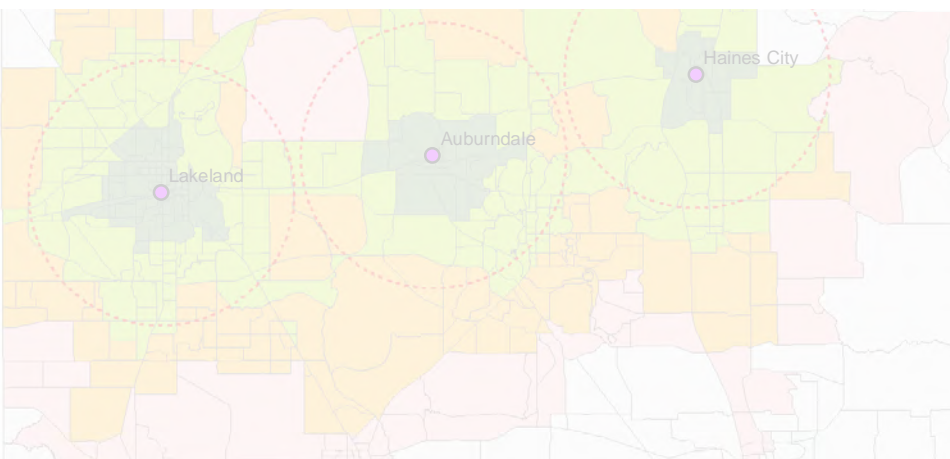


A technical report for

Evaluation of SunRail Extensions into Polk County

for the Polk County Transportation Planning Organization



March 2015
Submitted by:



TECHNICAL REPORT SUNRAIL EXTENSIONS INTO POLK COUNTY

Prepared for:



Polk Transportation
Planning Organization

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RENAISSANCE
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EXECUTIVE SUMMARY

PURPOSE

This technical memorandum evaluates a possible extension of SunRail into Polk County, in support of the 2040 Long Range Transportation Plan Update. The memorandum covers the following topics:

Potential Staging Alternatives – Alternatives are considered that allow for a staged expansion of SunRail beginning with feeder bus service and concluding with rail service across central Polk County.

Conceptual Site Considerations – Specific station area site considerations are discussed, including parking, access and circulation, and potential transit-oriented development opportunities.

Conceptual Feeder Bus Services – As SunRail expands, this section evaluates how various bus routes can be added or modified to meet the needs of rail commuters.

Ridership Propensity Analysis – This section provides estimates of ridership in a future build year (2040). Additionally, a scenario analysis is performed, accounting for the potential ridership benefits that can be accrued through strong public policy and dynamic market trends.

Financial Estimates – Planning-level estimates of capital and operating costs are considered here, including the financial implications of funding the extension.

Institutional Considerations – This section evaluates relevant agreements, governing documents, cost sharing expectations, and CSX implications that must be considered and mitigated for the extension to be viable.

GENERAL FINDINGS

Through a station location assessment process, feeder bus routes and four potential station locations in three communities (two in Haines City, one each in Auburndale and Lakeland) were identified and advanced for further evaluation. The ridership propensity analysis used census data relating to existing commuter patterns between these station locations, along with current SunRail operations (including the Phase II extension), and found that ridership is likely to be significantly lower than other SunRail stations. A scenario analysis showed that, with changes in market trends and land use policies, higher ridership can be expected, but this will require additional effort on the part of Polk County communities.

Conceptual site considerations identify potential parking locations, pedestrian and vehicular access and circulation issues, and order-of-magnitude land development possibilities, all of which confirm the site locations as theoretically viable station locations.

The financial analysis shows that there are significant costs associated with the rail extension effort, and with modest ridership estimates obtaining federal funding participation is likely to be challenging.



Institutional considerations present significant challenges, with major freight operations west of Auburndale. Complex Interlocal agreements among the existing SunRail participants will require modifications to add Polk County.

Finally, a series of action steps are proposed to help guide the County as it prioritizes transportation investments for the Long Range Transportation Plan.

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INTRODUCTION AND BACKGROUND

The primary purposes of this technical memorandum are to address the extension of SunRail into Polk County, as an element of the 2040 Long Range Transportation Plan, and to develop a staging plan for phased implementation. This study builds on a previous Phase I effort that examined multiple passenger rail alternatives for Polk County.

Polk County occupies a unique position along the I-4 corridor, with the major urbanized areas of Orlando to the east and the Tampa Bay region to the west. In addition, Polk County has its own medium-sized urban areas of Lakeland and Winter Haven, along with 15 other municipalities, the largest of which are Bartow, Haines City, and Auburndale. These all contribute to a countywide population exceeding 620,000. There are significant movements of people between Polk County and areas to the east, notably Orlando, Orange County, and Osceola County. There are also many long distance trips that cross Polk County.

Of all the various passenger rail alternatives considered in the Phase I effort, foremost have been alternatives that link Polk County to the Central Florida Commuter Rail Commission's new SunRail System. Phase I of the System, with twelve stations ranging from DeBary in the north to Sand Lake Road in the south, held its grand opening on April 30, 2014, with revenue service starting on May 19, 2014. Phase II, extending from DeLand in the north to Poinciana in the south is expected to open in 2016-2017. Connecting to SunRail would provide travel alternatives for the tens of thousands of people who move between Polk County and its neighbors to the north and east. The 2035 Polk County Mobility Vision Plan envisions extending SunRail into Polk County (Figure 1).

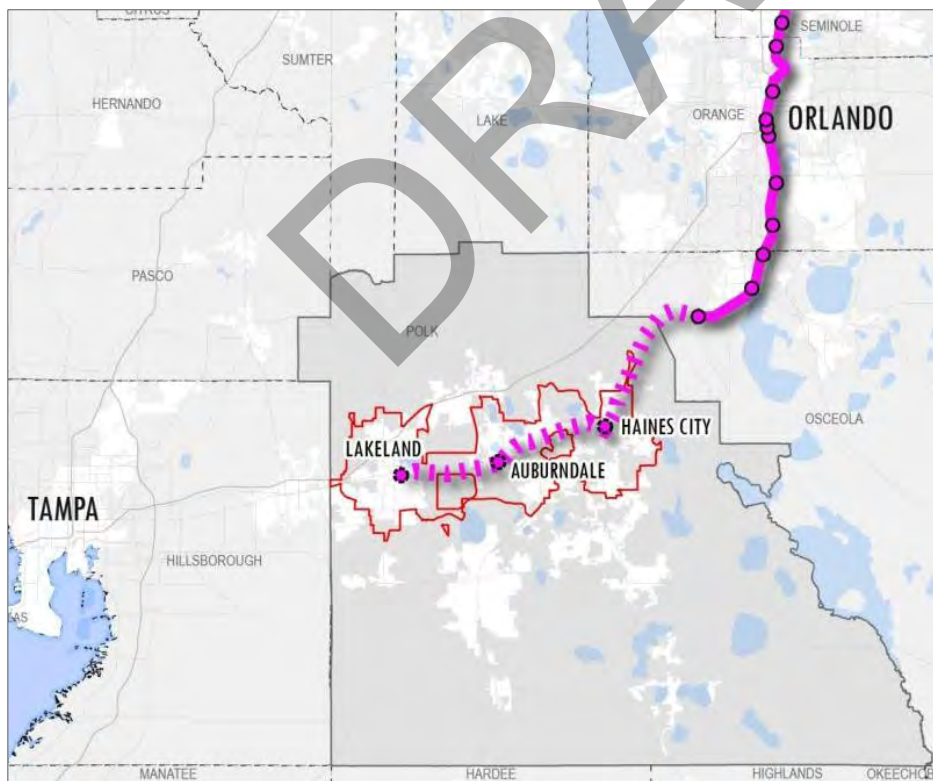


Figure 1 Potential Extension of SunRail into Polk County



OVERVIEW OF SUNRAIL OPERATIONS

SunRail is operating double-decker passenger cars on 30 minute headways during morning and evening peak periods and on two hour headways midday (Figure 2¹). The System is investing



Figure 2 A SunRail Engine

heavily in high quality on-board passenger amenities, including accommodations for luggage, bicycles, wireless internet, and restrooms. Stations are designed to be comfortable and secure, but otherwise modest in construction cost. They include platform canopies to provide shade from the sun, ticket vending machines to facilitate fare payment, water fountains, emergency phones and closed circuit cameras, and system announcement signs and speakers.

