

# FLORIDA RAIL SYSTEM PLAN

NOVEMBER 2023

## **Appendix C:**

Profile of Florida's Passenger Rail Network



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## C.1 Amtrak Services

Amtrak routes are shown in Figure C-1.

### C.1.1 SILVER METEOR

The Silver Meteor operates between New York and Miami. The service consists of one daily round-trip, stopping at 14 stations in Florida. Intermediate stops outside Florida include Savannah, Georgia; Charleston, South Carolina; Richmond, Virginia; Washington, DC; Baltimore, Maryland; and Philadelphia, Pennsylvania. Mileage of route segments appear in Table C-1. Southbound, the train leaves New York at 3:15 PM and arrives in Miami at 6:55 PM the following day. Northbound, the train leaves Miami at 8:10 AM and reaches New York at 11:18 AM the following day. Northbound, the Silver Meteor stops in Jacksonville at 4:51 PM while southbound, the train stops in Savannah at 6:43 AM. The Silver Meteor schedule offers daytime service between Jacksonville and Miami; overnight service is offered between Jacksonville and cities in the Northeast.

Table C-1 | Route Segments of the Silver Meteor

Route Segments	Length
New York-Washington DC	225 miles
Washington DC - Rocky Mount	235 miles
Rocky Mount - Savannah	369 miles
Savannah - Jacksonville	148 miles
Jacksonville - Miami	412 miles
Total	1,389 miles (450 miles in Florida)

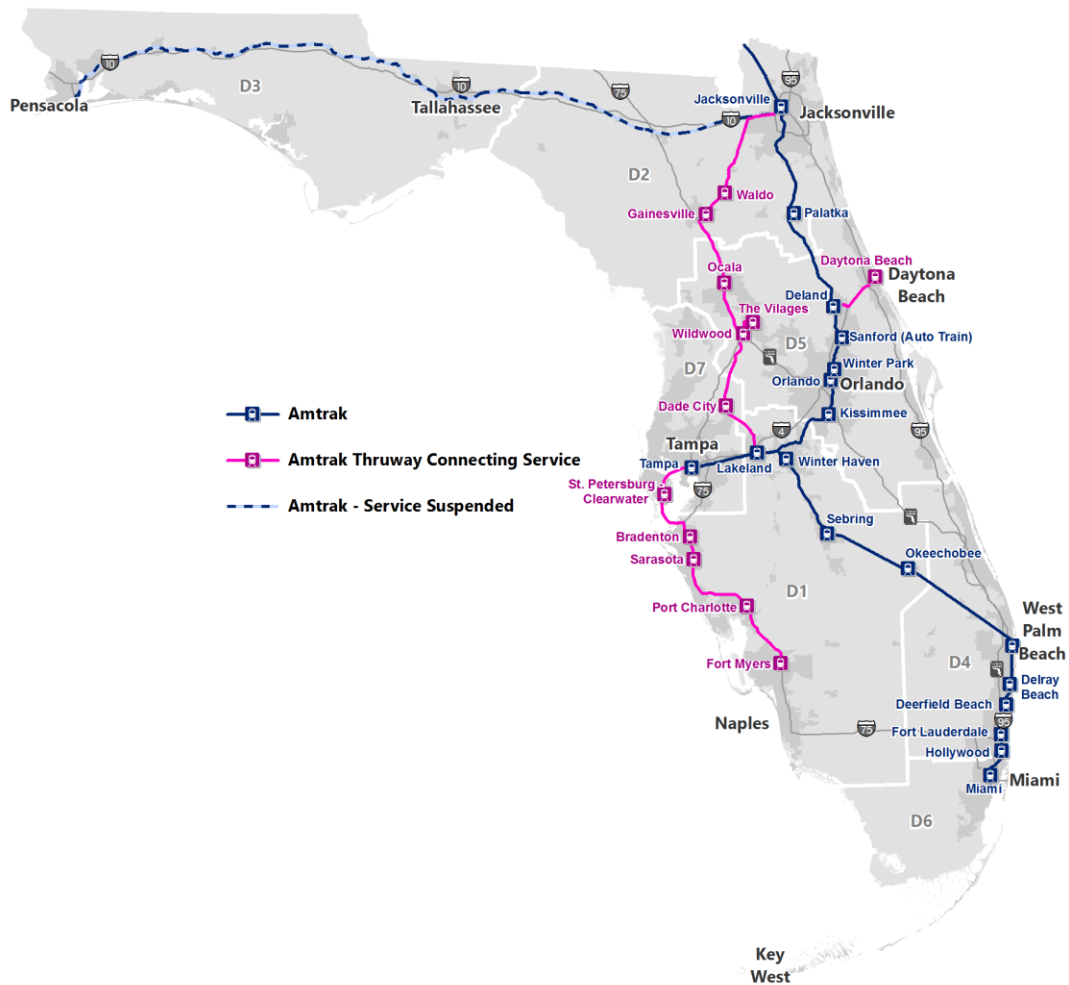
Source: 2015 Florida Rail System Plan (Updated in 2018)

### C.1.2 SILVER STAR

The Silver Star operates between New York and Tampa/Miami. The service consists of one daily round-trip, stopping at 17 stations in Florida. Intermediate stops outside Florida include Savannah, Georgia; Columbia, South Carolina; Raleigh, North Carolina; Richmond, Virginia; Washington, DC; Baltimore, Maryland; and Philadelphia, Pennsylvania. Mileage of route segments appears in Table C-2. Southbound, the train leaves New York at 11:02 AM, arriving in Tampa at 12:55 PM, and Miami at 6:35 PM the following day. Northbound, the train leaves Miami at 11:40 AM, Tampa at 5:20 PM and reaches New York at 7:10 PM the following day. Northbound, the Silver Star stops in Jacksonville at 10:44 PM, while southbound the train stops in Jacksonville at 7:06 AM. The train operates via Tampa and Columbia, which adds schedule time to the trip. The Silver Star schedule is designed to focus on the Orlando and Tampa markets with overnight service to and from the Northeast. Miami is a secondary market for the train. Other key markets for the train are the cities of Raleigh, North Carolina and Columbia, South Carolina. The train also provides local service between Tampa and Miami. (Figure C-2)

# Appendix C: Profile of Florida's Passenger Rail Network

Figure C-1 | Amtrak Service in Florida's



Source: Amtrak, 2022

Table C-2 | Route Segments of the Silver Star

Route Segments	Length
New York-Washington DC	225 miles
Washington DC - Raleigh	306 miles
Raleigh - Savannah	339 miles
Savannah - Jacksonville	148 miles
Jacksonville - Tampa	246 miles
Tampa – Miami	257 miles
<b>Total</b>	<b>1,521 miles (541 miles in Florida)</b>

Source: 2015 Florida Rail System Plan (Updated in 2018)



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Figure C-2 | Silver Star Boarding Passengers in Tampa



Source: 2015 Florida Rail System Plan (2018 Update)

### C.1.3 AUTO TRAIN

Another Amtrak service that travels through Florida is Amtrak's Auto Train. The Auto Train is a unique product that carries both passengers and their automobiles between Lorton, Virginia, just south of Washington DC, and Orlando. The train makes no intermediate station stops. Carrying passengers and their automobiles, the service provides an overnight link between the Northeast and Central Florida. The Auto Train has a maximum capacity of 320 vehicles. Auto carrying railcars preparing to receive automobiles are shown in Figure C-3.

