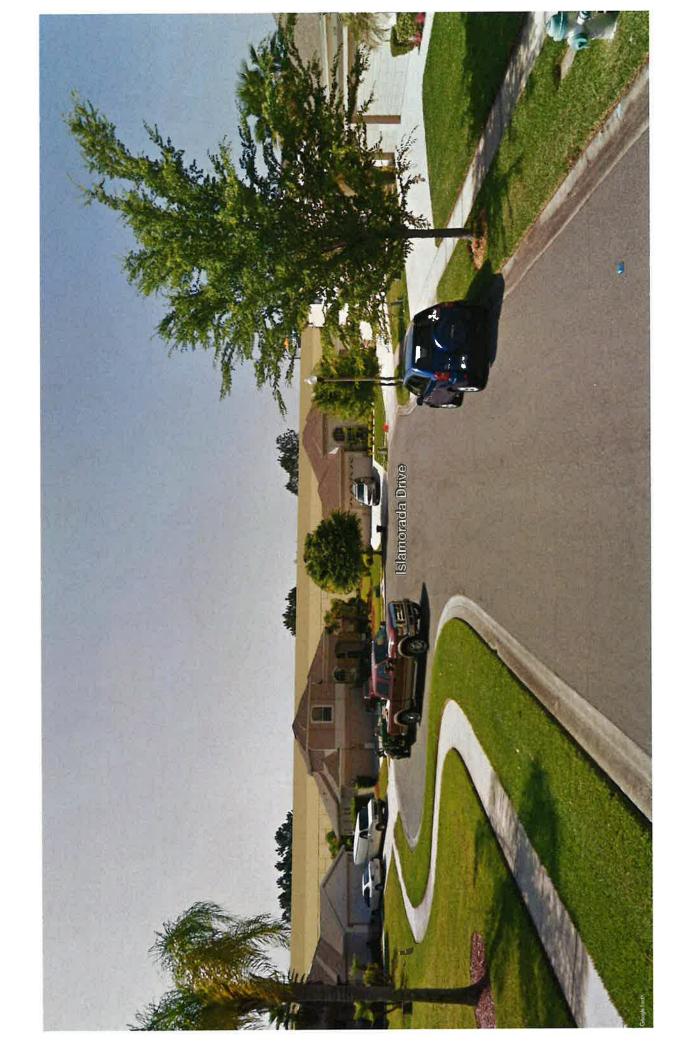


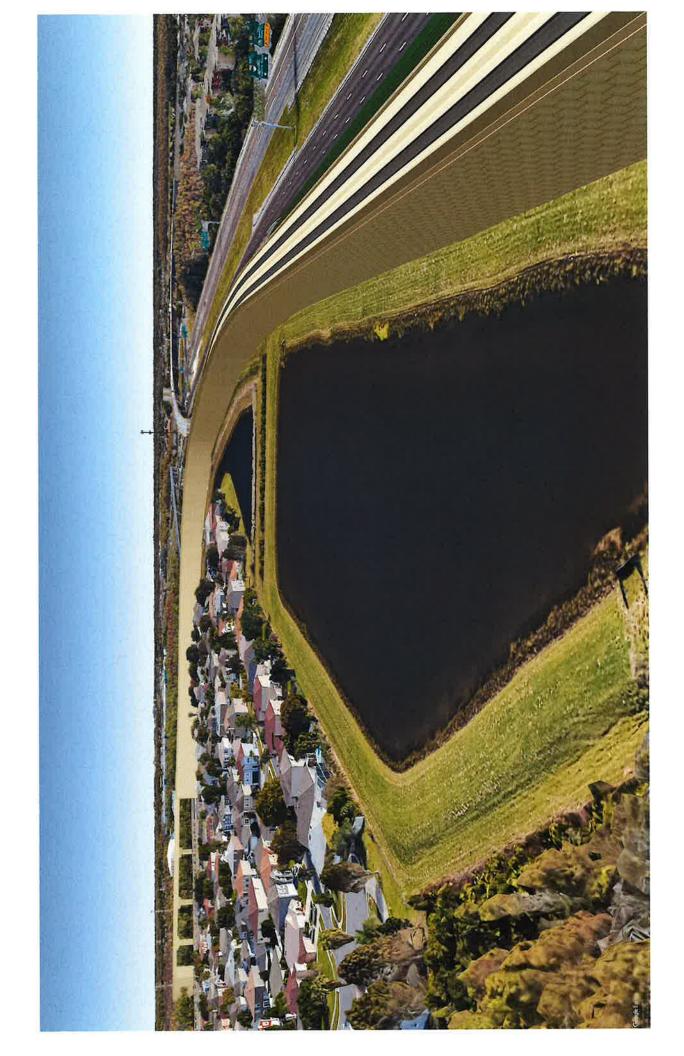


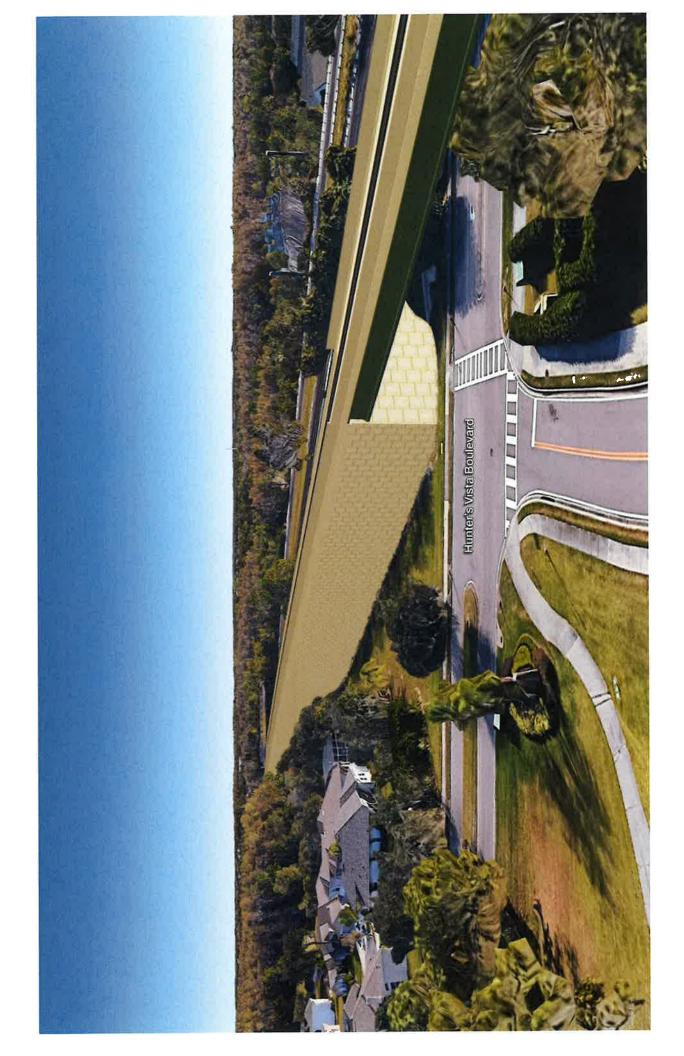


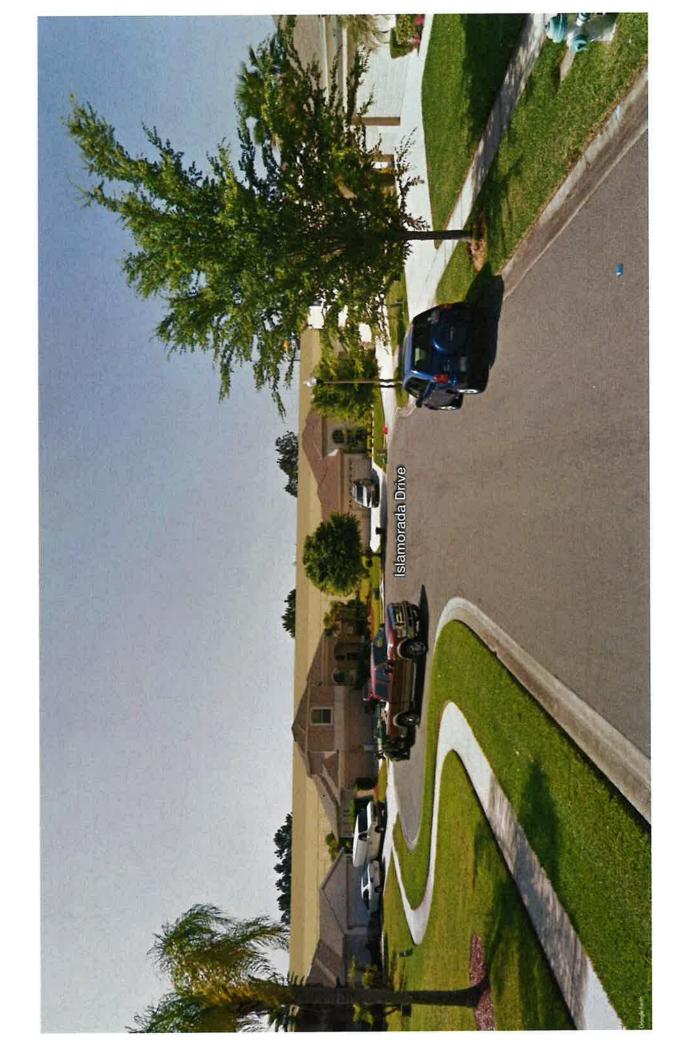












Drone Videos – You Tube

International Drive Resort Area Chamber of Commerce

https://www.youtube.com/channel/UCvvlg Wo2HyLtDCu1a3jplA



Education

MS, Civil Engineering, Florida Atlantic University, 2015

BS, Environmental Engineering, University of Florida, 1998

Registrations/Certifications

Professional Engineer, FL, 02/2021 (reg# 59502)

Certified Public Manager, FL

Amy is a highly experienced professional with over 22 years of experience in Transportation Planning and Project Development. She has served as the Project Manager for multiple Project Development and Environment (PD&E) studies on both FDOT and private sides. Amy managed the Poinciana Parkway and Southport Connector Alternative Corridor Evaluation (ACE) projects for FDOT and assisted in the development of the ACE scoping language. She previously served as a LAP design project manager, PD&E project manager, PD&E Engineer and Project Development Manager for FDOT District 5. Amy was also formerly the District 4 Contamination Impact Coordinator. Amy was a member of the SHRP2 grant project to conduct a Value Engineering study of the FDOT NEPA process and is a TRB panel member for Evaluating Resiliency in Transportation.

22 years of professional experience

Prior to VHB, Amy served as Manager of the FDOT District Five Project Development Unit responsible for conducting Feasibility Studies, Planning and Concept Development Studies, Complete Street projects and PD&E Studies associated with multimodal transportation projects. She handled all aspects of public involvement activities including meeting with elected officials, agency staff, private citizens and responded to public comments. Amy served as the FDOT District Five Statewide Acceleration and Transformation (SWAT) Team representative responsible for developing process to streamline projects through the PD&E and final design phases. Amy was also a member of the team to obtain NEPA assignment from Federal Highway Administration (FHWA) for the State of Florida, giving FDOT review and approval authority for highway projects under NEPA and other federal laws. This effort entailed an extensive update to FDOT policies, manuals, and guidance; training of NEPA practitioners in the state; updates to document repositories and individual District and staff audits from FHWA.

FDOT District 5, I-4 Poinciana Parkway Connector ACE Study, Osceola County, FL Prior to VHB, as Project Manager, Amy prepared an alternative corridor evaluation study to meet PEL regulations for a new roadway connection between the Poinciana Parkway and I-4. This evaluation involved the development of potential corridors and comparative analysis based on preliminary engineering, environmental impacts, and public involvement. Coordination was conducted throughout the study between Osceola County Expressway Authority, FDOT, FHWA, local agencies, and other stakeholders, along with extensive public outreach.

FDOT District 5, Southport Connector ACE Study, Osceola County, FL
Prior to VHB, as Project Manager, Amy prepared an alternative corridor evaluation to meet
PEL regulations for a new roadway connection between the Poinciana Parkway and Florida's
Turnpike. This evaluation involved the development of potential corridors and comparative
analysis based on preliminary engineering, environmental impacts, and public involvement.

FDOT District 3, I-10 at CR 4 (Antioch Road) PD&E Study, Okaloosa County, FL Amy served as the Project Manager for the PD&E study of the realignment of PJ Adams Parkway over I-10 with addition of an interchange. The study is a portion of the future Crestview Bypass and analyzed multiple interchange locations and types along with the associated roadway connections. VHB performed all engineering services required by FDOT and FHWA and analyzed all social, economic, and environmental effects and mitigation. VHB prepared environmental documents, engineering reports, preliminary plans, and public hearing documentation.



FDOT District 3, SR 85 Feasibility Study, Okaloosa County, FL

VHB was selected to conduct a feasibility study for SR 85 from SR 123 to I-10 (SR 8). The study provided the documented information necessary to determine fatal flaws, logical termini, purpose and need, and corridors or alternatives that met performance metrics identified in the purpose and need. As part of the project, VHB analyzed and assessed the existing and future traffic and the project's impact on the social, economic, cultural, natural, and physical environment. Amy served as a Technical Advisor for this project.

Orange County, SR 436 / Little Econ Trail Phase 3 Bridge Feasibility Study, Orange County, FL

Amy served as the Project Manager for the SR 436 Pedestrian Bridge Feasibility study to analyze multiple alternative bridge and at-grade crossings of SR 436 at Baldwin Park Street in Orlando, FL. The study includes an existing conditions analysis, concept development, public outreach, stakeholder coordination, cost estimating and further refinement of the preferred

FDOT District 1, SR 684 (Cortez Road) Access Management Public Hearing, Manatee

VHB was selected to conduct an Access Management Public Hearing for FDOT District 1. Amy served as the Project Manager for this task and was responsible for all activities required to conduct an official Hearing. This was an expedited schedule and included the creation of mailing lists, meeting notices, website information, recorded video presentation, boards, handouts and all other meeting materials.

FDOT District 5, Public Involvement for Design CSC, FL

VHB currently holds a Continuing Service Contract for design projects with FDOT District Five. Under this contract Amy has served as the Task Lead for all public involvement activities, including public meetings, public hearings, and stakeholder coordination. Amy and her team have conducted or are currently preparing for public involvement meetings for six different design projects throughout the District. Public involvement activities include face-to-face public meetings held prior to COVID-19, virtual public meetings held under COVID-19 protocols, and hybrid virtual/face-to-face meetings under the most recent FDOT public involvement

FDOT District 5, SR 50 Realignment PD&E Study, Lake County, FL

Prior to VHB, Amy served as Project Manager of the PD&E Study for the State Road 50 bypass / realignment in the Town of Groveland, FL. This study involved preliminary engineering, preparation of environmental documents, and public involvement to meet the requirements of NEPA. Coordination was conducted throughout the study between local agencies, FDOT and FHWA, in addition to all stakeholders.



Firm VHB

Education

BS, Civil Engineering, University of Massachusetts Lowell, 1992

MS, Civil Engineering, University of Massachusetts Lowell, 1992

> Registrations/ Certifications

Professional Engineer (Structural), MA

Relevant Years of Experience

28

Steve McElligott, PE

Principal-in-Charge

Steve is recognized as a proven leader in the industry, bringing 25 years of experience providing management, oversight, technical excellence and/or strategic guidance on transit and transportation programs across the country. His extensive experience includes technical delivery of comprehensive multidisciplinary infrastructure engineering solutions with proficiency in rail transit systems engineering. He has provided leadership and strategic guidance in support of some of the region's most critical mobility projects, including Amtrak's New Jersey High-speed Rail Improvement Program, Miami Dade Transit's East-West Corridor, and the St. Louis Metro Cross County Extension. Steve applies his extensive experience and best practices to help integrate and align VHB's Transit & Rail resources to develop responsive solutions to mobility issues affecting our clients nationwide.

PANYNJ, PATH Extension to the NEC Rail Link Station Planning and NEPA Support, Newark, NJ

Steve is the Principal-in-Charge of planning, engineering, and environmental analyses as part of a consultant team retained by PANYNJ to advance the potential extension of PATH from Newark Penn Station to the Newark Liberty International Airport Rail Link Station, including a connection to the AirTrain monorail system at the airport. This project includes the potential 2.4-mile extension and an associated station connection, modifications to the Rail Link Station, PATH supporting infrastructure including a new storage yard and substations, a potential park-and-ride and intermodal facility, and support for transit-oriented development. An Environmental Impact Statement is being prepared in accordance with NEPA and FTA Capital Investment Grant guidelines.

MBTA, South Coast Rail Expansion, Fall River and New Bedford, MA

For the Massachusetts Bay Transportation Authority (MBTA), Steve was Principal-in-Charge and Joint Venture Board Member for the preliminary engineering and PM/CM of the MBTA's South Coast Rail Expansion to Fall River and New Bedford. He was responsible for ensuring that the project was adequately staffed and contracted in a reasonable manner, client expectations were met on a regular basis, the company was performing in accordance with contractual requirements earning according to our contractual potential. Steve provided high level oversight with respect to satisfactory delivery of our services.

NJ TRANSIT, 1st and 2nd Street bridges over the Morris and Essex Line, Newark, NJ

Steve was Project Manager for all electric traction, track and signal design associated with the reconstruction of the 1st and 2nd Street bridges over New Jersey Transit's Morris and Essex Line in Newark. He was responsible for coordinating the bridge

Continued

demolition and reconstruction with railroad operations in order to provide uninterrupted revenue service. Key elements included temporary support and relocation of overhead catenaries, development of ballast fouling prevention measures and temporary support of high voltage and signal conductor conduits during abutment reconstruction.

NJ TRANSIT, East Hanover Avenue Bridge Replacement, New Jersey

Steve was OCS Engineer for the replacement of the East Hanover Avenue Bridge over New Jersey Transit's M&E Line in New Jersey. He provided construction phase services during the bridge replacement with key responsibilities that included the review of all structural steel and OCS hardware shop drawings. In addition, he modified the design of new catenary structure foundations from spread footings to concrete piers in order to facilitate construction and minimize disruptions to revenue service.

NJ TRANSIT, Montclair Connection Value Engineering

Steve was part of a team assembled to perform a value engineering study of New Jersey Transit Corporation's Montclair Connection Project. His duties included review of the proposed 11-mile compound catenary system and its associated portal structure and single pole bracket arm supports and foundations. Steve's experience in OCS and support structure design and construction contributed to recommendations by the team for potential cost savings of millions of dollars.

NJ TRANSIT, Roseville Interlocking Design

Steve was Lead OCS Engineer for New Jersey Transit Corporation's Roseville Interlocking Design. He designed the OCS modifications required to create a two-track connection of the Montclair Branch to the Morris and Essex Lines. He analyzed the impacts of various proposed track alignments on the ET facilities, and relocating and adding OCS elements as required. Steve also prepared contract drawings for all elements of the OCS including assemblies, structural supports and foundations and wiring plan and profiles.

MassDOT, South Station Expansion, Boston, MA

Steve was a member of the executive oversight team for MassDOT's South Station Expansion project in Boston, which is part of the vision for the New England High-Speed and Intercity Rail Network. He was responsible for project direction, staffing and contract compliance. The project includes the completion of all necessary environmental reviews, as well as preliminary engineering (30-percent design) required for the expansion of Boston's South Station and the development of a new rail vehicle layover facility. Work includes constructing seven new tracks, which will expand South Station capacity from 13 to 20 tracks, and reconfiguring three critical track interlockings.

MEMORANDUM OF UNDERSTANDING BETWEEN CENTRAL FLORIDA EXPRESSWAY AUTHORITY AND BRIGHTLINE TRAINS FLORIDA LLC

This **MEMORANDUM OF UNDERSTANDING** ("<u>MOU</u>") is made and entered into by and between the **CENTRAL FLORIDA EXPRESSWAY AUTHORITY**, a body corporate and an agency of the State of Florida, created by Part III of Chapter 348, Florida Statutes, ("<u>CFX</u>") and **BRIGHTLINE TRAINS FLORIDA LLC**, a Delaware limited liability company and any of their respective successors and assigns ("BRIGHTLINE"); collectively referred to as the "<u>Parties</u>".

In 2018, the Florida Department of Transportation ("FDOT") advertised a Request for Proposals (RFP) for a high-speed intercity passenger rail system ("High-Speed Rail Project") from Orlando to Tampa, Florida. BRIGHTLINE was the sole responder and was given the opportunity to negotiate with FDOT and CFX for the use of rights of way for the High-Speed Rail Project. BRIGHTLINE's preferred alignment includes a portion of SR 417 owned and operated by CFX from the SR 417/Florida's Turnpike interchange to the SR 417/ International Drive interchange (the "CFX Corridor").

The Parties desire to negotiate and enter into a Contract for Sale and Purchase of a Rail Line Easement and Rail Line Easement and Maintenance Agreement to grant BRIGHTLINE an easement of the CFX Corridor (the "Definitive Agreements"), on terms and conditions mutually satisfactory to the Parties and including, without limitation, the following:

- (1) BRIGHTLINE's 15%, 30%, 60%, 90% and final design plans contemplating use of CFX right of way for the High-Speed Rail Project must be reviewed and approved by CFX before construction of the High-Speed Rail Project can begin.
- BRIGHTLINE shall obtain and deliver to CFX a ridership and toll diversion study using (2) the mutually acceptable methodology set forth on Exhibit A. CFX shall independently review and analyze the ridership and toll diversion study. CFX shall agree to place the Rail Line Easement and Maintenance Agreement, granting the easement interests over the CFX Corridor, into escrow after the execution of the Definitive Documents. CFX and BRIGHTLINE shall mutually agree upon the amount of the payment due to CFX for any toll diversion prior to closing on the easement interest over the CFX Corridor as contemplated in the Contract for Sale and Purchase of a Rail Line Easement. Any payment due to CFX by BRIGHTLINE for the toll diversion shall be paid to CFX at the closing. The Definitive Agreements shall provide that any changes or revisions to the High-Speed Rail Project, or any expansion of the High-Speed Rail Project, shall require CFX approval and may require an additional ridership and toll diversion study and negotiation. Toll diversion payments from BRIGHTLINE must be paid to CFX in advance of the commencement of construction of any changes or revisions.

- (3) The Definitive Agreements shall provide that BRIGHTLINE shall compensate CFX for the use of the CFX Corridor and any reconfiguration of SR 417 within the CFX Corridor that may be required as a result of the High-Speed Rail Project.
- BRIGHTLINE shall agree to indemnify and hold harmless CFX, for all potential claims or actions resulting from that certain Stipulated Final Judgment between CFX's predecessor in interest and American Newland Associates, et al. ("Plaintiff") entered by the Circuit Court of the Ninth Judicial Circuit, Orange County, Florida on October 20, 1992 and recorded in Official Records Book 4477, Page 3855, Public Records of Orange County, Florida, and that certain Joint Stipulation for Entry of Final Judgement as to Parcels 45-101, 45-202, 45-706 and 45-806 and Settlement Agreement for the Inverse Claim by the Defendant Arising from the Right-of-Way Reservation Map executed on October 19, 1992, whereby the Plaintiff reserved the right to seek additional compensation for additional damages imposed on its remaining lands as a consequence of CFX's predecessor, or CFX, as its successor in interest, permitting in the future the use of all or part of the right-of-way taken pursuant to the terms thereof for non-roadway forms of transportation, such as magnetic levitation trains, high speed rail systems, or any other use not contemplated in the plans provided as evidence for the condemnation of the Plaintiff's real property (collectively, the "Settlement Agreement"). Nothing in the foregoing is intended or should be construed to be an acknowledgement of liability with respect to any claims arising under the Settlement Agreement. BRIGHTLINE and CFX shall agree upon a method of providing reasonable assurances of BRIGHTLINE's financial ability to perform the foregoing indemnity obligation, which may be in the form of a bond, letter of credit or cash escrow, in the Definitive Agreements.
- (5) BRIGHTLINE agrees that freight movement will be prohibited along CFX right of way and that CFX's approval for use of High-Speed Rail Project in the CFX Corridor is limited to BRIGHTLINE's and SunRail's use only.
- (6) BRIGHTLINE shall use reasonable efforts to obtain approval from the Central Florida Commuter Rail Commission (CFCRC) Governing Board for Sunrail's use of the BRIGHTLINE rail improvements constructed from the Orlando International Airport to a mutually agreed upon train stop on mutually acceptable terms as part of the High-Speed Rail Project prior to the closing on any easement interests on CFX sections on the CFX Corridor.

If BRIGHTLINE reaches agreements with the City of Orlando and the Orlando Utilities Commission (OUC) for use of the OUC railroad corridor and with the City of Orlando and the Greater Orlando Aviation Authority for use of Orlando International Airport (OIA) property), to access the SunRail/FDOT corridor, BRIGHTLINE will ensure that the design, construction, and operation of Brightline's improvements within the OUC railroad corridor and on OIA property do not interfere with the expansion and

provision of SunRail service to OIA to accommodate 15 minute headways. Brightline agrees that any such improvements may be jointly used by Brightline and SunRail on mutually acceptable terms and will be designed and constructed accordingly.

BRIGHTLINE and the CFCRC will cooperate to ensure that their respective stations are designed/constructed in a manner that will allow them to potentially serve customers transitioning from SunRail to BRIGHTLINE and vice versa.

This MOU shall be effective unless terminated (a) by BRIGHTLINE, by written notice to CFX, (b) by CFX, if BRIGHTLINE fails to continue to advance the High Speed Rail Project and such failure is not cured after CFX provides thirty (30) days' written notice of such failure to BRIGHTLINE, or (c) automatically if FDOT has notified BRIGHTLINE of its termination of the RFP process for the High-Speed Rail Project. Any obligations or expenses incurred that are due and owing as of the date of termination and that are reimbursable by BRIGHTLINE to CFX, including the costs incurred by CFX for any studies or appraisals, shall survive the termination of this MOU unless superseded by terms in the Definitive Documents.

IN WITNESS WHEREOF, the Parties hereto have caused this Memorandum of Understanding to become effective as of the last date as executed by the duly authorized representatives of the Parties below ("Effective Date").

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

By:	
lts:	
Date:	
BRIGHTLINE TRAINS FLORIDA LLC	
By:	
By: Its:	
Date:	

Exhibit "A"

Facility Impacts							F	FTE						
Example Market Pair	SR-821 (HEFT)	SR-91 Mainline	SR-869 Sawgrass Expressway	SR-417 Southern Connector Extension	SR-417 Seminole Expressway	SR-528 Beachline East	SR-528 Beachline West	SR-429 Daniel Webster Western Beltway	SR-570 Polk Parkway	SR-570 Polk 1-4 Parkway Connector	SR-589 Veterans Expressway	SR-589 Suncoast Parkway	Alligator Alley	FTE TOTAL
Transactions														
Trips shifted from roadway to Brightline														
Change in trips for station access/egress due to shift to Brightline														
Station access/egress trips for newly induced Brightline trips														
Transactions total														
Revenues														
Trips shifted from roadway to Brightline														
Change in trips for station access/egress due to shift to Brightline	8													i i
Station access/egress trips for newly induced Brightline trips														
Revenue total														

Facility Impacts				ō	CFX			
Example Market Pair	SR-528 Beachline Expressway	SR-528 SR-408 East- eachline West pressway Expressway	SR-417 CF GreeneWay	SR-429 Western Beltway	SR-414 Apopka Expressway	SR-451	SR-453	CFX Total
Transactions								
Trips shifted from roadway to Brightline								
Change in trips for station access/egress due to shift to Brightline								
Station access/egress trips for newly induced Brightline trips								
Transactions total								
Revenues								
Trips shifted from roadway to Brightline								
Change in trips for station access/egress due to shift to Brightline								
Station access/egress trips for newly induced Brightline trips								
Revenue total								

Introduction

Brightline will hire demand and revenue consultants to conduct refreshes of WSP's past ridership and toll road routing studies. The consultants will communicate with and seek feedback from CFX, FTE, and their consultants at various points during the undertaking of the studies. The scopes for these refreshes are outlined in this memo below.

Refresh of Ridership Study

The consultant will conduct a refresh of the ridership and revenue forecasts contained within The Brightline Ridership and Revenue Study, prepared by WSP in 2018.

The refresh will include the following additions and updates:

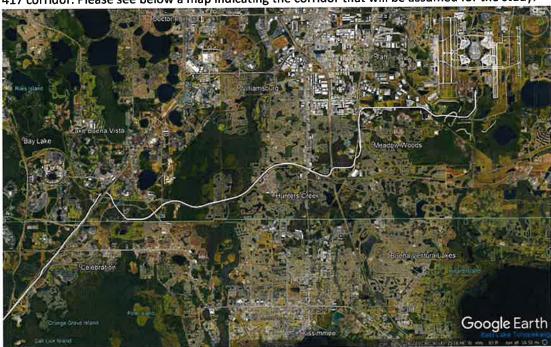
- Consideration in the model of only all committed stations Miami, Aventura, Fort Lauderdale, Boca Raton, West Palm Beach, Orlando Airport, Walt Disney World, and Tampa.
- Commentary on expectations of post-pandemic travel and economic recovery and its impacts on travel by various modes.
- Commentary on the ramping up of ridership on the existing short-distance Brightline service in South Florida, and the expectations of stabilized demand. The actual operating conditions of initial Brightline service in South Florida (including by-station boarding and alighting figures), alongside ramp-up and early-year operational considerations, will be taken into account in the calibration of the shortdistance mode choice model.
- Updated and more granular zonal structure and additional road network in the Orlando and Disney regions to allow for more reliable estimation of the potential impacts of diversion on CFX and FTE facilities.
- Update of actual and expected Brightline service parameters with regard to station locations, travel
 times, frequency, service alignment as it pertains to service parameters, capacity limitations on
 certain station pairs (especially short-distance pairs), and fares. Actual Brightline service parameters
 in South Florida prior to the COVID-19 pandemic will be incorporated in this update as applicable.
- Updated access and egress travel times and travel costs, as well as auto travel times between all origin
 and destination pairs, for all model years, using the most relevant regional and statewide travel
 demand models. Revisit in-station wait times for non-auto modes based on station size, location and
 design. The vehicle occupancy assumptions for auto trips will also be revisited as part of this study
 update.
- An upgraded model architecture that allows for the simultaneous consideration of short- and longdistance travel in the same model run, as well as be nimbler with the greater number of zones being requested in the refresh.
- An updated sensitivity test for assessing the impact of lower fares.
- Travel pattern data from a Big Data origin-destination dataset, as well as from entry-exit toll payment
 counts on the Florida's Turnpike mainline will be provided to the consultant by Florida's Turnpike
 Enterprise, and this data will be evaluated in the context of establishing the adjustment factors (for
 local trips and captive trips) for long-distance trips between South Florida and Central Florida. This
 data will be compared with the origin-destination data purchased from third-party data provider
 AirSage for previous studies by WSP. The origin-destination dataset used for the study will utilize the



- best plausible blend of data sources available, a determination which will take into account the sources, methodologies, and date of the various datasets available.
- With the announced transfer of DME to a paid bus service (run by the same contractor), a revised approach to the short distance Orlando-Disney market will be developed the consultant will reevaluate the trip count estimates and mode shares for this station pair, including Brightline's potential capture of previously captive trips. This analysis will take into account rail capacity limitations, including Brightline's stated business focus on serving long-distance trips as the priority. As such, the ridership for this pair will be assessed in light of Brightline's latest business plans and capacity information as of the date of the study.
- The base year to which the mode choice model is calibrated will be 2019.
- The report will document post-calibration alternative specific constants from the ridership model.

The refreshed study will continue to rely on the 2018 study for all other key points, including the following items:

The Brightline route between the Orlando International Airport and Disney stations will utilize the SR
 417 corridor. Please see below a map indicating the corridor that will be assumed for the study.



- The study will contain one build scenario that will initially assume 18 trains in each direction per day —
 with a further assessment and discussion should the study show demand results that are materially
 above or below the capacity implied by this number of trains. The schedule will include 1-hour
 headways and each train will stop at each station along the route.
- The broad structure of the mode choice ridership model used to calculate ridership figures and mode choice figures from the various key inputs (trip tables, existing mode choice, value of time, etc.). To provide the level of detail typical for outputs of a detailed ridership study, the mode choice model has the following attributes:



- Structure to estimate mode choice by time of day, income segment, trip-purpose segment, and station pair.
- Level of service parameters for the existing modes of travel that have been benchmarked against multiple data sources.
- Ability to conduct sensitivity tests for alteration in fare prices, value of time, socioeconomic inputs, travel market growth, and other key parameters.
- Zone structure to allow for reasonable estimation of station/access egress costs.
- Value of time inputs based on stated preference surveys previously conducted by WSP.
- Prior assumptions concerning captive markets, with regard to:
 - What share of travelers in general aren't candidate to shift to Brightline service due to their need for a car.

Following the ridership model development described above, the consultant will develop annual ridership and revenue forecast estimates. The forecast will include the following metrics:

- Annual level of ridership and revenue by station pair.
- Estimated boardings and alightings for all stations listed above.
- Indication of capture from existing modes of travel and overall addressable travel market, by station pair.
- Statistics for utilization by time of day and class of service.
- The spatial pattern of trip endpoints in the various broad markets (Tampa, Orlando, and South Florida), for trips of all modes, and Brightline trips.
- A comparison of Brightline system ridership, revenue and fare amounts between the historical actual pre-COVID-19 performance and the updated forecast.

Deliverable: a draft and final Study Report, similar in structure and detail to the previous Brightline Ridership and Revenue Reports documenting the historical Brightline ridership and revenue performance, data gathering effort, key assumptions, modeling methods, and findings of the Ridership Study effort for the service extension to Tampa. The appendix for the report will include a table outlining key inputs as well as a table showing the total addressable market by station pair and model years.

Required data presentation formats

See Appendix A.

Refresh of Toll Road Routing Study

This study is to assess the impacts of the extension of Brightline service from Orlando International Airport to Tampa on various toll facilities in the Central Florida Expressway Authority (CFX) and the Florida's Turnpike Enterprise (FTE) systems, due to auto trips foregone due to travelers using the train, as well as increased auto trips being used to access railway stations.

The scope of work will include the following:



- A refreshed data collection effort to understand the toll rates charged at and the locations of all toll
 gantries in the CFX and FTE systems, such that the routing network accurately represents the per mile
 tolls charged in the system.
- An update of the trip tables and other inputs that feed into this analysis, which will be pulled from the refreshed ridership study. The trip tables used for the evaluation will be the differential between those estimated for Miami-Orlando and Miami-Tampa service, such that the evaluation concerns additional marginal trips generated by the expansion of the system to Tampa. Two sets of trip tables will be used to complete this analysis, comprising the first future-year model year trip tables, and the final horizon future-year model year trip tables, which will be a minimum of 10 years after opening.
- A refreshed quality control effort with regard to checking that the network is reasonably routing trips
 to/from key zones in the zonal structure, if it is updated in the ridership study refresh. Furthermore,
 this quality control effort will ensure that no zones are being directly loaded onto a toll facility in the
 network, that all zones have a free alternative for travel to/from that zone in the network, and that all
 links in the network are correctly labeled as belonging to the appropriate CFX or FTE toll facility.
- The study will evaluate routing concerning the seven toll facilities operated by CFX: SR 408 (East-West Expressway), SR 414 (Apopka Expressway), SR 417 (Central Florida GreeneWay), SR 429 (Western Beltway), SR 528 (Beachline Expressway), SR 451, and SR 453.
- The study will evaluate routing concerning the thirteen toll facilities operated by FTE: Turnpike
 Extension, Sawgrass Expressway, Florida's Turnpike Mainline, Southern Connector Extension,
 Beachline East Expressway, Beachline West Expressway, Seminole Expressway, Polk Parkway, I-4
 Connector, Veterans Expressway, Daniel Webster Western Beltway, Suncoast Parkway, and Alligator
 Alley.
- The study will update the auto routes assumed to be impacted by the Brightline connection between each station pair. The study will evaluate the three best routes (i.e. the most favorable combination of travel time and tolls paid) for trips traveling between South Florida and Central Florida, allocating the trips proportionally between the three routes based on how favorable each route is for the origin-destination pair.
- The following estimates will be provided:
 - O An estimate of transactions and revenues gained or lost by CFX and FTE, by toll facility, using WSP's ridership estimates for Brightline and taking into consideration the origins and destination for long distance travel. The estimate of transactions and revenues gained or lost by CFX and FTE toll facility will be provided for both the opening year and a future year at least 10 years after opening.
 - For each CFX and FTE facility, the estimates will be broken down into three categories: auto trips foregone because they have shifted to Brightline service, additional auto trips accessing Brightline stations from travelers shifting to Brightline service, and additional auto trips accessing Brightline stations from travelers whose trips are newly induced.
 - The estimates will be broken down by station travel pair i.e. origin station and destination station.
 - A sensitivity test assessing the impact of lower fares on the results of the routing study, as well as two further sensitivity tests assessing the impact of two different model inputs, which will be chosen based on input from CFX, FTE, and/or their consultants.



- As with the previous Toll Road Routing Study, the final deliverable will be a draft and final report
 describing the data collection, study technical approach, and final results that will include, but are not
 limited to, the estimated transactions and revenues gained or lost on each CFX and FTE toll facility
 including all estimates outlined above due to the Brightline expansion to Tampa. The appendix for the
 report will include:
 - o A table outlining key inputs.
 - o A table outlining the per mile toll rates used by toll facility.
 - o Maps showing the routing for key example origin-destination pairs.
 - O A map showing the roadway network used in the study.
 - Maps showing the spatial pattern of trip ends that are potential Brightline trips, as well as the spatial pattern of trip ends that are trips that shift from existing modes to Brightline.
 - The routing results by link in a QGIS environment, showing the number of diverted, attracted, and induced trips on each link.

Required data presentation formats

See Appendix A.



To: Glenn Pressimone, P.E.
Chief of Infrastructure
Central Florida Expressway Authority

Date: 7/12/21

Project #: 62375.34

From: Amy Sirmans, P.E. Re: Brightline Route Cost Comparison Addendum

Thank you for meeting with VHB representatives on July 6, 2021, to review our report and findings on the comparison of Brightline's cost estimates for two different rail alignments from Orlando International Airport to a proposed Brightline station at Disney Springs. At your request, we are providing this addendum to our July 6 report which provides additional information and summarizes responses to questions received since the July 6 meeting.

VHB has undertaken the difficult task of comparing two significantly different levels of cost estimate Brightline provided for each route, as described below:

- Brightline's estimate for the Convention Center Route along Taft-Vineland Road/SR 528 is based on a 30% design developed for Florida High Speed Rail (FLHSR), a fully identified route that was studied in detail and initially approved in 2005, and again in 2010 based on a re-evaluation.
- Brightline's estimate for the 417 Route is based on a 15% design for a proposed alignment that Brightline has advised is no longer valid. In fact, during our July 6 meeting, Brightline's representatives further advised that they have not determined the final alignment for the section from the 417 right-of-way to the I-4 crossing, and they redacted all information for this more than 3 mile section from the information they provided. Therefore, Brightline has neither provided a final 417 Route alignment nor a cost estimate that can be directly compared to the detailed estimate for the Convention Center Route.

Most importantly, we believe that a thorough "apples-to-apples" comparison of the estimated costs of the approved Convention Center route and Brightline's yet to be finalized 417 route would require that Brightline complete an extensive supplemental Environmental Impact Statement (EIS) so the details of both routes could be fully analyzed and objectively compared.

Notwithstanding the above, as Brightline has continued their alignment iterations and value engineering in an attempt to finalize a route and complete their estimated cost of the 417 Route, VHB has in a similar vein identified a number of refinements to Brightline's estimate of the approved Convention Center route. Based on these Convention Center route refinements coupled with significant questions and unaddressed issues in Brightline's evolving 417 Route estimate, it appears that the difference between the actual costs of these two routes is most likely lower than originally believed. This is based on the following significant items we found that were not included in the estimate submitted on July 6.

- Unit costs of bridges applied to Convention Center route estimate (approximately \$107M)
- Increased length to the 417 route (approximately 0.5 mile) (approximately \$40M increase to 417 route)
- Revised property costs for Convention Center route (\$45M savings)

Based on FDOT's current plan for the rail alignment to be centered in the I-4 corridor, Brightline has estimated the difference in cost between the Taft-Vineland/Convention Center Route and the yet to be finalized 417 Route is approximately \$780 million. The Brightline estimate received by our team did account for an alignment adjustment, however, it does not address the modifications regarding the use of bridge structure and MSE walls as suggested in the July 6th memo. We believe that various adjustments in that difference are warranted, especially while Brightline attempts to finalize a 417 Route alignment and complete the supplemental EIS. The table at the end of this document summarizes the adjustments we have described herein, which taken together indicates a potential difference of \$199M between the Taft-Vineland/Convention Center Route and the yet to be finalized 417 Route.

Glenn Pressimone, P.E. Ref: 62375.34 7/12/21 Page 2



In support of this conclusion we offer the following summary analysis and corresponding backup provided in the cited appendices.

1. Convention Center Route Refinements

a. REDUCTION IN BRIDGE COSTS AND CONVERSION TO MSE WALLS - SEE EXHIBIT A

The length of bridges along the Convention Center route has been reduced by approximately 3 miles from what was proposed in the FLHSR study and replaced with MSE wall for elevated sections. See the attached Exhibit A which depicts the locations of bridge structures and wall. This reduces Brightline's estimate for the TVR / SR 528 route by approximately \$310 million. This reduction in bridge length is based on using a train speed similar to what Brightline is proposing on the SR 417 route, rather than the higher speed train as proposed in the FLHSR study. Additional civil/site cost savings may be gained if the alignment is shifted to the Universal property north of SR 528, west of Shingle Creek.

In addition, the initial estimate prepared by VHB for the Convention Center route utilized an average unit cost (\$464/sf) for the bridge structures along the entire 417 route that included specialized and standard bridges. Based on review of the 417 bridge quantities provided by Brightline, 68% of the bridges along 417 are the specialized more costly bridges at \$523/sf. The cost for Brightline's standard bridges is \$336/sf. Approximately 75% of the bridges along the Convention Center route would be considered standard bridges. Using \$336/sf for 75% of the bridge quantities and \$523/sf for the remainder of the route would result in a savings of at least \$107M to the Convention Center route estimate.

Note that the \$107M savings was calculated after increasing the bridge length on the Convention Center route to accommodate the I-4 / SR 528 connection.

b. REDUCED ESTIMATED PROPERTY COST- SEE EXHIBIT B

As with the bridge costs savings, we anticipate that the savings in land acquisition will also increase when Brightline's estimate recognizes the significant property donation Universal has set aside to support this project. A graphic depicting the parcels owned by Universal is included as Exhibit B.

Brightline's land cost estimate for the I-4 Beyond-the-Ultimate right-of way needs related to the option of an elevated rail corridor located on the outside edge of the I-4 right of way should be reduced by \$50 million based on the currently approved FDOT District 5 plans which will eliminate the need to purchase additional property. In addition, we eliminated Brightline's 23.4% markup of land acquisition for professional fees, project management, and construction allowance (all of which is inapplicable to the purchase of land) resulting in an initial land acquisition savings of \$61.7 million. The inclusion of such cost is not appropriate at this point, as FDOT has not changed the currently approved plan.

In addition, Brightline's land cost estimate for the Convention Center route right-of way needs was based on the 2010 FLHSR Study estimate. Brightline requested an updated estimate from FDOT to remove the parcels east of the CFRC corridor pertaining to the old alignment. The cost in 2010 dollars that Brightline received was \$75M. VHB also requested an updated estimate to include the parcels potentially impacted along the optimized route and to remove parcels that have already been purchased by Orange County and parcels owned by Universal. This resulted in a 2010 cost of \$30M. The difference between these two values, \$45M, represents the additional savings identified between the two alignment estimates.

Glenn Pressimone, P.E. Ref: 62375.34 7/12/21 Page 3



c. REDUCTION IN SOUND WALL COSTS CONTAINED IN CIVIL "PER MILE" COST

VHB estimates reduced civil costs by \$7.5 million for noise walls on the grounds that the TVR / SR 528 route does not run immediately adjacent to and will not have a negative impact on residential communities and due to the fact that there is an existing noise wall on the south side of SR 528 for the residential community.

d. REDUCTION IN CONVENTION CENTER STATION COST

Brightline's estimate for the Convention Center Station (Brightline station and SunRail platform) has been reduced by \$108.8 based on the following facts; (1) the Orange County Commission has approved a multi-modal station as part of the previously approved Convention Center route study (2005 and 2010), (2) a site adjacent to the Orange County Convention Center has been dedicated for the multi-modal station, (3) the Orange County Convention Center Client Advisory Board has consistently recommended supporting the development of this facility as one of their highest priority transportation initiatives, (4) and the Universal Boulevard Property Owners Association is working with the adjacent private property owners on development and financing plans for the integration of a new multi-modal facility into adjacent high density developments; all of which clearly demonstrate the continuing commitment to build a station by the various entities invested in the region. In addition, part of Brightline's estimate included a new \$38 million elevated Sun Rail station, which should be removed from the Brightline estimate for comparison of the two routes. The cost estimate includes the track & ballast, bridges and other associated costs for Brightline to construct an elevated platform at the Convention Center Station.

2. SR 417 Route Questions and Observations

a. INCREASED ROUTE LENGTH - SEE EXHIBIT C

The new alignment from 417 to Disney appears to add .5 miles to the overall 417 route distance. Using Brightline's per mile route cost for this section adds a minimum of \$40 million.

b. INCREASED CONSTRUCTION COST MSE WALLS - SEE EXHIBIT D

The unit costs of the walls for the 417 route and the Convention Center route cannot be the same. The costs of the walls on the 417 will be greater due to the increased heights of walls shown in the plan, restrictive access along the property line, and constructability issues associated with construction along 417, etc. Over the length of the alignment, the delta in unit cost combined with the significant amount of wall could create a significant increase in the 417 route estimate. Actual unit costs associated with these specific walls are required in order to make a reasonable comparison.

c. TRACK CONSTRUCTION COSTS

Similar to the MSE wall construction, does the construction estimate account for increase in track construction costs associated with limited access from within the trackbed itself or impacts to CFX due to lane closures of construction from the roadway? It is assumed that these costs would vary from traditional track at grade, or on lower retained fill with more accessible staging areas, and therefore should be represented in the updated estimate.

d. LACK OF DOCUMENTATION OF DRAINAGE DESIGN

No information is contained in the 15% design relative to the proposed drainage anticipated within the rail corridor. Is Brightline intending to utilize existing CFX drainage facility capacity? How will that impact CFX future serviceability. If new infrastructure, where is it located and what are the land/environmental impacts? Additional details of the drainage system are required to more fully evaluate impacts to the CFX assets.

Glenn Pressimone, P.E. Ref: 62375.34 7/12/21 Page 4



e. ADDITIONAL LAND COST

It is our understanding that Brightline has not yet finalized the alignment for the 417 route therefore it is unclear as to the estimated land cost. However, the latest proposed alignment would require the acquisition of additional private property, as well as securing Orange County property and possibly Duke Energy property. Brightline's proposed 417 route includes impact to a 34-acre Orange County mitigation site. With rapidly increasing land values and wetland mitigation costs in this region, it is difficult and premature to even estimate the actual cost of these additional requirements until a more refined design is developed.

f. SUNRAIL AT GRADE PLATFORMS

Brightline showed two "passenger at grade platforms" in their estimate, at \$3 million each. However, the 15% design plans show the Hunter's Creek station as an elevated station 30 feet above surrounding grade. Brightline's provided cost for a SunRail elevated platform is \$39 million, which is more in line with the Hunters Creek design, resulting in a \$36 million increase in their estimate.

It has been asked of this team by you and your staff to try to compare the costs for the two routes. As set forth above, we believe this will be a more fruitful effort when we have the opportunity to review Brightline's completed route, its 30% drawings, its 30% rollout plots for the Brightline, and its projected costs for wetland mitigation and damages from Hunter's Creek. Along the same lines, the cost analysis is not complete without the estimated costs for the damages and legal fees arising out of the eminent domain proceedings with the residents of Hunter's Creek and South Chase.

Finally, we believe Brightline will soon be required to perform an extensive Supplemental Environmental Impact Statement (EIS) for its proposed route. That assessment will take considerable time and effort, but the end result will be a report that actually includes Brightline's "final" route, an assessment of all the environmental impacts currently missing or not developed, and otherwise answer all of the questions we have raised in this exercise.

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Includes addition of 0.5 mile of route (see paragraph 2.a above)

GRAND TOTAL - SR 417 Route (15% Design plans)	RM	16.7	49	\$ 1,068,116,936 Includes	Includes
DIFFERENTIAL - SR 417 Route (15% Design) compared to TVR / SR 528 with I-4 At-Grade	MA	16.7	•	199,352,242	

Attachment

This information below is included to document questions received by CFX's consultant Dewberry and responses by VHB during the estimate reviews.

Questions were received regarding the lengths of bridge and wall in the VHB estimates. The questions and response are included below.

- Q. Upon further review, the FLHSR plans show the tracks on MSE walls approaching and departing the bridge overpass at SR 535. The kmz (VHB alignment) shows these same limits at grade. Please confirm the intent and your estimate was based on the MSE walls approaching this bridge.
- A. Revisions have been made to the quantities to reflect this change.
- Q. Also, the KMZ rail alignment at grade under the Darryl Carter Parkway overpass will be in conflict with the bridges center piers located in the center of the existing median. What is the plan to deal with this conflict? Replace the bridge? Offset the rail corridor?
- A. The typical section and plans for the currently approved I-4 BtU design includes the rail corridor at grade under the existing Darryl Carter Parkway overpass. Please see the attached exhibit I-4 BtU typical section.
- Q. Upon review of the I-4 BTU plans and comparing that to your KMZ, do you have an exhibit to show how you can fit the proposed rail alignment will fit within the R/W at the southwest quadrant of the SR 528/I-4 interchange with the I-4 BTU improvements?
- A. The kmz files of the I-4 BtU design in this section along with the kmz file of the TVR / SR 528 alignment were provided to Keith Jackson (Dewberry). Below is a screenshot of this section.



Legend

Bridge Structure

MSE Wall

At-Grade

Exhibit A

Taft Vineland Road / SR 528 Alignment

CON CHOIC MATE Universal

Exhibit B Beachline Expressway Right-of-Way Buffer and Universal Owned Property

Revised 15% Design plans – Connection to I-4 / Disney

Initial 15% Design plans – Connection to I-4 / Disney





4488+00.00 1" = 20 Harizontal 1" = 10 Vertical EOP 1 1 XIST. LA RIW Approximately 45 feet tall

Exhibit D – MSE Wall Along SR 417 Route

Estimated Property Value Impacts of Proposed Brightline SR-417 Route on Single-Family Residential Properties at Hunter's Creek

Jesse Saginor, PhD, AICP¹
Woody Hanson, CRE, MAI, CCIM²
July 15, 2021

Executive Summary

Brightline Holdings ("Brightline") develops and operates high-speed passenger rail systems in the United States. Brightline owns and operates an express passenger rail system connecting major population centers in Florida. Prior to temporarily suspending passenger rail service due to COVID-19, Brightline operated between Miami and West Palm Beach, Florida. Brightline has commenced construction of the extension of its Florida passenger rail system from West Palm Beach to Orlando, Florida. In Orlando, Brightline's station will be integrated into the Orlando International Airport's ("OIA") new South Terminal and is owned by the airport and leased to Brightline.³

Brightline has engaged in discussions with regulatory authorities to construct a separate passenger rail system between Orlando and Tampa, with a station in downtown Tampa. In November 2018, Brightline received approval from the State of Florida to begin negotiating with the Central Florida Expressway Authority ("CFX") for acquiring space in the right of way ("ROW") required to construct the passenger rail system to Tampa. Brightline is in active planning for the potential system extension.⁴

Brightline's preferred alignment would exit the OIA property and join the Orlando Utilities Commission corridor, then join the Central Florida Rail Corridor, connect with CFX's SR-417, enter the median of I-4 and remain in the median and emerge into its terminus in a downtown Tampa station location.⁵ CFX's SR-417 traverses Hunter's Creek, a 6.5-square-mile community

¹ Jesse Saginor attended Michigan State University and received an undergraduate degree in Political Theory and Constitutional Democracy. He also received a Master of Public Administration from The Ohio State University and a Ph.D. in Urban Studies and Public Affairs with a concentration in economic development and real estate from Cleveland State University. He holds a professional designation from the American Institute of Certified Planners. He previously published a study on the impact of Brightline on residential property values in Martin County in the *Journal of Property Tax Assessment & Administration*.

² Woody Hanson attended the University of Florida and received undergraduate degrees in Real Estate and Urban Land Studies and Architectural Design. He also received a master's degree in Florida Studies from the University of South Florida at St. Petersburg. He is a postgraduate student at Trinity College in Dublin, Ireland. He holds professional designations from the Counselors of Real Estate, the Appraisal Institute, and the Commercial Institute of the National Association of Realtors. He has been a member of the real profession for over 40 years.

³ Data Source: Limited Remarketing Memorandum, Florida Development Finance Corporation, Surface Transportation Facility Revenue Bonds (Brightline Florida Passenger Rail Project), December 11, 2020, p. 46. ⁴ Ibid., 69-70.

⁵ Data Source: Proposal for the Lease of Rights-of-Way Owned by the Florida Department of Transportation and Central Florida Expressway, Submitted by Brightline on November 7, 2018, B-2-3.

located in the southwest corner of Orange County. The development is comprised of 35 single-family neighborhoods, seven apartment communities, four condominium properties and one townhome neighborhood. Hunter's Creek is home to almost 25,000 residents.⁶

The purpose of this assignment is to assess the effects that the construction and operation of Brightline, a high-speed intercity passenger railway, will have on the value of properties located along that segment of the SR-417 right-of-way that Brightline now refers to as its "preferred route." This report examines the residential component.

The first of this assignment examines the impacts that Brightline will have on the value of single-family residential properties located in Hunter's Creek, a mature mixed-use master planned community which lies north and south of the SR-417 right-of-way. Brightline is expected to operate 18 daily departures, generally beginning at 6:00 am and ending the day at just after 12:00 a.m., traveling at an average speed of 75 mph.

The peer-reviewed literature is fairly consistent regarding mostly positive impacts based on proximity to a rail station irrespective of whether that station is light rail, commuter rail, or high-speed rail. While considering the impacts of the planned widening of SR-417, this report examines the impacts of Brightline on single-family residential properties located within 1,000 feet of the center line of the SR-417 right-of-way.