SunRail is implementing state-of-the-art technology, including smart fare cards that use tap on/tap off technology. The base fare is \$2.00, with an additional \$1.00 charge each time a county boundary is crossed. The system provides discounts for frequent riders, seniors, children and people with disabilities. Because the system is using smart fare cards, it remains feasible to, at some time in the future, implement a more complex fare structure.

To implement SunRail, Florida DOT and CSX entered into several agreements. Directly tied to the CSX A-Line was a payment of \$150 million to purchase 61.5 miles of track stretching from Deland to Poinciana, a corridor which was appraised in excess of \$430 million.

Total state payments to CSX amounted to \$432 million. In addition to \$150 million for the 61.5 miles of track, FDOT paid \$198 million for improvements to accommodate moving major freight activity to the CSX S-line, \$52 million for freight capacity improvements throughout the state, \$9 million for road improvements around the Winter Haven Integrated Logistics Center, and \$23 million to relocate portions of the Taft Yard to the ILC.

In addition to the costs of right-of-way, and the existing track, \$615 million (shared 50% federal, 25% state, 25% local) was committed to include:

- \$65 million for double-tracking 42 miles of single-track freight lines
- Right-of-way acquisition for station parking

¹ <http://corporate.sunrail.com/welcome/page/brochures>



- Construction of 17 stations
- New signalization system
- Vehicles
- Control, maintenance and dispatch center.

For the first seven years, the state will pay all operations and maintenance costs, with the local governments taking over 100% of the responsibilities in year eight.

OTHER PROPOSALS TO EXTEND SUNRAIL

There are at least two other SunRail extensions currently under investigation. One would create the “Orange Blossom Express”, making use of the Florida Central Railroad to connect the Lake County cities of Eustis and Tavares with SunRail in Central Orlando (Figure 3). This project is already included in the Lake-Sumter MPO 2035 Cost-Feasible Transportation Plan. It's not clear whether this extension would provide major benefits for people coming from or going to Polk County.

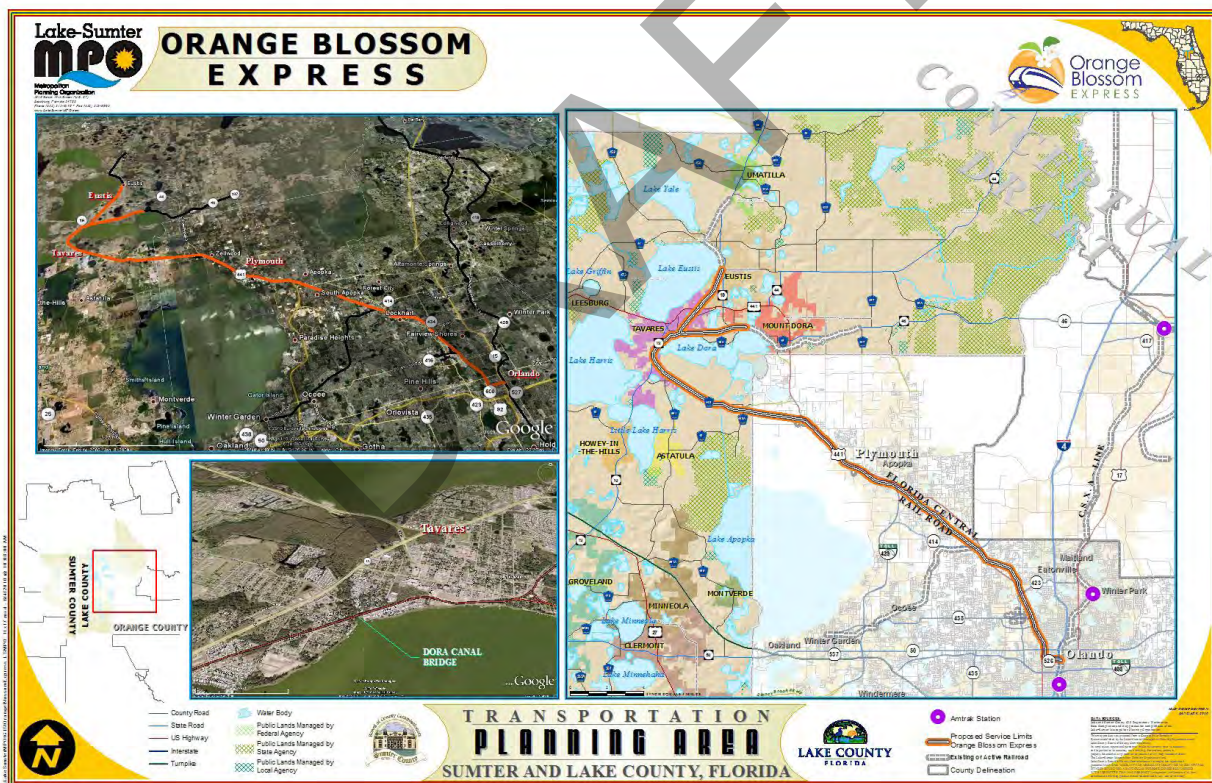


Figure 3 Proposed Orange Blossom Concept

The other extension is a SunRail spur that would run easterly, beginning just north of the planned Meadow Woods Station, to connect with a planned intermodal facility at Orlando International Airport (Figure 4). SunRail has already initiated a project development study and has identified the project as part of a potential Phase III of the SunRail system. There is evidently a high degree of physical feasibility for this spur, as it would make use of 3.5 miles of track owned by the City



of Orlando and 2 miles of new alignment on airport property. If this project moves forward, it would significantly enhance connections from Polk County to Orlando International Airport for both passengers and employees. In addition, the spur would tie into the proposed “All Aboard Florida” project, which could potentially provide long distance passenger train options to West Palm Beach, Fort Lauderdale, and Miami. These connections would substantially increase the value of a SunRail extension into Polk County.