Figure C-3 | Auto Carrying Railcars of Amtrak's Auto Train



Source: 2015 Florida Rail System Plan (2018 Update)

### C.1.4 THRUWAY BUS SERVICE AND OTHER CONNECTING BUS SERVICE

Thruway Bus Services are coordinated feeder motor coach routes that connect to scheduled intercity rail passenger services. These services can extend the market area and add value to rail passenger routes. Amtrak offers daily Silver Service Thruway Bus Connections between Daytona Beach and DeLand, and between Fort Meyers, St. Petersburg, Tampa and Orlando. A Thruway bus is seen in Figure C-4 awaiting an arrival of the Silver Star at the Lakeland Station. Other daily bus service is offered between Jacksonville and Lakeland, connecting with the Silver Star. The new partnership with Capitol Trailways and Greyhound offers connections to trains in Jacksonville.

Figure C-4 | Amtrak Thruway Bus at Lakeland Station



Source: 2015 Florida Rail System Plan (2018 Update)



### C.1.5 AMTRAK STATIONS

In 2009, Amtrak surveyed all its stations regarding improvements necessary for compliance with the Americans with Disabilities Act of 2008 (ADA), and for other repair information. Needed improvements totaled \$29.8 million. Most of the improvements have yet to be made. An inventory of Amtrak stations appears in Appendix F. Amtrak intends to move its Miami stop in the near future to the Miami Intermodal Center (MIC), seen in Figure C-5. The MIC is served by Tri-Rail commuter trains, Metrorail rapid transit trains, Greyhound intercity bus service, and an elevated people mover that connects MIC passengers to the Miami International Airport and the Miami Rental Car Center.

Figure C-5 | Miami Intermodal Center near Miami Airport



Source: 2015 Florida Rail System Plan (2018 Update)

## C.2 COMMUTER RAILROADS

### C.2.1 TRI-RAIL

#### Tri-Rail System Overview

Tri-Rail is a commuter rail service connecting Palm Beach County in the north and Miami-Dade County in the south. Current operations are along one rail line on a 70+ mile-long track, shown on Figure C-1 and enlarged in Figure C-6. The service is provided between the Miami Intermodal Center in the south and Mangonia Park Station in the north; the service runs along the former CSX Transportation's Miami Subdivision between the Hialeah Market Station and the Mangonia Park Station. Tri-Rail's service area is also called the South Florida Rail Corridor (SFRC).

#### History of Tri-Rail

The genesis of the current Tri-Rail service dates to the early 1980s when FDOT conceived of implementing passenger service along 67 miles of the CSX's single-track Miami Subdivision to provide an alternative means of transportation between Hialeah Station in Miami and West Palm Beach while Interstate 95 and the parallel Florida Turnpike were being widened. The line segment is presently referred to as the South Florida Rail Corridor.

FDOT purchased the track from CSX in 1989. Tri-Rail trains began operations the same year, offering commuter rail service free to riders. Revenue service began in May 1990. Under the terms of the purchase agreement, CSX would continue to dispatch trains on the line, perform line maintenance, and retain exclusive trackage rights for freight service.

The new service exceeded its ridership projections, and more trains were added. In 1998 the service was extended north to Mangonia Park and south from Hialeah Market Station to the new Miami Airport Station (which has since been closed). The extensions added four route miles to the Tri-Rail system.

To enhance line capacity for more trains and enhanced performance, Tri-Rail began double-tracking the route between Mangonia Park and Miami Airport. The project was completed in 2007. Tri-Rail began service to the Miami Intermodal Center (MIC), now its southern most station, in the spring of 2015.

#### Sponsorship

Tri-Rail is operated by the South Florida Regional Transportation Authority (SFRTA), a tri-county public transit authority based in Pompano Beach. Its member counties are Palm Beach, Broward, and Miami-Dade Counties. SFRTA was created in 2003 by the Florida Legislature. It replaced the Tri-County Commuter Rail Authority, made up of the same three counties, which had managed Tri-Rail until that point.





## Current Operations

### *Trains and Amenities*

There are 50 scheduled northbound and southbound trains per weekday. During peak periods, trains operate half hour or even shorter frequencies. During off peak hours, frequencies lengthen from 40 minutes to one hour. Figure C-7 shows a Tri-Rail train set at the Hollywood Station.

There are 30 trains on Saturdays, Sundays and holidays, operating for the most part on hourly frequencies. In April 2015 Miami Airport Station opened at the Miami Intermodal Center, once again connecting Tri-Rail directly with the Miami International Airport for the first time since the original Miami Airport Station closed in 2011. This new station has connections to MIA Mover, providing a direct link to the airport, Metrorail, Metrobus and Greyhound.

Train amenities include seating on two or three levels (depending on the railcar), bicycle racks, and bathrooms. In 2015, three Bombardier coaches were renovated to include additional bicycle capacity. These trains with special bike cars have the capacity to carry an additional 14 bicycles per train. Wi-Fi is also available on trains.

Figure C-7 | Tri-Rail Commuter Train Set



Source: 2015 Florida Rail System Plan (2018 Update)



# Appendix C: Profile of Florida's Passenger Rail Network

## Operator

Veolia Transportation, of Lombard, Illinois, is contracted to provide train operations and maintenance services.

## Dispatching and Line Maintenance

Currently, CSX has responsibility for the dispatching and maintaining the line between Hialeah Station and Mangonia Park. However, in March 2013, SFRTA executed an agreement to take over the SFRC dispatch and maintenance of way on the CSX tracks.

## Stations

All 18 Tri-Rail stations have free parking and taxi service available, are served by local transit (Palm Transit, Broward County Transit and/or Miami-Dade Transit; and Metrorail at Metrorail Transfer) and have bike lockers. Tri-Rail Shuttle buses serve 10 stations with 20 routes, offering free service for Tri-Rail riders to points surrounding the stations. Table C-3 depicts the connections and features/amenities available at the 18 Tri-Rail stations.

