TREASURE COAST REGIONAL PLANNING COUNCIL

Review of
All Aboard Florida Draft Environmental Impact Statement

November 21, 2014

## Introduction

All Aboard Florida LLC (AAF), a private corporation subsidiary of Florida East Coast Industries (FECI), is proposing to construct and operate high-speed intercity express passenger rail service between Miami and Orlando. The project presents the potential for substantial rail improvements in the region as well as significant regional impacts related to transportation; land use; the natural, physical, and social environment; and the economy. In 2012, the company announced the project and submitted an application to the Federal Railroad Administration (FRA) for a loan through the Railroad Rehabilitation and Improvement Financing (RRIF) program. Approval by the FRA requires an analysis under the National Environmental Policy Act (NEPA). The project is being developed in two phases, with Phase I from Miami to West Palm Beach, and Phase II from West Palm Beach to Orlando. AAF secured approval of an Environmental Assessment (EA) for the Phase I portion, and the second phase requires completion of an Environmental Impact Statement (EIS) process. Following scoping meetings in May 2014, a Draft EIS (DEIS) was published on September 19, 2014 for review by the public, with comments due to the FRA by December 3, 2014. The purpose of this agenda item is to provide a sufficiency review of the DEIS and provide Council the opportunity transmit comments to be considered by the FRA in the development of the Final EIS for the project.

## Project Summary

In April 2012, FECI announced its intent to construct and operate a new, high-speed intercity express passenger rail service between Orlando and Miami, with intermediate stops in Fort Lauderdale and West Palm Beach. Developed by a subsidiary corporation, AAF, which is also the project's name, is proposed to operate on the Florida East Coast (FEC) rail corridor from Miami to Cocoa, and along State Road 528 from Cocoa to Orlando. The proposed passenger service would include sixteen daily round-trip trains, totaling 32 additional trains on the corridor beginning in 2016. The FEC rail corridor would carry the new passenger train service as well as continued freight service, which is estimated to be 20 trains per day in 2016 and projected to grow at 3 percent annually thereafter. The project components include the installation of a second track from Miami to Cocoa within the FEC rail corridor; the installation of a new track along SR 528; the construction of four passenger rail stations and a vehicle maintenance facility; improvements to bridges; technology and communications infrastructure; and modifications to grade crossings. Although the rail corridor was originally constructed to accommodate both passenger and freight service, the corridor has carried only freight since 1968, triggering the need for extensive safety improvements to comply with modern railroad regulations.

In 2012, AAF applied for $1.6 billion loan through the RRIF program. Prior to awarding a loan, the FRA is required through NEPA to conduct an analysis of the potential environmental impacts resulting from the proposed Project. AAF proposes to implement the Project through a phased approach. Phase I would provide passenger rail service on the FEC rail corridor from West Palm Beach to Miami section (approximately 66.5 miles), including stations in Miami, Fort Lauderdale, and West Palm Beach. Phase II would extend service from West Palm Beach to Cocoa on the FEC rail corridor (approximately 129 miles), then west to Orlando along SR 528 (approximately 34 miles) (Exhibit1).

AAF has obtained private financing for Phase I and is proceeding to implement Phase I. Phase I was reviewed through an EA in 2012, and FRA issued a Finding of No Significant Impact (FONSI) in 2013. Consequently, the DEIS is not intended to evaluate impacts exclusively from Phase I. The DEIS focuses on the Phase II portion of the project, from West Palm Beach to Cocoa, which is referred to as the N-S Corridor, as well as the Cocoa to Orlando portion. In addition, because AAF operations would cover the full corridor from Orlando to Miami, the DEIS analyzes the cumulative effects of completing both phases of the Project. Council's review of the DEIS is focused on the analysis of issues within or relevant to the Treasure Coast Region.

Analysis

**Land Use**

The FEC rail corridor through the region is generally a 100-wide corridor that was established in the early 1900s, with a history of continuous rail service since its inception. The corridor initially carried both passenger and freight service. However, the FEC has carried only freight since 1968. The corridor runs the entire length of Florida's east coast, from Duval County to Miami-Dade County, including Palm Beach, Martin, St. Lucie, and Indian River counties. The N-S Corridor, which is the focus of the DEIS, traverses the following municipalities and locally designated community redevelopment agency (CRA) districts:

- Palm Beach County: City of West Palm Beach, City of Riviera Beach, Town of Lake Park, Village of North Palm Beach, City of Palm Beach Gardens, Town of Jupiter, and the Village of Tequesta.
- Martin County: City of Stuart as well as the Hobe Sound CRA, Port Salerno CRA, Golden Gate CRA, Rio CRA, Jensen Beach CRA
- St. Lucie County: City of Port St. Lucie, City of Fort Pierce, Town of St. Lucie Village
- Indian River County: City of Vero Beach, City of Sebastian

Land uses along the corridor are varied, including residential, commercial, industrial, institutional, recreational, public, and preservation, with varying intensities and densities. Higher-density, higher-intensity land uses exist within urban central business districts; however, much of the corridor is characterized by lower-density, smaller-scale nodes of existing or planned development. The corridor also includes a string of historic downtowns, most of which were developed around historic train stations. In addition, substantial portions of the corridor traverse federal and state preserves, such as Jonathan Dickinson State Park and the Savannahs State Preserves in the northern portion of the region.

The DEIS indicates reviews have been conducted of the comprehensive land use plans in the four counties and the City of West Palm Beach Downtown Master Plan, concluding the N-S Corridor is consistent with these plans. The general project concept and proposed station location in West Palm Beach appear to advance the relevant policy directives in the Palm Beach County comprehensive plan and City of West Palm Beach Master Plan. However, the policies in the other three county comprehensive plans provide support for passenger rail service that provides service to these counties. Given the estimated travel times from the three northern counties to the proposed stations in West Palm Beach and Orlando, and further considering the end-to-end travel times to Fort Lauderdale or Miami, it seems unlikely residents in the three northern counties would utilize the AAF service. Further, the DEIS indicates additional stations along the N-S Corridor were not considered as they would increase travel time between Orlando and Miami of an unacceptable duration. Therefore, without the access, mobility, and economic benefits provided by stations, the DEIS conclusions regarding the comprehensive plans in Martin, St. Lucie, and Indian River counties appear inaccurate and are not substantiated by the data provided in the report.

*Impacts in City of Stuart.* As indicated in the DEIS, the St. Lucie River Bridge is proposed to remain a single-track bridge. Historic downtown Stuart is located immediately south of the bridge, and the economic vitality of this redevelopment district is contingent upon the availability of public parking located in FEC right-of-way. Council is aware of on-going discussions between AAF and the City of Stuart regarding the installation of a second track south of the bridge, which would require the removal of more than 100 parking spaces, which would substantially impact this community. Latest discussions with AAF representatives indicate the project will not require the installation of a second track for several blocks south of the bridge, which would enable the city to retain the necessary parking. A second track appears unnecessary in this location as the bridge is proposed to remain a single-track. This issues does not appear to be addressed in the DEIS, and more specific data is necessary to resolve this issue.

*Impacts in St. Lucie Village.* The Town of St. Lucie Village is a community established in the 1850s that predates the establishment of the FEC rail corridor. Council is aware of early plans to install three tracks through the village, one of which would be utilized as a "storage track" for freight trains. The storage of a train through the heart of the village would impact several grade crossings, essentially eliminating all access for village residents and creating a safety hazard for emergency response. AAF representatives have indicated the storage track location has been moved to avoid impacts in St. Lucie Village; however, this data does not appear to be included in the DEIS, and more specific data is necessary to resolve this issue.

*Corridor Buffering Treatments:* Given the physical characteristics of the FEC rail corridor and railroad operations, many communities have invested public dollars in landscape and beautification treatment in the rail right-of-way to reduce noise, vibration, and visual obtrusion on communities and neighborhoods. In addition to planted materials, there is substantial native vegetation along the corridor that provides further buffering of negative impacts. These improvements also provide a safety enhancement for pedestrians, as landscape materials act as barriers to pedestrian access into the corridor. It appears that AAF's planned double-tracking will require removal of substantial quantities of landscape material, both native and planted,

which will present significant impacts on communities visually and economically. Measures should be considered to enable local governments to beautify the corridor without bearing additional easement lease costs for these improvements to reduce project impacts.

**Recommendations:**

- **The final EIS should include a consistency analysis of all relevant comprehensive plans and community redevelopment agency plans. Mitigation measures or other alternatives should be established and analyzed to resolve inconsistencies or conflicts with local plans.**
- **The final EIS should include a new alternative that would provide Martin, St. Lucie, and Indian River counties with some level of direct scheduled access to the AAF service, including intermittent or "skip-stop" service, to offset project impacts, more fairly distribute project benefits, and increase consistency with local government comprehensive plans.**
- **The final EIS should include data to confirm the maintenance of a single-track through Historic Downtown Stuart and maintenance of public parking in FEC right-of-way.**
- **The final EIS should include data to confirm the location of the storage track outside the boundaries of St. Lucie Village such that egress and emergency response to Village residents can be maintained.**
- **The final EIS should include measures to enable local governments to install landscaping and hardscape improvements to enhance pedestrian safety and beautify the FEC corridor at the lowest possible cost to the public and without the financial burden of easement lease costs.**

## Transportation

### *Roadway Network & Grade Crossings*

*Regional Roadway Network.* The AAF project will affect both the regional roadway network as well as local roads, especially in the eastern portion of the region. At the regional scale, the affected roadways include Interstate 95 (I-95) and Florida's Turnpike. Data provided in the DEIS indicate the applicable segments of these roadways meet or exceed the level-of-service (LOS) standard according to the Florida Department of Transportation (FDOT), generally ranging from LOS B-C. One segment of I-95 is indicated to operate at LOS D, for which the DEIS notes that FDOT has determined LOS D is acceptable for highway systems inside urbanized areas. The DEIS contains sufficient information to address impacts to the regional roadway network.

*Local Roadway Network.* For the local roadway network, the project impacts are more significant. The DEIS states by the 2016, the AAF project will add 32 daily passenger trains to a forecasted 20 daily freight trains, totaling 52 trains per day operating on the corridor. As indicated in the DEIS, there are a total of 159 grade crossings in the N-S Corridor, with 104 grade crossings located in the region as follows:

| **Table 4.1.2-3** Summary of At-grade Crossings by County Within the N-S Corridor | | |
|---|---|---|
| County | Length of Corridor (miles) | Number of At-grade Crossings |
| Indian River | 21 | 30 |
| St. Lucie | 22 | 21 |
| Martin | 26 | 27 |
| Palm Beach | 18 | 26 |
| *Total for Treasure Coast Region* | 87 | 104 |
| Brevard | 42 | 55 |
| *Total for N-S Corridor* | 129 | 159 |
| Source: AAF. 2013c. FECR Grade Crossing Estimate Spreadsheet. Received via email from Alex Gonzalez on March 7, 2013. | | |

The DEIS includes an analysis of only ten grade crossings, two per county, for the 129-mile N-S Corridor. Utilizing 2019 as the model year, the DEIS indicates the typical at-grade crossings would close an average of 54 times per day (approximately three times per hour). As presented in Appendix 3.3-C, Transportation and Railroad Crossing Analysis of September 2013, the anticipated maximum roadway closures for the project area would range from 1.7 minutes for passenger trains to 5.7 minutes for freight, with hourly closures ranging from 6.6 to 7.1 minutes per hour. Relevant data from the Appendix 3.3-C is presented in Table 4.2 below.

**Table 4-2.** Comparison of Roadway Crossing Closures for the Project Area in 2016

| County | Number of Crossings | Freight | | Passenger | |
|---|---|---|---|---|---|
| | | Train Speed (miles per hour) | Maximum Closure (minutes/hour) | Train Speed (miles per hour) | Maximum Closure (minutes/hour) |
| Palm Beach (N of Station) | 26 | 54.3 | 4.9 | 89.2 | 1.7 |
| Martin | 25 | 44.4 | 5.7 | 79.5 | 1.7 |
| St Lucie | 20 | 47.8 | 5.4 | 92.6 | 1.7 |
| Indian River | 30 | 54.2 | 4.9 | 106.6 | 1.7 |
| Brevard | 55 | 53.8 | 4.9 | 98.1 | 1.7 |

Notes:
1. 2016 freight speed obtained from CA20 TPC Runtimes Frt-RO.xlsx, received from AAF via email June 2013.
2. 2016 passenger speed obtained from CA20 TPC Runtimes-R2 w Revised EW Corridor.xlsx, received from AAF via email June, 2013.
3. Maximum Closure per Hour calculated as the Total Time to Activate and Clear multiplied by the Maximum Crossings per Hour, divided by 60.

*Impact of Bridges on Roadway Network.* The N-S Corridor crosses a substantial number of navigable and non-navigable waterways with a total of thirteen bridges. Two bridges are movable bridges that are proposed for rehabilitation, including the Loxahatchee River railroad bridge, which is proposed to become a double-track bridge, and the St. Lucie River railroad bridge, which is proposed to remain a single-track bridge. According to the DEIS, the project will introduce technology improvements, such as Positive Train Control, along with centralized dispatch of both passenger and freight trains to allow train movements to be synchronized. As a result, the DEIS indicates at least 10 of the 20 future freight trains will cross bridges either concurrently or sequentially with passenger trains. Both north and south of the movable bridges, the rail corridor contains substantial track curvatures, which will require trains to reduce speeds.

The DEIS indicates the average freight trains speeds through Palm Beach and Martin counties to be approximately 40 and 37 MPH, respectively, while passenger trains speeds are projected to average roughly 75 and 77 MPH, respectively. However, given the track curvatures, bridge transitions, and passenger/freight sequencing, the average train speeds would be significantly reduced to accommodate safe bridge crossings at the Loxahatchee River and St. Lucie River bridges. Slower-speed trains in these locations will substantially impact grade crossings and roadway network functions in the vicinity of these two bridges, with greater impacts at the St. Lucie River Bridge due to its proposed single-track configuration.

While the AAF passenger trains are estimated to be roughly 1000 feet in length, the DEIS indicates the average freight train length to be approximately 8,510 feet. The DEIS indicates freight demand will increase by 3 percent annually after the inception of AAF service in 2016, with freight forecasts indicating longer freight trains as inbound freight increases to southern seaports over time. As a result, the combined passenger and freight impacts in the immediate roadway network proximate to the movable bridges would extend north and south approximately two miles. Multiple trains slowing to accomplish a sequential or concurrent drawbridge crossing would be expected to cause longer delays for nearby grade crossings. For the Loxahatchee River Bridge, these disproportionately affected grade crossings would include Toney Penna Drive, Indiantown Road, and Center Street to the south and East Riverside Drive, Tequesta Drive, and County Line Road. At the St. Lucie River Bridge, the affected grade crossings would include Joan Jefferson Way, Colorado Avenue/SR 76, Martin Luther King, Jr. Boulevard, East Florida Street, and Monterey Road, and to the north, NW Fern Street and NE Dixie Highway. As the DEIS indicates roughly half the future freight trains would be sequenced with passenger trains to allow simultaneous crossings, this result would be at least ten times per day, an entire set of grade crossings would likely be closed at once by a single 8000+ foot freight train. This impact is projected to increase over time. These conditions do not appear to be analyzed as part of the roadway impact analysis in the DEIS.

*Roadway Network Analysis Deficiencies.* Several data and methodological concerns are noted regarding roadway network analysis as follows:

(1) The DEIS utilizes 2011 Annual Average Daily Volume for the traffic impact analysis; however, current year traffic data is readily available from FDOT and local governments and would increase the accuracy of the DEIS.

(2) The traffic impact methodology does not appear to consider grade crossings most relevant for emergency access to hospitals and other critical infrastructure along the corridor. Emergency response times could be severely impeded by the increased number of rail trips as indicated in the DEIS.

(3) There are disproportionate impacts on the roadway network in the vicinity of the two movable bridges at the Loxahatchee River and St. Lucie River. Additional analysis is needed with consideration of slower train speeds approaching and departing bridges, multiple trains crossing bridges either concurrently or sequentially, and impacts on the surrounding grade crossings.

(4) The DEIS grade crossing sample of only two grade crossings per county is too narrow and does not accurately capture the varied conditions of the local roadway network. Given the urban development pattern along the N-S Corridor, there is a fine-grained street grid both east and west of the rail corridor. Throughout the region, Dixie Highway and US1/Federal Highway run generally parallel to the rail corridor, with frequent east/west higher volume roadways that include intersections on both sides of the rail corridor. As a result, vehicles stopped at rail grade crossings cause vehicle back-ups that extend across the rail corridor. In addition, the close proximity between the rail corridor and adjacent roadways causes longer vehicles and vehicles with trailers to be stopped at a red light while a portion of a single vehicle remains across the rail corridor.

(5) The DEIS assumes the project will capture 7.2 percent of the long distance market share (from Miami to Orlando) and 5.6 percent of the short distance market share, forecasting 69 percent of riders will shift from automobile travel, thereby diverting approximately 336,000 vehicle trips in 2016. Given the geography of the N-S Corridor, it appears this vehicular shift would occur in the counties with stations, while the geography and default travel times would not compel ridership from Martin, St. Lucie, or Indian River counties. The roadway impact delays from the project, however, including grade crossing delays and bridge-related delays, would be considerable in these non-station counties. Therefore, those portions of the corridor without stations would experience greater vehicular delays without gaining benefits of access, resulting in secondary impacts from the project. Additional analysis is needed to understand the magnitude of vehicular reductions versus vehicular delays.

**Recommendation:**

- **An updated traffic impact analysis should be conducted that utilizes current year traffic counts and a substantially expanded sample of grade crossings. The analysis should consider high-volume roadways, grade crossings proximate to the Loxahatchee River and St. Lucie River railroad bridges, emergency access routes, roadway intersections near grade crossings that are directly affected by grade crossing closures, and vehicular delays caused by grade crossing closures, including all potential mitigation measures. Additionally, costs to local governments need to be identified for intersection, roadway, and water management improvements needed to cure traffic and traffic safety impacts on the local and regional roadway network created by increased grade crossing closures.**

*Pre-Emption.* FRA conducted diagnostic field reviews from February through July of 2014 to evaluate grade crossings and identify necessary safety infrastructure to accommodate the AAF project. In the FRA's On-Site Engineering Field Report, Part 2, the issue of highway traffic signal pre-emption was raised as a safety concern relevant to the local roadway network. The proper traffic signal interconnections are necessary to provide sufficient time to permit a vehicle or pedestrian to clear the path of an approaching train. The report recommends that due to the inclusion of additional tracks, increase in train speeds, station stops and restarts from sidings within approaches to traffic signal interconnected grade crossings, a thorough evaluation should be conducted of the preemption needs to determine the appropriate form of preemption (either

simultaneous or advanced preemption) to be required at each grade crossing location along the entire AAF service route (Miami through Cocoa).

**Recommendation:**

- **The final EIS should include an analysis of pre-emption at grade crossings and include relevant improvements and their costs as part of the project.**

*Connector Road at West Palm Beach Station.* The project proposes to construct a station in downtown West Palm Beach, which will require the closure of two downtown streets – Datura Street and Evernia Street – to accommodate a 1000-foot train platform. Closure of these two streets creates substantial impacts upon vehicular circulation in the vicinity of the station, with projected levels of service falling below acceptable thresholds. Traffic analyses evaluating this roadway network failure indicate the installation of an access road along Rosemary Avenue can provide mitigation for these impacts and enable the roadway network to function at acceptable levels.

**Recommendation:**

- **The final EIS should include a requirement for the installation of a connector road between Clematis and Evernia at the West Palm Beach station to reduce roadway network impacts.**

***Marine Navigation***

As noted above, the N-S Corridor traverses a number of navigable waterways and includes two movable bridges at the Loxahatchee River and St. Lucie River. Project impacts on these two bridges are significant, and data in the DEIS indicates the bridges could be closed to marine navigation 300 percent more than current conditions, which could create significant economic, recreational, and access impacts in the region.

*Loxahatchee River Bridge:* Located in the Town of Jupiter and adjacent to the Village of Tequesta, the Loxahatchee River railroad bridge crosses the Loxahatchee River approximately 1.3 miles west of the Jupiter Inlet, adjacent to the Atlantic Intracoastal Waterway. The Loxahatchee River includes roughly twelve miles of navigable coastline in Palm Beach and Martin counties. Land uses along the waterway are predominately residential, cultural, recreational, and preservation, including highly popular recreational destinations such as sandbars and Jonathan Dickinson State Park.

The DEIS indicates there are seven marinas with more than 500 slips along with four boat ramps within close proximity to the bridge. Upstream from the bridge, the DEIS indicates there are more than 1,200 private and residential docks. Boating data in the DEIS suggests boating activity at the Loxahatchee River Bridge is predominately recreational. The DEIS indicates an average of 108 vessels per day transit the bridge Monday-Friday and 271 per day on weekends, with more than 500 on peak weekend days, and up to 14 commercial vessels per day. However, local counts provided by the Jupiter Inlet District (JID) indicate average boating traffic is higher, counting roughly 500 boats/weekend day during daylight hours from January through September 2014 (Exhibit 2).

The bridge has a vertical clearance of four feet, which means virtually no boats can cross the bridge when it is closed, and a narrow horizontal clearance of 40 feet. According to the USCG Drawbridge Operation Regulations (33 CFR 111.299), the drawbridge is presumed to be normally in the fully open position and lowered for freight train passage. Per the DEIS, under 2013 conditions, 14 freight trains cross the bridge daily, with average closure times of 19 minutes apiece. The average total weekday closure time is suggested to be approximately 3.6 hours/day on weekdays and 2.6 hours/day on weekends. The bridge currently includes a single railroad track which would be expanded to a double-track with the AAF project.

*St. Lucie River Bridge:* Located in the City of Stuart, the St. Lucie River Railroad Bridge is drawbridge crossing the St. Lucie River (and Okeechobee Waterway) approximately 5.9 miles from the St. Lucie Inlet. The St. Lucie River extends upstream, north, south, and west, with nearly 40 miles of navigable coastline in Martin and St. Lucie counties. Approximately six miles southwest of the bridge, the South Fork of the St. Lucie River connects to the St. Lucie Canal/C-44, which provides a 90-mile navigable route through Lake Okeechobee to Fort Myers.

Land uses along the St. Lucie River are mixed, including residential, retail/commercial, office, hotel, industrial, recreational, and preserve. The bridge also provides access to designated community redevelopment areas in Old Palm City and Indiantown, where a recent state Enterprise Zone designation was secured to support marine commercial activity. The DEIS suggests there are fifteen marinas along the St. Lucie River, and a review of aerial photos indicates there are approximately 2,000 private docks along the coastline. The DEIS indicates the boating activity is mostly recreational, with an average of 102 vessels/day crossing the bridge on weekdays and 315 vessels/day on weekends, with as a daily weekend high of 413 vessels/day, and up to 21 commercial vessels per day. Martin County's boater counts indicate a higher level of activity, with average daily traffic of 235 boats/day and 450 boats/day on peak weekends (Exhibit 3).

The St. Lucie River railroad bridge has a vertical clearance of seven feet, enabling only enable smaller recreational vessels to cross when the drawbridge is down, and a horizontal clearance of 50 feet. Similar to the Loxahatchee River railroad bridge, the relevant U.S. Coast Guard (USCG) Drawbridge Operation Regulations (33 CFR 111.317) also indicate the drawbridge normally in the fully open position and lowered for freight train passage. Under 2013 conditions, the DEIS indicates 14 freight trains cross the bridge daily, with average closure times of 21 minutes each. The average total weekday closure time is suggested to be approximately four hours/day on weekdays and nearly three hours/day on weekends. The DEIS indicates the St. Lucie River Railroad Bridge would be rehabilitated and remain a single-track bridge.

*Freight Demand:* The DEIS indicates current freight demand to be 14-17 freight trains per day, which are forecast to grow to 20 trains per day by 2016, increasing 3 percent annually thereafter. Given the average closure times per freight train, with average travel speeds of 32-36 MPH in Palm Beach and Martin Counties, the DEIS indicates freight demand alone could result in the Loxahatchee River Bridge closing 5.8 hours/weekday on average and 3.6 hours/weekend day average by 2016. For the St. Lucie River Bridge, the DEIS projects total average daily bridge closures of 6.6 hours/weekday and 3.6 hours/weekend day by 2016.