Figure 4 Proposed SunRail Spur to Orlando International Airport



STAGING CONCEPTS TO EXTEND SUNRAIL INTO POLK COUNTY

There are several alternatives that can be considered for extending SunRail into Polk County. These include interim alternatives to tie into the Phase II SunRail extension to Poinciana. A logical staging sequence for the development of a SunRail extension would include:

1. **Using express bus service from selected park and ride locations in Polk County to the Phase II SunRail Poinciana station.** Park and ride facilities should be considered for Haines City, Auburndale, Lakeland and possibly Winter Haven. Express routes from Haines City and Auburndale would be expected to use US 17-92. Express service from Lakeland is likely to be more efficient using I-4 for a major portion of the trip. Ideally, park and ride locations should be in close proximity to potential future rail park and ride stations;
2. **An extension of SunRail commuter rail service to a new station at Haines City, with supporting express bus service from selected park and ride locations, including Auburndale, Lakeland, and possibly Winter Haven.** This would amount to an approximate 15 mile extension to the currently-planned 61.5 mile SunRail system. A practical advantage of this alternative is that there are typically only five freight trains per day, both presently and well into the future, on this segment of the CSX A Line. In support of commuter rail, the Haines City Commission recently passed a resolution requesting that SunRail consider future expansion to Haines City and requesting Florida DOT to participate in or undertake necessary planning and environmental studies;
3. **A further extension of SunRail commuter rail service to an additional station at Auburndale, with supportive express bus service from selected park and ride locations, including Lakeland.** This would amount to an additional 13 mile extension from Haines City, and 28 miles from Poinciana. This extension also shares the practical advantage that there are only five freight trains per day, both presently and well into the future, on this segment of the CSX A Line; and
4. **Lastly, a potential extension of SunRail commuter rail service to Lakeland, also with supportive bus service.** Extending service from Auburndale to Lakeland would amount to an additional 11 miles from Auburndale, or a total of 39 miles from Poinciana. Unfortunately, this segment of the CSX between Auburndale and Lakeland currently sees 20 freight train movements per day rising to an estimated 27 daily freight trains in 2030. This activity of freight operations, would make this extension substantially more difficult.

The FDOT Rail Evaluation Study notes that significant capital investments would be required, including new track with passing sidings from Lakeland to Auburndale, track improvements to Poinciana, stations with platforms and parking, and additional rail vehicles. It also anticipates conflict between existing and future CSX operations and passenger rail on the rail section west of Auburndale.

Compared to year 2030 SunRail ridership estimates of 2,350 for the Poinciana Station, the 2009 FDOT Study estimated year 2030 boardings of 2,130 for a SunRail extension from Poinciana to Lakeland, with 673 in Haines City, 500 in Auburndale, and 273 in Lakeland. It also estimated 684 boardings from the SunRail Phases I and II stations traveling west and alighting at a Polk County station. Finally, it estimated that 760 of the 2,130 daily trips would be internal to Polk



County. A major component of this study is to perform a separate ridership propensity analysis that uses a different methodology to confirm or contend with these estimates.

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POTENTIAL STATION LOCATION SCREENING

To develop a comprehensive, yet reasonable, list of all potential station locations, the entire length of the existing rail track in Polk County was inspected through in-person field visits. To be selected as a station option, a location had to be:

- Along the existing track in a location where track geometry was amenable to a station
- Accessible to current development and/or major roadways
- Free of environmental constraints.

This analysis yielded a total of ten potential station locations (Figure 5):

Phase II: Ronald Reagan Parkway, Downtown Davenport, Martin Luther King Jr. Blvd., Old Train Station

Phase III: Lake Alfred, Auburndale Commons

Phase IV: Combee Rd., Lake Parker Dr., Lakeland Amtrak Station, Lakeland Bus Depot.

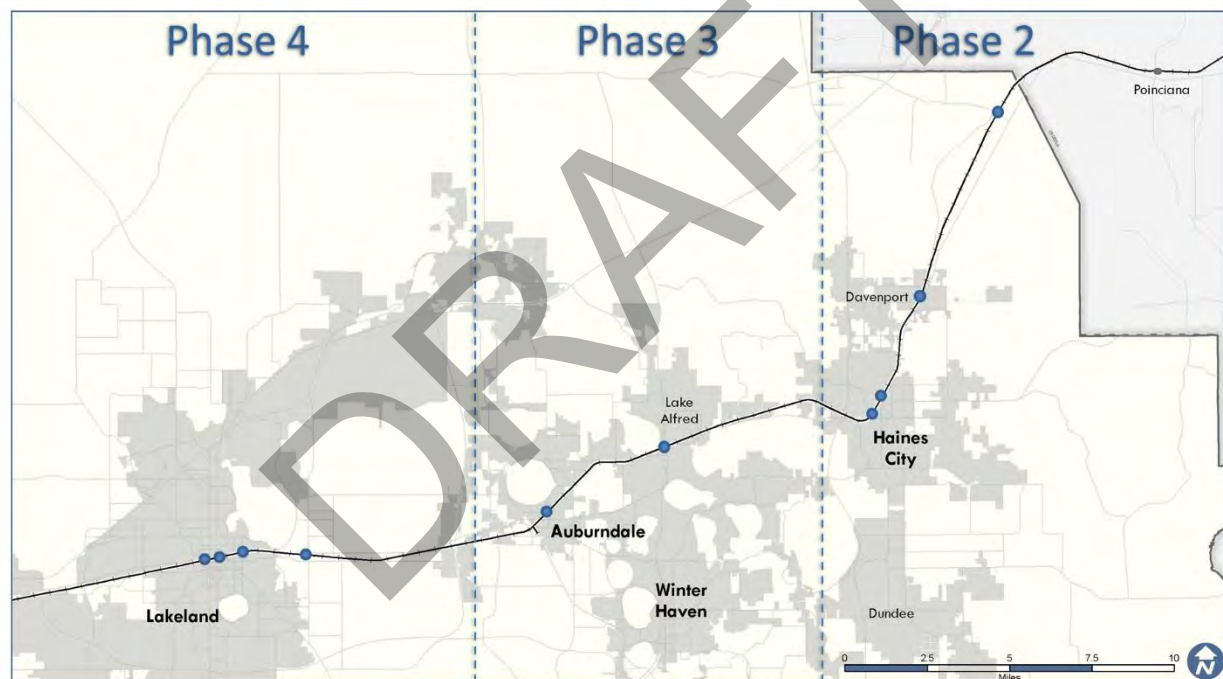


Figure 5 Screened Station Locations

Station-Area Criteria

To identify the best station area in each phase, each potential station location was evaluated based on eleven criteria. These criteria also served to inform the Phase 1 Express Feeder Bus alternative. The methodology for calculating each of these indicators is discussed in further detail below.



Rail Operations

- **Track Distance** – Railway track distance, in miles, from Poinciana Station was calculated in GIS.
- **Travel Time** – SunRail Phase 1 track distances and travel times were compared to track geometry and track distances between proposed station locations in Polk County. Travel time is listed cumulatively, and would be subject to increases depending on the number of stops between any one station and Poinciana.
- **Additional Trains Required** – Using travel times for SunRail Phase 1 and new proposed stations, the number of additional rolling stock needed to serve the evaluated station while still maintaining current schedules were calculated. Additional reserve trains were added if the ratio of reserve stock to rolling stock dropped below 20%.
- **Capital Cost** – The SunRail Phase 1 Full Funding Grant Agreement was used to estimate capital cost (in 2014 dollars), which includes construction costs per mile, station construction, additional trains required, stations, and a new maintenance facility.

Potential Ridership

- **Population** – The 2012 American Community Survey (ACS) 5-year estimates were used to calculate the population within a 1-mile and 3-mile buffer of the station location.
- **Employment** – Using the Longitudinal Employer-Household Dynamics (LEHD) Database, an estimate of employees in 2011 within a 1-mile and 3-mile buffer of station locations was evaluated.