Table C-3 | Tri-Rail Station Amenities

Tri-Rail Stations	Parking	Elevators	Taxis	Trolley	Ticket Kiosk	Community Bus	Commuter Connector	County Bus	Greyhound	Amtrak	Metrorail	Airport	Park and Ride	Megabus	JetSet
Mangonia Park	Y	Y	Y					Y							
West Palm Beach	Y	Y	Y	Y	Y			Y	Y	Y					
Lake Worth	Y	Y	Y					Y							
Boynton Beach	Y	Y	Y					Y	Y						
Delray Beach	Y	Y	Y	Y				Y		Y					
Boca Raton	Y	Y	Y			Y		Y	Y						
Deerfield Beach	Y		Y			Y		Y		Y					
Pompano Beach	Y	Y	Y		Y	Y		Y							
Cypress Creek	Y	Y	Y				Y	Y							
Fort Lauderdale	Y	Y	Y	Y			Y	Y	Y	Y			Y		
Fort Lauderdale Airport	Y	Y	Y		Y	Y	Y	Y				Y			
Sheridan Street	Y	Y	Y						Y					Y	Y
Hollywood	Y	Y	Y			Y		Y		Y					
Golden Glades	Y	Y	Y					Y	Y				Y		
Opa-Locka	Y	Y	Y			Y		Y							
Metrorail Transfer	Y	Y	Y		Y			Y			Y				
Hialeah Market	Y	Y	Y					Y							
Miami Airport	Y	Y	Y	Y	Y			Y	Y		Y	Y		Y	

Real-time information of train operations is provided at stations. It is also available on smart phones and computers via the Tri-Rail app and website.

### Transportation Connections and Unique Amenities

#### Mangonia Park Station

- Palm Tran Bus Routes: 21, 31, 33

#### West Palm Beach Station

- SFRTA Ride Partner Service (complimentary uber or taxi voucher)
- Palm Tran Bus Routes: 1, 2, 20, 31, 40, 41, 43, 44, 60
- West Palm Beach Downtown Trolley Green Line
- Circuit on-demand electric microtransit
- Brightbike bike share station
- Rose Trolley dial-a-ride microtransit
- Amtrak
- Long Distance Bus (Greyhound, Flixbus)
- The West Palm Beach Station is equipped with a Ticket Kiosk on Track 1, with a Tri-Rail Customer Experience Specialist to assist passengers with ticket purchases and trip planning.
- Public restroom

#### Lake Worth Station

- SFRTA Ride Partner Service (complimentary uber or taxi voucher)
- Palm Tran Bus Routes: 61, 62

#### Boynton Beach Station

- Palm Tran Bus Routes: 70, 71, 73
- Long Distance Bus (Greyhound)

#### Delray Beach Station

- SFRTA Ride Partner Service (complimentary uber or taxi voucher)
- Palm Tran Bus Routes: 2, 70, 81, 88
- Amtrak

#### Boca Raton Station

- SFRTA Ride Partner Service (complimentary uber or taxi voucher)
- Palm Tran Routes: 2, 94
- The Park at Broken Sound Shuttles
- BRiC Innovation Campus Shuttle
- Long Distance Bus (Greyhound)

#### Deerfield Beach Station

- SFRTA Ride Partner Service (complimentary uber or taxi voucher)
- Broward County Transit Bus Route: 48, Deerfield Beach Express I
- Amtrak

#### Pompano Beach Station

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- SFRTA Ride Partner Service (complimentary uber or taxi voucher)
- Broward County Transit Bus Route: 34
- Pompano Beach Community Bus Blue Route
- The Pompano Beach Station is equipped with a Ticket Kiosk on Track 2, with a Tri-Rail Customer Experience Specialist to assist passengers with ticket purchases and trip planning.
- Parking garage

### **Cypress Creek Station**

- SFRTA Ride Partner Service (complimentary uber or taxi voucher)
- Broward County Transit Bus Routes: 14, 60, 62
- Freebee on-demand microtransit (pilot)

### **Fort Lauderdale Station**

- SFRTA Ride Partner Service (complimentary uber or taxi voucher)
- Broward County Transit Bus Routes: 9, 22, 81, Broward Breeze (temporarily suspended)
- Miami Dade Transit Bus Routes: 95 Express Broward Blvd. to Downtown Miami (temporarily suspended), 95 Express Broward Blvd. to Civic Center (temporarily suspended)
- City of Fort Lauderdale LauderGo! Free Shuttle Routes: Neighborhood Link, NW Community Link
- Long Distance Bus (Greyhound, Flixbus, JetSet)
- Amtrak

### **Fort Lauderdale Airport Station**

- FLA1 Airport Shuttle Bus
- Broward County Transit Bus Routes: 4, 6, 15, 16, 595 Express to Miami/Brickell
- South Florida Education Center Shuttle
- Dania Beach Community Bus West Route
- The Fort Lauderdale/Hollywood International Airport Station at Dania Beach is equipped with a Ticket Kiosk on Track 1, with a Tri-Rail Customer Experience Specialist to assist passengers with ticket purchases and trip planning.
- Parking garage

### **Sheridan Street Station**

- SFRTA Ride Partner Service (complimentary uber or taxi voucher)
- Broward County Transit Bus Route: 12
- Miami-Dade Transit Bus Route 95 Express to Downtown Miami (temporarily suspended), 95 Express to Civic Center (temporarily suspended)
- Long Distance Bus (JetSet, Greyhound, Flixbus, Megabus)

### **Hollywood Station**

- Broward County Transit Bus Route: 7
- Hallandale Beach Community Bus Route: 3
- Amtrak

### **Golden Glades Station**

- South Florida Commuter Services complimentary uber voucher (pilot)

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- Broward County Transit Bus Routes: 18, 441 Breeze, University Breeze (temporarily suspended)
- Miami-Dade Transit Bus Routes Bus Routes: 22, 77, 105 Route E, 155 Biscayne Gardens Circulator, 246 Night Owl, 277 NW 7th Avenue MAX, 95 Express Golden Glades
- Parking garage

### **Opa-locka Station**

- Miami-Dade Transit Bus Routes: 32, 42, 135
- Opa-locka Express Shuttle North Link Shuttle

### **Metrorail Transfer Station**

- Metrorail Green Line
- Miami-Dade Transit Bus Routes: 42, 112 Route L
- Freebee on-demand microtransit
- The Metrorail Transfer Station is equipped with a Ticket Kiosk on Track 1, with a Tri-Rail
- Customer Experience Specialist to assist passengers with ticket purchases and trip planning.