*Passenger Demand:* The AAF project proposes to introduce 32 daily trains on the corridor. Combining the projected freight and potential passenger rail demand for the corridor, the DEIS indicates an average operation of 52 total daily trains in year one (2016) of the combined service program, with projected freight increases of 3 percent annually. The cumulative impact of the projected freight and passenger rail services would cause additional navigational delays due to the increase in bridge closings.

- For the Loxahatchee River bridge, the DEIS assumes that project improvements will enable up to ten freight trains to routinely cross the Loxahatchee River bridge simultaneously with passenger trains and that average time/closure would fall from 19 minutes today to 12 minutes per closure in 2016. Accordingly, given proposed project improvements, such as double-tracking the bridge, and the noted assumptions, the DEIS suggests the average daily bridge closure for the Loxahatchee River bridge would increase to 8.6 hours/weekday and 7.2 hours/weekend day (see Table 5.1.3-2 below).

- For the St. Lucie River bridge, the DEIS continues to assume up to ten freight trains will routinely cross with passenger trains on the single-track bridge and that average time/closure would fall from 21 minutes today to 15 minutes in 2016. Given these assumptions and project improvements, the DEIS suggests the average daily bridge closure for the St. Lucie River bridge would increase to 9.8 hours/weekday and 7.6 hours/weekend day (see Table 5.1.3-2 below).

**Table 5.1.3-2 Moveable Bridge Closures**

| Year | Number of Closures[1] | Average Single Weekly Closure Time (minutes) | Average of Total Weekday Closure time (minutes) | Average of Total Weekday Closure time (hours) | Average of Total Weekend Closure Time (minutes) | Average of Total Weekend Closure Time (hours) |
|---|---|---|---|---|---|---|
| **St Lucie River Bridge** | | | | | | |
| 2013 | 10 | 21 | 241 | 4.0 | 165 | 2.7 |
| 2016 No-Action | 18 | 20 | 397 | 6.6 | 213 | 3.6 |
| 2016 Project | 42 | 15 | 588 | 9.8 | 458 | 7.6 |
| **Loxahatchee River Bridge (Jupiter Inlet)** | | | | | | |
| 2013 | 10 | 19 | 214 | 3.6 | 156 | 2.6 |
| 2016 No-Action | 16 | 20 | 351 | 5.8 | 216 | 3.6 |
| 2016 Project | 42 | 12 | 515 | 8.6 | 434 | 7.2 |
| **New River Bridge** | | | | | | |
| 2013 | 10 | 19 | 147 | 3.5 | 147 | 2.5 |
| 2016 No-Action | 16 | 19 | 360 | 6.0 | 197 | 3.3 |
| 2016 Project | 30 | 13 | 414 | 6.9 | 314 | 5.2 |

Source: AMEC. 2014a. *Navigation Discipline Report for the AAF Passenger Rail Project from Orlando to Miami, Florida*. July 2014.

According to the DEIS, the additional bridge closures would result in delays for recreational and commercial mariners at both bridges. The percentage of total boaters experiencing delays after the AAF project is operational is anticipated to increase from 14 percent to 42 percent of all vessels at the St. Lucie River Bridge and from 25 percent to 42 percent at the Loxahatchee River Bridge. The DEIS indicates the average queue length for boaters would be 10 vessels or fewer.

However, given the higher boating activity counts provided by JID and Martin County, it would appear the number of boats queuing at bridges would be considerably greater, which could create navigational hazards for vessels awaiting bridge openings. The data and analysis provided in the DEIS appears inaccurate given the updated boater counts. The U.S. Coast Guard has initiated a marine navigational survey to assess public concerns regarding navigational constraints at the movable bridges, including consideration of modifications to the Code of Federal Regulations regarding bridge operations. These data should also be considered in an updated marine navigational survey. In conjunction with the U.S. Coast Guard, a revised navigational survey should be provided as part of the final EIS that distributes both boating and rail activity across a 24-hour spectrum to more accurately identify impacts. This survey should also consider modifications to bridge regulations to reduce impacts to navigation.

*Bridge Safety:* The two movable bridges date back to the 1920s, and substantial concerns have been raised regarding their safety and structural integrity. Despite requests from local governments, no bridge safety or inspection reports have been made available for review regarding these concerns. With cooperation from the FECI, independent bridge inspections should be conducted to confirm the continued safety and structural integrity of the bridges to accommodate the proposed increase in operations.

**Recommendation:**

- **In coordination with the U.S. Coast Guard, an updated marine navigational study should be conducted utilizing more accurate data related to boater traffic, marina locations, numbers of slips, and boater access and addressing safety issues from the queuing of boats awaiting bridge openings. This survey should evaluate the distribution of boating activity and railroad bridge closures across a twenty-four spectrum to more accurately evaluate impacts on navigation. The study should also consider the findings of the ongoing U.S. Coast Guard marine navigational survey and appropriate modifications to the Code of Federal Regulations to reduce impacts on navigation.**
- **Independent bridge inspections should be conducted for the Loxahatchee and St. Lucie River railroad bridges to determine their safety and structural integrity.**

*Navigational Mitigation Measures:* The DEIS indicates the project proposes several mitigation measures, including the establishment of a set schedule for the down times of the bridges for passenger rail service, a publicly-accessible bridge closure schedule with anticipated crossing times, notification signals and signage at each bridge to indicate pending bridge closures, coordination plans between AAF and local authorities for peak vessel travel times, and a coordination plan between AAF and the USCG to raise awareness within the boating community. These measures are insufficient to offset the impacts on navigation from the project. Both bridges were constructed in the 1920s, and substantial rehabilitation of bridge mechanics could increase the speed and predictability of bridge operations. Increasing the vertical and horizontal clearance at both bridge apertures (i.e., the space between the pilings as well as between the surface of the water and base of the bridge when closed) would allow multiple boats to pass while the bridges are open as well as allow increased passage while the bridges are closed. The DEIS considers the utilization of alternate corridors, such as the CSX, Interstate 95, and Florida Turnpike, for the operation of passenger rail service. These corridors should also be

considered for the relocation of freight traffic, as well as a reduction in total passenger trains, especially during peak boating hours, to further reduce impacts to navigation.

**Recommendations:**

- **The final EIS should consider physical improvements to create taller, wider bridge apertures at the Loxahatchee and St. Lucie river bridges to enable bi-directional traffic, access for more vessels when the bridge is closed, and mechanical improvements to improve the efficiency, timing, and predictability of bridge closings.**
- **The final EIS should consider an alternative with reduced service on the N-S Corridor, including the relocation of freight traffic onto other rail corridors such as the CSX, especially during peak boating hours.**

*Taylor Creek Bridge.* The DEIS indicates the Taylor Creek Bridge will be rehabilitated as part of the project. Taylor Creek is located just north of the City of Fort Pierce, within an area that contains a substantial number of census tracts meeting environmental justice thresholds. The city has an adopted redevelopment program that includes Taylor Creek as a key point of access for the low-income neighborhoods to the west to access coastal destinations; however, the Taylor Creek railroad bridge is an impediment to access. Upstream of the bridge, there are considerable opportunities for economic development and job creation. To mitigate navigational impacts otherwise created by the project, the Taylor Creek bridge could be rehabilitated with a greater vertical clearance. This improvement would also offer mitigation for the project's environmental justice impacts in this area as well.

**Recommendation:**

- **The project should include improvements to Taylor Creek Bridge to increase its vertical clearance.**

***Transit Systems***

The DEIS describes the relationship between AAF and existing local and regional transit services. Local transit operators are noted, along with intercity motorbus service, Amtrak, and Tri-Rail, which provides commuter rail service on the CSX rail corridor through Miami-Dade, Broward, and Palm Beach counties. The DEIS fails to address the impact of additional grade crossing closures and roadway network delays on the operation of local transit. This impact will especially affect transit-dependent populations along the corridor.

For more than a decade, Tri-Rail has been working with FDOT, local governments, and metropolitan planning organizations for an extension of Tri-Rail onto the FEC rail corridor. Referred to as the "Tri-Rail Coastal Link," service plans include additional commuter rail service operating between Jupiter and Miami, with rail interconnections in West Palm Beach, Pompano, and Miami. Tri-Rail service represents a significant public investment and provides critical mobility within the region. AAF representatives have indicated AAF stations are being designed to accommodate future Tri-Rail service; however, this data is not provided in the DEIS. Terms of access must also be established to enable Tri-Rail service to operate on the FEC rail corridor, but there is no reference in the DEIS regarding this need.

**Recommendations:**

- **The final EIS should include an analysis of the operation of Tri-Rail service on the FEC rail corridor, a requirement to establish reasonable access to the corridor for Tri-Rail service, and clarification that AAF stations are designed to accommodate future Tri-Rail service in the most efficient manner and at the lowest cost to the public.**
- **The final EIS should include an analysis of impacts on local transit service caused by grade crossing and other delays in the local roadway network.**

***Bicycle and Pedestrian Circulation***

The DEIS evaluates impacts on the roadway, aviation, rail, and transit services; however, the evaluation of impacts on the local roadway network fails to address the multi-modal characteristics of the system. The FEC rail corridor traverses a highly developed urban corridor with a linear pattern of historic downtown communities. The DEIS indicates the population of the 117 census tracts within the project study areas is approximately 535,000. The corridor contains a high proportion of persons at or below the poverty level. The DEIS indicates that within the N-S Corridor alone, there are more than 23 census tracts with concentrations of low-income persons. The corridor population tends to include a higher proportion of persons without access to personal vehicles, with greater needs for safe bicycle and pedestrian access. Improvements within the N-S Corridor will include the installation of a second track, and with the higher speeds, FRA staff has indicated fencing will be required as pedestrian activity is extensive.

Although not addressed in DEIS, AAF LLC has indicated to local governments and the Florida Department of Transportation that it would bear the costs of all grade crossing safety improvements required for the construction of the project. In addition to vehicular improvements, given the low-income, transportation disadvantaged populations that line the corridor, the project's safety improvements should also include the installation of bicycle/pedestrian infrastructure to accommodate safe egress across the corridor and mitigate project impacts. In addition, there are many locations where grade crossings are more than one mile apart, with expansive residential development between crossings. There is substantial evidence of pedestrian activity crossing the rail corridor between the grade crossings in the form of informal well-used trails. This long-standing access provides these low-income populations access to jobs, school, food, medical care, and emergency services. FRA staff has also indicated the requirement of barrier fencing along the corridor to prevent pedestrian access, which will harm the ability of these populations to access basic needs (Exhibit 4). Accordingly, impacts on these low-income neighborhoods should be further mitigated with the installation of pedestrian grade crossings in locations of known pedestrian activity where vehicular grade crossings are more than one mile apart.

As a linear transportation corridor that connects historic communities, the FEC Rail Corridor has long been identified for the installation of a multi-use pathway for non-motorized users. As a "rail-with-trail," this improvement is identified in the plans of local governments as well as the metropolitan/transportation planning organizations in the region. The inclusion of a multi-use

pathway in the FEC right-of-way would allow safe bicycle/pedestrian access within and between corridor communities, further diverting automobile trips from the roadway network, thereby reducing carbon emissions, and enhancing access for transit-dependent and low-income populations along the corridor.

**Recommendations:**

- **The final EIS should include a requirement for the installation bicycle/pedestrian infrastructure, including gates, lights, and crossing arms, at all grade crossings as part of the project's safety improvements. In addition, the final EIS should include the installation of pedestrian grade crossings in locations of known pedestrian activity where grade crossings are more than one mile apart.**
- **The final EIS should include a requirement for fencing in areas of known pedestrian activity to channelize pedestrian traffic into formal pedestrian crossings.**
- **The final EIS should include a requirement for the establishment of a multi-use pathway along the N-S Corridor.**

***Public Safety***

The introduction of 32 high-speed trains, coupled with increasing freight traffic on the FEC rail corridor, poses significant impacts on public safety. There are substantial concerns regarding the roadway impact analysis presented in the DEIS, which relied upon a limited sample of ten grade crossings among five counties to evaluate roadway impact. The close proximity of multiple high-volume roadway intersections in the vicinity of grade crossings could have adverse effects on emergency response by fire rescue, ambulance, and police first responder vehicles. These impacts are compounded near movable bridges, where the crossing of multiple trains, either concurrently or sequentially, could result in up to a half-dozen grade crossings closed simultaneously by 8000+ foot freight trains. Consequently, both direct and alternate routes to hospitals and other critical infrastructure could be blocked, resulting in significantly impeded emergency response times.

The DEIS indicates a real-time communication system for first responders to access train schedules and potential delays will be available; however, no specific data or detail was provided. The DEIS also indicates the availability of an electronic system of notification or access for first responders for locating train schedule and en route activity. Access to real time train location during emergency response would greatly reduce response times to hospitals. This could be accomplished through software interface with county 911 dispatch centers.

The project's impacts on the Loxahatchee River and St. Lucie River also pose substantial impacts to public safety. The Loxahatchee and St. Lucie River drawbridges have direct impact on commercial, recreational and emergency response vessels. The DEIS indicates the number of boaters experiencing delays at the bridges will increase to 42 percent of all boaters. With updated boater activity data as noted in this report, the number of boats anticipated to queue at bridges, especially on weekends and peak boating days, could exceed thirty boats. Currents at the bridges are substantial, which will likely result in navigational conflicts.

First Responders in marine fire rescue, advanced life safety, and law enforcement vessels will be restricted by the closures of the bridges. Formal coordination with county emergency management and first responder agencies will greatly enhance understanding of response needs and provide a better understanding of capabilities. The DEIS indicates first responder training and outreach as mitigation to ensure that needs are met regarding emergency response; however, to date, this early coordination has not been accomplished.

*Loxahatchee River Bridge.* The DEIS indicates the average daily bridge closures at the Loxahatchee River drawbridge will increase to 8.6 hours/weekday and 7.2 hours/weekend day. Safety issues raised specifically for the Loxahatchee River Bridge include the capacity of the Village of Tequesta to provide only one Advanced Life Safety Vessel for responding to marine based emergencies. This vessel is docked on the east side of the bridge and will not have access to the west side should the bridge be closed – delaying emergency response time significantly. This is the only means by which water-based emergencies can be reasonably addressed within the Loxahatchee River. To mitigate this impact, an additional life safety vessel should be located on the west side of the bridge. The Loxahatchee Bridge width is 40 feet in width, which prevents bi-directional boating traffic, and has a 4-foot vertical clearance when closed, which prevents virtually all motorized vessels from transiting the bridge when closed.

This safety issue could be alleviated with a wider, taller bridge opening, which would reduce the number of boats idling in the channel areas. Long-term mitigation of this issue better serves public safety given the expected increase of 3 percent annual growth in freight service and potential increases in ridership of the passenger rail indicated by the DEIS. Increased horizontal and vertical clearances, or bridge replacement with a thinner bridge profile, would allow more vessels to transit the bridge when closed and help mitigate public safety issues. In addition, improvements to bridge systems would expedite the opening and closing cycles improving delay times and boater safety risks through emergency response improvements.

*St. Lucie River Bridge.* The DEIS indicates the average daily closures at the St. Lucie River Bridge will increase to 9.8 hours/weekday and 7.6 hours/weekend day. The width of the bridge opening is 50 feet, which prevents most bi-directional boating traffic, with a vertical clearance of 7 feet. Safety impacts at this bridge could be mitigated with a wider, taller bridge opening, which would enable more boats to transit the bridge when closed, reducing the number of boats idling in the channel. Other mitigations could include bridge replacement or substantial augmentation for horizontal and vertical clearance as well as mechanical improvements to expedite the opening and closing cycles and reduce boater delay.

**Recommendations:**

- **The final EIS should include an emergency response traffic analysis, including a detailed analysis of impacts on emergency vehicle trips, route data, access to hospitals and critical infrastructure, and key roadways and intersections to maintain timely emergency response. This analysis should be conducted with consultation from local emergency management, fire rescue, and hospital representatives.**

- **The final EIS should include measures to improve communications for emergency response, such as the provision of real-time information for the dispatch of first responders.**
- **The final EIS should require the project provide a second emergency response vessel upstream of the Loxahatchee River Bridge.**

**Air Quality**

The air quality analysis in the DEIS evaluated the emission of air pollutants from the project, the concentrations of pollutants in the regional areas, and carbon monoxide concentrations at intersections affected by changes in traffic patterns. All six counties crossed by the project are in attainment for all criteria pollutants. The DEIS concludes the project would provide a net regional air quality benefit as compared to the No-Action Alternative, with improved regional air quality through the reduction of vehicles from the roads and highways when riders switch to use the proposed passenger rail service. The DEIS states the project would decrease emissions of carbon monoxide, nitrogen oxides, sulfur dioxide, volatile organic compounds, and particulate matter. The DEIS indicates the project will have a beneficial effect on air quality because the daily vehicle trips will be reduced on roadways and annual vehicle miles traveled will decrease. These changes will result in emissions reductions and provide an overall net benefit for the air quality of the region.

However, the DEIS does not appear to consider two sources of potential emissions, including vehicles delayed within the roadway network as well as marine vessels awaiting bridge openings. As discussed above, the DEIS provides insufficient data to determine the full impact of vehicular delays, including bridge impacts on the roadway network as well as closely spaced railroad crossings and vehicular intersections. Further, the DEIS utilizes inaccurate boater data regarding the number of vessels transiting the Loxahatchee and St. Lucie River railroad bridges, which appears to underrepresent both the total number of vessels as well as the number of vessels anticipated to be idling in queue during bridge closures. Additional analysis is needed to more accurately assess the associated vehicle and vessel emissions and corresponding accumulated air quality impacts.

The DEIS indicates the EA prepared in 2012 for the West Palm Beach to Miami section modeled air quality emissions at intersections and grade crossings, where vehicle congestion may occur, using a CO hotspot screening method. Motor vehicles emit CO at high rates when they are operating a low speeds or idling in queues. The EA evaluated the most congested intersections in the vicinity of the proposed stations and railroad crossings. The modeling showed that traffic did not exceed air quality criteria in either the opening year or the build-out year at any of the intersections or grade crossings. Traffic volumes and congestion at the crossings in the West Palm Beach to Orlando segment are projected to be lower than those found for the highest-volume grade crossing evaluated in the West Palm Beach to Miami section evaluated in the 2012 EA. Therefore, a detailed hot-spot CO modeling evaluation was not conducted for this DEIS, because traffic delays did not exceed those at the higher-volume grade crossing, which did not exceed air quality criteria.

In order to address temporary construction impacts to air quality, the DEIS includes the following mitigation measures and project commitments: implementing best management practices (BMPs) during construction, such as soil watering to reduce fugitive dust emissions, to reduce potential emissions during construction; and keeping constriction equipment on site for the duration of construction to minimize emissions associated with transporting this equipment.

**Recommendation:**

- **The final EIS should include a more extensive analysis of vehicle and vessel delays, accumulated impacts on air quality, and appropriate mitigation measures.**

**Noise and Vibrations**

The DEIS indicates there would be long-term noise and vibration impacts from operation of the project, and temporary impacts from construction of the project. Along the N-S Corridor, AAF has committed to installing stationary pole-mounted wayside horns at each of the 159 grade crossings between Cocoa and West Palm Beach where severe, unmitigated impacts would occur using locomotive-mounted horns. Using wayside horns at the intersection instead of the locomotive horn has been shown to substantially reduce the noise footprint without compromising safety at the grade crossing. The use of wayside horns would eliminate any severe impacts and would reduce noise levels in comparison to the No-Action Alternative. An alternative measure is the designation of quiet zones along the corridor, wherein sufficient safety infrastructure is installed to reduce risk indexes at grade crossings, rendering train horns unnecessary. Many local governments have requested AAF support the establishment of quiet zones where appropriate in conjunction with the development of the project, which could help mitigate project impacts.

The project would result in vibration impacts along the N-S Corridor due to nearly doubling the number of vibration events as a result of adding passenger train service to the existing freight operations. Along the N-S Corridor, there would be potential vibration impact at a total of 3,317 residential, 513 institutional receptors, three television studios, three recording studios, nine auditoriums and three theaters. AAF proposes to minimize vibration impacts by wheel and rail maintenance that will control unacceptably high vibration levels. The DEIS indicates vibration levels are not projected to exceed structural damage levels at any location.

The DEIS fails to acknowledge the high concentration of hospitals and medical establishments along the corridor, including hospitals that abut the FEC right-of-way. These facilities are especially affected by noise and vibration, and a separate analysis should be conducted to identify all medical/hospital locations and analyze noise and vibration impacts on their function and operations. Additional buffering via landscape and hardscape improvements may be necessary along with other mitigations to reduce impacts on these facilities.

Noise and vibrations from the construction and operation of the proposed project has the potential to impact the quality of life of citizens in the region. In addition to the ways of reducing noise and vibration impacts from the operation of the project discussed above, AAF has committed to mitigate the adverse impacts of construction noise by a range of measures

including time of construction, modifications to construction equipment, and selection of construction routes. However, the evaluation of Historic & Cultural Resources section of this report notes that not all historic buildings and structures have been properly identified along the proposed rail corridor. The DEIS contains insufficient information until the potential impact of vibrations an all historic buildings and structures is evaluated. Also, Council received correspondence from Joel Tallent regarding the potential impact of Rayleigh waves on structures along the corridor. This issue should also be addressed in the final EIS.

**Recommendations:**

- **All historic buildings and structures adjacent to the rail corridor should be evaluated for the potential impact of vibrations.**
- **A medical facility assessment should be conducted to confirm location of all hospital/medical facilities, analyze noise and vibration impacts, and determine appropriate mitigations to reduce impacts.**
- **The impact analysis of noise and vibrations should specifically address the effect of Rayleigh waves.**
- **The final EIS should include sufficient infrastructure to enable local governments to designate quiet zones as deemed appropriate along the corridor.**

**Coastal Zone Management**

The project lies within the designated Florida Coastal Zone and requires a federal consistency determination under the Coastal Zone Management Act. The Florida State Clearinghouse coordinates the review of proposed federal activities, requests for federal funds, and applications for federal permits other than permits issued under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. Regional planning councils and local governments may participate in the federal consistency review process by advising the Florida State Clearinghouse on the local and regional effect of proposed federal actions.

The DEIS indicates that direct effects to the natural resources in the coastal zone will result from all elements of the project, including construction of the vehicle maintenance facility, bridge and rail construction along the E-W Corridor, and bridge construction along the N-S Corridor. Within the Treasure Coast Region, bridge construction/reconstruction would impact small areas of aquatic resources within the Indian River and the Jensen Beach-Juniper Inlet Aquatic Reserve. All construction activities associated with the N-S Corridor would occur within the existing FECR Corridor. The DEIS proposes a range of mitigation measures and commitments to avoid and minimize project related impacts to coastal resources. Detailed mitigation plans for impacts to wetlands, essential fish habitat, and wildlife will be determined in the federal and state permitting process. **The DEIS contains sufficient information related to coastal zone management.**

**Climate Change**

The DEIS includes a discussion recognizing that southeast Florida is particularly vulnerable to the effects of climate change, especially sea level rise. Sea level is predicted to rise 9 to 24 inches by 2060, and the rate of change is projected to increase over time. Florida may also be

susceptible to more intense storm events. The potential impacts of climate change include the displacement of communities, damage to infrastructure, and damage to natural systems. The DEIS indicates bridge structures in the N-S Corridor will have increased vulnerability over time, and potential infrastructure damage may result from flooding, tidal damage, and/or storms. The DEIS notes that bridge vulnerability to sea level rise will increase a sea level rises. As a result, there may be increasing periods of time where the train is out of service during storm events.

The DEIS states that scientific consensus has identified human-related emission of greenhouse gases above natural levels as a significant contributor to global climate change. Reducing greenhouse gas (GHG) emissions is considered an important mitigation strategy to decrease the long-term effects of climate change. The DEIS indicates that the AAF project is predicted to reduce GHG emissions for carbon dioxide ($CO_2$), methane ($CH_4$) and nitrous oxide ($N_2O$). The project would decrease emissions as a result of decreased automobile vehicle miles traveled. $CO_2$ emissions are calculated to decrease by 19,617 tons/year in 2019 and 31,477 tons/year in 2030. $CH_4$ emissions would decrease by 4.7 and 5.7 tons/year, respectively, and $N_2O$ emissions by 5 and 6.1 tons/year in 2019 and 2030. The DEIS notes that reducing GHG emissions is important for long-term climate change effects, but the reduction of GHGs will likely have little impact on the expected climate change effects over the next 20 or 30 years. **The DEIS contains sufficient information related to climate change.**

**Hazardous Materials & Solid Waste Disposal**

*Subsurface contamination or waste materials.* The DEIS conducted records search and field reconnaissance to sites rated medium and high risk by which contamination of soil and/ or groundwater by petroleum or hazardous materials has occurred, contamination may exist and where the potential for contamination of petroleum or hazardous materials exists due to past or present land use in close proximity to the project N-S Corridor area. The N-S Corridor remains within the existing FECR Corridor, and no land acquisition is required. A buffer of 200 feet on each side of the N-S Corridor was defined in the search and screened area. No historical concerns were identified within the environmental documents and historical aerials along the corridor, and therefore, field reconnaissance was used to assess the sites in close proximity to the project area to identify sites that potentially could impact the human environment from contaminated soil, groundwater and/or other hazardous materials.