The assignment results are based on a review of the peer-reviewed literature, real estate prices and trends at Hunter's Creek and competitive developments, and just values for single family homes in Hunter's Creek based on 2020 property tax rolls submitted to the Florida Department of Revenue (DOR). Other information was obtained from the Multiple Listing Service (MLS).

The greatest property value impacts are likely to be incurred by homes located closest to SR-417. Using 2020 just value estimates obtained from DOR the loss in value that all single-family homes located within the 1,000-foot zone of influence will incur is estimated to range from \$15.7 million to \$27.5 million. Using the MLS data instead of the DOR information causes the damage estimate range to increase slightly, \$16.9 million to \$29.8 million. Assuming a "worst case basis," the loss of property value within the 1,000-foot zone of influence is slightly less than \$30.0 million.

Based upon the limited information provided by Brightline at this time and time constraints, we have summarized other factors that will increase the damages and costs:

- 1. Apartments We did not receive adequate information to determine the effects on multifamily residential rental apartments. At this time, we do not expect the diminution in value of this property class to be less than the lower end of the range of percentage property value losses for single-family residential properties, or approximately 10.0%.
- 2. Neighborhood Commercial We did not receive adequate information to determine the effects on neighborhood commercial (e.g., retail and office) properties. Although non-

⁶ Data Source: Commissioner Nicole H. Wilson, Hunter's Creek, A District 1 Community. Available at https://www.orangecountyfl.net/BoardofCommissioners/District1Commissioner/District1Communities/HuntersCreek.aspx#.YOjOrS33b4A.

residential properties are usually not affected by noise and vibration to the same extent as residential properties, some peer-reviewed literature has found a loss of value to non-residential properties due to increased traffic levels on nearby local streets. Without further information, it is not possible to develop an estimate of the impact that Brightline will have on this property segment.

- 3. Community Assets (Schools, churches, parks and open space) These properties are vital to the Hunter's Creek community. Noise and vibrations associated with the daily operations of the Brightline high-speed intercity passenger rail will be noticed by residents while they are outdoors, particularly at open spaces located near stormwater storage areas or on jogging/hiking trails or other pathways that are near either side of the SR-417 right-of-way. Although noise abatement options (e.g., double-pane windows, sound dampening wall surfaces and so forth) may be available for schools and churches, such options, other than sound walls, are not available for outdoor spaces. Without a noise study, it is not possible to probe this issue further.
- 4. Sound and Vibration We did not receive a sound study (e.g., noise levels, frequency, duration, time-of-day, contours and so forth). The 1,000-foot zone of impact used in this study was estimated based upon our review of peer-reviewed literature. Although reliable, this source information is less credible than a formal corridor noise study. If the results of such a study are contrary to the peer-reviewed literature, the size and shape of the zone of influence will likely change. If Brightline shifts the location of its railway to the north or south of the centerline of SR-417, it is likely that the zone of influence will extend beyond the 1,000-foot distance used in this study.
- 5. The negative impact on property values caused by Brightline operations is not limited to Hunter's Creek. Other residential communities located along Brightline's "desired alignment" will experience similar effects. These communities include Southchase and Meadow Woods.
- 6. In addition to the \$29.8 million loss of value and the unquantifiable (at this time) damages relating to Items 1 through 5, there is a contingent liability associated with litigation costs if it becomes necessary for CFX to exercise its power of eminent domain. Examination of information prepared by a local eminent domain attorney, suggest that this contingent liability would be approximately 30% of the monetary amount associated with all matters identified above.

1. Introduction

The purpose of this assignment is to assess the effects that the construction and operation of Brightline, a high-speed intercity passenger railway, will have on the value of certain properties located along that segment of the SR-417 right-of-way that Brightline now refers to as its "preferred route."

The first phase of this assignment examines the impacts that Brightline will have on the value of single-family residential properties located in Hunter's Creek, a mature mixed-use master planned community which lies north and south of the SR-417 right-of-way. Brightline is expected to

operate 18 daily departures, generally beginning at 6:00 am and ending the day at just after 12:00 a.m., traveling at an average speed of 75 mph.

This paper includes an introduction, eight sections, and appendices. The Introduction includes a summary and overview of the assignment, including (without limitation) the purpose of the assignment, nature of the assignment, and assignment conditions. Section 2 identifies various features and characteristics of the Hunter's Creek mixed-use master planned community located in southwest Orange County, Florida. Section 3 examines conditions and trends related to the resale market for single-family residences within Hunter's Creek. Using comparative analyses, this information sheds light on the depth of Hunter's Creek market penetration and illuminates its consistent performance over the past several years. Section 4 identifies certain features and characteristics of that segment of the SR-417 right-of-way that traverses Hunter's Creek. Section 5 examines Brightline's proposed use of this segment of the SR-417 right-of-way for construction and operation of a high-speed intercity passenger railway that will run from Orlando International Airport to a station in downtown Tampa, Florida. Section 6 examines peer-reviewed articles that investigate and evaluate the effects that railways have on nearby residential properties. These materials together with 2020 just values for those single-family homes located within Hunter's Creek and within 1,000-feet of the centerline of SR-417 will be used to develop an estimate of the loss in value that these homes will incur due to the Brightline disamenity. Section 7 summarizes the findings and conclusions of this report. Section 8 identifies assumptions and limiting conditions. Section 9 contains the final reconciliation of the assignment results.

2. Hunter's Creek Mixed-Use Master Planned Community

Hunter's Creek is a 6.5-square-mile master-planned mixed-use golf community located in the southwest corner of Orange County. Home to almost 25,000 residents, Hunter's Creek is comprised of 35 single-family neighborhoods with over 5,900 single-family residences, seven apartment communities with over 3,700 apartment units, four condominium properties and one townhouse neighborhood.

Hunter's Creek is one of many residential developments in south Orange County and is a focal point for all residents in the south Orange Blossom Trail corridor. The hub of Hunter's Creek – centered around the intersection of Town Center Boulevard and John Young Parkway – contains approximately 1.0 million square feet of commercial and office space. With the residential neighborhoods clustered around the commercial district, Hunter's Creek is an independent, self-contained city.

Hunter's Creek opened in 1985 with an 18-hole golf course and now has two major community parks, each equipped with tennis and racquetball courts and softball fields. The community has bike paths and hiking trails that lead from individual neighborhoods to each park. A spokesman for Charles Wayne Consulting was quoted in a March 1992 article published in the Orlando Sentinel, "The location, the proximity to jobs, the transportation network and – very significantly – the recreational features are all right there in one package." A visual aid depicting the master land use plan for Hunter's Creek is provided on the following page.

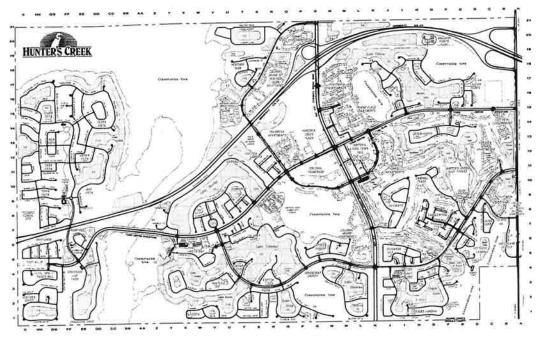


Illustration of Hunter's Creek master land use plan.

3. Hunter's Creek's Single-Family Residential Resale Market

Four metrics are used to interpret conditions and trends at the Hunter's Creek single-family residential resale market. These metrics include a) average annualized sales price per single-family residence, b) total number of annual sales of single-family residences, c) average annualized days-on-market, and d) average annualized listing price for single-family residences measured on a persquare-foot of living area basis. The same information pertaining to Horizon West and Lake Nona was collected and included in the summary tables for use in comparative analyses.

Information contained in the tables provided below was obtained from the Multiple Listing Service (MLS). Zip codes were used for identification of the geographic areas of the data inquiry. Zip codes used include 32837 for the Hunter's Creek development, 34787 for Horizon West, and 32827 for the Lake Nona community.

a. Average Annualized Sales Price Per Single-Family Residence: From 2016 to 2021, the average annualized sales price per single family residence at Hunter's Creek increased from \$231,001 to 312,597. Over this six-year period, sales prices for single-family residences increased by \$81,596 or 35.3% (see table below).

	Hunter's	Horizon	Lake
Year	Creek	West	<u>Nona</u>
2016	\$231,001	\$284,953	\$322,883
2017	\$248,139	\$312,677	\$388,385
2018	\$249,272	\$321,291	\$374,437
2019	\$280,691	\$318,781	\$354,814
2020	\$270,794	\$341,351	\$396,409
2021	\$312,597	\$387,485	\$505,036

At Horizon West, for the same period, the average annualized sales price per single family residence increased from \$284,953 to \$387,495, an increase of \$102,532 per residence or 36.0% and at Lake Nona the average annualized sales price per single-family residence increased from \$322,883 to \$505,036, an increase of \$182,513 or 56.4%.

This metric suggests that Hunter's Creek, despite its older age, remained competitive, particularly with Horizon West, a newer community that features products provided by many of the most well-known national homebuilders. Hunter's Creek, by comparison, is a mature community that has reached build-out and the sales activity pertains mostly, if not all, to second and third-generation resales.

b. <u>Total Number of Annual Sales of Single-Family Residences</u>: From 2016 to 2020, the total number of annual sales of single-family residences ranged from a low of 1,022 residences to a high of 1,127 residences. New listings for residential properties located within the Orlando Area Market increased by 5.9% in 2020, totaling 18,184 listings.

	Hunter's	Horizon	Lake
<u>Year</u>	Creek	West	Nona
2016	1,127	2,088	575
2017	1,083	2,553	629
2018	1,022	2,645	723
2019	1,082	2,511	761
2020	1,106	2,853	821

At Horizon West and Lake Nona, for the same period, the total number of annual sales steadily increased from 2,088 residences to 2,853 residences and from 575 residences to 821 residences, respectively.

This information and these trends suggest that Hunter's Creek holds a strong and stable position within the Orlando housing market. Its stability is attributable to its long-term success and depth of penetration with the wide range of market segments that are available at this development. Furthermore, Hunter's Creek is widely known for being a well-established community whose demography has remained stable for many years.

c. Average Annualized Days-on-Market: From 2016 to 2020, at Hunter's Creek the average annualized number of days-on-market for single-family residences ranged from a low of 33.3 days in 2018 to 42.2 days in 2016. to a high of 1,127 residences. For the period from January 2020 to December 2020, days-on-market as reported by the Orlando Regional Realtor Association ranged from 44 days to 60 days for the entire region.

	Hunter's	Horizon	Lake
Year	Creek	West	Nona
2016	42.2	63.3	64.3
2017	34.3	51.8	83.6
2018	33.3	48.7	62.6
2019	38.6	48.4	68.1
2020	36.8	46.3	62.5

At Horizon West and Lake Nona, for the same period, the number of days-on-market ranged from 46.3 to 63.3 and from 62.5 to 83.6, respectively.

This information suggests that the days-on-market for single-family residences located at each of these developments is fairly consistent. At Hunter's Creek the average annualized days-on-market for single-family residences is stable and somewhat lower than the number of days-on-market at Horizon West and Lake Nona. One explanation for this slight variance is that the available inventory of single-family residences at Hunter's Creek is stabilized, there is little (if any) competition from new product, and the secondary market for single-family residences is an efficient market.

d. Average Annualized Listing Price Per-Square-Foot: From 2016 to 2020, at Hunter's Creek the average annualized listing price per-square-foot for single-family residences increased from \$65.92 to \$82.33, an increase of \$16.41-per-square-foot or a difference of 24.9%. During the first six months of 2021, the annualized listing price-per-square-foot for single-family residential properties at Hunter's Creek spiked at \$106.67.

	Hunter's	Horizon	Lake
Year	<u>Creek</u>	West	Nona
2016	\$65.92	\$79.33	\$82.08
2017	\$70.50	\$85.00	\$87.33
2018	\$79.42	\$97.50	\$105.58
2019	\$83.33	\$105.00	\$113.58
2020	\$82.33	\$108.83	\$98.33
2021	\$106.67	\$126.33	\$144.50

At Horizon West and Lake Nona, for the same period (2016-2020), the average annualized listing price-per-square foot for single-family residences ranged from \$79.33 to \$108.33 and from \$82.08 to \$113.58 (2019), respectively. For the first six months in 2021, the annualized listing prices at Horizon West and Lake Nona spiked, as was the case at Hunter's Creek.

In conclusion, the information and analyses provided above suggests that the single-family residential market segment at Hunter's Creek is relatively stable, able to successfully compete with other developments, and generally track in a pattern that is generally consistent with the overall market.

Thus, absent the externalities and/or detrimental conditions (e.g., noise, vibrations, dust and odors, accident events and so forth) that will likely occur due to the construction and continuous operation of Brightline's high-speed intercity railway, as now proposed within the existing right-of-way of SR-417, the Hunter's Creek community had a long history as a successful development that successfully serviced the local demand for a wide range of residential products.

Whether or not Hunter's Creek will be able to sustain its historic record is not known at this time. Generally, externalities are conditions that are external to a given property and are not capable of being managed or controlled by the owner of the property that is adjacent to the source of the external and detrimental conditions.

4. State Road 417

State Road 417 is a limited access four-lane toll road that bisects Hunter's Creek. Brightline is proposing to use portions of the SR-417 corridor for the installation of segments of the Brightline high-speed rail from Tampa to Orlando.

The Central Florida Expressway Authority (CFX) owns and operates that portion of SR-417 located in Orange County. Starting in early 2021, the CFX will add a travel lane to SR-417 in each direction as well as sound walls along several locations of the expressway.

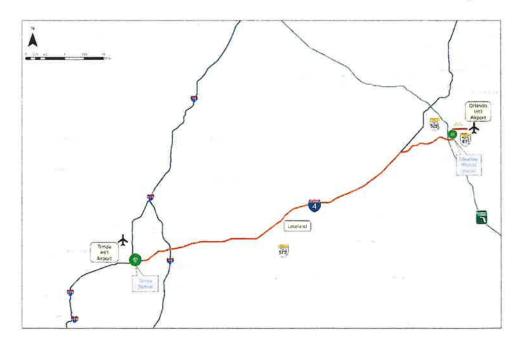
Historical annual average weekday mainline traffic volumes for SR-417, from International Drive to John Young Parkway, increased from 39,630 in Year 2010 to 51,500 in Year 2015 and to 79,710 in Year 2019.

5. Brightline's Proposed Alignment and Railway Operations

On March 26, 2018, Brightline presented an "unsolicited proposal regarding certain rights of way owned by the Florida Department of Transportation (FDOT) and the Central Florida Expressway Authority (CFX) for purposes of constructing and operating an inter-city passenger rail service between Orlando and Tampa."

On or about November 7, 2018, Brightline published a document titled "Proposal for the Lease of Rights-of-Way Owned by the Florida Department of Transportation and Central Florida Expressway Authority," hereafter referred to as the "Lease Proposal."

The Lease Proposal was prepared in response to "the June 22, 2018 Request for Proposal (the "RFP") for Leasing of the Florida Department of Transportation ("FDOT") and Central Florida Expressway Authority ("CFX") Rights of Way for an intercity passenger rail system between Orlando and Tampa." Below, is an illustration that depicts Brightline's preferred alignment.

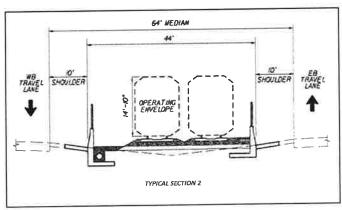


Source: The Lease Proposal, p. B-2-3.

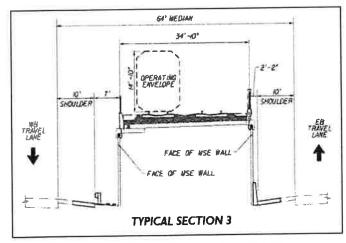
Brightline's preferred alignment "would exit the Orlando International Airport ("OIA") property and join the Orlando Utilities Commission ("OUC") corridor for approximately 4 miles, then join the Central Florida Rail Corridor for approximately 3 miles, connect with CFX's SR 417 Greenway for approximately 18 miles, enter the median of I-4 in the preserved corridor for rail and remain in the median for approximately 62 miles, and emerge for approximately 1 mile into its terminus in a downtown Tampa station location."

Brightline expects the "expansion to Tampa" to "operate on a similar timetable [as the existing operations plan, with] 16 hourly trips in each direction that would be tied to the service from Orlando to Miami and dispatched through the same back-office operation."

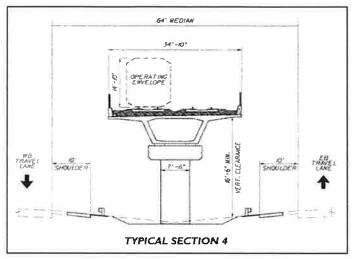
Brightline reports that as "the alignment approaches SR 417, a siding will be constructed which will allow the alignment to exit the Central Florida Rail Corridor and enter the SR 417 median by constructing a new southbound SR 417 bridge which allows Brightline to pass under it. The alignment stays in the median of SR 417 alignment using Typical Section 2, along with Typical Sections 3 and 4 when going over crossroads, until it follows one of the three alternatives shown in Figure 3. Brightline is considering an intermediate station somewhere in the area shown in Figure 3." Visual aids depicting Typical Section 2, 3 and 4 are provided below and on the following page.



Source: The Lease Proposal, p. C-1-5



Source: The Lease Proposal, p. C-1-5



Source: The Lease Proposal, p. C-1-6

On or about December 11, 2020, the Florida Development Finance Corporation issued the Florida Development Finance Corporation Surface Transportation Bonds, Series 2019B, totaling \$950,000,000 (the Bond Documents). Among other things, the Bond Documents provide an overview of Brightline's existing operations and proposed expansion.

The Bond Documents state, "Brightline Holdings develops and operates high-speed passenger rail systems in the United States. ... The Company owns and operates an express passenger rail system connecting major population centers in Florida. Prior to temporarily suspending its passenger rail service due to COVID-19, the Company operated between Miami and West Palm Beach, Florida, one of the most heavily traveled and congested regions in the U.S. ... The Company has commenced construction of its Florida passenger rail system to Orlando, Florida."

Furthermore, Brightline "currently owns three stations in Miami, Fort Lauderdale, and West Palm Beach, Florida. In Orlando, the Company's station will be integrated into the Orlando International Airport's new South Terminal and is owned by the airport and leased to the Company. The Company is also advancing the New In-Line Stations. In addition, the Company is obtaining necessary permits related to the Tampa corridor, which includes the station at Disney Springs."

Regarding the leasing of rights of way, the Bond Documents state that, "The extension from the Orlando airport to the station at Disney Springs comprises a component of the Tampa extension for which the Company won the RFP process in November 2018. The RFP was issued by the Florida Department of Transportation (FDOT) and the Central Florida Expressway Authority (CFX) for the leasing of rights of way owned by FDOT and CFX to provide intercity passenger rail service between Orlando and Tampa. The Company expects the station at Disney Springs to have a significant potential to increase the Company's ridership, revenue and EBIDTA."

Descriptions of the trainsets and operation speeds are contained in the Bond Documents. They state, "Siemens produced five state-of-the-art trainsets (10 locomotives and 20 coaches) that, prior to the suspension of the Company's passenger rail service, provided passenger service on the South Segment. ... Each trainset currently consists of two diesel-electric locomotives (4,400 horsepower Cummins diesel engines) and four stainless steel passenger cars and has a total capacity of 240

passengers per train. This dual locomotive arrangement allows trains to achieve a top speed of 125 mph, while realizing fuel efficiency."

In conclusion, Brightline now proposes to construct and operate a high-speed intercity passenger railway that will run along the SR-417 right-of-way, sharing space with six travel lanes – three eastbound and three westbound – that will run from the Orlando International Airport to Tampa, Florida. Once operational, Brightline is expected to operate 18 daily departures, generally beginning at 6:00 am and ending the day at just after 12:00 a.m., traveling at an average speed of 75 mph. Detailed information pertaining to noise levels, noise studies, or the construction of noise abatement walls is not available at this time.

6. Studies on Impacts of Rail on Residential Property Values

While many studies have focused on the impacts of rail and residential property values, it is important to highlight that not all peer-reviewed studies are created equal. Several studies focus on the impacts of light rail, which often has the negative impacts of crossings and proximity to rail offset by the positive impacts of proximity to a rail stop. The speeds of these types of rail uses are most often lower than the speeds affiliated with Brightline's proposed 75 MPH speed through Hunter's Creek. Other studies focus on commuter rail, but similar to light rail, even commuter rail goes at speeds far less than the proposed 75 MPH of Brightline. Additionally, many commuter rail lines and even freight lines run parallel to highways, causing some issues in delineating the negative impacts of highways from the negative impacts of the railroad. Despite these issues, the studies that provide some insight into the likely effects of proximity issues and property values are consistently negative, with property losses ranging from two percent within to over 30 percent for properties with frontage on the rail line.

Several studies regarding rail highlight the positive impacts of proximity to a rail stop, often without mentioning any impacts of proximity to rail. These studies, to one extent or another, all focus on accessibility, which in turn implies having a rail stop. Whether it is high-speed rail (Loukaitou-Sideris, Higgins, Piven, and Wei, 2013) or light rail (Debrezion, Pels, and Rietveld, 2007; Baldwin-Hess and Almeida, 2007; Duncan, 2011; Dube, Theriault, Des Rosiers, 2013; Kim and Lahr, 2014; Wu, Dong, and Wang, 2015), the majority of studies focusing on accessibility denote positive impacts related to proximity to a rail stop, increased property values related to the rail stop, and even higher levels of public investment in these geographic areas for transit-oriented development. There are at least two peer-reviewed studies (Bowes and Ihlandfeldt, 2001; Pan, 2012) that discovered negative impacts regarding light rail stops and sales prices within a quarter mile in Atlanta and Houston.

The studies related to the impact of railroads on property values vary based on the type of rail use and distance, with the largest losses in value occurring closest to the rail irrespective of the type of railroad. Additional studies that account for rail noise levels were not included in this study given the absence of any formal noise study regarding Brightline's speed along the 417 route and noise contours. The inclusion of these studies in the future may result in additional, negative property value impacts beyond those impacts discussed in this section.

The impacts of commuter rail on property values varies. Studies in the mid-1990s in California as well as Boston, in addition to a study from Haifa, Israel found losses ranging from 13% to 20% for properties within 1,000 feet of the rail line (Armstrong, 1994; Landis, et al, 1995; Portnov, Genkin, and Karzilay, 2009). Freight rail impacts range from 5% to 32.5%, with losses impacting property values up to ¼ mile from the rail (Simons and Jaouhari, 2004; Clark, 2006; Chica-Olmo et al, 2019). For railroads that may have multiple uses or where the type of use was not included, the impacts ranged from 5% for a home closer to 1,000 feet away from the rail line to 23% for home within 66 feet (Bowes and Ihlandfeldt, 2001; Strand and Vagnes, 2001; Federal Transit Administration, 2000; Saginor, 2016).

Overall, the majority of research regarding rail and transit stops demonstrates a positive relationship between having a rail stop and property values. Where there is only the rail and no stop in sight, the impacts demonstrate a negative impact on residential property values, generally ranging from 5% to over 32.5%. This range acts as a frame of reference to determine the future impact of Brightline should the 417 route be chosen for future construction. Additionally, it is important to note that these studies do not examine the impacts of construction and other short-term aspects that may only have a temporary effect on property values.

7. Findings of Hypothetical Property Value Impacts on Hunter's Creek

Based on the existing real estate studies, the boundaries used for the hypothetical model of property values impacts from Brightline on Hunter's Creek focus only on single-family residential properties within 1,000 feet of the center line of SR-417. Properties not included in this study are single-family properties that are undeveloped and commercial uses, including apartments.

To isolate these properties, shapefiles from Orange County and the Florida Department of Revenue were utilized to create the 1,000-foot buffer. Property characteristics, such as use type, number of buildings, livable area, and just value for the conservative market of single-family homes, were also included based on the Florida Department of Revenue's Property Tax Oversight Property Tax Data files for 2020.

These files are the formal property tax rolls submitted by counties to the state on an annual basis. The just value is based on the Orange County Property Appraiser's estimates of the true market value of a property largely based on mass appraisal with some adjustments allowed based on state guidelines. The just value used in these findings is before any adjustments, such as Homestead discounts, that would result in a lower overall assessed value. These data, therefore, are likely to provide a more conservative estimate of the true market value of single-family homes in Hunter's Creek given that government property appraisal values are often below actual market values.

There are approximately 163 single-family homes within 400 feet of the centerline of 417 and another 472 homes between 400 feet and 1,000 feet of the centerline of 417. Due to the width of the current right-of-way of 417, there are no single-family homes within 100 feet of the centerline of 417, but this number is likely to change based on the final location of Brightline's tracks. The average year built is 1998 and the average size of the living area is 2,473 square feet. Using the just value figures for 2020 from the Florida Department of Revenue, the average value of homes

within 1,000 feet is \$288,717. Beyond 1,000 feet, the average value of homes in Hunter's Creek is \$297,391. This difference in just value may reflect the capitalized impacts of proximity to the highway given that there is no significant difference in living area or year built for the existing single-family housing stock.

8. Assumptions and Limiting Conditions

There are several different property types that exist within Hunter's Creek. The limitations and conclusions in this study only relate to single-family residential uses. Other property elements, such as the apartments north of SR-417 and west of John Young Parkway, are also likely to be impacted, but were not included in this study.

Noise barriers have been proposed and/or planned for multiple areas north and south of Hunter's Creek along 417, but the lack of project specifics related to the final location of Brightline's track, whether the track will be elevated or not, and the impact that track construction may have on the actual final placement of noise barriers may cause additional property impacts not accounted for in the estimates provided in this report.

Currently, the proposed track is generally north of SR-417, but the center line of SR-417 was used to determine properties within 1,000 as an approximation of impacted properties within 1,000 feet based on a known factor (the existence of SR-417) as opposed to a hypothetical factor (Brightline's final location of the track based on the completion of an environmental impact study and related regulations). Without a finalized route, a future study may require shifting the likely properties affected further north, thereby removing properties on the south side of SR-417.

9. Conclusions

Based on the data available from the Florida Department of Revenue from 2020 Orange County property tax rolls, coupled with diminution in value based on the peer-reviewed literature, estimates for the loss in property value for single-family residential homes in Hunter's Creek are likely to be borne largely by homes within 400 feet of the center line of SR-417. The percentage loss in value for these homes ranges from 11.8% to 20%, or approximately \$34,460 to \$58,453 per home. Within 1,000 feet of the center line of SR-417, the loss in value for all properties ranges from 8.5% to 15% or approximately \$24,684 to \$43,308.

Using 2020 just value estimates obtained from DOR the loss in value that all single-family homes located within the 1,000-foot zone of influence will incur is estimated to range from \$15.7 million to \$27.5 million. Using the MLS data instead of the DOR information causes the damage estimate range to increase slightly, \$16.9 million to \$29.8 million. Assuming a "worst case basis," the loss of property value within the 1,000-foot zone of influence is slightly less than \$30.0 million.

Based upon the limited information provided by Brightline at this time and time constraints, we have summarized other factors that will increase the damages and costs:

1. Apartments – We did not receive adequate information to determine the effects on multifamily residential rental apartments. At this time, we do not expect the diminution in value

- of this property class to be less than the lower end of the range of percentage property value losses for single-family residential properties, or approximately 10.0%.
- 2. Neighborhood Commercial We did not receive adequate information to determine the effects on neighborhood commercial (e.g., retail and office) properties. Although non-residential properties are usually not affected by noise and vibration to the same extent as residential properties, some peer-reviewed literature has found a loss of value to non-residential properties due to increased traffic levels on nearby local streets. Without further information, it is not possible to develop an estimate of the impact that Brightline will have on this property segment.
- 3. Community Assets (Schools, churches, parks and open space) These properties are vital to the Hunter's Creek community. Noise and vibrations associated with the daily operations of the Brightline high-speed intercity passenger rail will be noticed by residents while they are outdoors, particularly at open spaces located near stormwater storage areas or on jogging/hiking trails or other pathways that are near either side of the SR-417 right-of-way. Although noise abatement options (e.g., double-pane windows, sound dampening wall surfaces and so forth) may be available for schools and churches, such options, other than sound walls, are not available for outdoor spaces. Without a noise study, it is not possible to probe this issue further.
- 4. Sound and Vibration We did not receive a sound study (e.g., noise levels, frequency, duration, time-of-day, contours and so forth). The 1,000-foot zone of impact used in this study was estimated based upon our review of peer-reviewed literature. Although reliable, this source information is less credible than a formal corridor noise study. If the results of such a study are contrary to the peer-reviewed literature, the size and shape of the zone of influence will likely change. If Brightline shifts the location of its railway to the north or south of the centerline of SR-417, it is likely that the zone of influence will extend beyond the 1,000-foot distance used in this study.
- 5. The negative impact on property values caused by Brightline operations is not limited to Hunter's Creek. Other residential communities located along Brightline's "desired alignment" will experience similar effects. These communities include Southchase and Meadow Woods.
- 6. In addition to the \$29.8 million loss of value and the unquantifiable (at this time) damages relating to Items 1 through 5, there is a contingent liability associated with litigation costs if it becomes necessary for CFX to exercise its power of eminent domain. Examination of information prepared by a local eminent domain attorney, suggest that this contingent liability would be approximately 30% of the monetary amount associated with all matters identified above.

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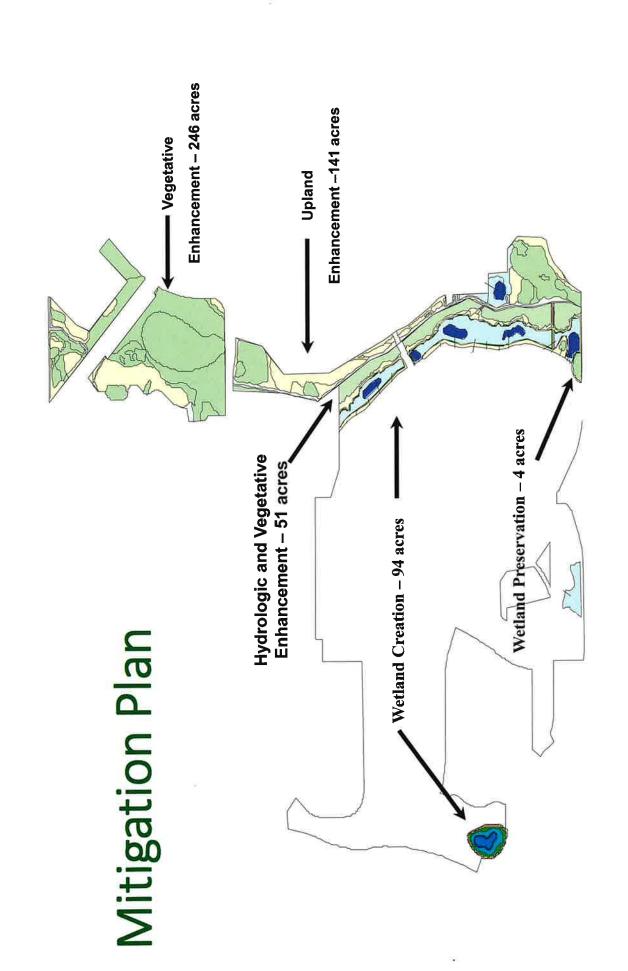
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MAURICE PEARSON

PROFESSIONAL EXPERIENCE

Maurice Pearson—better known as Mo—is a Principal of the firm and also provides senior leadership for the Natural Resources service line. Mo has managed natural resource projects since 1993 and is recognized regionally as a leader of this practice area.

Over the course of his career, which involves both the public and private sectors, Maurice has acquired an exceptional perspective in understanding, negotiating, and meeting project needs in natural resource management and planning for clients. He has fostered and maintains valuable relationships with agency personnel, providing clients the assurance that each project will be presented professionally and that their interests will be articulated and supported. Mo is an active member of his community and participates in numerous professional associations and boards including the Children's Home Society of Florida, Orange County Sheriff's Office Citizens Advisory Board, Orange County Code Enforcement Board, and Orange County M/WBE Advisory Committee.

AREAS OF EXPERTISE

- Department of Transportation project development and environment (PD&E) studies
- · Agency coordination
- · Section 404 dredge and fill permitting
- Environmental resource permitting
- Wildlife and habitat analysis
- Wetland evaluation reports
- Endangered species biological assessments
- Environmental assessments
- Environmental impact statements

PROJECT EXPERIENCE

Confidential Global Security Company: Wetland Mitigation Bank Permitting, Orange County, Florida

Sr. Project Manager responsible for all technical aspects of the project including permit approval and negotiation with multiple regulatory agencies. The firm is providing all levels of field services and permit coordination for permitting of a wetland mitigation bank at a 4,000-acre site within the Econlockhatchee watershed in southeast Orange County. The project team has completed delineation, review, and assessment of approximately 2,200 acres of on-site wetlands, surveys for threatened and endangered (T&E) species, and potential occurrence and assessment of land management needs (control burn planning, fuel reduction, etc.) to maintain the integrity of the landscape. A permit application package is under review by St. Johns River Water Management District. USACE has approved the prospectus and the project is entering the mitigation banking instrument (MBI) phase.

U.S. Army Corps of Engineers (USACE) Mobile District: Architect-Engineer Services to Provide Environmental Support to Civil, Military, and Federal Agencies, District-wide

Sr. Scientist responsible for ecological support for all applicable task orders awarded under this 5-year, \$5 million indefinite delivery order contract with the Mobile District that involved a broad range of A/E services. Primary technical



PRINCIPAL SENIOR SCIENTIST

EXPERIENCE

28 years of experience in ecological sciences

EDUCATION

M.A., Organizational Management, University of Phoenix

B.S., Biology, University of Central Florida

PROFESSIONAL REGISTRATIONS & CERTIFICATIONS

- Authorized Gopher Tortoise Agent (#GTA-09-00297)
- FDEP Acquisition & Restoration Council (ARC) (Gubernatorial appointment)
- Central Florida Association of Environmental Professionals



ADDITIONAL INFORMATION

Maurice Pearson

support included environmental compliance; environmental engineering and design; operational range assessments and design; Leadership in Energy and Environmental Design (LEED)/sustainability project support; and GIS data management. The firm completed nine task orders from 2009 through 2014, collectively valued at over \$4.75 million. Specific tasks included providing four staff located onsite at Fort Campbell, Kentucky, for more than 4 years in support of the spill response and tank management program; environmental compliance support at over 25 installations for IMCOM-West; landfill design and permitting for the U.S. Air Force; and landfill maintenance and environmental support at Fort Gordon, Georgia.

Florida Department of Transportation (FDOT): State Road 35, Baseline Road Design/Build, Marion County, Florida

Sr. Project Manager responsible for successful completion of all technical and regulatory negotiation aspects of the project. The firm provided gopher tortoise survey, permitting, and relocation efforts on a 4.5-mile segment of roadway construction. The project team successfully completed a 100 percent survey of the project corridor finding, locating, and documenting 128 burrows, and received permit authorization for relocation efforts from the Florida Fish and Wildlife Conservation Commission. The team completed backhoe excavation of gopher tortoise burrows and visual evaluation of burrow interiors using a borescope for presence/absence of the eastern indigo snake.

FDOT District Five: I-4 PD&E Study, Polk/Osceola County line to west of Kirkman Road and 1 mile east of SR 434 to 0.5 mile east of SR 472, Osceola County, Florida

Sr. Project Manager responsible for the review and evaluation of wetland communities within the limits of the I-4 PD&E study (approximately 23 miles). Activities included wetlands and other surface water identification, assessments using UMAM, and documentation of findings in completing the Wetland Evaluation Report (WER). Provided field services support in wetland identification and UMAM assessments. Stantec provided quality control for each of the five WER documents from draft to final.

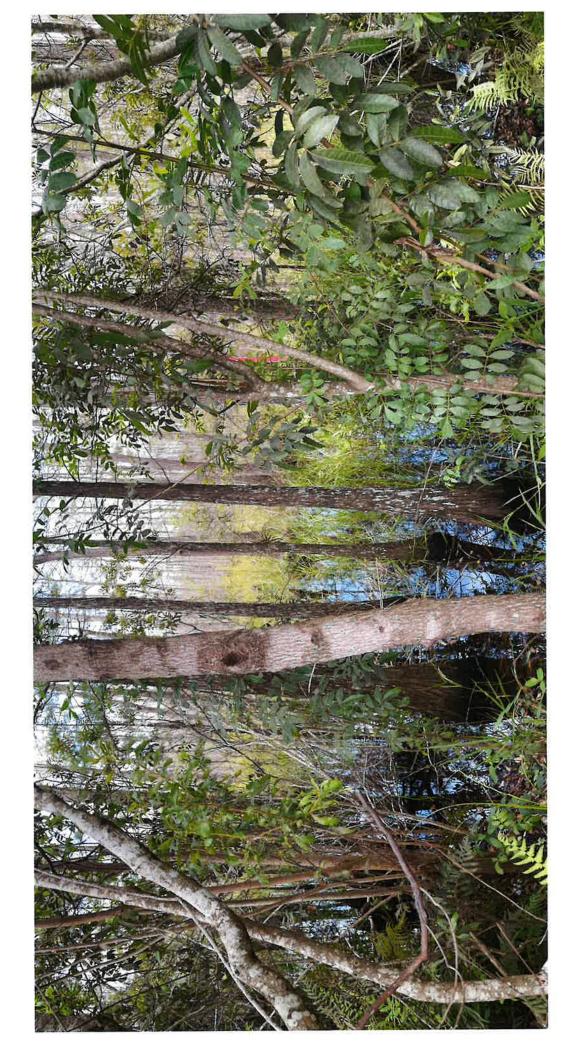
Air Force Center for Engineering and the Environment (AFCEE): Ecological Risk Monitoring IV, Cape Canaveral Air Force Station (CCAFS) and Patrick Air Force Base (AFB), Florida

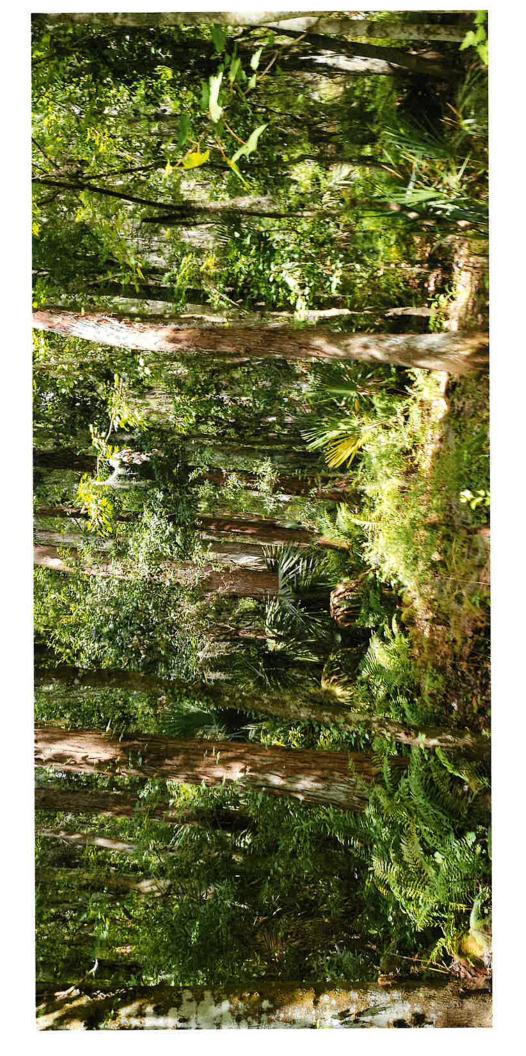
Sr. Scientist responsible for planning and implementation of the field program, evaluation of impacts to indigenous lands and wildlife, and coordination with project stakeholders relative to mitigation of potential highrisk impacts. The firm provided environmental compliance and remediation services at CCAFS and Patrick AFB following Resource Conservation and Recovery Act (RCRA) and Toxic Substances Control Act guidance. This project was completed under the direction of EPA and Florida Department of Environmental Protection. In addition to RCRA requirements, the project provided data to effectively determine the present status and stakeholder position for compliance with total maximum daily load (TMDL) requirements, respond and comply with current and future TMDL regulations, and assist in maintaining compliance with the National Pollution Discharge Elimination System program. The project also assisted the Air Force in developing, programming, and implementing projects, such as catch basin filtration devices to minimize potential pollutants that may discharge to surface waters and maintain compliance with Clean Water Act regulations.

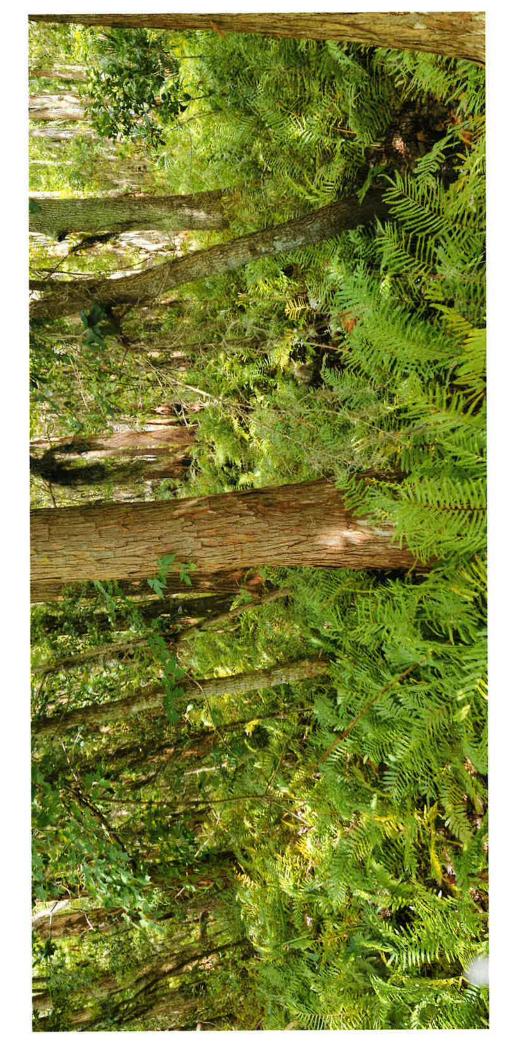
OUTSIDE THE OFFICE

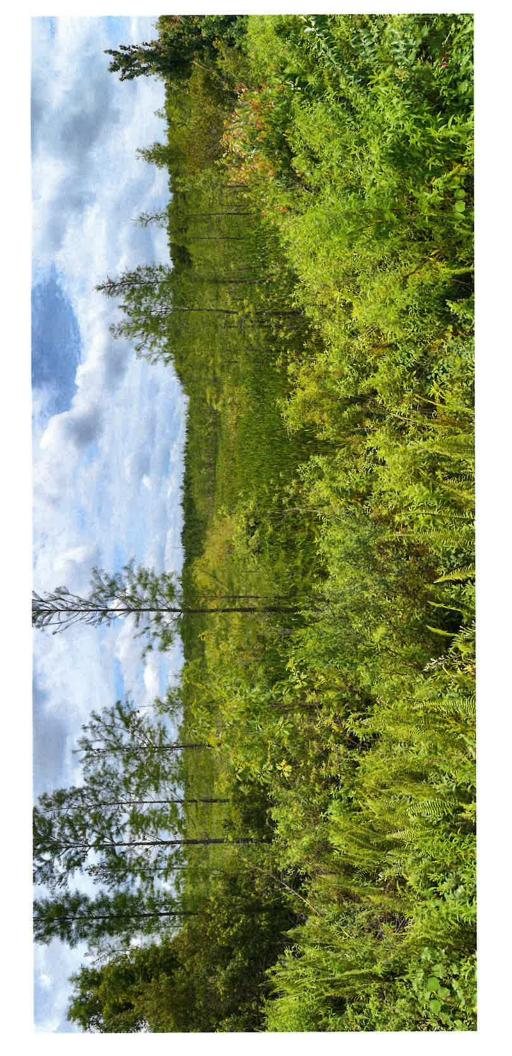
Mo, his wife Ileana, and daughter Megan are natives of Orange County, Florida. They are active supporters of Children's Home Society and Orlando Children's Church, both nonprofit organizations. On weekends, Mo and his family can be found volunteering at one of many charitable organizations or playing at a local beach.











Existing Environmental Analysis Wetland Impacts

Proposed southern alignment:

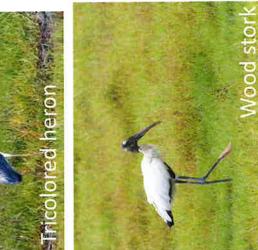
- 15 to 20 acres of direct wetland Impacts.
 - 3 hydrological basinsShingle CreekReedy CreekBoggy Creeks
- **Cumulative wetland** impacts????



Existing Environmental Analysis Wildlife Impact Considerations

- Wetland systems provide habitat for the entire lifecycle of wildlife species.
- Wildlife
 Consultation Areas
 within project limits
 include:
- Florida scrub-jay
- Red-cockaded woodpecker
- Audubon's crested caracara
- Everglade snail
- Sand-skink



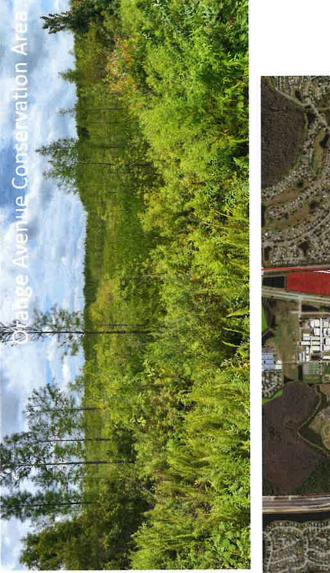




Existing Environmental Analysis Conservation Land Impacts

Proposed southern alignment:

Impacts to approximately 20 acres of conservation lands





ECOLOGICAL SUMMARY REPORT BRIGHTLINE PROPOSED SOUTHERN ALIGNMENT

Prepared By:

MSE Group, LLC 5858 South Semoran Boulevard Orlando, Florida 32822

July 2021

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List of Acronyms and Abbreviations

AJD Approved Jurisdictional Determination

BA Biological Assessment
BE Biological Evaluation

BRP Biodiversity Resource Priorities

CFA Core Foraging Area

CFR Code of Federal Regulations

CLEAR Conservation Lands, Easements, and Recreation
CLIP Critical Lands and Waters Identification Project

CWA Clean Water Act E Endangered

EIS Environmental Impact Statement
EPA Environmental Protection Agency
ERP Environmental Resource Permit

ESA Endangered Species Act
ESR Ecological Summary Report
FAC Florida Administrative Code

FDACS Florida Department of Agriculture and Consumer Services

FDEP Florida Department of Environmental Protection

FDOT Florida Department of Transportation

FL-SOLARIS Florida State Owned Lands and Records Information System FLUCFCS Florida Land Use, Cover, and Forms Classification System

FNAI Florida Natural Areas Inventory

FS Florida Statute

FWC Florida Fish and Wildlife Conservation Commission

GP General Permit

ISMP Imperiled Species Management Plan

MB Mitigation Bank MSE Group, LLC

NEPA National Environmental Policy Act NMFS National Marine Fisheries Service

NRCS Natural Resources Conservation Service

NWP Nationwide Permit

NWPR Navigable Waters Protection Rule

OCEPD Orange County Environmental Protection Division

RCW Red-Cockaded Woodpecker
RHA Rivers and Harbors Act of 1899

ROW Right-of-Way

SFH Suitable Foraging Habitat

SFWMD South Florida Water Management District

SP Standard Permit SR State Road

SSC Species of Special Concern

List of Acronyms and Abbreviations (Cont'd.)

T Threatened

USACOE U.S. Army Corps of Engineers USDA U.S. Department of Agriculture

USC U.S. Code

USFWS U.S. Fish and Wildlife Service

USGS U.S. Geological Survey

WOTUS Waters of the U.S.

1.0 Executive Summary

The rail alignment between Orlando and Tampa has been reviewed several times by multiple government agencies, including the Federal Railroad Administration, the U.S. Army Corps of Engineers (USACOE), and the South Florida Water Management District (SFWMD). These detailed reviews resulted in the 2005 Environmental Impact Statement (EIS), which was reaffirmed by the 2010 EIS and Record of Decision (ROD), and concluded that the Northern Alignment (Taft-Vineland, S.R. 528) results in fewer natural impacts than the southern alignment (S.R. 417) and is the preferred alignment from Orlando to Tampa. Nonetheless, Brightline is now proposing a Southern Alignment (also along S.R. 417) that is similar to the one previously dismissed in 2005 and 2010, without properly identifying many of the associated ecological impacts, mitigation costs, and permitting challenges that make the currently proposed Southern Alignment problematic. Such ecological impacts and mitigation costs must be specifically identified and evaluated in connection with the federally mandated NEPA environmental review process, as well as the USACOE and SFWMD permitting processes, and, as such, it would be detrimental to the project to disregard them at this stage. That said, Brightline's current plans fail to acknowledge or adequately address a number of moderate and high-quality wetlands, including Shingle Creek; lands that are under recorded conservation easements; floodplain or floodways compensating storage requirements; stormwater management; and the destruction of habitat that supports protected wildlife species.

Based on my analysis to date, in addition to the mitigation costs that Brightline has failed to account for to date, Brightline's proposed alignment will require several years of negotiation with regulatory agencies prior to obtaining the requisite approvals and permits. As such, it is premature to make any commitments relative to the proposed Brightline alignment.

Ecological Issues

The ecological impacts associated with the Southern Alignment have not been fully identified or subject to required regulatory review, which includes the opportunity for public notice and input. To date, there is no existing study or analysis, such as an EIS, Environmental Assessment (EA), Project Development & Environment (PD&E) Study, or Roadway Conceptual Analysis (RCA) that identifies, quantifies, or qualifies the adverse impacts that will result from construction and operation of the Southern Alignment. In my initial review I have identified the following issues.

- Brightline's most recent proposed alignment will adversely impact 15 to 20 acres of wetlands across three different hydrological basins, including Boggy Creek, Shingle Creek and Reedy Creek. These fully established wetlands are moderate to high quality systems with a long history of community investment.
 - One of the wetland systems impacted by Brightline's proposed alignment is a wetland conservation area that was created to offset adverse wetland impacts for construction associated with Orange Avenue and to provide necessary floodplain compensation within the Boggy Creek basin. The currently proposed alignment would bisect this 34-acre wetland conservation area, causing direct and secondary impacts to this system.
 - In total, approximately 20 acres of conservation lands, including the mentioned Orange Avenue mitigation parcel, will need to be filled and mitigated under the currently proposed alignment.

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- o Approximately 1,000 linear feet of elevated crossing will be needed at Shingle Creek, at a significant additional expense, in order to avoid adverse impacts to the open water portion of the creek. Additionally, another 700 linear feet of forested wetlands that are contiguous with Shingle Creek will be adversely impacted by the currently proposed alignment.
- Floodplain or floodway impacts from the Brightline project will require analysis and mitigation, which do not appear to be available for those portions of the alignment located within the 100year flood plain.
- The currently proposed alignment is located within the consultation area of several federally protected wildlife species and concurrence with any impact and mitigation will be required to be obtained from the U.S. Fish and Wildlife Service and/or Florida Fish and Wildlife Conservation Commission.

Permitting Issues

The Southern Alignment will require permitting from the USACOE (Section 404 retained wetlands at Shingle Creek), SFWMD, Florida Department of Environmental Protection (FDEP) (Section 404 Assumption wetlands), and Orange County Environmental Protection Division (OCEPD) for wetland impact authorization.

- The USACOE regulations require that project alternatives be identified and analyzed as part of its review. Brightline does not, however, appear to give any consideration to addressing this requirement. A study to consider and quantify the alternatives will need to be completed prior to permit application submittal to any of the regulatory agencies for approval.
- o 15 to 20 acres of proposed impacts resulting from the currently proposed alignment are providing mitigation for previously approved wetland impacts in the area. Releasing the existing conservation easements, mitigating for the value that these areas currently provide, and the additional mitigation of the identified Brightline impacts will result in the requirement for double mitigation, adding significant complexity to the permitting efforts with the USACOE and SFWMD and lengthening the permit review timeframes.
- Based on my experience, the required permitting process timeframe would be expected, conservatively, to take 12 to 36 months.
- o All permits must be obtained prior to any construction that results in a wetland impact.

Regulatory and Process Issues

The Southern Alignment has not undergone the required regulatory review for projects subject to NEPA, resulting in regulatory uncertainty, increased costs, and project delays.

- The Northern Alignment (Taft-Vineland, S.R. 528) was the subject of full review with identified impacts and established mitigation requirements in both the 2005 and 2010 EIS, as well as the 2010 ROD. As such, the ecological impacts and required mitigation are known and have been conceptually approved by the regulatory agencies having jurisdiction. Further, both the 2005 and 2010 EEHS, as well as the 2010 ROD, concluded that the Northern Alignment was the preferred alignment and resulted in fewer natural impacts.
- The Southern Alignment (S.R. 417) that is now being proposed by Brightline has not been subject to the same level of regulatory scrutiny or public involvement, leading to significantly

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greater uncertainty relative to the full ecological impacts, mitigation requirements, associated costs, and project timeline (a NEPA review takes, on average, between 41 to 47 months to complete).

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2.0 Introduction

This report documents the ecological features within the Brightline Currently Proposed Southern Alignment (Southern Alignment). Ecological features include wetland and/or surface water communities; the occurrence, or potential for occurrence, of federally- and/ or state-protected wildlife species and their habitat; conservation lands, floodplain, etc. and the likelihood of impacts of such during project construction and operation.

3.0 Project Description

Brightline is considering the design, permitting, construction and operation of an intercity high-speed passenger rail service along the Southern Alignment within Orange and Osceola Counties, FL. This high-speed passenger rail begins at Orlando International Airport and traverses southwest onto State Road (S.R.) 417 (Central Florida Greenway), northern right-of-way, and ultimately to Interstate 4 (**Figure 1**). The Southern Alignment is approximately 16.6 miles in length with approximately half of the high-speed passenger rail located within the right-of-way of S.R. 417.