### **Hialeah Market Station**

- Miami-Dade Transit Bus Route 132

### **Miami Airport Station**

- South Florida Commuter Services complimentary uber voucher (pilot)
- Metrorail Orange Line
- Miami-Dade Transit Bus Routes: 7A, 37, 42, 57, 150 Miami Beach Airport Express, 110 Route J, 238 East-West Connection, 297 27th Ave Orange MAX, 338 Weekend Express
- City of Miami Flagami Trolley
- Amtrak (coming soon)
- Long Distance Bus Station (Greyhound, Flixbus, Megabus)
- The Miami Airport Station is equipped with a Ticket Kiosk at the south end of the train platforms, with a Tri-Rail Customer Experience Specialist to assist passengers with ticket purchases and trip planning.
- Public restroom

### *Maintenance and Support Facilities*

Tri-Rail rolling stock is maintained at Tri-Rail's maintenance base in the Hialeah near the southern end of the route.

### *Ticketing*

Tri-Rail offers various paper ticketing options. There are one-way and round-trip fares and multi-ride fares (for 12 trips). Fare levels are calculated by the number of zones transited (the route has up to six zones). 12 trips passes are available for \$105. Discounts of up to 50% are available for those who qualify. A weekend daily pass is available for \$5 and is discounted 50% for those who qualify.



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A Regional Monthly Pass is also available for \$155, discounted 15% for employees and 50% for students, children ages 5-12, seniors and persons with disabilities. Tickets can be purchased at ticket vending machines at stations. They also can be purchased online.

Passengers can also use Tri-Rail's plastic EASY Card automated collection system, first implemented in 2011. Users can add cash value to pay one-way fares or load the card with all of Tri-Rail's different fare products, including monthly, 12-trip and weekend passes. EASY Cards can be used to pay fares on Miami Dade Transit.

With paper or EASY Cards, fare collection is the same. Passengers must tap on at station validators prior to boarding the trains and tap off on the validators when exiting their destination stations.

### *Rolling Stock*

Most Tri-Rail train sets consist of three bi-level passenger cars and a diesel-electric locomotive. The trains operate in "Pull South/Push North" mode with the locomotive at the south end of the train set. The bi-level car at the north end of the train is a cab car with a driver's compartment so the train can be driven bidirectionally in push-pull mode (obviating the need to turn the train sets). Bi-level passenger cars appear behind the Tri-Rail locomotive in Figure C-7.

The bi-level coaches have three levels, though intermediate level seating is minimal. The bi-levels have a seated capacity of about 150. Cab cars, those cars with a driver's compartment so the train can be driven bi-directionally in push-pull mode (removing the need to turn the train sets), have slightly few seats than trailing coaches (cars without driver's compartments).

In 2012 and 2013, Tri-Rail received 24 new Hyundai-Rotem railcars. These included 10 cab cars and 14 coaches. This equipment provided needed capacity and operational flexibility.

Tri-Rail also upgraded its locomotive fleet with 12 new units manufactured by Brookville Equipment Corporation in Brookville, Pennsylvania. The new locomotives have lower emissions profiles, are more energy efficient, and offer reduced noise and idling versus older equipment. By 2015, all 12 locomotives had been delivered, and are used in regular service.

### *Security*

Tri-Rail security guards patrol trains and stations. Security is provided by Wackenhut Security Corporation.

### *Sharing Track*

As noted, CSX freight trains and Amtrak trains run on the South Florida Rail Corridor. Tri-Rail reported no conflicts with other operators with which it shares track.

## **C.2.3 SUNRAIL**

### **SunRail System Overview**

SunRail is a commuter rail service that currently operates over 49 miles with 16 stations. See Figure C-8. The commuter service runs along the former CSX Transportation A Line.

### How SunRail Came to Be

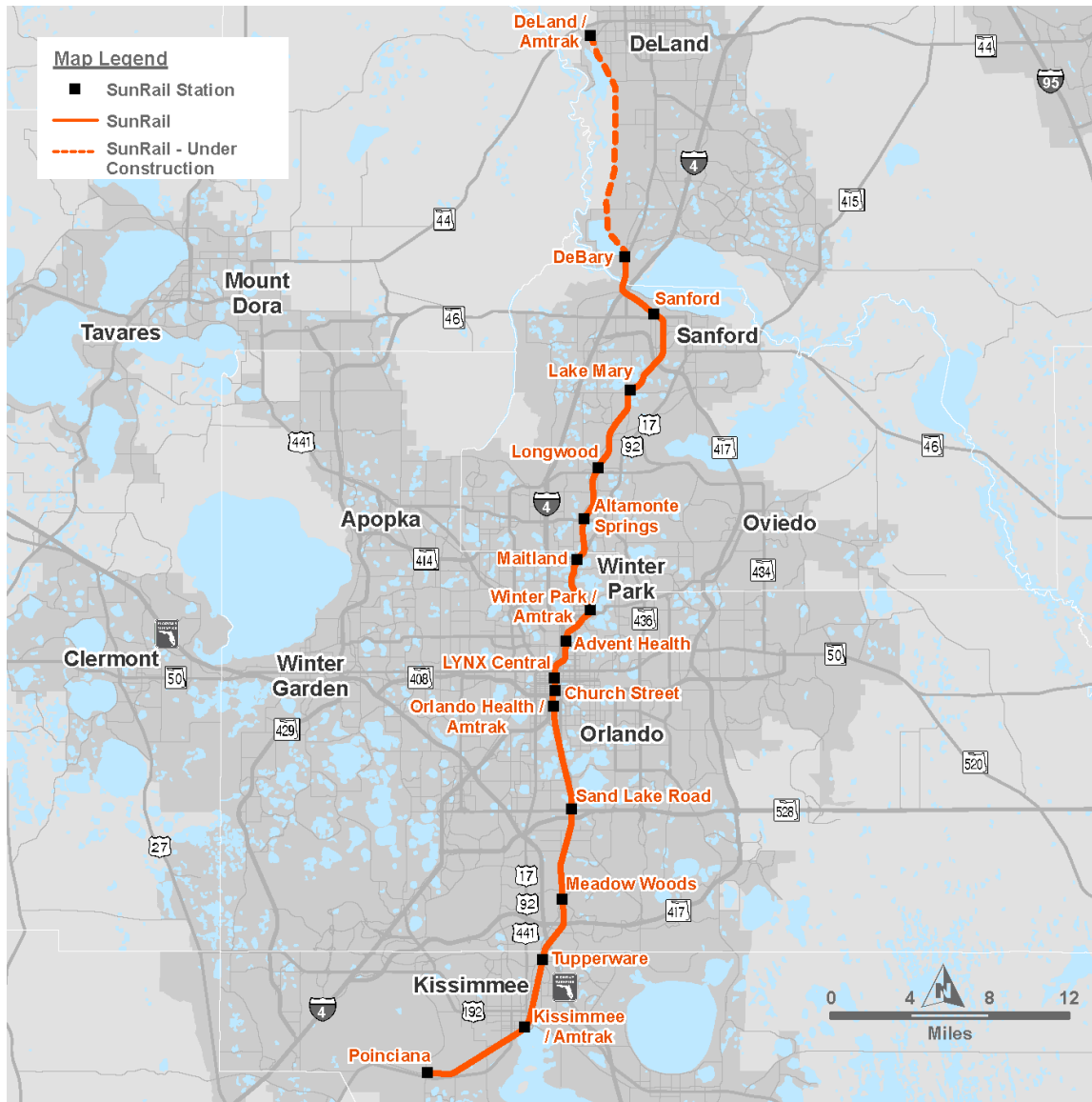
The State of Florida purchased a 61-mile segment of the A Line from CSX between DeLand and Poinciana in 2011. The segment is presently referred to as the Central Florida Rail Corridor (CFRC). Phase 1 train operations on the 32-mile section between DeBary and Sand Lake Road began in May 2014. A 17-mile southward extension from Sand Lake Road in Orange County to Poinciana in Osceola County opened in July 2018. The line has been double-tracked between DeBary-Maitland, Orlando-Sand Lake Road and Orlando-Winter Park. This improvement facilitates operating trains simultaneously in opposing directions.