Development Character

- **Block Length** – The length of the block on which the potential station was located was calculated using GIS. Shorter block lengths are conducive to pedestrian and bicycle accessibility, a hallmark of transit-oriented development.
- **Municipal Land** – Using Polk County parcel data, the area of municipally-owned land within a half-mile of the proposed station location was calculated, used as an initial proxy for the availability of land that could be redeveloped.

Transportation

- **Roadway Intersections** – The number of roads, of each functional classification, that are crossed by the railroad between the proposed station location and Poinciana Station were evaluated.
- **Bus Routes** – Bus routes passing directly by the proposed station location were identified, a sign that the location is already a transit-supportive community that could benefit from new rail service.
- **Freight Activity** – Freight trains operating now and anticipated in the future were counted.

The findings for each of the potential station locations are summarized in Table 1 below, followed by specific summaries for each station area.



| Criteria | | Rail Transit Operations | | | | |
|----------------------------|---------------------------|------------------------------------|-------------------------|---|---|----------------------------|
| Potential Station Location | | Distance from Next Station (Miles) | Distance from Poinciana | Capital Cost | Travel Time | New Rolling Stock |
| PHASE II | Ronald Reagan | 5.6 | 5.6 | \$ 47,600,000 | 8 | 0 |
| | Downtown Davenport | 6.1 | 11.7 | \$ 99,450,000 | 15 | 1 |
| | Haines City - MLK | 3.2 | 14.9 | \$ 126,650,000 | 19 | 1 |
| | Haines City – Old Station | 0.6 | 15.5 | \$ 131,750,000 | 19 | 1 |
| PHASE III | Lake Alfred | 6.8 | 22.3 | \$ 189,550,000 | 29 | 3 (2 active, 1 reserve) |
| | Auburndale Common | 4.2 | 26.5 | \$ 225,250,000 | 34 | 3 (2 active, 1 reserve) |
| PHASE IV | Combee Rd | 7.6 | 34.1 | \$ 289,850,000 | 43 | 4 (3 active, 1 reserve) |
| | Lake Parker | 2 | 36.1 | \$ 306,850,000 | 47 | 4 (3 active, 1 reserve) |
| | Lakeland Amtrak | 0.8 | 36.9 | \$ 313,650,000 | 48 | 4 (3 active, 1 reserve) |
| | Lakeland Bus Depot | 0.3 | 37.2 | \$ 316,200,000 | 49 | 6 (4 active, 2 reserve) |
| Source: | | GIS Analysis | GIS Analysis | Based on SunRail Phase 1 capital cost estimates | Based on distances and current SunRail travel times | GIS Analysis |

Table 1 Potential Station-Area Screening Results



| | Criteria | Development Character | |
|-----------|----------------------------|-----------------------|----------------|
| | Potential Station Location | Block Length | Municipal Land |
| PHASE II | Ronald Reagan | 1850 ft | 5 acres |
| | Downtown Davenport | 1500 ft | 8 acres |
| | Haines City - MLK | 710 ft | 5 acres |
| | Haines City – Old Station | 860 ft | 6 acres |
| PHASE III | Lake Alfred | 2100 ft | 22 acres |
| | Auburndale Common | 800 ft | 6 acres |
| PHASE IV | Combee Rd | 1700 ft | 17 acres |
| | Lake Parker | 1200 ft | 14 acres |
| | Lakeland Amtrak | 1000 ft | 14 acres |
| | Lakeland Bus Depot | 300 ft | 3 acres |

Source: GIS Analysis GIS Analysis

Table 1 cont.



| Criteria | | Potential Ridership Pool | | | |
|----------------------------|---------------------------|---|---|---|---|
| Potential Station Location | | 2010 Population | 2010 Employment | 2040 Population | 2040 Employment |
| PHASE II | Ronald Reagan | 1 mile: 1790 3 mile: 5093 | 1 mi: 49 3 mi: 430 | 1 mile: 549 3 mile: 20235 | 1 mi: 96 3 mi: 5445 |
| | Downtown Davenport | 1 mile: 1217 3 mile: 10904 | 1 mi: 276 3 mi: 2621 | 1 mile: 4903 3 mile: 39030 | 1 mi: 886 3 mi: 8400 |
| | Haines City - MLK | 1 mile: 6659 3 mile: 20705 | 1 mi: 1224 3 mi: 4536 | 1 mile: 14494 3 mile: 52239 | 1 mi: 3719 3 mi: 11737 |
| | Haines City – Old Station | 1 mile: 4242 3 mile: 19270 | 1 mi: 1698, 3 mi: 4429 | 1 mile: 10772 3 mile: 54711 | 1 mi: 3957 3 mi: 12730 |
| PHASE III | Lake Alfred | 1 mile: 3469 3 mile: 18242 | 1 mi: 667 3 mi: 1922 | 1 mile: 6407 3 mile: 26066 | 1 mi: 2336 3 mi: 8494 |
| | Auburndale Common | 1 mile: 3505 3 mile: 30124 | 1 mi: 3603, 3 mi: 9342 | 1 mile: 4713 3 mile: 40102 | 1 mi: 7426 3 mi: 23801 |
| PHASE IV | Combee Rd | 1 mile: 7958 3 mile: 39555 | 1 mi: 2484, 3 mi: 25742 | 1 mile: 11784 3 mile: 61547 | 1 mi: 5841 3 mi: 38816 |
| | Lake Parker | 1 mile: 4320 3 mile: 64876 | 1 mi: 9309, 3 mi: 42909 | 1 mile: 12747 3 mile: 98407 | 1 mi: 10960 3 mi: 58896 |
| | Lakeland Amtrak | 1 mile: 9339 3 mile: 64090 | 1 mi: 17782 3 mi: 42057 | 1 mile: 19959 3 mile: 107405 | 1 mi: 13722 3 mi: 58590 |
| | Lakeland Bus Depot | 1 mile: 9074 3 mile: 68310 | 1 mi: 11936 3 mi: 43992 | 1 mile: 20854 3 mile: 101815 | 1 mi: 13749 3 mi: 55462 |
| Source: | | 2008-2012 5 year ACS, block group, centroid falls within buffer | 2008-2012 5 year ACS, block group, centroid falls within buffer | 2008-2012 5 year ACS, block group, centroid falls within buffer | 2008-2012 5 year ACS, block group, centroid falls within buffer |

Table 1 cont.



| Criteria | | Transportation | | |
|----------------------------|---------------------------|---|---|--|
| Potential Station Location | | Crossings | Transit | Rail |
| PHASE II | Ronald Reagan | 3 local 1 minor arterial | 0 nearby bus routes | 5 freight trains per day, now and into the future |
| | Downtown Davenport | 3 local 1 minor arterial | 0 nearby bus routes | 5 freight trains per day, now and into the future |
| | Haines City - MLK | 2 local | 2 nearby bus routes (15, 427) | 5 freight trains per day, now and into the future |
| | Haines City – Old Station | 1 local | 3 nearby bus routes (15, 416, 427) | 5 freight trains per day, now and into the future |
| PHASE III | Lake Alfred | 9 local 2 major collectors | 1 nearby bus route (12) | 5 freight trains per day, now and into the future |
| | Auburndale Common | 3 local 1 minor arterial 3 major collectors | 2 nearby bus routes (12,50) | 5 freight trains per day, now and into the future |
| PHASE IV | Combee Rd | 6 local 1 minor arterial 3 major collectors | 1 nearby bus route (12) | 20 freight trains per day now, 27 freight trains per day in 2030 |
| | Lake Parker | 3 local 1 minor arterial 2 major collectors | 4 nearby bus routes (12, 10, 14, 22) | 20 freight trains per day now, 27 freight trains per day in 2030 |
| | Lakeland Amtrak | 2 major collector | 10+ nearby bus routes (All Citrus Connection, 12) | 20 freight trains per day now, 27 freight trains per day in 2030 |
| | Lakeland Bus Depot | 2 local 1 minor arterial 1 major collector | 10+ nearby bus routes (All Citrus Connection, 12) | 20 freight trains per day now, 27 freight trains per day in 2030 |
| Source: | | GIS Analysis | Based on nearby bus routes | Polk TPO rail options report |

Table 1 cont.