4.0 Methodology

MSE completed an ecological evaluation of the study area, which identified and documented current hydrologic and natural features, threatened and endangered species, and permitting requirements for the Southern Alignment. This evaluation included review and analysis of the following items:

- Public records databases, handbooks, and manuals
 - Aerial Mapping (Figure 2)
 - Florida Department of Transportation (FDOT) Florida Land Use, Cover, Forms and Classification System (FLUCFCS) Handbook (1999)
 - o Florida Fish and Wildlife Conservation Commission (FWC)
 - U.S. Fish and Wildlife Service (USFWS)
 - o USFWS North Florida Ecological Services Office Species Account
 - o Florida Department of Environmental Protection (FDEP) Map Direct
 - Florida Natural Inventories (FNAI) Tracking List
 - National Wetlands Inventory (NWI) Maps
 - o National Resources Conservation Services (NRCS) Soil Survey Maps
 - o South Florida Water Management District (SFWMD)
 - U.S. Army Corps of Engineers (USACOE)
 - U.S. Geological Survey (USGS) topographic quadrangle maps (Figure 3)
 - o Data/Information made available by Brightline in support of the Southern Alignment
- Physical setting conditions (topography, soils) in the study area
- Land use types within the study area
- Ground-truth activities for wetlands and surface water features
- Evaluation of habitat for wildlife species, including threatened and endangered species

4.1 Wetlands and Surface Waters

The jurisdictional extent of wetlands and other surface water systems were aerial interpreted, and field verified in general accordance with the 1987 Corps of Engineers Wetlands Delineation Manual (Technical Report Y-87-1), November 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic Gulf Coastal Plan Region, and the State of Florida's Delineation of the Landward Extent

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of Wetlands and Surface Waters (Chapter 62-340, Florida Administrative Code [FAC]. Wetlands and surface waters observed were classified using the SFWMD land use type data, and the U.S. Fish and Wildlife Service classification system as described in their Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979). Ground-truthing of wetlands and surface waters was completed along the study area in July 2021.

4.2 Protected Wildlife Species and Their Habitat

Database queries were completed to evaluate the occurrence or potential for occurrence of wildlife species identified as threatened (T), endangered (E), or species of special concern (SSC) by governing regulatory agencies, followed by ground-truth activities in July 2021. Visual observations during a site walk for the occurrence or potential for occurrence of federally- and/or state-protected wildlife were completed along the Southern Alignment. Wildlife observations included visual observation of species, scat, nests, etc. and audible detection.

5.0 General Site Conditions

5.1 Soils

The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey is a comprehensive published source of information regarding near-surface soil and depth-to-groundwater conditions. The NRCS Soil Surveys of Orange and Osceola Counties, Florida, were reviewed for information regarding near-surface soil conditions within the Southern Alignment (**Figure 4**).

The NRCS Soil Survey identified the following soil units within the limits of the study area:

- 3 Basinger fine sand, frequently ponded, 0 to 1 percent slopes (Hydric)
- 20 Immokalee fine sand
- 26 Ona fine sand, 0 to 2% slopes
- 34 Pomello fine sand, 0 to 5 percent slopes
- 37 St. Johns fine sand
- 40 Samsula Muck, frequently ponded, 0 to 1% slopes (Hydric)
- 41 Samsula-Hontoon Basinger associated depressional (Hydric)
- 42 Sanibel Muck (Hydric)
- 44 Smyrna-Smyrna, wet, fine sand, 0 to 2 percent slopes (Hydric components)
- 54 Zolfo Fine Sand, 0 to 2 percent slopes
- 99 Water

Generally, the NRCS data suggests that the depth to the water table for these soil types ranges from 0 to 42 inches; these soil types are identified as very poorly to moderately well-drained soils, with permeability ranging from moderately high to very high (NRCS, Web Soil Survey). During site reviews, a large percentage of the study area was observed to having saturated soils conditions in addition to inundation within wetland systems. Site observations of soil conditions would suggest soil types are consistent with mapped units.

5.2 Current Land Use

Land use types within and abutting the Southern Alignment range from undeveloped/natural lands, both wetlands and uplands, to high density multiple dwelling units and commercial services (Figure 5). A

summary description of the dominate undeveloped/natural lands observed during site reviews is provided below.

5.2.1 Uplands

- FLUCFCS 1900 Open Land This land use type best describes the area between Orange Avenue and the Florida's Turnpike within the Southern Alignment. This area is vegetatively comprised of bahiagrass (*Paspalum notatum*), dog fennel (*Eupatorium capillifolium*), prickly pear (*Opuntia* spp.), saw palmetto (*Serenoa repens*), blackberry (*Rubus* spp.), grapevine (*Vitis* spp.), beautyberry (*Callicarpa americana*), golden rain tree (*Koelreuteria paniculata*), and rattlebox (*Crotalaria* spp.). This area is bordered by wetlands to the north and south and is maintained as a part of the overhead utilities.
- FLUCFCS 3210 Palmetto Prairies This land use type best describes the lands on the
 northside of SR 417, just west of the toll plaza. Vegetation present includes a groundcover of saw
 palmetto, with fetterbush (*Lyonia lucida*), coastal plain staggerbush (*Lyonia fruticosa*), and
 gallberry (*Ilex glabra*) in the midstory. A sparse canopy of slash pine (*Pinus elliottii*) makes up the
 overstory.
- FLUCFCS 4110 Pine Flatwoods This land use type is found within and abutting the study area, east and west along the SR 417 alignment. This land use includes a canopy of slash pine (Pinus elliotti) and live oaks (Quercus spp.), with a subcanopy and groundcover of wax myrtle (Myrica cerifera), saw palmetto, fetterbush, gallberry and wiregrass (Aristida stricta var. beyrichiana).

5.2.2 Wetlands

- FLUCFCS 5120 Channelized Waterways, Canals This land use type best characterizes the surface water of Shingle Creek that lies within the Southern Alignment corridor. This area is an open water feature with submerged aquatic vegetation.
- FLUCFCS 6210 Cypress This land use type makes up most of the forested wetland systems within and abutting the Southern Alignment. Vegetation present includes a mature canopy dominated by cypress (*Taxodium* spp.), with scattered red bay (*Persea borbonia*), and dahoon holly (*Illex cassine*), with a groundcover of cinnamon fern (*Osmunda cinnamomea*), Virginia chainfern (*Woodwardia virginica*), netted chain fern (*Woodwardia areolata*) and standing water.
- FLUCFCS 6250 Hydric Pine Flatwoods This land use is vegetatively comprised of pond pine (*Pinus serotina*), loblolly pine (*Pinus* taeda), slash pine, Brazilian pepper, water oak, dahoon holly, saw palmetto, red root (*Lachnanthes caroliana*), cinnamon fern, sedges (*Carex* spp.), muscadine grapevine, and areas of standing water. This habitat type is largely located along the western limits of the Southern Alignment.
- FLUCFCS 6300 Wetland Forested Mixed This land use type best describes the undeveloped land along SR 417 near Kissimmee Vineland Road overpass. Vegetation present includes cypress, slash pine, water oak (Quercus nigra), red maple (Acer rubrum), sweetbay magnolia (Magnolia grandiflora), loblolly bay, wax myrtle, dahoon holly, Virginia chain fern, maidencane (Panicum hemitomon), Virginia creeper (Parthenocissus quinquefolia), and standing water.

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FLUCFCS 6410 – Freshwater Marshes – This land use type best describes the herbaceous
wetland along the eastside of Orange Avenue where the Southern Alignment leaves the existing
tracks, bisecting the wetland system. This wetland is vegetated by a groundcover of pickerelweed
(Pontederia cordata) and bulltongue arrowhead (Sagittaria lancifolia) with scattered cypress in the
canopy.

6.0 Federally and State-Protected Wildlife Species

Literature reviews and database queries were completed to identify federally and/or state-protected wildlife species known to occur in Orange and Osceola Counties, Florida, and the potential occurrence of such species to inhabit the study corridor. Federally and/or state-protected wildlife species are those categorized by USFWS and/or FWC as T, E, or SSC, thereby receiving a level of protection because of their status. The potential occurrence of protected wildlife species identified within the study corridor is based on the type and quality of present vegetative communities and the surrounding land uses. The probability of each wildlife species occurring within the study corridor was ranked using the following requirements:

- 1. No indicates no suitable habitat present. Suitable habitat is defined as intact natural land that is typically used by the species under consideration.
- 2. Low indicates that marginally suitable habitat may exist within the study area, but the species was not observed during field observations. Marginal describes natural land that has been altered from its native state due to human activity, ecological succession, or conversion; however, the species under consideration could still inhabit the area.
- 3. Moderate indicates that suitable habitat exists within the study area, but the species was not observed during field observations.
- 4. High indicates that suitable habitat exists within the study area and the species of interest was observed during field observations.

Table 1 provides a summary of those federally and/or state-protected species known to occur in Orange and Osceola Counties and their potential for occurrence within the study corridor. A discussion of federal and/or state-protected wildlife with the occurrence potential to be found within the study area, or the study area falls within the species consultation area, are discussed in detail below.

Table 1: Federally and State-Protected Wildlife Species Known to Occur in Orange and Osceola Counties, Florida, and the Potential for Occurrence within the Southern Alignment

Scientific Name	Common Name	Protection Status	Occurrence Potential	Consultation Area	Habitat			
Fish								
Pteronotropis welaka	Bluenose shiner	ST	No	S1446	Quiet backwaters and pools of blackwater streams and rivers and spring runs; usually with thick vegetation nearby			
Reptiles								
Alligator mississippiensis	American alligator	FT(S/A)	Moderate	, Č	Various aquatic habitats			
Drymarchon corais couperi	Eastern indigo snake	FT	Moderate	-	Wide variety of natural habitats			

Scientific Name	Common Name	Protection Status	Occurrence Potential	Consultation Area	Habitat			
Gopherus polyphemus	Gopher tortoise	ST	Moderate	(201)	Sandhills, scrub, hammocks, dry prairies, flatwoods, mixed forests			
Lampropeltis extenuata	Pine snake	ST	Moderate	R ate X	Sandhills, scrubby flatwoods, xeric hammocks, ruderal areas			
Plestiodon reynoldsi	Sand Skink	FT	Low	Partially within	Rosemary scrub, scrubby flatwoods, sand pine, oak scrub			
Lampropeltis extenuate	Short-tailed snake	ST	Low	6 83 3	Longleaf pine-turkey oak, sand pine scrub, xeric hammocks			
	Birds							
Haliaeetus leucocephalus	*Bald eagle	==	High	S ee S	Forested areas adjacent to bodies of water			
Polyborus plancus	Audubon's Crested Caracara	FT	Moderate	Yes	Open country, dry prairie, ruderal areas			
Rostrhamus sociabilis	Everglade snail kite	FE	Moderate	Yes	Freshwater marshes, vegetated fringes of shallow lakes and ponds			
Athene cunicularia floridiana	Florida burrowing owl	ST	No	-	Sparsely vegetated sandhills, dry prairies, ruderal areas			
Grus canadensis	Florida sandhill crane	ST	High	**	Shallow wetlands, freshwater marshes, wet prairies			
Aphelocoma coeruluscens	Florida scrub- jay	FT	Low	Yes	Scrub, scrubby flatwoods			
Egretta carruela	Little blue heron	ST	High	(** 2)	Marshes, ponds, rivers			
Picoides borealis	Red-cockaded woodpecker	FE	Low	Yes	Open, mature pine flatwoods			
Egretta Tricolor	Tricolored heron	ST	Moderate	==:	Marshes, ponds, rivers			
Platalea ajaja	Roseate spoonbill	ST	Moderate		Coastal mangroves, Brazilian pepper on man-made dredge spoil islands, willow heads of freshwater			
Mycteria americana	Wood stork	FT	High	 :	Fresh and brackish forested wetlands, swamps, ponds, marshes			

Occurrence Potential = No, Low, Moderate, High

Consultation Area = Identified within consultation area as depicted by USFWS and/or FWC GIS Data

Code Key: FE = Federally designated Endangered, ST = State-designated Threatened, FT = Federally designated Threatened, FT S/A = Federally-designated Threatened due to Similar in Appearance

Data Source: USFWS ECOS accessed July 2021:

Florida's endangered species, and threatened species dated December 2018

FNAI.org accessed July 2021

6.1 Bald Eagle

Although the bald eagle (*Haliaeetus leucocephalus*) has been delisted, under the Endangered Species Act, the species remains protected through the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. Florida has one of the densest concentrations of nesting bald eagles in the lower 48 states, with several clustered around significant lake, river, and coastal systems throughout the state (FWC, Bald

^{*}Protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act

Eagle Management). Bald eagles typically nest and roost in forested habitats consisting of mature canopy trees located along habitat edges, allowing an unobstructed view of surrounding areas. Daytime roosts are in the highest trees and adjacent to shorelines. High quality foraging habitat for bald eagles has a diversity and abundance of prey, access to shallow water, and tall trees or structures (FWC, Bald Eagle Management).

The FWC Bald Eagle Nest locator was queried for known bald eagle nest sites within a 1-mile radius of the study area. Four documented bald eagle nest sites were identified within the search radius of the Southern Alignment (**Figure 8**).

6.2 Federally Protected Wildlife Species

6.2.1 American Alligator

FWS considers the American alligator (*Alligator mississippiensis*) threatened due to similarity in appearance to the federally endangered American crocodile (*Crocodylus acutus*). The American alligator inhabits fresh and brackish marshes, ponds, lakes, rivers, swamps, bayous, and large spring runs. They have been found in salt marsh and estuarine habitats in some parts of the state (Scott 2004). Alligators play a vital role in creating and maintaining microhabitats (gator holes), which can serve as refuge to water source habitats and benefit a host of species. Nests consist of a mound of compacted earth and vegetation usually 4–7 feet in diameter (Scott 2004). Nesting season occurs in the spring. The alligator has a wide variety of food sources, including fish, ducks, wading birds, raccoons, and turtles.

Although the alligator was not observed, habitat for this species is present within the study area.

6.2.2 Audubon's Crested Caracara

USFWS lists the Audubon's crested caracara (*Polyborus plancus audubonii*) as threatened. It is typically found in dry or wet prairies with scattered cabbage palms and improved and unimproved pasturelands (USFWS Multispecies Recovery Plan for South Florida). Nest sites are typically found in the tallest cabbage palm or other structures free of dense vegetation. Caracara birds are opportunistic feeders with their diets consisting of insects, fish, snakes, turtles, birds, and mammals (rabbits and skunks).

The Southern Alignment lies within the consultation area of the crested caracara (Figure 9).

6.2.3 Florida Scrub-Jay

USFWS lists the Florida scrub-jay (*Aphelocoma coerulescens*) as threatened. This species is typically found in sand pine, xeric oak scrub, scrubby flatwoods with sandy soils, and fire-dominated habitat types. The scrub-jay's diet consists mainly of acorns, arthropods, berries, seeds, and a wide variety of insects (Woolfenden & Fitzpatrick 1996).

The Southern Alignment is located within the USFWS consultation area for the Florida scrub-jay (**Figure 10**). Suitable habitat for this species is found within or immediately adjacent to the Southern Alignment.

6.2.4 Red-Cockaded Woodpecker

USFWS lists the red-cockaded woodpecker (*Picoides borealis*) (RCW) as endangered. The RCW is known to inhabit mature pine forests where they can bore out cavities. RCWs favor environments that have a diversity of grass, forb, and shrub species. Their diet consists mainly of insects and arthropods, with fruit and seeds making up a small portion (USFWS March 9, 2020).

The study area lies within the USFWS consultation area for the RCW (Figure 11).

6.2.5 Everglade Snail Kite

USFWS lists the Everglade snail kite (*Rostrhamus sociabilis plumbeus*) as endangered. The snail kite is found near large, open freshwater marshes and lakes with shallow water and low density of emergent vegetation of natural and man-made systems. The apple snail (*Pomacea paludosa*) is the snail kite's main food source, which makes the snail kite's survival directly dependent on the hydrology and water quality of watersheds associated with the Everglades, lake Okeechobee, and the Kissimmee and the upper St. Johns Rivers (USFWS Multi-Species Recovery Plan for South Florida).

The Southern Alignment is located within the USFWS consultation area with several nesting sites document just south of the area (Figure 12).

6.2.6 Sand Skink

The USFWS lists the sand skink as threatened. It is endemic to the sandy ridges of central Florida, occurring in Highlands, Lake, Marion, Orange, Osceola, Polk, and Putnam counties (Christman, 1988). Principal populations occur on the Lake Wales and Winter Haven Ridges in Highlands, Lake, and Polk counties. The sand skink is uncommon on the Mount Dora Ridge, including sites within the Ocala National Forest (Christman, 1970, 1992). As of 1997, there were 114 locality records for the sand skink, most of which are found within the Lake Wales Ridge.

The sand skink is adapted to an underground existence, and usually inhabits the loose sands of sand pine-rosemary scrub. Sometimes it will live in longleaf pine-turkey oak (sandhill) or turkey oak "barrens" adjacent to scrub, especially high pine-scrub ecotones (Telford, 1996). To be considered potentially suitable habitat, the site would have to be located within the USFWS delineated consultation area, contain appropriate soil type(s), and have appropriate elevations (82 feet above mean sea level). Two areas within the Southern Alignment meets all three USFWS criteria (Figure 13).

6.2.7 Wood Stork

USFWS lists the wood stork (*Mycteria americana*) as threatened. This species is typically found in freshwater marshes, swamps, lagoons, ponds, flooded fields, depressions in marshes, and brackish wetlands. The critical foraging areas for this species include areas of very shallow water, generally 6–10 inches in depth, where there is an abundance of small fishes and other aquatic life. These small fishes may include mosquitofish, sailfin mollies, flagfish, and several species of sunfish. Wood storks may also prey on frogs, salamanders, snakes, crayfish, insects, and baby alligators (Scott 2004). Suitable foraging habitat (SFH) is defined in *The Corps of Engineers, Jacksonville District, U.S. Fish and Wildlife Service, Jacksonville Ecological Services Field Office and State of Florida Effect Determination Key for the Wood Stork in Central and North Peninsular Florida (2008) as "any area containing patches of relatively open (25% aquatic vegetation), calm water, and having a permanent or seasonal water depth between 2 and 15 inches." Examples of SFH include freshwater marshes and stock ponds, shallow, seasonally flooded roadside or agricultural ditches, narrow tidal creeks or shallow tidal pools, managed impoundments, and depressions in cypress heads and swamp sloughs. USFWS has identified core foraging areas (CFA) around wood stork colonies that are deemed important for reproductive success. The CFA within the study corridor is identified as a 15-mile radius from known wood stork colonies.*

The Southern Alignment is located within the 15-mile CFA of four wood stork colonies (USFWS Wood

Storks 2010 - 2019 GIS Database) (Figure 14).

6.3 State-Protected Wildlife Species

6.3.1 Gopher Tortoise

FWC lists the gopher tortoise (*Gopherus polyphemus*) as threatened. The gopher tortoise inhabits subterranean burrows in dry upland habitats. Vegetative communities most often inhabited by gopher tortoises include longleaf pine sandhills, xeric oak hammocks, scrub, pine flatwoods, dry prairies and coastal dunes. Gopher tortoises can also be found in pastures, ruderal fields, and grassy roadsides. To be suitable for gopher tortoises, the habitat must have well-drained sandy soils for digging burrows, herbaceous plants, and open sunny areas for nesting and basking. Periodic natural fires play an important role in maintaining tortoise habitat by opening up the canopy and promoting growth of herbaceous plants for foraging. If natural fires are suppressed, the habitat becomes unsuitable for gopher tortoises (Cox 1987). Gopher tortoise burrows are an important habitat to many native species. It is estimated that 39 invertebrates and 42 vertebrate species use the gopher tortoise burrow to some degree (Cox 1987). Of those species, protected species that frequently inhabit the gopher tortoise burrow include the Florida pine snake, eastem indigo snake, and burrowing owl.

6.3.2 Florida Pine Snake

FWC lists the Florida pine snake (*Pituophis melanoleucus*) as threatened. The Florida pine snake is found in sandhills, including old fields and pastures, with a moderate to open canopy and dry sandy soils, in which it burrows. The pine snake is also found in sand pine scrub and scrubby flatwoods; it often coexists with pocket gophers and gopher tortoises (FNAI 2018). The diet of the Florida pine snake primarily consists of moles, rabbits, mice, rats, squirrels, lizards, and other snakes and their eggs (Ernst and Ernst 2003).

The study corridor is largely developed, with little suitable habitat for the Florida pine snake. The Florida pine snake was not observed within the limits of the study corridor; therefore, is anticipated that the proposed project will not adversely impact the Florida pine snake.

6.3.3 Florida Sandhill Crane

The Florida sandhill crane (*Grus canadensis*) is listed as threatened by FWC. The Florida sandhill crane is a non-migratory bird found in freshwater marshes, prairies, and pastures (FNAI 2018). These birds nest in freshwater ponds and marshes that have an average water depth of 5 to 13 inches, and sites vary from year to year due to the fluctuation of water levels. Their preferred habitat contains short vegetation (less than 20 inches in uplands), and they generally avoid areas with tall vegetation or dense canopies (FWC 2020). The sandhill crane is often found foraging in a variety of open habitats, including roadsides. Their diet consists of berries, seeds, insects, mice, small birds, snakes, lizards, and frogs.

Foraging, resting, and nesting habitat is found within the Southern Alignment. This species was observed during site reviews.

6.3.4 Wading Birds

The roseate spoonbill (*Platalea ajaja*), little blue heron (*Egretta caerulea*), and tricolored heron (*Egretta tricolor*) are wading birds listed as threatened by FWC. These species are typically found in marshes, ponds, lakes, meadows, mudflats, lagoons, streams, mangrove lagoons, and other bodies of shallow waters. Their diet consists of various types of fishes, amphibians, and invertebrates. Nesting generally

occurs in both coastal and freshwater environments in swamps and/or mangrove forests. They are known to share nesting sites with other wading birds to form rookery colonies (Rodgers 1996).

Foraging habitat is present within and abutting the Southern Alignment.

7.0 Conservation Lands

FDEP maintains GIS data available to the public through FDEP Map Direct. The Florida State Owned Lands and Records Information System (FL-SOLARIS) was implemented to maintain a database of property "owned, leased, rented, or otherwise occupied" by any state government agency. In 2017 FL-SOLARIS provided Conservation Lands, Easements, and Recreation (CLEAR), which contains conservation easements for federal, municipal, county, and special districts, as well as other entities as specified in 253.87, FS. This data is refreshed every 5 years (FDEP FL-SOLARIS).

Along the Southern Alignment, there are lands designated as conservation lands which have been set aside for their conservation value to the ecosystem they serve (**Figure 15**). These lands are preserved under several different mechanisms including conservation easements and Orange County Planned Development approvals. There are 24 distinct conservation areas that abut or transverse the Southern Alignment.

8.0 Regulatory Requirements

Federal, state, and local government agencies are charged with protecting jurisdictional wetlands and surface waters, protected wildlife species, and their habitats. A discussion of each agency's general requirements in protecting such features is provided below.

8.1 Federal Requirements

8.1.1 U.S. Army Corps of Engineers

The Department of the Army, through its regulatory division, regulates the discharge of dredge or fill material into waters of the United States (WOTUS) under Section 404 of the Clean Water Act (CWA), and in navigable waters of the United States. under Sections 9 and 10 of the Rivers and Harbors Act of 1899 (RHA) (USACOE and EPA 2007). The term "navigable waters of the United States" is defined to include all waters that are subject to the ebb and flow of the tide, and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce (33 CFR 329.4 RHA). Since 1970, the USACOE and U.S. Environmental Protection Agency (EPA) have defined wetlands under the CWA as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" and "wetlands [that] generally include swamps, marshes, bogs, and similar areas" (EPA Section 404 of the CWA).

On June 22, 2020, the Navigable Waters Protection Rule (NWPR) became affective codifying the definition of "water of the United States" under the CWA. The NWPR includes four categories of jurisdictional waters and provides specific exclusions for many water features that traditionally had been regulated (Federal Register Vol. 85, No 77. April 21, 2020). In this final rule, "waters of the United States" include the following:

- 1. Territorial seas and traditional navigable waters
- 2. Perennial and intermittent tributaries that contribute surface flow to such waters

- 3. Certain lakes, ponds, and impoundments of jurisdictional waters (dams)
- 4. Wetlands adjacent to other jurisdictional waters

To determine if a wetland system is considered jurisdictional under the USACOE rules and regulations, an applicant may submit an Approved Jurisdictional Determination (AJD) request. USACOE will review wetland and/or other surface water systems within limits of a project to determine if they are classified as waters of the United States under the NWPR.

If federal jurisdiction is determined, impacts to wetland systems would require coordination with USACOE to obtain one of the following three types of permits (USACOE Sourcebook):

- Nationwide Permits (NWP) NWPs are used to allow filling of wetlands and other jurisdictional
 waterbodies in situations where the impacts to these systems will have minimal adverse
 environmental impact. NWPs allow certain categorical activities to take place so long as the
 activity does not exceed impact thresholds.
 - NWP 14 Linear Transportation Projects This permit is available for projects such as roadways, highways, railways, trails, airport runways, and taxiways. For issuance of an NWP-14 in non-tidal waters, a project must have 0.5-acre or less of impacts to USACOEregulated waters.
- General Permits (GP) GPs are issued on a nationwide or regional basis for a category of
 activities that are substantially similar in nature and cause only minimal individual and cumulative
 impacts. GPs are reviewed every 5 years and have been developed to reduce the burden of the
 regulatory program on the public and ensure timely issuance of permits.
- Standard Permits (SP) SPs are required when the proposed project does not meet the criteria
 of a GP or NWP. SPs require a 21-day comment period under public notice.
- Individual Permits (IP) IPs are required when any of the above permitting thresholds are
 exceeded on a project. Individual permits undergo a more rigorous review and are publicly noticed
 as a part of the review process.

Projects that require an IP from the USACOE are required to consider selection of alternative project sites. In this process, the applicant must determine appropriate project specific site selection screening criteria based on the need and purpose of the project. The applicant must provide a list of the project specific site selection criteria that were used to screen potential sites within its identified geographic area, and an explanation of why the criteria were selected. The applicant must provide a list of all potential alternative locations that were investigated, and an explanation of how the project specific criteria were used to screen these sites. Any alternative site that was considered, but eliminated from further consideration, should be documented as not being a practicable site, and why. Sites that do not meet all site selection criteria would not be considered in the off-site alternatives. Therefore, the applicant's preferred site and a minimum of two practicable alternative sites must be identified and evaluated in the permit application process. The USACE will review the applicant's analysis of potential off-site alternatives for consistency with the USACOE-determined overall project purpose.

In addition to direct wetland impacts, USACOE considered secondary impacts (e.g.: lighting, noise, trash, etc.) that may result from the proposed project. As part of the project review, unavoidable direct and secondary impacts to "waters of the United States" must be identified and analyzed. All identified impacts

must then be mitigated to the extent practicable. In addition, alternatives to the proposed project must be identified and investigated to determine if an alternative(s) results in fewer direct and secondary impacts.

8.1.2 U.S. Fish and Wildlife Service

USFWS regulates protected wildlife species under the Endangered Species Act (ESA) of 1973. USFWS typically becomes involved during the wetland permitting process through a Section 7 Consultation with USACOE. In accordance with the Fish and Wildlife Coordination Act (16 USC 661-666c), consultation with USFWS and FWC is required when "waters of any stream or other body of water are proposed or authorized to be impounded, diverted,...or otherwise controlled or modified" under a federal permit.

Section 10 of the ESA is designed to regulate a wide range of activities affecting endangered or threatened organisms and their habitats (protected resources). With some minor exceptions, the ESA prohibits activities adversely impacting these protected species and their habitats, unless authorized by a permit from USFWS or the National Marine Fisheries Service (NMFS). USFWS and/or NMFS permitted activities are required to be consistent with the conservation of the species and USFWS and/or NMFS permits are required whenever USACOE permitting is not required.

During consultation with USFWS, the USACOE evaluates the proposed project and provides one of the following determinations for each species identified within the proposed project area:

- No effect USACOE has determined that the proposed project will not adversely impact the species and no further coordination with USFWS is required.
- May affect USACOE has determined that the proposed project may impact a protected resource. USACOE will consult with USFWS to take either of the following actions:
 - Request concurrence with "may affect, but not likely to adversely affect."
 - Request initiation of formal consultation for determinations of "may affect, likely to adversely affect."

Both requests include written analysis explaining the determination in the form of a Biological Assessment (BA) or a Biological Evaluation (BE) (USFWS 2016).

8.2 State Requirements

8.2.1 South Florida Water Management District

The State of Florida defines wetlands as "those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and under normal circumstances, do support, a prevalence of vegetation typically adapted for life in saturated soils" (Chapter 62-340.200 FAC). SFWMD regulates impacts to wetlands and/or other surface waters, pursuant to Part IV Chapter 373 of the Florida Statutes (FS), and in accordance with Chapter 62-330 FAC for the area of the Southern Alignment. SFWMD requires an Environmental Resource Permit (ERP) that establishes requirements and conditions to prevent flooding, manage surface water, and protect water quality, wetlands, and surface waters. As part of the permit process, SFWMD rules and regulations require the applicant to identify, evaluate and eliminate or reduce the potential flooding as well as impacts to wetland and/or surface water systems and to properly manage stormwater resulting from the proposed project. When reviewing an application, SFWMD considers the following:

 The degree of impact to potential flooding, stormwater management, wetland and surface water functions resulting from the proposed project.

- Whether the impact to these functions can be mitigated.
- The practicability of design modification that could be made eliminate or reduce impacts to these
 functions, including identifying and evaluating alternatives to the proposed project.

Pursuant to Section 10.1.1(f) of the ERP Applicant's Handbook (General and Environmental) Volume 1 (December 22, 2020), an applicant must ensure that the proposed project will not cause adverse secondary impacts to water resources. Secondary impact criteria consists of the following for which theapplicant must provide reasonable assurance that secondary impacts from construction and operation of the proposed project:

- will not result in flooding.
- will not cause violations of water quality standards or adverse impacts to the functions of wetlands or surface waters.
- will not adversely impact the ecological value of uplands to federal and/or state protected aquatic and wetland dependent wildlife species for enabling existing nesting or denning by these species (excluding areas needed for foraging or wildlife corridors).
- will not impact any significant historical or archeological resource.
- will not cause adverse impacts in later phases that are very closely linked and casually related to the proposed project.

SFWMD regulates cumulative impacts pursuant to Section 10.1.1(g) of the ERP Applicant's Handbook. Cumulative impacts consist of flooding, stormwater management, wetland and/or other surface water impacts within the same drainage basin as the proposed project. Cumulative impacts to water quality are evaluated by criteria set in Section 10.1.1(C), and by evaluating impacts to functions identified in Section 10.2.2 ERP Applicant's Handbook.

Design modifications to reduce and eliminate impacts must be identified and evaluated for all impacts remaining after practicable design modification which must be offset through alternative mitigation. Alternative mitigation is required for direct impacts to wetland systems greater than 5 acres in size. In addition, SFWMD defines secondary impacts as those with an average of 25 feet further into the remaining wetland system. To reduce and/or eliminate secondary impacts, SFWMD routinely requires a 15-foot minimum/25-foot average upland buffer around a preserved wetland system. Otherwise unmitigated impacts to wetland systems must be offset through preservation or the purchase of mitigation credits from an approved mitigation bank.

8.2.2 Florida Fish and Wildlife Conservation Commission

Under Article IV Section 9 of the Florida Constitution, FWC has the authority to "exercise regulatory and executive powers of the state with respect to wildlife animal life and freshwater aquatic life" (FWC Imperiled Species Management Plan [ISMP] 2016). State-protected wildlife species, prohibitions, and permits are identified in Chapter 68A-27 FAC. FWC maintains Florida's ISMP 2016-2026, which is designed to conserve 57 fish and wildlife species over the next 10 years. FWC's Species Conservation Planning Section evaluates permit applications for proposed projects that would result in adverse impacts to Florida's protected land-dwelling wildlife. Protected wildlife species are those identified as endangered, threatened, or species of special concern, as well as migratory birds and other species subject to protection under state rules. Species Conservation Measures and Permitting Guidelines have been developed for 26 species to assist in determining permit requirements that minimize impacts to wildlife (FWC 2016). These guidelines specify the requirements established in the FAC related to intentional and

incidental take permitting. These requirements include guidelines on species range, survey methodology, and recommended practices.

8.3 Local Government

8.3.1 Orange County Environmental Protection Division

The Orange County Environmental Protection Division (OCEPD) is the local government agency that regulates wetlands pursuant to Article X – Wetland Conservations Areas Section 15 (Conservation Ordinance of Orange County). This ordinance classifies wetland systems by size, hydrologic connection, and use of the system by protected wildlife species. All wetland systems within unincorporated Orange County, Florida, are classified using the following criteria:

- Class I System has a hydrologic connection to natural surface water bodies, or lake littoral zone; is 40 acres or larger in size; or provides critical habitat to federal- and/or state-protected wildlife species.
- Class II System consists of isolated wetlands or formerly isolated wetlands that have been altered
 to have a direct connection to other surface water drainage, and the system is greater than or equal
 to 5 acres or is not otherwise classified as a Class I wetland.
- Class III System is isolated wetland less than 5 acres and does not qualify as a Class I or Class
 II system.

Class I wetland systems receive the greatest protection and may be impacted only when no alternative exists for the reasonable use of the land where there is an overriding public benefit. Class II wetland systems may be impacted except when contrary to public interest. Class III wetland systems may be impacted in every case.

OCEPD evaluates secondary impacts using a 15-foot minimum, 25-foot average width further into an impacted wetland system. Both direct and secondary unmitigated impacts must be offset through regulatory approved alternative mitigation.

9.0 Proposed Ecological Impacts

9.1 Wetland and Surface Water Impacts

The Southern Alignment adversely impacts moderate to high quality wetland systems within and abutting the project area. Preliminary estimates would suggest 15 to 20 acres of direct wetland impacts will result from construction of the Southern Alignment (**Figure 15A**).

9.2 Secondary Impacts

Federal, state, and local environmental permitting agencies with jurisdiction over the proposed wetland impacts evaluate potential secondary impacts to wetlands and wildlife during the permitting process. Secondary impacts from construction may include lighting, collisions with wildlife from vehicles, and impacts to water quality.

Secondary impacts to the habitat function of wetlands associated with regulated activities will typically not be considered adverse if upland buffers, with a minimum width of 15 feet and an average width of 25 feet, are provided adjacent to the wetlands that will remain. Buffers, except for drainage features, must be maintained in their natural/undisturbed condition, provided the construction or use of these features does not adversely impact wetlands. Wetlands or ssurface waters cannot be filled to create upland buffers.

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9.3 Cumulative Impacts

SFWMD requires an applicant to provide reasonable assurance that proposed wetland impacts will not cause unacceptable cumulative impacts to wetlands and surface waters in the same drainage basin as the proposed impacts. SFWMD takes into consideration any potential future projects that may have environmental impacts, which, without the current project, would not otherwise be constructed.

If an applicant proposes to mitigate adverse impacts within the same drainage basin as impacts, and if mitigation fully offsets these impacts, then the proposed activity will be considered to have no unacceptable cumulative impacts to wetlands and surface waters.

9.4 Wetland Mitigation

Federal, state, and local government agencies with regulatory authority over wetland and surface waters generally require mitigation to offset unavoidable adverse impacts as a condition of the permit issuance. Mitigation requirements are based on a compilation of wetland parameters including quality, type, function, and size. Impacts to wetlands and surface waters will be avoided and minimized to the maximum extent possible while maintaining safe and sound engineering and construction practices. A mitigation plan that adequately offsets adverse impacts will need to be developed for the Southern Alignment and implemented during the permitting process.

9.5 Conservation Lands

Approximately 20 acres of conservation lands will be directly impacted by the Southern Alignment. This includes impacts to a 34-acre wetland mitigation site that was approved for construction activities for Orange Avenue and is owned by Orange County Board of County Commissioners. These conservation areas range from high quality forested wetlands to pine flatwoods under the ownership of local and state government entities and private interest (**Figure 15**).

9.6 Protected Wildlife Species

The Southern Alignment traverses the consultation area of five federally protected species. Assessing what impact the proposed project will have on such species needs to be fully evaluated and findings documented.

10.0 Conclusion

There are high-quality ecological features located within the proposed Southern Alignment, including forested and herbaceous wetlands, conservation lands and habitat potentially used by federally and state protected wildlife species. The rail alignment between Orlando and Tampa has been reviewed a number of times by multiple government agencies, including the Federal Railroad Administration, USACOE, and SFWMD. These detailed reviews resulted in the 2005 EIS, which was reaffirmed by the 2010 EIS and ROD, and concluded that the Northern Alignment results in fewer natural impacts than the southern alignment (S.R. 417) and is the preferred alignment from Orlando to Tampa. Nonetheless, Brightline is now proposing a Southern Alignment (also along S.R. 417) that is similar to the one previously dismissed in 2005 and 2010, without properly identifying many of the associated ecological impacts, mitigation costs, and permitting challenges that make the currently proposed alignment problematic.

Based on my review, Brightline's current plans fail to acknowledge or adequately address the high-quality ecological features, including Shingle Creek; lands that are under recorded conservation easements; floodplain or floodways compensating storage requirements; stormwater management; and the destruction of habitat that supports protected wildlife species. Quantifying and qualifying proposed impacts, e.g., alternatives, mitigation, flooding, stormwater management, and the like, to these adversely impacted ecological features is regulatorily required to be identified and fully evaluated prior to any decision on this route being finalized. That evaluation must include the identification and evaluation of alternative routes that avoid or minimize impacts to such ecological features. Such an evaluation is not only critical to understanding the proposed impacts, but the regulatory agencies will require it as part of the permit review process. Given that a previous EIS was completed, approved, and reaffirmed, with a ROD being issued in favor of a preferred alternative alignment the Southern Alignment will be subject to increased scrutiny in connection with any such reviews.

Based on my analysis to date, in addition to the mitigation costs that Brightline has failed to account for to date, Brightline's proposed alignment will require several years of negotiation with regulatory agencies prior to obtaining the requisite approvals and permits. As such, it is premature to make any commitments relative to the proposed Brightline alignment.

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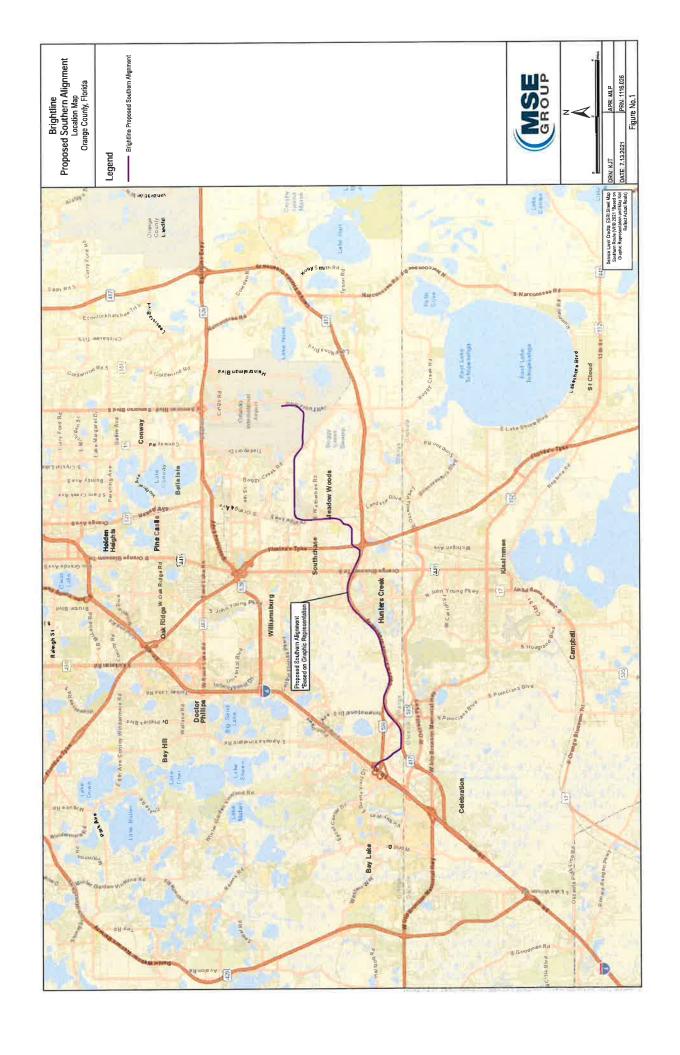
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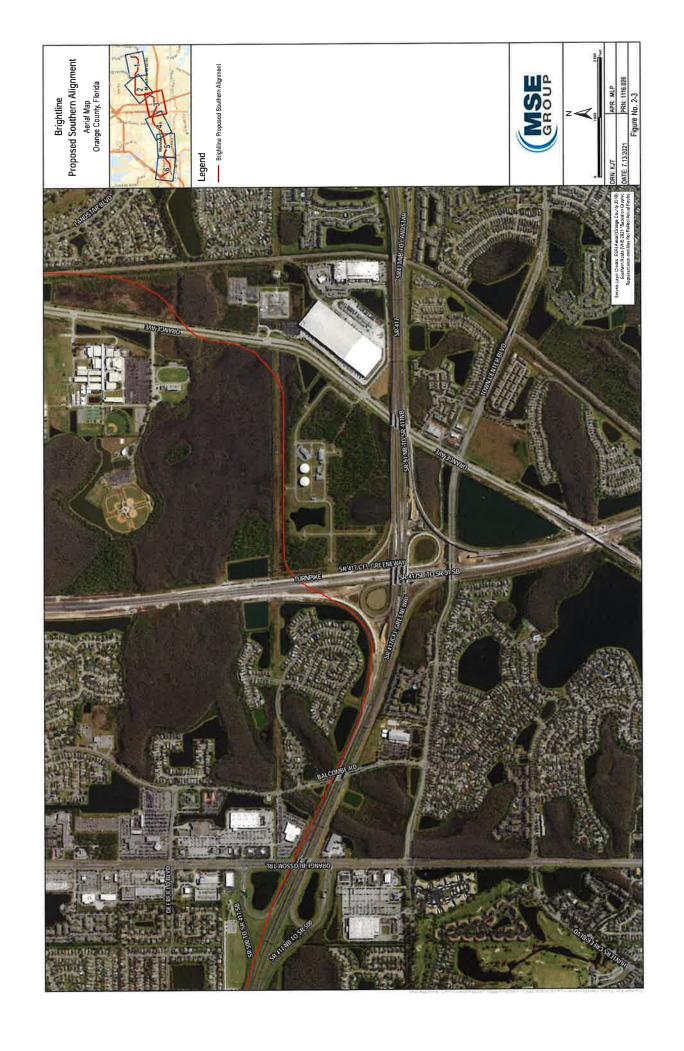
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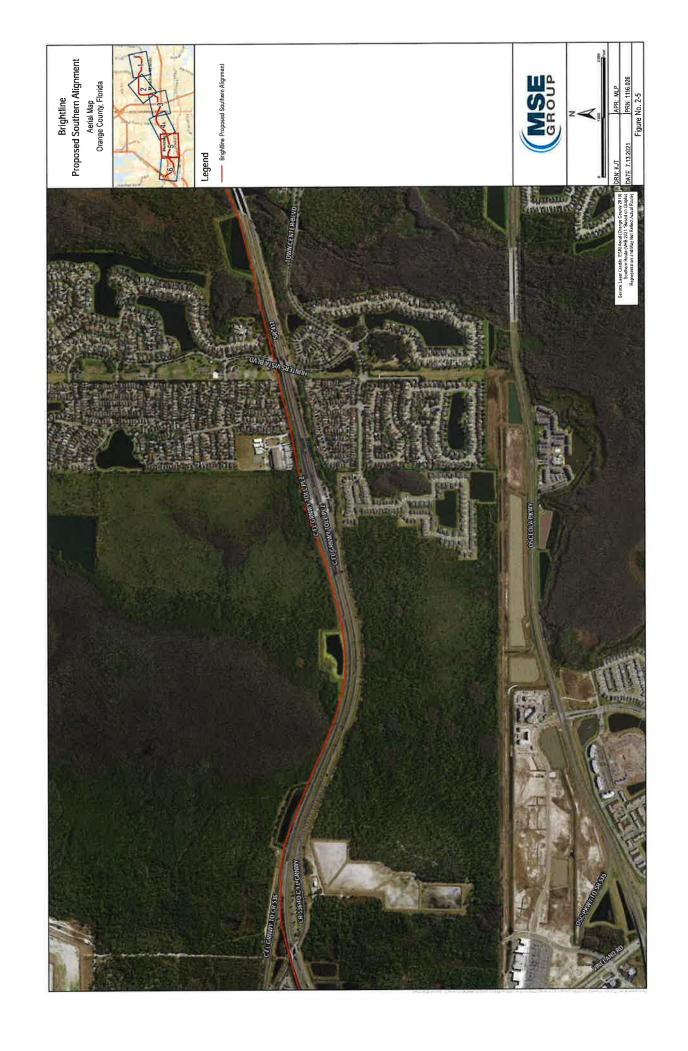