There were 215 high risk and 48 medium risk sites adjacent to the N-S Corridor that were inspected, and several sites outside the 200-foot buffer from the 100-foot wide existing active railroad were also visited for possible soil contamination, dead or stressed vegetation or refuse indicating the presence of pollutants, toxic or hazardous materials. A total of 238 sites were identified as potentially contaminated sites, including 101 high-risk, 23 medium-risk, and 114 low-risk with 99 sites rated as no-risk.

The proposed work for the N-S Corridor is to be completed within the existing FECR Corridor, and the DEIS indicates it will present minimal subsurface disturbance. No impacts from existing contaminated areas are anticipated. For any contamination that is discovered, the DEIS indicates the implementation of BMPs during construction to include special waste handling, dust control, and management and disposal of contaminated soil and groundwater to provide adequate

protection to workers and nearby sensitive environmental and human areas. Site remedial actions will ensure nearby or adjacent potentially impacted areas are adequately protected and contaminated substances will be managed in accordance with applicable federal, state, and local laws and regulations as listed in this DEIS. **The DEIS adequately addresses the issues of subsurface contamination and waste materials.**

*Secondary and Cumulative Effects.* The DEIS has adequately addressed the hazardous materials elements of the proposed project. Indirect effects related to subsurface contamination or waste materials management could exist if the No-Action or Action Alternatives potentially impact an ongoing remediation of a known release or mediated materials following construction or waste in transport to another site or waste mitigation area. No indirect effects were identified for the No-Action Alternative; however, a secondary effect related to subsurface contamination or waste materials management could exist if an Action Alternative has the potential to cause an impact. The No-Action and all Action Alternatives could result in an indirect impact should a spill from a freight train occurs along the N-S Corridor.

Construction activities may generate releases or spills as a result of the storage and use of hazardous materials associated with construction equipment, storage tanks and pipelines. AAF has indicated that any new facilities constructed will be subject to applicable regulations, and a new *Spill Prevention, Control and Countermeasure Plan* would be implemented to reduce risk of releases. All construction hazardous materials will be disposed of in accordance with state and local laws and would include off-site facilities such as landfills, recycling centers, and treatment plants.

*Passenger Secondary Impacts.* The DEIS addresses hazardous materials spills/releases as related to soil and ground contamination. However, it does not address the potential hazardous materials releases from freight trains in proximity to a passenger train. Since the passenger trains are to be running adjacent to, with, or passing freight trains, there is a potential for train derailment and subsequent hazardous materials releases impacting passengers. The DEIS does not adequately address impacts, response or mitigation of freight train hazardous materials spill/release in proximity of passenger trains.

The DEIS suggests outreach and training with local first responders but does not elaborate or identify details of outreach and capacity of training. Additional information should be provided regarding railroad interaction with local first responders in derailment and hazardous materials response capabilities and operational interaction with local agencies.

In addition, the list of Hazardous Materials Currently Transported on FECR Corridor included in the DEIS is not exhaustive of chemical materials carried by rail, but instead, it only addresses chemical materials in relation to the identified contaminated sites for the DEIS. More data regarding the universe of potential chemicals to be transported is needed for appropriate response planning by emergency management and first responder agencies.

**Recommendations:**

- **The final EIS should include an analysis of the potential impacts, the adequacy of emergency response and operational interaction among local agencies, and**

**mitigation measures for freight train hazardous materials spills/releases in proximity of passenger trains.**

- **Additional data is needed regarding the entire range and frequency of chemical materials that could be carried on the corridor.**

**Water Resources**

The DEIS analyzed project impacts to surface water and groundwater resources, including navigable waters, Outstanding Florida Waters and impaired water bodies. Constructing the project in the N-S Corridor would not create new impervious surface or alter the existing drainage system because the project will utilize the existing rail corridor, which originally included two rail lines. The majority of the original second line was previously removed, but the track bed remains. The project would include reconstruction of the second line on the existing track bed. Reconstructing the second rail line within the existing roadbed would not create new impervious area. Also, the adjacent surface drainage is not expected to be impacted with the reconstruction of the second line. The existing cross drainage facilities on the adjacent roadways span the entire right-of-way width and would not require modification for installation of the second rail line on existing roadbed.

Water quality and quantity concerns associated with reconstructing the rail bed to add a second track are to be addressed as part of the Florida Environmental Resource Permit process. Drainage would be accommodated using an existing channel along the north or south side of the right-of-way. In some cases, this would require relocating existing drainage channels. No construction would occur that would potentially contact or impact groundwater supply. Constructing the rail in this corridor is not expected to result in a substantial impact to groundwater or aquifer recharge. Surface water resources would experience minor direct effects as a result reconstructing or replacing 18 bridges along the N-S Corridor. Direct permanent impacts would include installing concrete pilings and abutments within surface waters. No permanent adverse impacts to surface water quality or adverse impacts to Outstanding Florida Waters are expected to be caused by the bridges.

The N-S Corridor would overlap the eastern border of an aquifer protection area within Palm Beach County. The proposed improvements would not increase impervious surfaces in aquifer stream flow and recharge source zones. No adverse impacts to the aquifers are expected. The N-S Corridor passes through several wellfield protection zones in Brevard, Indian River, St. Lucie, Martin, and Palm Beach counties. Each of these counties has policies and regulations, in the form of wellfield protection ordinances, to protect drinking water supplies from contamination. The project would comply with all local ordinances for protection of the wellfields. Therefore, no impacts to wellfield resources are expected.

The DEIS indicates AAF will provide water quality mitigation and stormwater treatment as part of the project to mitigate for project related impacts. Specific measures would be determined by and in compliance with permit requirements. Temporary effects to surface waters and groundwater during construction activities will be minimized through the application of BMPs. During construction, AAF will use sediment control BMPs, including installation of turbidity curtains and silt fencing, to protect surface waters. Accidental spills of material such as fuels,

lubricants, solvents, or other liquids that could harm surface waters will be cleaned up in a timely manner in accordance with a spill prevention plan and BMPs. These measures would minimize the potential for temporary effects. **The DEIS contains sufficient information to address impacts to water resources.**

**Floodplains**

The N-S Corridor crosses the 100-year floodplain and numerous floodplains primarily associated with estuarine and coastal waters. The N-S Corridor also crosses several federal flood control watersheds and waterways including Earman River and Taylor Creek. No construction is proposed at Taylor Creek, and the single-track bridge parallel to Earman River Bridge will not affect flooding. The DEIS indicates the project will not result in significant impacts on the beneficial value of floodplains and would not adversely impact any federal flood control projects. All three action alternatives would require construction within the 100-year floodplain along the N-S Corridor, and the DEIS indicates impacts are unavoidable due to the extent of the floodplains within the study area.

The project along the N-S Corridor would impact 68.6 acres within the 100-year floodplain. The DEIS indicates that floodplain management is not a concern as the project would be limited to the existing FECR Corridor to maximize use of existing infrastructure, minimizing any new landfill requirements. Flood-prone areas occurring within the FECR N-S Corridor were filled during the original construction of the rail line. Filling would be reduced to areas where third track and curve reduction area construction is present, and reduction of flood storage volume from replacement fill would be insignificant. The DEIS has indicated that the N-S Corridor is not anticipated to promote future incompatible floodplain development or increase potential for flood related property damage or risk to human life.

The proposed project will mitigate all floodplain impacts in accordance with state and local laws as related to compensation and permitting. Potential harm to floodplain areas is mitigated by retaining existing elevations where feasible, construction of stormwater structures and retention ponds and minimizing fill in sensitive areas. **The DEIS has adequately addressed floodplain issues as related to the N-S Corridor.**

**Wetlands**

The DEIS indicates the project would directly impact a total of about 127.7 acres of wetlands in Alternative A, 164.9 acres in Alternative C, and 157.5 acres in Alternative E. These impacts are to all types of aquatic resources, including streams and waterways, reservoirs, and a variety of natural wetland types. The greatest impact to wetlands is associated with the construction of a new rail line in the E-W Corridor and the new intermodal facility at Orlando International Airport. However, the DEIS indicates direct wetland and aquatic habitat losses within the N-S Corridor through the Treasure Coast Region would total approximately 2.0 acres due to bridge construction. These include streams and waterways, wetland hardwood forest, mangrove swamps and treeless hydric savannah. Regarding indirect impacts, the DEIS indicates the project would impact about 2.58 acres of forested wetlands. Bridge construction activities would require

trimming mangroves adjacent to bridges, which would reduce the quality of the existing habitat as well as altering the light regime within these wetland areas.

The DEIS indicates AAF will minimize impacts to wetlands to the greatest extent practicable during the final design process. This will be accomplished through the permitting process in coordination with a variety of state and federal agencies. AAF has proposed measures to avoid and minimize wetland losses through the use of retaining walls and other methods. AAF will mitigate all unavoidable impacts to jurisdictional wetlands in compliance with the U.S. Environmental Protection Agency and U.S. Army Corps of Engineers (USACE) joint mitigation rule. AAF has proposed to mitigate impacts through the purchase of in-kind mitigation bank credits. AAF cannot determine the amount of compensatory mitigation credit required to offset unavoidable effects until a permit application is submitted to the USACE. **The DEIS contains sufficient information to address impacts to wetlands.**

**Biological Resources & Natural Ecological Systems**

The DEIS indicates the project would directly impact a total of about 93.0 acres of natural upland habitat in Alternative A, 121.8 acres in Alternative C, and 109.4 acres in Alternative E. These impacts are to all types of natural uplands, but the highest loss of habitat is to forested plant communities. The greatest impact to natural upland habitat is associated with the construction of a new rail line in the E-W Corridor and the new intermodal facility at Orlando International Airport. However, the DEIS indicates that all construction activities proposed for the N-S Corridor through the Treasure Coast Region would occur within previously disturbed areas in the FECR Corridor and would not impact natural communities.

The DEIS indicates the potential loss of wildlife habitat could result in indirect or secondary effects to wildlife such as habitat fragmentation and associated edge effects, such as the loss of genetic diversity of plant and animal populations, increased competition for resources, and physical or psychological restrictions on movements caused by some feature within a corridor that wildlife are unwilling or unable to cross. It is also possible that the operation of the project could displace some individual wildlife populations that are sensitive to noise and vibration. However, these potential impacts have been minimized by siting the project immediately adjacent to an existing transportation corridor (E-W Corridor) or within an existing rail corridor (N-S Corridor). Therefore, the project is not expected to significantly increase fragmentation and noise impacts that do not already exist. The DEIS states AAF will minimize effects to upland habitats and wildlife through implementation of standard construction BMPs and mitigation measures. These include designs to provide wildlife passage under bridges and through culverts in critical areas, and re-vegetation of cleared areas when required by standard BMPs and applicable laws. **The DEIS contains sufficient information to address impacts to biological resources and natural ecological systems.**

**Threatened & Endangered Species**

The DEIS describes the analysis of state and/or federally listed species documented or expected to occur in or near the project study area. The analysis identified 38 plant and animal species that are both federally and state listed and 36 plant and animal species only listed by the State of

Florida. As a cooperating agency with the development of the DEIS, the USACE has issued a determination that the project would not jeopardize any listed species or modify any designated critical habitat. This determination was made in coordination with the U.S. Fish and Wildlife Service (USFWS), Florida Fish and Wildlife Conservation Commission (FWC), and other federal and state agencies. While no significant impacts to sensitive species are anticipated, the USFWS and FWC recommended species specific mitigation measures for each potentially affected federally or state-listed species. The DEIS indicates that AAF has committed to implementing these specific measures to mitigate for potential temporary and permanent impacts to federally listed species or protected species habitat. Many of these measures call for procedures to be implemented during construction of the project. These include a series of mitigation measures to protect the West Indian manatee; wood stork; bald eagle; eastern indigo snake; sea turtle and smalltooth sawfish; Johnson's seagrass; and gopher tortoise. In addition, AAF has committed to conducting pre-construction surveys for the Audubon's crested caracara; Florida scrub-jay; red-cockaded woodpecker; sand skinks; and state-listed plant species. **The DEIS contains sufficient information to address impacts to threatened and endangered species.**

**Utilities and Energy Resources**

The DEIS indicates the project would have no, or negligible, effects on utilities and energy resources. Above and below ground electrical transmission and distribution lines are located along and within the existing N-S Corridor through the Treasure Coast Region. Electrical service providers within the N-S Corridor include FPL and the City of Vero Beach. In some locations, poles will require relocation in order to accommodate the new mainline track and upgraded crossings. AAF would coordinate with the affected utilities during final design and prior to construction. Pole relocation is expected to be minimal, and associated with grade crossings and limited sections of the rail corridor where new track is required. The locomotives are planned as diesel-electric units and will not place any additional load on the existing electrical and utility services. Based on the estimated annual quantities of diesel consumption, the impact on energy resources would be negligible. The increase in electrical service/demand due to signals is minimal and will require no major changes or construction of electrical or other utility infrastructure. Improving the railroad crossings could impose temporary and minor disturbances on electrical service. Also, the DEIS indicates the existing FECR Corridor contains underground fiber-optic duct banks containing FECR communications and signals systems. The DEIS states that the Positive Train Control System will use the existing Parallel Infrastructure LLC's fiber optic system within the FECR Corridor. **The DEIS contains sufficient information to address impacts to utilities and energy resources.**

**Communities and Demographics**

The N-S Corridor is within the existing FECR Corridor and passes through numerous incorporated Treasure Coast municipalities: Vero Beach, Fort Pierce, Stuart, Jupiter, Palm Beach Gardens, Riviera Beach, and West Palm Beach. The total population of the 117 census tracts within the project study area is 535,868, which represents 15.1 percent of the total population of the six counties traversed by the project. Within the Treasure Coast, 77 census tracts lie within the project study area and have a population of 298,613.

| Table 4.4.1-2 Total Population of Census Tracts Crossed by the Project, by County | | |
|---|---|---|
| **Geography (No. of Census Tracts)** | **Total Population** | **Total Population of the Census Tracts Transected by the Project** |
| Florida | 18,688,787 | -- |
| Six County Total | 3,541,985 | 535,868 |
| Orange (8) | 1,133,087 | 78,632 |
| Brevard (32) | 542,320 | 158,623 |
| Indian River (17) | 137,004 | 69,533 |
| St. Lucie (10) | 274,693 | 35,131 |
| Martin (20) | 145,480 | 78,352 |
| Palm Beach (30 - N-S Corridor) | 1,309,401 | 115,597 |
| Palm Beach (46 - WPB-M Corridor) | 1,320,134* | 170,687* |
| Broward (52) | 1,748,066* | 220,308* |
| Miami-Dade (38) | 2,496,435* | 157,769* |
| Source: USCB. 2011. *2007-2011 American Community Survey 5-Year Estimates: Total Population.* http://factfinder2.census.gov/. Accessed Augus 13, 2013; AAF. 2012. Environmental Assessment and Section 4(f) Evaluation for the All Aboard Florida Passenger Rail Project West Palm Beac to Miami, Florida .http://www.fra.dot.gov/eLib/details/L04278. Accessed September 12, 2013. | | |
| * Population data, as presented in Section 3.3.3 of the 2012 EA, derives from the 2010 U.S. Census | | |

The application indicates the N-S Corridor would not result in residential displacement, neighborhood fragmentation, or the loss of continuity between neighborhoods. The N-S Corridor is within the existing FECR Corridor and would not displace residences or businesses.

During the construction phase of the project, however, there would be disruptions to automobile traffic and upgrades at grade crossings and bridge rehabilitations would adversely impact travel between adjacent neighborhoods and could potentially impede emergency responders. AAF has indicated it will work with all local communities to minimize traffic disruptions and to maintain emergency access.

**Environmental Justice**

This section of the DEIS describes the potential effects to minority and low-income populations within the project study area that could result from the project. Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Population and Low-Income Populations,* was issued in February 1994 and requires that federal agencies consider whether a project would have a disproportionately high adverse impact on minority or low-income populations.

The N-S Corridor in the Treasure Coast Region passes through 19 census tracts that meet the established environmental justice thresholds. The DEIS indicates the project would not result in

disproportionately high and adverse impacts to minority or low-income populations. AAF maintains there would be no adverse impacts to environmental justice communities resulting from residential displacement, job loss or neighborhood fragmentation due to the use of property. However, increased rail traffic on the N-S Corridor, especially passing through environmental justice communities may disproportionately impact residents' ability to travel from neighborhoods west of the FECR to adjacent amenities and employment opportunities east of the FECR in a timely manner. Transportation-disadvantaged residents may be especially affected. Further, these communities include a large number of Title 1 schools, which tend to attract large numbers of students and families who walk or bike to school, work, and home often across the rail corridor. The project has not provided sufficient information to make a definitive determination that the project will not adversely impact environmental justice populations.

The project would result in vibration impacts to 3,317 residential parcels along the N-S Corridor, 820 (24.7 percent) of which are within environmental justice communities. All Aboard Florida indicates that vibration impacts would be mitigated using ballast mats beneath rail lines, "frogs" at selected switch locations with nearby sensitive receptors, and special pile-driving methods at selected locations near sensitive receptors during construction. Environmental justice communities would not experience any disproportionate adverse impacts from vibration along the N-S Corridor with the implementation of these measures.

The project would not require the use of land within a park, recreational area or wildlife Section 4(f) resource. The DEIS indicates there would be no disproportionate adverse impacts within environmental justice communities along the N-S Corridor as a result of the loss of Section 4(f) recreational or park resources.

**Recommendations:**

- **The final EIS should provide additional information to definitively determine the project will not adversely impact environmental justice populations including but not limited to access to school and work, neighborhood fragmentation, and access by the transportation disadvantaged.**

**Economic Conditions**

The DEIS describes the potential effects to local economic conditions that could result from the project. Potential long-term direct and adverse effects to local economic conditions would include the loss of municipal property tax revenue from the acquisition of privately owned properties, permanent displacement of existing businesses and associated revenues, and employment displacement. Potential long-term direct and beneficial effects to local economic conditions would include expenditures associated with project operations such as labor, fuel costs, equipment maintenance, insurance, maintenance of right-of-way, and lease payments.

Additionally, local governments would be adversely by increased costs for grade crossing infrastructure, necessitated by the installation of a second railroad track. Each grade crossing is currently governed by a separate grade crossing maintenance agreement, which tend to assign

infrastructure maintenance and replacement costs to local governments. Historically, these agreements have not been accompanied by a set fee structure or forecast to enable local governments to budget for costs over time. This issue is not addressed under economic impacts in the DEIS.

All Aboard Florida suggests the project would increase federal, state, and local government revenues based on jobs created during construction of the project and annual operational activities. An economic benefits analysis was conducted for the project. As indicated in Table 5.4.3-1, constructing the project is expected to generate over 10,000 jobs and generate a total economic benefit of $3.4 billion.

**Table 5.4.3-1 Summary of Economic Benefits of AAF Construction and Operations**

| Category | | Operations | |
|---|---|---|---|
| | Construction | Average Annual | Total (2016-2021) |
| Jobs | Over 10,000 | 1,603 | 1,603 |
| Labor Income | $1.2 Billion | $75 Million | $442 Million |
| Gross Domestic Product | $1.7 Billion | $105 Million | $619 Million |
| Total Economic Value | $3.4 Billion | $150 Million | $887 Million |
| Federal. State and Local Taxes | $291 Million | $21 Million | $126 Million |

Source: WEG 2014

While the project is estimated to divert 10 percent of the proposed long-distance passenger rail ridership from airplane passengers to passenger rail service, the estimated lost revenue from the diversion of air passengers accounts for less than 0.1 percent of the airlines' (American Airlines, Spirit Airlines, and Silver Airways) combined annual operating revenue. The applicant maintains the project would not have significant economic impact to the airlines serving Orlando and Southeast Florida nor would potential diversion from other intercity rail services and bus services result in a significant economic impact from lost revenue.

The DEIS indicates the project would not require acquisition of privately owned property along the N-S Corridor, as the N-S Corridor is entirely within the existing FECR Corridor. Since no land acquisition is necessary, the project would not result in the reduction of municipal tax revenue, commercial displacements, or job loss along the N-S Corridor.

Overall, the project is estimated to add approximately $1.2 billion to Florida's Gross Domestic Product in estimated annual economic development through 2021 and generate approximately $187 million in annual federal, state and local government tax revenue through 2021. These potential indirect and secondary effects of the project on local economic conditions are summarized in Table 5.4.3-2.

| Table 5.4.3-2 Summary of Economic Benefits of TOD Construction and Operations | | | |
|---|---|---|---|
| Category | | Operations | |
| | Construction | Average Annual | Total (2016-2021) |
| Jobs | 1,695 | 389 | 389 |
| Labor Income | $658.8 | $20 Million | $66 Million |
| Gross Domestic Product | $980.5 | $60 Million | $204 Million |
| Total Economic Value | $1.8 Billion | $80 Million | $284 Million |
| Federal. State and Local Taxes | $187.4 | $14 Million | $48 Million |
| Source: WEG 2014 | | | |

Additional indirect economic benefits of the project as described in the DEIS could be realized through savings associated with reduced highway maintenance costs, and reductions in road congestion which would prolong the lifespan of highway infrastructure.

The DEIS indicates the project will create tangible economic benefits to the State of Florida and to the communities through which the project traverses. The information and analysis provided by AAF in the DEIS, however, does not present the net economic benefits of the overall project. A detailed cost/benefit analysis should be conducted to determine, what, if any negative economic impacts might be realized by communities adjacent to the N-S Corridor resulting from increased operations and maintenance costs. For example, costs may be associated with enhanced infrastructure and safety measures that may be required to mitigate project impacts. It is also conceivable that businesses and residences located within a reasonable distance of the N-S Corridor may be negatively impacted by reductions in property values because of the proposed increased freight traffic on the railroad. In addition, the delays anticipated for marine navigation are anticipated to substantially impact the marine industries as well as related industries such as hospitality and tourism. The positive economic benefits of the project need to be weighed against the potential negative economic impacts. The information provided in the DEIS is not sufficient to determine long-term net economic impacts of the project to communities, businesses, or residents.

**Recommendations:**

- **The final EIS should include a more detailed and balanced cost/benefit analysis of the project's economic impacts to local governments, businesses, and residents.**
- **The final EIS should include a requirement for the establishment of a standardized, predictable, and reasonable fee structure for local governments regarding grade crossing improvements.**

**Historic & Cultural Resources**

The DEIS indicates the portion of the project that traverses the Treasure Coast Region contains several cultural resource eligible for listing on the National Register of Historic Places (NRHP), including the FECR Railway Historic District, three bridges, and five identified archeological sites. The project would return the N-S Corridor to a dual-track system, which was historically in place. The addition of the second track would return the corridor to its historic configuration and historic use as a passenger rail line. The DEIS maintains the NRHP-eligible FECR Railway

Historic District would not be adversely affected by the project. **This issue is addressed adequately in the DEIS.**

*Historic Bridges.* The N-S Corridor within the Treasure Coast Region contains a number of bridges, three (Sebastian River, St. Lucie River and Loxahatchee River) that have been identified as individually eligible for listing on the NRHP. The project envisions the demolition of the Sebastian River Bridge and the construction of a new bridge with double tracks within the same footprint. This action is considered an adverse effect that cannot be avoided. AAF proposes to conduct historic research and prepare a Historic American Buildings Survey and Historic American Engineering Record for the bridge prior to its demolition. Consultation with SHPO is ongoing. **This issue is adequately addressed in the DEIS.**

The St. Lucie River and Loxahatchee River bridges would be rehabilitated but not substantially altered. AAF has pledged to continue to consult with SHPO to avoid and/or minimize effects to bridges during proposed rehabilitation work. **This issue is adequately addressed in the DEIS.**

*Historic Districts and Structures.* The DEIS indicates improvements within the N-S Corridor would remain within the existing right-of-way and will not require right-of-way acquisition from any adjacent historic districts or individual NRHP-listed or eligible historic resources. It has made the determination the project will have no effect on historic resources adjacent to the N-S Corridor or adjacent to at-grade crossings. The DEIS identifies only one historic district on the N-S Corridor – the Union Cypress Saw Mill Historic District in Brevard County. However, the DEIS fails to recognize the presence of several additional historic districts in St. Lucie County, including the St. Lucie Village Historic District and Fort Pierce Downtown Historic District, both of which are bisected by the N-S Corridor, as well as Edgar Town Historic District and the River's Edge Historic District, which abut the N-S Corridor. Each of these historic contains additional historic resources, and it is unclear whether or not these resources have been analyzed for impacts from the proposed project. While the DEIS indicates the project will not adversely impact historic resources, the data is insufficient to make this determination. Potential negative indirect effects may be realized if increased development resulting from the project results in pressure to demolish or destroy cultural resources.