STATION-AREA SCREENING EVALUATION

Phase II: Ronald Reagan Boulevard

Less than six miles from Poinciana, this is the closest possible station location in Polk County. Among the positive traits of this station area: additional travel times are minimal (eight minutes), requiring no additional rolling stock, and capital cost is significantly lower than all other alternatives. Freight interactions are minimal here as well.

The primary drawbacks of this location relate to its current and projected isolation. Population and employment projections are low in the walkshed and immediate surroundings, there are no current bus routes in the area, highlighting this place as far from needing additional transit service, and the long block lengths suggest walkability could not be a priority in this area, limiting ridership and redevelopment opportunities.

Phase II: Downtown Davenport

This location is another six miles west of Ronald Reagan, doubling both the travel time and capital costs. The positive attributes of this location are larger population and employment (relative to Ronald Reagan), the large amount of municipal land that could be made available for development, and limited freight interactions.

The drawbacks to this location include the long block lengths, the lack of connectivity to existing transit service, and the low population and employment relative to Haines City options.

Phase II: Haines City – MLK Way

This location, adjacent to the Citrus Avenue/Railroad Avenue/MLK Way intersection, is only three miles west of Downtown Davenport, but the development character, ridership pool, and transportation connectivity are much improved here. Population figures are much higher than employment, suggesting that ridership here would be mostly origin-based (i.e., most AM trips would leave from Haines City rather than arrive here from elsewhere), and small blocks suggest that riders could walk to the station, particularly from the neighborhoods to the west. Two bus routes currently serve the area (Routes 15 and 427).

Travel time to Poinciana is approaching 20 minutes, and capital costs now exceed \$100 million. Road crossings are still mostly local roads, but some minor arterials must be crossed to reach the station.

Phase II: Haines City – Old Station

Located in the heart of downtown, this location is less than a mile from MLK Boulevard, but offers a bit more municipal land and greater long range population and employment potential. It is also served by an additional bus line, Route 416. Block lengths are still small, and like the two station locations to the east, only one additional train should be needed to service this station.

Conversely, Old Station capital costs are the highest of all potential Phase II locations.



Phase III: Lake Alfred

Located north of I-92, east of North Lake Shore Way, the primary positive aspect of this location is the relative land availability for transit-oriented development. With Poinciana Station now nearly 30 minutes away, there is a significant travel time accrual to reach any Phase III location. Capital costs here, while on the order of \$60 million higher than Phase II locations, are well below Auburndale, the other potential station in Phase III.

Some potential issues with this location include the relative inaccessibility of the location due to both traffic circulation patterns and the very large block lengths, the need for as many as three new trains (a major contributor to capital costs), and low ridership potential relative to Auburndale.

Phase III: Auburndale Common

This location, at the former station in the downtown Common, is an additional four miles west of Lake Alfred. Due to its location in a denser, multi-use area, population and employment are both notably higher than in Lake Alfred, and small block lengths confirm the walkability of the station area, a potential boon for ridership. The location is currently connected to two bus routes, which notably connect Winter Haven to the SunRail extension.

Among the possible issues are some areas of track curvature between here and Lake Alfred that may slow travel speeds, and a capital cost that exceeds \$200 million. Contributing to that cost will be crossings at minor arterials and major collector roads that wouldn't be crossed for stations further east. Finally, similar to Lake Alfred, three new trains would be needed to ensure that current SunRail schedules could be met.

Phase IV: Combee Road

The easternmost location for Phase IV, this station is nearly eight miles east of Auburndale and sits at a major crossroads east of Lakeland. Among the benefits of this location is abundant land for possible transit-oriented development, higher population and employment numbers than stations to the east, and the shortest travel time to Poinciana of the Phase IV options. Capital costs are lowest here as well, but only incrementally so.

The relative isolation of the location contributes to its drawbacks, including large block lengths inhospitable for non-vehicular access, and limited transit connectivity. The distance from Poinciana, now approaching 45 minutes, requires a fourth locomotive purchase. Moreover, as is the case with all Phase IV options, a five-fold increase in freight traffic – from five trains per day east of the Winter Haven Connector to a projected 27 in 2030 west of the Connector – is a major logistical concern. This issue is addressed more fully in later sections of this technical memorandum.

Phase IV: Lake Parker Road

Two miles east of Combee Road, Lake Parker Road is much closer to the heart of Lakeland while still offering some promising transit-oriented development possibilities. Four bus routes currently serve the station area, and both population and employment are higher than around Combee Road.



Like all Phase IV station areas, the freight interactions will be the primary drawback. Specific to Lake Parker, population, employment, and transit connectivity are lower than in station areas closer to downtown.

Phase IV: Lakeland Amtrak Station

The current station, east of Massachusetts Avenue, is on the eastern side of downtown and offers an opportunity to build on existing resources like platforms and parking. Additionally, land north of the station is currently undeveloped, opening up transit-oriented development possibilities despite the relatively dense, built-out nature of downtown Lakeland. Population and employment projections are higher here than at any other place along the corridor, and transit connectivity is extremely high, nearly on par with the Lakeland Bus Depot.

The downside of this location is the high capital cost, now over \$300 million, and the freight issue mentioned earlier. Finally, while this location has many positive attributes, it is a good distance from Poinciana. At nearly 50 minutes, that length is equivalent to the average door-to-door commuter rail commute around the country. This may be a significant deterrent to ridership, despite the high ridership pool that the population and employment figures suggest.

Phase IV: Lakeland Bus Depot

This centrally located station is the westernmost location evaluated, at 37 miles and nearly 50 minutes from Poinciana. Much like the Amtrak station area, population and employment figures are very high, transit connectivity is the best in the region, and block lengths, shortest of the station areas, is highly conducive to non-automobile access.

In addition to the downsides included for the Amtrak location, there is a chance that additional rolling stock would be needed for this station, requiring as many as six new locomotives to maintain schedules and rolling stock requirements. Additionally, the block length may be too short at the Depot to allow for trains to idle without impacting traffic flow on either Missouri or Florida Avenues, both fairly high-traffic roadways. This may constitute a fatal flaw if trains at a terminal station cannot idle without traffic impacts.

RECOMMENDED STATION LOCATIONS

From the findings of these eleven criteria, recommended station areas were identified in each of the three rail phases, as seen in Figure 6. These station locations will be advanced through the feeder bus analysis, ridership propensity analysis, and conceptual site plans, and will serve as the basis for any needed adjustments to capital and operating cost forecasts in subsequent sections of this memorandum.