CSX runs a limited number of freight trains along the line at night. The majority of freight traffic on the A Line has been shifted to the CSX's north-south S Line to the west of the A Line. Three Amtrak services all run on part of the line: the Silver Star and the Silver Meteor, whose southern terminus is Miami; and Auto Train, whose southern terminus is Sanford.

Capital costs were covered by federal and state sources, along with local sources including Volusia County, Seminole County, Orange County, the City of Orlando, and Osceola County. Later phases of SunRail implementation will extend the service along the length of the CFRC and to Orlando International Airport.

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Figure C-8 | SunRail System



Source: FDOT Freight & Rail Office, 2023

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## Sponsorship

Operating subsidies are covered by the local service sponsors, including Volusia County, Seminole County, Orange County, the City of Orlando and Osceola County.

## Current Operations

### *Trains and Amenities*

There are 40 scheduled northbound and southbound trains per weekday. There is no weekend or federal holiday service. SunRail provides emergency ride home service. During peak periods, trains operate on half hour frequencies.

Train amenities include Wi-Fi, power outlets, and bathrooms. Cars are equipped with mechanical devices enabling boarding of persons with disabilities. The cars are also equipped to accommodate bicycles. A SunRail train set is shown in Figure C-9.

Figure C-9 | SunRail Commuter Rail Train Set



Source: 2015 Florida Rail System Plan (2018 Update)

### *Operator*

Alstom, formerly Bombardier Technology has been contracted to provide train operations and maintenance services. Bombardier Technology is a subsidiary of Bombardier Transportation, a



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Canada-based firm, which manufactured the SunRail commuter railcars. Trains operate with two-person crews.

### *Dispatching*

The responsibility for the line belongs to the State of Florida. Dispatching is handled by the SunRail Operations Control Center at the CSX Rand Yard in Sanford.

### *Stations*

Most of SunRail's 16 stations have free parking in the suburbs of Orlando. All have bike parking and are accessible to passengers with physical disabilities. All have connections to local transit: Votran at the DeBary Station and LYNX at majority of the stations. Each station is equipped with ticket vending machines. SunRail and Amtrak share use of the Kissimmee, Orlando and Winter Park stations. All platforms at SunRail exclusive stations are 300 feet long. The double platform at Sanford Station is shown in Figure C-10.

Figure C-10 | Sun Rail's Sanford Station's Double Platform



Source: 2015 Florida Rail System Plan (2018 Update)

In November 2014, SunRail initiated an Ambassadors program at stations. Walking the station platforms, the Ambassadors are volunteers who assist riders with any questions they may have

about SunRail in general, or specifically about ticket purchasing, boarding, parking, transit connections, train operations, etc.

### *Maintenance and Support Facilities*

Bombardier maintains the rolling stock at SunRail's Vehicle Storage and Maintenance Facility at CSX's Rand Yard in Lake Monroe. Heavy maintenance and federally-mandated periodic inspections are performed at Amtrak's maintenance facility in Sanford.

### *Ticketing*

Passengers can purchase tickets in two ways. Limited use tickets are for single one-way or round trips. These can be purchased via the ticket vending machines at stations. Once a passenger has a ticket, the passenger must locate one of the validator units available at each station and tap the ticket on the screen (tap on), wait for the beep and then board the train. The passenger must repeat this process (tap off) when exiting the destination station.

Passengers who ride SunRail routinely can purchase a reusable and reloadable plastic SunCard. The cards can be purchased and reloaded at the station ticket vending machines. The process of using the cards is the same as for the limited use tickets, that is, tapping on and tapping off, as noted above. There are three plans consecutive days after they first tap on; a 30 Day Plan, for 30 consecutive calendar days after tapping on; and a 1 Year Plan, for 365 consecutive days after tapping on. These plans provide passengers with savings over limited use tickets.

SunCards can also be loaded with a prepaid value, which is reduced as passengers tap on and tap off.

The limited use tickets and the SunCards are accepted as proof of payment on connecting transit.

Discounts on all the ticketing mechanisms are available to those over 65 years of age and those between the ages of 7 and 17. Those with disabilities as certified by LYNX or Votran can purchase the multi-ride plans with a 50% discount.

### *Rolling Stock*

Train sets consist of a diesel-electric locomotive and one to three cars. SunRail operates its trains with locomotives manufactured by Motive Power Industries (MPI) in Boise, Idaho; and bi-level cars, manufactured by Bombardier Transportation, as previously noted. MPI and Bombardier are traditional suppliers of commuter rail rolling stock throughout North America. SunRail has 10 locomotives and 24 coaches.

The trains operate in "Push South/Pull North" mode with the locomotive at the north end of the train set. The bi-level car at the south end of the train is a cab car, having controls for the engineer when the train is pushed southbound.