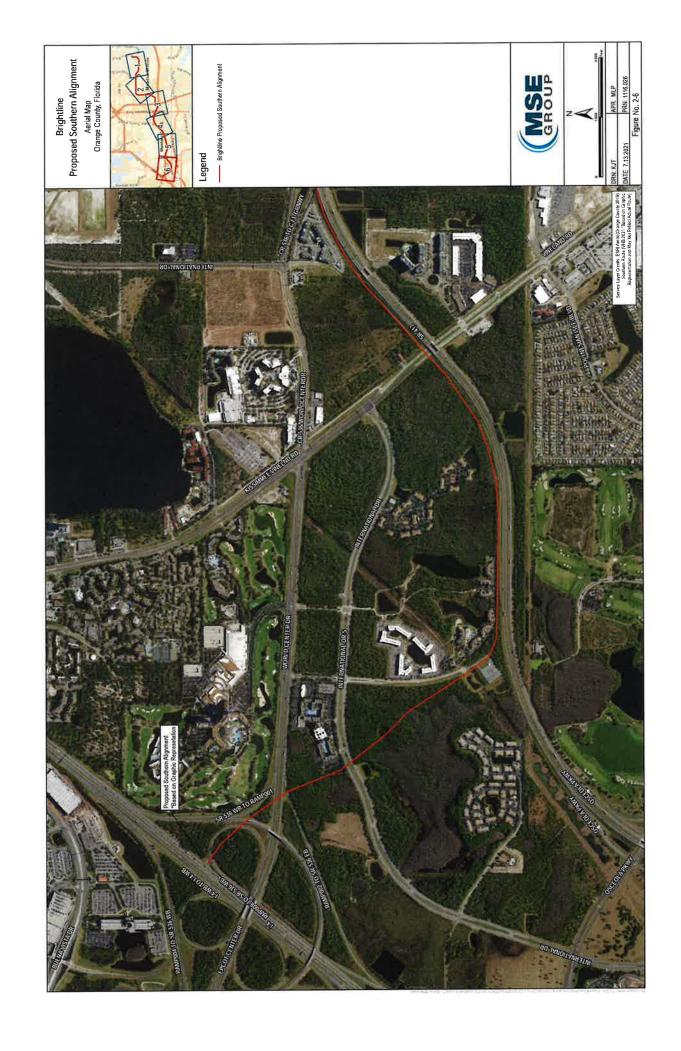


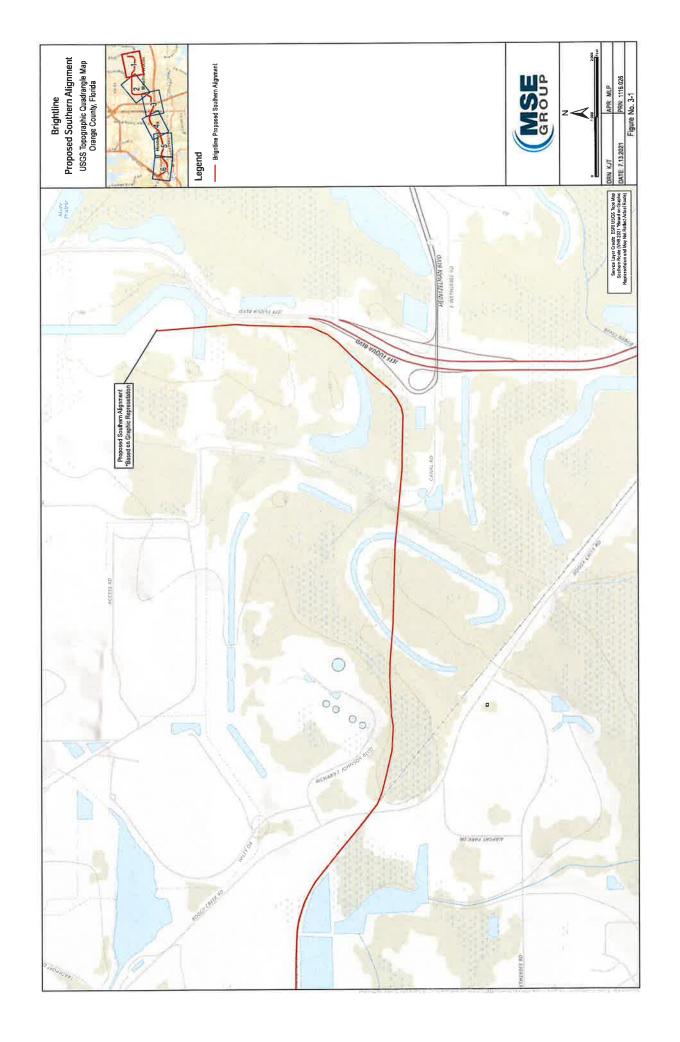


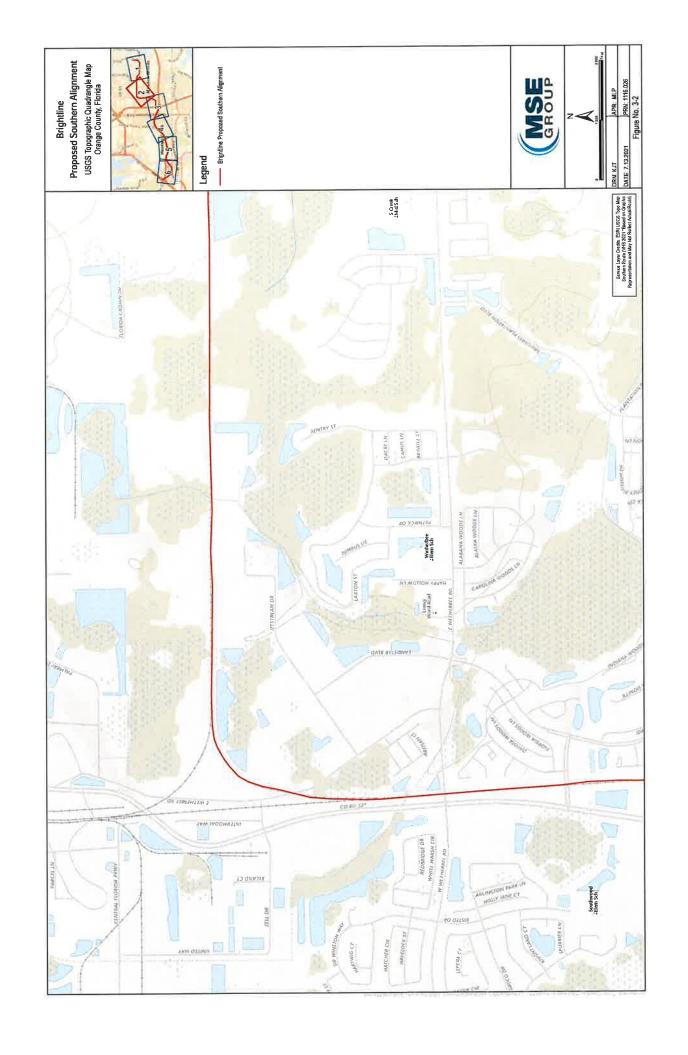


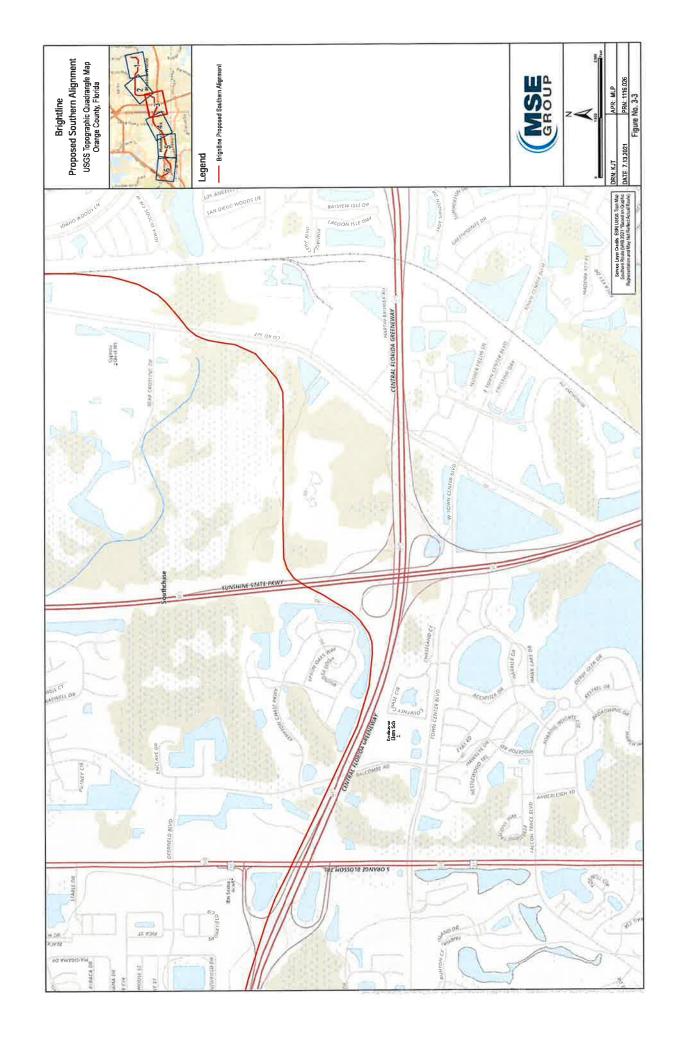


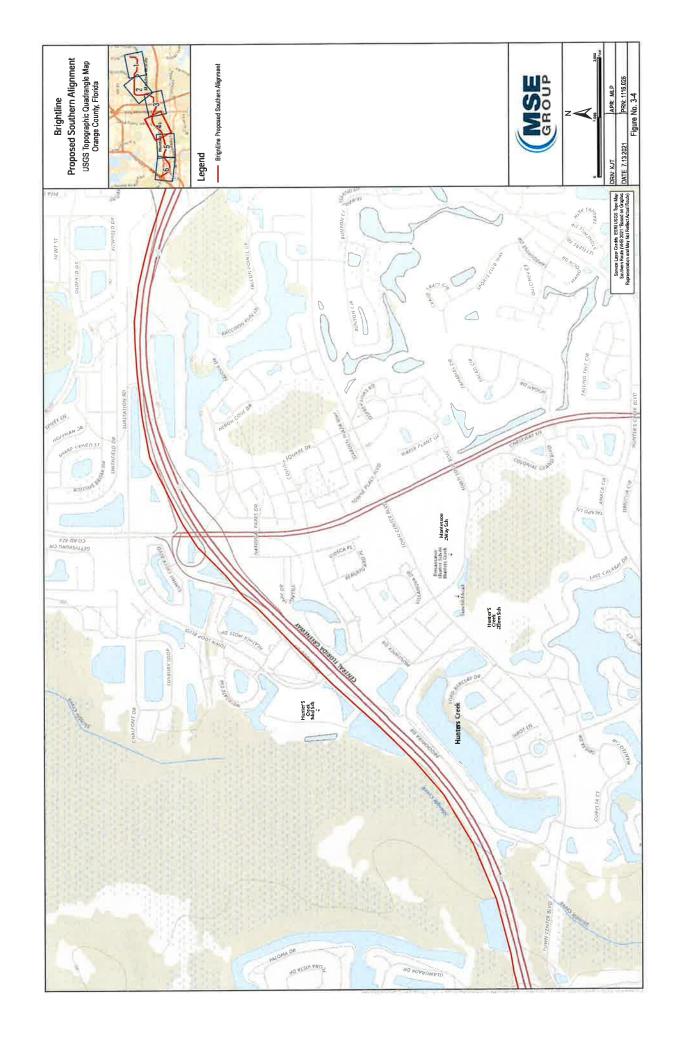


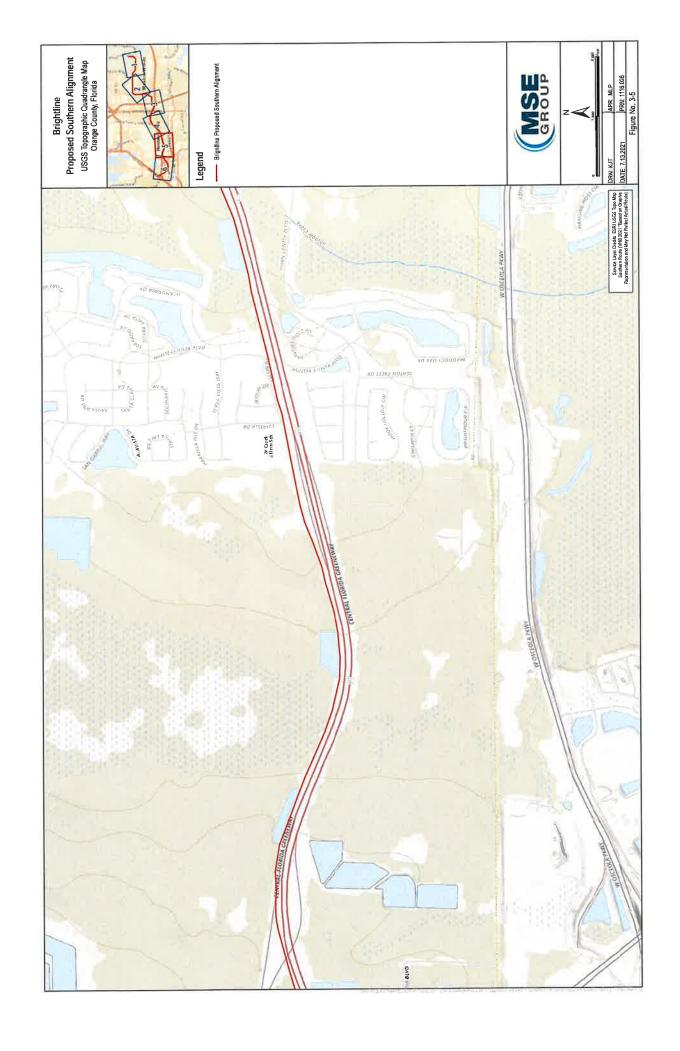


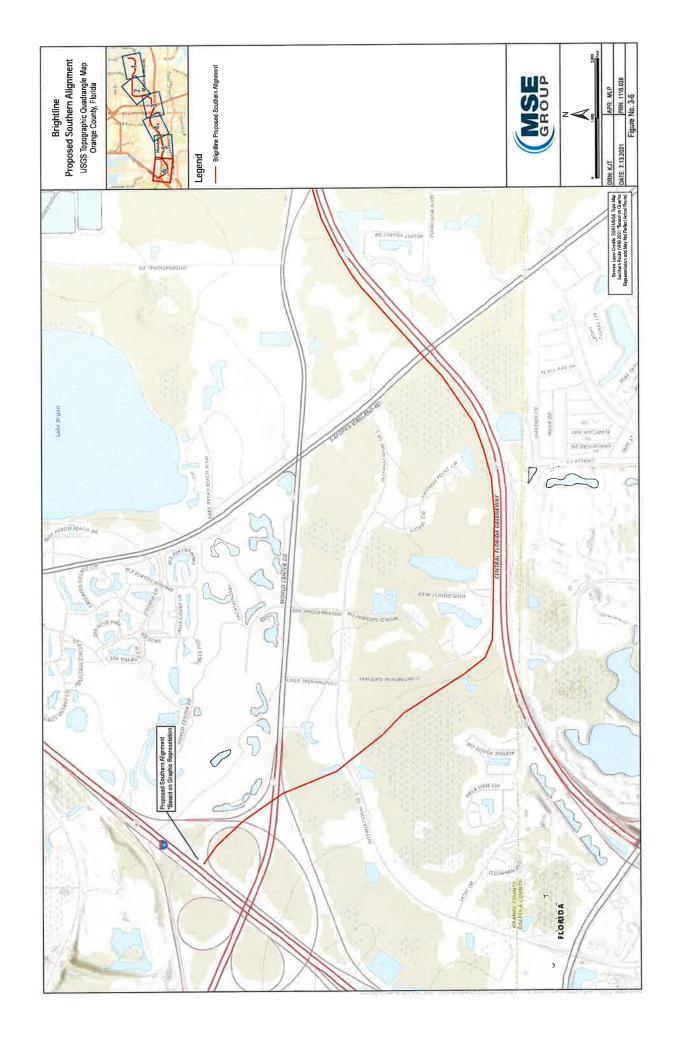


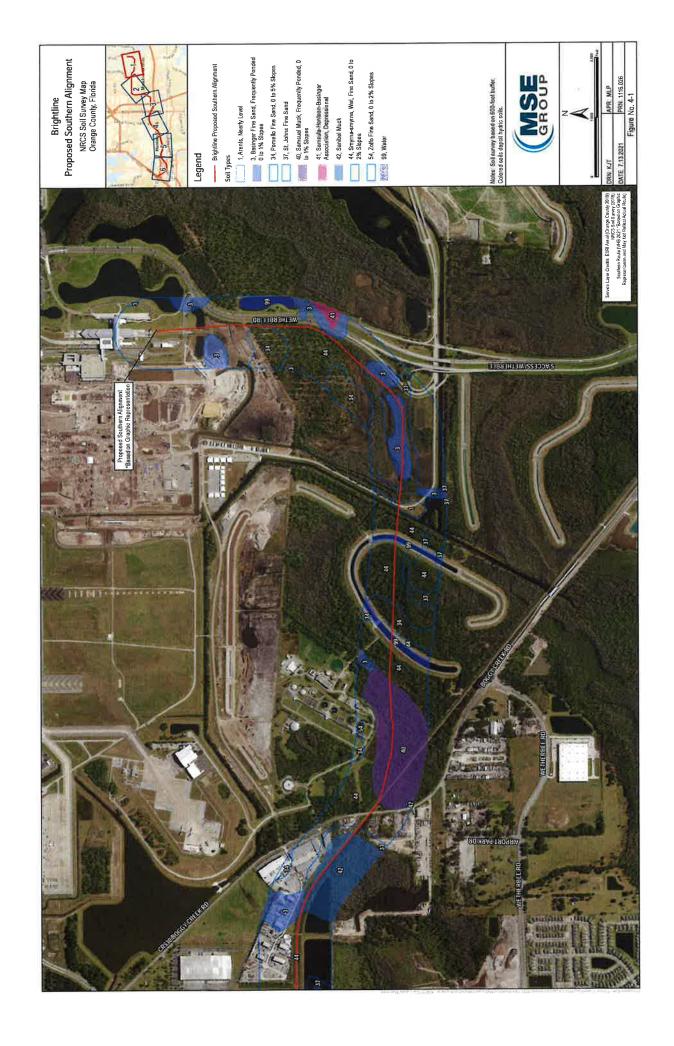










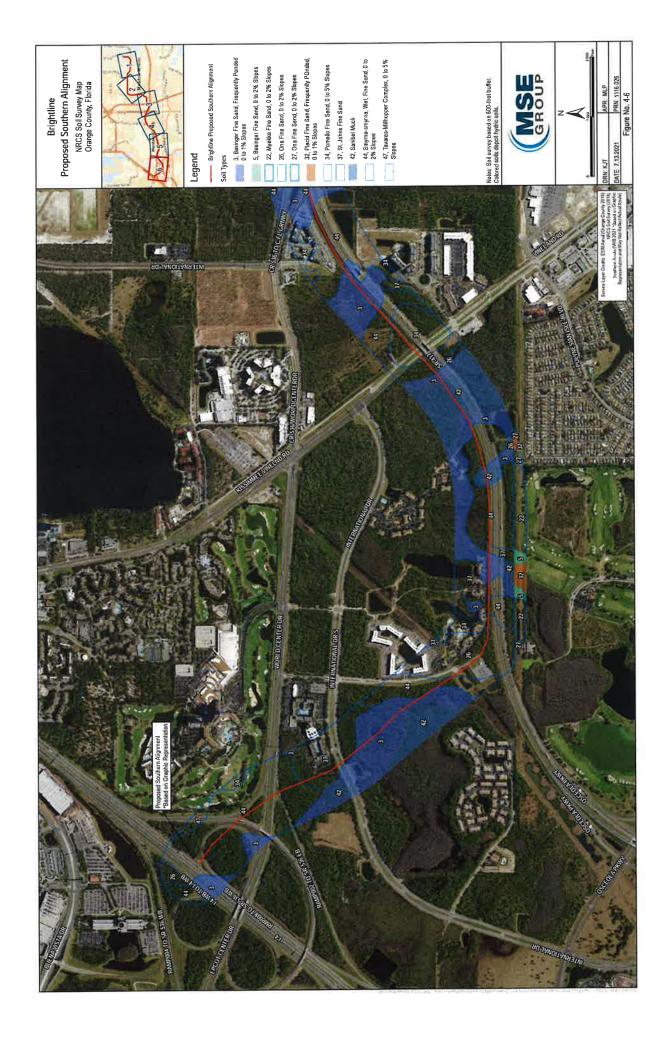


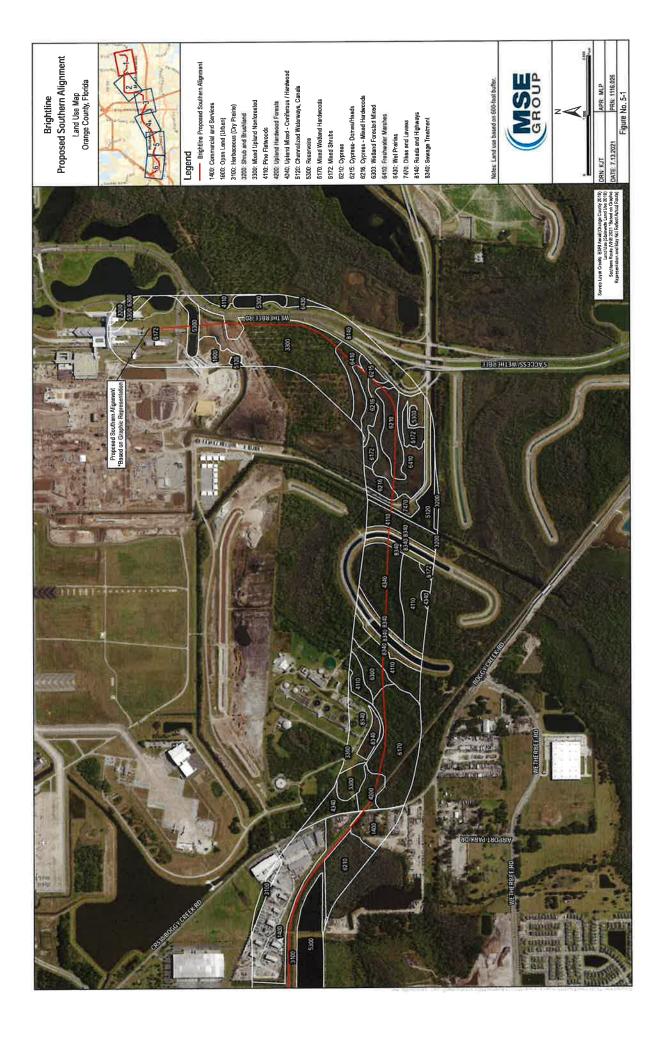


















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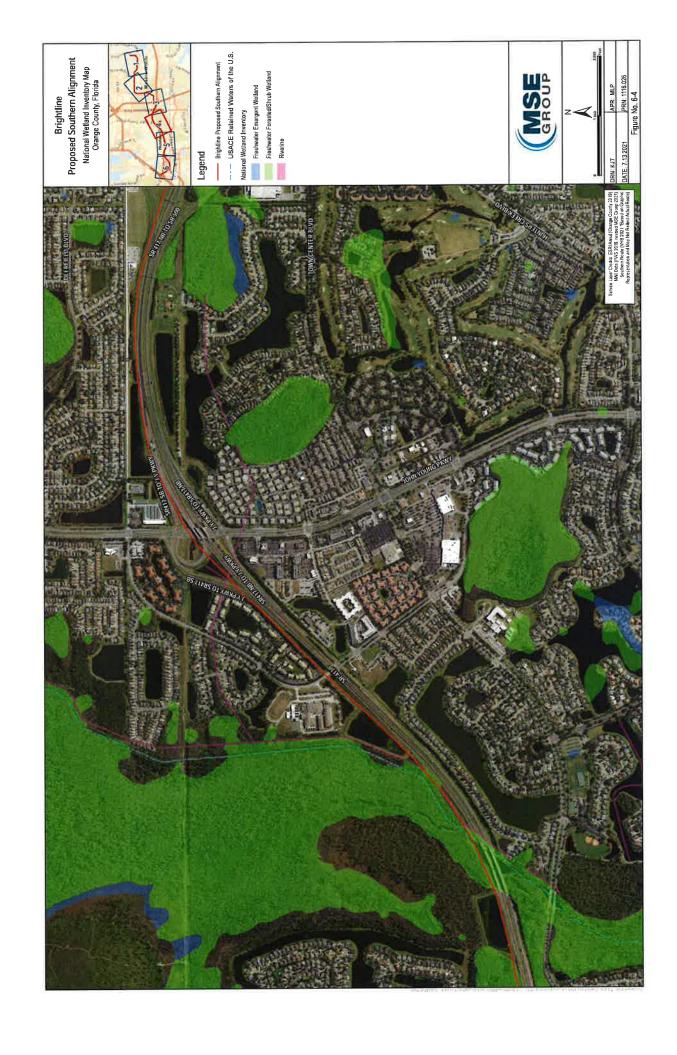










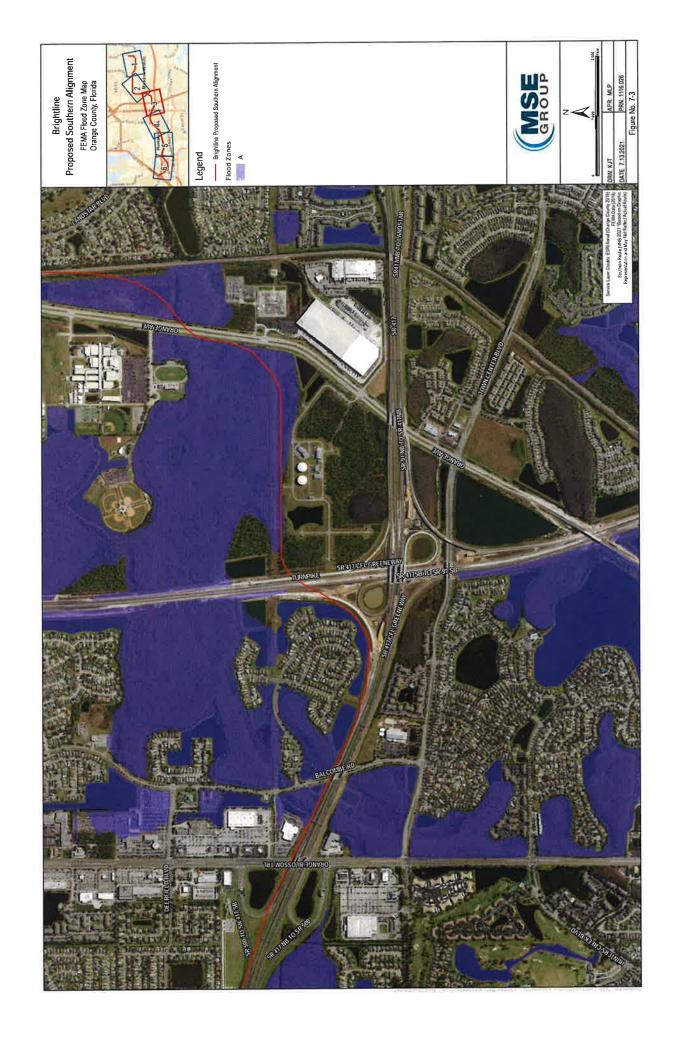




















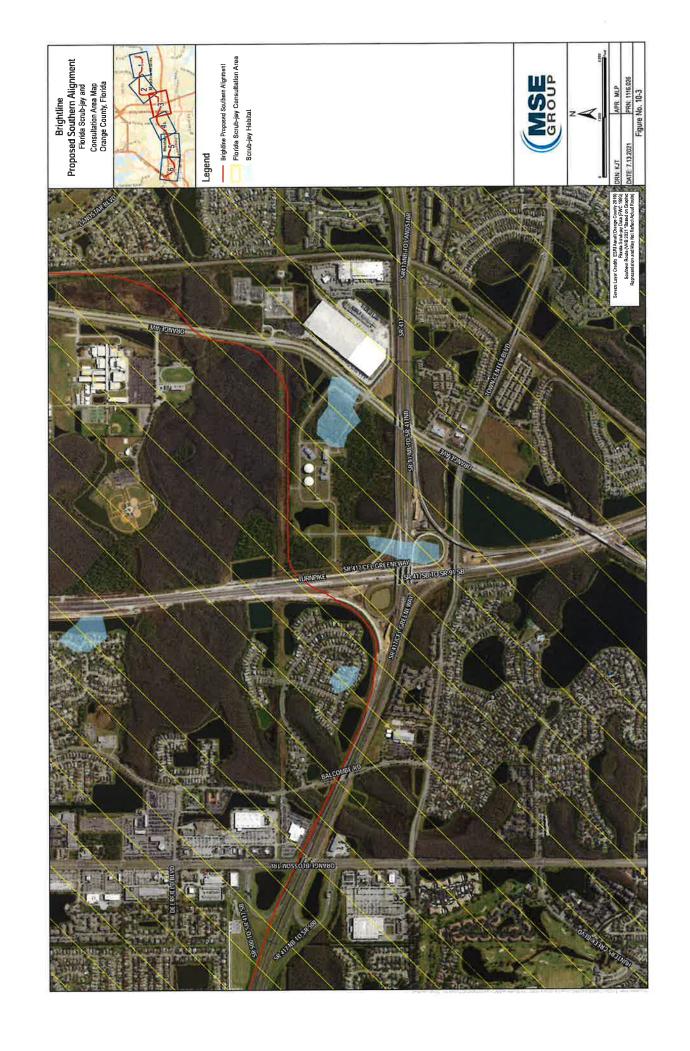


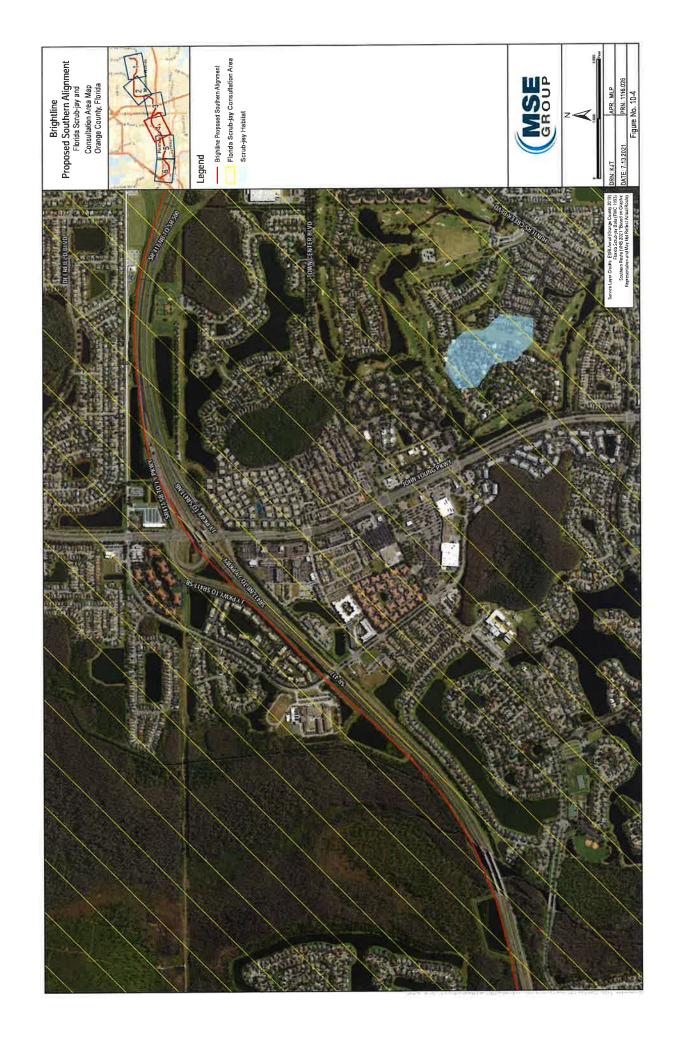


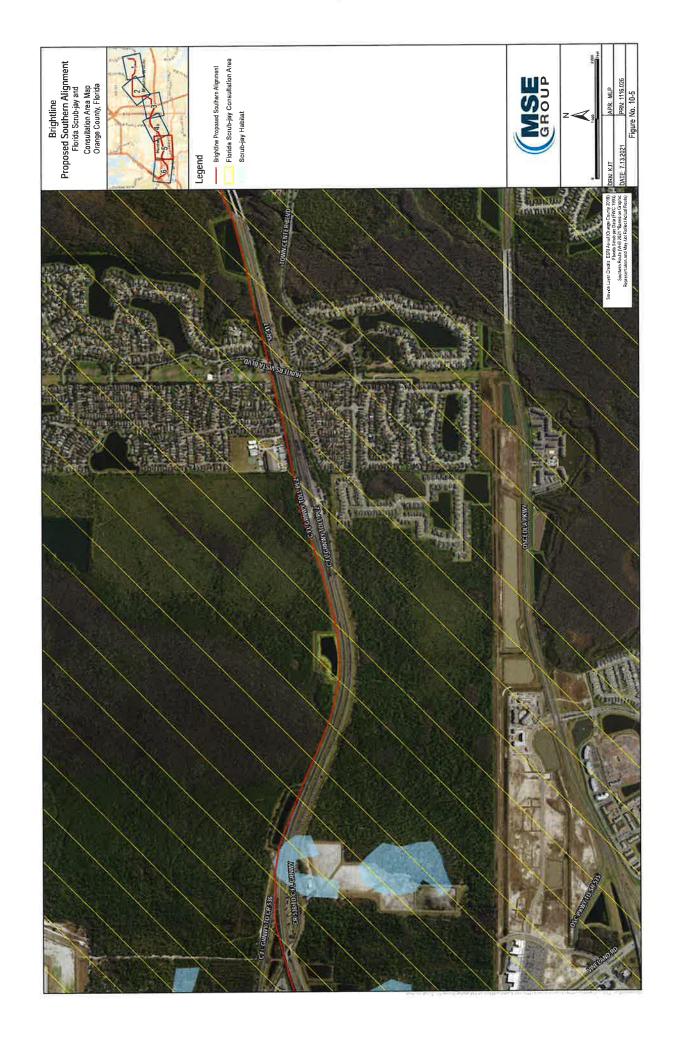


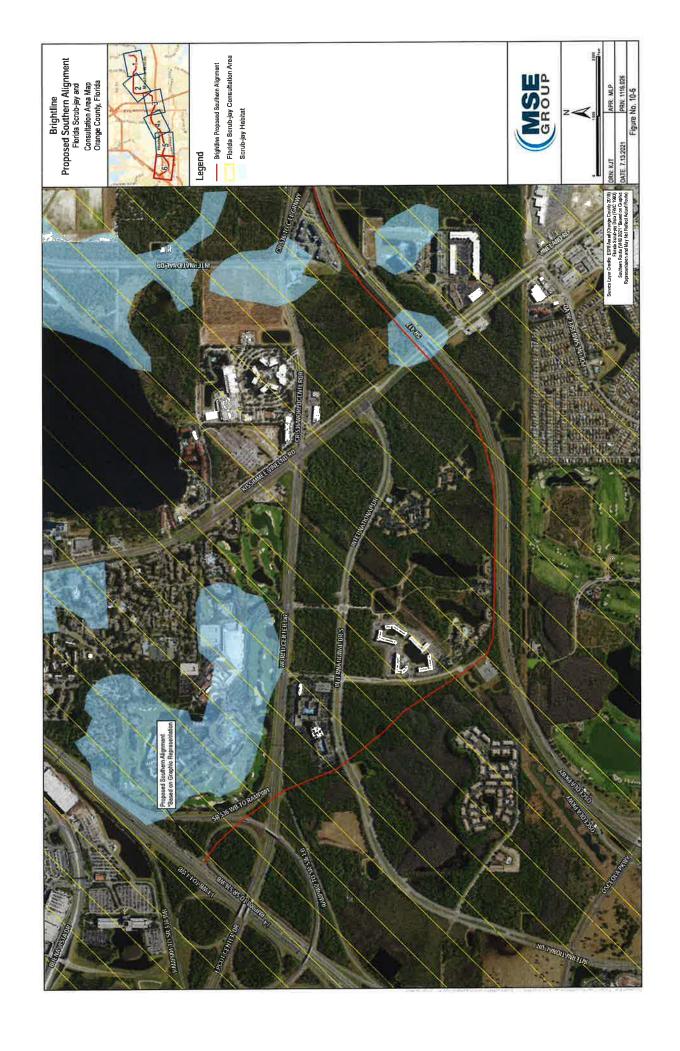




















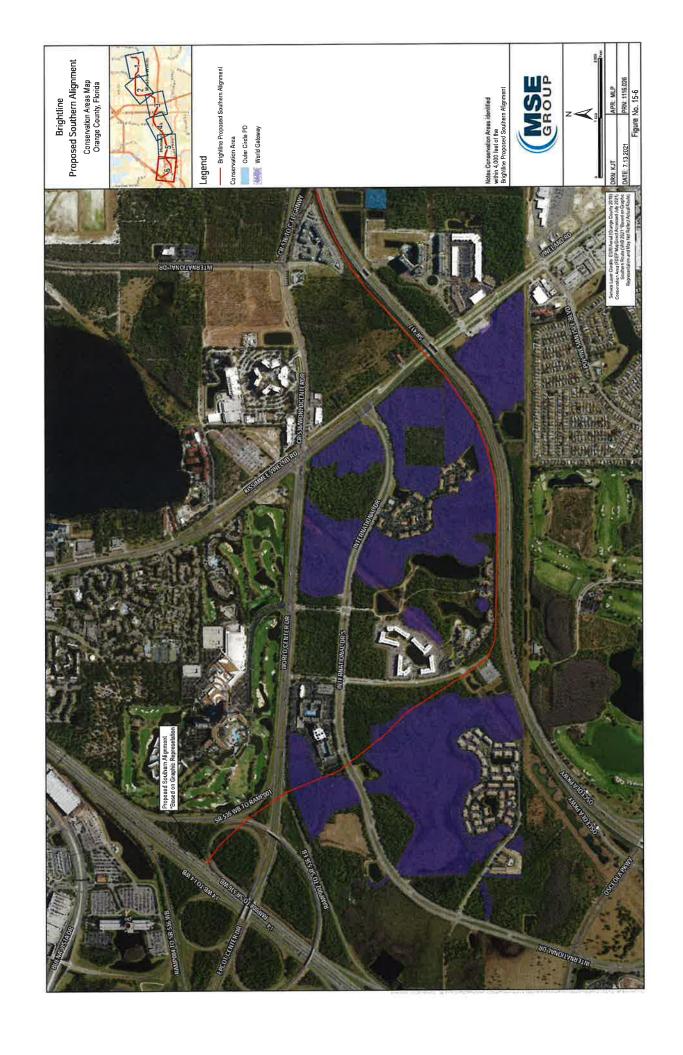




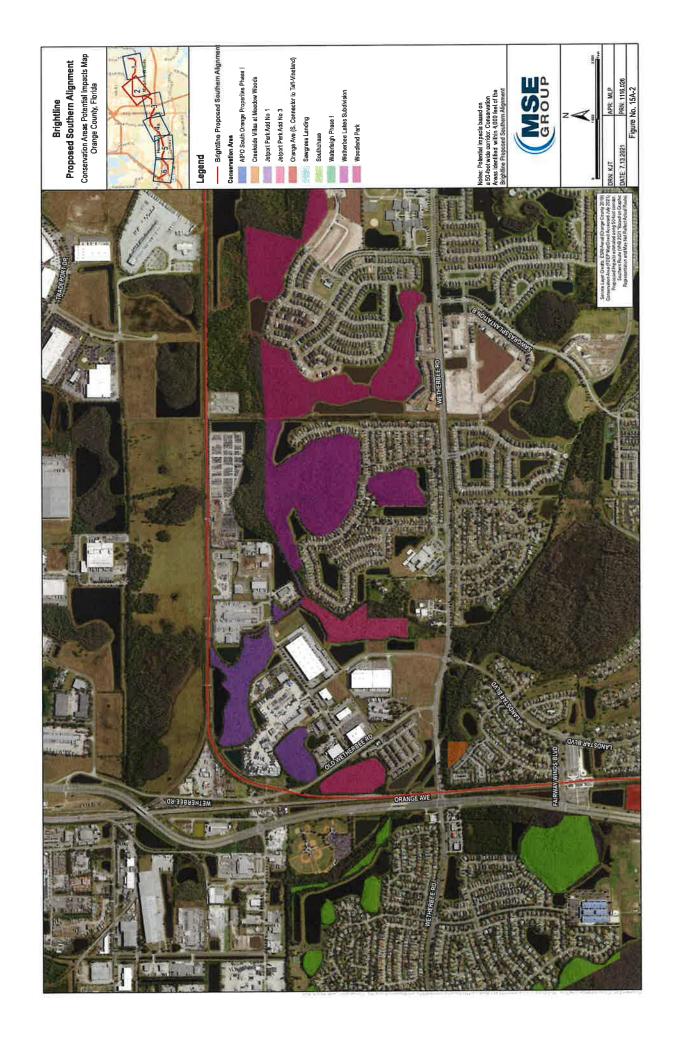








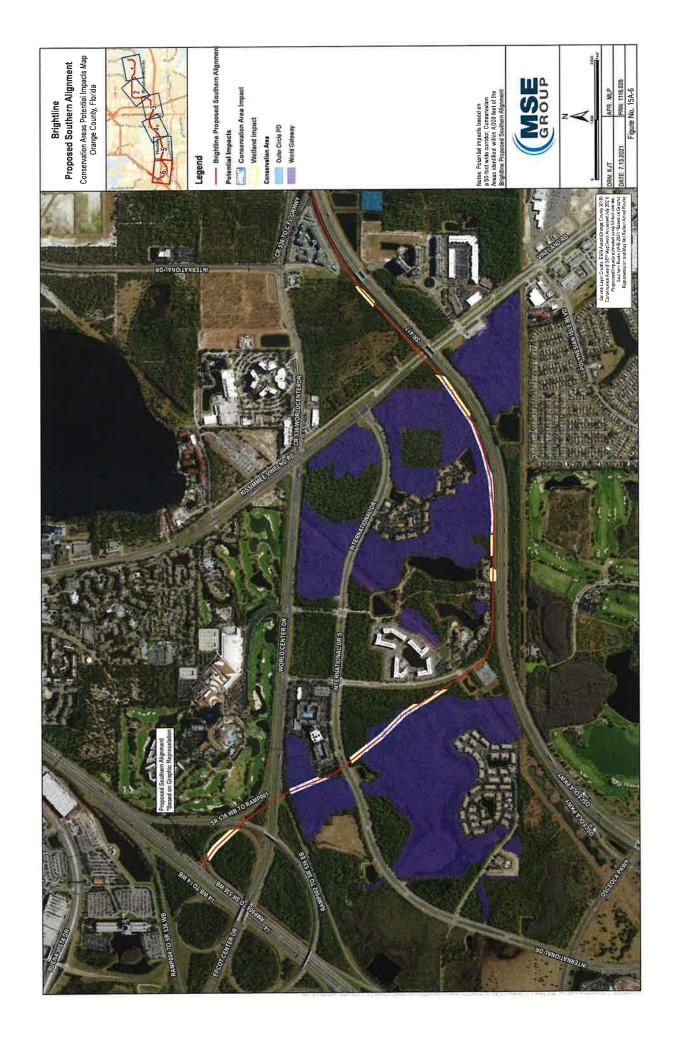


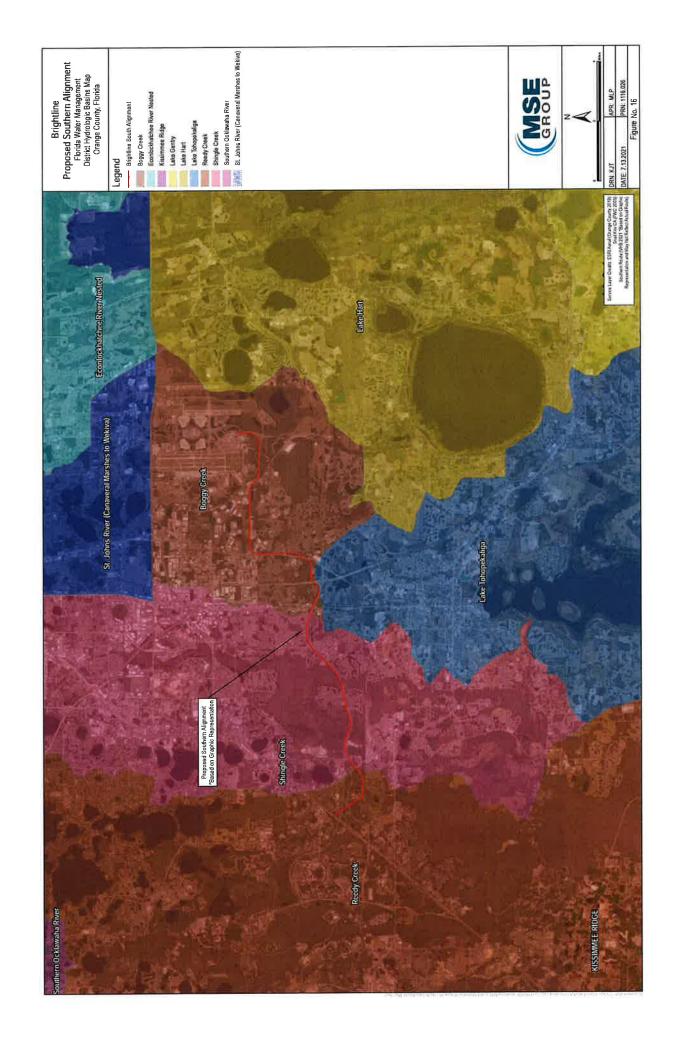












Appendix A Permit Documents – Orange Avenue Widening



Form #0145 Rev 08/95

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

ENVIRONMENTAL RESOURCE PERMIT NO.

48-00947-P

DATE ISSUED: OCTOBER 9, 1997

PFRMTTTEE:

ORANGE COUNTY PUBLIC WORKS DIV.

(ORANGE AVE/SO CONNECTOR TO TAFT-VINELAND)

4200 WHITCOMB AVE.

ORLANDO . FL 32809-9205

PROJECT DESCRIPTION:

AUTHORIZATION FOR THE CONSTRUCTION AND OPERATION OF THE

SURFACE WATER MANAGEMENT SYSTEM SERVING THE 154.92 ACRE ORANGE AVENUE WIDENING PROJECT, DISCHARGING VIA EXISTING WETLANDS TO BOGGY CREEK. CONCEPTUAL APPROVAL FOR A 4.5 ACRE FUTURE

WIDENING AREA WITH A WETLAND IMPACT WHICH IS BEING MITIGATED

FOR AT THIS TIME.

PROJECT LOCATION: ORANGE COUNTY.

SECTION: 11-14,23,24,26 TWP: 24S RGE: 29E

This Permit is issued pursuant to Application No. 930430-3 , dated April 29, 1993. Permittee agrees to hold and save the South Florida Water Management District and its successors harmless from any and all damages, claims or liabilities which may arise by reason of the construction, operation, maintenance or use of activities authorized by this Permit. This Permit Florida Statutes (F.S), and the Operating Agreement Concerning is issued under the provisions of Chapter 373 , Part IV Regulation Under Part IV , Chapter 373 F.S. between South Florida Water Management District and the Department of Environmental Protection. Issuance of this Permit constitutes certification of compliance with state water quality standards where neccessary pursuant to Section 401, Public Law 92-500, 33 USC Section 1341, unless this Permit is issued pursuant to the net improvement provisions of Subsections 373.414(1)(b), F.S., or as otherwise stated herein.

This Permit may be transferred pursuant to the appropriate provisions of Chapter 373, F.S, and Sections 408-1.6107(1) and (2), and 40E-4.351(1),(2),and (4), Florida Administrative Code (F.A.C).

This Permit may be revoked, suspended, or modified at any time pursuant to the appropriate provisions of Chapter 373, F.S. and Sections 40E-4.351(1), (2), and (4), F.A.C.

This Permit shall be subject to the General Conditions set forth in Rule 40E-4.381, F.A.C., unless waived or modified by Governing Board. The Application, and the Surface Water Mananagement Staff Review Summary of the Application, including all conditions, and all plans and specifications incorporated by reference, are a part of this Permit. All activities authorized by this Permit shall be implemented as set forth in the plans , specifications, and performance criteria as set forth and incorporated in the Surface Water Management Staff Review Summary. Within 30 days after completion of construction of the permitted activity, the Permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual, pursuant to the appropriate provisions of Chapter 373 , F.S., and Sections 40E-4.361 and 40E-4.381, F.A.C.

In the event the property is sold or otherwise conveyed, the Permittee will remain liable for compliance with this Permit until transfer is approved by the District pursuant to Rule 40E-1.6107, F.A.C.

SPECIAL AND GENERAL CONDITIONS ARE AS FOLLOWS:

SEE PAGES 2-6 OF 9 - 18 SPECIAL CONDITIONS.
SEE PAGES 7-9 OF 9 - 19 GENERAL CONDITIONS.

FILED WITH THE CLERK OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT

SOUTH FLORIDA WATER MANAGEMENT DISTRICT BY ITS, GOVERNING BOARD

Original signed by: Vern Kaiser DEPUTY CLERK

Original signed by TONY BURNS

ASSISTANT SECRETARY

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SPECIAL CONDITIONS

DISCHARGE FACILITIES:

BASIN: BASIN 100:

1-14' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 83.4' NGVD. 1-3.75' W X .5' H X 150 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV. 82.5' NGVD.

2-1.5' DIA. RCP CULVERTS EACH 37' LONG.

RECEIVING BODY: EXISTING WETLAND

CONTROL ELEV: 82.5 FEET NGVD. /82.5 FEET NGVD DRY SEASON.

BASIN: BASIN 200:

1-14' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 87.6' NGVD. 1-.25' W X .7' H X 20 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV. 86.2' NGVD. 39 LF OF 2' DIA. RCP CULVERT.

RECEIVING BODY: EXISTING WETLAND

CONTROL ELEV: 86.2 FEET NGVD. /86.2 FEET NGVD DRY SEASON.

BASIN: BASIN 300:

1-6.58' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 86.8' NGVD. 1-1.5' W X .6' H X 105 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV. 86.2' NGVD. 2-1.5' DIA. RCP CULVERTS EACH 100' LONG.

RECEIVING BODY: MITIGATION AREA

CONTROL ELEV: 86.2 FEET NGVD. /86.2 FEET NGVD DRY SEASON.

BASIN: BASIN 400:

1-18.33' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 86.7' NGVD. 1-1.75' W X .5' H X 120 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV. 86.2' NGVD. 2-2' DIA. RCP CULVERTS EACH 45' LONG.

RECEIVING BODY: MITIGATION AREA

CONTROL ELEV: 86.2 FEET NGVD. /86.2 FEET NGVD DRY SEASON.

BASIN: BASIN 400-A:

1-10.25' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 85' NGVD. 20 LF OF 2' DIA. RCP CULVERT.

RECEIVING BODY : EXISTING DITCH

CONTROL ELEV: 84 FEET NGVD. /84 FEET NGVD DRY SEASON.

BASIN: BASIN 451:

1-20' WIDE BROAD CRESTED WEIR WITH CREST AT ELEV. 82.9' NGVD. 1-.25' DIA. CIRCULAR ORIFICE WITH INVERT AT ELEV. 81.5' NGVD.

RECEIVING BODY : EXISTING DITCH

CONTROL ELEV: 81.5 FEET NGVD. /81.5 FEET NGVD DRY SEASON.

BASIN: BASIN 500:

1-14.33' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 86.3' NGVD. 1-1.8' W X .7' H X 20 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV. 84.5' NGVD. 45 LF OF 2' DIA. RCP CULVERT.

RECEIVING BODY: EXISTING DITCH

CONTROL ELEV: 84.5 FEET NGVD. /84.5 FEET NGVD DRY SEASON.

BASIN: BASIN 600:

1-10.25' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 85' NGVD. 1-2' W X .5' H X 128 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV. 84.5' NGVD. 163 LF OF 2' DIA. RCP CULVERT.

RECEIVING BODY: EXISTING DITCH

CONTROL ELEV: 84.5 FEET NGVD. /84.5 FEET NGVD DRY SEASON.

BASIN: BASIN 700:

1-7.03' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 88' NGVD. 1-.7' W X 2' H X 20 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV. 86' NGVD. 668 LF OF 2' DIA. RCP CULVERT.

RECEIVING BODY: EXISTING DITCH

CONTROL ELEV: 86 FEET NGVD. /86 FEET NGVD DRY SEASON.

BASIN: BASIN 800:

1-11.25' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 91.8' NGVD. 1-1.3' W X .8' H X 20 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV. 91' NGVD.

190 LF OF 1.5' DIA. RCP CULVERT.

RECEIVING BODY: EXISTING DITCH

CONTROL ELEV: 91 FEET NGVD. /91 FEET NGVD DRY SEASON.

BASIN: BASIN 900:

1-4' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 86.1' NGVD. 1-.25' W X .6' H X 24 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV. 85' NGVD. 45 LF OF 2' DIA. RCP CULVERT.

RECEIVING BODY: EXISTING DITCH

CONTROL ELEV: 85 FEET NGVD. /85 FEET NGVD DRY SEASON.

- 2. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY EROSION, SHOALING OR WATER QUALITY PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.
- 3. MEASURES SHALL BE TAKEN DURING CONSTRUCTION TO INSURE THAT SEDIMENTATION AND/OR TURBIDITY PROBLEMS ARE NOT CREATED IN THE RECEIVING WATER.
- 4. THE DISTRICT RESERVES THE RIGHT TO REQUIRE THAT ADDITIONAL WATER QUALITY TREATMENT METHODS BE INCORPORATED INTO THE DRAINAGE SYSTEM IF SUCH MEASURES ARE SHOWN TO BE NECESSARY.
- 5. LAKE SIDE SLOPES SHALL BE NO STEEPER THAN 5:1 (HORIZONTAL:VERTICAL) TO A DEPTH OF TWO FEET BELOW THE CONTROL ELEVATION. SIDE SLOPES SHALL BE NURTURED OR PLANTED FROM 2 FEET BELOW TO 1 FOOT ABOVE CONTROL ELEVATION TO INSURE VEGETATIVE GROWTH.
- 6. FACILITIES OTHER THAN THOSE STATED HEREIN SHALL NOT BE CONSTRUCTED WITHOUT AN APPROVED MODIFICATION OF THIS PERMIT.
- 7. OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF ORANGE COUNTY.
- 8. SILT SCREENS, HAY BALES OR OTHER SUCH SEDIMENT CONTROL MEASURES SHALL BE UTILIZED DURING CONSTRUCTION. THE SELECTED SEDIMENT CONTROL MEASURES SHALL BE INSTALLED LANDWARD OF THE UPLAND BUFFER ZONES AROUND ALL PROTECTED WETLANDS. ALL AREAS SHALL BE STABILIZED AND VEGETATED IMMEDIATELY AFTER CONSTRUCTION TO PREVENT EROSION INTO THE WETLANDS AND UPLAND BUFFER ZONES.
- 9. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE PERIMETER OF THE PROTECTED WETLANDS AND BUFFER ZONES SHALL BE STAKED AND ROPED TO PREVENT ENCROACHMENT INTO THE WETLANDS. THE PERMITTEE SHALL NOTIFY THE SFWMD'S ENVIRONMENTAL COMPLIANCE STAFF IN WRITING UPON COMPLETION OF ROPING AND STAKING AND SCHEDULE AN INSPECTION OF THIS WORK. THE ROPING AND STAKING SHALL BE SUBJECT TO SFWMD STAFF APPROVAL. THE PERMITTEE SHALL MODIFY THE STAKING AND ROPING IF SFWMD STAFF DETERMINES IT IS INSUFFICIENT OR IS NOT IN CONFORMANCE WITH THE INTENT OF THIS PERMIT. STAKING AND ROPING SHALL REMAIN IN PLACE UNTIL ALL ADJACENT CONSTRUCTION ACTIVITIES ARE COMPLETE.
- 10. THE SFWMD RESERVES THE RIGHT TO REQUIRE REMEDIAL MEASURES TO BE TAKEN BY THE PERMITTEE IF WETLAND AND/OR UPLAND MONITORING OR OTHER INFORMATION DEMONSTRATES THAT ADVERSE IMPACTS TO PROTECTED, CONSERVED, INCORPORATED OR MITIGATED WETLANDS OR UPLANDS HAVE OCCURRED DUE TO PROJECT RELATED ACTIVITIES.
- 11. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE SUCCESSFUL COMPLETION OF THE MITIGATION WORK, INCLUDING THE MONITORING AND MAINTENANCE OF THE MITIGATION AREAS FOR THE DURATION OF THE PLAN. THE MITIGATION AREA(S) SHALL NOT BE TURNED OVER TO THE OPERATION ENTITY UNTIL THE MITIGATION WORK IS ACCOMPLISHED AS PERMITTED AND SFWMD STAFF HAS CONCURRED.
- 12. A WETLAND MITIGATION PROGRAM SHALL BE IMPLEMENTED IN ACCORDANCE WITH EXHIBIT(S) 24A 24LL. THE PERMITTEE SHALL CREATE 27.2 ACRES OF CYPRESS, 1.67 ACRES OF MARSH AND 2.86 ACRES OF MIXED FOREST AND PROTECT .48 ACRE OF UPLAND COMPENSATION AREA(S).
- 13. A WETLAND MONITORING PROGRAM AND MAINTENANCE PROGRAM SHALL BE IMPLEMENTED IN ACCORDANCE WITH EXHIBIT(S) 24A 24LL. THE MONITORING PROGRAM SHALL EXTEND FOR A PERIOD OF 5 YEARS WITH ANNUAL REPORTS SUBMITTED TO SFWMD STAFF. AT THE END OF THE FIRST MONITORING PERIOD THE MITIGATION AREA(S) SHALL CONTAIN AN 80% SURVIVAL OF PLANTED VEGETATION. THE 80% SURVIVAL RATE SHALL BE MAINTAINED THROUGHOUT THE REMAINDER OF THE MONITORING PROGRAM. AT THE END

OF THE 5 YEARS MONITORING PROGRAM THE MITIGATION AREA(S) SHALL CONTAIN AN 80% SURVIVAL OF PLANTED VEGETATION AND AN 80% COVERAGE OF DESIRABLE OBLIGATE AND FACULTATIVE WETLAND SPECIES.

- 14. A BASELINE WETLAND MONITORING REPORT SHALL BE CONDUCTED IN ACCORDANCE WITH EXHIBIT(S) 24A 24LL.
- 15. (A) NO LATER THAN JANUARY 15, 1998, THE PERMITTEE SHALL SUBMIT FOR REVIEW AND APPROVAL, TWO (2) COPIES OF THE FOLLOWING:

PROJECT MAP IDENTIFYING CONSERVATION AREA(S)

2. BOUNDARY SKETCH AND LEGAL DESCRIPTION OF CONSERVATION AREA(S)

3. SIGNED CONSERVATION EASEMENT

.

4. TITLE OPINION OR OWNERSHIP AND ENCUMBERANCE SEARCH FOR THE CONSERVATION AREA(S)

THE ABOVE INFORMATION SHALL BE SUBMITTED TO THE NATURAL RESOURCE MANAGEMENT POST PERMIT COMPLIANCE STAFF IN THE DISTRICT SERVICE CENTER WHERE THE APPLICATION WAS SUBMITTED.

- B) THE REAL ESTATE INFORMATION REFERENCED IN PARAGRAPH (A) ABOVE SHALL BE REVIEWED BY THE DISTRICT IN ACCORDANCE WITH THE DISTRICT'S REAL ESTATE REVIEW REQUIREMENTS DESCRIBED IN THE ATTACHED EXHIBIT 28A & 28B. THE EASEMENT SHOULD NOT BE RECORDED UNTIL SUCH APPROVAL IS RECEIVED.
- (C) THE PERMITTEE SHALL RECORD A CONSERVATION EASEMENT(S) OVER THE REAL PROPERTY DESIGNATED AS A CONSERVATION / PRESERVATION / MITIGATION AREA(S) ON ATTACHED EXHIBIT 25A 25E. THE EASEMENT SHALL BE GRANTED FREE OF ENCUMBRANCES OR INTERESTS WHICH THE DISTRICT DETERMINES ARE CONTRARY TO THE INTENT OF THE EASEMENT. THE CONSERVATION EASEMENT SHALL BE GRANTED TO THE DISTRICT USING THE APPROVED FORM ATTACHED HERETO AS EXHIBIT 26A 26D. ANY PROPOSED MODIFICATIONS TO THE APPROVED FORM MUST RECEIVE PRIOR WRITTEN CONSENT FROM THE DISTRICT.
- D) THE PERMITTEE SHALL RECORD THE CONSERVATION EASEMENT IN THE PUBLIC RECORDS WITHIN 14 DAYS OF RECEIVING THE DISTRICT'S APPROVAL OF THE REAL ESTATE INFORMATION. UPON RECORDATION, THE PERMITTEE SHALL FORWARD THE ORIGINAL RECORDED EASEMENT, AND TITLE INSURANCE POLICY, TO THE NATURAL RESOURCE MANAGEMENT POST PERMIT COMPLIANCE STAFF IN THE DISTRICT SERVICE CENTER WHERE THE APPLICATION WAS SUBMITTED.
- E) IN THE EVENT THE CONSERVATION EASEMENT REAL ESTATE INFORMATION REVEALS ENCUMBRANCES OR INTERESTS IN THE EASEMENT WHICH THE DISTRICT DETERMINES ARE CONTRARY TO THE INTENT OF THE EASEMENT, THE PERMITTEE SHALL BE REQUIRED TO PROVIDE RELEASE OR SUBORDINATION OF SUCH ENCUMBRANCES OR INTERESTS. IF SUCH ARE NOT OBTAINED, PERMITTEE SHALL BE REQUIRED TO APPLY FOR A MODIFICATION TO THE PERMIT FOR ALTERNATIVE ACCEPTABLE MITIGATION.
- 16. ACTIVITIES ASSOCIATED WITH IMPLEMENTATION OF THE WETLAND MITIGATION, MONITORING AND MAINTENANCE SHALL BE IN ACCORDANCE WITH THE FOLLOWING WORK SCHEDULE. ANY DEVIATION FROM THESE TIME FRAMES SHALL REQUIRE FORMAL SFWMD APPROVAL. SUCH REQUESTS MUST BE MADE IN WRITING AND SHALL INCLUDE (1) REASON FOR THE MODIFICATION; (2) PROPOSED START/FINISH DATES; AND (3) PROGRESS REPORT ON THE STATUS OF THE EXISTING MITIGATION EFFORTS.

COMPLETION DATE

ACTIVITY

MARCH 30, 2000 APRIL 15, 2000 APRIL 30, 2000 OCTOBER 30, 2000 EXCAVATION AND GRADING MITIGATION AREA PLANTING MITIGATION AREA BASELINE MONITORING REPORT FIRST MONITORING REPORT

APRIL 30, 2001 OCTOBER 30, 2001 APRIL 30, 2002 OCTOBER 30, 2002 APRIL 30, 2003 OCTOBER 30, 2003 APRIL 30, 2004 OCTOBER 30, 2004 APRIL 30, 2005

SECOND MONITORING REPORT
THIRD MONITORING REPORT
FOURTH MONITORING REPORT
FIFTH MONITORING REPORT
SIXTH MONITORING REPORT
SEVENTH MONITORING REPORT
EIGHTH MONITORING REPORT
NINETH MONITORING REPORT
10TH AND FINAL MONITORING REPORT

17. AN EXOTIC AND NUISANCE MONITORING AND MAINTENANCE PROGRAM SHALL BE INSTITUTED IN ACCORDANCE WITH EXHIBIT 10A -10F FOR THE MITIGATION CREATION AND PRESERVATION AREAS UNTIL SUCCESS OF THE CREATION AREAS IS ACHIEVED. PRIOR TO SEMI-ANNUAL MONITORING EVENTS THE SITES WILL BE MAINTAINED TO ENSURE THAT EXOTIC AND NUISANCE SPECIES, SUCH AS CATTAILS, PRIMROSE WILLOW, CHINESE TALLOW, HEMP VINE, DO NOT EXCEED 10 PERCENT OF TOTAL COVER.