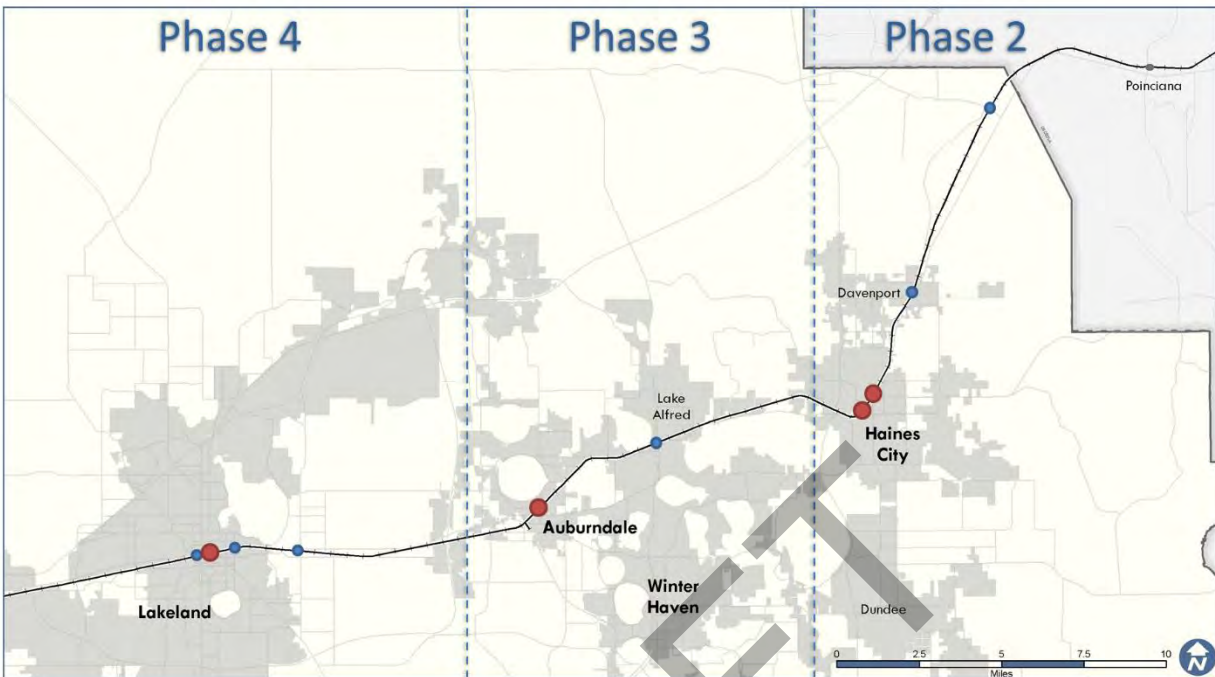


Figure 6 Recommended Station Locations

Phase II: Martin Luther King or Old Station

These two potential station locations lie close to each other and share many of the same pros and cons. Because they are centrally located, job and housing density are higher than in Downtown Davenport or Ronald Reagan Parkway, both now and as estimated in 2040. Both sites benefit from adjacent investment and have further development potential. Drawbacks of these locations include longer distances, longer travel times, and larger capital costs than stations closer to Poinciana. Additionally, ideal station areas at Martin Luther King and the Old Station are not municipally-owned.

Phase III: Auburndale Common

The potential station in Auburndale Common is more centrally-located than a station in Lake Alfred. This results in higher densities of both population and employment as well as strong development potential. However, because this site is farther from Poinciana, it has more road crossings and a higher capital cost than a Lake Alfred station.

Phase IV: Lakeland Amtrak

The presence of an existing rail station and potential connections between Amtrak and SunRail are very strong benefits of locating the Phase 4 station at the Lakeland Amtrak. It also occupies a fairly centralized location. Unlike the Lakeland Bus Depot, the Lakeland Amtrak station has a block length that is long enough to ensure a SunRail train can stop without requiring road closures. Additionally, this station shows promise for transit-oriented development as downtown Lakeland expands to the east.



STATION AREA CONSIDERATIONS

Among the many strategies and actions that can contribute to the viability of a SunRail extension into Polk County, station area planning is among the most crucial. At this early stage, station area considerations are focused on three primary topics: 1) parking, 2) station access and circulation, and 3) station area development. In this section, possible station location and configurations are provided, likely parking locations are selected, and general land development opportunities are outlined. A particular focus is put on identifying possible constraints or issues related to these topics, as the earlier these constraints are addressed, the more easily they can be mitigated. In summary, both parking availability and land development opportunities are higher in Haines City, but issues of access and circulation may be easier or less costly to mitigate in Auburndale and Lakeland.

Importantly, the early development of park and ride locations for potential use in the initial development of express bus park-and-ride service to Poinciana station can begin to establish SunRail as a viable transportation alternative for residents of Polk County.

PARKING

The ridership propensity analysis suggests that there will be a mix of walk/bike and vehicle access at all stations, but that the majority of riders will drive to the station. In identifying recommended parking locations, the primary criteria were:

Size – A minimum of two acres of parking was identified, accounting for approximately 200 spaces

Adjacency – Parcels closer to the proposed station location were preferred

Current Land Use – Vacant or underutilized parcels were preferred over occupied, well-utilized parcels

In general, three parcels were identified and ranked for each station.

Haines City – MLK Station

This station area had the most parcels meet the parking criteria. The three potential parking locations are shown in Figure 7.



Figure 7 MLK Station Parking Map

Parcel 1, on the corner of 12th Street and the private drive connected to Citrus Boulevard, is 7.1 acres, separated from the station by 12th Street, and is currently occupied, but underutilized, with much of the site vacant. Parcel 2, bounded by 12th Street and the railroad tracks, is 4.1 acres, and is a recommended site for the station itself. It is currently occupied, with limited space for development on unused land. Parcel 3, on the corner of Citrus Avenue and N 8th Street, is the smallest of the three sites, at 2.3 acres. It is also on the opposite side of the railroad tracks from the current station location, requiring pedestrian crossings for access and egress.

The current recommendation is to focus on Parcel 1, which has sufficient acreage, has no current development, and only requires one roadway crossing. However, if this site is chosen then a safe crossing location will need to be created. Most likely at the corner of Citrus Boulevard and 12th Street.

Haines City – Old Station

The immediate area around the former rail station is much more highly developed than at 12th Street, making adjacent parking a difficulty. The three potential parking locations are shown in Figure 8.



Figure 8 Old Station Parking Map

Parcel 1, on Railroad Avenue between Ash and Vine Streets, is 2.2 acres of almost entirely undeveloped land. It is the closest parcel to the station, but has no direct connection across the tracks except at Main Street. Parcel 2, also on Railroad Avenue south of Main Street, is a 9-acre site currently occupied by a large light industrial development. The appeal of this location is mostly due to size and anecdotal evidence suggesting that workers are parking in the rail right-of-way, meaning there may be some opportunity for joint development of parking that could serve this development and a future station. Like Parcel 1, access to the station would require a rail crossing at Main Street. Parcel 3 is a collection of two parcels that combined are only 1.7 acres. While this is smaller than hoped, its benefits include its location on the same side of the tracks as the station, and its relative proximity to the station. Multi-level parking may be required to meet station parking requirements, but this location in downtown may be well-suited for such an investment.

The current recommendation is to focus on Parcel 3, which does not require a rail crossing and only needs one roadway crossing, at N 7th Street. Given the prevalence of on-street parking in downtown, there may be an opportunity to use some of this parking to supplement new off-street parking, but current parking regulations would need to be changed to facilitate this.