### *Security*

Security on the trains and at stations is the responsibility of FDOT. FDOT does not employ or contract for a security force. Surveillance cameras monitor each of the 16 stations. There are emergency phones available for passengers at the stations as well.

### *Sharing Track*

As noted, CSX freight trains and Amtrak trains run on the Central Florida Rail Corridor. CSX trains are restricted to a midnight to 5 AM operating window on weekdays. Amtrak's Silver Service trains operate on the full length of the corridor, and the Auto Train operates only between DeLand and Sanford.

SunRail reported no major conflicts with CSX. However, SunRail did report that meets of northbound and southbound Amtrak trains south of Poinciana on a single track segment of CSX occasionally result in Amtrak trains remaining longer on the corridor than anticipated, thus impacting SunRail's operations.

## **C.2.4. Brightline Florida**

### **Brightline System Overview**

Brightline Trains Florida (Brightline) runs the only privately managed and operated intercity passenger rail service in the U.S. Brightline began revenue operations in 2018, serving Miami-Dade, Broward, and Palm Beach counties. More than a train service, Brightline is part of a real estate vision to reenergize static neighborhoods with transportation hubs including modern stations, food halls, office space, retail, residential, and commercial space. Service began on a 67-mile route between Miami and West Palm Beach, followed by a 168-mile extension to Orlando that opened in 2023. Along its current 235-mile corridor, Brightline serves six stations in Miami, Aventura, Fort Lauderdale, Boca Raton, West Palm Beach, and Orlando International Airport providing 15 daily roundtrips. (<https://www.gobrightline.com/>)

In 2018, during its first partial year of operation, Brightline carried 579,000 passengers. In 2019, the first full year of operation, Brightline served 1 million passengers. As a result of COVID-19, Brightline suspended its passenger rail service on March 25, 2020. Full services returned on November 8, 2021. Full year 2022 ridership of 1,230,494 surpassed 2019 by 21%, average fares were up 19% compared to 2019, and ticket revenue was up 44% versus 2019.<sup>1</sup>

In December 2022, Brightline began serving two new stations, one in Aventura and another in Boca Raton, and has plans to build a new station in PortMiami. The route extension from Miami to the Orlando International Airport became operational on September 22, 2023. Brightline is also actively planning a further extension from Orlando International Airport west to Tampa. The extension will include one or more intermediate station stops in the Orlando area, providing access to major theme parks in Central Florida, and a western terminal station in Tampa. Brightline Florida began engineering and design work of the extension in 2020. Figure C-11

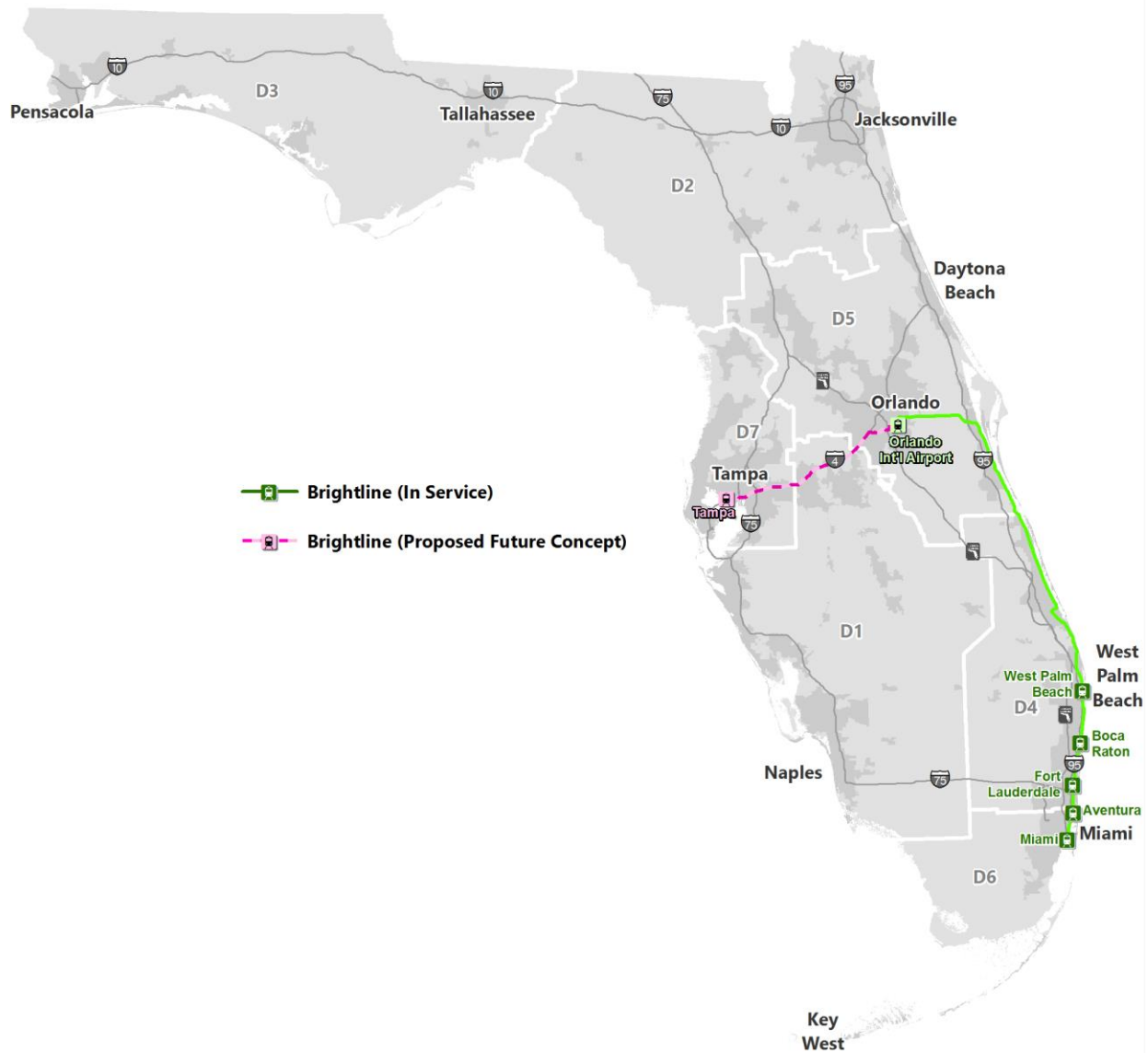
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<sup>1</sup> [emma.msrb.org/P11740810.pdf](https://emma.msrb.org/P11740810.pdf)

# Appendix C: Profile of Florida's Passenger Rail Network

shows the existing Brightline network and the Tampa extension currently under development. For the latest information visit <https://www.gobrightline.com/>.