**Recommendation:**

- **An updated historic and cultural resources analysis should be conducted with consideration of all designated historic districts as well as all designated and eligible structures along the corridor to fully assess project impacts.**

*Archeological Sites:* The DEIS identified five archeological sites within the Treasure Coast Region as illustrated in Table 4.4.5-14. The DEIS indicates AAF will continue to consult with SHPO during the design process as needed in order to ensure appropriate sensitivity to the previously recorded archeological sites. It is recommended that SHPO evaluate the four archeological sites, not evaluated by SHPO to determine possible NRHP eligibility.

| Table 4.4.5-14 Archaeological Sites Located within the N-S Corridor APE | | | |
|---|---|---|---|
| **FMSF #** | **Site Name / Address** | **Site Type** | **National Register Significance*** |
| 8IR846 | Railroad | Malabar-Period Shell Midden and Artifact Scatter | Not Evaluated by SHPO |
| 8MT1287 | Hobe Sound National Wildlife Refuge #3 | Prehistoric Campsite and Prehistoric Shell Midden | Not Evaluated by SHPO |
| 8SL41 | Fort Capron | Historic Fort | Not Evaluated by SHPO |
| 8SL1136 | Pineapple | Surface Scatter, Campsite, Homestead, and Farmstead | Ineligible |
| 8SL1772 | Avenue A-Downtown Fort Pierce | Precolumbian Habitation, Midden, Campsite, and extractive Site; Historic American Building Remains, Refuse, and Artifact Scatter | Not Evaluated by SHPO |
| * As recorded in the FMSF; may require re-evaluation | | | |

The DEIS indicates the project would increase noise and vibration levels above existing conditions in the N-S Corridor, noting these noise and vibration level changes will not adversely impact cultural or historic resources. **This issue is adequately addressed in the DEIS.**

**Recreational Resources**

The DEIS describes existing recreational properties along with properties that are protected by the Land and Water Conservation Act of 1965. These resources are identified as parks, recreation areas, or wildlife and waterfowl refuges of national, state, or local significance that are available to the public. These resources are all parks and other recreational facilities that have been the subject of Land and Water Conservation Fund Act grants of any type.

Twenty-six resources were identified in the DEIS within 300 feet of the project alignment along the N-S Corridor within the Treasure Coast Region. Two of the resources are bisected by the project – the Hobe Sound National Wildlife Refuge and Jonathan Dickinson State Park. The DEIS indicates all construction will take place within the FECR-owned right-of-way, and no acquisition of new right-of-way within these resource property limits is required. To ensure the safety of users of Jonathan Dickinson State Park, AAF proposes to implement at-grade crossing improvements where the N-S Corridor crosses Southeast Jonathan Dickinson Way, which is an access road connecting the park to U.S. 1.

Two additional resources identified in the DEIS include the North Sebastian Conservation Area and Sawfish Bay Park. Both of these resources are along the N-S Corridor. No land acquisition is planned within either of these resource areas. The N-S Corridor does not cross either resource area. The project also does not appear to affect the use of these recreation resources adjacent to the project in regards to noise, vibration, aesthetics, or access. **Impacts to recreational resources are adequately addressed in the DEIS.**

Summary of Local Government Meetings

To further evaluate regional aspects of the DEIS, Council conducted two public meetings – on October 22, 2014 in the Town of Jupiter and on October 23, 2014 in the City of Fort Pierce. The meetings were attended by representatives of local governments, agencies, legislative and congressional delegation members, and the public. Meeting notes from both meetings are included in as attachments to this staff report. Several issues identified through this additional due diligence have been incorporated into the staff report. (See Exhibits 5 and 6)

Summary of Comments from Local Governments, Agencies, and the Public

The proposed AAF project has been the subject of extensive discussion and deliberation by local governments, agencies, Council, and the public. Correspondence received by Council related specifically to the DEIS is noted below:

- DEIS comments received from the Town of Jupiter, dated November 10, 2014 (Exhibit 7)
- DEIS comments received from the City of Fort Pierce, dated November 14, 2014 (Exhibit 8)
- DEIS comments received from Mr. Joel M. Tallant, Sr., a resident of Indian River County, dated September 24, 2014 (Exhibit 9)
- DEIS comments received from Mr. Michael J. Kennedy, President Marine Industries Association of Palm Beach County, dated November 20, 2014 (Exhibit 10)
- DEIS comments received from the City of Palm Beach Gardens, dated November 20, 2014 (Exhibit 10).

Additional correspondence and resolutions from local governments, agencies, and elected officials related to the AAF project are included as supplemental material on Council's website.

Conclusion

The AAF project represents the potential for significant improvements to the FEC railway system and for substantial impacts upon the region's transportation network; land use patterns; the natural, physical and social environment; and the economy. As noted in the report, the DEIS does not provide sufficient data in several key areas for a thorough analysis of impacts at the local and regional level. Key data and analysis deficiencies are identified to be addressed in the final EIS. While passenger rail service has historically been supported at the local and regional level, the project as described in the DEIS creates disproportionate benefits and impacts. Areas gaining access to new passenger rail service appear benefitted by improved mobility, air quality, economic expansion, and job creation. However, the lack of access to AAF service in the northern counties provides adverse impacts from the project without any apparent benefits to offset those impacts. The DEIS provides little in the way of analysis or mitigation measures to address this imbalance. The final EIS: 1) should address data deficiencies; 2) include a more thorough analysis of project costs and benefits and suggested mitigation measures and

alternatives; and 3) establish stronger measures to more completely mitigate regional and local impacts and to provide a better balance among the competing forms of transportation.

Attachments

# List of Exhibits

| Exhibit | |
|---|---|
| 1 | Project Map |
| 2 | Jupiter Inlet District – Boat Count Data |
| 3 | Martin County Report: Potential Impacts - Navigation |
| 4 | Federal Railroad Administration On-Site Engineering Reports |
| 5 | Staff Summary of the Regional Meeting in Jupiter on October 22, 2014 |
| 6 | Staff Summary of the Regional Meeting in Fort Pierce on October 23, 2014 |
| 7 | Correspondence from the Town of Jupiter dated November 10, 2014 |
| 8 | Correspondence from the City of Fort Pierce dated November 14, 2014 |
| 9 | Correspondence from Mr. Joel M. Tallent, Sr. – Resident of Indian River County dated September 24, 2014 |
| 10 | Correspondence from Mr. Michael J. Kennedy, President of MIA PBC |
| 11 | Correspondence from the City of Palm Beach Gardens dated November 20, 2014 |

# EXHIBIT 1
# Project Map

**Explanation of Features**

- MCO Segment
- E-W Corridor
- N-S Corridor
- WPB-M Corridor
- Interstate Highways
- Proposed Stations - WPB-M Corridor
- Proposed Station (By Others)

Data Sources: ESRI 2012, FRA 2012, FGDL 2012 AMEC 2013

**Project Location**

**All Aboard Florida Intercity Passenger Rail Project**

N 0 10 20 Miles

U.S. Department of Transportation
Federal Railroad Administration

S-1

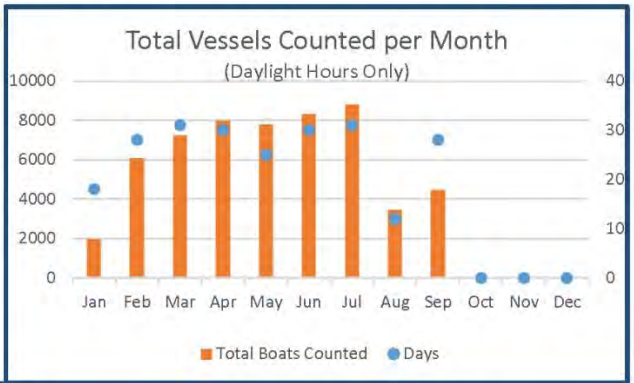
**EXHIBIT 2**
**Jupiter Inlet District – Boat Count Data**

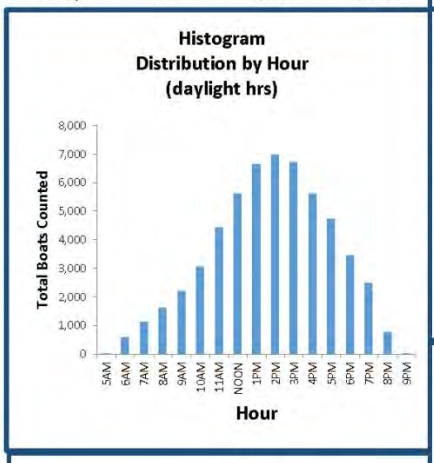
# Loxahatchee River Railroad Bridge Boat Count Data

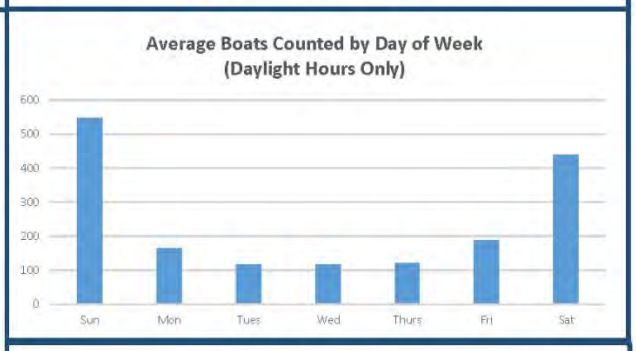
**January 15, 2014 to September 30, 2014**

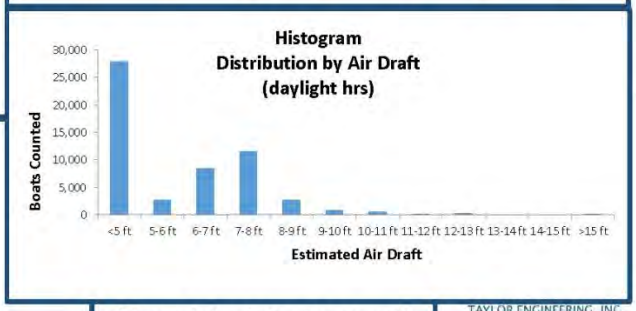
Total Boats Counted to date: **56,049**

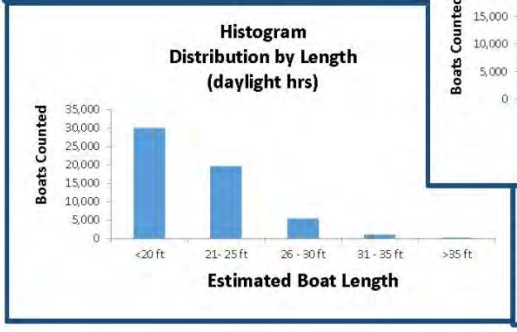
| Month | Days | Total Boats Counted | Average Boats per Day |
|---|---|---|---|
| 14-Jan | 18 | 1,964 | 109.1 |
| 14-Feb | 28 | 6,073 | 216.9 |
| 14-Mar | 31 | 7,220 | 232.9 |
| 14-Apr | 30 | 7,979 | 266.0 |
| 14-May | 25 | 7,791 | 311.6 |
| 14-Jun | 30 | 8,318 | 277.3 |
| 14-Jul | 31 | 8,782 | 283.3 |
| 14-Aug | 12 | 3,462 | 288.5 |
| 14-Sep | 28 | 4,457 | 159.2 |




*All data are draft and subject to revision until final report.*

*Summary report available online at JID's website:*
*http://jupiterinletdistrict.org/?page_id=207*

TAYLOR ENGINEERING, INC.

Retrieved November 14, 2014 from http://jupiterinletdistrict.org/wp-content/uploads/2014/02/Boat-Traffic-thru-2014-09.pdf.

**EXHIBIT 3**
**Martin County Report: Potential Impacts - Navigation**

# Potential Impacts - Navigation

- DEIS overall average 121 boats/day
- Actual average of 235 boats/day
- Peak weekend days – 450 per day

- Horizontal clearance Dixie Highway Bridge(Old Roosevelt) is 80 feet; DEIS indicates 58 feet.
- Horizontal clearance St. Lucie River Rail Bridge is 40 feet; the DEIS table indicates 50 feet. Boats must travel <u>single</u> file



Excerpt from Martin County BOCC Staff Report, 11/18/2014
Title: "Technical Review of the All Aboard Florida Draft Environmental Impact Statement"

# EXHIBIT 4
# Federal Railroad Administration On-Site Engineering Field Reports

U.S. Department of Transportation
Federal Railroad Administration

Office of Safety RRS-23
Highway Rail Crossing and Trespasser Program Division

**ON-SITE ENGINEERING FIELD REPORT – Part 1**

## All Aboard Florida

**Background**:

FRA Headquarters, in conjunction with the Region 3 office, assisted in the diagnostic safety review of the Florida East Coast (FEC) Railway grade crossings between Miami-Dade to St. Lucie counties. This is due to High Speed Passenger Rail service being planned between Miami and Orlando, known as "All Aboard Florida". Beginning February 4, 2014 and ending on March 7, 2014, a total of 263 public and private grade crossings were assessed. Participants included officials from Florida Department of Transportation (FDOT), FEC, All Aboard Florida (AAF); including local city and county officials at some locations.

For the purposes of this report, Part 1 represents the diagnostic review taken place from Miami-Dade to St. Lucie Counties. Part 2 designates the diagnostic review from Indian River County to Cocoa Beach, which is expected to occur in mid-to-late June 2014. There are approximately 90 grade crossings in Part 2. The segment between Cocoa Beach and Orlando will be designed for 125 MPH, however, AAF will not be traversing over any at-grade crossings along that rail corridor.

**Scope**:

Crossing locations between Miami to north of West Palm Beach are being designed for a maximum authorized speed of 79 MPH. The 110 MPH segment begins/ends at 30th Street in West Palm Beach (milepost 297.40), and continues through the Private Road Crossing in Indrio (milepost 233.90). Within the 110 MPH segment, train speeds are lowered to conventional rail limits where civil constraints exist; such as curves or draw bridges, which are noted on the accompanying field design plans.

Currently the design plans are at 30%. The next reiteration will be at 90%. Therefore, the decisions for the grade crossing signaling equipment and warning devices will be determined fairly soon.

The existing crossing signaling equipment contain a mix of signal cases and relay houses, equipped with either Phase Motion Detectors (PMD-1) or HXP 3R2's highway crossing processors.

Each crossing location will eventually consist of relay houses equipped with GE Transportation's ElectroLogIXS XP4 for constant warning time as part of this project. For 110 MPH, the crossing circuits beyond the 79 MPH standard will utilize a GE device linked through the PTC system for the advanced crossing starts. The technology will diagnose a health check to determine whether or not all roadway/pedestrian gates are in the down position.

**Results**:

Of the 263 grade crossings in Part 1, there are 57 crossing locations affected for Sealed Corridor treatments within the 110 MPH territory. Officials from All Aboard Florida passenger rail project (herein the "Project") have openly expressed that the proposed 110 MPH segment will NOT incorporate the "Sealed Corridor" concept as outlined in FRA's Highway-Rail Grade Crossing Guidelines for High-Speed Passenger Rail, Version 1.0 (*November 2009*). They stated that since these are "guidelines, not regulations" as quoted on page *iii*, in which they are not obligated to incorporate any of the described crossing treatments as illustrated in the document. The Project estimates that in doing so would incur an additional financial burden of about $47 mil.

In my professional opinion, I respectfully disagree with the Project's approach in that they are not exercising appropriate safety practices and reasonable care when designing for High Speed Passenger Rail service. I explained to the entire diagnostic team how important it was to adopt the principles of the Sealed Corridor approach. However, it was clearly evident that the Project was not pursuing such concept.

As a result, the Project has directed their signaling engineering consultants to design crossings to ONLY accommodate for the additional track while complying with the MUTCD - but not to incorporate any of the Sealed Corridor treatments. Furthermore, since there is a completely different philosophical view towards safety between the Project and I, the accompanying marked-up design plans and field notes are <u>notably different</u> from the Project's design plans; particularly along the 110 MPH segment. The Project has been maintaining a running log noting my Sealed Corridor recommendations.

Officials from FDOT's Rail Office are not taking a position, one way or the other, at this time.

**Safety Recommendations**:

The following are recommendations made to the Project based upon my on-site field assessments during the diagnostic safety review:

A. **Pedestrian gates** – there are certain locations along the corridor in which sidewalks are present on both sides of the railroad right-of-way, but do not follow through. Some of these sidewalks do not comply with today's ADA's standards, however pedestrian travel is evident due to the worn foot path on the surface, and general witnessing of usage. Typically the roadway gate covers the entrance side of the adjacent sidewalk, but there are no pedestrian gates on the opposite quadrants. The Project stated if there is no agreement with the city or county for the service and maintenance of a pedestrian gate assembly, they will not install them.

   Trespassing is an epidemic along this corridor. Rather than encourage it, it is recommended per my field notes at those particular locations to equip sidewalk approaches with a visual and gated barrier. This is to provide safe passage of pedestrians through a very active rail line and prevents those from walking into an open railway corridor; or directing them onto the street – irrespective if there is an agreement or not.

B. **Vehicle Presence Detection** – for those public and private crossings between 80-110 MPH in Part 1 to be equipped with a Vehicle Presence Detection ("VPD") system. The entire FEC corridor is equipped with Cab Signaling control. Presence detection will serve as a long term obstacle system, where the presence of a vehicle within the crossing area for a fixed length of time would be reported as an alarm through the remote monitoring system, irrespective of the approach of a train. Subsequently, for those 3-Quadrant and 4-Quadrant gated grade crossings between 80-110 MPH (as identified further below), it is recommended that either through the activation of a loop detector and/or a vertical exit gate (indicating a roadway vehicle is occupying the crossing) that a vehicle is detected by the train as a "feedback loop" of information; resulting in a loss of cab-signals, thus placing the train in an automatic speed restriction.

   Motor vehicles stalled, or trapped on a crossing due to queuing, present a derailment hazard; and in multiple track territory or where freight equipment is standing on adjacent sidings or industry tracks, derailments can result in catastrophic secondary collisions. Therefore, presence detection providing feedback to the train control system to high speed

trains traveling along this FEC corridor be active in order to minimize the possibility of derailments as well.

Recommending a VPD system is due to the following safety reasons:

1. Field observations with vehicular traffic stopping on tracks
2. Safety concerns expressed by city, county and FDOT officials
3. Several crossings with reduced or no vehicle clearance at roadway T-intersections
4. Vehicles yielding to oncoming traffic while on tracks at non-signalized T-intersections
5. Motorists / Commercial Vehicles queuing over tracks due to 4-way stop intersection, and vehicles entering adjacent driveways and parking lots
6. The multiple track surfaces enables motorists to make U-turns or cut thru's easier
7. Severely skewed crossings
8. Acute-angled crossings with main gates perpendicular to the vehicular roadway

C. **Sealed Corridor Treatments** - the following grade crossing locations are the recommended Sealed Corridor Treatments required by the Project to install:

| **Four-Quadrant Gates** (*also referred as exit gates*) (41) | | | |
|---|---|---|---|
| **Street Name** | **City/Town** | **Milepost** | **DOT #** |
| 30th Street | West Palm Beach | 297.40 | 272 406 J |
| Inlet Blvd. | Rivera Beach | 295.45 | 272 400 T |
| Flagler Street | Rivera Beach | 295.15 | 272 399 B |
| Silver Beach Road | Lake Park | 293.75 | 272 389 V |
| Park Ave | Lake Park | 293.30 | 272 387 G |
| Richard Road | Palm Beach Gardens | 292.20 | 272 385 T |
| Lighthouse Drive | Palm Beach Gardens | 291.70 | 272 384 L |
| RCA Blvd. | Palm Beach Gardens | 290.30 | 272 382 X |
| Fred Small Road | Jupiter | 286.20 | 273 020 P |
| Toney Penna Dr. * | Jupiter | 284.20 | 272 378 H |
| Gleason Street | Hobe Sound | 274.50 | 272 367 V |
| Bridge Road | Hobe Sound | 274.10 | 272 366 N |
| Pettway Street | Hobe Sound | 272.70 | 272 365 G |
| Crossrip Street | Salerno | 271.40 | 272 362 L |
| Osprey Street | Salerno | 270.90 | 272 934 K |
| Cove Road | Salerno | 267.14 | 272 359 D |
| Broward Street | Salerno | 266.80 | 272 358 W |
| Salerno Road | Salerno | 266.60 | 272 357 P |
| Seaward Street ** | Salerno | 266.50 | 272 356 H |

| | | | |
|---|---|---|---|
| Monterey Road | Stuart | 263.30 | 272 353 M |
| SR A1A | Stuart | 262.50 | 272 350 S |
| Florida Street | Stuart | 262.30 | 272 349 X |
| Palmetto Drive | Rio | 257.40 | 272 342 A |
| Jenson Beach Blvd. | Rio | 256.80 | 272 340 L |
| Pitchford Land*** | Rio | 256.20 | 272 338 K |
| Skyline Drive | Rio | 255.50 | 272 337 D |
| County Line Road | Rio | 255.30 | 272 336 W |
| Walton Road | Walton | 252.50 | 272 332 U |
| Midway Road | Walton | 246.30 | 272 331 M |
| Savannah Road | Fort Pierce | 243.80 | 272 330 F |
| No. Bch. Causeway | Indrio | 239.80 | 272 218 U |
| Shimoner Ln. *** | Indrio | 239.50 | 272 217 M |
| Tarmac Road*** | Indrio | 239.20 | 272 215 Y |
| St. Lucie Lane | Indrio | 238.80 | 272 214 S |
| Chamberlain Blvd. | Indrio | 238.40 | 272 213 K |
| Milton Road | Indrio | 237.80 | 272 211 W |
| Torpey Road | Indrio | 237.10 | 272 210 P |
| Rouse Road | Indrio | 236.70 | 272 209 V |
| Michigan Street | Indrio | 236.10 | 272 208 N |
| Wilcox Road | Indrio | 235.60 | 272 207 G |
| Harbor Branch Rd | Indrio | 235.10 | 272 206 A |

* - *Last crossing location (northbound) for proposed Tri-Rail service*
*** - *Recommend to be CLOSED*
*** - Private Crossing

| **100-foot Non-traversable Medians** * (7) | | | |
|---|---|---|---|
| **Street Name** | **City/Town** | **Milepost** | **DOT #** |
| 36th Street | West Palm Beach | 297.10 | 272 405 C |
| 45th Street | West Palm Beach | 296.65 | 272 403 N |
| 49th Street | West Palm Beach | 296.30 | 272 240 G |
| County Line Road | Hobe Sound | 280.90 | 272 372 S |
| Park Road | Hobe Sound | 277.70 | 272 370 D |
| SR A1A ** | Salerno | 268.65 | 272 360 X |
| Avenue A | Fort Pierce | 241.30 | 272 238 F |

* ***Please note***: if for any reason the Project and the respective municipality cannot agree on the median treatment, then those location(s) be equipped with exit gates.
** *Medians to be at least 150-feet each approach due to severe roadway skew.*

| **Three-Quadrant Gates** (*due to a median present on the opposite side*) (6) | | | |
|---|---|---|---|
| **Street Name** | **City/Town** | **Milepost** | **DOT #** |
| Blue Heron Blvd. | Rivera Beach | 294.90 | 272 390 P |
| Burns Road | Palm Beach Gardens | 290.80 | 272 383 E |
| Hood Road | Palm Beach Gardens | 288.50 | 272 380 J |
| Donald Ross Road | Palm Beach Gardens | 287.20 | 272 379 P |
| Indiantown Road | Jupiter | 283.60 | 272 377 B |
| Orange Avenue | Fort Pierce | 241.50 | 272 239 M |

| **Private** (6 locations within 110 MPH) | | | |
|---|---|---|---|
| **Street Name** | **City/Town** | **Milepost** | **DOT #** |
| Miracle Way * | Rio | 257.10 | 272 341 T |
| Pitchford Lnd ** | Rio | 256.20 | 272 338 K |
| Shimoner Ln ** | Indrio | 239.50 | 272 217 M |
| Tarmac Road ** | Indrio | 239.20 | 272 215 Y |
| Private Road * | Indrio | 234.50 | 272 205 T |
| Private Road * | Indrio | 233.90 | 272 204 L |

* - Recommend locked gate with procedures seeking permission from R.R. dispatch to cross.
** - Recommend the Project to equip with Four-Quadrant Gates (including VPD)

| **Closed** (17) ***Please note:*** *Officials from the city or county are not taking a position, one way or the other, at this time.* | | | |
|---|---|---|---|
| **Street Name** | **City/Town** | **Milepost** | **DOT #** |
| 179th Street | Aventura | 353.60 | 272 602 R |
| 141st Street * | North Miami Beach | 356.12 | 272 609 N |
| Third Street | Hallandale | 350.30 | 272 591 F |
| Monroe Street | Hollywood | 349.03 | 272 588 X |
| Fillmore Street | Hollywood | 348.52 | 272 585 C |
| Garfield Street | Hollywood | 348.07 | 272 582 G |
| Dania Blvd * | Dania Beach | 345.94 | 272 574 P |
| First Street * | Dania Beach | 345.81 | 272 573 H |
| 22nd Street | Fort Lauderdale | 342.96 | 272 566 X |
| 9th Street | Fort Lauderdale | 341.80 | 272 661 N |
| 6th Street * | Fort Lauderdale | 341.56 | 272 559 M |
| 5th Street * | Fort Lauderdale | 341.45 | 272 558 F |
| 2nd Street | Pompano Beach | 333.31 | 272 534 S |
| 4th Street | Deerfield Beach | 327.41 | 272 513 Y |
| 2nd Street | Deerfield Beach | 326.81 | 272 511 K |
| Hunter Street | West Palm Beach | 303.18 | 272 450 W |
| Seaward Street ** | Salerno | 266.50 | 272 356 H |

* - or possible one-way
** - only crossing to be closed along 110 MPII segment

## Conclusion:

Based upon my professional background and experience in regards to grade crossing safety, I strongly recommend officials from All Aboard Florida to adhere to the principles as outlined in the FRA's guidelines for Emerging High-Speed Rail (80-110 MPH). In doing so incorporates the optimum safety practices in the engineering and design of their crossing locations for the following reasons:

I. The operating dynamics are significantly changing within the existing environment of the grade crossings, along with an already an active freight operation that will include:

- The addition of 16 round-trip trains (32 total) at 110 MPH
- The eventual inclusion of Tri-rail Commuter Rail service, which will add 74 trains.
- Changing from single track to multiple track configurations.