SUBSEQUENT TO RELEASE FROM SUCCESS CRITERIA MONITORING IT IS THE PERMITTEES RESPONSIBILITY IN PERPETUITY TO ENSURE THAT ALL PRESERVED AREAS SHALL BE KEPT FREE FROM EXOTIC VEGETATION (PRIMROSE WILLOW, CHINESE TALLOW, BRAZILLIAN PEPPER, ETC.) AND THAT OTHER NUISANCE SPECIES SHALL CONSTITUTE NO MORE THAN 10% OF TOTAL COVER.

18. EXHIBITS 2 THRU 23, INCLUDING DRAINAGE BASIN LAYOUT, POND DETAILS AND CONTROL STRUCTURE DETAILS AND EXHIBIT 24A - 24KK INCLUDES THE "MITIGATION, MONITORING AND MAINTENANCE PLAN" AND ATTACHMENTS (FINAL REVISION AUGUST 1997). THESE EXHIBITS ARE HELD IN THE PERMIT FILE AND ARE INCLUDED HEREIN BY REFERENCE.

GENERAL CONDITIONS

- ALL ACTIVITIES AUTHORIZED BY THIS PERMIT SHALL BE IMPLEMENTED AS SET FORTH IN THE PLANS, SPECIFICATIONS AND PERFORMANCE CRITERIA AS APPROVED BY THIS PERMIT. ANY DEVIATION FROM THE PERMITTED ACTIVITY AND THE CONDITIONS FOR UNDERTAKING THAT ACTIVITY SHALL CONSTITUTE A VIOLATION OF THIS PERMIT AND PART IV, CHAPTER 373, F.S.
- 2. THIS PERMIT OR A COPY THEREOF, COMPLETE WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND MODIFICATIONS SHALL BE KEPT AT THE WORK SITE OF THE PERMITTED ACTIVITY. THE COMPLETE PERMIT SHALL BE AVAILABLE FOR REVIEW AT THE WORK SITE UPON REQUEST BY THE DISTRICT STAFF. THE PERMITTEE SHALL REQUIRE THE CONTRACTOR TO REVIEW THE COMPLETE PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY AUTHORIZED BY THIS PERMIT.
- 3. ACTIVITIES APPROVED BY THIS PERMIT SHALL BE CONDUCTED IN A MANNER WHICH DOES NOT CAUSE VIOLATIONS OF STATE WATER QUALITY STANDARDS. THE PERMITTEE SHALL IMPLEMENT BEST MANAGEMENT PRACTICES FOR EROSION AND POLLUTION CONTROL TO PREVENT VIOLATION OF STATE WATER QUALITY STANDARDS. TEMPORARY EROSION CONTROL SHALL BE IMPLEMENTED PRIOR TO AND DURING CONSTRUCTION, AND PERMANENT CONTROL MEASURES SHALL BE COMPLETED WITHIN 7 DAYS OF ANY CONSTRUCTION ACTIVITY. TURBIDITY BARRIERS SHALL BE INSTALLED AND MAINTAINED AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATERBODY EXISTS DUE TO THE PERMITTED WORK. TURBIDITY BARRIERS SHALL REMAIN IN PLACE AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND SOILS ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED. ALL PRACTICES SHALL BE IN ACCORDANCE WITH THE GUIDELINES AND SPECIFICATIONS DESCRIBED IN CHAPTER 6 OF THE FLORIDA LAND DEVELOPMENT MANUAL; A GUIDE TO SOUND LAND AND WATER MANAGEMENT (DEPARTMENT OF ENVIRONMENTAL REGULATION, 1988), INCORPORATED BY REFERENCE IN RULE 40E-4.091, F.A.C. UNLESS A PROJECT-SPECIFIC EROSION AND SEDIMENT CONTROL PLAN IS APPROVED AS PART OF THE PERMIT. THEREAFTER THE PERMITTEE SHALL BE RESPONSIBLE FOR THE REMOVAL OF THE BARRIERS. THE PERMITTEE SHALL CORRECT ANY EROSION OR SHOALING THAT CAUSES ADVERSE IMPACTS TO THE WATER RESOURCES.
- 4. THE PERMITTEE SHALL NOTIFY THE DISTRICT OF THE ANTICIPATED CONSTRUCTION START DATE WITHIN 30 DAYS OF THE DATE THAT THIS PERMIT IS ISSUED. AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF ACTIVITY AUTHORIZED BY THIS PERMIT, THE PERMITTEE SHALL SUBMIT TO THE DISTRICT AN ENVIRONMENTAL RESOURCE PERMIT CONSTRUCTION COMMENCEMENT NOTICE FORM NO. 0960 INDICATING THE ACTUAL START DATE AND THE EXPECTED COMPLETION DATE.
- 5. WHEN THE DURATION OF CONSTRUCTION WILL EXCEED ONE YEAR, THE PERMITTEE SHALL SUBMIT CONSTRUCTION STATUS REPORTS TO THE DISTRICT ON AN ANNUAL BASIS UTILIZING AN ANNUAL STATUS REPORT FORM. STATUS REPORT FORMS SHALL BE SUBMITTED THE FOLLOWING JUNE OF EACH YEAR.
- 6. WITHIN 30 DAYS AFTER COMPLETION OF CONSTRUCTION OF THE PERMITTED ACTIVITY, THE PERMITTEE SHALL SUBMIT A WRITTEN STATEMENT OF COMPLETION AND CERTIFICATION BY A REGISTERED PROFESSIONAL ENGINEER OR OTHER APPROPRIATE INDIVIDUAL AS AUTHORIZED BY LAW, UTILIZING THE SUPPLIED ENVIRONMENTAL RESOURCE PERMIT CONSTRUCTION COMPLETION/CONSTRUCTION CERTIFICATION FORM NO.0881. THE STATEMENT OF COMPLETION AND CERTIFICATION SHALL BE BASED ON ONSITE OBSERVATION OF CONSTRUCTION OR REVIEW OF ASBUILT DRAWINGS FOR THE PURPOSE OF DETERMINING IF THE WORK WAS COMPLETED IN COMPLIANCE WITH PERMITTED PLANS AND SPECIFICATIONS. THIS SUBMITTAL SHALL SERVE TO NOTIFY THE DISTRICT THAT THE SYSTEM IS READY FOR INSPECTION. ADDITIONALLY, IF DEVIATION FROM THE APPROVED DRAWINGS ARE DISCOVERED DURING THE CERTIFICATION PROCESS, THE CERTIFICATION MUST BE ACCOMPANIED BY A COPY OF THE APPROVED

PERMIT DRAWINGS WITH DEVIATIONS NOTED. BOTH THE ORIGINAL AND REVISED SPECIFICATIONS MUST BE CLEARLY SHOWN. THE PLANS MUST BE CLEARLY LABELED AS "ASBUILT" OR "RECORD" DRAWING. ALL SURVEYED DIMENSIONS AND ELEVATIONS SHALL BE CERTIFIED BY A REGISTERED SURVEYOR.

- 7. THE OPERATION PHASE OF THIS PERMIT SHALL NOT BECOME EFFECTIVE: UNTIL THE PERMITTEE HAS COMPLIED WITH THE REQUIREMENTS OF CONDITION (6) ABOVE, HAS SUBMITTED A REQUEST FOR CONVERSION OF ENVIRONMENTAL RESOURCE PERMIT FROM CONSTRUCTION PHASE TO OPERATION PHASE, FORM NO.0920; THE DISTRICT DETERMINES THE SYSTEM TO BE IN COMPLIANCE WITH THE PERMITTED PLANS AND SPECIFICATIONS; AND THE ENTITY APPROVED BY THE DISTRICT IN ACCORDANCE WITH SECTIONS 9.0 AND 10.0 OF THE BASIS OF REVIEW FOR ENVIRONMENTAL RESOURCE PERMIT APPLICATIONS WITHIN THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT AUGUST 1995, ACCEPTS RESPONSIBILITY FOR OPERATION AND MAINTENANCE OF THE SYSTEM. THE PERMIT SHALL NOT BE TRANSFERRED TO SUCH APPROVED OPERATION AND MAINTENANCE ENTITY UNTIL THE OPERATION PHASE OF THE PERMIT BECOMES EFFECTIVE. FOLLOWING INSPECTION AND APPROVAL OF THE PERMIT BECOMES EFFECTIVE. FOLLOWING INSPECTION AND APPROVAL OF THE PERMITTED SYSTEM BY THE DISTRICT, THE PERMITTEE SHALL INITIATE TRANSFER OF THE PERMIT TO THE APPROVED RESPONSIBLE OPERATING ENTITY IF DIFFERENT FROM THE PERMIT TO THE APPROVED RESPONSIBLE OPERATING ENTITY IF DIFFERENT FROM THE PERMITTEE. UNTIL THE PERMIT IS TRANSFERRED PURSUANT TO SECTION 40E-1.6107, F.A.C., THE PERMITTEE SHALL BE LIABLE FOR COMPLIANCE WITH THE TERMS OF THE PERMIT.
- 8. EACH PHASE OR INDEPENDENT PORTION OF THE PERMITTED SYSTEM MUST BE COMPLETED IN ACCORDANCE WITH THE PERMITTED PLANS AND PERMIT CONDITIONS PRIOR TO THE INITIATION OF THE PERMITTED USE OF SITE INFRASTRUCTURE LOCATED WITHIN THE AREA SERVED BY THAT PORTION OR PHASE OF THE SYSTEM. EACH PHASE OR INDEPENDENT PORTION OF THE SYSTEM MUST BE COMPLETED IN ACCORDANCE WITH THE PERMITTED PLANS AND PERMIT CONDITIONS PRIOR TO TRANSFER OF RESPONSIBILITY FOR OPERATION AND MAINTENANCE OF THE PHASE OR PORTION OF THE SYSTEM TO A LOCAL GOVERNMENT OR OTHER RESPONSIBLE ENTITY.
- 9. FOR THOSE SYSTEMS THAT WILL BE OPERATED OR MAINTAINED BY AN ENTITY THAT WILL REQUIRE AN EASEMENT OR DEED RESTRICTION IN ORDER TO ENABLE THAT ENTITY TO OPERATE OR MAINTAIN THE SYSTEM IN CONFORMANCE WITH THIS PERMIT, SUCH EASEMENT OR DEED RESTRICTION MUST BE RECORDED IN THE PUBLIC RECORDS AND SUBMITTED TO THE DISTRICT ALONG WITH ANY OTHER FINAL OPERATION AND MAINTENANCE DOCUMENTS REQUIRED BY SECTIONS 9.0 AND 10.0 OF THE BASIS OF REVIEW FOR ENVIRONMENTAL RESOURCE PERMIT APPLICATIONS WITHIN THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT AUGUST 1995, PRIOR TO LOT OR UNIT SALES OR PRIOR TO THE COMPLETION OF THE SYSTEM, WHICHEVER OCCURS FIRST. OTHER DOCUMENTS CONCERNING THE ESTABLISHMENT AND AUTHORITY OF THE OPERATING ENTITY MUST BE FILED WITH THE SECRETARY OF STATE WHERE APPROPRIATE. FOR THOSE SYSTEMS WHICH ARE PROPOSED TO BE MAINTAINED BY THE COUNTY OR MUNICIPAL ENTITIES, FINAL OPERATION AND MAINTENANCE DOCUMENTS MUST BE RECEIVED BY THE DISTRICT WHEN MAINTENANCE AND OPERATION OF THE SYSTEM IS ACCEPTED BY THE LOCAL GOVERNMENT ENTITY. FAILURE TO SUBMIT THE APPROPRIATE FINAL DOCUMENTS WILL RESULT IN THE PERMITTEE REMAINING LIABLE FOR CARRYING OUT MAINTENANCE AND OPERATION OF THE PERMITTED SYSTEM AND ANY OTHER PERMIT CONDITIONS.
- 10. SHOULD ANY OTHER REGULATORY AGENCY REQUIRE CHANGES TO THE PERMITTED SYSTEM, THE PERMITTEE SHALL NOTIFY THE DISTRICT IN WRITING OF THE CHANGES PRIOR TO IMPLEMENTATION SO THAT A DETERMINATION CAN BE MADE WHETHER A PERMIT MODIFICATION IS REQUIRED.
- 11. THIS PERMIT DOES NOT ELIMINATE THE NECESSITY TO OBTAIN ANY REQUIRED FEDERAL, STATE, LOCAL AND SPECIAL DISTRICT AUTHORIZATIONS PRIOR TO THE START OF ANY ACTIVITY APPROVED BY THIS PERMIT. THIS PERMIT DOES NOT CONVEY TO THE PERMITTEE OR CREATE IN THE PERMITTEE ANY PROPERTY RIGHT, OR ANY INTEREST IN REAL PROPERTY, NOR DOES IT AUTHORIZE ANY ENTRANCE UPON OR ACTIVITIES ON PROPERTY WHICH IS NOT OWNED OR CONTROLLED BY THE PERMITTEE, OR CONVEY ANY RIGHTS OR PRIVILEGES OTHER THAN THOSE SPECIFIED IN THE PERMIT AND CHAPTER

40E-4 OR CHAPTER 40E-40, F.A.C.

- 12. THE PERMITTEE IS HEREBY ADVISED THAT SECTION 253.77, F.S. STATES THAT A PERSON MAY NOT COMMENCE ANY EXCAVATION, CONSTRUCTION, OR OTHER ACTIVITY INVOLVING THE USE OF SOVEREIGN OR OTHER LANDS OF THE STATE, THE TITLE TO WHICH IS VESTED IN THE BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND WITHOUT OBTAINING THE REQUIRED LEASE, LICENSE, EASEMENT, OR OTHER FORM OF CONSENT AUTHORIZING THE PROPOSED USE. THEREFORE, THE PERMITTEE IS RESPONSIBLE FOR OBTAINING ANY NECESSARY AUTHORIZATIONS FROM THE BOARD OF TRUSTEES PRIOR TO COMMENCING ACTIVITY ON SOVEREIGNTY LANDS OR OTHER STATE-OWNED LANDS.
- 13. THE PERMITTEE MUST OBTAIN A WATER USE PERMIT PRIOR TO CONSTRUCTION DEWATERING, UNLESS THE WORK QUALIFIES FOR A GENERAL PERMIT PURSUANT TO SUBSECTION 40E-20.302(4), F.A.C., ALSO KNOWN AS THE "NO NOTICE" RULE.
- 14. THE PERMITTEE SHALL HOLD AND SAVE THE DISTRICT HARMLESS FROM ANY AND ALL DAMAGES, CLAIMS, OR LIABILITIES WHICH MAY ARISE BY REASON OF THE CONSTRUCTION, ALTERATION, OPERATION, MAINTENANCE, REMOVAL, ABANDONMENT OR USE OF ANY SYSTEM AUTHORIZED BY THE PERMIT.
- 15. ANY DELINEATION OF THE EXTENT OF A WETLAND OR OTHER SURFACE WATER SUBMITTED AS PART OF THE PERMIT APPLICATION, INCLUDING PLANS OR OTHER SUPPORTING DOCUMENTATION, SHALL NOT BE CONSIDERED BINDING UNLESS A SPECIFIC CONDITION OF THIS PERMIT OR A FORMAL DETERMINATION UNDER SECTION 373.421(2), F.S., PROVIDES OTHERWISE.
- 16. THE PERMITTEE SHALL NOTIFY THE DISTRICT IN WRITING WITHIN 30 DAYS OF ANY SALE, CONVEYANCE, OR OTHER TRANSFER OF OWNERSHIP OR CONTROL OF A PERMITTED SYSTEM OR THE REAL PROPERTY ON WHICH THE PERMITTED SYSTEM IS LOCATED. ALL TRANSFERS OF OWNERSHIP OR TRANSFERS OF A PERMIT ARE SUBJECT TO THE REQUIREMENTS OF RULES 40E-1.6105 AND 40E-1.6107, F.A.C. THE PERMITTEE TRANSFERRING THE PERMIT SHALL REMAIN LIABLE FOR CORRECTIVE ACTIONS THAT MAY BE REQUIRED AS A RESULT OF ANY VIOLATIONS PRIOR TO THE SALE, CONVEYANCE OR OTHER TRANSFER OF THE SYSTEM.
- 17. UPON REASONABLE NOTICE TO THE PERMITTEE, DISTRICT AUTHORIZED STAFF WITH PROPER IDENTIFICATION SHALL HAVE PERMISSION TO ENTER, INSPECT, SAMPLE AND TEST THE SYSTEM TO INSURE CONFORMITY WITH THE PLANS AND SPECIFICATIONS APPROVED BY THE PERMIT.
- 18. IF HISTORICAL OR ARCHAEOLOGICAL ARTIFACTS ARE DISCOVERED AT ANY TIME ON THE PROJECT SITE, THE PERMITTEE SHALL IMMEDIATELY NOTIFY THE APPROPRIATE DISTRICT SERVICE CENTER.
- 19. THE PERMITTEE SHALL IMMEDIATELY NOTIFY THE DISTRICT IN WRITING OF ANY PREVIOUSLY SUBMITTED INFORMATION THAT IS LATER DISCOVERED TO BE INACCURATE.

LAST DATE FOR GOVERNING BOARD ACTION: OCTOBER 9, 1997

ENVIRONMENTAL RESOURCE PERMIT STAFF REVIEW SUMMARY

I. ADMINISTRATIVE

APPLICATION NUMBER: 930430-3

PROJECT NAME: ORANGE AVE/SO CONNECTOR TO TAFT-VINELAND

LOCATION: ORANGE COUNTY, \$11-14,23,24,26/T24S/R29E

APPLICANT'S NAME: ORANGE COUNTY PUBLIC WORKS DIV.

OWNERS NAME AND ADDRESS: ORANGE COUNTY PUBLIC WORKS DIV.

4200 WHITCOMB AVE. ORLANDO, FL 32809-9205

ENGINEER: BOWYER-SINGLETON & ASSOCS INC

II. PROJECT DESCRIPTION

PROJECT AREA:

159.42 acres DRAINAGE AREA:

159.42 acres

DISTRICT DRAINAGE BASIN: BOGGY CREEK

RECEIVING BODY: BOGGY CREEK VIA EXISTING WETLANDS

CLASSIFICATION: CLASS III

PURPOSE:

The purpose of this application is to authorize construction and operation of the surface water management system to serve the 154.92 acre Orange Avenue widening project and conceptual approval for 4.5 acres of future roadway widening area. The area for conceptual approval is at the southern end of the project, between the actual beginning of construction and Pond 100. Staff's recommendation is for approval.

EXISTING FACILITIES:

This is an existing two lane roadway traversing uplands and wetlards. Existing drainage is to roadside ditches which discharge to Boggy Creek.

PROPOSED FACILITIES:

Construction proposed consists of a six lane urban roadway with runoff directed to detention ponds which overflow to existing wetlands and then to Boggy Creek. The project results in approximately 8.2 acre feet of encroachment into the 100 year flood plain, with the proposed facilities providing 8.2 acre feet of compensating storage. Roadway construction plans, showing drainage basin layout, pond details and control structure details identified as Exhibits 2 thru 23 are placed in the permit file and included as part of this report by reference. See Special Condition No. 18.

BASIN INFORMATION:

			WSWT	Normal/Dry	
		Area	Elev	Ctrl Elev	Method of
Basin		Acres	(ft, NGVD)	(ft, NGVD)	Determination
BASIN	100	32.40	82.50	82.5/82.5	WET SEASON SOIL
					BORINGS
BASIN 2	200	19.60	86.20	86.2/86.2	WET SEASON SOIL
				•	BORINGS
BASIN 3	300	17.70	86.20	86.2/86.2	WET SEASON SOIL
				•	BORINGS
BASIN 4	100	14.81	86.20	86.2/86.2	WET SEASON SOIL
				•	BORINGS
BASIN 4	100-A	4.45	83.00	84/84	WET SEASON SOIL
5,10 111					BORINGS
BASIN 4	45 1	9.75	81.50	81.5/81.5	WET SEASON SOIL
				•	BORINGS
BASIN 5	500	7.18	84.50	84.5/84.5	WET SEASON SOIL
				•	BORINGS
BASIN 6	500	22.20	84.50	84.5/84.5	WET SEASON SOIL
				•	BORINGS
BASIN 7	700	10.73	86.00	86/86	WET SEASON SOIL
2 ,10 -11				•	BORINGS
BASIN 8	300	13.90	91.00	91/91	WET SEASON SOIL
	 -			•	BORINGS
BASIN 9	900	6.70	85.00	85/85	WET SEASON SOIL
	-			•	BORINGS

SCANNED 06/13/2013 PL

DISCHARGE STRUCTURE INFORMATION:

Water Quality Structures:

	Str.			Invert Elev.
Basin	#	Bleeder Type	Dimensions	(ft, NGVD)
BASIN 100	1	TRIANGULAR ORIFICE	3.75' wide X .5' high 150 degrees	82.50
BASIN 200	1	TRIANGULAR ORIFICE	.25' wide X [°] .7' high 20 degrees	86.20
BASIN 300	1	TRIANGULAR ORIFICE	1.5' wide X .6' high 105 degrees	86.20
BASIN 400	1	TRIANGULAR ORIFICE	1.75' wide X .5' high 120 degrees	86.20
BASIN 451	1	CIRCULAR ORIFICE	.25' dia.	81.50
BASIN 500	1	TRIANGULAR ORIFICE	1.8' wide X .7' high 20 degrees	84.50
BASIN 600	1	TRIANGULAR ORIFICE	2' wide X .5' high 128 degrees	84.50
BASIN 700	1	TRIANGULAR ORIFICE	.7' wide X 2' high 20 degrees	86.00
BASIN 800	1	TRIANGULAR ORIFICE	1.3' wide X .8' high 20 degrees	91.00
BASIN 900	1	TRIANGULAR ORIFICE	.25' wide X .6' high 24 degrees	85.00

Major Discharge Structures:

Basin	Str. #	Description	Crest Elev. (ft, NGVD)
BASIN 100	1	14' wide SHARP CRESTED weir	83.40
BASIN 200	1	14' wide SHARP CRESTED weir	87.60
BASIN 300	ī	6.58' wide SHARP CRESTED weir	86.80
BASIN 400	ī	18.33' wide SHARP CRESTED weir	86.70
BASIN 400-A	ī	10.25' wide SHARP CRESTED weir	85.00
BASIN 451	1	20' wide BROAD CRESTED weir	82.90
BASIN 500	ī	14.33' wide SHARP CRESTED weir	86.30
BASIN 600	ī	10.25' wide SHARP CRESTED weir	85.00
BASIN 700	ī	7.03' wide SHARP CRESTED weir	88.00
BASIN 800	ī	11.25' wide SHARP CRESTED weir	91.80
BASIN 900	ī	4' wide SHARP CRESTED weir	86.10

Discharge Culverts:

	Str.	Det ALAMA -
Basin	#	Description
BASIN 100	1.	37' long, 1.5' dia. RCP
BASIN 100	1	37' long, 1.5' dia. RCP
BASIN 200	1	39' long, 2' dia. RCP
BASIN 300	1	100' long, 1.5' dia. RCP
BASIN 300	1	100' long, 1.5' dia. RCP
BASIN 400	1	45' long, 2' dia. RCP
BASIN 400	1	45' long, 2' dia. RCP
BASIN 400-A	1	20' long, 2' dia. RCP
BASIN 500	1	45' long, 2' dia. RCP
BASIN 600	1	163' long, 2' dia. RCP
BASIN 700	1	668' long, 2' dia. RCP
BASIN 800	1	190' long, 1.5' dia. RCP
BASIN 900	1	45' long, 2' dia. RCP

Receiving Body:

Basin	Str.	Receiving Body	
BASIN 100	1	EXISTING WETLAND	
BASIN 200	1	EXISTING WETLAND	
BASIN 300	1	MITIGATION AREA	
BASIN 400	1	MITIGATION AREA	
BASIN 400-A	1	EXISTING DITCH	
BASIN 451	1	EXISTING DITCH	
BASIN 500	1	EXISTING DITCH	**************************************
BASIN 600	1	EXISTING DITCH	
BASIN 700	1	EXISTING DITCH	
BASIN 800	1	EXISTING DITCH	
BASIN 900	1	EXISTING DITCH	

III. PROJECT EVALUATION

Discharge Rate:

As shown in the table below, the proposed project discharge is within the allowable limit for the area and includes the runoff from the existing roadway.

Design Storm Frequency: 25 YR 24 HR Design Rainfall: 8.60 inches

	Allow Disch	Method of	Design Disch	Design Stage
N		A STATE OF THE STA	(cfs)	(ft, NGVD)
Basin	(cfs)	Determination		
BASIN 100	30	PRE VS. POST	26.6	84.6
BASIN 200	23	PRE VS. POST	21.1	88.5
BASIN 300	17.5	PRE VS. POST	15.1	87.9
BASIN 400	21.4	PRE VS. POST	21.4	87.2
BASIN 400-A	8.1	PRE VS. POST	7.1	86.4
BASIN 451	6	PRE VS. POST	5	83.2
BASIN 500	8.75	PRE VS. POST	8.62	86.5
BASIN 600	17	PRE VS. POST	10.88	87
BASIN 700	10.2	PRE VS. POST	9.4	88.4
BASIN 800	13	PRE VS. POST	11.7	92.6
BASIN 900	5.2	PRE VS. POST	3.44	86.97

WATER QUALITY:

Water quality treatment for the first inch of runoff over the project area is provided in wet and dry detention ponds.

			V ol	Vol
		Treatment	Req'd.	Prov'd
Basin		Method	(ac-ft)	(ac-ft)
BASIN	100	3.9 acres WET DETENTION	2.70	3.34
BASIN		1.74 acres WET DETENTION	1.63	2.02
BASIN	_	2.46 acres WET DETENTION	1.48	1.63
BASIN	400	2.88 acres WET DETENTION	1.24	1.54
BASIN		1.55 acres DRY RETENTION	0.30	0.30
BASIN		.52 acres DRY DETENTION	0.07	0.09
BASIN		.5 acres WET DETENTION	0.79	0.84
BASIN		3.03 acres WET DETENTION	1.48	1.65
BASIN		1.06 acres WET DETENTION	0.93	1.03
BASIN		2.15 acres WET DETENTION	1.66	1.69
BASIN		.5 acres WET DETENTION	0.24	0.24

ROAD DESIGN:

As shown in the following table, minimum road center lines have been set at or above the calculated design storm flood elevation.

Design Storm Freq: 10 YR 24 HR

Design Rainfall: 7.00 inches

Dagin	Flood Elevation (ft., NGVD)	Minimum Centerline Elevation (ft, NGVD)
Basin	84	88.6
BASIN 100		
BASIN 200	88.3	92.2
BASIN 300	87.7	92.2
BASIN 400	87	90.68
BASIN 400-A	85.8	88.6
BASIN 451	82.8	88.6
BASIN 500	85.9	88.41
BASIN 600	86.4	86.7
BASIN 700	88.3	89.1
BASIN 800	92.4	94.17
BASIN 900	86.69	87

IV. ENVIRONMENTAL ASSESSMENT

PROJECT SITE DESCRIPTION:

The project site consists of rural pasture and ranchlands, natural vegetated areas and industrial /commercial business parks surrounding the existing roadway. Portions of Mill Slough and Boggy Creek headwater tributaries bisect the existing and proposed right-of-way (ROW). The expansion project is proposed between the interchange with the newly constructed Greenway, through the on-going development of Southchase DRI, and the Airport Industrial Park and Regency Industrial Park.

EXISTING ON SITE WETLAND COMMUNITIES AND OTHER SURFACE WATERS:

ID No		TOTAL ACREAGE	BIOLOGICAL CONDITION	COMMUNITY Type	COMMUNITY ACREAGE
WET	#10	10.74	GOOD/FAIR	CYPRESS	10.74
WET		2.11	GOOD/FAIR	CYPRESS	2.11
	#12,18		FAIR/POOR	STREAMS AND WATERWAYS	1.25
WET	•		N/A	LAKES < 10 ACRES WHICH ARE	.47
			•	DOMINANT	
WET	#17	.78	FAIR/POOR	CYPRESS	.78
WET			GOOD	CYPRESS	.25
WET			FAIR	CYPRESS	.23
WET			GOOD/FAIR	CYPRESS	.03
WET			GOOD/FAIR	CYPRESS	5.23

TOTAL ON SITE WETLAND/SURFACE WATER ACREAGE: 21.09

EXISTING ON SITE UPLAND COMMUNITIES:

ID No	TOTAL ACREAGE	BIOLOGICAL CONDITION	COMMUNITY Type	COMMUNITY ACREAGE
MITutilBUF		FAIR	ELECTRICAL POWER TRANSMISSION LINE	1.44
••• • • • • • • • • • • • • • • • • •			UTILITIES	.72
Mit.Bufr	.48	FAIR	IMPROVED PASTURES	. 48
Mit.Creat		FAIR/POOR	IMPROVED PASTURES	30.16
Org.Create	1.65		ROADS AND HIGHWAYS	1.65
ROW	103.88		INDUSTRIAL	9.18
			IMPROVED PASTURES	7.80
			HERBACEOUS	5.51
			SHRUB AND BRUSHLAND	10.31
			UPLAND CONIFEROUS FORESTS	30.42
			RAILROADS	. 92
			ROADS AND HIGHWAYS	39.55
			ELECTRICAL POWER TRANSMISSION LINE	.19
TOTAL (N SITE U	PLAND ACREAGE:	138.33	

ENDANGERED, THREATENED & SPECIES OF SPECIAL CONCERN SUMMARY:

The project site does not contain preferred habitat for endangered, threatened, or species of special concern. No endangered/threatened or species of special concern were observed on site, and submitted information indicates that potential use of the site by endangered/threatened species or species of special concern is minimal. This permit does not relieve the applicant from complying with all applicable rules and any other agencies' requirements if in the future, endangered/threatened or species of special concern are discovered on the site.

WETLAND PRESERVATION AND IMPACT SUMMARY:

A total 21.09 acres of wetlands and surface waters occur within the combined construction and conceptual permit application project area. (See Exhibits 27A - 27D) This project will affect these wetlands and surface waters in the following ways:

Wetlands 6 & 7 Totaling .48 acres conceptually permitted for impact (Wetland 7 is an isolated cypress dome less than half acre in size and therefore not requiring mitigation).

Wetlands 8, 9, 10, 11, and 17 totaling 8.15 acres construction permit for impact;

Wetland 10, totaling 10.74 acres construction permitted for impact to 3.38 acres and preservation/enhancment of remaining 7.36;

"Wetlands" 12 and 18 are portions of the channel and floodplains of a channelized headwater tributary of Boggy Creek totaling 1.25 acres which are

proposed for construction approval for .001 acre permanent impact (new bridge pilings), and 1.04 acre temporary impacts from widening of the channel.

Wetland #6 is a stormwater treatment pond, which will not require mitigation when impacted.

Activities within "wetlands" 12, 18, and 16 are shown as impacts within the impact table although the impacts will not require mitigation since they occur within surface waters and/or manmade stormwater ponds.

Summary:

Conceptual Approval: .48 acres of impacts to wetlands of which only .25 will require mitigation.

Construction Approval: 11.53 acres of permanent impacts to wetlands.

A portion of the existing roadway, which crosses wetlands 10 and 11 will be re-alligned to eliminate dangerous curves. The deserted roadbed will be restored to natural grade and incorporated into the mitigation area plans. Historic sheet flows through these wetlands were channeled into a narrow ditch under the roadway. The re-alignment will include additional culverts under the roadway to allow re-establishment of historic flow patterns and a large box culvert that can serve dual stormwater and animal crossing purposes.

The roadway widening and re-alignment are required to accommodate increased traffic and address traffic and alignment related safety issues. Avoidance and minimization efforts are restricted, to a certain extent, by the existing alignment, although the side of road that expansion will occur in has been considered to reduce wetland impacts.

Design details include specifications for erosion control devices, turbidity barriers and a turbidity monitoring program during construction within the Boggy Creek channels.

Design control elevations of the various stormwater ponds are sufficient to meet wetland gradient criteria. In addition, the ponds are designed to discharge through speader swales to adjacent wetlands in order to maintain basin contribution volumes, and mimic historic dispersion patterns.

WETLAND PRESERVATION:

ID No	COMMUNITY Type	PRESERVATION ACREAGE	
WET #10	CYPRESS	7.36	
	STREAMS AND WATERWAYS	. 21	

ID NO		COMMUNITY Type	IMPACT ACREAGE	IMPACT TYPE	BIOLOGICAL CONDITION	ACREAGE
WET	#10	CYPRESS	3.38	CLEARING AND FILLING	GOOD/FAIR	3.38
WET	#11	CYPRESS	2.11	CLEARING AND FILLING	GOOD/FAIR	2.11
WET	#12,18	STREAMS AND WATERWAYS	1.04	EXCAVATION	FAIR/POOR	1.04
WET	#16	LAKES < 10 ACRES WHICH ARE DOMINANT	. 47	CLEARING AND FILLING	N/A	.47
WET	#17	CYPRESS	.78	CLEARING AND FILLING	GOOD/FAIR	.78
WET	#6	CYPRESS	.25	CLEARING AND	GOOD/FAIR	. 25
WET	#7	CYPRESS	.23	CLEARING AND	GOOD/FAIR	.23
WET	#8	CYPRESS	.03	CLEARING AND FILLING	GOOD/FAIR	.03
WET	#9	CYPRESS	5.23	CLEARING AND FILLING	GOOD/FAIR	5.23

TOTAL IMPACT ACREAGE:

13.52

MITIGATION/MONITORING:

The applicant proposes to create 31.73 acres of herbaceous and forested wetlands, and preserve 7.36 acres of adjacent on-site cypress slough as mitigation to offset the 11.76 acres of permanent wetland impacts proposed for construction and conceptual approval. These mitigation areas have been positioned to be surrounded by stormwater ponds, 0.48 acres of preserved upland buffer and 2.16 acres of gas and electrical easements. (Because of the utility easements already in place over the gas and electrical lines a conservation easement over the gas and electrical easement areas is not possible. But, the function of the utility easements will provide some buffer to surrounding development. A conservation easement will be placed over the preserved and created areas.) Creation will occur on both sides of the roadway, incorporating the abandoned roadbed into the mitigation design. Muck removed from within the impact area of wetland #10 will be used as a seed source ("muck blanket") for the mitigation creation areas. Graded elevations, hydrology and vegetative cover of the mitigation design are patterned after wetland 10.

The proposed construction schedule of the roadway is divided into three sections (Exhibit 1). Section 1 extends from Zell Drive to Wetherbee Road Extension, scheduled to begin 7/1/98 and completed 4/3/2000. Section 2 Extends from Fairway Woods Boulevard to Zell Drive and from Wetherbee Road Extension

to Taft-Vineland Road, scheduled to begin 11/8/98 and completed 5/31/2000. Section 3 extends from Central Florida Greeneway (FKA Southern Connector) to Fairway Woods Boulevard, to begin 8/1/99 and completed by 11/30/2000. The mitigation area lies within Section 3 and will be tied to its scheduled construction dates since an integral part of the plan involves restoring wetlands to existing roadway and using muck removed from the Wetland 10 (impacted area within Section 3) to dress the mitigation area. Therefore earthwork within the mitigation area will be completed by March 30, 2000, and planting will be complete by April 15, 2000. With the in-separable schedule of the roadway and mitigation area these dates are approximate and may change.

Detailed mitigation, monitoring and maintenance data and plans are included as Exhibit(s) (24A - 24KK).

PROPOSED ON SITE MITIGATION:

ID NO	MITIGATION TYPE	TOTAL ACREAGE MIT.	COMMUNITY Type	COMMUNITY Acreage
UPLAND Mit.Creat	CREATION	30.16	IMPROVED PASTURES	30.16
UPLAND Org.Create	CREATION	1.65	ROADS AND HIGHWAYS	1.65
o, E, and or given a large			ROADS AND HIGHWAYS	1.65
UPLAND Mit.Bufr	UPLAND COMP	.48	IMPROVED PASTURES	. 48
Of EARLY THOUGHT	0, 2,		IMPROVED PASTURES	. 48
			IMPROVED PASTURES	. 48
			IMPROVED PASTURES	.48

TOTAL ON SITE MITIGATION ACREAGE: 32.29

WETLAND INVENTORY NOTE:

The land use table reflects 0.47 acres of a surface water pond and 1.25 acres of Boggy Creek Channel which are not included within the wetland inventory table.

A portion of the right of way from the Greenway (FKA Southern Connector) to the Turnpike is proposed for conceptual approval of expansion to accommodate future roadway widening. Two wetlands (numbers 6 and 7) fall within the expanded ROW limits (Exhibit 27A - 27D). The applicant proposes to mitigate for the impacts to these wetlands in conjunction with the mitigation being performed to offset construction level wetland impacts proposed for approval under this application. Approval of construction level details and the corresponding impacts to wetlands 6 and 7 are not proposed at this time. Consequently, the impacts to these wetlands are reflected in the conceptual wetland inventory table, while the mitigation to offset the impacts are included in the "phase" wetland inventory table.

WETLAND INVENTORY -

NEW PHASE - ORANGE AVE: SO. CONNECTOR TO TAFT

ONSITE

	Cypress	Marsh	Trans.	Mix Forest	Totals
Total Wet. AC	18.89	0	0	0	18.89
Wet. Preserved	7.36	0	0	0	7.36
Wet. Impacted	11.53	0	0	0	11.53
Wet. Disturbed	0	0	0	0	0
Wet. Improved	0	0	0	0	0
Wet. Created	27.2	1.67	0	2.86	31.73

Upl ands

Other Compensation

.48

WETLAND INVENTORY MOD CONCEPTUAL - ORANGE AVE: SO. CONNECTOR TO TAFT

ONSITE

	Cypress	Marsh	Trans.	Mix Forest	Totals
Total Wet. AC	. 48	0	0	0	.48
Wet. Preserved	0	0	0	0	0
Wet. Impacted	. 48	0	0	0	.48
Wet. Disturbed	0	0	0	0	0
Wet. Improved	0	0	0	0	0
Wet. Created	0	0	0	0	0

Up1 ands

Other Compensation

0

ENVIRONMENTAL SUMMARY:

The proposed activities have been evaluated for potential secondary and cumulative impacts and to determine if the project is contrary to the public interest. Based upon the proposed project design, the District has determined that the project will not cause adverse secondary or cumulative impacts to the water resources and is not contrary to the public interest.

This 159.42 acre roadway project will cause permanent impacts to 11.53 acres of the 21.09 acres of wetlands and surface waters within the project limits. Mitigation to offset the proposed impacts includes 31.73 acres of on-site wetland creation, and preservation of 7.36 acres of cypress slough wetlands. Within the limits of the options available the project has been designed to avoid and minimize wetland impacts. The project design employs best management practices to avoid turbidity or sedimentation impacts offsite and the stormwater management system is designed to avoid gradient impacts while maintaining historical flow volumes and dispersal patterns of surface waters to adjacent wetlands. No adverse impacts to wetland, surface water or listed species resources are anticipated to result from the proposed activities.

SYSTEM OPERATION:

Orange County

PROPOSED LAND USE(S):

Highway

WATER USE PERMIT STATUS:

Irrigation of landscaped areas is not proposed at this time.

DRI STATUS:

This project is not a DRI.

SAVE OUR RIVERS:

The project is not within or adjacent to lands under consideration by the Save Our Rivers program.

SWIM BASIN:

The project is not within nor does it discharge directly to a designated SWIM basin.

RIGHT-OF-WAY PERMIT STATUS:

A Right-of-Way Permit is not required for this project.

ENFORCEMENT ACTIVITY:

There has been no enforcement activity associated with this application.

THIRD PARTY INTEREST:

No third party has contacted the District with concerns about this application.

WELL FIELD ZONE OF INFLUENCE:

The project is not located within the zone of influence of a wellfield.

PRIMARY ISSUES RESOLVED:

Wetland impacts, onsite wetland mitigation.

V. APPLICABLE LAND AREA

The land use table is for the roadway widening project.

PROJECT

	TOTAL Project	PREVIOUSLY PERMITTED	THIS PHASE	
TOTAL ACRES	159.42	· 	159.42	acres
WTRM ACREAGE	20.02		20.02	acres
PAVEMENT	57.10		57.10	acres
PRESERVED	39.57		39.57	acres
PERVIOUS	42.73		42.73	acres

VI. STAFF RECOMMENDATION

The Staff recommends that the following be issued:

Authorization for the construction and operation of the surface water management system serving the 154.92 acre Orange Avenue widening project, discharging via existing wetlands to Boggy Creek. Conceptual approval for a 4.5 acre future widening area with a wetland impact which is being mitigated for at this time.

Based on the information provided, District rules have been adhered to.

Staff recommendation is for approval subject to the attached General and Special Conditions.

VII. STAFF REVIEW

Subject to Governing Board Approval

NATURAL RESOURCE MANAGEMENT DIVISION APPROVAL

ENVIRONMENTAL EVALUATION

DIVISION DIRECTOR:

Robert G. Robbins

SUPERVIS

DATE:

SURFACE WATER MANAGEMENT DIVISION APPROVAL

ENGINEERING EVALUATION

Afan L. Leavens

SUPERVISOR

Edward W. Yaun, P.E.

DIVISION/DIRECTOR

Anthony M. Waterhouse, P.E.

DATE:

GENERAL CONDITIONS

- 1. ALL ACTIVITIES AUTHORIZED BY THIS PERMIT SHALL BE IMPLEMENTED AS SET FORTH IN THE PLANS, SPECIFICATIONS AND PERFORMANCE CRITERIA AS APPROVED BY THIS PERMIT. ANY DEVIATION FROM THE PERMITTED ACTIVITY AND THE CONDITIONS FOR UNDERTAKING THAT ACTIVITY SHALL CONSTITUTE A VIOLATION OF THIS PERMIT AND PART IV, CHAPTER 373, F.S.
- 2. THIS PERMIT OR A COPY THEREOF, COMPLETE WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND MODIFICATIONS SHALL BE KEPT AT THE WORK SITE OF THE PERMITTED ACTIVITY. THE COMPLETE PERMIT SHALL BE AVAILABLE FOR REVIEW AT THE WORK SITE UPON REQUEST BY THE DISTRICT STAFF. THE PERMITTEE SHALL REQUIRE THE CONTRACTOR TO REVIEW THE COMPLETE PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY AUTHORIZED BY THIS PERMIT.
- ACTIVITIES APPROVED BY THIS PERMIT SHALL BE CONDUCTED IN A MANNER WHICH DOES NOT CAUSE VIOLATIONS OF STATE WATER QUALITY STANDARDS. THE PERMITTEE SHALL IMPLEMENT BEST MANAGEMENT PRACTICES FOR EROSION AND POLLUTION CONTROL TO PREVENT VIOLATION OF STATE WATER QUALITY STANDARDS. TEMPORARY EROSION CONTROL SHALL BE IMPLEMENTED PRIOR TO AND DURING CONSTRUCTION, AND PERMANENT CONTROL MEASURES SHALL BE COMPLETED WITHIN 7 DAYS OF ANY CONSTRUCTION ACTIVITY. TURBIDITY BARRIERS SHALL BE INSTALLED AND MAINTAINED AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATERBODY EXISTS DUE TO THE PERMITTED WORK. TURBIDITY BARRIERS SHALL REMAIN IN PLACE AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND SOILS ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED. ALL PRACTICES SHALL BE IN ACCORDANCE WITH THE GUIDELINES AND SPECIFICATIONS DESCRIBED IN CHAPTER 6 OF THE FLORIDA LAND DEVELOPMENT MANUAL; A GUIDE TO SOUND LAND AND WATER MANAGEMENT (DEPARTMENT OF ENVIRONMENTAL REGULATION, 1988), INCORPORATED BY REFERENCE IN RULE 40E-4.091, F.A.C. UNLESS A PROJECT-SPECIFIC EROSION AND SEDIMENT CONTROL PLAN IS APPROVED AS PART OF THE PERMIT. THEREAFTER THE PERMITTEE SHALL BE RESPONSIBLE FOR THE REMOVAL OF THE BARRIERS. THE PERMITTEE SHALL CORRECT ANY EROSION OR SHOALING THAT CAUSES ADVERSE IMPACTS TO THE WATER RESOURCES.
- THE PERMITTEE SHALL NOTIFY THE DISTRICT OF THE ANTICIPATED CONSTRUCTION START DATE WITHIN 30 DAYS OF THE DATE THAT THIS PERMIT IS ISSUED. AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF ACTIVITY AUTHORIZED BY THIS PERMIT, THE PERMITTEE SHALL SUBMIT TO THE DISTRICT AN ENVIRONMENTAL RESOURCE PERMIT CONSTRUCTION COMMENCEMENT NOTICE FORM NO. 0960 INDICATING THE ACTUAL START DATE AND THE EXPECTED COMPLETION DATE.
- 5. WHEN THE DURATION OF CONSTRUCTION WILL EXCEED ONE YEAR, THE PERMITTEE SHALL SUBMIT CONSTRUCTION STATUS REPORTS TO THE DISTRICT ON AN ANNUAL BASIS UTILIZING AN ANNUAL STATUS REPORT FORM. STATUS REPORT FORMS SHALL BE SUBMITTED THE FOLLOWING JUNE OF EACH YEAR.
- 6. WITHIN 30 DAYS AFTER COMPLETION OF CONSTRUCTION OF THE PERMITTED ACTIVITY,

THE PERMITTEE SHALL SUBMIT A WRITTEN STATEMENT OF COMPLETION AND CERTIFICATION BY A REGISTERED PROFESSIONAL ENGINEER OR OTHER APPROPRIATE INDIVIDUAL AS AUTHORIZED BY LAW, UTILIZING THE SUPPLIED ENVIRONMENTAL RESOURCE PERMIT CONSTRUCTION COMPLETION/CONSTRUCTION CERTIFICATION FORM NO.0881. THE STATEMENT OF COMPLETION AND CERTIFICATION SHALL BE BASED ON ONSITE OBSERVATION OF CONSTRUCTION OR REVIEW OF ASBUILT DRAWINGS FOR THE PURPOSE OF DETERMINING IF THE WORK WAS COMPLETED IN COMPLIANCE WITH PERMITTED PLANS AND SPECIFICATIONS. THIS SUBMITTAL SHALL SERVE TO NOTIFY THE DISTRICT THAT THE SYSTEM IS READY FOR INSPECTION. ADDITIONALLY, IF DEVIATION FROM THE APPROVED DRAWINGS ARE DISCOVERED DURING THE CERTIFICATION PROCESS, THE CERTIFICATION MUST BE ACCOMPANIED BY A COPY OF THE APPROVED PERMIT DRAWINGS WITH DEVIATIONS NOTED. BOTH THE ORIGINAL AND REVISED SPECIFICATIONS MUST BE CLEARLY SHOWN. THE PLANS MUST BE CLEARLY LABELED AS "ASBUILT" OR "RECORD" DRAWING. ALL SURVEYED DIMENSIONS AND ELEVATIONS SHALL BE CERTIFIED BY A REGISTERED SURVEYOR.

- THE OPERATION PHASE OF THIS PERMIT SHALL NOT BECOME EFFECTIVE: UNTIL THE 7. PERMITTEE HAS COMPLIED WITH THE REQUIREMENTS OF CONDITION (6) ABOVE, HAS SUBMITTED A REQUEST FOR CONVERSION OF ENVIRONMENTAL RESOURCE PERMIT FROM CONSTRUCTION PHASE TO OPERATION PHASE, FORM NO.0920; THE DISTRICT DETERMINES THE SYSTEM TO BE IN COMPLIANCE WITH THE PERMITTED PLANS AND SPECIFICATIONS; AND THE ENTITY APPROVED BY THE DISTRICT IN ACCORDANCE WITH SECTIONS 9.0 AND 10.0 OF THE BASIS OF REVIEW FOR ENVIRONMENTAL RESOURCE PERMIT APPLICATIONS WITHIN THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT -AUGUST 1995, ACCEPTS RESPONSIBILITY FOR OPERATION AND MAINTENANCE OF THE SYSTEM. THE PERMIT SHALL NOT BE TRANSFERRED TO SUCH APPROVED OPERATION AND MAINTENANCE ENTITY UNTIL THE OPERATION PHASE OF THE PERMIT BECOMES EFFECTIVE. FOLLOWING INSPECTION AND APPROVAL OF THE PERMITTED SYSTEM BY THE DISTRICT, THE PERMITTEE SHALL INITIATE TRANSFER OF THE PERMIT TO THE APPROVED RESPONSIBLE OPERATING ENTITY IF DIFFERENT FROM THE PERMITTEE. UNTIL THE PERMIT IS TRANSFERRED PURSUANT TO SECTION 40E-1.6107, F.A.C. THE PERMITTEE SHALL BE LIABLE FOR COMPLIANCE WITH THE TERMS OF THE PERMIT.
- 8. EACH PHASE OR INDEPENDENT PORTION OF THE PERMITTED SYSTEM MUST BE COMPLETED IN ACCORDANCE WITH THE PERMITTED PLANS AND PERMIT CONDITIONS PRIOR TO THE INITIATION OF THE PERMITTED USE OF SITE INFRASTRUCTURE LOCATED WITHIN THE AREA SERVED BY THAT PORTION OR PHASE OF THE SYSTEM. EACH PHASE OR INDEPENDENT PORTION OF THE SYSTEM MUST BE COMPLETED IN ACCORDANCE WITH THE PERMITTED PLANS AND PERMIT CONDITIONS PRIOR TO TRANSFER OF RESPONSIBILITY FOR OPERATION AND MAINTENANCE OF THE PHASE OR PORTION OF THE SYSTEM TO A LOCAL GOVERNMENT OR OTHER RESPONSIBLE ENTITY.
- 9. FOR THOSE SYSTEMS THAT WILL BE OPERATED OR MAINTAINED BY AN ENTITY THAT WILL REQUIRE AN EASEMENT OR DEED RESTRICTION IN ORDER TO ENABLE THAT ENTITY TO OPERATE OR MAINTAIN THE SYSTEM IN CONFORMANCE WITH THIS PERMIT, SUCH EASEMENT OR DEED RESTRICTION MUST BE RECORDED IN THE PUBLIC RECORDS AND SUBMITTED TO THE DISTRICT ALONG WITH ANY OTHER FINAL OPERATION AND MAINTENANCE DOCUMENTS REQUIRED BY SECTIONS 9.0 AND 10.0 OF THE BASIS OF REVIEW FOR ENVIRONMENTAL RESOURCE PERMIT APPLICATIONS WITHIN THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT AUGUST 1995, PRIOR TO LOT OR UNIT

SALES OR PRIOR TO THE COMPLETION OF THE SYSTEM, WHICHEVER OCCURS FIRST. OTHER DOCUMENTS CONCERNING THE ESTABLISHMENT AND AUTHORITY OF THE OPERATING ENTITY MUST BE FILED WITH THE SECRETARY OF STATE WHERE APPROPRIATE. FOR THOSE SYSTEMS WHICH ARE PROPOSED TO BE MAINTAINED BY THE COUNTY OR MUNICIPAL ENTITIES, FINAL OPERATION AND MAINTENANCE DOCUMENTS MUST BE RECEIVED BY THE DISTRICT WHEN MAINTENANCE AND OPERATION OF THE SYSTEM IS ACCEPTED BY THE LOCAL GOVERNMENT ENTITY. FAILURE TO SUBMIT THE APPROPRIATE FINAL DOCUMENTS WILL RESULT IN THE PERMITTEE REMAINING LIABLE FOR CARRYING OUT MAINTENANCE AND OPERATION OF THE PERMITTED SYSTEM AND ANY OTHER PERMIT CONDITIONS.

- 10. SHOULD ANY OTHER REGULATORY AGENCY REQUIRE CHANGES TO THE PERMITTED SYSTEM, THE PERMITTEE SHALL NOTIFY THE DISTRICT IN WRITING OF THE CHANGES PRIOR TO IMPLEMENTATION SO THAT A DETERMINATION CAN BE MADE WHETHER A PERMIT MODIFICATION IS REQUIRED.
- 11. THIS PERMIT DOES NOT ELIMINATE THE NECESSITY TO OBTAIN ANY REQUIRED FEDERAL, STATE, LOCAL AND SPECIAL DISTRICT AUTHORIZATIONS PRIOR TO THE START OF ANY ACTIVITY APPROVED BY THIS PERMIT. THIS PERMIT DOES NOT CONVEY TO THE PERMITTEE OR CREATE IN THE PERMITTEE ANY PROPERTY RIGHT, OR ANY INTEREST IN REAL PROPERTY, NOR DOES IT AUTHORIZE ANY ENTRANCE UPON OR ACTIVITIES ON PROPERTY WHICH IS NOT OWNED OR CONTROLLED BY THE PERMITTEE, OR CONVEY ANY RIGHTS OR PRIVILEGES OTHER THAN THOSE SPECIFIED IN THE PERMIT AND CHAPTER 40E-4 OR CHAPTER 40E-40, F.A.C.
- 12. THE PERMITTEE IS HEREBY ADVISED THAT SECTION 253.77, F.S. STATES THAT A PERSON MAY NOT COMMENCE ANY EXCAVATION, CONSTRUCTION, OR OTHER ACTIVITY INVOLVING THE USE OF SOVEREIGN OR OTHER LANDS OF THE STATE, THE TITLE TO WHICH IS VESTED IN THE BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND WITHOUT OBTAINING THE REQUIRED LEASE, LICENSE, EASEMENT, OR OTHER FORM OF CONSENT AUTHORIZING THE PROPOSED USE. THEREFORE, THE PERMITTEE IS RESPONSIBLE FOR OBTAINING ANY NECESSARY AUTHORIZATIONS FROM THE BOARD OF TRUSTEES PRIOR TO COMMENCING ACTIVITY ON SOVEREIGNTY LANDS OR OTHER STATEOWNED LANDS.
- 13. THE PERMITTEE MUST OBTAIN A WATER USE PERMIT PRIOR TO CONSTRUCTION DEWATERING, UNLESS THE WORK QUALIFIES FOR A GENERAL PERMIT PURSUANT TO SUBSECTION 40E-20.302(4), F.A.C., ALSO KNOWN AS THE "NO NOTICE" RULE.
- 14. THE PERMITTEE SHALL HOLD AND SAVE THE DISTRICT HARMLESS FROM ANY AND ALL DAMAGES, CLAIMS, OR LIABILITIES WHICH MAY ARISE BY REASON OF THE CONSTRUCTION, ALTERATION, OPERATION, MAINTENANCE, REMOVAL, ABANDONMENT OR USE OF ANY SYSTEM AUTHORIZED BY THE PERMIT.
- 15. ANY DELINEATION OF THE EXTENT OF A WETLAND OR OTHER SURFACE WATER SUBMITTED AS PART OF THE PERMIT APPLICATION, INCLUDING PLANS OR OTHER SUPPORTING DOCUMENTATION, SHALL NOT BE CONSIDERED BINDING UNLESS A SPECIFIC CONDITION OF THIS PERMIT OR A FORMAL DETERMINATION UNDER SECTION 373.421(2), F.S., PROVIDES OTHERWISE.