Figure C-11 | Brightline Intercity Passenger System in Florida



Source: FDOT Freight & Rail Office, 2023



## Current Operations

### *Trains and Amenities*

Between Miami and Orlando, Brightline operates 15 daily trains in each direction, on hourly frequencies. Between Miami and West Palm Beach, Brightline operates 16 daily trains in each direction, on hourly frequencies. The scheduled trip time of Brightline trains over the entire 235-mile corridor between Miami and Orlando is approximately 3 hours and 30 minutes, which is comparable to current driving times.

Trains operate at a maximum speed of 125 miles per hour on the dedicated passenger-only segment of Brightline's network between Cocoa and Orlando, earning the distinction of Florida's fastest rail line. Between Cocoa and Miami, Brightline shares tracks with Florida East Coast Railway freight trains. Maximum passenger train speeds on the shared segments are 110 miles per hour between Cocoa and West Palm Beach and 79 miles per hour between West Palm Beach and Miami.<sup>2</sup>

Trains are fully ADA accessible, pet friendly, feature onboard Wi-Fi and at-seat power outlets and USB ports, have large windows aligned with seats for unobstructed viewing, contain bike racks and carry-on luggage racks, offer hands-free restrooms, and have automatic end doors and wide 32-inch aisles that allow for ease of travel through the train with wheelchairs, strollers, or luggage. Checked baggage service is also provided.

Brightline offers two classes of service: a business class (called Smart Class on Brightline) or a first class (Premium Class). Smart Class service includes coaches with two-by-two seating, 19-inch leather seats, and at-seat food and beverages for purchase. Premium Class includes coaches with two-by-one seating, 21-inch leather seats, complimentary food and beverages, and access to Premium Class lounges at stations that offer additional amenities and the use of business office equipment such as computers and printers, and a complimentary Uber trip within 5 miles of the passenger's destination station (except in Orlando). Premium Class fares are approximately two to three times higher than Smart Class fares depending on day of travel and trip segment.

### *Stations*

Brightline currently operates six intercity passenger rail stations in South Florida and Central Florida: MiamiCentral Station, Aventura, Fort Lauderdale, Boca Raton, West Palm Beach, and Orlando. The stations share several features that contribute to the branding of the travel experience, such as a bright and airy design and environment; automated ticket kiosks; touchless turnstiles; first-class (Premium class) passenger lounges with snacks and sips; an in-station bar and cafe; paid parking garages; and complimentary WiFi. Connecting transit information and unique station amenities are described below.

### **MiamiCentral Station**

- Connections to Metrorail, Metrobus, MetroMover, and Miami Trolley
- Fixed route shuttle to Miami Airport

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<sup>2</sup> <https://hsrail.org/Brightline%20Florida>

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- Complimentary event shuttles offering direct service to select games and events such as Miami Marlins home games
- Neighborhood Electric Vehicle all-electric paid shuttle services to Downtown, Brickell, and surrounding attractions
- CitiBike bicycle rentals available at station

### Aventura

- Aventura Mall Connector, a complimentary fixed route shuttle to and from Aventura Mall
- Complimentary event shuttles offering direct service to select games and events such as Miami Dolphins home games and Hard Rock Café concerts

### Fort Lauderdale

- Fixed route shuttle to and from Fort Lauderdale Airport
- Complimentary event shuttles offering direct service to select games and events
- Neighborhood Electric Vehicle all-electric paid shuttle services to Broward Center for the Performing Arts, Museum of Discovery and Science, NSU Art Museum Fort Lauderdale, FATVillage Arts Direct, and Los Olas Beach

### Boca Raton

- Complimentary event shuttles offering direct service to select games and events
- Access to Neighborhood electric rental vehicles

### West Palm Beach

- Complimentary event shuttles offering direct service to select games and events
- Neighborhood Electric Vehicle all-electric paid shuttle services to The Square and the Kravits Center for the Performing Arts
- BrightBikes bicycle rentals available at station

### Orlando

- Pedestrian access to Orlando International Airport Terminal C
- Direct connection to Terminal Link APM for access to Orlando International Airport Terminals A and B

### *Rolling Stock*

Brightline trainsets have a diesel-electric locomotive at each end and single-level coach cars, allowing trains to operate bidirectionally and ensuring reliability and smooth operations at speeds of up to 125 mph. All of the equipment is built by Siemens in Sacramento, California. Each trainset has four coaches, three Smart Class cars with 66 seats (except for the end car with the checked baggage compartment, which has 58 seats) and one 49-seat Premium Class car. The double locomotive configuration allows for a future addition of more passenger cars per trainset under a phased growth plan.

Brightline currently has ten four-car trainsets in service. Five trainsets (10 locomotives and 20 coaches) were delivered in October of 2017 for the initial service launch from Miami, with five more trainsets delivered between 2021 and 2023 for the extension of service to Orlando. Initial plans outlined in the Draft EIS for Brightline service proposed that eight trainsets would be needed to provide daily scheduled service between Miami and Orlando, with five trainsets stored at a maintenance facility in Orlando and five trainsets stored at either the West Palm Beach storage and maintenance facility or the Miami station.

Additional phases of expansion are expected to include the addition of a café car to each trainset, along with additional Smart Class and Premium Class cars. Brightline's locomotives use biodiesel, a low-emission fuel derived from renewable sources such as corn, soybeans, and used cooking oil.

### *Maintenance and Support Facilities*

Brightline has maintenance facilities in West Palm Beach and Orlando. The 12-acre West Palm Beach facility is a maintenance facility and operations center for Brightline Florida. The facility has four tracks to store, clean, inspect, maintain, fuel, and repair Brightline Florida trainsets. The facility also contains the crew base where Brightline Florida train crews report on duty.<sup>3</sup> The 62-acre Orlando Vehicle Maintenance Facility contains a 136,000 square foot shop for light and heavy maintenance that spans the length of two football fields and has the capacity to serve up to 16 trains daily, an automated train wash, and an 80,000 gallon biodiesel fuel farm. (Brightline's locomotives run on biodiesel.) The facility has nearly 8 miles of track and will service 10 trains daily.<sup>4</sup>

### *Ticketing*

Brightline offers various ticketing options, including one-way and round-trip fares. Tickets can be purchased on the Brightline website, through the Brightline app, or at automated ticket kiosks that are available at each station. For frequent travelers that use stations between Miami and West Palm Beach, Brightline offers two types of Train Passes that allow multiple trips to be taken during a 30-day period at discounted fares: a Friends & Family Pass that provides 12 shareable, one-way rides within 30 days of purchase, and a Commuter Pass that provides up to 40 one-way rides within 30 days of purchase. Both Train Pass options offer Smart or Premium Class options so riders can customize their experience. Brightline also offers a Monthly Parking

<sup>3</sup> <https://miamicentral.com/brightline-reveals-first-completed-trainset-full-innovations-set-reinvent-train-travel-us/>

<sup>4</sup> <https://www.gobrightline.com/railroad-construction/november-orlando-extension-fact-sheet>

Pass that provides unlimited monthly parking for frequent travelers that park their cars at one of Brightline's station parking lots in South Florida.