II. Densely settled neighborhoods with congested roadways

III. As many as 5 traffic lanes in the oncoming direction at T-intersections

In summary, as the travelling public begins to assimilate to a substantial increase in railroad operations – by incorporating enhanced railroad signaling technology and increased active highway warning devices are paramount to ensuring safety awareness as both entities interact with one another. Therefore, equipping crossing locations with the recommended actions, as outlined above in this report, will dramatically reduce potential safety hazards and catastrophic events.

## Report Respectfully Submitted By:

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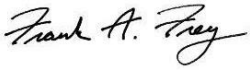

**March 20, 2014**

U.S. Department of Transportation
Federal Railroad Administration

Office of Railroad Safety RRS-23
Highway Rail Crossing and Trespasser Program Division

RECEIVED
SEP 23 2014
TREASURE COAST
REGIONAL PLANNING COUNCIL

# ON-SITE ENGINEERING FIELD REPORT – Part 2

## All Aboard Florida

### Background:

This diagnostic safety review of the Florida East Coast (FEC) Railway corridor, in Brevard and Indian River counties, is the second segment that completes the territory of at-grade crossing locations for this high-speed passenger rail project known as "All Aboard Florida". This report is a subsequent to that of Part 1, dated March 20, 2014.

The onsite assessment began on July 15, 2014 and concluded on July 18, 2014. A total of eighty-six (86) public and private grade crossings were evaluated. Participants included officials from Florida Department of Transportation (FDOT), FEC, All Aboard Florida (AAF), and local city and county officials.

As the AAF passenger rail service route traverses through its grade crossing locations, it will begin/end at the Michigan Avenue grade crossing (milepost 170.56) in Cocoa[1]. As the route heads northward, it splits from the FEC corridor and veers along Route 528 towards Orlando on a dedicated railroad right-of-way yet to be built. On the existing FEC corridor, there are four additional grade crossings north of the split that will be part of the signaling enhancement program for this project.

### Scope:

Train speeds through Brevard and Indian River counties are being designed for 110 MPH. Beginning/ending at Dixon Boulevard[2] in Cocoa (milepost 171.52), the 110 MPH segment continues through Highland Drive SE in Vero Beach (milepost 232.86). There are two areas along this segment where train speeds are lowered to conventional rail limits due to civil constraints of railroad bridge structures.

As in previous onsite assessments, all of the existing crossing signaling equipment along this segment will be upgraded to the newest technology as described in the Part 1 Report.

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[1] The Part 1 report incorrectly references "Cocoa Beach", where it should have stated **Cocoa** instead. Cocoa and Cocoa Beach are two separate municipalities. The FEC corridor traverses through Cocoa, not Cocoa Beach.
[2] Although Michigan Ave is the last grade crossing along the AAF route, its maximum speed is 60 MPH due to the train slowing down and transitioning to and from the Route 528 corridor.

Currently the engineering design plans are at 30%. The next iteration for this segment will be at 90%, which is anticipated to be furnished within six months. Accordingly, FRA looks forward to reviewing the revised design plans at that time.

**Results**:

Of all the 86 grade crossings assessed in Brevard and Indian River counties, there are 64 crossing locations affected for Sealed Corridor treatments within the 110 MPH territory. The remaining crossings already have Sealed Corridor design elements in place; such as existing one-way streets, divided roadways, or have medians. In addition to accommodations for the second track, the remaining crossings would require their medians to be adjusted in length and be equipped with a minimum of 100-feet of non-traversable curbing for each approach.

As mentioned in the Part 1 Report, officials from All Aboard Florida passenger rail project (herein the "Project") did not initially adopt the "Sealed Corridor" concept as outlined in FRA's Highway-Rail Grade Crossing Guidelines for High-Speed Passenger Rail, Version 1.0 (*November 2009*). However, in a letter dated June 4, 2014 to the Treasure Coast Regional Planning Council, Florida Secretary of Transportation Ananth Prasad, P.E., stated that AAF will be required "*to comply with the Federal Railroad Administration's guidelines for rail crossing safety as specified for higher speed passenger rail services.*" As a result of Secretary Prasad's letter, the Project has since directed its signals consultants to incorporate all of the Sealed Corridor design treatments where applicable along the entire AAF service route. The diagnostic team may have to re-visit the previous 57 grade crossings identified in the Part 1 Report to validate and verify compliance.

**Safety Recommendations**:

The following are recommendations made to the Project as a result of the on-site field assessments during the diagnostic safety review:

A. **Pedestrian gates –** there are several locations along the corridor at which sidewalks are present on both sides of the railroad right-of-way, but do not continue through the grade crossing. However, there is active collaboration between the Project and the respective municipality within Brevard and Indian River counties to correct the sidewalk continuity problems. There is a commitment on both sides to equip the existing sidewalks with pedestrian gate assemblies. Their partnership will also target existing and planned roadway

enhancement projects with adjacent sidewalks, including to pre-wire quadrants for roadway projects commencing at a later date.

FRA suggests that consideration be given to the installation of pedestrian swing gates. This would enable pedestrians on the crossing a means of egress to exit the crossing. In order to increase the effectiveness of pedestrian gates, the installation of fencing or other means of channelization should also be considered to deter pedestrians from circumventing the gates. At Four-Quadrant Gate locations, utilizing the vehicular exiting gate as a pedestrian function for sidewalks is not recommended. Separate pedestrian gates should be installed at those respective quadrants, and lowered simultaneously with the entrance gates.

B. **Vehicle Presence Detection –** as referenced in the Part 1 Report, Vehicle Presence Detection ("VPD") is a critical safety component for those Three-Quadrant and Four-Quadrant gated grade crossings for train speeds between 80-110 MPH. Recommending the installation of a VPD system along the FEC Railway corridor in Brevard and Indian River counties is necessary for the same safety reasons as outlined in the Part 1 Report.

C. **Traffic Signal Preemption –** throughout the entire diagnostic safety review for this corridor, it has been noted that Traffic Signal Preemption (*herein* "Preemption") will require extensive study prior to finalization of the railroad's signal plans for this project. Preemption has become an issue of significant concern to FRA resulting in the publication of Safety Advisory SA-2010-02 and Technical Bulletin S-12-01. The following is quoted from the Technical Bulletin:

*"Highway traffic signal pre-emption interconnections play a critical role in the overall proper functioning of a highway-rail grade crossing active warning system where such interconnections exist. There are two basic types of preemption:* ***Simultaneous*** *and* ***Advanced.*** ***Simultaneous Preemption*** *is that which results in the initiation of the traffic signal cycle at the same time the highway-rail grade crossing warning system is activated.* ***Advanced Preemption*** *results in initiation of the traffic signal cycle prior to the grade crossing warning system being activated. The type of pre-emption installed, and any additional time required for pre-emption operation, will be determined and specified by the public agency responsible for the highway traffic signal in accordance with Section 8C.09 of the Manual on Uniform Traffic Control Devices."*

In addition to the requisite for the proper design of both the crossing warning signal system and the traffic signal in terms of Preemption provisions, the FRA Safety Advisory states the need for on-going monitoring and review of grade crossings with Preemption. The Safety Advisory is grounded by two recommendations made by the National Transportation Safety Board, identified as I-96-10 and I-96-11, regarding a collision between a commuter train and a school bus in Fox River Grove, IL in 1995. The Safety Advisory makes four specific recommendations to provide for safety at Preempted locations, which can be found accompanying this report.

Due to the fact that a number of grade crossings along the corridor are proposed to be equipped with Four-Quadrant Gate warning systems, it is important to point out that the Manual on Uniform Traffic Control Devices (MUTCD) sets forth additional requirements for Preemption where Four-Quadrant Gates are installed. As outlined in Part 8C.06 of the MUTCD, it states the following:

*"If a Four-Quadrant Gate system is used at a location that is adjacent to an intersection that could cause highway vehicles to queue within the minimum track clearance distance, the Dynamic Exit Gate Operating Mode should be used unless an engineering study indicates otherwise."*

*"If a Four-Quadrant Gate system is interconnected with a highway traffic signal, backup or standby power should be considered for the highway traffic signal. Also, circuitry should be installed to prevent the highway traffic signal from leaving the track clearance green interval until all of the gates are lowered."*

*"Four-Quadrant Gate systems should include remote health (status) monitoring capable of automatically notifying railroad or LRT signal maintenance personnel when anomalies have occurred within the system."*

FRA encourages reference to Part 3.1.10 of the American Railway Engineering and Maintenance-of-Way Association (AREMA) guidelines. The information provides recommended design practices of interconnection between highway traffic signals and grade crossing warning systems. This is especially important where station stops or railroad interlockings exist within the approaches to Preempted locations.

FRA recognizes that the design and operation of preemption interconnections, from a traffic signal perspective, are outside the scope of the railroad's direct responsibility. Yet, the safety of the railroad, its employees, and the public both on the roadway and on the train are directly impacted by these systems and their potential failure to provide sufficient time to permit a vehicle or pedestrian to clear the path of an approaching train. Therefore, FRA recommends that thorough coordination take place between the public authority responsible for the operation of the traffic signals and the railroad (which in this case is FEC/AAF).

In summary, due to the inclusion of additional tracks, increase in train speeds, station stops and restarts from sidings within approaches to traffic signal interconnected grade crossings; it is recommended that a thorough evaluation be made of the Preemption needs to determine whether Simultaneous or Advanced Preemption is required at each grade crossing location along the entire AAF service route (Miami through Cocoa). FRA also recommends that an independent consulting firm with extensive expertise in the field of Preemption be part of the assessment in all of the Preempted grade crossing locations. The consultant should have expertise in both traffic signal design and operation, as well as grade crossing signal design and operation. The consultant must also be knowledgeable in the evolving changes to both the MUTCD, and the AREMA Communication & Signal Manual of Recommended Practice.

D. **100-foot Non-traversable Medians** – for the purposes of the overall diagnostic assessment, non-traversable medians are also referred as FDOT'S "non-mountable traffic separators". In particular, there are two State design standards; Type F which channelizes storm water runoff, and Type D which has no gutter function. Either design is acceptable as long as the curb meets the State's minimum 6" vertical profile design to prevent motorists from driving over the median. The 100-foot minimum length is measured from the tip of the railroad gate arm and extends along the vehicular travel lane. It is recommended that "no left turn" signs (or other means of notification) are posted to advise motorists that are exiting driveways, parking lots or streets within 100 feet of the gate arm not to travel against the flow of traffic to circumvent the purpose of the median and drive around lowered gates.

E. **Sealed Corridor Treatments** - the following grade crossing recommended Sealed Corridor treatments were collectively agreed upon by the Diagnostic Team. Please note that further engineering may require a Four-Quadrant location become a Three-Quadrant layout with a median (and *vice-versa*); however, the Sealed Corridor design element will remain.

| **Four-Quadrant Gates** (*also referred as exit gates*) (22) | | | |
|---|---|---|---|
| **Street Name** | **City/Town** | **Milepost** | **DOT #** |
| 4th Street | Vero Beach | 229.75 | 272 198 K |
| Glendale Road | Vero Beach | 229.19 | 272 197 D |
| 12th Street | Vero Beach | 228.66 | 272 196 W |
| 23rd Street | Vero Beach | 227.31 | 272 191 M |
| 26th Street | Vero Beach | 227.06 | 272 189 L |
| 43rd Street | Vero Beach | 225.12 | 272 179 F |
| 49th Street | Vero Beach | 224.42 | 272 177 S |
| 69th Street | Winter Beach | 221.80 | 272 172 H |
| Hobart Road | Winter Beach | 220.70 | 272 170 U |
| Old Dixie Hwy | Sebastian | 216.00 | 272 163 J |
| Malabar Road | Malabar | 199.94 | 272 149 N |
| Palm Bay Road | Palm Bay | 197.46 | 272 147 A |
| Lincoln Avenue * | Melbourne | 194.07 | 272 136 M |
| Silver Palm Ave | Melbourne | 193.83 | 272 133 S |
| Eau Galle Blvd. | Melbourne | 190.10 | 272 112 T |
| Creel Street ** | Melbourne | 189.92 | 272 123 L |
| Aurora Road | Melbourne | 189.68 | 272 122 E |
| Masterson Street | Melbourne | 189.32 | 272 121 X |
| Lake Washington | Melbourne | 188.70 | 272 926 T |
| Post Road | Pineda | 186.86 | 272 117 H |
| Eyster Blvd. | Rockledge | 175.57 | 272 908 V |
| Peachtree Street | Cocoa | 172.90 | 272 096 S |

** - Possible one-way street, to be determined by the city's re-evaluation of a traffic study.*
*** - Possible Closure*

| **100-foot Non-traversable Medians** * (15) | | | |
|---|---|---|---|
| **Street Name** | **City/Town** | **Milepost** | **DOT #** |
| Highlands Drive SE | Vero Beach | 232.86 | 272 201 R |
| Oslo Road | Vero Beach | 231.31 | 272 200 J |
| 16th Street | Vero Beach | 228.02 | 272 195 P |
| Barber Street | Sebastian | 218.03 | 272 974 H |
| Senne Road | Grant Valkaria | 208.13 | 272 154 K |
| Valkaria Road | Grant Valkaria | 203.00 | 272 151 P |
| Jordan Blvd. | Malabar | 201.50 | 272 150 H |

| | | | |
|---|---|---|---|
| University Blvd. | Melbourne | 195.34 | 272 144 E |
| Strawbridge Ave | Melbourne | 194.19 | 272 138 B |
| Palmetto Ave | Melbourne | 194.13 | 272 137 U |
| Hibiscus Ave | Melbourne | 193.75 | 272 132 K |
| So. Babcock St. | Melbourne | 192.39 | 272 128 V |
| Parkway Avenue | Melbourne | 187.91 | 272 118 P |
| Suntree Blvd. | Pineda | 182.65 | 272 115 U |
| Rosa Jones Blvd. | Cocoa | 173.51 | 272 099 M |

* ***Please note***: if for any reason the Project and the respective municipality cannot agree on the median treatment, then those location(s) are to be equipped with either a Three-Quadrant Gate with Median or a Four Quadrant Gate system.

| **Three-Quadrant Gates** (*due to a median present on the opposite side*) (26) | | | |
|---|---|---|---|
| **Street Name** | **City/Town** | **Milepost** | **DOT #** |
| 1st Street | Vero Beach | 230.15 | 272 199 S |
| 21st Street * | Vero Beach | 227.48 | 272 192 U |
| 32nd Street | Vero Beach | 226.65 | 273 047 Y |
| 41st Street | Vero Beach | 225.46 | 272 180 A |
| 45th Street | Vero Beach | 224.94 | 272 178 Y |
| 53rd Street | Vero Beach | 223.90 | 273 108 M |
| Winter Beach Rd. | Winter Beach | 222.32 | 272 173 P |
| Wabasso Road | Winter Beach | 219.58 | 272 168 T |
| 99th Street | Sebastian | 217.61 | 272 165 X |
| Schumann Drive | Sebastian | 216.59 | 272 164 R |
| Main Street | Sebastian | 214.42 | 272 161 V |
| Micco Road | Micco | 209.23 | 272 156 Y |
| Barefoot Blvd. | Micco | 208.99 | 272 155 S |
| Shell Pit Road | Grant Valkaria | 207.13 | 272 153 D |
| 1st Street | Grant Valkaria | 205.61 | 272 152 W |
| Hessey Avenue * | Palm Bay | 197.36 | 272 146 T |
| East Fee Avenue | Melbourne | 194.00 | 272 135 F |
| Seminole Ave ** | Melbourne | 193.89 | 272 134 Y |
| Sarno Road | Melbourne | 190.58 | 272 125 A |
| Viera Blvd. | Bonaventure | 180.28 | 272 976 W |
| Ansin Road | Bonaventure | 179.40 | 272 110 K |
| Carver Road | Bonaventure | 179.14 | 272 109 R |
| Gus Hipp Blvd | Rockledge | 177.13 | 272 926 T |
| Barton Blvd. | Rockledge | 175.02 | 272 101 L |
| Highland Drive | Cocoa | 172.45 | 272 866 L |
| Dixon Blvd. | Cocoa | 171.52 | 272 095 K |

** - Possible Closure*

*** - Possible one-way street, to be determined by the city's re-evaluation of a traffic study.*

| **Closed** (5) ***Please note:*** *Officials from the city and county are considering closure.* | | | |
|---|---|---|---|
| **Street Name** | **City/Town** | **Milepost** | **DOT #** |
| 21st Street * | Vero Beach | 227.48 | 272 192 U |
| 14th Avenue | Vero Beach | 227.14 | 272 190 F |
| Hessey Avenue * | Palm Bay | 197.36 | 272 146 T |
| Jernigan Avenue | Melbourne | 195.02 | 272 143 X |
| Creel Street ** | Melbourne | 189.92 | 272 123 L |

* - Three-Quadrant Gate with Median if unable to close
** - Four-Quadrant Gate layout if unable to close

| **Private** (2 locations within 110 MPH) | | | |
|---|---|---|---|
| **Street Name** | **City/Town** | **Milepost** | **DOT #** |
| Hawks Nest | Vero Beach | 223.18 | 272 175 D |
| Rinker Way * | Rockledge | 176.10 | 272 908 V |

* - Recommend locked gate with procedures seeking permission from the railroad's Operations Dispatcher to enter.

## Conclusion:

Once the construction of the grade crossings are completed, FEC and FDOT must immediately update the existing U.S. DOT Crossing Inventory record for each location to reflect the updated train counts, increased train speeds, additional signage, new ADDT numbers, etc., where applicable. FRA will continue to provide ongoing support and guidance while the Project looks towards achieving its goals relating to safe and reliable high-speed passenger rail service.

## Report Respectfully Submitted By:

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Frank A. Frey

**September 23, 2014**

# EXHIBIT 5
# Staff Summary of the Regional Meeting in Jupiter on October 22, 2014

**TREASURE COAST REGIONAL PLANNING COUNCIL**

All Aboard Florida – Draft Environmental Impact Statement
Regional Staff Meeting Summary

Jupiter Community Center
October 22, 2014
1:00 – 4:00 pm

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*NOTE TO READERS: This document reflects general meeting notes and key points of discussion raised during the staff-level meetings held in Jupiter on October 22, 2014 regarding regional issues of concern related to the Draft Environmental Impact Statement for the proposed All Aboard Florida project. General meeting notes were prepared by Dr. Kim DeLaney, TCRPC.*

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### *Welcome & Introductions*

The meeting was convened by Michael Busha, Executive Director of the Treasure Coast Regional Planning Council (TCRPC). Meeting participants introduced themselves. Attendees included representatives of local governments, agencies, and the legislative delegation. A copy of the meeting sign-in sheet is included with these meeting notes.

### *Purpose of Meeting*

Mr. Busha described the responsibilities of regional planning councils, which include the facilitation of discussion regarding issues of regional importance. He then generally described the proposed All Aboard Florida (AAF) project and environmental impact statement (EIS) process. Mr. Busha explained the requirement for Council to review the EIS and provide comments to the State of Florida, as coordinator of the State Clearinghouse process, as well as to the Federal Railroad Administration, as the lead agency coordinating the EIS process for the project.

Mr. Busha explained the review of a Draft EIS (DEIS) was a sufficiency review, noting the twenty-four topics required to be addressed per the National Environmental Policy Act (NEPA). He posed several discussion questions regarding the sufficiency of the DEIS as published, including whether or not the various items are addressed completely, whether or not the data presented appears to be accurate and complete, if there was local data that differs from the data presented in the EIS, and whether or not the impacts of the project could be accurately assessed with the information provided in the DEIS.



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*Overview of DEIS Process & Timeline*

Dr. Kim DeLaney, Strategic Development Coordinator of TCRPC, presented a detailed overview of the EIS process, noting the DEIS as the first document for review. Following the receipt of public comments by a December 3, 2014 deadline, the Federal Railroad Administration (FRA) will assess the comments. At an undetermined point in the future, FRA would be expected to publish a Final EIS, addressing the public comments as deemed appropriate by FRA. An additional public comment period of thirty (or more) days would occur, followed ultimately by the FRA's publication of a "record of decision" with an approval of the build alternative, the build alternative with conditions, or a no-build alternative. Subsequently, appeals of FRA decisions would proceed through the U.S. legal system.

*Discussion of Key Issues*

Mr. Busha then asked meeting participants to raise local and regional issues of concern regarding the DEIS, as noted below.

**Transportation: Roadway Network and Grade Crossings**

- There is a need for a broader analysis of the roadway network and grade crossings. For example, in Martin County, only two grade crossings are analyzed, one of which is Monterey Road, which was analyzed too narrowly with a focus on Dixie Highway but excluding consideration of impacts on US1.
- The DEIS should utilize current data to determine estimated times of delay rather than older traffic counts.
- The Town of Jupiter also noted deficiencies regarding the grade crossing analysis, with the omission of critical grade crossings like Toney Penna Drive.
- The DEIS is vague as to how the project will "optimize" the roadway network – how will it reduce delays and mitigate traffic impacts?
- The Town of Jupiter raised concerns about the underlying market studies and ridership base --- What are the assumptions about removing ridership from the road? Where do riders come from? How many riders are in each train? The data provided is too general in its claim that trips will simply be taken off the roadway network.
- Martin County raised questions regarding air quality, indicating that although trips could be removed from I-95, there wasn't an apparent discussion regarding the air pollution generated by additional roadway network delay at grade crossings.
- The Martin Metropolitan Planning Organization (MPO) raised concerns regarding the relationship between bridges and the roadway network, as long freight trains slowing to cross the railroad bridge would block essentially every grade crossing in the City of Stuart, leaving additional cars waiting for the roadway network to clear. The MPO further noted the only single-track section of the corridor is in the City of Stuart, including the St. Lucie River railroad bridge.
- Martin County noted additional safety and grade elevation concerns given the proximity of the railroad to parallel roads. County representatives indicated this is especially evident in Martin and Indian River counties. Roadways parallel to the

railroad require a substantial grade differential to bring the grade crossing down from the railbed. At many grade crossings, vehicles stopped at a light are still on the tracks, a condition that occurs frequently with boats on trailers and other trailer vehicles. If the corridor is double-tracked, this condition will be exacerbated.