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- 16. THE PERMITTEE SHALL NOTIFY THE DISTRICT IN WRITING WITHIN 30 DAYS OF ANY SALE, CONVEYANCE, OR OTHER TRANSFER OF OWNERSHIP OR CONTROL OF A PERMITTED SYSTEM OR THE REAL PROPERTY ON WHICH THE PERMITTED SYSTEM IS LOCATED. ALL TRANSFERS OF OWNERSHIP OR TRANSFERS OF A PERMIT ARE SUBJECT TO THE REQUIREMENTS OF RULES 40E-1.6105 AND 40E-1.6107, F.A.C. THE PERMITTEE TRANSFERRING THE PERMIT SHALL REMAIN LIABLE FOR CORRECTIVE ACTIONS THAT MAY BE REQUIRED AS A RESULT OF ANY VIOLATIONS PRIOR TO THE SALE, CONVEYANCE OR OTHER TRANSFER OF THE SYSTEM.
- 17. UPON REASONABLE NOTICE TO THE PERMITTEE, DISTRICT AUTHORIZED STAFF WITH PROPER IDENTIFICATION SHALL HAVE PERMISSION TO ENTER, INSPECT, SAMPLE AND TEST THE SYSTEM TO INSURE CONFORMITY WITH THE PLANS AND SPECIFICATIONS APPROVED BY THE PERMIT.
- 18. IF HISTORICAL OR ARCHAEOLOGICAL ARTIFACTS ARE DISCOVERED AT ANY TIME ON THE PROJECT SITE, THE PERMITTEE SHALL IMMEDIATELY NOTIFY THE APPROPRIATE DISTRICT SERVICE CENTER.
- 19. THE PERMITTEE SHALL IMMEDIATELY NOTIFY THE DISTRICT IN WRITING OF ANY PREVIOUSLY SUBMITTED INFORMATION THAT IS LATER DISCOVERED TO BE INACCURATE.

SPECIAL CONDITIONS

DISCHARGE FACILITIES:

BASIN: BASIN 100:

1-14' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 83.4' NGVD. 1-3.75' W X .5' H X 150 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV.

82.5' NGVD.

2-1.5' DIA. RCP CULVERTS EACH 37' LONG.

RECEIVING BODY : EXISTING WETLAND

CONTROL ELEV: 82.5 FEET NGVD. /82.5 FEET NGVD DRY SEASON.

BASIN: BASIN 200:

1-14' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 87.6' NGVD. 1-.25' W X .7' H X 20 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV. 86.2' NGVD.

39 LF OF 2' DIA. RCP CULVERT.

RECEIVING BODY: EXISTING WETLAND

CONTROL ELEV: 86.2 FEET NGVD. /86.2 FEET NGVD DRY SEASON.

BASIN: BASIN 300:

1-6.58' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 86.8' NGVD. 1-1.5' W X .6' H X 105 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV. 86.2' NGVD.

2-1.5' DIA. RCP CULVERTS EACH 100' LONG.

RECEIVING BODY: MITIGATION AREA

CONTROL ELEV: 86.2 FEET NGVD. /86.2 FEET NGVD DRY SEASON.

BASIN: BASIN 400:

1-18.33' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 86.7' NGVD. 1-1.75' W X .5' H X 120 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV. 36.2' NGVD.

2-2' DIA. RCP CULVERTS EACH 45' LONG.

RECEIVING BODY : MITIGATION AREA

CONTROL ELEV: 86.2 FEET NGVD. /86.2 FEET NGVD DRY SEASON.

BASIN: BASIN 400-A:

1-10.25' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 85' NGVD. 20 LF OF 2' DIA. RCP CULVERT.

RECEIVING BODY : EXISTING DITCH

CONTROL ELEV: 84 FEET NGVD. /84 FEET NGVD DRY SEASON.

BASIN: BASIN 451:

1-20' WIDE BROAD CRESTED WEIR WITH CREST AT ELEV. 82.9' NGVD. 1-.25' DIA. CIRCULAR ORIFICE WITH INVERT AT ELEV. 81.5' NGVD.

RECEIVING BODY: EXISTING DITCH

CONTROL ELEV: 81.5 FEET NGVD. /81.5 FEET NGVD DRY SEASON.

BASIN: BASIN 500:

1-14.33' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 86.3' NGVD. 1-1.8' W X .7' H X 20 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV. 84.5' NGVD.

45 LF OF 2' DIA. RCP CULVERT.

RECEIVING BODY: EXISTING DITCH

CONTROL ELEV: 84.5 FEET NGVD. /84.5 FEET NGVD DRY SEASON.

BASIN: BASIN 600:

1-10.25' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 85' NGVD. 1-2' W X .5' H X 128 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV. 84.5' NGVD.

163 LF OF 2' DIA. RCP CULVERT.

RECEIVING BODY: EXISTING DITCH

CONTROL ELEV: 84.5 FEET NGVD. /84.5 FEET NGVD DRY SEASON.

BASIN: BASIN 700:

1-7.03' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 88' NGVD. 1-.7' W X 2' H X 20 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV. 86' NGVD.

668 LF OF 2' DIA. RCP CULVERT.

RECEIVING BODY: EXISTING DITCH

CONTROL ELEV: 86 FEET NGVD. /86 FEET NGVD DRY SEASON.

BASIN: BASIN 800:

1-11.25' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 91.8' NGVD. 1-1.3' W X .8' H X 20 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV. 91' NGVD.

190 LF OF 1.5' DIA. RCP CULVERT.

RECEIVING BODY : EXISTING DITCH

CONTROL ELEV: 91 FEET NGVD. /91 FEET NGVD DRY SEASON.

BASIN: BASIN 900:

1-4' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 86.1' NGVD. 1-.25' W X .6' H X 24 DEG. TRIANGULAR ORIFICE WITH INVERT AT ELEV. 85' NGVD.

45 LF OF 2' DIA. RCP CULVERT.

RECEIVING BODY : EXISTING DITCH

CONTROL ELEV: 85 FEET NGVD. /85 FEET NGVD DRY SEASON.

- 2. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY EROSION, SHOALING OR WATER QUALITY PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.
- 3. MEASURES SHALL BE TAKEN DURING CONSTRUCTION TO INSURE THAT SEDIMENTATION AND/OR TURBIDITY PROBLEMS ARE NOT CREATED IN THE RECEIVING WATER.
- THE DISTRICT RESERVES THE RIGHT TO REQUIRE THAT ADDITIONAL WATER QUALITY TREATMENT METHODS BE INCORPORATED INTO THE DRAINAGE SYSTEM IF SUCH MEASURES ARE SHOWN TO BE NECESSARY.
- 5. LAKE SIDE SLOPES SHALL BE NO STEEPER THAN 5:1 (HORIZONTAL:VERTICAL) TO A DEPTH OF TWO FEET BELOW THE CONTROL ELEVATION. SIDE SLOPES SHALL BE NURTURED OR PLANTED FROM 2 FEET BELOW TO 1 FOOT ABOVE CONTROL ELEVATION TO INSURE VEGETATIVE GROWTH.
- 6. FACILITIES OTHER THAN THOSE STATED HEREIN SHALL NOT BE CONSTRUCTED WITHOUT AN APPROVED MODIFICATION OF THIS PERMIT.
- 7. OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF ORANGE COUNTY.
- 8. SILT SCREENS, HAY BALES OR OTHER SUCH SEDIMENT CONTROL MEASURES SHALL BE UTILIZED DURING CONSTRUCTION. THE SELECTED SEDIMENT CONTROL MEASURES SHALL BE INSTALLED LANDWARD OF THE UPLAND BUFFER ZONES AROUND ALL PROTECTED WETLANDS. ALL AREAS SHALL BE STABILIZED AND VEGETATED IMMEDIATELY AFTER CONSTRUCTION TO PREVENT EROSION INTO THE WETLANDS AND

UPLAND BUFFER ZONES.

- 9. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE PERIMETER OF THE PROTECTED WETLANDS AND BUFFER ZONES SHALL BE STAKED AND ROPED TO PREVENT ENCROACHMENT INTO THE WETLANDS. THE PERMITTEE SHALL NOTIFY THE SFWMD'S ENVIRONMENTAL COMPLIANCE STAFF IN WRITING UPON COMPLETION OF ROPING AND STAKING AND SCHEDULE AN INSPECTION OF THIS WORK. THE ROPING AND STAKING SHALL BE SUBJECT TO SFWMD STAFF APPROVAL. THE PERMITTEE SHALL MODIFY THE STAKING AND ROPING IF SFWMD STAFF DETERMINES IT IS INSUFFICIENT OR IS NOT IN CONFORMANCE WITH THE INTENT OF THIS PERMIT. STAKING AND ROPING SHALL REMAIN IN PLACE UNTIL ALL ADJACENT CONSTRUCTION ACTIVITIES ARE COMPLETE.
- 10. THE SFWMD RESERVES THE RIGHT TO REQUIRE REMEDIAL MEASURES TO BE TAKEN BY THE PERMITTEE IF WETLAND AND/OR UPLAND MONITORING OR OTHER INFORMATION DEMONSTRATES THAT ADVERSE IMPACTS TO PROTECTED, CONSERVED, INCORPORATED OR MITIGATED WETLANDS OR UPLANDS HAVE OCCURRED DUE TO PROJECT RELATED ACTIVITIES.
- 11. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE SUCCESSFUL COMPLETION OF THE MITIGATION WORK, INCLUDING THE MONITORING AND MAINTENANCE OF THE MITIGATION AREAS FOR THE DURATION OF THE PLAN. THE MITIGATION AREA(S) SHALL NOT BE TURNED OVER TO THE OPERATION ENTITY UNTIL THE MITIGATION WORK IS ACCOMPLISHED AS PERMITTED AND SFWMD STAFF HAS CONCURRED.
- 12. A WETLAND MITIGATION PROGRAM SHALL BE IMPLEMENTED IN ACCORDANCE WITH EXHIBIT(S) 24A 24LL. THE PERMITTEE SHALL CREATE 27.2 ACRES OF CYPRESS, 1.67 ACRES OF MARSH AND 2.86 ACRES OF MIXED FOREST AND PROTECT .48 ACRE OF UPLAND COMPENSATION AREA(S).
- 13. A WETLAND MONITORING PROGRAM AND MAINTENANCE PROGRAM SHALL BE IMPLEMENTED IN ACCORDANCE WITH EXHIBIT(S) 24A 24LL. THE MONITORING PROGRAM SHALL EXTEND FOR A PERIOD OF 5 YEARS WITH ANNUAL REPORTS SUBMITTED TO SFWMD STAFF. AT THE END OF THE FIRST MONITORING PERIOD THE MITIGATION AREA(S) SHALL CONTAIN AN 80% SURVIVAL OF PLANTED VEGETATION. THE 80% SURVIVAL RATE SHALL BE MAINTAINED THROUGHOUT THE REMAINDER OF THE MONITORING PROGRAM. AT THE END OF THE 5 YEARS MONITORING PROGRAM THE MITIGATION AREA(S) SHALL CONTAIN AN 80% SURVIVAL OF PLANTED VEGETATION AND AN 80% COVERAGE OF DESIRABLE OBLIGATE AND FACULTATIVE WETLAND SPECIES.
- 14. A BASELINE WETLAND MONITORING REPORT SHALL BE CONDUCTED IN ACCORDANCE WITH EXHIBIT(S) 24A 24LL.
- 15. (A) NO LATER THAN JANUARY 15, 1998, THE PERMITTEE SHALL SUBMIT FOR REVIEW AND APPROVAL, TWO (2) COPIES OF THE FOLLOWING:
 - 1. PROJECT MAP IDENTIFYING CONSERVATION AREA(S)
 - 2. BOUNDARY SKETCH AND LEGAL DESCRIPTION OF CONSERVATION AREA(S)
 - 3. SIGNED CONSERVATION EASEMENT
 - 4. TITLE OPINION OR OWNERSHIP AND ENCUMBERANCE SEARCH FOR THE CONSERVATION AREA(S)

THE ABOVE INFORMATION SHALL BE SUBMITTED TO THE NATURAL RESOURCE MANAGEMENT POST PERMIT COMPLIANCE STAFF IN THE DISTRICT SERVICE CENTER WHERE THE APPLICATION WAS SUBMITTED.

- B) THE REAL ESTATE INFORMATION REFERENCED IN PARAGRAPH (A) ABOVE SHALL BE REVIEWED BY THE DISTRICT IN ACCORDANCE WITH THE DISTRICT'S REAL ESTATE REVIEW REQUIREMENTS DESCRIBED IN THE ATTACHED EXHIBIT 28A & 28B. THE EASEMENT SHOULD NOT BE RECORDED UNTIL SUCH APPROVAL IS RECEIVED.
- (C) THE PERMITTEE SHALL RECORD A CONSERVATION EASEMENT(S) OVER THE REAL PROPERTY DESIGNATED AS A CONSERVATION / PRESERVATION / MITIGATION AREA(S) ON ATTACHED EXHIBIT 25A 25E. THE EASEMENT SHALL BE GRANTED FREE OF ENCUMBRANCES OR INTERESTS WHICH THE DISTRICT DETERMINES ARE CONTRARY TO THE INTENT OF THE EASEMENT. THE CONSERVATION EASEMENT SHALL BE GRANTED TO THE DISTRICT USING THE APPROVED FORM ATTACHED HERETO AS EXHIBIT 26A 26D. ANY PROPOSED MODIFICATIONS TO THE APPROVED FORM MUST RECEIVE PRIOR WRITTEN CONSENT FROM THE DISTRICT.
- D) THE PERMITTEE SHALL RECORD THE CONSERVATION EASEMENT IN THE PUBLIC RECORDS WITHIN 14 DAYS OF RECEIVING THE DISTRICT'S APPROVAL OF THE REAL ESTATE INFORMATION. UPON RECORDATION, THE PERMITTEE SHALL FORWARD THE ORIGINAL RECORDED EASEMENT, AND TITLE INSURANCE POLICY, TO THE NATURAL RESOURCE MANAGEMENT POST PERMIT COMPLIANCE STAFF IN THE DISTRICT SERVICE CENTER WHERE THE APPLICATION WAS SUBMITTED.
- E) IN THE EVENT THE CONSERVATION EASEMENT REAL ESTATE INFORMATION REVEALS ENCUMBRANCES OR INTERESTS IN THE EASEMENT WHICH THE DISTRICT DETERMINES ARE CONTRARY TO THE INTENT OF THE EASEMENT, THE PERMITTEE SHALL BE REQUIRED TO PROVIDE RELEASE OR SUBORDINATION OF SUCH ENCUMBRANCES OR INTERESTS. IF SUCH ARE NOT OBTAINED, PERMITTEE SHALL BE REQUIRED TO APPLY FOR A MODIFICATION TO THE PERMIT FOR ALTERNATIVE ACCEPTABLE MITIGATION.
- 16. ACTIVITIES ASSOCIATED WITH IMPLEMENTATION OF THE WETLAND MITIGATION, MONITORING AND MAINTENANCE SHALL BE IN ACCORDANCE WITH THE FOLLOWING WORK SCHEDULE. ANY DEVIATION FROM THESE TIME FRAMES SHALL REQUIRE FORMAL SFWMD APPROVAL. SUCH REQUESTS MUST BE MADE IN WRITING AND SHALL INCLUDE (1) REASON FOR THE MODIFICATION; (2) PROPOSED START/FINISH DATES; AND (3) PROGRESS REPORT ON THE STATUS OF THE EXISTING MITIGATION EFFORTS.

COMPLETION DATE ACTIVITY

MARCH 30, 2000 EXCAVATION AND GRADING MITIGATION AREA APRIL 15, 2000 PLANTING MITIGATION AREA BASELINE MONITORING REPORT OCTOBER 30, 2001 SECOND MONITORING REPORT OCTOBER 30, 2001 THIRD MONITORING REPORT APRIL 30, 2002 FOURTH MONITORING REPORT OCTOBER 30, 2002 FIFTH MONITORING REPORT FIFTH MONITORING REPORT

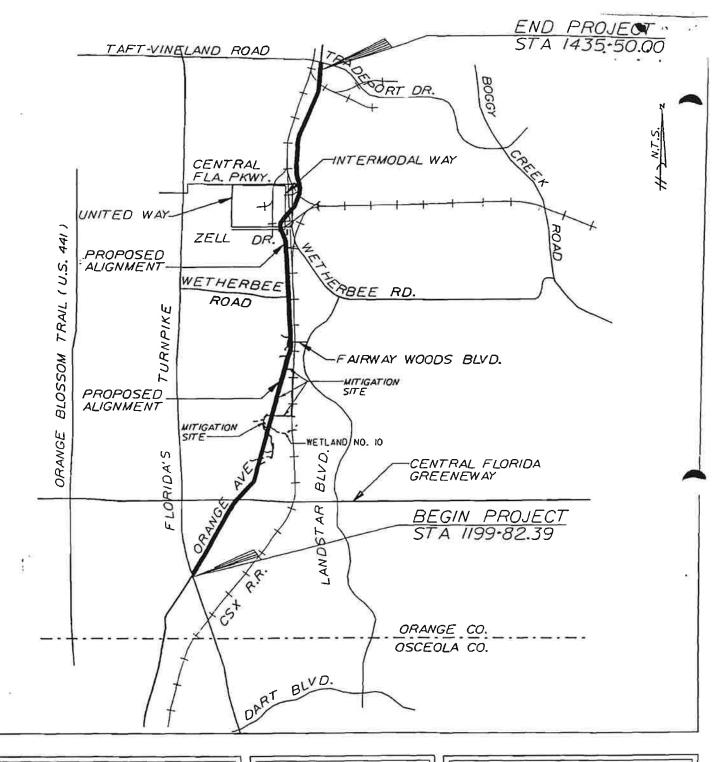
CANNED 06/13/2013 PL

APRIL 30, 2003 OCTOBER 30, 2003 APRIL 30, 2004 OCTOBER 30, 2004 APRIL 30, 2005 SIXTH MONITORING REPORT SEVENTH MONITORING REPORT EIGHTH MONITORING REPORT NINETH MONITORING REPORT 10TH AND FINAL MONITORING REPORT

17. AN EXOTIC AND NUISANCE MONITORING AND MAINTENANCE PROGRAM SHALL BE INSTITUTED IN ACCORDANCE WITH EXHIBIT 10A -10F FOR THE MITIGATION CREATION AND PRESERVATION AREAS UNTIL SUCCESS OF THE CREATION AREAS IS ACHIEVED. PRIOR TO SEMI-ANNUAL MONITORING EVENTS THE SITES WILL BE MAINTAINED TO ENSURE THAT EXOTIC AND NUISANCE SPECIES, SUCH AS CATTAILS, PRIMROSE WILLOW, CHINESE TALLOW, HEMP VINE, DO NOT EXCEED 10 PERCENT OF TOTAL COVER.

SUBSEQUENT TO RELEASE FROM SUCCESS CRITERIA MONITORING IT IS THE PERMITTEES RESPONSIBILITY IN PERPETUITY TO ENSURE THAT ALL PRESERVED AREAS SHALL BE KEPT FREE FROM EXOTIC VEGETATION (PRIMROSE WILLOW, CHINESE TALLOW, BRAZILLIAN PEPPER, ETC.) AND THAT OTHER NUISANCE SPECIES SHALL CONSTITUTE NO MORE THAN 10% OF TOTAL COVER.

18. EXHIBITS 2 THRU 23, INCLUDING DRAINAGE BASIN LAYOUT, POND DETAILS AND CONTROL STRUCTURE DETAILS AND EXHIBIT 24A - 24KK INCLUDES THE "MITIGATION, MONITORING AND MAINTENANCE PLAN" AND ATTACHMENTS (FINAL REVISION AUGUST 1997). THESE EXHIBITS ARE HELD IN THE PERMIT FILE AND ARE INCLUDED HEREIN BY REFERENCE.



MITIGATION PLAN LOCATION MAP

LOCATION: SEC 23.24 & 26 TWP 24S RNG 29E DATUM: NGVD (1929)

bowyersingleton & associates

INCORPORATED

CONSULTING ENGINEERING - LAND SURVETING 520 S. MACHOLIA AVENUE - ORLANDO FLORIDA 12801 401/841-5420 ORANGE AVENUE

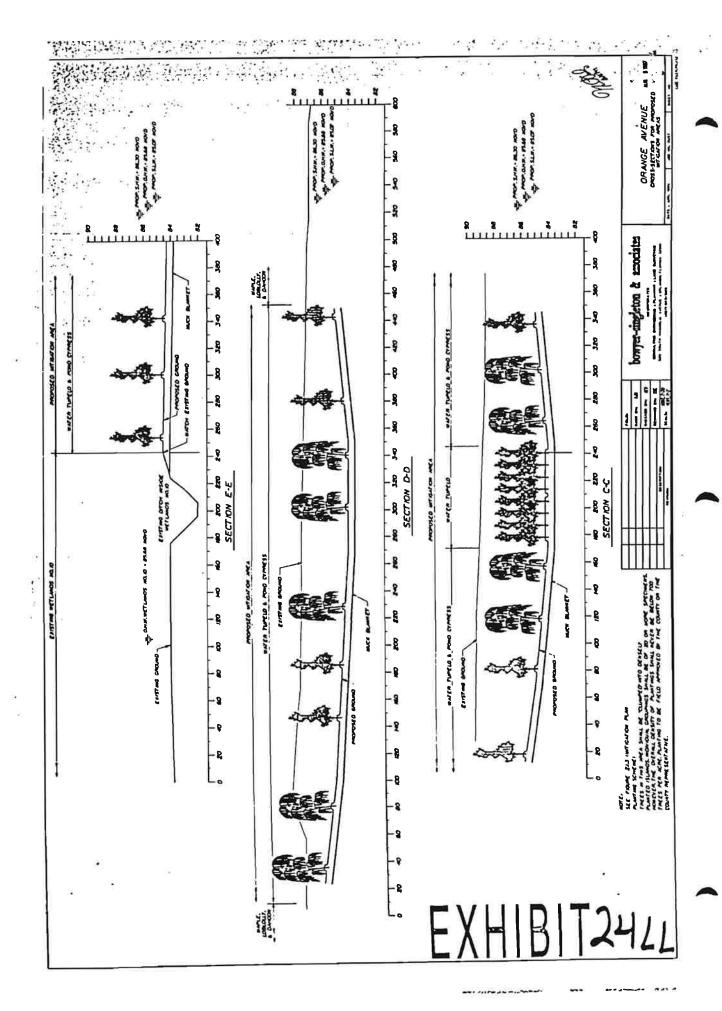
ORANGE COUNTY FLORIDA

CUO-J37 / 02-25-97

SHEET MI OF M9

EXHIBIT 1

EXHIBIT 2 THRU 23, 24A - 24KK ARE INCORPORATED INTO THIS STAFF REPORT BY REFERENCE AND ARE INCLUDED IN THE PERMIT FILE



SKETCH OF DESCRIPTION

THAT PART OF THE NORTHEAST 1/4 OF SECTION 26. TOWNSHIP 24 SOUTH. RANGE 29 EAST AND THE SOUTHEAST 1/4 OF SECTION 23. OWNSHIP 24 SOUTH. RANGE 29 EAST: BOTH IN ORANGE COUNTY, FLORIDA.

BEING DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHEAST CORNER OF THE SOUTHEAST 1/4 OF SAID SECTION 23. TOWNSHIP 24 SOUTH. RANGE 29 EAST: THENCE RUN NORTH 89°47'17" WEST. ALONG THE SOUTH LINE OF SAID SOUTHEAST 1/4. A DISTANCE OF 502.40 FEET FOR A POINT OF BEGINNING: THENCE RUN SOUTH 08°39'10" WEST. ALONG THE WESTERLY RIGHT OF WAY LINE OF THE PROPOSED ORANGE AVENUE RE-ALIGNMENT. A DISTANCE OF 311.94 FEET: THENCE RUN NORTH 81°20'50" WEST. A DISTANCE OF 5.00 FEET: THENCE CONTINUE SOUTH 08°39'10" WEST. ALONG SAID PROPOSED WESTERLY RIGHT OF WAY LINE. A DISTANCE OF 200.99 FEET TO THE WESTERLY RIGHT OF WAY LINE OF THE FORMER ORANGE AVENUE AS RECORDED IN STATE ROAD PLAT BOOK 2. PAGES 65-74 (C.R. 527) ALIGNMENT. :THENCE RUN ALONG THE FORMER ORANGE AVENUE RIGHT OF WAY THE FOLLOWING COURSES: NORTH 30°59'29" WEST, A DISTANCE OF 139.52 FEET; NORTH 32°54'47" WEST, A DISTANCE OF 199.81 FEET: NORTH 26°37'11" WEST. A DISTANCE OF 105.61 FEET: NORTH 19°04'58" WEST. A DISTANCE OF 88.67 FEET: NORTH 12°44'21" WEST. A DISTANCE OF 34.09 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE TO THE EAST. HAVING A RADIUS OF 749.20 FEET, THENCE RUN NORTHERLY ALONG THE ARC OF SAID CURVE. THROUGH A CENTRAL ANGLE OF 35°47'27" A DISTANCE OF 468.00 FEET TO THE POINT OF TANGENCY: THENCE RUN NORTH 23°03'06" EAST, A DISTANCE OF 201-19 FEET: THENCE DEPARTING SAID FORMER WESTERLY RIGHT OF WAY LINE. RUN NORTH 90°00'00" EAST. A DISTANCE OF 323.00 FEET TO THE WESTERLY RIGHT OF WAY LINE OF THE PROPOSED ORANGE AVENUE RE-ALIGNMENT: THENCE RUN SOUTH 08-39: CAMANEST. ALONG SAID WESTERLY RIGHT OF WAY LINE. A DISTANCE OF 643. ASDITIONAL TO THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 23 AND THE POINT OF BEGINNINB97

CONTAINING 7.681 ACRES. MORE OR LESS.

ORLANDO SERVICE CENTER

DENNIS L-DEAL P.S.M. LICENSE No. LS 3421

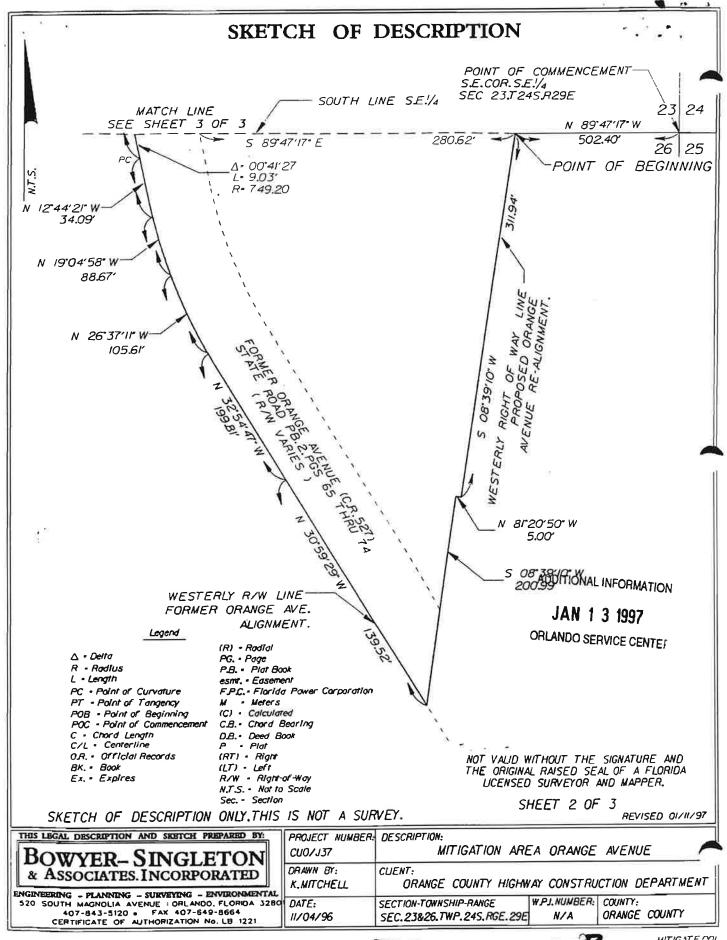
NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA UCENSED SURVEYOR AND MAPPER.

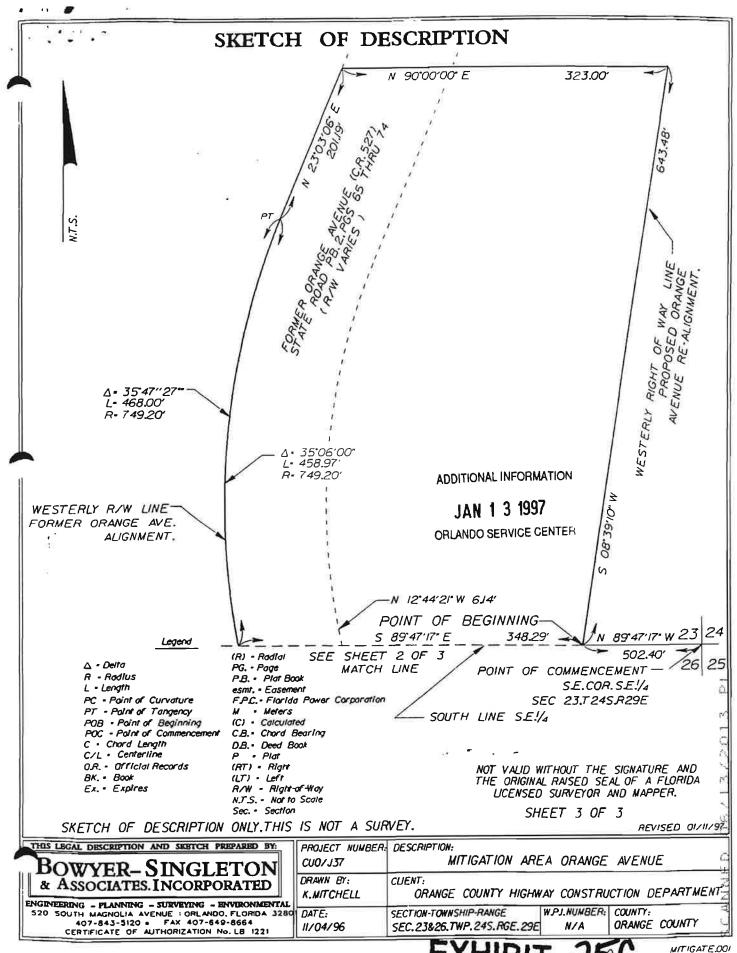
SKETCH OF DESCRIPTION ONLY. THIS IS NOT A SURVEY.

SHEET IOF 3

REVISED 01/11/97

BOWYER-SINGLETON	PROJECT NUMBER: CUO/J37	DESCRIPTION: MITIGATION ARE	A ORANGE	AVENUE
& ASSOCIATES. INCORPORATED	K.MITCHELL	CUENT: ORANGE COUNTY HIGHW	AY CONSTRU	CTION DEPARTMENT
ENGINEERING - PLANNING - SURVEYING - ENVIRONMENTAL 520 SOUTH MAGNOLIA AVENUE: OPENDA JUNE 107-843-5120 - FAX 407-649-8664 CERTIFICATE OF AUTHORIZATION No. LB 1221		SECTION-TOWNSHIP-RANGE SEC.23&26,TWP.24S.RGE.29E	W <i>PJ.NUMBER:</i> N/A	COUNTY: ORANGE COUNTY





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SKETCH OF DESCRIPTION

THAT PART OF THE SOUTHEAST 1/4 OF SECTION 23. TOWNSHIP 24 SOUTH, RANGE 29 EAST AND THE SOUTHWEST 1/4 OF SECTION 24. TOWNSHIP 24 SOUTH, RANGE 29 EAST, ORANGE COUNTY, FLORIDA.

BEING DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHEAST CORNER OF THE SOUTHEAST 1/4 OF SAID SECTION 23. TOWNSHIP 24 SOUTH, RANGE 29 EAST; THENCE RUN NORTH 89°47'17" WEST, ALONG THE SOUTH LINE OF SAID SOUTHEAST 1/4. A DISTANCE OF 249.66 FEET TO THE EASTERLY RIGHT OF WAY LINE OF THE PROPOSED ORANGE AVENUE: THENCE RUN NORTH 08°39'10" EAST, ALONG THE EASTERLY RIGHT OF WAY LINE OF THE PROPOSED ORANGE AVENUE FOR A DISTANCE OF 450.97 FEET; THENCE CONTINUE NORTH 08°52'49" EAST, ALONG THE PROPOSED EASTERLY RIGHT OF WAY LINE. A DISTANCE OF 700.16 FEET; THENCE RUN SOUTH 81°20'50" EAST. DISTANCE OF 15.00 FEET; THENCE CONTINUE NORTH 08°39'10" EAST, ALONG THE PROPOSED EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 514.18 FEET TO THE INTERSECTION WITH THE EAST LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 23; THENCE CONTINUE NORTH 08°39'10" EAST, ALONG SAID PROPOSED EASTERLY RIGHT OF WAY LINE. A DISTANCE OF 694.49 FEET: THENCE DEPARTING SAID PROPOSED EASTERLY RIGHT OF WAY LINE , RUN SOUTH 86°31'41" EAST . A DISTANCE OF 348.77 FEET TO THE OF A 15 FOOT EASEMENT GRANTED TO THE CENTRAL FLORIDA PIPELINE LINE CORPORATION, PER OFFICIAL RECORDS BOOK 486, PAGES 4271- 4274, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; THENCE RUN SOUTH 03°40'46" EAST, ALONG SAID WESTERLY EASEMENT LINE, A DISTANCE OF 2.316.82 FEET TO THE SOUTH LINE OF THE SOUTHWEST 1/4 OF SECTION 24. TOWNSHIP 24 SOUTH, RANGE 29 EAST, ORANGE COUNTY, FLORIDA; THENCE RUN SOUTH 89°56'58" WEST. ALONG SAID SOUTH LINE. A DISTANCE OF 602.15 FEET TO THE POINT OF BEGINNING.

CONTAINING 31.900 ACRES, MORE OR LESS.

ADDITIONAL INFORMATION

JAN 1 3 1997

ORLANDO SERVICE CENTE:

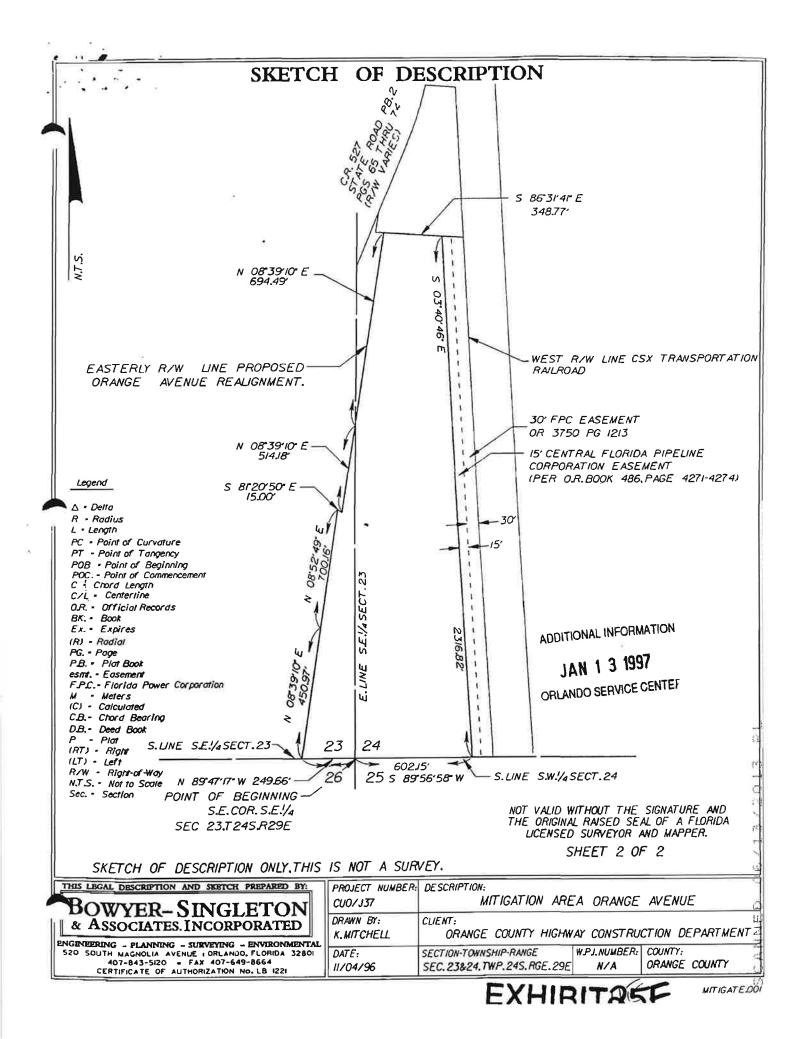
DENNIS'L DEAL P.S.M. LICENSE NO. LS 3421

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

SHEET 10F 2

SKETCH OF DESCRIPTION ONLY. THIS IS NOT A SURVEY.

BOWYER-SINGLETON	PROJECT NUMBER: CUO/J37	DESCRIPTION: MITIGATION AREA ORANGE AVENUE		
& ASSOCIATES. INCORPORATED	DRAWN BY: K.MITCHELL	CLIENT: ORANGE COUNTY HIGHW	AY CONSTRU	CTION DEPARTMENT
ENGINEERING - PLANNING - SURVEYING - ENVIRONMENTAL 520 SOUTH MAGNOLIA AVENUE I ORLANDO, FLORIDA 32801 407-843-5120 - FAX 407-649-8664 CERTIFICATE OF AUTHORIZATION NO. LB 1221	DATE:	SECTION-TOWNSHIP-RANGE SEC. 23824,TWP. 24S, RGE. 29E	W.P.J.NUMBER: N/A	COUNTY: ORANGE COUNTY



JAN 1 3 1997

DEED OF CONSERVATION EASEMENT

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ORLANDO SERVICE CENTEI

THIS DEED OF CONSERVATION EASEMENT is given this day of 1997, by Orange County
(address)
("Grantor") to the South Florida Water Management District ("Grantee"). As used herein, the term Grantor shall include any and all heirs, successors or assigns of the Grantor, and all subsequent owners of the "Property" (as hereinafter defined) and the term Grantee shall include any successor or assignee of Grantee.
WITNESSETH
WHEREAS, the Grantor is the owner of certain lands situated in Orange County, Florida, and more specifically described in Exhibit A attached hereto and incorporated herein by reference ("Property"); and
WHEREAS, the Grantor desires to construct (name of project) Orange Avenue ("Project") at a site in Orange County, which is subject to the regulatory jurisdiction of South Florida Water Management District ("District"); and
WHEREAS, District Permit No ("Permit") authorizes certain activities which affect surface waters in or of the State of Florida; and
WHEREAS, this Permit required that the Grantor preserve and/or mitigate wetlands under the District's jurisdiction; and
WHEREAS, the Grantor has developed and proposed as part of the permit conditions a conservation tract and maintenance buffer involving preservation of certain wetland and/or upland systems on the Property; and
WHEREAS, the Grantor, in consideration of the consent granted by the Permit, is agreeable to granting and securing to the Grantee a perpetual conservation easement as defined in Section 704.06, Florida Statutes (1993), over the Property.
NOW, THEREFORE, in consideration of the issuance of the Permit to construct and operate the permitted activity, and as an inducement to Grantee in issuing the Permit, together with other good and valuable consideration, the adequacy and receipt of which is hereby acknowledged, Grantor hereby grants, creates, and establishes a perpetual conservation easement for and in favor of the Grantee upon the Property which shall run with the land and be binding upon the Grantor, and shall remain in full force and effect forever.

To carry out this purpose, the following rights are conveyed to Grantee by this easement:

natural, vegetative, hydrologic, scenic, open, agricultural or wooded condition and to retain such areas as

It is the purpose of this conservation easement to retain land or water areas in their

The scope, nature, and character of this conservation easement shall be as follows:

suitable habitat for fish, plants or wildlife.

a. To enter upon the Property at reasonable times with any necessary equipment or vehicles to enforce the rights herein granted in a manner that will not unreasonably interfere with the use and quiet enjoyment of the Property by Grantor at the time of such entry; and



JAN 1 3 1997

ORLANDO SERVICE CENTER

b. To enjoin any activity on or use of the Property that is inconsistent with this conservation easement and to enforce the restoration of such areas or features of the Property that may be damaged by any inconsistent activity or use.

- 2. Except for restoration, creation, enhancement, maintenance and monitoring activities, or surface water management improvements, which are permitted or required by the Permit, the following activities are prohibited in or on the Property:
- a. Construction or placing of buildings, roads, signs, billboards or other advertising, utilities, or other structures on or above the ground;
- b. Dumping or placing of soil or other substance or material as landfill, or dumping or placing of trash, waste, or unsightly or offensive materials;
- c. Removal or destruction of trees, shrubs, or other vegetation, except for the removal of exotic vegetation in accordance with a District approved maintenance plan;
- d. Excavation, dredging, or removal of loam, peat, gravel, soil, rock, or other material substance in such manner as to affect the surface;
- e. Surface use except for purposes that permit the land or water area to remain in its natural condition:
- f. Activities detrimental to drainage, flood control, water conservation, erosion control, soil conservation, or fish and wildlife habitat preservation including, but not limited to, ditching, diking and fencing;
- g. Acts or uses detrimental to such aforementioned retention of land or water areas;
- h. Acts or uses within Grantor's regulatory jurisdiction which are detrimental to the preservation of any features or aspects of the Property having historical or archaeological significance.
- 3. Grantor reserves all rights as owner of the Property, including the right to engage in uses of the Property that are not prohibited herein and which are not inconsistent with any District rule, criteria, permit and the intent and purposes of this Conservation Easement.
- 4. No right of access by the general public to any portion of the Property is conveyed by this conservation easement.
- 5. Grantee shall not be responsible for any costs or liabilities related to the operation, upkeep or maintenance of the Property.
- 6. Grantor shall pay any and all real property taxes and assessments levied by competent authority on the Property.
- 7. Any costs incurred in enforcing, judicially or otherwise, the terms, provisions and restrictions of this conservation easement shall be borne by and recoverable against the non-prevailing party in such proceedings.
- 8. Enforcement o the terms, provisions and restrictions of this conservation easement shall be at the reasonable discretion of Grantee, and any forbearance on behalf of Grantee to exercise its rights hereunder in the event of any breach hereof by Grantor, shall not be deemed or construed to be a waiver of Grantee's rights hereunder.



- 9. Grantee will hold this conservation easement exclusively for conservation purposes. Grantee will not assign its rights and obligations under this conservation easement except to another organization qualified to hold such interests under the applicable state laws.
- 10. If any provision of this conservation easement or the application thereof to any person or circumstances is found to be invalid, the remainder of the provisions of this conservation easement shall not be affected thereby, as long as the purpose of the conservation easement is preserved.
- 11. All notices, consents, approvals or other communications hereunder shall be in writing and shall be deemed properly given if sent by United States certified mail, return receipt requested, addressed to the appropriate party or successor-in-interest.
- 12. The terms, conditions, restrictions and purpose of this conservation easement shall be inserted by Grantor in any subsequent deed or other legal instrument by which Grantor divests itself of any interest in the Property. Any future holder of the Grantor's interest in the Property shall be notified in writing by Grantor o this conservation easement.
- 13. This conservation easement may be amended, altered, released or revoked only by written agreement between the parties hereto or their heirs, assigns or successors-in-interest, which shall be filed in the public records in Orange County.

TO HAVE AND TO HOLD unto Grantee forever. The covenants, terms, conditions, restrictions and purpose imposed with this conservation easement shall be binding upon Grantor, and shall continue as a servitude running in perpetuity with the Property.

Grantor hereby covenants with said Grantee that Grantor is lawfully seized of said Property in fee simple; that the Property is free and clear of all encumbrances; that Grantor has good right and lawful authority to convey this conservation easement; and that it hereby fully warrants and defends the title to the conservation easement hereby conveyed against the lawful claims of all persons whomsoever.

·

IN WITNESS WHEREOF, has 1997.	hereunto set its authorized hand this day of,
Signed, sealed and delivered in our presence as witnesses:	A Florida corporation
Print Name:	By: Print Name: Title:
Print Name:	ADDITIONAL INFORMATION

JAN 1 3 1997

UNLANUO SERVICE CENTER



STATE OF FLORIDA

) ss:

COUNTY OF	
On this day of, 19 before personally appeared, personally appeared, personally appeared, of (corporation) Florida corporation, and acknowledged that he executed the sales.	fore me, the undersigned notary public, sonally known to me to be the person who as the (position), a
Florida corporation, and acknowledged that he executed the sa he was duly authorized to do so.	me on behalf of said corporation and that
IN WITNESS WHEREOF, I hereunto set my hand and	official seal.
NOTARY PUBLIC, STATE OF FLORIDA	
Print Name:	
My Commission Expires:	
South Florida Water Management District Legal Form Approved: Date:	ADDITIONAL INFORMATION JAN 1 3 1997 ORLANDO SERVICE CENTER

INSTRUCTION for SPECIAL CONDITIONS FOR PERMIT Conservation Easement

Within 90 days of Permit issuance the following items must be submitted to the South Florida Water Management District ("District") by and at the expense of the Permittee, for approval prior to conveying a conservation easement to the South Florida Water Management District:

- 1) Final Draft of the Conservation Easement in recordable form. South Florida Water Management District must approve the instrument of conveyance. Instrument must contain the legal description(s) and include legal and practical access.
- (2) Signed and Sealed Survey with legal description and plat (if property currently platted). These documents must be submitted to the District for review and approval along with the draft conveyance. A boundary or specific purpose survey of the property or the area within the conveyance must be prepared by a surveyor registered in the State of Florida. The survey must meet the requirements of the District and the minimum technical standards set forth by the Board of Professional Land Surveyors in Chapter 61 G 17-6, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes. The survey shall include mapping those easements, exceptions and encumbrances revealed in the title insurance policy. The survey boundary shall be submitted in standard digital format for inclusion in the District's GIS coverage.
- (3) Title Insurance. (a) Title Insurance Commitment. The permittee must submit to the District for review and approval a title insurance commitment issued by a title insurer approved by the District. The title insurance commitment should commit to issuance of a title insurance policy for the conveyance, listing the District as the beneficiary, in an amount equal to the appraised value of the interest being conveyed. As part of the title insurance commitment, the permittee shall provide complete legible copies of all supporting documentation to all Schedule B title exceptions.
 - (b) The District shall have 45 days from receipt of the title insurance commitment to examine same. If the District finds the title is defective or incompatible with the conveyance grant, the District shall notify the permittee in writing of specified defects. Any such liens, encumbrances, exceptions or qualifications which are contrary to the conveyance must be satisfied or discharged by the permittee/grantee prior to the District's acceptance of the conveyance. The permittee shall have 90 days from receipt of this notice to cure such defects, or grant an equivalent conservation easement. Failure to correct such defects or to convey to the District in a timely manner, will result in the surface water management permit being suspended until such defects are cured or until the permittee grants to the District an equivalent conveyance approved by the District. Any such substitute grant shall be governed by the title review and approval requirements set forth herein.

EXHIBIT

conserl2.eas September 20, 1995

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251 A

Four (4) copies of the above items shall be submitted to the Post-Permit Compliance staff in the District's Orlando Service Center located at 1756 Orlando Central Parkway, Orlando, FL 32809. All of the information listed above should be identified by the project name, application and permit number and collated into separate complete packages. Review of the submitted information cannot commence until all of the Real Estate information listed above is received. Upon approval of the title, permittee shall provide the SFWMD with four (4) certified copies of the recorded easement.

EXHIBIT

AD

INED OG713/2013 P

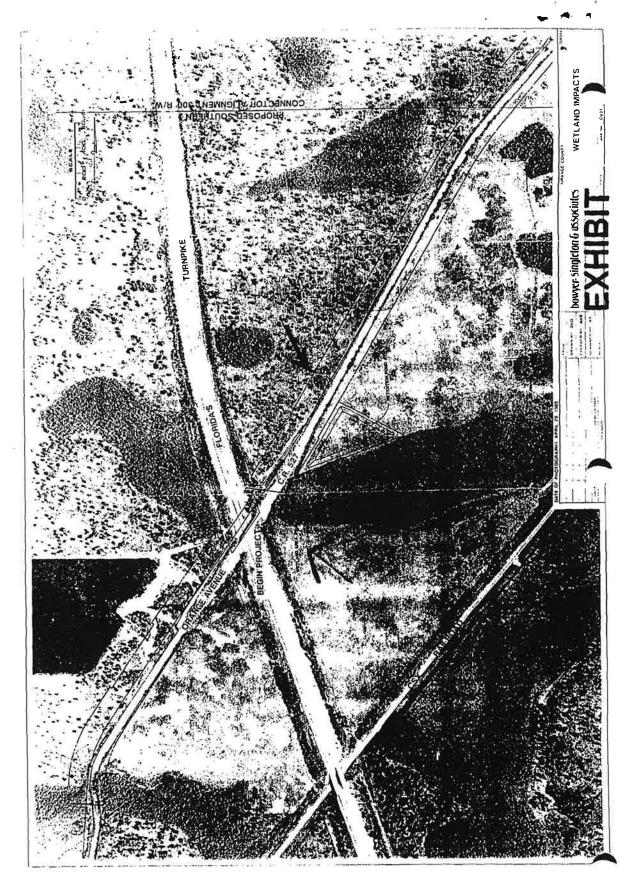


EXHIBIT 28A

EXHIBIT 28B

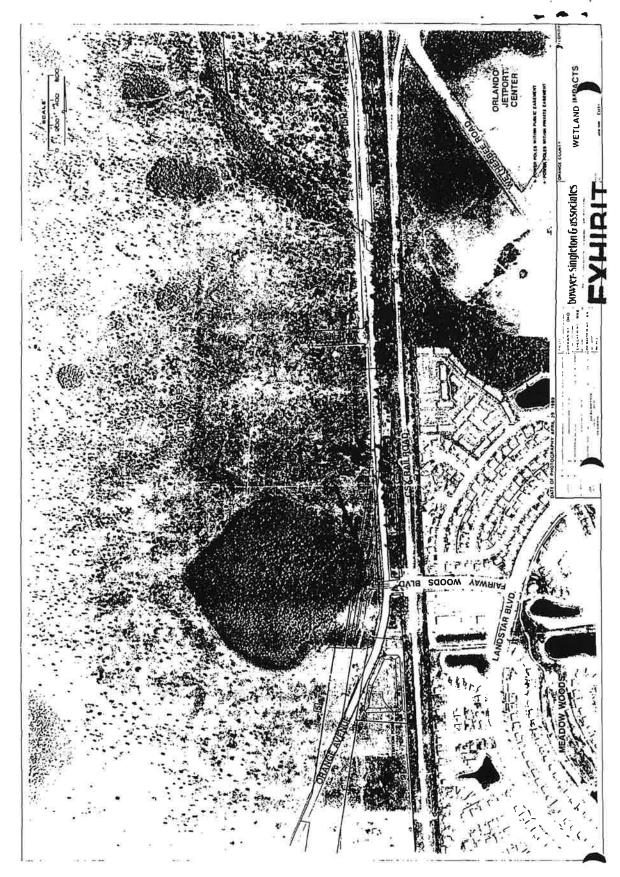


EXHIBIT 28C

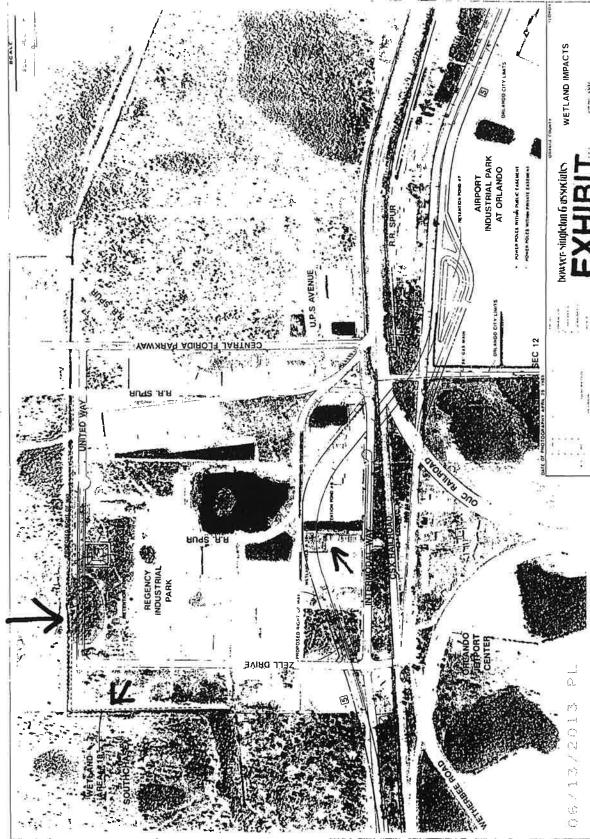


EXHIBIT 28D

STAFF REPORT DISTRIBUTION LIST

PROJECT: ORANGE AVE/SO CONNECTOR TO TAFT-VINELAND

APPLICATION NUMBER: 930430-3

INTERNAL DISTRIBUTION

Reviewer:

X Alan L. Leavens

X Susan C. Elfers

X Edward W. Yaun, P.E.