Auburndale

Downtown Auburndale's grid street network and small parcel sizes suggest that multiple parcels may be needed to accommodate parking. The three potential parking locations are shown Figure 9.



Figure 9 Auburndale Parking Map

Parcel 1 is bounded by the railroad tracks, Bridgers Avenue, and Orange Street, and is a 3.5 acre self-storage facility. Access to the station would likely be provided by a crossing at Bobby Green Plaza. Parcel 2 is a collection of small, vacant parcels along Shelby Street and Lake Avenue. All told, the parcels are slightly more than 1 acre in size, so these lots would be fairly small. Additionally, the residential surroundings should be considered, and additional screening or other landscaping may be needed, further limiting parking capacity. Its location on the same side of the tracks as the station is a major benefit. Parcel 3 would be a presumed joint parking facility with the Cindy Hummel Tennis Center. The size (2.4 acres) and proximity to the station are both promising, and the off-peak nature of the Center's use makes it a good prospect for shared use parking. However, there may be practical difficulties in negotiating this joint facility, particularly as a structure would likely be needed in replacement of the current surface parking.

The recommendation is to consider all three parking locations in conjunction, rather than try to site all station parking in one location. While this creates the possibility of additional traffic as



commuters circle the area looking for parking, this issue can be mitigated through good parking management processes.

Lakeland

The City of Lakeland is by far the most dense, urban environment on the proposed corridor, but the Amtrak location, just on the eastern edge of downtown, is close to many unoccupied and underutilized parcels, though parcel size is often a limiting factor. The three potential parking locations are shown in Figure 10.

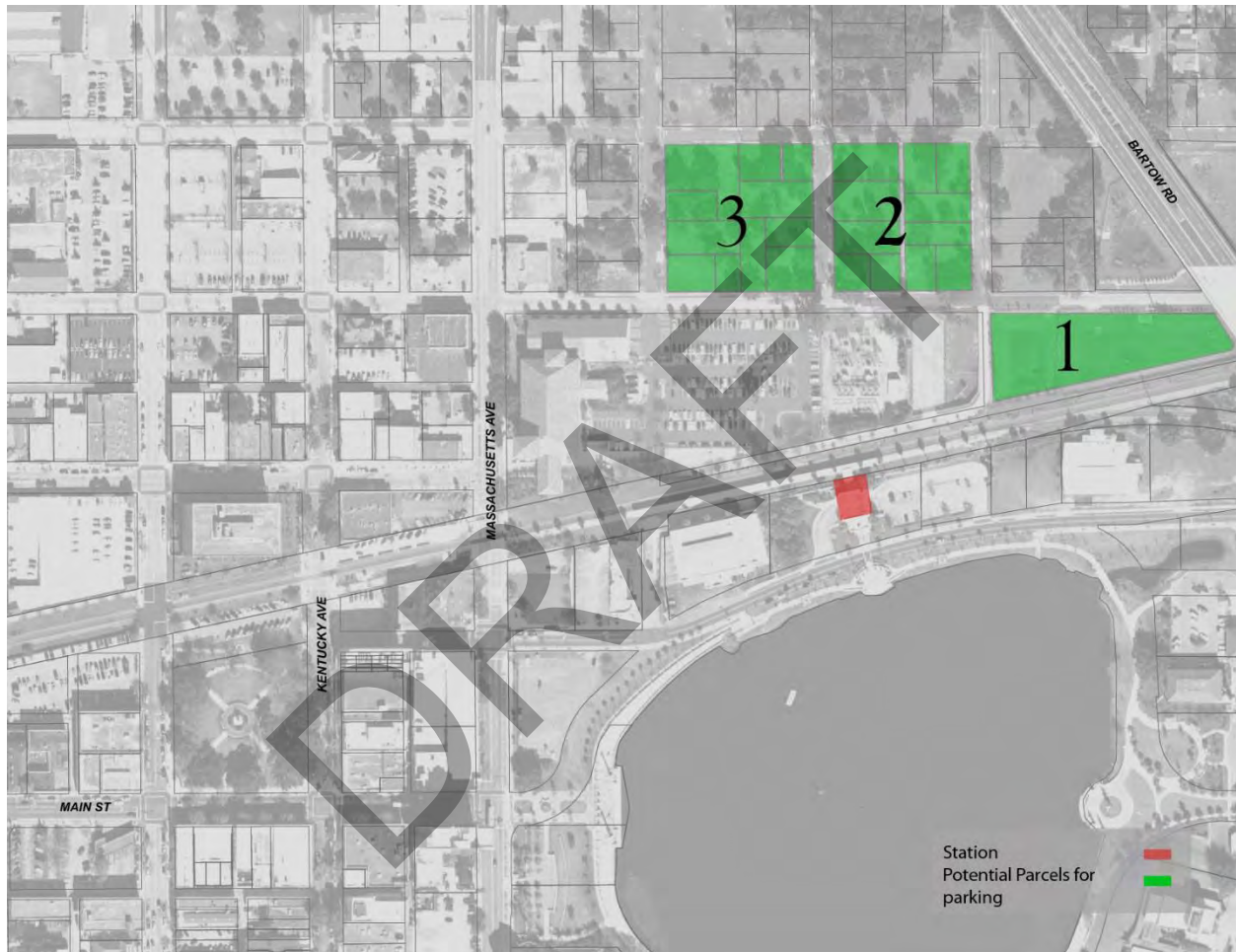


Figure 10 Lakeland Parking Map

Parcel 1 is a 1.6 acre site on the south side of Bay Street. It is the closest of the three sites to the station, but current access to the station requires a walk to either Massachusetts Avenue or Lake Avenue. The site is currently used as a retention basin for the City, with much of the land unused. Additionally, land is available directly under the highway overpass. Depending on the type of retention basin, there may be serious conflicts with a paved parking lot. Parcels 2 and 3 are both a collection of parcels currently owned by the Lakeland Community Redevelopment Agency. They are 1.7 and 1.9 acres, respectively. While limited information about these parcels has been obtained, and the extent of platting and site work that has been done to them suggests that they may be destined for another purpose, they serve as reasonable options in whole or in part. Their access to the station is similarly constrained as Parcel 1, which is a drawback for all potential



parking areas in the vicinity, particularly as the brewery on Main Street now occupies the formerly unoccupied site adjacent to the station.

The recommendation is to identify in talks with City agencies which of these parcels are available for purchase, with Parcel 1 being the preferred site if no environmental issues are created by paving the area immediately adjacent to the retention area. Given this parcel's adjacency to the Barton Road Bridge, it is the parcel least likely to generate private development interest, likely limiting objection to its use as parking. To overcome the poor station access, a tunnel could be considered, which takes advantage of rolling topography created by the raised rail line.

STATION ACCESS AND CIRCULATION

Proposed station sites were identified, as well as prominent access/egress flows around the station itself. This includes pedestrians/cyclists, park-and-ride patrons, transit riders, and drop-off passengers. This section summarizes the findings of this effort, and identifies potential conflict points or other issues that may require mitigation in advance of a future station.

Haines City – MLK Station

There are no currently vacant or publicly owned parcels at the desired station location site, so a station would need to be sited on currently private property. Assuming such an acquisition is available in whole or in part, the 4-acre site west of 12th Street and south of Citrus Avenue was chosen as an ideal location. It creates minimal conflict points while providing easy access for pedestrians, drivers, transit, and drop-off passengers. It should be noted, however, that this analysis does not imply that any attempt will be made to acquire this private parcel. Figure 11 illustrates these various opportunities.