- The relationship between grade differentials also could lead to a higher incidence of passenger rail trains becoming derailed, due to vehicles being stopped on the tracks without the opportunity to move.
- TCRPC indicated FDOT could initiate a freight rationalization study to determine which of the longer, heavier freight trains could be redirected to the CSX or other western rail corridor to reduce impacts. TCRPC also noted the issue of pre-emption, which addresses the timing of vehicular grade crossing gates, traffic signalization, and approaching trains; has been noted by FRA to improve traffic safety, circulation, and reduce delay.

**Transportation: Marine Navigation**

- According to both the Jupiter Inlet District (which is conducting boater counts at the Loxahatchee River Bridge) and Martin County (which is conducting counts at the St. Lucie River Bridge), boater counts in the DEIS are well below the counts available from these two local agencies. Further, the DEIS boater counts are developed by averaging four days of boating activity while the local counts have been collected daily for months, which both agencies suggest provide greater accuracy.
- TCRPC indicated the Council recently reviewed navigational conflicts at the two bridges pursuant to the United States Coast Guard (USCG) marine navigational surveys currently underway. The Council raised concerns regarding the accuracy of boater counts, requested AAF trains be required to cross bridges simultaneously with freight trains, and requested USCG evaluate opportunities to raise the height of bridges to accommodate the passage of more boats while the bridges are closed, pending legal interpretation by USCG as to this issue.
- Martin County noted there are several historic bridges, including the Eau Gallie & Sebastian Bridges that could qualify for historic designations; however, both are required to be double-tracked. Not replacing the bridges could present an unacceptable risk to navigation.
- FRA should be requested to provide bridge inspection reports, to document the amount of time needed for bridges to open and close (90 seconds?) as well as the amount of time the bridges are closed/locked awaiting trains.
- Martin County requested FRA provide evidence of the horizontal clearances (noted as 40' at the Loxahatchee River bridge and 50' at the St. Lucie), with an evaluation as to how the bridge openings can be widened.
- Marine Industries Association of the Treasure Coast (MIATC) indicated the need for both bridge openings to be widened and aligned at the St. Lucie River bridge.
- The Town of Greenacres asked whether or not the bridges themselves can be reconstructed to be made narrower/shallower, perhaps with different beam configurations, to enable wider/taller openings.

- Florida Inland Navigational District (FIND) suggested consideration of a staging area and/or bollards for larger commercial traffic to tie up while awaiting bridge openings. The agency noted the fenders at the bridge are hit routinely by commercial traffic.
- FIND also suggested the mitigation measures, such as a smartphone application and countdown clock need greater clarification as their descriptions in the DEIS are vague.
- It was noted that when vehicular bridges open for marine traffic, the bridges remain open until the marine traffic has cleared. Similar considerations were suggested for modifications to the Code of Federal Regulations regarding the railroad bridges.
- Martin County indicated the number of slips estimated in the DEIS is not what the County believes is the actual number. The counties and local governments were requested to provide counts regarding the number of slips, boat ramps, and marinas upstream of the bridges.

**Transportation: Other Transit**

- The Martin MPO indicated an assessment in each county was needed to indicate the number of times transit routes cross the tracks, as delay from trains will cause delays within the fixed-route system. The transit system relies on timed transfers, and schedules will be impacted by train delays. The agency noted Brevard County's transit crosses the tracks 115 times per day.

**Transportation: Bicycle/Pedestrian**

- The Martin MPO indicated that AAF should be required to install bicycle/pedestrian crossings at all grade crossings as part of the project. The agency noted that during the diagnostic field reviews, the FRA recommended crossing gates for pedestrian facilities be separated from vehicular crossing gates.
- It was also suggested that where grade crossings are more than one mile apart, AAF should be required to install a pedestrian crossing to reduce risk and increase safety. This is especially important considering the anticipated fencing to be installed as part of the project.

**Transportation: Public Safety & Emergency Response**

- Concerned were raised regarding the details of sealed corridor treatments, as the 30% plans only show grade crossing improvements but not what will be installed between grade crossings.
- The Town of Jupiter raised concerns that additional train traffic will cause delays for the transport of persons to the hospital.
- Martin County indicated the need for more information regarding where trains may be cued, whether or not slow-moving or stored trains will conflict with grade crossings, and the related safety impacts.
- TCRPC indicated the Village of Tequesta police/fire boat would likely need to be duplicated upstream of the bridge.

- The City of Palm Beach Gardens indicated the project would need to be implemented with a considerable public outreach effort regarding safety, details of the new service, the speed and volume of the trains, and grade crossing details.
- FIND raised concerns regarding hurricanes and storm events, noting that boats tend to be repositioned two to three days prior to the arrival of a storm. As railroad bridges are closed and locked once winds reach 35 MPH, then more openings will be needed immediately preceding storm events to enable more boats to be moved ahead of storms.

**Land Use, Noise & Vibration**

- Regarding quiet zones, Martin County indicated concerns regarding the transfer of liability from the railroad to local governments; therefore, the county does not want to request quiet zones.
- TCRPC was asked to inquire as to when the train horns blow (6 AM – 9 PM)?
- Regarding historic structures and districts, Martin County expressed concerns the DEIS does not include impacts within the county's CRAs and only focuses on East Stuart within Martin County. The county also noted the assessment of historic structures is incomplete.
- Concerns were raised regarding noise impacts on existing businesses.
- Martin County also noted that both bridges – the Loxahatchee and St. Lucie railroad bridges – are also eligible historic structures.

**Environmental Conditions**

- Regarding air quality, participants indicated the DEIS does not seem to include air quality impacts due to additional cars waiting at grade crossings. Rather, it only focuses on the reduction of cars on the interstate network.
- Concerns were also raised regarding the removal of exotic plant materials within the Florida East Coast (FEC) corridor, as these plants provide a buffer for neighborhoods.
- TCRPC noted the project could endanger the Lakela's Mint, which only grows in the FEC rail corridor in the northern part of the region.

**Hazardous Materials & Solid Waste Disposal**

- TCRPC indicated there will likely be more hazardous materials transported by train along the corridor, given commodity surveys of freight, which could create additional risk to communities along the corridor. More detail is necessary regarding how FEC Industries will coordinate with local governments regarding potential spills or other impacts.
- TCRPC also discussed the disposal of waste from trains, which the South Florida Regional Transportation Authority indicated was anticipated to occur at the Orlando International Airport servicing yard.

**Social, Economic & Community Impacts**

- Regarding Environmental Justice (EJ), Martin MPO raised concerns regarding small business impacts from the AAF project, with disproportionate impacts upon low income areas which are concentrated along the rail corridor. The MPO further noted the DEIS fails to address impacts on Title 1 schools, Golden Gate, Port Salerno, and other EJ districts along the corridor.
- Regarding economic impacts, MIATC noted the DEIS only addresses bridge impacts in the coastal counties; however, bridge impacts on the coast will also impact east/west traffic through to west Florida along with travel to the Caribbean. 10,000 boats traverse the St. Lucie Canal/C-44 locks annually, of which approximately 10% are estimated to be commercial. There are a number of marinas, boatyards, hotels, and campgrounds along the St Lucie Canal which will be negatively impacted if boating traffic is reduced. There are also impacts on Okeechobee County and other inland counties.
- Concerns were raised regarding the increase of costs to local governments as result of the grade crossings. FEC Railroad sole-sources improvements, without competitive bids, which further raises the costs to local governments. Questions were raised regarding the increase in number of inspections, repairs, and track replacements with the higher grade class 6 track, which will create increased costs to local governments. Martin County suggested that local governments should be charged a fixed fee to enable them to properly budget for these costs.

**Next Steps**

Council staff thanked the participants for attending the work session and indicated the report would be completed by November 14, 2014 and posted on Council's website as part of the November 21, 2014 agenda package. Local governments and agencies were requested to transmit comments to Council by Friday, November 7 for inclusion in the Council staff report. Comments received after that date would be included as attachments to the staff report and in transmittal packages to the State Clearinghouse and FRA.

**All Aboard Florida Draft Environmental Impact Statement**
**Staff-level discussion for local governments and public agencies**
**Wednesday, October 22, 2014**
**1-4 p.m.**
**Jupiter Community Center**
**200 Military Trail**
**Jupiter, FL 33458**

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# EXHIBIT 6
# Staff Summary of the Regional Meeting in Fort Pierce on October 23, 2014

TREASURE COAST REGIONAL PLANNING COUNCIL

INDIAN RIVER – ST. LUCIE – MARTIN – PALM BEACH

TREASURE COAST REGIONAL PLANNING COUNCIL

All Aboard Florida – Draft Environmental Impact Statement
Regional Meeting Summary

Ft. Pierce Old City Hall
October 23, 2014
1:00 – 4:00 pm

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*NOTE TO READERS: This document reflects general meeting notes and key points of discussion raised during the staff-level meetings held in Fort Pierce on October 23, 2014 regarding regional issues of concern related to the Draft Environmental Impact Statement for the proposed All Aboard Florida project. General meeting notes were prepared by Dr. Kim DeLaney, TCRPC.*

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***Welcome & Introductions***

The meeting was convened by Michael Busha, Executive Director of the Treasure Coast Regional Planning Council (TCRPC). Meeting participants introduced themselves. Attendees included representatives of local governments, agencies, and the legislative delegation. A copy of the meeting sign-in sheet is included with these meeting notes.

***Purpose of Meeting***

Mr. Busha described the responsibilities of regional planning councils, which include the facilitation of discussion regarding issues of regional importance. He then generally described the proposed All Aboard Florida (AAF) project and environmental impact statement (EIS) process. Mr. Busha explained the requirement for Council to review the EIS and provide comments to the State of Florida, as coordinator of the State Clearinghouse process, as well as to the Federal Railroad Administration, as the lead agency coordinating the EIS process for the project.

Mr. Busha explained the review of a Draft EIS (DEIS) was a sufficiency review, noting the twenty-four topics required to be addressed per the National Environmental Policy Act (NEPA). He posed several discussion questions regarding the sufficiency of the DEIS as published, including whether or not the various items are addressed completely, whether or not the data presented appears to be accurate and complete, if there was local data that differs from the data

presented in the EIS, and whether or not the impacts of the project could be accurately assessed with the information provided in the DEIS.

***Overview of DEIS Process & Timeline***

Dr. Kim DeLaney, Strategic Development Coordinator of TCRPC, presented a detailed overview of the EIS process, noting the DEIS as the first document for review. Following the receipt of public comments by a December 3, 2014 deadline, the Federal Railroad Administration (FRA) will assess the comments. At an undetermined point in the future, FRA would be expected to publish a Final EIS, addressing the public comments as deemed appropriate by FRA. An additional public comment period of thirty (or more) days would occur, followed ultimately by the FRA's publication of a "record of decision" with an approval of the build alternative, the build alternative with conditions, or a no-build alternative. Subsequently, appeals of FRA decisions would proceed through the U.S. legal system.

***Discussion of Key Issues***

Mr. Busha then asked meeting participants to raise local and regional issues of concern regarding the DEIS, as noted below.

**General Process Questions and Concerns**

- St. Lucie Village questioned why this is not a Development of Regional Impact (DRI). Council staff explained railroads are exempt from the DRI process.
- A member of the public asked what other agencies are involved and how Florida Power and Light Company (FPL) is involved. Council staff discussed the list of agencies involved in reviewing the DEIS and in issuing permits for the AAF project. FPL can comment like any other member of the public or affected business, but that Council staff is unaware they have any concerns and has received no written correspondence from them.
- The St. Lucie Transportation Planning Organization (SLTPO) wondered at what point will comments/informational deficiencies be considered substantial enough to trigger changes in the DEIS and the AAF project. Council staff responded we will know the answer to that question once the FRA publishes the Final EIS.
- Council staff offered that when the FRA issues its Record of Decision, there is a judicial appeal process that can be initiated (see: http://www.blm.gov/ca/st/en/info/nepa/ibca9874.html).
- St. Lucie Village asked if TCRPC has approached the Government Accountability Office to review the Railroad Rehabilitation and Improvement Financing (RIFF) loan documents and make recommendations to the FRA. Council staff indicated that such a request has been initiated by the offices of Congressmen Murphy and Posey.
- A member of the public asked if some of the freight and passenger trains could be diverted to the west. Council staff indicated the Florida Department of Transportation (FDOT) could initiate a freight rationalization study to determine which of the longer, heavier freight trains could be redirected to the CSX or other western rail corridor to reduce impacts. Council staff also noted the issue of pre-emption, which addresses the

timing of vehicular grade crossing gates, traffic signalization, and approaching trains, has been noted by FRA to improve traffic safety, circulation, and reduce delay.

**Transportation: Roadway Network and Grade Crossings**

- There is a need for a more detailed and broader analysis of grade crossings and impacts to the adjacent roadway network. For example, the DEIS only looked at two grade crossings per county and did not properly analyze delay and safety impacts to many adjacent local streets and regional roads like US1 and Dixie Highway.
- An issue for Ft. Pierce especially, is the proximity of the railroad to barrier island causeways. Back-ups caused at grade crossings will impact access to barrier islands at key times.
- Grade crossings through Ft. Pierce's downtown and CRA frustrates access and business now. The DEIS does not properly quantify the impacts to business due to increased delays.
- Triple tracking in St. Lucie Village is not necessary and creates an unacceptable conflict for emergency access at all Village crossings. That there is room for the third track south of Orange Avenue that should work for AAF.
- There is not enough analysis of impacts and costs to local governments related to grade crossings in the DEIS for stormwater impacts outside of the rail right-of-way; sidewalk and pedestrian access impacts outside of rail right-of-way; and the need to signalize some nearby roadway intersections for safety due to increased delay and backup of traffic into the local and regional roadway network and intersections.
- More explanation/clarification is needed in the DEIS about who will pay for needed modification of old tracks at grade crossings necessitated by the laying of the new track.
- Special event traffic conditions, especially in the Ft. Pierce downtown, has not been analyzed in the DEIS to consider access and traffic impacts of increased back-ups and delays extending back from grade crossings.
- Triple tracking through St. Lucie Village will eliminate room to walk along the tracks. St. Lucie Lane, and Topie, Rouse, Milton, and Chamberlin Street crossings have no pedestrian crossing improvements specified in the DEIS.
- The delays and traffic impacts caused by the AAF project may lead to St. Lucie County having to grade separate some of the nearby intersections. These potential costs and impacts are not considered in the DEIS.
- Traffic congestion created by the AAF project may not allow local governments to maintain their adopted roadway level-of-service specified in their comprehensive plans.
- The current railroad bridge over Avenue C in Ft. Pierce is too narrow to support two rail lines and is too narrow to allow emergency vehicles to cross underneath. Correction of this condition will require the taking of nearby businesses/property.

**Transportation: Marine Navigation**

- There is a need to raise or create a moveable bridge at Taylor Creek as mitigation for Environmental Justice (EJ) issues and to allow St. Lucie County is to implement the EJ and economic development recommendations of the Taylor Creek Charrette Master Plan.

**Transportation: Other Transit**

- The DEIS completely ignores impacts to Indian River and St. Lucie Counties' transit systems. More transit options are needed where EJ communities exist. However, the AAF proposal will increase delays within these local transit systems, and impact route structures and our ability to keep schedules, while providing no additional access to transportation (i.e., no local access or stops for AAF trains).
- There was a general desire expressed for Amtrak service with stations in the downtowns to mitigate AAF impacts and EJ issues.

**Transportation: Bicycle/Pedestrian**

- Bicycle and pedestrian crossings need to be part of <u>all</u> grade crossings.
- Mid-block pedestrian crossings are needed between regular grade crossings that are more than one mile apart.

**Transportation: Public Safety and Emergency Response**

- There was general concern over the additional delays expected for emergency vehicles. This was especially true in St. Lucie Village where there are five crossings and no alternative routes for emergency access to the Village in case of a conflict between trains and emergency vehicles. The same is true for Hutchinson Island access for the two causeways (i.e., one-way on and one-way off).
- A suggestion was made to address the need for evacuation in case of man-made or natural emergencies. AAF and FEC should be part of a state and local emergency evacuation plan where train service is suspended or used to facilitate an evacuation, and communication should be improved between local emergency managers on this issue.

**Land Use, Noise, and Vibration**

- The pros and cons of doing a joint application for quiet zones for Martin, St. Lucie, and Indian River counties was discussed. Council staff provided a detailed explanation of how this was done between Broward and Palm Beach counties.
- St. Lucie Village representatives expressed that many of the homes in the Village pre-date the railroad and were not built to withstand rail vibration, dust, noise, etc.
- Mitigation for this and other impacts on the Village would be to relocate the third rail line/siding proposed to be built within the Village to between Savanna and Midway roads to the south.
- There was a general comment from several participants that there were several historic structures and historical and archeological sites that were not listed and were ignored by the DEIS (e.g., Edgartown, Ft. Pierce historic district, Old Fort Park, Fort Capron, Vero Man site, etc).
- No analysis to show how noise/vibrations will increase/decrease with AAF and what the impact will be on historic structures.
- Noise information is inconsistent. No baseline data or analysis of current noise impact and what it will be when AAF is added to the rail line.

- Regarding air quality, participants indicated the DEIS does not seem to include air quality impacts due to additional cars waiting at grade crossings. Rather, it only focuses on the reduction of cars on the interstate network.
- St. Lucie Village noted there is a major aquifer below the Village called "White Ridge" and questioned how vibrations would affect the aquifer. This was not addressed or noted in the DEIS.
- The DEIS neglects the natural preserves along the corridor, and how increased train service will affect passive recreational enjoyment in the Savannas and listed species. There are no specific surveys. The endangered Lakela's Mint population along the FEC right-of-way near the Coconut Cove subdivision was not identified or addressed.

**Hazardous Materials and Solid Waste Disposal**

- There was a general concern expressed about how increased freight traffic will pose an increased threat. In other words, more freight capacity will equal more hazardous materials transported along the corridor and increase the risk of accidental release of hazardous materials.

**Social, Economic, and Community Impacts**

- Raise the Taylor Creek Bridge or make it movable to enable mitigation of impacts to the Taylor Creek community.
- Conflict for vehicular access because of additional railroad activity will reduce access to small businesses and EJ communities.
- Special accommodations identified in the Americans with Disabilities Act should be provided at all grade crossings.
- Mitigation for the visual impact of a "sealed corridor" (i.e., chain-link fencing) through downtown Ft. Pierce and direct impacts from reduced access on small businesses and EJ communities need to be addressed in the DEIS.
- The DEIS uses a "broad brush approach" to determine the extent of and impacts to EJ communities. The DEIS uses Census Tract level data, when it should be using Block Group data.
- No benefits to EJ communities because of no new access to public transportation is being provided. There are only negative impacts to small EJ businesses and communities and delays imposed on the existing public transit service.
- A general comment was made related to AAF causing a reduction in property values along the corridor and impacts to landscaping, access and parking in redevelopment areas.
- Concerns were raised regarding the increase of costs to local governments as result of the grade crossings. FEC Railroad sole-sources improvements, without competitive bids, which further raises the costs to local governments. Questions were raised regarding the increase in number of inspections, repairs, and track replacements with the higher grade class 6 tracks, which will create increased costs to local governments. St. Lucie County suggested that local governments should be charged a fixed fee to enable them to properly budget for these costs.

**Next Steps**

Council staff thanked the participants for attending the work session and indicated the report would be completed by November 14, 2014 and posted on Council's website as part of the November 21, 2014 agenda package. Local governments and agencies were requested to transmit comments to Council by Friday, November 7 for inclusion in the Council staff report. Comments received after that date would be included as attachments to the staff report and in transmittal packages to the State Clearinghouse and FRA.

**All Aboard Florida Draft Environmental Impact Statement**
**Staff-level discussion for local governments and public agencies**
**Thursday, October 23, 2014**
**1-4 p.m.**
**Fort Pierce Historic City Hall**
**315 Avenue A**
**Fort Pierce, FL 34950**

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All Aboard Florida Draft Environmental Impact Statement
Staff-level discussion for local governments and public agencies
Thursday, October 23, 2014
1-4 p.m.
Fort Pierce Historic City Hall
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**EXHIBIT 7**
**Correspondence from the Town of Jupiter dated November 10, 2014**

TOWN OF JUPITER

November 10, 2014

Ms. Kim DeLaney, Strategic Development Coordinator
Treasure Coast Regional Planning Council
421 SW Camden Avenue
Stuart, FL 34994

**RE: Town of Jupiter Response to the All Aboard Florida (AAF) Draft Environmental Impact Statement (DEIS)**

Dear Ms. DeLaney:

Please accept this correspondence as the Town's initial comments and questions about the AAF DEIS for consideration by the Treasure Coast Regional Planning Council. The Town's comments are organized by the Environmental Effects identified in the DEIS.

**Land Use:**
Much of the FEC right of way through Jupiter was established through an easement dedicated by the United States of America by act of Congress on March 3, 1875. Limited lands used by FEC were acquired through fee simple deeds. Further investigations into the ownership of the FEC rail corridor through Jupiter has determined that a portion of the property may not fall under sole ownership of FEC and/or FEC is not a fee simple controlling party to title of the railroad right of way.

Perhaps more importantly, the entire rail corridor has been dedicated to the use of the public. For over a century, the FEC has used this dedication to the public to its advantage through tax exemptions and the ability to secure public funding for improvements and maintenance in the corridor.

In consideration of All Aboard Florida, it is reported that the rail corridor is "privately held" and under the complete control and jurisdiction of the railroad company. As such, FEC and AAF purport that state or local governments have no grounds to approve or deny the project as the advocate for the "public". Even though some of the lands may have originally been held in private hands, the "public" designation assigned to some of the property may have modified the original private land rights in some measure to consider the "public's interest" in how the right of way is used.

***Given these observations, the Town of Jupiter would like clarification on ownership issues within the corridor to support the position that AAF/FEC has the ability to 1) expand capacity within the ROW without any public input and 2) charge local units of government lease payments for use of public crossings and necessary improvements to railroad crossings.***

**Transportation:**
Although the DEIS focused on passenger rail, the assumptions in the analysis include a growth in freight that need to be considered given the combined impacts on transportation.

*Baseline Data for Freight:*
The DEIS discusses expected increased freight train trips using 2013 as a baseline. ***This section should be updated to cite 2014 figures and projections for 2015 and beyond.*** The section also states that a doubling of the number of expected freight trains along the line is expected within two years. ***The basis for this anticipated doubling should be provided.***

Per the DEIS, there is a 30% increase in average freight train speeds in the No-Action Alternative over the average currently being experienced. ***An explanation of this increase is important to ensure that there is a clear understanding of the basis for the assumed change in speed.***

The information requested above will provide more certainty regarding the baseline impacts of increased freight without the proposed passenger rail service.

*Assumed Train Speeds and Traffic Impacts:*
The methodology for analyzing traffic impacts confirms that the AADT for only the two largest arterials have been included for each county. Using only two roads per county (10 total, or 6% of the total number of crossings) provides an incorrect calculation of the total average daily volume being impacted by the proposed project. ***The transportation study needs to be vastly expanded to study the impact on all major local roads with grade level crossings***.

The assumed operation speed for freight trains as 54.3 mph in the DEIS is questionable for the Center Street, Indiantown Road and Toney Penna Drive crossings due to the Loxahatchee River bridge and curvature of the rail. Based upon the Town's internal review of the rail system in Jupiter, a 30 mph operation speed seems to be a more appropriate assumption for freight trains. The corresponding total closure time, based upon the Town's calculations, will be extended from 2.5 minutes to almost 4 minutes, which significantly impacts the traffic on Indiantown Road. Additionally, the assumed operation speed for passenger train in the DEIS is 89.2 mph, which is an unreasonable assumption for this section of the system. Given the radius of curvature of approximately 450m, the safe train speed seems to be limited to 60 mph.