X Marc S. Ady

X E. Edmundson - ORL

X D. Gilpin-Hudson - UDP

X J. Golden - REG

X A. Lee - ORL

X R. Robbins - NRM

X A. Waterhouse - REG

Environmental PPC Reviewer

X Field Engineering

X Office of Counsel

GOVERNING BOARD MEMBERS

Mr. Mitchell W. Berger

Ms. Vera Carter

Mr. William Graham

Mr. William Hammond

Mr. Richard Machek

Mr. Michael Minton

Mr. Eugene K. Pettis

Ms. Miriam Singer

Mr. Frank Williamson, Jr.

DEPT. OF ENVIRONMENTAL PROTECTION

EXTERNAL DISTRIBUTION

X Applicant:

ORANGE COUNTY PUBLIC WORKS DIV.

X Applicant's Consultant:

BOWYER-SINGLETON & ASSOCS INC

X Engineer, County of: ORANGE

Engineer, City of:

Local Drainage District:

COUNTY

X Orange

-Dept of Environmental

Protection

-Public Utilities

BUILDING AND ZONING

OTHER

X Div of Recreation and Park - District 6

X F.G.F.W.F.C.

X Florida Audubon - Charles Lee

X Sherry Williams-Hooper, AICP

X Sierra Club - Central Florida Group

Appendix B Recorded Conservation Easement Orange Avenue Widening Mitigation

APPROVED
BY ORANGE COUNTY BOARD
OF COUNTY COMMISSIONERS
DEC 0 2 2003

THIS INSTRUMENT PREPARED BY:

Orange County Attorney's Office John P. Lowndes, Esq. 201 S. Rosalind Ave., 3rd Floor P.O. Box 1393 Orlando, Florida 32802-1393 (407) 836-7320

Instrument 326.1/334.1/338.1

INSTR 20030740028 OR BK 07244 PG 4456

MARTHA O. HAYNIE, COMPTROLLER ORANGE COUNTY, FL 12/30/2003 08:56:24 AM REC FEE 42.00

CONSERVATION EASEMENT

THIS CONSERVATION EASEMENT is given this 2 day of December 2003, by Orange County, a political subdivision of the State of Florida, having a mailing address at PO Box 1393, Orlando, Florida 32802-1393 ("Grantor") to the South Florida Water Management District ("Grantee"). As used herein, the term Grantor shall include any and all heirs, successors or assigns of the Grantor, and all subsequent owners of the "Property" (as hereinafter defined) and the term Grantee shall include any successor or assignee of Grantee.

WITNESSETH

WHEREAS, the Grantor is the owner of certain lands situated in Orange County, Florida, and more specifically described in Schedule attached hereto and incorporated herein by reference ("Property"); and "A"

WHEREAS, the Grantor desires to construct Orange Avenue ("Project"), a sixlane urban/rural roadway, at a site in Orange County, which is subject to the regulatory jurisdiction of South Florida Water Management District; and

WHEREAS, District Permit No. 48-00947-P ("Permit") authorizes certain activities which affect surface waters in or of the State of Florida; and

WHEREAS, this Permit required that the Grantor preserve and/or mitigate wetlands under the District's jurisdiction; and

WHEREAS, the Grantor has developed and proposed as part of the permit conditions a conservation tract and maintenance buffer involving preservation of certain wetland and/or upland systems on the Property; and

WHEREAS, the Grantor, in consideration of the consent granted by the Permit, is agreeable to granting and securing to the Grantee a perpetual conservation easement as defined in Section 704.06, Florida Statutes (2000), over the Property.

NOW, THEREFORE, in consideration of the issuance of the Permit to construct and operate the permitted activity, and as an inducement to Grantee in issuing the Permit, together with other good and valuable consideration, the adequacy and receipt of which is hereby acknowledged, Grantor hereby grants, creates, and establishes a perpetual conservation easement for and in favor of the Grantee upon the Property which shall run with the land and be binding upon the Grantor, and shall remain in full force and effect forever.

The scope, nature, and character of this conservation easement shall be as follows:

1. It is the purpose of this conservation easement to retain land or water areas in their natural, vegetative, hydrologic, scenic, open, agricultural or wooded condition and to retain such areas as suitable habitat for fish, plants or wildlife.

To carry out this purpose, the following rights are conveyed to Grantee by this easement:

- a. To enter upon the Property at reasonable times with any necessary equipment or vehicles to enforce the rights herein granted in a manner that will not unreasonably interfere with the use and quiet enjoyment of the Property by Grantor at the time of such entry; and
- b. To enjoin any activity on or use of the Property that is inconsistent with this conservation easement and to enforce the restoration of such areas or features of the Property that may be damaged by any inconsistent activity or use.
- 2. Except for restoration, creation, enhancement, maintenance and monitoring activities, or surface water management improvements, which are permitted or required by the Permit, the following activities are prohibited in or on the Property:
- a. Construction or placing of buildings, roads, signs, billboards or other advertising, utilities, or other structures on or above the ground;
- b. Dumping or placing of soil or other substance or material as landfill, or dumping or placing of trash, waste, or unsightly or offensive materials;
- c. Removal or destruction of trees, shrubs, or other vegetation, except for the removal of exotic vegetation in accordance with a District approved maintenance plan;

INSTR 20030740028 OR BK 07244 PG 4458

- d. Excavation, dredging, or removal of loam, peat, gravel, soil, rock, or other material substance in such manner as to affect the surface;
- e. Surface use except for purposes that permit the land or water area to remain predominantly in its natural condition;
- f. Activities detrimental to drainage, flood control, water conservation, erosion control, soil conservation, or fish and wildlife habitat preservation including, but not limited to, ditching, diking and fencing;
- g. Acts or uses detrimental to such aforementioned retention of land or water areas; and
- h. Acts or uses within Grantor's regulatory jurisdiction which are detrimental to the preservation of the structural integrity or physical appearance of sites and properties of historical, archaeological, or cultural significance.
- 3. Grantor reserves all rights as owner of the Property, including the right to engage in uses of the Property that are not prohibited herein and which are not inconsistent with any applicable District rule, criteria, permit and the intent and purposes of this Conservation Easement.
- 4. No right of access by the general public to any portion of the Property is conveyed by this conservation easement.
- 5. Subject to the limitations in Section 768.28, Florida Statutes (2000), Grantee shall not be responsible for any costs or liabilities related to the operation, upkeep or maintenance of the Property.
- 6. Grantor shall pay any and all real property taxes and assessments levied in accordance with applicable law or ordinance by competent authority on the Property.
- 7. Any costs incurred in enforcing, judicially or otherwise, the terms, provisions and restrictions of this conservation easement shall be borne by and recoverable against the non-prevailing party in such proceedings.
- 8. Enforcement of the terms, provisions and restrictions of this conservation easement shall be at the reasonable discretion of Grantee, and any forbearance on behalf of Grantee to exercise its rights hereunder in the event of any breach hereof by Grantor, shall not be deemed or construed to be a waiver of Grantee's rights hereunder.
- 9. Grantee will hold this conservation easement exclusively for conservation purposes. Grantee will not assign its rights and obligations under this conservation easement except to another organization qualified to hold such interests under the applicable state laws.

3

- 10. If any provision of this conservation easement or the application thereof to any person or circumstances is found to be invalid, the remainder of the provisions of this conservation easement shall not be affected thereby, as long as the purpose of the conservation easement is preserved.
- 11. All notices, consents, approvals or other communications hereunder shall be in writing and shall be deemed properly given if sent by United States certified mail, return receipt requested, addressed to the appropriate party or successor-in-interest.
- 12. The terms, conditions, restrictions and purpose of this conservation easement shall be inserted by Grantor in any subsequent deed or other legal instrument by which Grantor divests itself of any interest in the Property. Any future holder of the Grantor's interest in the Property shall be notified in writing by Grantor of this conservation easement.
- 13. This conservation easement may be amended, altered, released or revoked only by written agreement between the parties hereto or their heirs, assigns or successors-in-interest, which shall be recorded in the public records in Orange County.
- TO HAVE AND TO HOLD unto Grantee forever. The covenants, terms, conditions, restrictions and purpose imposed with this conservation easement shall be binding upon and inure to the benefit of the parties hereto and their respective personal representatives, heirs, successors and assigns, and shall continue as a servitude running in perpetuity with the Property.

IN WITNESS WHEREOF, the parties have hereunto set their authorized hands on the days and year(s) indicated below.



GRANTOR

ORANGE COUNTY, FLORIDA By: Board of County Commissioners

Richard T. Crotty

Orange County Chairman

Date: 12.2-03

ATTEST: Martha O. Haynie, County Comptroller As Clerk of the Board of County Commissioners

Deputy Clerk
Date: DEC 0 2 2003

4

SKETCH OF DESCRIPTION

SCHEDULE "A"

326/338 PARCEL :

PERPETUAL EASEMENT **ESTATE**:

CONSERVATION PURPOSE:

THAT PART OF THE NORTHEAST 1/4 OF SECTION 26. TOWNSHIP 24 SOUTH. RANGE 29 EAST AND THE SOUTHEAST 1/4 OF SECTION 23. TOWNSHIP 24 SOUTH. RANGE 29 EAST: BOTH IN ORANGE COUNTY. FLORIDA.

BEING DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHEAST CORNER OF THE SOUTHEAST 1/4 OF SAID SECTION 23. TOWNSHIP 24 SOUTH. RANGE 29 EAST: THENCE RUN NORTH 89*47'17 WEST. ALONG THE SOUTH LINE OF SAID SOUTHEAST 1/4. A DISTANCE OF 502.40 FEET FOR A POINT OF BEGINNING: THENCE RUN SOUTH 08°39'10" WEST. ALONG THE WESTERLY RIGHT OF WAY THE PROPOSED ORANGE AVENUE RE-ALIGNMENT. A DISTANCE OF 311.94 FEET: LINE OF THENCE RUN NORTH 81 20'50" WEST. A DISTANCE OF 5.00 FEET: THENCE CONTINUE SOUTH 08°39'10" WEST. ALONG SAID PROPOSED WESTERLY RIGHT OF WAY LINE. A DISTANCE 200-99 FEET TO THE WESTERLY RIGHT OF WAY LINE OF THE FORMER ORANGE AVENUE BOOK 2. PAGES 65-74 AS RECORDED IN STATE ROAD PLAT (C.R. 527) ALIGNMENT. * THENCE RUN ALONG THE FORMER ORANGE AVENUE RIGHT OF WAY THE FOLLOWING COURSES ** NORTH 30*59'29" WEST. A DISTANCE OF 139.52 FEET: NORTH 32*54'47" WEST. A DISTANCE OF 199-81 FEET: NORTH 26°37'11" WEST. A DISTANCE OF 105-61 FEET: NORTH 19°04'58" WEST. A DISTANCE OF 88.67 FEET : NORTH 12°44'21" WEST. A DISTANCE OF 34.09 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE TO THE EAST. HAVING A RADIUS OF 749.20 FEET. THENCE RUN NORTHERLY ALONG THE ARC OF SAID CURVE. THROUGH A CENTRAL ANGLE OF 35°47'27" A DISTANCE OF 468.00 FEET TO THE POINT OF TANGENCY: THENCE RUN NORTH 23"03'06" EAST. A DISTANCE OF 201.19 FEET: THENCE DEPARTING SAID FORMER WESTERLY RIGHT OF WAY LINE. RUN NORTH 90°00'00" EAST. A DISTANCE OF 323.00 FEET TO THE WESTERLY RIGHT OF WAY LINE OF THE PROPOSED ORANGE AVENUE RE-ALIGNMENT: THENCE RUN SOUTH 08*39'10" WEST. ALONG SAID WESTERLY RIGHT OF WAY LINE. A DISTANCE OF 643.48 FEET TO THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 23 AND THE POINT OF BEGINNING.

CONTAINING 7.681 ACRES. MORE OR LESS.

SKETCH OF DESCRIPTION ONLY. THIS IS NOT A SURVEY.

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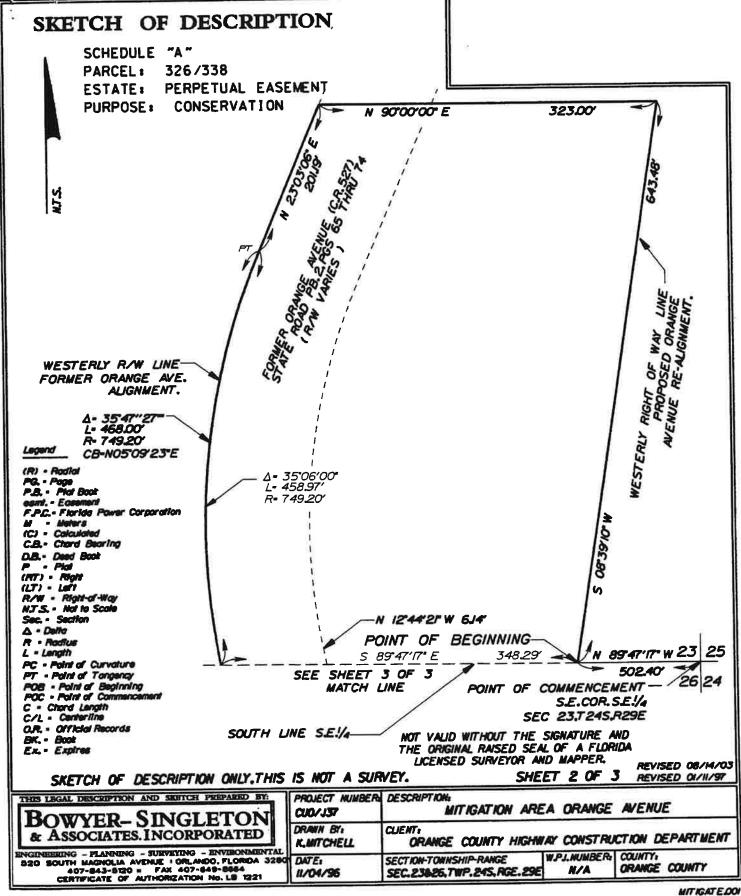
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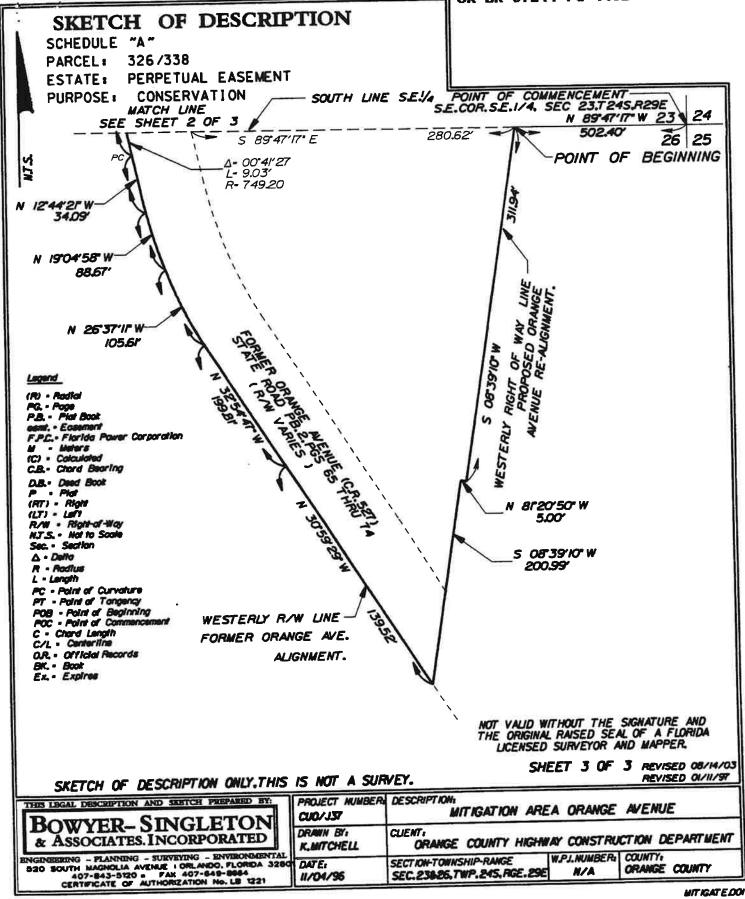
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& ASSOCIATES	5.1N	CORP	UKATE	ע

ENGINEERING - FLANNING - SURVEYING - ENVIRONMENTAL 520 SOUTH MAGNOLIA AVENUE : ORLANDO, FLORIDA 328 407-843-5120 = FAX 407-849-8884 CERTIFICATE OF AUTHORIZATION No. LB 1221

	PROJECT NUMBER	DESCRIPTION: MITIGATION ARE	A ORANGE	AVENUE
	DRAWN BY:	CLIENT: ORANGE COUNTY HIGHW		
80	DATE: 11/04/96	SECTION-TOWNSHIP-RANGE SEC.23826,TWP.245,RGE.29E	W.P.J.NUMBER: N/A	COUNTY: ORANGE COUNTY



INSTR 20030740028 OR BK 07244 PG 4462



SKETCH OF DESCRIPTION

SCHEDULE "A" PARCEL: 334

ESTATE: PERPETUAL EASEMENT

PURPOSE: CONSERVATION

THAT PART OF THE SOUTHEAST 1/4 OF SECTION 23, TOWNSHIP 24 SOUTH, RANGE 29 EAST AND THE SOUTHWEST 1/4 OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 29 EAST, ORANGE COUNTY, FLORIDA.

BEING DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHEAST CORNER OF THE SOUTHEAST 1/4 OF SAID SECTION 23, TOWNSHIP 24 SOUTH, RANGE 29 EAST; THENCE RUN NORTH 89°47'17" WEST, ALONG THE SOUTH LINE OF SAID SOUTHEAST 1/4, A DISTANCE OF 249.66 FEET TO THE EASTERLY RIGHT OF WAY LINE OF THE PROPOSED ORANGE AVENUE; THENCE RUN NORTH 08°39'10" EAST, ALONG THE EASTERLY RIGHT OF WAY LINE OF THE PROPOSED ORANGE AVENUE FOR A DISTANCE OF 450.97 FEET; THENCE CONTINUE NORTH 09°52'49" EAST, ALONG THE PROPOSED EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 700.16 FEET; THENCE RUN NORTH 81°20'50" WEST, A DISTANCE OF 15.00 FEET; THENCE CONTINUE NORTH 08°39'10" EAST, ALONG THE PROPOSED EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 514.18 FEET TO THE INTERSECTION WITH THE EAST LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 23; THENCE CONTINUE NORTH 08°39'10" EAST, ALONG SAID PROPOSED EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 694.49 FEET; THENCE DEPARTING SAID PROPOSED EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 694.49 FEET; THENCE DEPARTING SAID PROPOSED EASTERLY RIGHT OF WAY LINE, RUN SOUTH 86°31'41" EAST, A DISTANCE OF 348.77 FEET TO THE WEST LINE OF A 15 FOOT EASEMENT GRANTED TO THE CENTRAL FLORIDA PIPELINE CORPORATION, PER OFFICIAL RECORDS BOOK 486, PAGES 4271- 4274, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; THENCE RUN SOUTH 03°40'46" EAST, ALONG SAID WESTERLY EASEMENT LINE, A DISTANCE OF 2,316.82 FEET TO THE SOUTH LINE OF THE SOUTHWEST 1/4 OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 29 EAST, ORANGE COUNTY, FLORIDA; THENCE RUN SOUTH 89°56'58" WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 602.15 FEET TO THE POINT OF BEGINNING.

CONTAINING 31.900 ACRES, MORE OR LESS.

DENNIS L DEAL PEM UCENSE NO 13 321

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SHEET 1 OF 2

SKETCH OF DESCRIPTION ONLY, THIS IS NOT A SURVEY.

REVISED 08/14/03

1110	PROJECT NUMBER: CUO/J37	DESCRIPTION: MITIGATION AREA ORANGE AVENUE
& ASSOCIATES.INCORPORATED	DRAWN BY: K.MITCHELL	CUENT: ORANGE COUNTY HIGHWAY CONSTRUCTION DEPARTMENT
ENGINEERING - PLANNING - SURVEYING - ENVIRONMENTAL 520 SOUTH MAGNOLIA AVENUE: ORLANDO, FLORIDA 3280 407-843-5120 = FAX 407-649-8664 CERTIFICATE OF AUTHORIZATION No. LB 1221	LIMIE:	SECTION-TOWNSHIP-RANGE W.P.J.NUMBER: COUNTY: SEC.23&24,TWP.24S,RGE.29E N/A ORANGE COUNTY

MITIGATE DOI

_____INSTR 20030740028 OR BK 07244 PG 4464 LAST PAGE SKETCH OF DESCRIPTION of SCHEDULE "A" PARCEL: 334 PERPETUAL EASEMENT ESTATE: PURPOSE: CONSERVATION S 8631'41" E 348.77' N 08°39'10" E 694.49 8 46 WEST RIW LINE CSX TRANSPORTATION RAILROAD EASTERLY R/W LINE PROPOSED-ORANGE AVENUE RE-ALIGNMENT. 30' FPC EASEMENT OR 3750 PG 1213 N 08'39'10" E 5/4/8 15' CENTRAL FLORIDA PIPELINE CORPORATION EASEMENT (PER O.R. BOOK 486, PAGE 4271-4274) Legend N 8120'50'W 15.00 △ - Delta 30 R - Radius L - Length PC - Point of Curvature PT - Point of Tangency POB - Point of Beginning POC - Point of Commencement C - Chord Length C/L = Centerline O.R. - Official Records BK. - Book Ex. - Expires (R) = Radial PG. - Page P.B. - Plat Book esmt. - Easement F.P.C. - Florida Power Corporation - Meters (C) - Calculated C.B. = Chord Bearing D.B. - Deed Book - Plat 24 23 S.LINE S.E.!/4SECT.23 (RT) - Right (LT) - Left 602/5' - S.LINE S.W. 1/4 SECT. 24 R/W - Right-of-Way 25 s 89'56'58" W N 89°47′17" W 249.66' -N.T.S. - Not to Scale POINT OF BEGINNING Sec. . Section NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA S.E.COR.S.E.1/4 SEC 23,T24S,R29E UCENSED SURVEYOR AND MAPPER. SHEET 2 OF 2 REVISED 08/14/03 SKETCH OF DESCRIPTION ONLY, THIS IS NOT A SURVEY. THIS LEGAL DESCRIPTION AND SERTCH PREPARED BY: PROJECT NUMBER: DESCRIPTION: MITIGATION AREA ORANGE AVENUE CUO/J37 BOWYER-SINGLETON DRAWN BY: CUENT: & ASSOCIATES. INCORPORATED ORANGE COUNTY HIGHWAY CONSTRUCTION DEPARTMENT K.MITCHELL ENGINEERING - PIANNING - SUEVEYING - ENVIRONMENTAL
520 SOUTH MAGNOLIA AVENUE : ORLANDO, FLORIDA 32801
407-843-5120 = FAX 407-649-8664
CERTIFICATE OF AUTHORIZATION No. LB 1221 W.P.J. NUMBER: COUNTY: SECTION-TOWNSHIP-RANGE DATE: ORANGE COUNTY N/A SEC.23&24,TWP.24S,RGE.29E 11/04/96 MITIGATE DOI

J. DAVID THOMAS, P.E.

6296 Park Lane North #13 Park City, Utah 84098

ACCOMPLISHMENTS

- Served as a corporate officer for three Fortune 500 companies.
- Delivered services and managed projects in North and South America, North Africa, South Africa, Asia and Europe
- Built and directed global environment, health and safety (EHS) management and compliance programs, with over 50 successful ISO 14001/EMAS certifications
- Directed remediation activities at over 40 Superfund and RCRA Corrective Action sites
- Supervised or provided direct, on-site production safety for over 200 feature films and television series including numerous large-scale action-oriented motion pictures
- Designed, developed and implemented global Corporate Social Responsibility and Sustainable Development programs which have been recognized by rating agencies including Dow Jones International Sustainability Index, Eithibel Sustainability Index, FTSE4Good and Vigeo "Best in Class"
- Led due diligence and post transaction operations/facilities integration for transactions valued at over \$65 billion
- Managed an international real estate portfolio of over 15 million ft² and infrastructure/development projects with individual budgets of up to \$200 million

HISTORY

2015 Independent Consultant, Park City, Utah and Annapolis, Maryland

Independent consultant providing EHS Management, Production Safety, Merger and Acquisition, Remediation and Sustainability consulting services to a range of clients, including Viacom Corporation, Comcast/Universal Parks and Resorts, Fox Studios, DreamWorks, MGM, Studio 8, Netflix, Hulu, Apple, 101 Studios, Skydance Media and Annapurna Pictures, among others.

2012 VIACOM CORPORATION/PARAMOUNT PICTURES CORPORATION, New York, New York

- to Major Television and Entertainment Conglomerate/Hollywood motion picture studio and filmed
- 2015 entertainment company (25,000 employees worldwide).

Vice President, Environmental, Health and Safety Affairs and Production Safety

• Responsible for re-organization and revitalization of corporate EHS programs, including developing and implementing "best-in-class" policies and programs, hiring, training and directing staff for motion picture productions and Viacom Media Network channels, including Nickelodeon, CMT, MTV, VH1, Spike, Logo, BET, TVLand. Responsible for supervising and directing production safety support to over 85 television productions and an average of 15 motion pictures annually.

2011 ENVIRON INTERNATIONAL CORPORATION, Princeton, New Jersey

- to Considered to be one of the best-regarded and most sophisticated EHS consulting firms in the world
- having 40 offices, employing over 300 professionals and with revenues of over \$350 million (Environ is now a division of Ramboll Environmental).

Principal/Partner

- Provided technical program management, business development, financial management for the Firm.
- Directed remediation activities at 8 Superfund and RCRA Corrective Action sites
- Served as an expert witness in environmental litigation.
- Led firm's entertainment consulting business practice.

Joined Seagram in 1994. In 1996 Seagram acquired Universal Studios (then known as MCA INC); Vivendi acquired Seagram, including the Universal Studios subsidiary, in 2002.

2004 VIVENDI, S.A., New York, New York and Paris, France

- to French telecommunications and media conglomerate which included Activision Blizzard (video games),
- 2011 Canal+ and StudioCanal (television, movie production), GVT (Brazilian telecom company), Maroc Telecom Group, SFR (French telecom company) and Universal Music Group (40,000 employees worldwide).

Vice President, Environmental Affairs, Health and Safety; Office of the Secrétariat general

Corporate officer and Member of the Office of the Secrétariat general in Paris comprised of

J. DAVID THOMAS, P.E. Page Two

HISTORY Cont:

- three executives: General Counsel and Corporate Secretary, Chief Legal Officer and myself.
- Overall responsibility for directing worldwide EHS management and compliance programs, Corporate Social Responsibility and Sustainable Development programs.
- Initiated supply chain sustainability program for the Group.
- Directed Risk Management program for North America.
- Directed preparation of the annual *Document of Reference* (French legal document on corporate responsibility/sustainability, part of Company's annual financial statements and annual report to shareholders). As member of the Company Risk Committee, identified and prepared response plans for various "risks" to on-going and planned future operations and businesses.
- Provided production safety direction and support for over 30 television and motion picture productions annually.
- Led disposition of music group manufacturing assets and out-sourcing of warehousing operations.
- Established Company's Sustainability Committee and "Green Teams" at various Company locations.

1996 UNIVERSAL STUDIOS, INC., Los Angeles, California

to Major television, motion picture and theme park operator (15,000 employees worldwide).

2004 Vice President, Corporate Facilities, Health, Safety and Environment

- Corporate Officer responsible for directing worldwide EHS management programs, including
 recruiting and supervising EHS staff, and presenting corporation positions to legislative and regulatory
 bodies, directing waste minimization and environmental accountability programs and infrastructure
 planning, development and implementation, and negotiation and procurement of utility services.
- Directed the largest private remediation project in the Southeast US, earning an "Innovative Remediation" award from US EPA.
- Negotiated remediation standards and program with the governments of the City of Osaka and Japan in connection with the development of a theme park in Osaka.
- Coordinated utilities, infrastructure and environmental systems design for Universal Studios Japan theme
 nark
- Coordinated utilities, infrastructure and environmental systems master planning for expansion of the Universal Port Adventura theme park in Spain.
- Obtained first EMAS certification granted to a theme park for Company's Port Aventura park in Spain
- Restructured infrastructure contracts for electrical service, natural gas, potable water, sanitary sewer discharge and reclaimed water at various company locations, with over \$12 million in annual aggregate annual savings.
- Developed and implemented production safety program moving from extensive use of consultants to expert, in-house staff improving program consistency, reducing claims and reducing overall costs by 20%
- Implemented aggressive return to work and restricted work programs that resulted in over 25% reduction in Workers Compensation program expenses.
- Introduced the Safety Passport training system, reducing health and safety training costs by 15%
- Rationalized and integrated multi-national manufacturing and production facilities associated with the \$10 billion acquisition of the Polygram music and film businesses.

1994 SEAGRAM COMPANY LTD., New York, New York

to International beverage conglomerate (6,000 employees worldwide).

1996 Director, Environmental Affairs, Occupational Health and Safety

- Established initial Corporate EHS programs.
- Launched startup of the first foreign-owned orange juice manufacturing plant in China.
- Directed environmental due diligence of Looza, N.V, and MCA INC acquisitions.
- Oversight of design and construction of upgrade to five million gallon/day wastewater treatment facility in Florida.
- Initiated standardized safety training program resulting in 40% reduction in training expenses.
- Directed remediation activities at sites in the United Kingdom, Belgium and Germany
- Directed start-up of first international orange juice manufacturing plant in China

J. DAVID THOMAS, P.E. Page Three

HISTORY

Cont:

Prior ENVIRON CORPORATION, Arlington, VA

to National EHS consulting firm

1994 Principal/Partner

- · Provided technical program management, business development, financial management for Firm.
- Served as an expert witness in environmental litigation.
- Directed remediation activities at 35 Superfund and RCRA Corrective Action sites
- Started the Firm's airport EHS practice.

RADIAN CORPORATION, Reston, VA

National EHS consulting firm.

Practice Leader and earlier Senior Program Manager

- Directed program management, client relations, technical oversight, and business development.
- Managed all EHS regulatory compliance services for clients in the Eastern United States.
- Led business development efforts resulting in establishment of a Rochester, NY office.

TENNESSEE SOLID WASTE DISPOSAL CONTROL BOARD, Nashville, TN

(State Regulatory Oversight Authority)

Chairman appointed by Governor/Confirmed by State Senate

• Chaired eleven-member Board responsible for promulgating state environmental regulations, acting as the appellate body for state environmental agency actions and imposing environmental fines and penalties levied by the State.

EASTMAN KODAK COMPANY, Washington, DC and various other locations Manager - Energy and Environmental Affairs

 Managed federal legislative and regulatory government relations activities related to energy, pharmaceutical, agriculture, biotechnology, and environmental affairs.

Senior Project Engineer Tennessee Eastman Division, Kingsport, TN

Served as design and project engineer for various infrastructure projects, including all
pollution control facilities for green field chemical plant in Batesville, Arkansas.

EDUCATION

M.E. Environmental Engineering, Kodak Scholar Program, Cornell University summa cum laude B.S.C.E. Civil Engineering, Virginia Polytechnic Institute and State University with distinction

LICENSES

PE Registered Professional Engineer in Arkansas, South Carolina and Tennessee (Inactive registration in Arkansas, retired status in Tennessee)

OTHER

Original member of the Department of Defense's Defense and the Environment Initiative Advisory Panel and the EPA Region IV Hazardous Waste Roundtable;

Former Board Member, California Parks and Resorts Association;

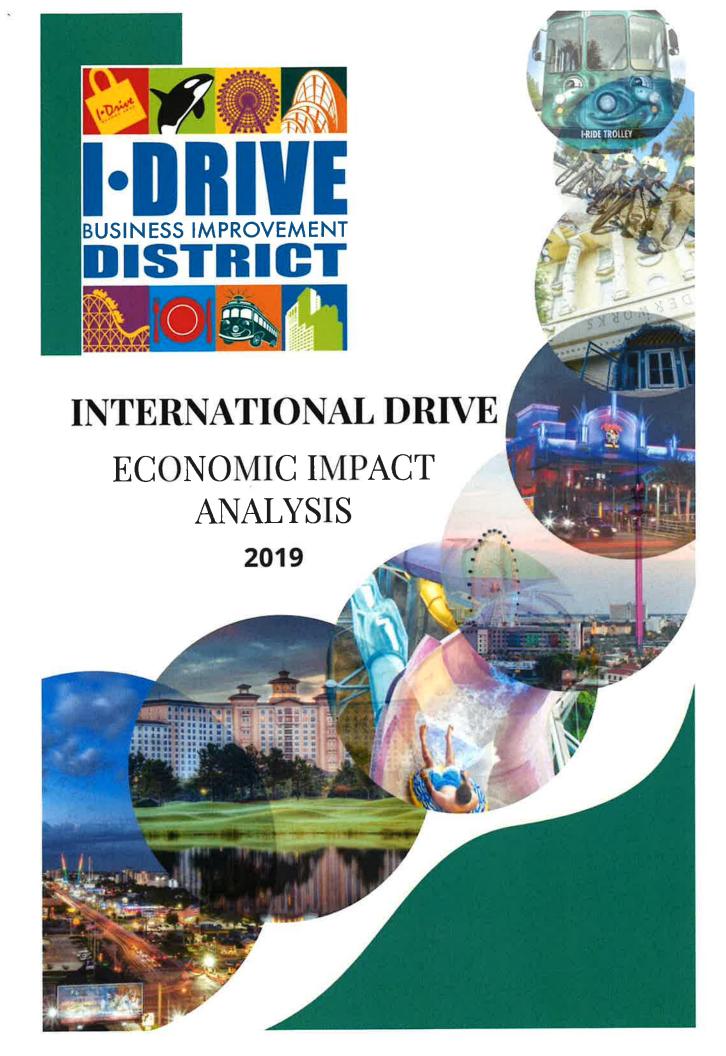
Former Board Member, New York Sustainability Roundtable;

Taught/lectured at over 25 courses in EHS management, CSR, sustainable development, legislative and regulatory advocacy, remediation and regulatory compliance;

Testified as an expert before Congress, the California Public Utilities Commission and various state legislative committees in California and other states.

HOBBIES

Sailing and snow skiing enthusiast



ABOUT THE DISTRICT

The International Drive Master Transit and Improvement District was created on November 10, 1992 as a Business Improvement District (BID) under a public-private partnership between the I-Drive business community, Orange County Government and the City of Orlando.

The I-Drive Business Improvement District was created to provide services such as transportation, capital improvements, public safety, marketing, promotions, clean teams, streetscape enhancements and representation to state and local governments. The BID contributes to the current and future economic development of the International Drive Resort Area!

MEET OUR LEADERS

The International Drive Business Improvement District Governing Board

The Board is comprised of three members of local government: two members of Orange County and one member from the City of Orlando. Current Board Members are:



Chairperson: The Honorable Jerry Demings Orange County Mayor



Orange County: Commissioner Victoria Siplin Orange County - District 6



City of Orlando: Commissioner Bakari F. Burns City of Orlando - District 6

The International Drive Business Improvement District Advisory Board

The District is served by a five-member Advisory Board: three members are appointed by Orange County and two are appointed by the City of Orlando. Members must be a District property owner, an owner-appointed representative, or an employee of a property owner.

Chairperson



Ms. Sibille Pritchard Vice President

Other Members



Mr. Harris Rosen President Orlando Plaza Partners Rosen Hotels & Resorts



Mr. Joshua Wallack **Chief Operating Officer** Mango's Tropical Cafe



Mr. Russ Dagon Senior Vice President of Resort Development Universal Orlando Creative



Mr. Marco Manzie President Paramount Hospitality Group

District Staff



Ms. Luann Brooks **Executive Director I-Drive Business** Improvement District







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HIGHLIGHTS...2019

- 15.3 million overnight & day visitors... (up from 14.8 million visitors in 2018)
- Total assessed value \$14.7 BILLION... (up from \$13.6 billion in 2018)
- Property taxes were \$228 million... (up from \$210.7 million in 2018)
- Sales tax collected \$530.1 million
- TDT collections were \$126.4 million
- Visitors spent \$8.2 billion
- **75,000+** full, part-time & seasonal jobs
- 132 properties 53,015 individual accommodations (represents 42% of the tri-county region)
- 1,800 individual businesses
- 69.7 million square-feet of Commercial Space
- Home to 22,357 residents housed in 12,742 units
- Home to the **2nd** largest convention center in the country
- Home to UCF Rosen College of Hospitality Management the largest facility of its kind ever built for hospitality management education and is ranked in the Top 5 in the world



Orange County Convention Center



Hotel Front Desk Associate



The Courtney at Universal Boulevard Apartments

EXECUTIVE SUMMARY

The International Drive Resort Area is one of the most visited destinations in the world and an important economic hub for Orange County, the City of Orlando, and the Metro Orlando region. The purpose of this project was to analyze the area's economic impact by delving into its current conditions, assessing the actual number of people visiting the area, and calculating its overall influence on the economy. This document is divided into three main parts: existing conditions, visitation and fiscal analysis profile, and economic impact model simulations.

The existing conditions analysis found that the resort area has a diversity of commercial, institutional and residential uses within its boundaries. These include over 69.7 million square feet of commercial space, 132 accommodation properties, the nation's second largest convention center, and a major educational institution. International Drive is also home to 1,800 businesses that employ over 75,000 people. These include the office headquarters of three national/international companies: Marriott Vacations Worldwide, SeaWorld Parks and Entertainment, and Wyndham Vacation Ownership. Long thought as only a job center, International Drive is also home to more than 22,000 housed in over 12,500 housing units. Finally, about 25% of the resort area's land is still vacant.

Most, if not all, of International Drive's economic activity is the result of tourists visiting the area. This study estimates that 15.3 million people visited the resort area in 2019 based on regional visitation and hotel occupancy data. Most of these visitors stayed overnight (64%) and the vast majority of them came for leisure purposes.

International Drive visitors spent about \$8.2 billion on transportation, lodging, food, entertainment and shopping in 2019. This visitor spending has an economic ripple effect on both Orange County and Metro Orlando's economy.

This positive economic impact will continue as there are more than 50 new projects scheduled to be completed within the next six years. They represent almost \$2 billion in new investment coming to Orange County. These construction costs were used to determine the economic impact of these projects to the county and regional economies. According to REMI, these new development projects will add more than 3,800 jobs in Orange County. They will also generate about \$525 million in sales and \$187 million in personal income. They will also add close to \$308 million to the county's gross regional product. Metro Orlando would add more than 4,400 positions, \$604 million in sales, and \$283 million in personal income. This new construction will also increase Metro Orlando's gross regional product by more than \$350 million per year.

INTRODUCTION

Since the opening of Disney World in 1971, tourism has become the most important and largest generator of jobs in the Metro Orlando region. The high economic impact of this industry can be seen not only in the high number of people employed by the hotels and theme parks, but it also results in positions and investment in other sectors of the economy such as retail, construction, transportation, and professional services. The growth in the number of visitors, 75 million in 2019, and recent major investments by the public and private sector should help to keep the vibrancy in this industry.

One of the most visited tourist corridors in Metro Orlando is the International Drive Resort area (I-Drive). Home to the nation's second largest convention center and six of the world's most visited theme parks, I-Drive is one of the country's premiere tourist activity centers. Recent developments will help to solidify the corridor's competitiveness. The Orange County Convention Center just completed a new campus master plan that will help to upgrade its facilities. Orange County Government in partnership with the private sector has developed a new Strategic Vision Plan for the section of International Drive between Sand Lake Road and the Beachline Expressway. The strategies developed through this plan will help to create a more walkable and cohesive destination. These and other activities have renewed interest in redeveloping old sites into new attractions all around the district. These new investments bode well for the future of the I-Drive resort area.

Despite all the investment and careful planning put on the I-Drive area through the years, there have never been any specific efforts to calculate the economic impact that this area has on both Orange County and Metro Orlando. This study is the first attempt to do just that. The International Drive Resort Area Economic Impact Analysis is divided into three sections. The existing conditions analysis provides an overview of the area's land use, infrastructure, demographic, and economic characteristics. This is followed by a tourism activity and fiscal profile that summarizes business and revenue data collected by government and private organizations. Finally, the East Central Florida Regional Planning Council (ECFRPC) used the REMI Policy Insight model to calculate the economic value of I-Drive to the region and quantify the impact of the proposed future investments.

Brief History of the I-Drive Resort Area

In 1965, Walt Disney announced that it will build a new theme park south of Orlando. Around this time, Orlando attorney and developer Finley Hamilton paid \$90,000 for ten acres of vacant land north of Sand Lake Road and east of I-4 where he built the Hilton Inn South. The actual International Drive was not built until 1972, when Hamilton and RF Raidle's Major realty paved an 1 1/2 mile stretch connecting Kirkman and Sand Lake roads. It was named International Drive because it "sounded important". The 1970s brought other important events to the resort area including the opening of the Sea World and Wet'n Wild theme parks and the approval from Orange County voters to use a 2% hotel room tax to build the Orange County Convention Center.



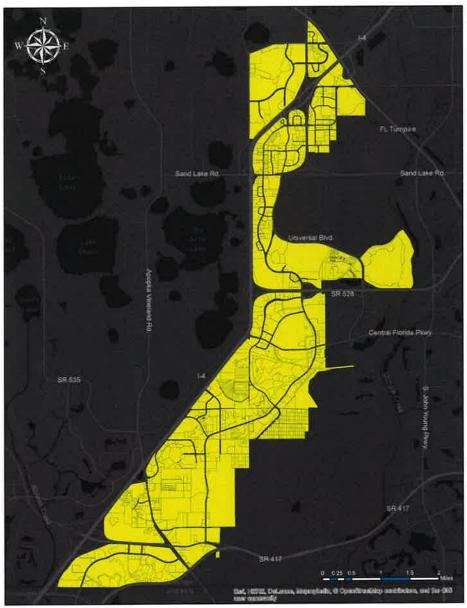
International Drive- 1978
Source: International Drive Improvement District

The convention center was inaugurated in 1983, and its subsequent expansions have spurred the development of multiple hotels and commercial projects along the resort area. One of the most significant investments was the opening of the Universal Studios theme parks in the 1990s. Today the I-Drive Resort area is one of the most visited tourist corridors in the world. More detailed information about the history of International Drive can be found at the I-Drive Improvement District website at: http://www.idrivedistrict.com/district-info/history.asp

STUDY AREA BOUNDARY

The study area boundaries encompass several important tourist hubs. The first one is the Universal Studios Resorts area, which starts south of Vineland Road and follows Kirkman Road south to the Sand Lake Road interchange. The Florida Turnpike and the Turkey Lake road delimit the east and west borders.

After this the study is framed by International Drive starting from West Oak Ridge Road to the Orange-Osceola County line. To the east, Universal Boulevard also serves as a primary north-south corridor. Sand Lake Road is an important east-west road that divides the study area between the City of Orlando and unincorporated Orange County. The study area continues south of the Beachline Expressway and includes SeaWorld Orlando, Aquatica, Discovery Cove, a number of vacation resorts as well as housing for much of the supporting service industry professionals that work within the corridor.



Source(s): Orange County Property Appraiser, ECFRPC Research

I-DRIVE EXISTING CONDITIONS ANALYSIS

The purpose of the Existing Conditions Analysis is to provide an overview of the current conditions of the I-Drive Resort Area. This base information will serve as a background for helping the public understand the economic impact of the area. The existing conditions analysis includes a land use analysis and a business and industry profile.

The Land Use Analysis provides an overview of the major current land uses found within the International Drive area. This analysis was completed using Geographic Information Systems (GIS) software based on parcel information from the Orange County Property Appraiser's Office. For this section, the East Central Florida Regional Planning Council (ECFRPC) also used the U.S Census American Community Survey to identify the major demographic characteristics of the people living within International Drive. Finally, the report provides an overview of current and new transportation projects that will benefit the resort area.

The second part is a Business and Industry Profile that analyzes the distribution of economic activity in the I-Drive area using the number and type of establishments and number of employees. For this part of the report, the ECFRPC used the Infogroup database, which includes information on more than 25 million establishments across the United States.

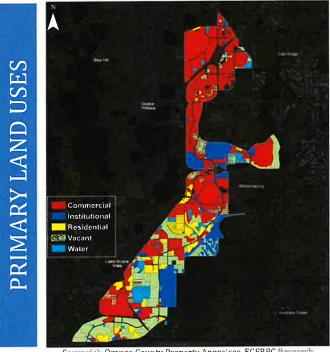
More information about the methodologies and findings of the existing conditions analysis is provided on the following pages.



International Drive

LAND USE ANALYSIS

The I-Drive Resort Area has a diverse mix of land uses. For the purpose of this discussion, the ECFRPC classified all district properties into four general land use categories: Commercial, Vacant, Institutional and Residential.



Source(s): Orange County Property Appraiser, ECFRPC Research

Approximately half of the acres within the study area can be classified as commercial. This land use category is comprised of several non-residential uses including hotel and time share properties (accommodations), retail, office, industrial developments and commercial amusement attractions. There are more than 4,000 acres of commercial land within I-Drive.

The second largest category is Vacant Land, which includes properties that are currently undeveloped or used for agricultural purposes. Vacant land encompasses about 24.7% of all land within the study area. In addition to these vacant properties, the I-Drive Resort area contains over 576 acres of land classified as Water.

Institutional uses include all land owned by federal, state and local governments, civic, educational and non-profit organizations. These uses comprise over 13% of the total study area.

Finally, the I-Drive Resort Area is home to several single-family homes and multi-family residential developments. These residential properties account for 8% of all land within the study area.

The next pages of the report discuss these land use categories in more detail.

Project Area Summary by Land Use as of 2020		
Land Use Category	Acres	% Study Area
Commercial	4,044	47.1
Vacant	2,120	24.7
Institutional	1,153	13.4
Residential	698	8.1
Water	576	6.7
TOTAL	8,591	100

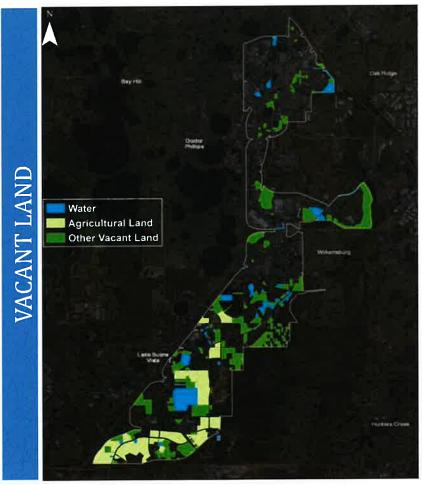
VACANT LAND

There are over 2,000 acres of vacant land within the I-Drive Resort area. This includes over 800 acres of agricultural land, most of which is located south of the Beachline Expressway (S.R. 528). Because they are situated near a dynamic tourist district, these parcels will probably urbanize within the next decades. In fact, most of the land is currently used for passive agricultural uses such as timberland and pastures rather than active farming. The rest of I-Drive's vacant land is comprised of smaller undeveloped parcels located within the urbanized parts of the resort area.

Largest Property Owners by Acreage as of 2020		
Organization	Acres	
GCB Associates LLC	469	
Universal City Development Partners LTD	162	
WGMLL Investments LTD ½ Int	168	
AG-RW Grande Pines LLC		
Shingle Creek Co-Owners LLC	52	

The number of parcels, their size and ownership are important variables when discussing the development potential of vacant land within the District. There are approximately 305 vacant parcels within the I-Drive Resort Area. While the average size of these properties is seven acres, more than half of these parcels are less than five acres. The vast majority of these small parcels are owned by single-property owners, which could be a determent for future development. The current effort by the Orange County Planning Division to densify the I-Drive Resort Area will help to address this dilemma. On the other hand, there are more than 70 large parcels located within the district that could house large developments. There are five organizations that own 43% of all vacant land in

the study area.

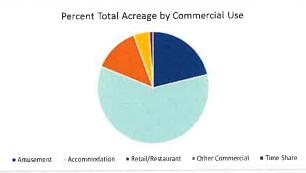


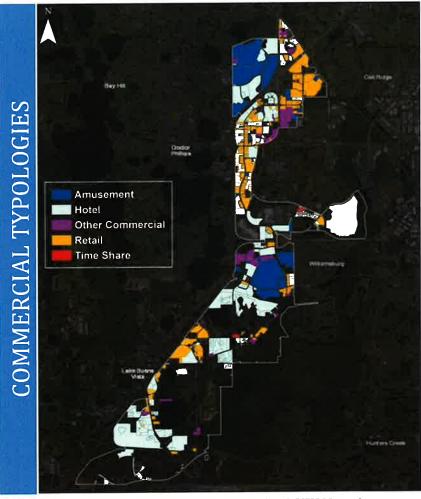
Source(s): Orange County Property Appraiser, ECFRPC Research

COMMERCIAL LAND

With close to 69.7 million square feet of commercial space, the I-Drive Resort Area is one of the busiest commercial districts in Metro Orlando. The dominant commercial types within this tourist corridor are Accommodations, Commercial Amusements and Retail. Accommodation uses comprise 60% of all commercial square footage within the study area. This category is comprised of hotels and time share properties distributed throughout the district. Commercial Amusements (21.3%) includes theme parks and other tourist attractions. Retail and Restaurants comprise another 13.1% of building space. Finally, there is about 3.9 million square feet of office space and industrial space in the study area. Together, these uses account for about 5.5% of all commercial uses.

The following pages provide more information about these commercial uses.





Source(s): Orange County Property Appraiser (2016), ECFRPC Research

THEME PARKS & MAJOR ATTRACTIONS AS OF 2019







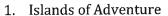








Theme Parks & Attractions



- 2. Universal City Walk
- 3. Universal Studios
- 4. Starflyer
- 5. Volcano Bay
- 6. Fun Spot America
- 7. SkyPlex (planned)
- 8. Mango's Tropical Cafe
- 9. Ripley's Believe It Or Not
- 10. ICON Park
- 11. WonderWorks
- 12. Pointe Orlando
- 13. Aquatica
- 14. Sea World
- 15. Discovery Cove







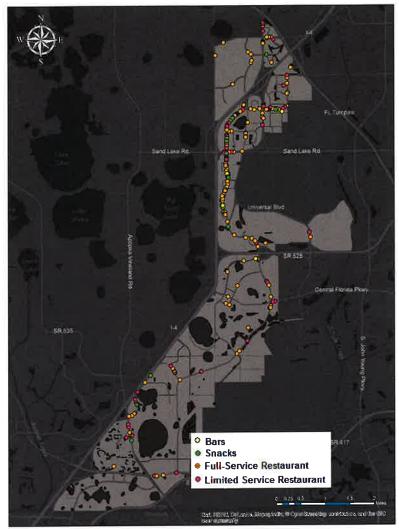








RESTAURANTS & BARS



Source(s): Infogroup; ECFRPC Research

Popular Restaurants as of 2019

Bahama Breeze BB King's Blues Club Benihana BJ's Restaurant Black Angus Steakhouse Bloodhound Brew **Buffalo Wild Wings** Café Tu Tu Tango Carrabba's Charley's Steakhouse Chili's Bar and Grill Chuy's Tex-Mex Cooper's Hawk Cuba Libre Dave & Buster's Del Frisco's Denny's **Everglades Restaurant** FishBones Fogo de Chao

Ford's Garage Hard Rock Café Hash House A Go Go Hooters **IHOP** Itta Bena Jack's Place Joe's Crab Shack Kobe Japanese Steakhouse Longhorn Steakhouse Maggiano's Mango's Tropical Cafe Marlow's Tavern Mellow Mushroom Miller's Ale House Olive Garden Outback Steakhouse Perkins Restaurant & Bakery Pio Pio Ponderosa Steakhouse

Shake Shack Shogun Japanese Steakhouse Sugar Factory Sushiology **Sweet Tomatoes** Tabla Indian Chinese & Thai Tapa Toro Taverna Opa Texas de Brazil TGI Friday's Thai Thani The Capital Grille The Oceanaire Seafood Room Tilted Kilt Tin Roof Tokyo Sushi Tony Roma's Twin Peaks Urban Tide Yard House

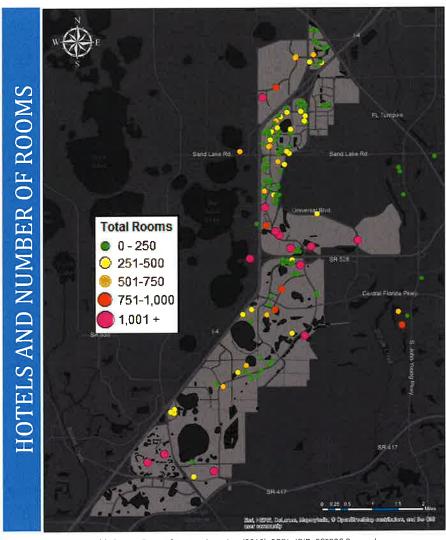
ACCOMMODATIONS

The I-Drive Resort area boasts low-price hotels, affordable hotels, luxury resorts, and vacation ownership units. In 2019, the area had 132 properties with a total of 53,015 rooms, placing the corridor among the densest in Central Florida⁶. Hotel sizes and typologies range from small motels with just a few hundred rooms to large resorts exceeding 1,000 rooms⁶.