Brightline also provides Corporate Rates available for an entire company offering fixed capped rates for travel between Orlando and any South Florida station, as well as Group Travel packages for groups of 30 or more people, ranging from reserved onboard group seating to private coaches, a chartered train, and reserved in-station activity spaces.<sup>5</sup>

### *Sharing Track*

As noted, Brightline Florida trains share tracks with Florida East Coast Railway freight trains in the segment of the Brightline network between Miami and Cocoa.

## **C.3 TOURIST RAILROADS**

The basic operations of Florida's four tourist railroads are outlined below.

### **C.3.1 FLORIDA RAILROAD MUSEUM**

The Florida Railroad Museum, in Parrish (Manatee County), operates most Saturdays and Sundays, with standard gauge trains departing at 11 AM and 2 PM for a 13-mile round trip on former Seaboard Air Line trackage. Trains are pulled by a diesel-electric locomotive. Coaches consist of vintage passenger equipment, as shown in Figure C-12. Passengers can ride in the locomotive cab and in a caboose as well.

The museum has approximately 40,000 visitors per year. Of these about 70% are in-state visitors and 30% from out of state. Visitors pay on average about \$20 per person for general admission and special events.

There are three full-time employees and three part-time employees at the museum. About 50 volunteer members maintain the equipment and track, operate the trains, and perform administrative functions, including answering telephones.

Special event trains are also run, including Day Out with Thomas the Tank Engine in March, Pumpkin Patch Express in October, and North Pole Express in December. A stationary museum is open between 10 AM and 4 PM Wednesdays through Sundays. The museum is closed the last two weeks in December.

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<sup>5</sup> <https://www.gobrightline.com/train-tickets>

Figure C-12 | Florida Railroad Museum Train Set Alighting Weekend Passengers at Parrish Station



Source: 2015 Florida Rail System Plan (2018 Update)

### C.3.2 GOLD COAST RAILROAD MUSEUM

The Gold Coast Railroad Museum, in Miami, offers narrow gauge and standard gauge train rides (Figure C-13). The Edwin Link Children's Railroad, or Link train, runs on 2-foot gauge track regularly on weekdays at 11 AM, 1 PM, and 3 PM, and hourly on weekends. Link train rides last about 20 minutes.

Standard gauge train rides using a diesel-electric locomotive and a streamliner coach are offered on the first Saturday of the month. Passengers can also ride in a caboose or in the locomotive cab with the engineer. Standard gauge rides last for about 25 minutes. Visitors can also ride self-propelled Speeder cars on the museum's trackage on the first Saturday of the month and other Saturdays when scheduled. The museum has approximately 3 miles of track and is located on the grounds of the former Richmond Naval Air Station.

The museum has approximately 90,000 visitors per year. Of these about 70% to 75% are in-state visitors and 25% to 30% from out of state. Visitors pay on average about \$23 per person for general admission and special events.

There are two full-time employees and five part-time employees at the museum.

Special event trains are also offered, e.g., the Polar Express in December.



Figure C-13 | Gold Coast Railroad Museum Steam Locomotive on Display



Source: 2015 Florida Rail System Plan (2018 Update)

### C.3.3 SEMINOLE GULF RAILROAD

The Seminole Gulf Railroad in Fort Myers offers the Seminole Gulf Murder Mystery Dinner Train, featuring a murder mystery play (Figure C-14). Trains are pulled by a standard gauge diesel-electric locomotive. On board, the murder mystery play is performed during dinner, with actors visiting each car. The train includes a five-course dinner. The train has hosted over 80 different murder mystery productions since 1991.

All trains depart from Colonial Station depot in Fort Myers to Tucker's Grade and then return. Trip length is 40 miles round trip. Trip time is 3.5 hours. Dinner trains operate Wednesday through Sundays. Special event trains are also operated, e.g., Thanksgiving Day dinner train, New Year's Eve Gala, etc.

The Murder Mystery Dinner Train has about 27,000 visitors per year. Of these about 75% are in-state visitors and 25% from out of state.

The train is operated by railroad employees who also perform functions for the freight operations. There are 35 employees in all. The dinner train accounts for about one-third of the railway's business.

Figure C-14 | Seminole Gulf Railroad Dinner Train Locomotive



Source: 2015 Florida Rail System Plan (2018 Update)

### C.3.4 SUGAR EXPRESS

The Sugar Express is a historic tourist train attraction in the Lake Okeechobee region. The attraction is sponsored by U.S. Sugar, the only sugarcane farming company in the continental United States that transports all of its cane to a sugar factory by railroad. Sugar Express is an outreach, education, and tourism program of U.S. Sugar featuring restored steam locomotive No. 148, a 4-6-2-type engine built in 1920 by the American Locomotive Company (Figure C-15). Originally built for the Florida East Coast Railway, locomotive No. 148 was sold in 1952 to U.S. Sugar, where it was operated and stayed until 1969, after which it operated on several tourist railroads in the Northeast. In 2016, U.S. Sugar reacquired No. 148 and made plans to restore it to operating condition for use in excursion service as part of its new Sugar Express tourist passenger train running on the South Central Florida Express main line. After an extensive three-year restoration project with assistance from FMW Solutions, No. 148 moved under its own power for the first time in April 2020, performing test runs and began its first revenue service run on May 28, 2020, pulling the last sugarcane train of the 2019–2020 harvest season.

U.S. Sugar currently offers steam and diesel-powered excursions through the South Central Florida countryside seasonally throughout the year and for special events in Sebring, Lake Placid, and Clewiston. Offerings include two-hour, family-friendly train rides between Clewiston



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and Moore Haven, all-day tourist excursions alternating between Lake Placid and Clewiston, and Santa Express holiday trains operating out of Sebring, Lake Placid, and Clewiston.

Figure C-15 | Steam Engine No. 148 Leads the Sugar Express



Source: Sugar Express, LLC



Florida Department of Transportation  
RAIL@dot.state.fl.us