Based upon the Town's speed assumptions, the Indiantown Road/Alternate A1A intersection is projected to be over-saturated due to crossing closure – which also assumes two (2) freight trains and one or two passenger train(s) -- during the PM peak period in 2036. The vehicle queue will exceed 4,000 feet and the corresponding intersection delay will be over 200 seconds per vehicle.

The projected impacts on traffic constraints have not been adequately addressed within the DEIS. The limited number of intersections analyzed and the generalized speed of the trains that were assumed do not provide adequate data to understand the impact of projected freight and new passenger service on local traffic. ***Given this, the anticipated speeds in Jupiter should be analyzed to better understand the impacts of freight and passenger service on traffic in 2036.*** It would be beneficial to know, where on the system trains will accelerate and decelerate and the anticipated speeds would be at these locations.

***Additionally, critical intersections at crossings need to be analyzed in term of traffic impact, especially for the intersections with speed constraints such as the Indiantown Road, Toney Penna Drive and Donald Ross Road crossings. Further, an assumption regarding Tri-Rail impacts should be included as well. In response to the anticipated impacts, traffic mitigation strategies need to be proposed in the EIS report as well.***

*Freight Impacts:*
The DEIS gave limited consideration to the relocation of freight from the FEC Corridor. For example, the DEIS states, "Negotiating shared-use agreements presents the risk...that the

controlling railroad would not agree to acceptable terms for a shared use environment." ***AAF should attempt to negotiate a shared-use agreement for tracks west of the proposed project before citing this as a risk and dismissing this alternative. Additionally, other inland, such as the US27 Corridor proposal, or maritime options should be explored in the study as well.***

**Navigation:**

Of significant concern for the Jupiter community is the impact of the Loxahatchee Bridge operation on maritime traffic. DEIS information about existing conditions differs from what has been gathered locally. ***Data gathered should be consistent and reevaluated to better understand the maritime impacts.***

Further, there continues to be concerns about the condition of the Loxahatchee Bridge itself. ***Information gathered about the structural integrity of the Loxahatchee Bridge during recent inspections needs to be made available. In addition, a specific scope of work for the reconstruction of the Loxahatchee should be better defined in the study.***

**Noise and Vibration:**

The areas of moderate noise impact seem to be underestimated. Houses in our community are located in close proximity to the corridor and identified as no-impact, yet owners currently experience moderate noise and vibration impacts from train noise and horns from existing freight operations. ***The noise impact zones need to be reviewed to ensure that they accurately reflect moderate and severe noise impacts along the north-south route.***

Noise from wheels – maintenance not the only option. Table 7.2-2 also includes the mitigation measure "Maintain train wheels and rails to minimize vibration." ***Since there is no indication that this is being done for existing freight trains, there should be a mitigation measure added by the FRA for periodic inspection and tolerances which, if exceeded, would require train wheel replacement.***

**Water:**

***With the addition of impervious surface associated with the addition of rail within the corridor, the Town requests the identification of more definitive water pre-treatment strategies and their locations as part of the impact statement.***

**Public Health and Safety:**

*Grade Separation:* the DEIS indicates that the East-West Corridor would be entirely grade separated at roadways. Existing roads would either be crossed using bridges or would be closed, eliminating any potential safety concerns. A similar commitment to safety does not appear to be provided in the North-South Corridor. The North-South Corridor should require the same level of safety as the East-West Corridor. ***AAF should be required to pay for grade separation of the major crossings when done in consultation with local communities.***

*Grade Crossings:* The DEIS Grade Crossing Details report did not account for impacts on emergency vehicular traffic that must cross the railroad tracks to deliver services to or from Jupiter Medical Center and the neighborhoods located on the other side of the corridor. ***The impact on emergency and public safety facilities should be analyzed in the study.***

***As a condition of proceeding with the proposed project, the FRA should require AAF to finance safety improvements associated with as well as the process required for the creation and the on-going maintenance of quiet zones requested by local communities. Further, the scope of work at each crossing, which should include Vehicle Presence Detection devices, should be detailed within the study.***

Safety has to be addressed in the DEIS for pedestrians and bicyclists as well. ***Pedestrian gates and sidewalks should be included in the scope of work for crossing safety upgrades. Communities should be included in the evaluation of safety needs given local knowledge of pedestrian and bicycle movements.***

*Sealed Corridor:* ***A sealed corridor needs to be established that minimizes visual impacts while effectively preventing informal pedestrian crossing between the established at-grade crossings. This should be done in cooperation with the impacted communities.***

**Cultural Resources**

The information in the DEIS pertaining to the Historic Resources within the West Palm Beach Corridor Area of Potential Effects should be updated to include the following historic sites within the Town:

- Sawfish Bay Park (Florida Master Site File #8PB11388)
- Milam Archaeological Midden (Florida Master Site File #8PB11546)

Neither midden directly impacts the FEC ROW. The Milam Midden is located just west of the FEC ROW on three residential properties along the north shore of the Loxahatchee River south of Riverside Drive. The other is an archaeological site at Sawfish Bay Park. As required by the National Historic Preservation Act of 1966, the West Palm Beach Corridor Area of Potential Effects completed for the DEIS was required to include known archaeological sites within 150 feet of the FEC ROW to allow for consideration of indirect impacts. ***Both middens are within 150 feet of the FEC ROW but were not included in the DEIS. They should simply be identified in the final report.***

The aforementioned issues were identified by and discussed by the Town Council during their November 4, 2014 meeting. Attachments will be delivered to you under a separate cover to provide you with additional information about these issues. Please contact me should you require additional information about the Town Council's concerns.

Sincerely,

Andrew D. Lukasik
Town Manager

# EXHIBIT 8
# Correspondence from the City of Fort Pierce dated November 14, 2014


## CITY OF FORT PIERCE
### PLANNING DEPARTMENT

*REBECCA GROHALL, AICP, PLANNING MANAGER*
*COMPREHENSIVE PLANNING ◊ DEVELOPMENT REVIEW*
*HISTORIC PRESERVATION ◊ URBAN DESIGN ◊ URBAN FORESTRY ◊ ZONING*


**TO:** Treasure Coast Regional Planning Council and the Federal Railroad Administration

**FROM:** Rebecca Grohall, Planning Manager

**RE:** City Of Fort Pierce Staff Comments on the Draft Environmental Impact Statement For The All Aboard Florida Project

**DATE:** November 14, 2014

## Purpose

The purpose of this report is to outline Fort Pierce City staff comments in response to the recent Federal Railroad Administration (FRA) release of their Draft Environmental Impact Statement (DEIS) for the All Aboard Florida (AAF) Orlando to Miami Intercity Passenger Rail Project. The FRA is required by the National Environmental Policy Act (NEPA) to analyze the potential environmental impact that may result from this project. According to NEPA, the intent of a DEIS is to facilitate public discourse, allow federal agencies to study environmental impacts and asses alternatives, and inform decision makers and the public. The study evaluates the project comprehensively, but focuses primarily on Phase II West Palm Beach to Orlando. Overall recommendation is further comprehensive analysis needs to be completed with identified deficiencies being addressed, so that a complete understanding of increased train travel can be obtained.

The following report is divided into five major sections, Transportation, Land Use, Noise, & Vibration, Environmental Conditions, Hazardous Materials and Solid Waste Disposal, and Social, Economic, & Community Impacts, these sections correspond to major sections in the DEIS report.

## Transportation

**Roadway Network and Grade Crossings:**

The proposed All Aboard Florida Orlando to Miami Intercity Passenger Rail project is expected to run 32 passenger trains per day. In addition, Florida East Coast Railway (FEC) freight train trips are expected to increase from 14 to 20, thus approximately 52 trains per day would run on the FEC rail line, by 2016. This is a tremendous increase in train activity for the Fort Pierce area. A rapid increase such as this is obviously a concern to the community. Below are the major concerns that have been identified regarding the transportation section.

*Road Analysis*- Currently train routes intersect vital thoroughfares for the community. These roads include:

- Seaway Drive
- Orange Avenue
- Avenue A
- Avenue D Fisherman's Warf
- North Causeway
- Avenue C (A.E Backus Ave)


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Undoubtedly, a rapid increase in trains per day will negatively affect the City's roadways. FRA did analyze traffic operations at grade crossing sections (Appendix 3.3 Grade Crossing Details); however, they only analyzed the largest volume arterial roads. Specifically for Ft. Pierce, they studied North Causeway and Seaway Drive. These are major thoroughfares, connecting the mainland to the islands, but they are not the City's only major roads. Consequently, without complete analysis of all grade crossings, we contend the report is inadequate and are requesting that AAF complete a full analysis of all grade crossings.

*Level of Service-* Reviewing the information available in the report estimated crossing grade for North Causeway during normal cycle is expected to be at Grade A. When freight trains cross Level of Service will be at Grade C and when Passenger trains cross level of service will be at Grade B. Weighted average is expected to be at Grade A. This is above minimum level of service standards, which is a D or better.

In contrast, the estimated crossing grade for Seaway Drive during normal cycle will be at Grade A. When freight trains cross level of service will be at Grade F and when Passenger trains cross level of service will be at Grade F. Weighted average is expected to be at Grade B. The change to level of service for Seaway Drive is alarming. However, it is unclear by the report why this crossing will fall below acceptable grade levels due to train traffic.

While the report offered no suggestions as to why Seaway Drive would operate at LOS F, perhaps the answer is at the Avenue C Bridge . The bridge is a single track; presently daily operations often necessitate trains to switch to allow others to bypass. Added passenger service will presumably increase the need for railroad switching in this area. The report does not clearly state what actions will be taken to improve this crossing, in the report there is no indication FEC or AAF will be updating this bridge. In order to maintain level of service above standard grade during crossing, it will be necessary to upgrade this bridge and now would be the best time to take action.

*Traffic operations-* The DEIS report of North Causeway and Seaway Drive states these crossings will individually remain above acceptable level of service, but does not provide impact analysis of when trains cross multiple arterial roads simultaneously. In the case of multiple crossing closures, it is reasonable to predict further delays, as well as increase in road traffic on minor roadways which do not have the capacity for high volume traffic. The report does convey the increase in trains will cause additional closure events, but does not provide further research to understand the impact of the closures. In the report it states since passenger trains are shorter in length than existing freight, the additional impact from freight and passenger will be minimal. However supporting detail is vague and the report never addresses the overall impact of additional freight and passenger trains.

Moreover, the report does not provide any analysis on bicycle and pedestrian level of service. For the Ft. Pierce area this is important to identify, because of the City's growing alternative transportation users. Given the report's incomplete analysis of level of service, the report does not provide a full picture of the true impact of increased train activity at the City's grade crossings.

*Upgrades and Maintenance-* The City is concerned about the initial cost and future maintenance of crossing guards and surrounding area. Not only would the City's roadway crossings, which include gates, lights, signalization, medians, and other items, have to be upgraded, pedestrian crossings will need to be improved as well, which can include sidewalks, pedestrian guards and signs, pavement markings, and raising the approach to tracks. Supplementary documents from AAF state they would cover costs for upgrading and maintenance associated with double tracking only, not including quiet zones upgrades. At present it is unclear what upgrades and maintenance will be covered by AAF, the report did not include this information.

In addition, upgrading and maintenance of two bridges, Taylor Creek and Avenue C, is also a concern for the City. According to the DEIS report, the Taylor Creek bridge would be rehabilitated, though details were not presented in the report. Avenue C Bridge however was not discussed at all in the document. The AAF project

will increase the number of trains per day, and as a result frequency of road closures will also rise. A result, road closures will impact shifts in traffic patterns. Commuters will presumably utilize Avenue C as well as Citrus Avenue overpass more frequently to bypass the increased train traffic.

As previously stated the Avenue C Bridge (Figure 1), an older single track bridge, needs to be upgraded to assist with train and road traffic flow. Since it is a single track, only one train can cross at a time, thus train switching before or after the crossing is necessary. This creates traffic flow problems at crossing intersections. Consequently, we will see traffic build ups at crossing intersections, such as Seaway Dr., Avenue D, Avenue A, Cedar Place, Avenue C, and the Citrus overpass.

Figure 1: Avenue C Bridge

Figure 2: Citrus Avenue Overpass

Traffic increase on Citrus Avenue overpass (Figure 2) is also concerning. If the AAF project moves forward the overpass will require inspection. Additional traffic, an expected result from the AAF project, will put increased stress on the overpass. AAF should work with the City to assist with upgrading and maintaining the overpass. Their assistance will help ensure the overpass meets safe load carrying capacity standards. For the safety of travelers going over the train tracks on Citrus Avenue Overpass, it is imperative that it undergoes rehabilitation.

*Speed-* The DEIS report estimates train speeds may be in excess of 110 miles an hour at the Savannah Road crossing. Speed in the downtown area is expected to be between 40- 60 miles per hour. Trains moving through City center at those speeds pose obvious concern for community and wildlife safety. The report acknowledges a sealed corridor will be in place, but does not provided detailed information on the type of sealed corridor. An 8ft chain link fence would not be aesthetically pleasing, nor is it consistent with our code standards for our historic district and redevelopment areas. Since the FEC rails run through the middle of our community the material of the sealed corridor must be compatible with the aesthetics in our area. This is to avoid disruption to the look and feel of our areas. With trains moving through our community on a regular basis, an unattractive, sealed corridor will create the feel of a barrier between neighborhoods.

**Marine Navigation:**
The DEIS report states the Taylor Creek railroad bridge would be rehabilitated. However, no details were provided. In 2007, the Taylor Creek Charrette was completed. At that time it was recommended to replace the current Taylor Creek Bridge with a vertical lift style bridge. The Treasure Coast Regional Planning Council team, during this time met with an FEC Representative, whom deemed a Vertical Lift bridge feasible and the preferred option (TCRPC, 2007).

Replacing the bridge would allow boats to travel from the Indian River Lagoon through Taylor Creek and spurring economic development. A major facet of the Taylor Creek Charrette was the discussion of expanding marine industry opportunities. To accomplish expansion of the marine industry it was identified improvements of the bridge were necessary. If the bridge were to be modernized to a vertical lift bridge it would not only update an old outdated bridge, but also be a catalyst for redevelopment, by allowing for marine navigation into the area.

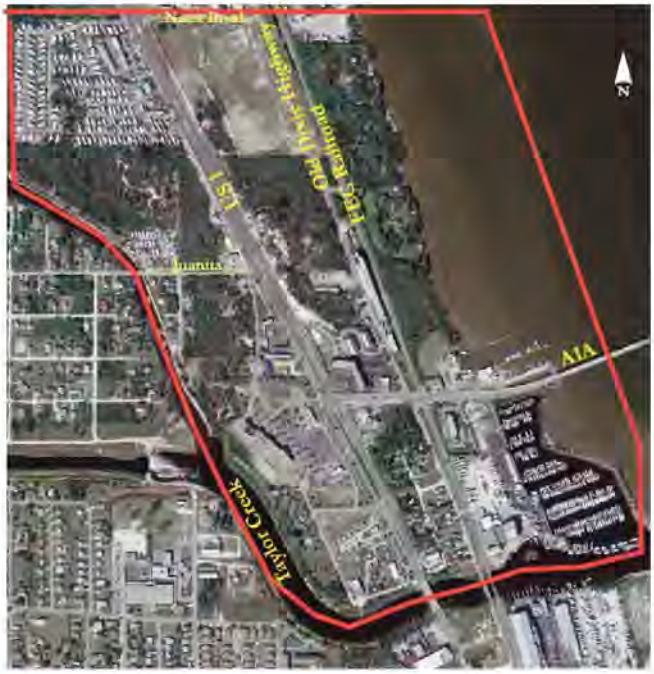


Figure 3: Taylor Creek Charrette area.

**Other Transit:**
The City wants to maintain our multi-modal connectivity and optimal level of service. However, the DEIS report did not speak to this issue specifically for Fort Pierce.

**Bicycle/ Pedestrian:**
Ensuring safety near the tracks is another concern, especially for residents who travel by alternative transportation modes such as walking and bicycling. The FEC rail line runs through Ft. Pierce's lowest income areas (Census tracts 380100, 380200, 381000) the residents in these neighborhoods are more likely to use alternative forms of transportation and have higher probability to travel back and forth over the tracks. With the increase in trains per hour, risk for these travelers will greatly increase. Safety of these travelers is very important to the community, the DEIS does not provide in depth information on its plans to create safe pedestrian areas near and around the rails.

**Public Safety and Emergency Response:**
Consistent with impediment of traffic operation level of service, is the obstruction of connectivity between major areas of the City. While once considered a benefit when passenger rail stopped in the community, the train is now seen as a disadvantage. The rail line currently cuts through major economic hubs and divides the mainland from North and South Hutchinson Island. The City sees the influxes of trains passing through the community as a hindrance to ensuring levels of connectivity between neighborhoods as well as between the mainland and the islands. Maintaining connectivity is important, especially for ensuring our emergency responders, Fire, Rescue and Police response, can respond without hindrance. The DEIS does not address the impact the additional trains will have on our emergency responders. Additionally, in the event of an evacuation be it manmade or natural, how would the FEC respond? Would they stop the trains? Do they have an evacuation plan in place? Furthermore if these trains were used to evacuate other communities in Florida, what is the FECR response to the

negative impact it would oppose on our community. All these questions are not sufficiently answered by the report.

**Recommendations:**

- Analyze of all our grade crossings, so that we have sufficient information on the impacts to the community;
- Provide further information regarding bicycle and pedestrian level of service;
- Implement adequate safety measures for pedestrian and bicycle areas around and on the track;
- Update crossings, ensuring they are ADA compliant;
- Implement improvements to Avenue C bridge;
- Implement improvements, such as vertical lift, to Taylor Creek bridge;
- Provide detailed information of the sealed corridor ;
- Research multi-modal connectivity and level of service in the Fort Pierce area; and
- Provide plans demonstrating how evacuation procedures will be impacted by trains, especially for trains that may be stopped for switching and blocking evacuation routes.

## Land Use, Noise, & Vibration

**Existing Land Use:**

The description of St. Lucie County as "low density and undeveloped lands" is a clear misrepresentation of our area. The City of Fort Pierce, established in 1901, is one of the oldest communities on the east coast of Florida. Ft. Pierce today remains a vibrant community with a rich history that includes a close relationship with the FEC rail line. The City became an important location for the rail line when Henry Flagler designated Fort Pierce as a division point in 1911. Earning this designation facilitated exponential growth for the City, as well as establishing Fort Pierce as a pivotal location for freight train operations. Even though Fort Pierce is a significant location for the FEC, land use information provided within the DEIS report relating to Fort Pierce was incomplete and inaccurate.

**Noise:**

Noise pollution, already a negative externality currently impacting our residents, is one concern Ft. Pierce wants to be proactive in mitigating. Noise pollution includes noise generated by wheels, flanging, idling, whistles blowing, and railroad switching. With additional trains running through the middle of the community, increased noise will unquestionably bolster the negative externalities already impacting residents, something the City is very concerned about. The DEIS report did not adequately address the negative externalities associated with increased train trips. The report addresses existing conditions, but we contend the report did not sufficiently forecast future conditions. It is important to understand fully the noise impacts, so that plans can be made for mitigation efforts.

**Quiet Zones:**

The possible need and costs to the municipality for Quiet Zones or other noise mitigation alternatives is a concern for the City. If the AAF project moves forward and noise is an issue, it is recommended that the AAF upgrade all FEC crossings guards to meet Quiet Zone standards at their costs and not pass those costs onto Cities. Alternatively, if AAF does not fully fund Quiet Zones, and the City wishes to pursue them – Staff recommends that they join with other governments to work with the Treasure Coast Regional Planning Council in a joint application for funding.

**Historical Structures and Districts:**

The DEIS report currently does not specify how additional vibration will affect homes and business located near the FEC rail. A majority of housing and commercial stock in the City of Fort Pierce is located near the rail line. A fuller understanding is needed to evaluate the true consequence of vibration to our structures, since a majority

of our historically significant properties, both commercial and residential, as well as an entire community enclave, Edgartown, is located very close to the rail line. Many of these buildings were built between late 1900's to 1950. The report poorly conveys how the vibration will negatively affect these areas. Concerns regarding vibration on these older buildings are a great concern for the City. Three different historic districts are located throughout the FEC corridor: the Downtown Historic District, as well as the Edgartown Settlement and the Rivers' Edge Historic Districts. Additionally, numerous properties are on the National Register of Historic Places but not addressed – including the Sunrise Theater, Cresthaven/Boston House, Old City Hall, the Moore's Creek Bridge (aka "tummy tickle hill") and Old Fort Park. The Sunrise Theater may be part of the number of auditoriums listed that are impacted by noise and vibration; however they were presented as a number only without a corresponding list, it is impossible to determine what the impacts are to the theater both to the structure and to performances.

Along with vibration is the concern about the possibility of a sealed corridor. If a sealed corridor is to be built in the downtown, the City does not want chain link fence to be an option. Aesthetically it does not fit the look and feel of downtown nor is it allowed or compatible with the design standards. A chain link fence will be a hindrance to the City's redevelopment and historic preservation efforts. The FRA did not reach out to City staff to get a better understanding of the City's historic area, which calls into question their ability to evaluate the effects of vibration to these buildings. Chain link is not an allowed use in our redevelopment area, nor is it an allowed material in the historic areas.

**Recommendations:**

- Provide a more in-depth quantitative and qualitative evaluation on spill-over costs and negative externalities from noise;
- Provide further detailed research on impact of noise and vibration on historic structures; and
- Improve communication with City of Fort Pierce Planning Department staff.

## Environmental Conditions

It's imperative that environmentally sensitive locations such as Savannah Preserve, Old Fort Park archeological site, Indian Hills Recreation Area, the Indian River Lagoon and other coastal waterways are not destroyed or in any manner damaged. Savannah Preserve is a State Park running through Fort Pierce and St. Lucie County comprised of environmentally sensitive land in freshwater marshes and is perhaps the largest single remaining piece of east coast savanna land. In addition to other environmentally sensitive lands adjacent to the tracks, the report does not address impacts to the migration corridors. Also missing is a discussion impacts to threatened and endangered species like gopher tortoises, indigo snakes, bobcats, scrub jays and numerous other birds, on the "protected species" lists. Nor does the report address impacts any of the protected plants that are on the state or federal lists. The DEIS report does not address in any detail on how train traffic will impact these areas, nor offers any mitigation measures to ensure these sensitive areas will be protected over time. Thus, the City contends the DEIS is incomplete in this section.

**Recommendations**

- Provide detailed impact analysis on our local environmental areas;
- Provide wildlife crossing areas through the use of culverts; and
- Provide detail environmental mitigation plans

## Hazardous Materials and Solid Waste Disposal

Hazardous materials and solid waste disposal is not discussed except during construction period. This section is vague and does not give any substantive detail specific to any area. The report also is ambiguous about how they will handle mitigation efforts after construction period. How the AAF will prevent or mitigate any hazardous

material spills or solid waste leakage is unclear. Additionally, the report claims there are 337 potential contaminated sites, but does not discuss any details regarding any of the sites.

**Recommendations:**

- Provide detailed information on prevention and mitigation of hazardous material spills or solid waste leakage;
- Provide detailed information on where the contaminated sites are located; and if sites are located in our area provide plans of site cleanup.

## Social, Economic, & Community Impacts

**Environmental Justice:**

The majority of minority and low income residents in St. Lucie County identified by the DEIS report live in Ft. Pierce. The City has been working toward improving the quality of life not only for these community members, but for the entire Ft. Pierce community. Increased train traffic running three times per hour will negatively affect the quality of life, resulting in lasting negative effects for the entire community. Although the report drew attention to the low income and minority census tracts, it failed to provide any research on passenger rail and social equity. They failed to address issues such as barriers to integration, taking of land, and health. Until this section of the DEIS report addresses those and similar issues, the section should be considered incomplete.

**Economic Impacts:**

The AAF project is expected to create spill-over costs. Negative externalities such as increased train noise and vibration, additional traffic delays, and an unattractive sealed corridor may spur direct and indirect negative economic impacts to the Fort Pierce community. Loss of investment in Historic Fort Pierce Downtown, real estate degradation of commercial and housing properties, and loss of tourists' dollars to the local area, have all been identified as most concerning to the City.

Fort Pierce and surrounding Treasure Coast communities will be absorbing all the costs with no benefits. Economically, the current proposed project does not benefit our local area. The DEIS report did not sufficiently discuss potential positive or negative economic impacts to Fort Pierce or similar areas, that will not be getting a stop. The report only discussed positive externalities and economic opportunities that will be spurred in cities with train stops. It is imperative the report identify both positive and negative impacts for all areas that will be affected by the project.