Largest Accommodations by Number of Rooms as of 2019

Westgate Lakes – 1,990 Rooms SI
Orlando World Center Marriott – 2,008 Rooms
Cabana Bay Beach Club – 2,200 Rooms
Hyatt Regency Orlando – 1,641 Rooms
Marriott's Grande Vista – 1,616 Rooms
Rosen Shingle Creek – 1,501 Rooms
Hilton Orlando – 1,424 Rooms
Caribe Royale – 1,335 Rooms
Rosen Centre Hotel – 1,334 Rooms

Sheraton Vistana Villages I-Drive – 1,669 Rooms
Rosen Inn at Pointe Orlando – 1,020 Rooms
DoubleTree Orlando SeaWorld – 1,042 Rooms
Royal Pacific – 1,000 Rooms
Rosen Plaza – 800 Rooms
Hilton Grand Vacations SeaWorld – 787 Rooms
Renaissance Orlando at SeaWorld – 781 Rooms
Portofino Bay Hotel – 750 Rooms
Universal's Surfside Inn & Suites – 750 Rooms

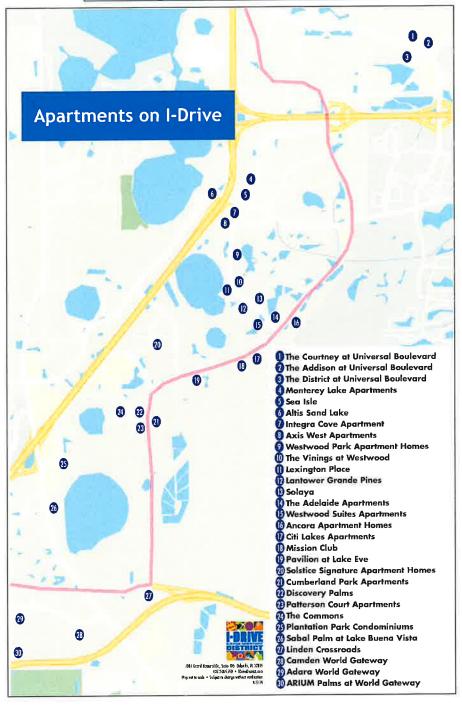


Source(s): Orange County Property Appraiser (2016), FGDL; IDID; ECFRPC Research

RESIDENTIAL LAND

As of 2019, there were over 12,742 total residential units within the I-Drive Resort Area. Apartment complexes are the most common housing type followed by Condominiums. There are also 47 single family homes located within the district, most of which are lake front houses.

I-Drive Resort Area Housing Units by Type		
Residential Type	Housing Units	
Apartments	11,120	
Condominiums	1,575	
Single Family Homes	47	
Total Housing Units	12,742	



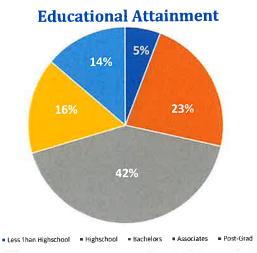
I-DRIVE DEMOGRAPHICS AS OF 2019

The ECFRPC used information from the U.S Census American Community Survey and the Orange County Property Appraiser to build a population profile for the I-Drive Resort Area. There are ten different Census Block Groups (the smallest geographical unit for which the bureau publishes sample data) within the resort area. However, the boundaries of most of these block groups extend far beyond the study area borders because of the commercial nature of the I-Drive corridor. Therefore, their total population counts include people that live outside the area of interest. To address this situation, the ECFRPC decided to use Orange County Property Appraiser data to get a more realistic population count.

First, the ECFRPC identified the location of residential land within the study area using DOR codes and GIS software. The Orange County Property Appraiser website was then used to identify the number of residential units available on the multi-family developments (condominiums, apartments, and student housing). To calculate the population counts, the ECFRPC multiplied the number of housing units by the average household size for each Census block group. Finally, the ECFRPC applied Orange County's housing vacancy rate (13.5%) to get the final number of people. Based on this methodology, the ECFRPC estimates that there are more than 22,350 people living within the I-Drive resort area. Most of these people are concentrated on the west side of the study area, near the Lake Bryan/Lake Ruby areas. The average household size for the area ranges from 1.77 to 3.26 persons per household, which is smaller than the county average.

The ECFRPC used the American Community Survey to get additional demographic characteristics for the population living within the I-Drive Resort area. Not surprisingly, the majority of the people residing here work for the Leisure and Hospitality Industry (41%). The educational attainment of this population tends to be relatively high, with 70% of people over age 25 having at least an Associate's Degree. This might be partly explained by the presence of the University of Central Florida's (UCF) Rosen College of Hospitality Management, which is located within the study area.





INSTITUTIONAL LAND

Institutional land includes all properties owned by government agencies (federal, state, and local), infrastructure easements, land use for mitigation purposes, and conservation areas such as wetlands. These uses account for 1,153 acres of land or approximately 13% of the total study area as of 2019. The Orange County Board of County Commissioners, the Valencia Water Control District and the South Florida Water Management District are the largest owners of Institutional land within the resort area.

The largest institutional uses within the resort area are the Orange County Convention Center (OCCC) and the UCF's Rosen College of Hospitality Management. Owned and operated by Orange County, the OCCC is one of the largest economic engines in the region. The facility includes two buildings (West and North/South) that host a variety of events catering to thousands of visitors each year. More information about the OCCC is provided on the next page. The Rosen College campus is situated on the east side of the study area. The 159,000-square foot building opened in early 2004 and is the largest, most advanced facility ever built for hospitality management education in the United States. The school's wide array of academic programs includes Hospitality Management, Event Management, Restaurant & Food Service Management, and Entertainment Management.

Orange County Convention Center

2,053,820 Sq. Ft. Exhibition Space

2 General Assembly Areas

2,643-Seat Theater

3 Business Centers

106-Seat Lecture Hall

74 Meeting Rooms

3 Full-Service Restaurants

232 Breakout Rooms

UCF Rosen College of Hospitality

22 High-Tech Classrooms

1 Executive Education Center

200-Seat Training Dining Room/Bar

1 Beer and Wine Laboratory

2 Test Kitchens

400-Seat Auditorium





ORANGE COUNTY CONVENTION CENTER (OCCC)

The Orlando area started marketing itself as a convention destination in 1969. However, the groundwork for the future Convention Center did not start until eight years later when the Florida Legislature allowed local jurisdictions to impose a Tourism Development Tax or hotel room tax. That year the Orange County Board of County Commissioners created the Tourism Development Tax Council to help define the proposed uses for this new tax. In 1978, Orange County voters approved the use of this money to build a new Convention and Civic Center.

Since its opening in 1983, more than 32 million people have attended events at the OCCC making it one of the most important anchors of the I-Drive Resort area⁷. It is the second largest convention center in the United States with over 2 million square feet of exhibition space⁷. According to the OCCC annual report, the convention center hosted 170 events that brought more than 1.5 million people to the I-Drive area in fiscal year 2018-2019⁷.

The OCCC is currently in the midst of implementing a \$605 million Capital Improvement Plan to remain as one of the most competitive facilities in the nation⁷. The plan calls for the construction of two projects that will improve and enhance the North-South Building:

- Convention Way Grand Concourse an enclosed connection between the North and South concourses that includes additional meeting space and an 80,000-square-foot ballroom with a grand entrance to the North-South building along Convention Way⁷.
- Multipurpose Venue a 200,000-square-foot, flexible, divisible, column-free space with a combination of retractable and floor seating to accommodate between 18,000-20,000 guests. This project will also incorporate connectivity between the North and South concourses⁷.



SMERF = Social, Military, Educational, Religious and Family

FISCAL YEAR 2018-2019 EVENT
CATEGORIES – MEASURED BY NUMBER OF
EVENTS

170 TOTAL EVENTS



TRANSPORTATION

I-Drive's road network is going through several improvements that will ease traffic flow, provide more transportation options to visitors & residents, and create a more pedestrian friendly environment. For example, a traffic flow and pedestrian enhancement project in the northern portion of the study area was recently completed and four others are currently ongoing. These projects include the I-4 Ultimate Interchange-Grand National Drive Overpass, widening International Drive at Westwood Boulevard, improvements to the Sand Lake Road-John Young Parkway interchange and an extension of Destination Parkway. In addition, sidewalk additions to Sea Harbor Drive are in the design phase.

Two pedestrian projects have been planned by the Orange County Planning Division. One project is a conceptual pedestrian bridge at Sand Lake Road at the intersection of International Drive as well as planned transit lanes along Universal Boulevard and I-Drive.

Finally, the I-4 Ultimate Improvement Project will help build the Grand National Drive overpass as well as interchange improvements that will alleviate traffic at the Kirkman Road exit.



I-Drive/Sand Lake Road Pedestrian Bridge



I-Drive Premium Transit Study (concept photo)



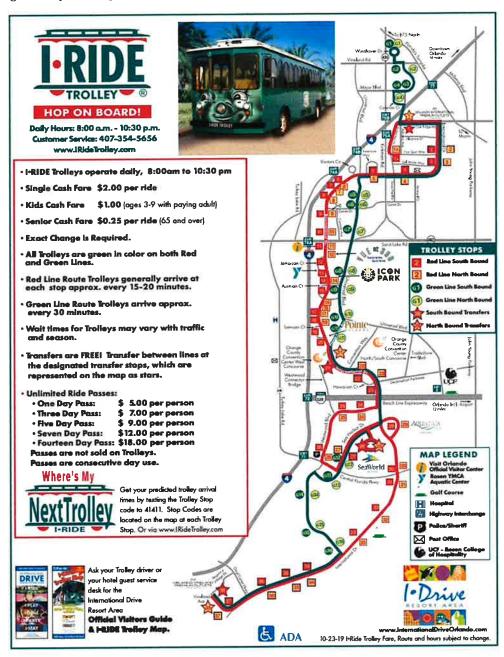
I-4/Sand Lake Road Interchange (concept photo)

Recent and Under Construction Transportation Projects as of 2019		
Project	Status	Completion Date
International Drive Widening (Westwood-Westwood)	Completed	2019
John Young Parkway/Sand Lake Road Interchange	Completed	2019
Beachline Widening	Completed	2019
Sea Harbor Drive Sidewalk Project	Completed	2019
Kirkman Road Pedestrian Bridge	Ongoing	2020
Sand Lake Road Improvement Project	Ongoing	January 2021
I-Drive Premium Transit Study	Design Phase	Spring 2021
Kirkman Road Resurfacing Project	Ongoing	Fall 2021
I-Drive/Sand Lake Road Pedestrian Bridge Feasibility Study	Feasibility Study	2021
International Drive Dedicated Transit Lanes	Ongoing	Summer 2022
Sand Lake Road/I-4 Interchange	Design Phase	2024
I-4 Ultimate Project	Ongoing	T.B.D.
Kirkman Road Extension	Design Phase	T.B.D.

I-RIDE TROLLEY

The I-Ride Trolley provides transit services to visitors and residents along International Drive and Universal Boulevard. Trolleys travel throughout the International Drive Resort Area serving over 100 convenient stops approximately every 20 minutes. In 2019 the trolley system had over 1.3 million trips. The trolley offers single-trip passes for \$2.00 (\$1 for children and \$0.25 for senior citizens) and daily passes for \$5.00. Visitors can also get extended passes lasting 14 days for \$18.00, or day-based passes.

A "park once" philosophy is planned for the future, whereas guests park once and utilize the entire corridor via the transit system. The Orange County Planning Division has unveiled plans for retrofitted street sections along Universal Boulevard and International Drive that would make the trolley system even more impactful for residents and visitors in the future. Dedicated transit lanes and other features have been discussed for the corridor alongside bicycle and pedestrian improvements to create a more urban and traversable corridor.



International drive or lando com

I-DRIVE 2040 VISION PLAN (ORANGE COUNTY)

OVERVIEW

Recognizing the importance of creating a shared vision for the International Drive Area, Orange County Government created the **Steering Review Group (SRG) composed of I-Drive area stakeholders and landowners** who are committed to maintaining I-Drive as the world's premier global destination for tourism and family entertainment.

The SRG was tasked with crafting a comprehensive and cohesive plan for the Study Area along with implementation strategies and tools for consideration by the Board of County Commissioners (BCC). The I-Drive 2040 Vision was accepted by the BCC on November 3, 2015.

VISION PLAN

With hundreds of world-famous retailers and restaurants, thousands of stunning hotel rooms and contemporary resorts, dozens of family-oriented attractions and entertainment complexes, I-Drive accounts for a significant portion of Orange County's robust travel, tourism, and hospitality sectors. The proposed plan for the Convention Plaza District will create a vibrant, dynamic and safe pedestrian-centered environment with dedicated transit lanes and sidewalk enhancements for local residents, conventioneers and visitors alike.

PROCESS

There are four pillars surrounding the completion of the visioning process including land development, regulatory components, parking and mobility. The 11-member SRG assisted in formulating the District's vision along with implementation alternatives.

The plan includes seven proposed sub-districts to meet the unique needs of each area including the famed Orange County Convention Center, retail and hospitality, entertainment, SeaWorld, Destination Parkway, Universal Boulevard and Rosen Shingle Creek.

HISTORY

The 11-member SRG began meeting on a monthly basis in January 2015 with the mission of formulating a shared vision for the Convention Plaza District. The SRG was tasked with creating a cohesive plan for the Study Area along with implementation strategies and tools for consideration by the BCC. Parallel initiatives that will support the SRG vision include Comprehensive Plan amendments and updated development standards.

CODE

The **I-Drive District Code** – adopted in February of 2017 – provides form-based standards to implement the I-Drive 2040 Strategic Vision. The code includes a Regulating Plan that establishes high density mixed-use development transects, as well as Special Zones for civic buildings and theme parks.

CONTACT INFORMATION

For more information on the I-Drive Vision Plan please contact the Orange County Planning Division at 407-836-5600, press 5 for the Planning Division or email Planning@ocfl.net.



BUSINESS PROFILE

To complete the I-Drive Resort Area economic impact study, the ECFRPC is using an industry cluster analysis methodology that identifies geographic concentrations of particular industries as well as explains the connections between these establishments. The I-Drive Resort area is anchored by three large theme parks (Universal Studios, Islands of Adventure and Sea World) and one of the nation's largest convention centers. These institutions receive millions of visitors each year that generate additional demand for other services including accommodations, dining, retail, transportation among others. This section of the report also provides an in-depth analysis of the economic and employment data for businesses and industries found in the I-Drive Resort area.

To complete this analysis, the ECFRPC used the Infogroup database to determine the number of businesses and employees located within the study boundaries. This information was complemented with other data sources such as the Orange County Property Appraiser's parcel data and internet searches. In additions to these sources, the ECFRPC used GIS software to depict industry concentration and employment across the study area. Finally, it provides general information about occupations and wages for the tourism industry.



As of January 2019

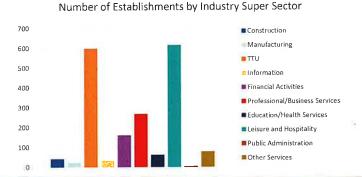
INDUSTRY STRUCTURE

According to Infogroup, as of 2019, the resort area is home to more than 1,800 businesses that employ more than 75,000 people². These businesses can be classified into ten groupings called economic super sectors, which are defined below:

- **Construction**: This sector is comprised of establishments engaged in the construction of buildings and infrastructure projects as well as the subdivision of land.
- Manufacturing: Establishments within the manufacturing sector use mechanical, physical, and chemical processes to transform materials and substances into new products.
- Trade, Transportation, and Utilities (TTU): This is one of the most comprehensive categories. It includes
 businesses that sell merchandise at the wholesale level, those that sell directly to the public (retailers),
 industries that transport people and cargo, store goods, and provide utility services to the public.
- Information: This category includes all businesses that create and disseminate informational and cultural products through print, broadcast, online, or other forms of telecommunications.
- Financial Activities: Often referred to by the acronym FIRE, this super sector includes all establishments engaged in the facilitation of financial transactions or that are involved in the renting, leasing and management of real estate properties and other equipment.
- Professional and Business Services: This category is comprised of businesses that provide highly specialized technical services, strategic management and leadership, and routine support activities for the day-to day operations of other organizations.
- Education and Health Services: The establishments within this category provide a variety of services to individuals including instruction and training in a wide variety of subjects, medical care, and social welfare services.
- Leisure and Hospitality: This is the largest category in the I-Drive Resort area. It is comprised of businesses that provide cultural, entertainment, and recreational services to the public as well as lodging and prepared meals and beverages.
- Other Services: Businesses within this category provide repair and maintenance, personal care, and social advocacy services. This super sector also includes home businesses.
- Government: This category includes all federal, state, regional and local government offices and facilities.

Examples of I-Drive Businesses by Super Sector

Most I-Drive establishments fall within two major supersectors: Leisure and Hospitality and TTU. Together these categories comprise 65% of all businesses within the International Drive Resort Area. Professional and Business Services and Financial Services comprise another 23% of all establishments within the resort area.

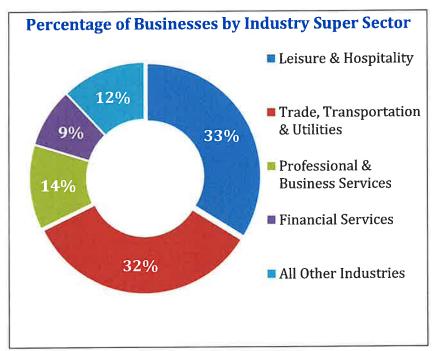


Examples of Businesses by Super Sector			
Super Sector	Total Establishments	Examples	
20 - Construction	41	Building Contractors	
30 - Manufacturing	23	Retail Bakeries, Tool and Die	
40 - TTU	598	Charter Bus Companies, Clothing Stores	
50 - Information	32	Newspapers, TV Stations	
55 - Financial Activities	160	Insurance, Banks, Realtor Offices	
60 - Professional/Business Services	267	Accountants, Engineers, Lawyers	
65 - Education/Health Services	61	Higher Education, Doctor Offices	
70 - Leisure and Hospitality	616	Hotels, Theme Parks, Restaurants	
80 - Other Services	77	Auto Mechanics, Beauty Salon, Churches	
92 - Public Administration	4	Government Offices	

Source: InfoGroup, ECFRPC research

Analysis

The high concentration of businesses in the Leisure and Hospitality super sector is not surprising, as this category includes all core tourism businesses: Theme Parks and Commercial Amusements (56), Hotels and Other Accommodation Places (168) and Restaurants (343). The chart on page 23 shows the distribution of these businesses within the I-Drive Resort Area.



Source(s): InfoGroup; ECFRPC Research

As of 2019

PROFESSIONAL BUSINESS SERVICES AND FINANCIAL SECTORS

The Professional and Business Services super sector includes professional services offices, other business support services, and management companies.

According to Infogroup, as of 2019, there are more than 200 of these companies within the I-Drive Resort area². Based on ECFRPC research, more than 50% of these companies supply services to the Leisure and Hospitality sector².

The most important category is the Travel Arrangement and Reservation Services industry, which includes travel agencies, tour operators, convention and visitors' bureaus and similar organizations. It represents 30% of all the businesses within the Professional and Business Services super sector². While there are several engineering, design and consulting firms that serve the hospitality industry, most of the other types of businesses located within the resort area are not tied to the tourism sector.

One of the most important establishment types within this super sector is corporate, subsidiary and regional management offices. These establishments are responsible for administering, overseeing, and managing large companies. There are three of these establishments located within the I-Drive Resort area: Marriott Vacations Worldwide, Wyndham Vacation Ownership, and SeaWorld Parks and Entertainment.



Marriott Vacations was formerly the timeshare division of Marriott International, but was spun off into its own company in 2011. It runs more than 60 resorts worldwide⁹. Wyndham Vacation Ownership, part of Wyndham Worldwide, manages more than 190 vacation ownership resorts across the world⁹.

SeaWorld Entertainment relocated from St. Louis in 2008, when it was still part of Busch Entertainment⁹. From its Orlando office, the company manages 10 theme parks across the United States including five in the Central Florida area.

Finally, there are more than 160 businesses within the Financial Services super sector located in I-Drive. 37% of these firms provide a variety of services to the hospitality industry and visitors including currency exchange, hotel and commercial property management and leasing, and passenger car rental. This last category is the most prevalent in I-Drive as several passenger car rental companies have operations inside the resort area's hotels.

ORANGE COUNTY PUBLIC SERVICES

Orange County and the City of Orlando also benefit from the investments made to house I-Drive visitors in the form of public service fees. Based on data provided by the Orange County Development Services Office, businesses within the I-Drive Resort Area paid \$36.2 million in public service fees. This information was not available for the City of Orlando, which encompasses the northern part of the District.



Orange County Fire Rescue



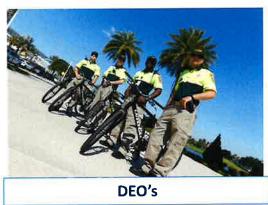
Orange County Sheriff

The District operates its own Public Safety Program in cooperation with the Orange County Sheriff's Office and the Orlando Police Department to provide enhanced safety throughout the entire I-Drive District, seven days per week. Through the Sheriff's Office, the District funds the following assets:

- Assigned ten (10) additional deputies known as the Tourist Oriented Policing Squads (TOPS)
- Assigned five (5) District Engagement Officers (DEO's)

The District partners with the Orlando Police Department to hire off duty officers to patrol the City portion of the I-Drive District. The funding for all aforementioned assets is 100% contributed through the I-Drive District via a special assessment program.





EMPLOYMENT BY SECTOR

Another way of analyzing industry structure is by studying the number of jobs by industry also referred to as employment share. According to Infogroup and ECFRPC research, as of 2019, more than 75,000 people work within the International Drive Resort area². Not surprisingly, the vast majority of these workers are employed by the Leisure and Hospitality Sector, which includes hotels and theme parks. This super sector employs a little more than 61,000 people². The second largest employer is the TTU super sector, which employs close to 8,500 people².

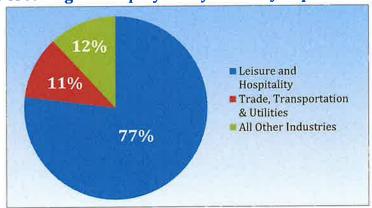
The table lists the 10 largest employers in the International Drive area. The largest employer in the I-Drive Resort area is Universal Studios, which is comprised of two theme parks that employ about 26,000 people². SeaWorld Orlando has three parks in the southern part of the resort area that employs approximately 6,032 people⁶.

Remaining firms are hotels located across the resort area. Westgate Resorts and Rosen Hotels and Resorts have numerous properties across Orlando. Wyndham Vacation Ownership's headquarters employ 3,600 people⁶. Finally, the OCCC rounds the top ten largest employers with almost 1,000 employees⁶.

Similar to what it did with businesses, the ECFRPC also used a geographic approach to analyze employment concentrations within the I-Drive Resort area. Based on GIS analysis, more than half of all I-Drive employment is concentrated north of Sand Lake Road. This portion of the I-Drive includes the Universal Resorts tourist area. It is also home to most of the establishments.

The next largest concentration of employment is south of the S.R 528. This area has five locations with 1,000 employees or more². Finally, the area between Sand Lake Road and the S.R 528 is home to more than 60,000 employees².

Percentage of Employees by Industry Super Sector



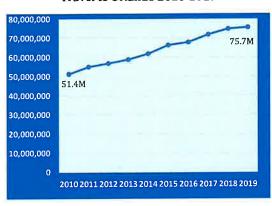
Ten Largest Employers within the Study Area (Estimates)

Company as of 2019	Estimated Number of Employees
Universal Orlando Resort	26,000
SeaWorld/Aquatica/Discovery Cove	6,032
Westgate Resorts*	5,151
Rosen Hotel & Resorts*	4,534
Loews Hotels*	2,756
Wyndham Vacation Ownership	3,600
Marriott Vacations	5,350
Hyatt Regency Orlando	1,300
Orange County Convention Center	900

*All Properties in Hotel Group Sources: Direct Company Contact, Orlando Sentinel, Orlando Business Journal

TOURISM ACTIVITY AND FISCAL IMPACTS

The Tourism Activity and Fiscal Impact section of the report provides estimates of the number and type of visitors coming to the I-Drive Resort Area, the amount that they spend in our region, and how much revenue this spending generates for Orange County. To complete this analysis, the ECFRPC used information from D.K Shifflet & Associates provided through the International Drive Improvement District Office. All visitation estimates are based on figures from 2019, which were the most readily available at the inception of this project.



Travel to Orlando 2010-2019

The Tourism activity report provides a general profile of I-Drive visitors. It also discusses visitor numbers according to their length of stay, purpose of the trip and origin market. These visitor characteristics are very important as they help to calculate the amount of money spent by these visitors. The ECFRPC used this information to develop different spending profiles for each of these visitor subgroups.

Finally, the report discusses the fiscal impact that I-Drive visitors have in Orange County. Visitors generate a large amount of tax revenues for local governments without consuming many services. These include estimates of the amount of TDT and sales taxes paid by these visitors. Moreover, the area's high number of visitors also has an indirect impact on the amount of fees collected by local governments such as building permits.

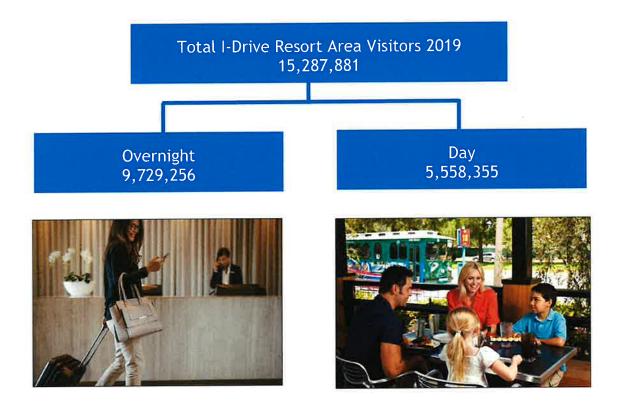
More detailed information about the assumptions and formulas used by the ECFRPC to calculate all these numbers is provided on the Technical Appendix at the end of this report.



I-DRIVE VISITOR PROFILE 2019

According ECFRPC calculations, the I-Drive Resort Area received almost 15.3 million visitors in 2019.

More details about the characteristics of these visitors are provided in the next pages.



According to ECFRPC calculations, the I-Drive Resort area received more than 9.7 million overnight visitors in 2019. Most of these people come from outside the state of Florida and international destinations. This number includes visitors coming to I-Drive for vacation and business purposes. Overnight visitors represented 64% of all visitors coming to the I-Drive Resort Area. Overnight visitors, which include all people that stayed at least one night, tend to spend more money than Day Visitors. Therefore, they have a higher economic impact. Most visitors arrive by plane or automobile.

The average daily rate for I-Drive Resort accommodations in 2019 was \$138.29. The average occupancy for I-Drive Resort accommodations in 2019 was 78%.

Percentage of Visitors by Length of Stay



Total Number of I-Drive Resort Area Visitors by Length of Stay		
Visitor Type	Number of Visitors	Percent Total
Overnight	9,729,526	64
Day	5,558,355	36
Total	15,287,881	100

THEME PARK ATTENDANCE 2019

There are six large theme parks located within the I-Drive Resort area: Universal Orlando, Islands of Adventure, Volcano Bay, Sea World, Aquatica and Discovery Cove. While the theme park companies do not release their attendance numbers to the public, there are several businesses that estimate the total number of visitors for the largest parks. According to these reports, the Orlando area theme parks received almost 92 million visits in 2019. Based on these numbers, the I-Drive Resort area theme parks represented about 31.7% of all the theme park visits in the Metro Orlando area.

These theme park attendance figures are 18% higher than the total visitor numbers (75 million). There could be multiple explanations for this discrepancy. While one may not be familiar with the methodology used to calculate these attraction numbers, it can be assumed that they could reflect multiple visits to the theme parks by the same person. Most families that travel to Orlando try to visit as many parks as possible during their stay. The large parks are also selling multi-day passes, which allow visitors to experience several theme parks during their stay. Finally, local visitors (those that live in Orange, Lake, and Seminole counties) could account for a large number of these visits. Florida residents can buy annual passes to the largest theme parks that allow them to visit them multiple times in the year and can get discounts for seasonal events. Local organizations like churches and schools also like to take advantage of our proximity to the theme parks.



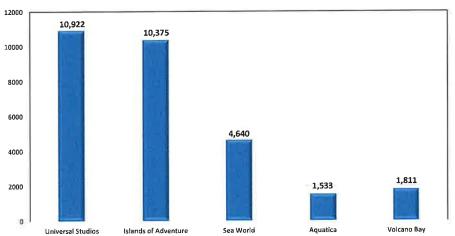








I-Drive Resort Area Theme Park Atendance 2019 (in thousands)



Source: Amusement from TEA/AECOM Annual Theme Index, all numbers are for calendar year There is no attendance number available for Discovery Cove

GROUP MEETINGS 2019

The OCCC is the epicenter of the Orlando's convention/group meeting market, with over 2 million square feet of meeting space. Each year the convention center hosts some of the largest conventions and trade shows in the group meeting industry. In the 2018-2019 fiscal year, these events were AAU National Volleyball Nationals, Premiere Orlando 2019, HIMSS, PGA Merchandise Show 2019, and MegaCon Orlando. The 170 events hosted at the OCCC were attended by more than 1.4 million people. These included 119 private convention/tradeshows, 29 meetings and banquets, and 22 consumer and public ticketed events.

Besides the OCCC, there are numerous hotels within the I-Drive Resort area that also cater to the group meeting market. These properties provide the resort area with another 2.5 million square feet of meeting space. Therefore, there is more than 4.5 million square feet of meeting space within the I-Drive Resort Area.

OCCC Top Conventions and Trade Shows FY 2019		
Event	Attendance	
AAU National Volleyball Nationals	110,000	
Premiere Orlando 2019	57,000	
HIMSS	46,480	
PGA Merchandise Show 2019	43,000	
MegaCon Orlando	68,000	

Source: OCCC Annual Report 2018-2019

I-Drive Resort Hotels with Largest Meeting Space as of 2019		
Hotel	Meeting Space (sq ft)	
Rosen Shingle Creek	524,000	
Orlando World Center Marriott	338,306	
Hyatt Regency Orlando	315,000	
Hilton Orlando	236,000	
Renaissance at SeaWorld	185,000	
Caribe Royale Orlando	150,000	
Rosen Centre Hotel	150,000	
Loews Royal Pacific Resort	132,000	
Double Tree by Hilton Orlando at SeaWorld	100,000	
Double Tree by Hilton at the Entrance to Universal Orlando	63,000	
Rosen Plaza Hotel	60,000	
Wyndham Orlando Resort I-Drive	60,000	
Loews Portofino Bay Hotel at Universal	57,040	
Avanti Palms Resort & Conference Center	20,200	
Westgate Lakes Resort & Spa	18,000	
Holiday Inn & Suites at Universal	13,000	

Source: International Drive Improvement District

PROPERTY TAX REVENUE

The I-Drive Resort area had a total assessed value of nearly \$14.7 billion in 2019. When acreage is taken into account, the parcels with the highest assessed value are located north of S.R. 528. I-Drive property owners paid more than \$228 million in property taxes in 2019. Commercial properties pay more than 86% all the taxes collected within the I-Drive Resort Area with the accommodation and amusement sectors accounting for most of this money.



International Drive

Total Assessed Value \$14.7 Billion

Total Property Taxes \$228 Million

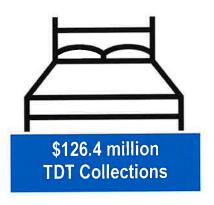
OTHER REVENUES 2019

Visitor purchases also have a positive impact on Orange County's coffers. The most evident is the amount of money that these visitors pay for all items they purchase during their visit. The current sales tax rate for Orange County is 6.5%. Based on visitor expenditures of \$8.2 billion in 2019, I-Drive visitors paid approximately \$530.1 million in sales taxes that year.

Visitors staying within the resort area's accommodations also pay another 6% room charge per night, which is known as the Tourism Development Tax (TDT). Based on the total occupied hotel nights (15.2 million) and the average daily rate (\$138.29), the I-Drive Resort area was responsible for a total \$126.4 million in hotel tax collections. In 2019, this represents 44% of all TDT collections.

Tax Revenues Paid by I-Drive Visitors







Rosen Shingle Creek

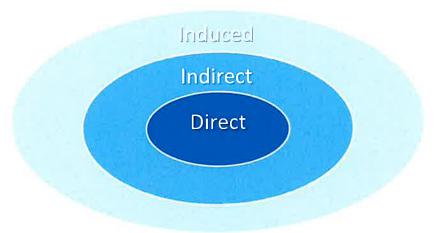
ECONOMIC IMPACT ANALYSIS 2019

One of the most important goals of this project is to calculate the total economic impact of the I-Drive Resort area to Orange County and the Orlando Metropolitan Statistical Area (Metro Orlando), which also includes Lake, Osceola, and Seminole counties. This total economic impact includes the economic benefits created by I-Drive businesses, their suppliers and employees. For example, a new business opening in I-Drive has a direct impact on the economy when it hires new employees or invests in the building where they are located. This business will also generate an additional demand for goods and services that are usually met by local suppliers. This is considered an indirect economic impact. Finally, the new employees will spend their salary in household needs such as rent, food, and entertainment among others. This is considered the local consumption or induced economic effect. These indirect and induced impacts are often referred to as the economic ripple effect.

For this part of the project, the ECFRPC prepared two different economic impact simulations for the I-Drive Resort area. The first analysis estimates the value that the I-Drive Resort area has for Orange County and the Metro Orlando region based on visitor expenditures. The second simulation estimates the economic impact of 24 new construction projects scheduled to be built between 2019 and 2024. The next pages discuss the data methodology, inputs and assumptions used to develop these simulations and their results.

To complete these analyses the ECFRPC used the PI+ model developed by Regional Economic Models, Inc. (REMI). Since 1980, the REMI model has been successfully used by decision makers across the nation to calculate the economic effects of policies and investments. The REMI model builds on the strengths of four major modeling approaches: Input-Output, General Equilibrium, Econometric, and Economic Geography. The ECFRPC has been using the REMI model since 2003. More detailed information about the model can be found at www.remi.com.

The Economic Ripple Effect



Direct Effect: Expenditures made by an organization on labor and products

Indirect Effect: Purchase of good and services from suppliers Induced Effect: Employee expenditures from wages paid by suppliers

ECONOMIC IMPACT OF FUTURE I-DRIVE PROJECTS

Methodology, Inputs, and Assumptions

There are currently 53 I-Drive construction projects being tracked from 2019 over the next five years. For this simulation, the ECFRPC calculated the economic impact that 24 of these construction projects would have on Orange County and Metro Orlando's economies. The resort area has seen a lot of construction during the past couple of years. This momentum is expected to continue in the near future with the opening of new hotels and attractions. According to Construction Journal.com and other sources, these projects represent over \$1.9 billion in new construction investment for the I-Drive Resort area.

For this model, the ECFRPC used the REMI PI+ model's Business Development Scenario, which includes all the variables needed to calculate the economic impact of construction projects. The investment money was entered into the model according to the year the project was completed or is expected to be built. However, the ECFRPC aggregated the results for the five-year period to show the total economic impact of these projects.

Summary of Economic Simulation Results

The ECFRPC found that these 24 projects will have a positive impact on the region's economy. They will create more than 5,500 new jobs, close to \$604.2 million in sales, and bring almost \$283.2 million in personal income to the region's residents. Most of the benefit will be felt by Orange County residents. The County will add more than 3,800 new jobs, more than \$525 million in sales, and bring more than \$187 million in personal income to residents. Moreover, these projects will add close to \$308.1 million to the County's Gross Regional Product and Metro Orlando's GRP.

The next section of the report discusses these economic indicators in more detail.

I-Drive Projects Construction Investments per Year		
Year	Total Projects	Estimated Investments
2019	5	\$98,545,595
2020	8	\$276,000,000
2021	3	374,200,000
2022	4	49,635,000
2023	1	\$605,000,000
2024	3	564,560,000
Total 6-Year Period	24	\$1,967,940,595

I-Drive Projects Construction Investments per Year			
Economic Indicator	Orange County	Metro Orlando	
Total Employment	3,854	4,482	
Output	\$525,166,667	\$604,166,667	
Personal Income	\$187,000,000	\$283,166,667	
Gross Regional Product	\$308,166,667	\$354,666,667	

Source: REMI PI+ East Central Florida Region v 1.7

ECONOMIC IMPACT OF FUTURE I-DRIVE PROJECTS

Employment

Overall, these construction projects would result in the creation of more than 4,500 jobs within Metro Orlando. This number includes 2,583 direct jobs, 1,962 indirect jobs, and induced jobs. All the direct jobs are located in Orange County. The County would also benefit from 85% of the indirect and induced jobs.

Almost 60% of the jobs created will be in the construction sector. However, the construction of these projects will translate into additional jobs in a variety of industries.

Output

According to REMI, the investment made for these projects would generate about \$604.2 million in sales in Metro Orlando and \$525.5 million in Orange County. 56% of the output gains spurred by these projects will benefit the Construction sector. Other industry sectors that will also see increases in sales include Real Estate, Retail Trade, and Professional, Scientific and Technical Services.

Personal Income

These I-Drive Projects will generate \$283.2 million of personal income to Metro Orlando residents, most of which will stay in Orange County (66%). Most of this income will be the result of wages and salaries paid to employees for a variety of industries. The most benefited industries will be Professional, Scientific, and Technical Services, Retail Trade, and Construction.

Gross Regional Product

These I-Drive projects would add \$354.7 million and about \$308.2 million to Metro Orlando and Orange County's Gross Regional Products respectively.

Average Annual Employment by Industry Sector			
Industry Category	Orange County	Metro Orlando	
Construction	2,249	2,538	
Retail Trade	214	289	
State and Local Government	144	168	
Professional, Scientific and Technical Services	150	181	
Other Industries	1,097	1,306	

This Economic Impact Analysis Report has confirmed that the I-Drive Resort area is an important economic activity center for Orange County, the City of Orlando, and the Metro Orlando area. The resort area is home to more than 1,800 businesses including six of the world's most visited theme parks and three national/international company headquarters. In 2019, the study area had a total assessed value of more than \$14.7 billion and generated more than \$228 million in property taxes. This economic activity is the result of the 15.3 million visitors that came to I-Drive to visit one of its many attractions or attend a business convention. These visitors are also responsible for generating approximately \$530.1 million in sales tax and \$126.4 million in TDT collections.

The economic impact of the resort area extends beyond its boundaries. This positive economic impact will continue through the next six years. Private companies are expected to invest about \$1.97 billion to build new hotels, apartment complexes, retail projects and new attractions. The economic impact of these projects will reverberate across Orange County and the Metro Orlando region. These projects are estimated to generate more than 4,400 additional jobs, \$604.2 million in sales, \$283.2 million in personal income, and add close to \$354.7 million to Metro Orlando's gross regional product.

Based on this analysis results, the I-Drive Resort area is an important contributor to the success of the Metro Orlando region. Careful planning and investment will keep the area as one of the nation's most competitive tourism activity centers and help it continue to be an important source of jobs and tax revenue for Orange County and the region, for years to come.



ABOUT THE EAST CENTRAL FLORIDA REGIONAL PLANNING COUNCIL (ECFRPC)

The ECFRPC was established in 1962 as an area-wide association of local governments. It is one of Florida's ten regional planning councils and serves governments and organizations located within Brevard, Lake, Orange, Osceola, Seminole, Sumter and Volusia counties. Council staff provides technical assistance in the areas of land use and environmental planning, emergency preparedness, geographic information systems (GIS), health, housing, urban design, transportation and economic and fiscal analysis among others. Because of the ECFRPC, member governments have received more than \$10.6 million in federal grants since 2011. This represents a return on investment of \$2.53 for every dollar paid in assessments.

The ECFRPC is currently designated by the U.S Economic Development Administration as the region's Economic Development District (EDD). The EDD program provides economic technical assistance to public and private organizations within the seven-county region. This includes performing economic impact analyses using the REMI model, developing economic strategic plans, and assisting with grant applications.

For more information about ECFRPC programs, visit the organization's website at www.ecfrpc.org.



East Central Florida Regional Planning Council 455 North Garland Avenue, Suite 414

Orlando, FL 32801

Phone: 407-245-0300

TECHNICAL APPENDIX

This technical appendix provides the formulas and assumptions used to develop the visitation numbers for the I-Drive Resort Area and the spending profiles.

Overnight Visitors

The number of overnight visitors was calculated using the following formula: Total number of occupied hotel/time share nights x annual room occupancy x average party size / length of stay.

Overnight visitors were distributed among five different subcategories (Leisure Florida, Leisure Non-Florida, Business Florida, Business Non-Florida and International) to account for different spending patterns. For the purpose of this analysis, all International travelers were considered overnight visitors. The business visitation numbers were adjusted based on the number of convention delegates that visited the Orange County Convention Center in 2019.

Occupied Hotel/Time Share Nights

According to the I-Drive Improvement District, there are 48,223 hotel rooms located within resort area's boundaries. The ECFRPC multiplied this number by 365 to get the total number of occupied room nights.

I-Drive Average Party Size

The ECFRPC used a weighted average rather than a regular average to calculate the average party size of I-Drive visitors. In 2019, the average party size of Orange County visitors ranged from 1.3 people for Business Travelers to 2.4 people for Domestic Leisure Travelers. The influence of each visitor category in determining this average is based on the total number of visitors received in 2019.

I-Drive Average Length of Stay

The ECFRPC used a weighted average rather than a regular average to calculate the average length of stay for I-Drive visitors. In 2019, the average length of stay for Orange County visitors ranged from 2.9 nights for Leisure Florida Visitors to 9.1 nights for International Visitors. The influence of each visitor category in determining this average is based on the total number of visitors.

Tourist Development Tax Calculations

It is important to note that the TDT numbers provided by the Orange County Comptroller are based on Orange County's fiscal year (Oct-Sept) while the hotel occupancy numbers reflect calendar year (Jan-Dec). For the percentage calculation, the ECFRPC used the Actual Number figure, which was published in the Annual Revenue Monitoring Report published by OCCC on September 30, 2018.

TECHNICAL APPENDIX

REMI Model (Regional Economic Models, Inc.)

Visitor spending categories were put into the REMI model as industry sales according to the closest NAICS category. For car transportation, the ECFRPC used the Fuel consumer spending category.

The ECFRPC made small adjustments to the model to prevent over counting. The retail numbers were adjusted down 25% to account for opportunity costs. The ECFRPC also applied a local spending offset for all the spending generated by Florida Visitors. The reasoning behind using this variable is that the money that state residents pay for I-Drive vacations could be used to pay for other recreational expenses at their local communities. For this variable, the ECFRPC used the spreader option in REMI, which distributes the money across the different Florida regions. The ECFRPC decided against making any adjustments to the spreader.

Infogroup

Analytics and marketing services provider that delivers best in class data-driven customer-centric technology solutions. Their data and software-as-a-service (DaaS & SaaS) offerings help clients of all sizes, from small companies to FORTUNE 100™ enterprises, increase their sales and customer loyalty. Infogroup provides both digital and traditional marketing channel expertise that is enhanced by access to our proprietary data on 245MM individuals and 25MM businesses, which is distributed real-time to their clients.

SOURCES UTILIZED:

- I-Drive Business Improvement District
- Visit Florida
- Visit Orlando
- D.K Shifflet & Associates

- The Info Group
- Orange County Property Appraisers Office
- Orange County Tax Collector's Office
- REMI (Regional Economic Models Inc.)

Notes

Notes

JOHN SPROULS

Executive Vice President and Chief Administrative Officer Universal Parks and Resorts Chief Executive Officer Universal Orlando Resort

Mr. Sprouls is Executive Vice President and Chief Administrative Officer for Universal Parks & Resorts, the division of NBC Universal responsible for all worldwide theme park resort and development activities. He oversees Human Resources, Legal, Business Affairs, Global Merchandise, Risk Management, EHS, Information Technology, Real Estate, Corporate Communications, External Affairs and Community Relations for the Group.

Mr. Sprouls also serves as Chief Executive Officer of Universal Orlando Resort and previously served as President/CEO of Universal Holdings I and II, the entities that owned and controlled Universal Orlando from 2006 to 2011.

Mr. Sprouls serves on the U.S. Commerce Department's Tourism and Travel Advisory Board and is its former chairman. He is a member of the U.S. Travel Association CEO Roundtable, and a former member of USTA's Board of Directors. Mr. Sprouls is President of the Universal Orlando Foundation and Chairman Emeritus of the Board of Directors for City Year Orlando. He has also served on the Board of Trustees for the University of Central Florida, the University of Central Florida Foundation, the Central Florida Coalition for the Homeless and the Orlando Repertory Theatre.



Brightline Florida



Brightline is actively constructing a new rail line to bring passengers from our <u>Miami</u>, <u>Fort Lauderdale</u> and <u>West Palm Beach</u> stops to <u>Orlando</u>. Our team is hard at work to continue our excited expansion plans. Service connecting South Florida to Central Florida is expected to open in 2022.

We are also pleased to announce another three additional stops along our South Florida Express line including stations in Aventura, Boca Raton and PortMiami.

KEY FACTS

- √ 100% Carbon Neutral footprint (proud partners with FPL)
- √ Fast Company's World's Most Innovative Companies of 2020
- √ 2 Million passengers since inception
- ✓ Metrorail, Metromover & Tri-rail access

Learn more about our station experience and onboard experience.

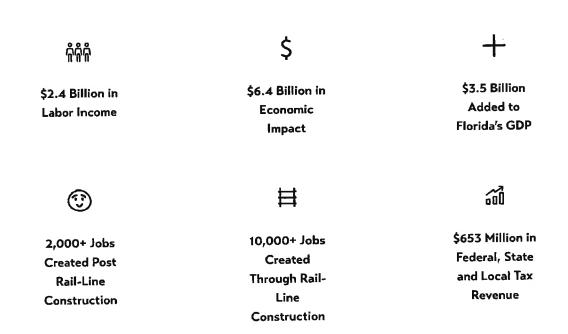
More about this project:

More than train service, Brightline is part of a real estate vision to reenergize static neighborhoods with transportation hubs including modern stations, 40,000 sq ft food hall and 27+ acres of office, retail, residential and commercial space. Brightline's new South Terminal at the Orlando International Airport (MCO) is a part of the company's Phase 2 expansion into Central Florida including a Tampa extension. The massive infrastructure project is making progress and encompasses four zones including the area of the Orlando International Airport and the Brightline Vehicle Maintenance Facility. This monumental endeavor, which will use 225 million pounds of American steel, will include the laying of 490,000 ties and transporting 2.35 million tons of granite and limestone by 20,000 railcars. Additionally, approximately 2 million spikes and bolts will be hammered and put in place over the next 36 months.

"The City of Orlando is excited to welcome Brightline to Central Florida. This new higher speed rail service will serve as an important connector between south and central Florida as we continue to expand our transit options and work to ensure reliable transportation is available for everyone Who wants to live, work or visit Orlando."

- Buddy Dyer, Orlando Mayor

Economic & Environmental Impact



the latest Brightline news.

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Elizabeth Castro Gulacsy has served as Chief Financial Officer and Treasurer since May 2021. Prior to that she served as Interim Chief Financial Officer and Treasurer since April 2020 and from September 2019 to November 2019. She also served as Chief Accounting Officer of the Company from August 2017 to April 2021. Prior to that, Ms. Gulacsy served as Corporate Vice President, Financial Reporting from 2016 to 2017 and Director, Financial Reporting from 2013 to 2016. Prior to joining the Company, from 2011 to 2013, Ms. Gulacsy served as Chief Accounting Officer and Corporate Controller for Cross Country Healthcare, Inc., from 2006 to 2011 she served as their Director of Corporate Accounting and from 2002 to 2006 as their Assistant Controller. From 1997-2002, Ms. Gulacsy was an auditor for Ernst & Young LLP where she most recently served as Audit Manager. Ms. Gulacsy is a member of the Audit Committee for IAAPA, the global association for the theme park industry. Ms. Gulacsy previously served as a board member and treasurer for the SeaWorld and Busch Gardens Conservation Fund from 2018 to 2020. Ms. Gulacsy holds a bachelor's degree and master's degree in accounting from the University of Florida and is a Certified Public Accountant.

Ms. Gulacsy lives in Orlando with her husband and two children. She was born and raised in Florida and has lived in Orange county since 2013.

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	BOARD OF COUNTY COMMISSIONERS MEETINGS						
3	BRIGHTLINE						
4	WORK SESSION AGENDA						
5	A PLANNING, ENVIRONMENTAL AND DEVELOPMENT						
6	SERVICES DEPARTMENT						
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11	TRANSCRIBED BY:	Denise Smith Byer, RPR,	FPR				
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MR. CEGELIS: Correct. More than the estimate that we had made for the 417 alignment. Our own estimate is a billion.

MAYOR DEMINGS: Right.

MR. CEGELIS: The VHB estimate was between 28 and 250.

MAYOR DEMINGS: However, at the Expressway Authority board meeting, there were professional engineers, representatives of VHB that had a caveat that they put in there that that was just an estimate, there was a lot of additional work that needed to be done to really validate that estimate. There were certain assumptions that were made.

And so given that, that suggests that the costs for the alternative route could be anywhere from 28 million to \$1 billion.

That's a wide disparity in the potential costs. And we don't know what that is.

But today, based on what you just said, that this project is viable because Brightline would be making the private investment or getting investors involved and it's not contingent upon the receipt of

federal dollars or any other public dollars --

MR. CEGELIS: That is correct.

MAYOR DEMINGS: -- is that correct?

And to my knowledge, in terms of whatever that -- if it truly is additional dollars, I have not seen any proposal from other -- others who would pay the delta, the difference there. Have you?

MR. CEGELIS: No. We have not seen.

It is important to note that this big cost variance causes a lot of concern amongst the community. We understand that. We have completed 15 percent design, so our own cost estimate for our preferred alternative is based on that 15 percent design.

And we also -- the way that we made our comparison is we utilized the Florida high speed rail design, which was completed to a level of 30 percent back in 2010. So that is a studied route where the impacts have been understood, the utility interfaces, the roadway interfaces, the grades, the impacts to local businesses, have all been understood in that Florida high speed rail alignment.

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Congress of the United States Washington, DC 20515

May 6, 2021

The Honorable Peter DeFazio, Chair The Honorable Sam Graves, Ranking Member Committee on Transportation and Infrastructure 2165 Rayburn House Office Building Washington, D.C. 20515

Dear Chairman DeFazio and Ranking Member Graves,

We are writing to express our support for the Passenger Rail Improvement, Modernization, and Expansion (PRIME) grant program that was included in last year's House-passed H.R. 2 Moving Forward Act. As the Committee develops transportation legislation in the coming weeks, we urge you to make privately funded higher-speed intercity passenger rail carriers eligible for PRIME grants if they apply in partnership with one of the other eligible governmental entities and meet the program requirements.

Florida has the first operational higher-speed rail system in the United States. Brightline built the first phase of its rail network between Miami and West Palm Beach. It is now constructing the second phase to Orlando International Airport and is over 50% complete. Brightline is also planning a third extension to Tampa. Not only does high speed rail provide fast, safe, and reliable transportation, but it reduces greenhouse gas emissions by providing a viable alternative to travel by passenger vehicle. We see great benefits from high speed rail enabling tourists to travel from beaches to theme parks and for business travelers to travel around the state by train. Our communities have also benefited from economic development around train stations.

Our country has lagged behind other countries in developing high-speed passenger rail networks. The fact that some passenger rail projects have private investment should not make them any less eligible for PRIME program grants than projects undertaken by government entities. Brightline is collaborating with state and local governments to develop stations and connect directly to commuter rail systems and airports. Section 9102 in the Moving Forward Act specifies documentation applicants must provide and technical and financial requirements they must meet to be eligible for a PRIME grant. It also specifies the types of projects the Secretary of Transportation should prioritize. With these requirements in place, we believe that private applicants in partnership with otherwise eligible public entities should be eligible for PRIME grants.

We appreciate your hard work and look forward to supporting your efforts to advance transformative infrastructure legislation. Thank you for your consideration.

Sincerely,

Val B. Demings

Val B. Demings Member of Congress

Darren Soto

Member of Congress

Carlos Gimenez Member of Congress

Ted Deutch Member of Congress Olephania Mumby

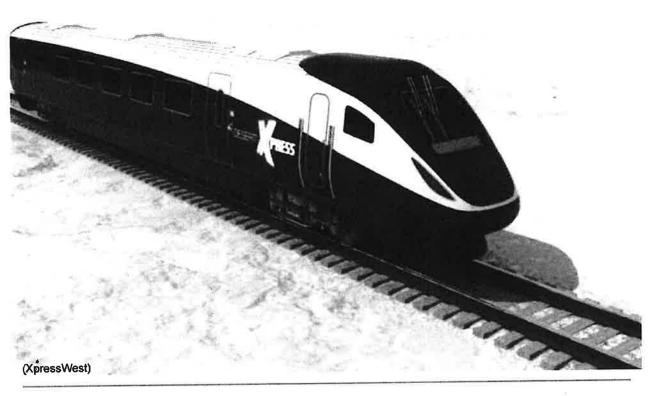
Stephanie Murphy Member of Congress

Maria Salazar

Member of Congress

Debbie Wasserman Schultz Member of Congress

EDITORIAL: Handouts may soon be coming to Vegas-SoCal train



Las Vegas Review-Journal June 29, 2021 - 9:00 pm

Don't miss the big stories. Like us on Facebook.

When Brightline West took over the planned high-speed rail project between Las Vegas and Victorville in 2018, the idea was to use private funds to finally bring the long-envisioned project to fruition. The company made a name for itself by developing the only privately run intercity rail line in the country, in Florida.

Turns out, however, that the taxpayers aren't safe after all. Funny how that works out.

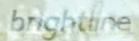
The Review-Journal's Gary Martin reported this week that, thanks to the handiwork of Rep. Dina Titus, Brightline West may soon be eligible to receive federal transportation funds under the \$547 billion Invest in America Act. While the language of the bill has yet to be finalized, Rep. Titus said she has worked closely with Rep. Peter DeFazio, the Oregon Democrat who chairs the House Transportation Committee, to amend the legislation to allow certain "private" rail projects to tap federal cash as long as they partner with a public entity.

None of this should be surprising. Brightline West officials have repeatedly oversold the project's financial viability and have backed off their previous construction timetable because investors wouldn't bite. Despite receiving \$800 million in private-activity bonds from California and Nevada — which could be leveraged to raise four times that amount — Brightline was forced to pull a planned bond sale last year because of a lack of interest. It will now have to reapply for the bonds and claims to be preparing for a 2022 reboot.

The pandemic didn't help, no doubt. But the fact that some version of this proposal has been floating around for more than 30 years with so little to show for all the promotion and hype indicates that the challenges remain vast and that the project's viability may be more complicated than the optimistic promises suppose.

All that would be irrelevant if Brightline West raised enough private capital in the markets to give it a go and live with the results. But now it appears increasingly likely that the company will sidle up to the federal trough, leaving taxpayers rather than private investors to assume much of the risk. And the risk will not be insignificant. The Victorville-to-Vegas train will cost \$8 billion, but if history is any guide, the final price tag will be much higher. Witness the ongoing fiasco in California involving the L.A. to San Francisco rail line money pit.

Perhaps a train shuttling gamblers from Victorville to the Strip will turn out to be a gold mine for Southern Nevada. Perhaps not, given that even heavily subsidized Amtrak couldn't maintain a similar route and airline travel remains more convenient for many travelers. Either way, the taxpayers may soon be forced to find out.





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