**Historical & Cultural Resources:**

Preservation of Historical and Cultural Resources is important to the City of Fort Pierce. The City's restoration and preservation efforts have been and continue to be a top priority. Fort Pierce historical buildings were built as long ago as 1882. The typologies of these historic buildings vary from wooden frame, clay, concrete, and marble. Many of the oldest buildings are concentrated downtown and along the river and railroad (Appendix A: Historic Structures and Sites). The impact of additional trains per day on these various historical structures in these areas is unknown. Review of the DEIS report found the FEC did not sufficiently research Fort Pierce historical and archeological sites, nor did they adequately seek local planner comments regarding local historic resources. The report states they contacted our department, however there is not a planner on staff with the City or County who can verify that. There was no reporting or researching included regarding the archeological site at Old Fort Park, the Ais Indian burial mound at Old Fort Park.

Since the FRA did not accurately or sufficiently identify local resources, they did not address the possible negative economical and physical impacts to our community. Increased trains will impact our historical, archeological, and culture resources, but the impacts are currently unknown, due to their lack of research.

Furthermore, FRA did not discuss any mitigation plans addressing how AAF would protect historic and archeological sites. Overall we find this section of the report lacks completeness. We have attached several maps in the Appendix showing the historical resources.

**Recreational Resources:**
The FEC rail travels along or near several parks including Savannas Preserve State Park , Indian Hills Golf Course, Heathcote Botanical Gardens, Ilous Ellis Park (aka "Open Space Park") and Indian Hills Recreation Area. Concerns over maintaining and preserving these open, passive spaces have been identified. The report stated there will be some impact from noise and vibration, however they do not speak specifically to our park areas nor do they offer any mitigation plans to protect these valuable areas.

**Recommendations:**

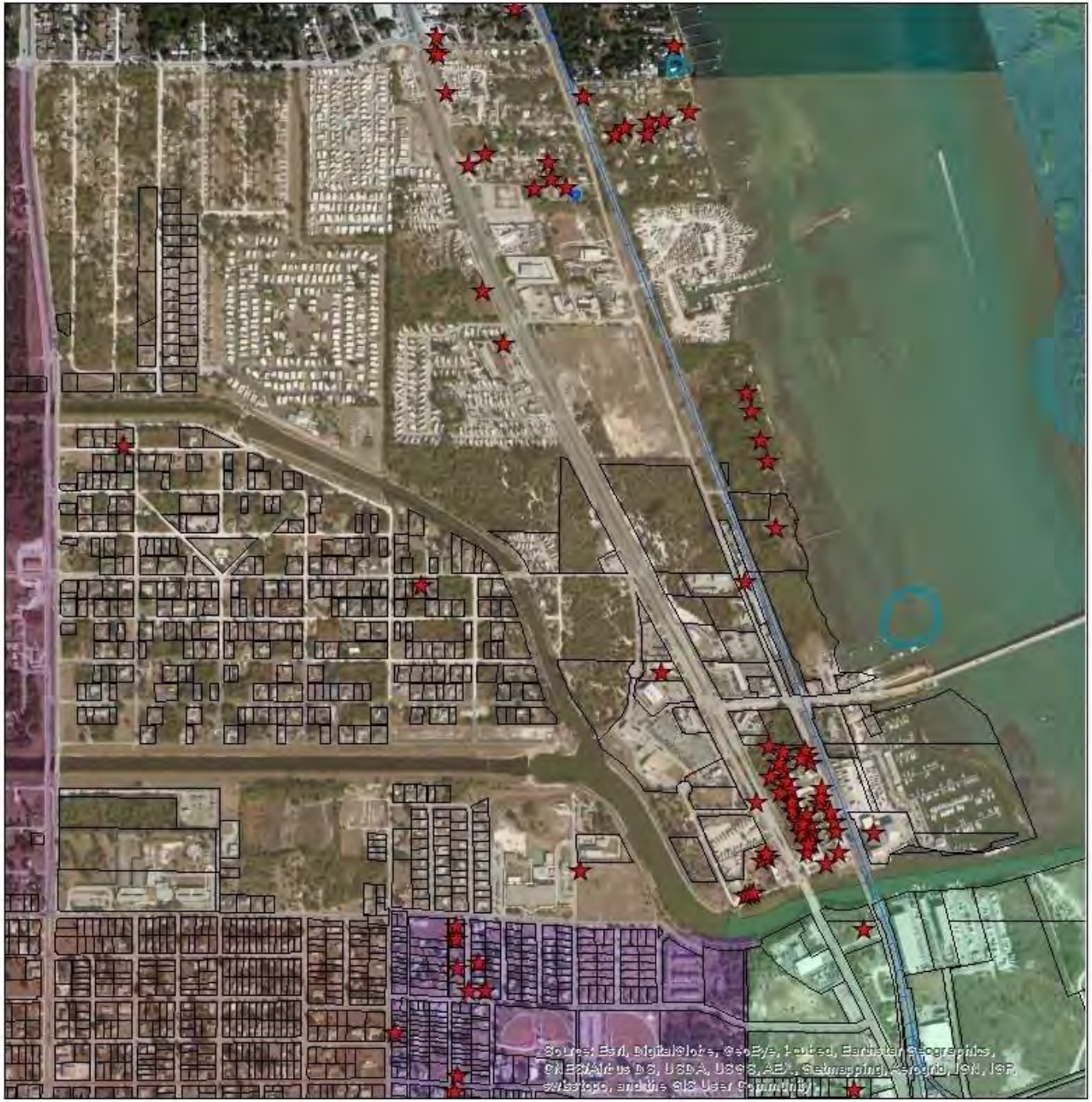
- Research the economic impacts on historical areas;
- Reevaluate of all historical structures and sites;
- Address impacts on all historical building typologies;
- Improve communication with City of Fort Pierce Planning Department staff; and
- Reevaluate impact on local recreation areas.

## Conclusion

The AAF project is expected to impact the City, however there is not enough information presented in the DEIS to fully evaluate the report and gauge the full extent of the impact. The report lacked meaningful, quantifiable data that could be utilized to evaluate the additional traffic delays; impacts to grade crossings, effects on roadways and adjacent neighborhoods, and most importantly the true costs to the City. The City of Fort Pierce respectfully requests that All Aboard Florida reevaluate the report and provide actual data, not brushstroke statements.

## Attachments – Appendix A: Historical Resources in Fort Pierce

# Appendix A: Historic Structures and Sites




## Fort Pierce Historic Resources

- Historic Structures with FMSF Site ID
- FEC Rail Tracks
- Historical Cemeteries with FMSF Site ID
- Archaeologic Sites with FMSF Site ID

**U.S. Census Track**

- 3809.01
- 3802
- 3801
- 3803
- 3809.02
- Fort Pierce City Wide Parcels

N W E S

0 500 1,000 Feet

FORT PIERCE THE SUNRISE CITY

Map prepared November 4,2014

# Fort Pierce Historic Resources

- Historic Structures with FMSF Site ID
- FEC Rail Tracks
- Historical Cemeteries with FMSF Site ID
- Archaeologic Sites with FMSF Site ID

**U.S. Census Track**

- 3805
- 3806
- 3814.01

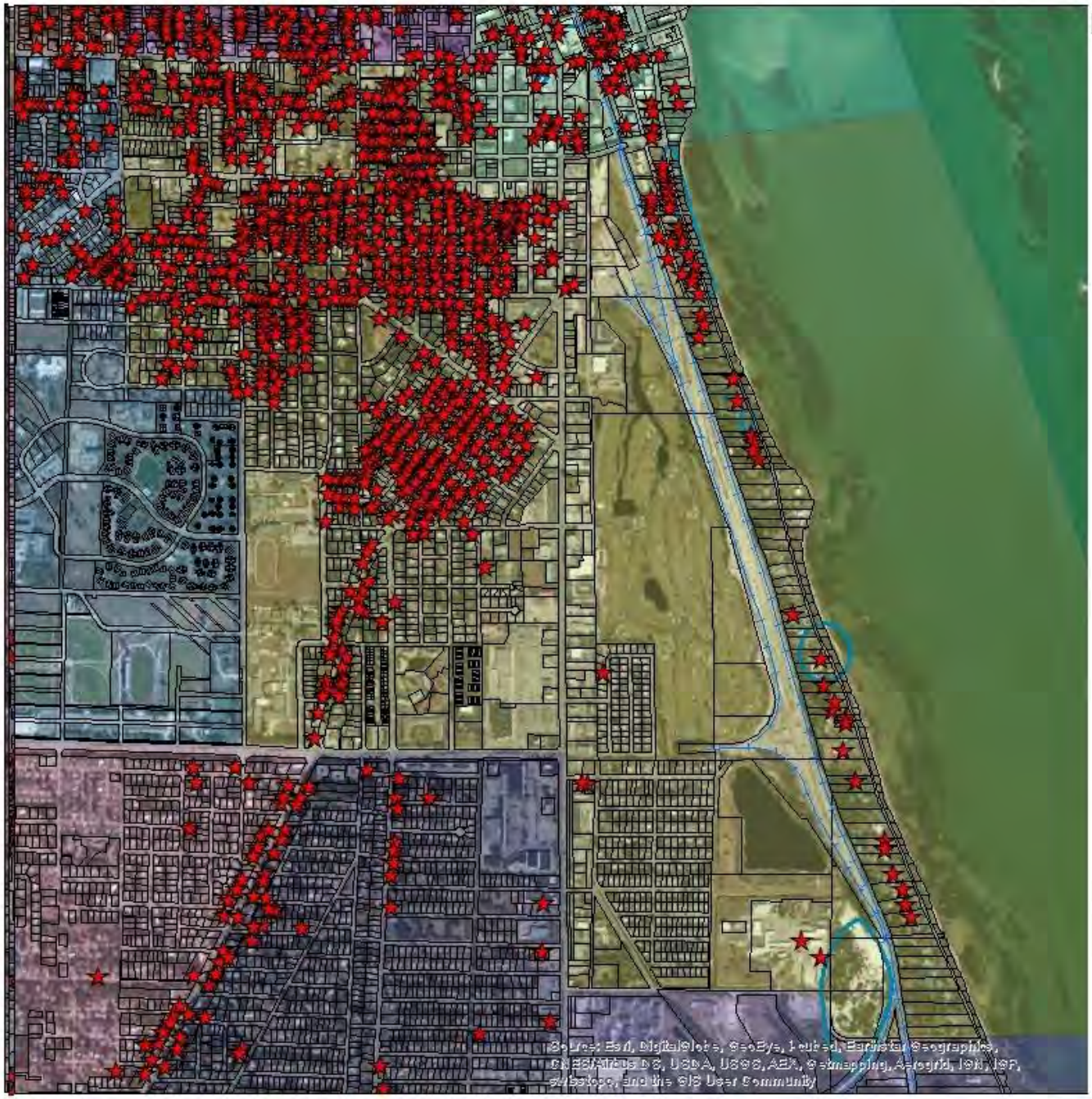
- Fort Pierce City Wide Parcels

N W E S

0 1,000 2,000 Feet

FORT PIERCE THE SUNRISE CITY

Map prepared November 4,2014




# Fort Pierce Historic Resources

- Historic Structures with FMSF Site ID
- FEC Rail Tracks
- Historical Cemeteries with FMSF Site ID
- Archaeologic Sites with FMSF Site ID

**U.S. Census Track**

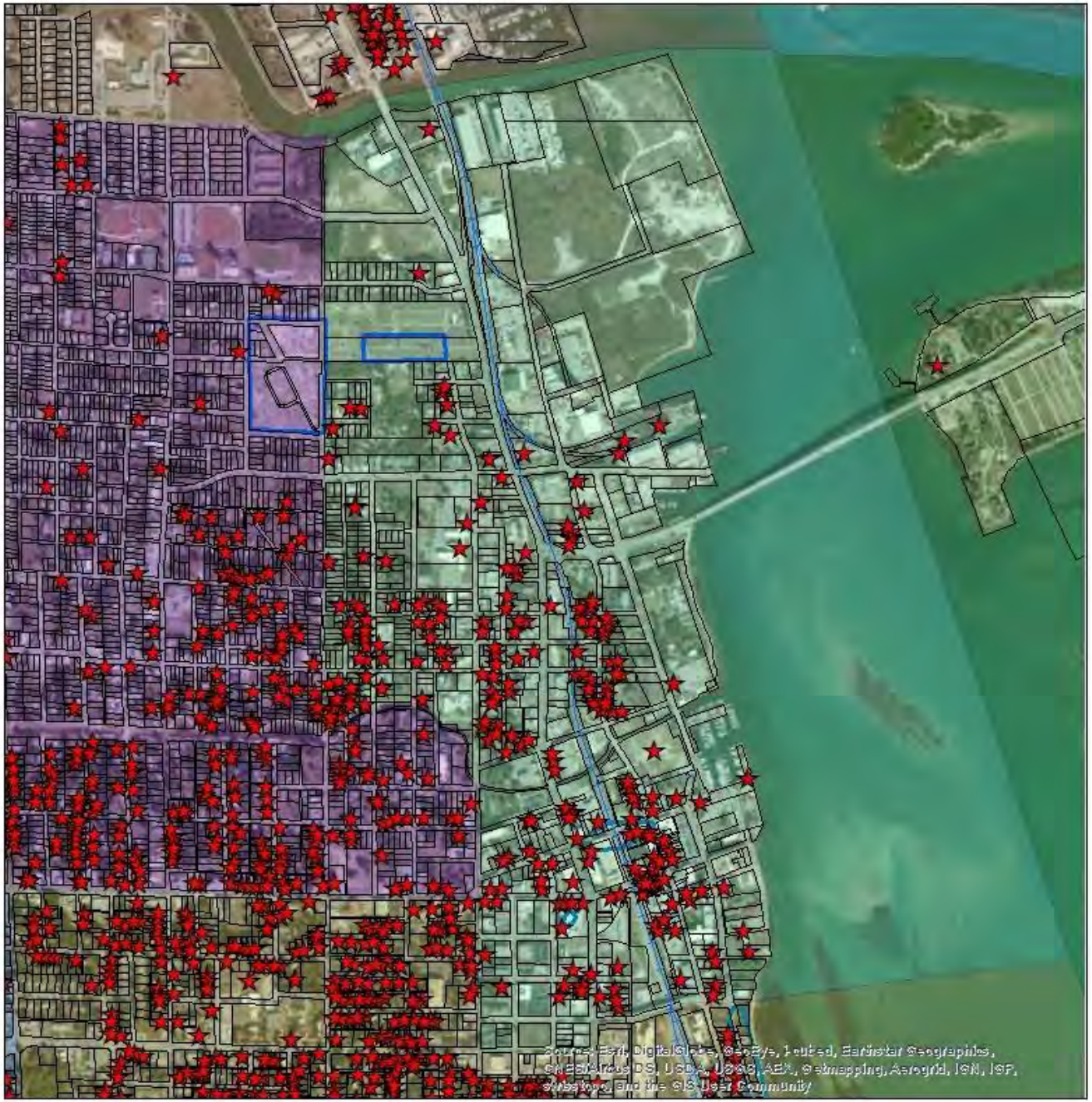
- 3801
- 3802
- 3804
- 3805
- 3814.01
- 3806
- Fort Pierce City Wide Parcels

N W E S

0 500 1,000 Feet

FORT PIERCE THE SUNRISE CITY

Map prepared November 4,2014




# Fort Pierce Historic Resources

- Historic Structures with FMSF Site ID
- FEC Rail Tracks
- Historical Cemeteries with FMSF Site ID
- Archaeologic Sites with FMSF Site ID

**U.S. Census Track**

- 3809.01
- 3801
- 3802
- 3804
- 3805

- Fort Pierce City Wide Parcels

N W E S

0 500 1,000 Feet

FORT PIERCE THE SUNRISE CITY

Map prepared November 4,2014

# EXHIBIT 9
# Correspondence from Mr. Joel L. .Tallant, Sr. – Resident of Indian River County dated September 24, 2014

**Mike Busha**

**From:** Joel Tallant <chef@hotmail.com>
**Sent:** Wednesday, September 24, 2014 11:33 AM
**To:** Kim Delaney
**Cc:** Robert.Bendus@DOS.MyFlorida.com; mbusha@tcrpc.org; jbaird@ircgov.com; citymgr@covb.org; pmatson@ircgov.com; Angie.toro@mail.house.gov; Pam.gillespie@mail.house.gov; debbie.mayfield@myfloridahouse.gov; john.winkle@dot.gov
**Subject:** AAF EIS

Good Morning All,

My name is Joel L Tallant Sr, I am a homeowner and business owner living in Indian River County, Florida. After my initial review of AAF EIS, below are a few of my major concerns regarding this document. Please address these issues and respond back to me as to how these issues will be addressed.

1. No where can I find in the EIS showing the results of : " Buildings where Rayleigh waves would cause structural damage." As just using the term "vibrations" does not cover everything accreditied to all vibrations in a whole. Why is this not addressed or otherwise used to develop the EIS?
2. What geographical land type was used in the study to determine the impact of the vibrations/Rayleigh waves from the trains passing by? Why? Explain.
3. Where there any distinctions made of the type, age and conditions of the structures in close proximity to the train tracks? And if so, what?
4. In the Summary of the EIS it states( page S-18)," The Project would have no direct or indirect effects ( noise, vibration or change in setting) to the historic resources located adjacent to the N-S Corridor. " This is NOT AT ALL the case, there is historic properties directly adjacent to the N-S Corridor in Indian River County alone not to mention the other counties affected.
5. What if any will be done to mitigate these issues with the areas that will be impacted by the vibrations/Rayleigh waves from the High-Speed trains and increased freight train traffic?
6. In Rayleigh surface waves the particle motion has both horizontal and vertical components. No where is this discussed in the EIS. The problem to find out a low-cost method to install barrier walls against train-induced ground vibrations has been under investigation. The purpose is to isolate buildings from the traveling Rayleigh surface waves. This usually happens when the soil consists of soft layers of clay. Such places are locating very often in coastal places, where the soil originates from the sea bottom sediments or erosion sludge conveyed by rivers. One promising work method is sheet-piling, in which case the barrier has to be composed of sheet-pile wall with soft isolation layer at its building side. The purpose of the wall is to reduce the amount of soil masses to be removed and also to support the isolation layer. Isolation material could be air cushion or granular material like artificial gravel. The installation work can be carried out by computer controlled boom system, which allows drive the pile wall in prescribed inclination angle. The boom is equipped with an integrated gripper-driver unit and may belong to an excavator with track wheels or it may be mounted on a customized wagon. By changing cyclically the bucket and sheet piler, the work process can run in piling-digging-layering-filling phases semi-automatically, where the operator assists changes from one internally automatic task to a next one.
7. In all of the material it shows that the trains will be traveling at a distance of 50 feet from structures, this is not the case in most cities along the Treasure coast. In Figure 4.2.2-4 the AAF EIS shows Locomotive Powered Passenger or Freight trains traveling at 50 mph. However, with existing speeds of the freight trains that travel along the N-S Corridor at 54.2 mph, no where does it show what the

impact of the High-Speed train traveling at 103.34 mph through Indian River County, 93.38 mph in St. Lucie Co. and 76.96 mph in Martin Co. Why? Explain.

Thank you for your time and have a great day!

# EXHIBIT 10
# Correspondence from Mr. Robert J. Kennedy, President of the Marine Industries Association of Palm Beach County dated November 20, 2014

**Kim Delaney**

**From:** Kennedy, Michael J. <MKennedy@ciklinlubitz.com>
**Sent:** Thursday, November 20, 2014 10:27 AM
**To:** 'kdelaney@tcrpc.org'
**Subject:** Re AAF From Michael Kennedy MIA PBC

I have reviewed the memo for agenda item 9, AAF DEIS.

It is well written, but I offer three points..
One, I believe the actual length of the freight trains exceeds the length stated, I think they are closer to 9,000 feet and may be more. I will try to run this to ground.

Two, your statements on pages 9 & 10 discussing wait times and number of boats potentially waiting queues are accurate, but may understate the safety and potentials for vessel interactions.
The St. Lucie and Loxahatchee River RR Bridges both are located an points where those waterways are narrow and points through which strong tidal flows occurs due to the volume of water that passes through those points. Holding a boat in a "queue" in these tides is difficult and raises safety concerns. These bridges have narrow horizontal clearances and vessels of broad beams passing in opposing directions have a narrow margin. This is exacerbated when commercial traffic like barges and tugs travel through as they block the entire span. This could lead to user conflicts. It would be helpful to have the bridge tender that is already in place, assist with traffic. Some method of predictability is needed.

Three, barrages which travel through the three bridge gauntlet must wait till a slack tide which means there are limited to one of possibly two windows each day. Barges should have "fleets" upon which they can ties off/lay up against " within about ¼ mile of each side of the St. Lucie bridge. Norte, the St. Lucie bridge is the gateway to the Okeechobee waterway, the only cross Florida water for commerce and hurricane evacuation..

Michael J. Kennedy, President
MIA PBC

Ciklin Lubitz Martens & O'Connell
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# EXHIBIT 11
## Correspondence from the City of Palm Beach Gardens dated November 20, 2014

**CITY OF PALM BEACH GARDENS**
10500 N. MILITARY TRAIL • PALM BEACH GARDENS • FLORIDA 33410-4698

November 20, 2014

Mr. Michael Lefevre, Operations Planner
All Aboard Florida
2855 Le Jeune Road, 4th Floor
Coral Gables, FL 33134

Dear Mr. Lefevre:

**Subject: All Aboard Florida**

As Florida East Coast Industries' All Aboard Florida project moves forward, questions remain on how the project will be implemented and the specific impacts it will have on the City of Palm Beach Gardens. Although All Aboard Florida has conducted an intense public outreach campaign on the project as a whole, questions remain on the exact details exclusive to the City.

The City Council and I, along with City Staff, are requesting from All Aboard Florida written responses to the following questions and concerns:

- Will plans include pedestrian crossings (especially for the crossings at Lighthouse Drive/A1A and Burns Road/A1A due to children crossing for school)?
- Will crossings be compliant with ADA Standards?
- Will any crossings have overhead / over-the- road crossings?
- What will be done to mitigate the possible delays in response times for First Responders?
- What are the differences between a 'Sealed Corridor' and a 'Quiet Zone' in liability, cost, maintenance, and noise expectations?
- Please confirm the speed that the trains will be traveling through the City of Palm Beach Gardens.
- Which entity (All Aboard Florida, Florida East Coast Industries, and/or the City of Palm Beach Gardens) is financially responsible for the improvements necessary to create the 'Sealed Corridor'?
- Which entity (All Aboard Florida, Florida East Coast Industries, and/or the City of Palm Beach Gardens) will be financially responsible for the future maintenance of the grade crossings?
- How will the new track(s) affect the ditch area on the west side of the track (beginning at C-18 canal to just north of RCA Boulevard)?
- Will the new tracks eliminate all of the vegetation on the west side of the track that is currently helping to mitigate noise issues for nearby residents and businesses (beginning at C-18 canal to Donald Ross Road)?

- Will the project plans include proposed traffic and pavement markings?
- Will the signal devices and gates installed be of a standard design approved by the City Engineer?
- When will the City of Palm Beach Gardens receive the 90% and the 100% / final drawings?
- What is the current status of the funding of the project?
- Does All Aboard Florida still intend to seek publicly guaranteed loans? If so, how much?
- Does the revised method of payment remove the need for the Environmental Impact Statement (EIS)?
- In regards to the crossing agreement, what is considered to be "necessary and reasonable capital investments" to which All Aboard Florida is committing?
- Are there future plans to connect the All Aboard Florida project with Tri-Rail services in the City of Palm Beach Gardens?
- What is the anticipated amount of freight train volume projected daily and hourly?

As the Operations Planner for All Aboard Florida, it is the City's hope that you, or the appropriate party, will address these questions and concerns in writing so that all parties have a mutual understanding of key issues that impact the City's residents and businesses.

The City thanks you in advance for your responses.

Sincerely,

Robert G. Premuroso
Mayor

cc: City Council
Mr. Ronald M. Ferris, City Manager
Mr. John Winkle, Federal Railroad Administration (FRA)
Mr. Michael Busha, Treasure Coast Regional Planning Council
Mr. Nick Uhren, Palm Beach MPO