Figure 11 MLK Station, Proposed Sites

The parking lot, shown in green, is directly across 12th Street from the station, which creates a conflict point with traffic flow. This conflict can be – and likely would be – mitigated through a new traffic signal with pedestrian signal heads and crosswalks. Primary pedestrian flows are expected from the parking lot and the residential neighborhood north and west of the station. Pedestrians and cyclists on the west side of the tracks will require a safe crossing point, which presumably would be via at-grade crossing at Citrus Avenue. The station location, a mile or so north of downtown, may prompt additional bicycle access, though 12th Street is poorly equipped for cyclists, as there is no shoulder, bicycle lane, or off-road path available. Railroad Avenue may provide a reasonable alternative but it, too, lacks bike-friendly infrastructure despite generally lower speed limits. Transit and drop-off passengers will have an opportunity to access the station directly from 12th Street.

In general, access and circulation issues are minimal, though a traffic light and any associated intersection improvements (such as road widening for a turn lane) will incur some modest station area costs.

Haines City – Old Station

The Old Station was selected as the appropriate location for a station, but it is privately owned and operated. A station may be viable slightly north, but station inaccessibility, particularly for those west of the tracks, makes the Old Station a more desirable location for this analysis. It should

be noted, however, that this analysis does not imply that any attempt will be made to acquire this private parcel.

Figure 12 illustrates the opportunities and constraints of this station area.



Figure 12 Old Station, Proposed Sites

The primary parking lot is on the west side of the tracks, opposite the station, creating a conflict point for park-and-ride passengers. They will need to access the station via Main Street East, and safety barriers will be required along the tracks to ensure no one crosses elsewhere. All pedestrian flows from the residential areas north of the parking lot will need to follow the same path. South and east of the tracks, pedestrian flows are direct and numerous, and it is expected that this enhanced connectivity will serve as an attractor to transit-oriented development. There will need to be safe crossings along Ingraham or other cross streets, though much of this infrastructure is currently in place.

Transit lines currently serve the station area, and feeder bus routes would supplement them. Depending upon the level of transit access, there may be a need for a dedicated pull-off, removing a small number of on-street parking spots. This pull-off could be shared by kiss-and-ride passengers as well, though they may prefer Park Place.

Bicycle access is much improved relative to the MLK Way option, if only because of the lower speeds found in downtown.

In general, access and circulation issues are minimal, and most identified conflicts can be mitigated successfully with low-cost measures.

Auburndale

The proposed station location is in the center of the 2-acre Auburndale Common, in a publicly owned building that was the former station site.

Figure 13 illustrates the opportunities and constraints of the station area.

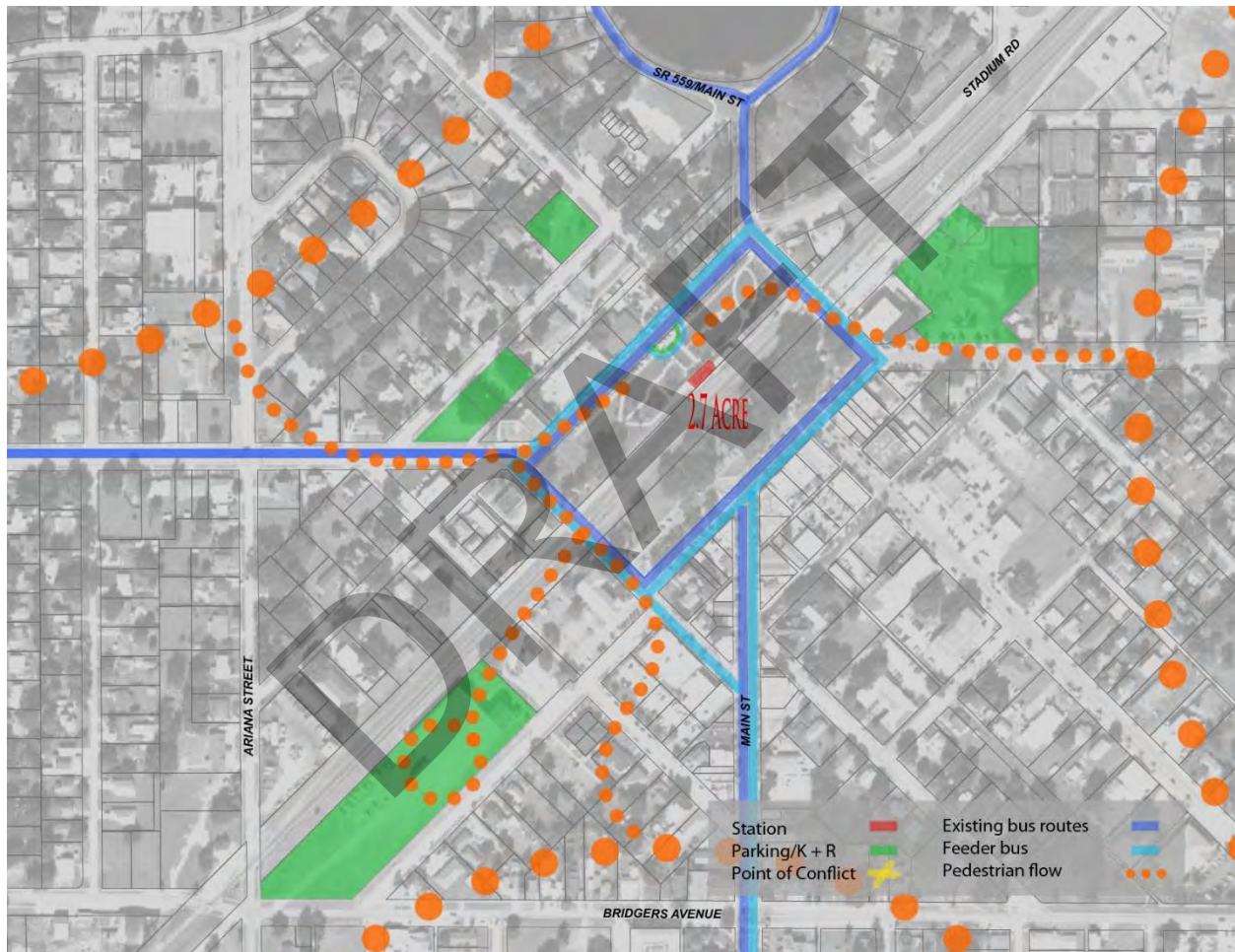


Figure 13 Auburndale, Proposed Sites

Parking was recommended to be located in several areas around the station, creating significant pedestrian flow around the Common. Fortunately, the Common already accommodates pedestrians through crosswalks, pavers, and sidewalks, mitigating any possible circulation concerns.

Current bus routes serve the immediate area, and additional feeder service could be provided to supplement this, particularly coming from Lakeland. A transit drop-off and kiss-and-ride location is not easily sited without taking existing parking, or disrupting the landscaping in front of the current building. While this does not pose an access or circulation issue, it may raise an important design

issue, and care will have to be taken in designing this location to meet the needs of commuters without unduly impacting this important and well-loved civic space.

In general, access and circulation issues are minimal, and serve no barriers to future implementation.

Lakeland

The existing Lakeland Amtrak station is the preferred site of the proposed Lakeland SunRail station. The site is relatively small, at barely one acre, but much of the required infrastructure is already in place to serve SunRail commuters.

Figure 14 illustrates the opportunities and constraints of the station area.

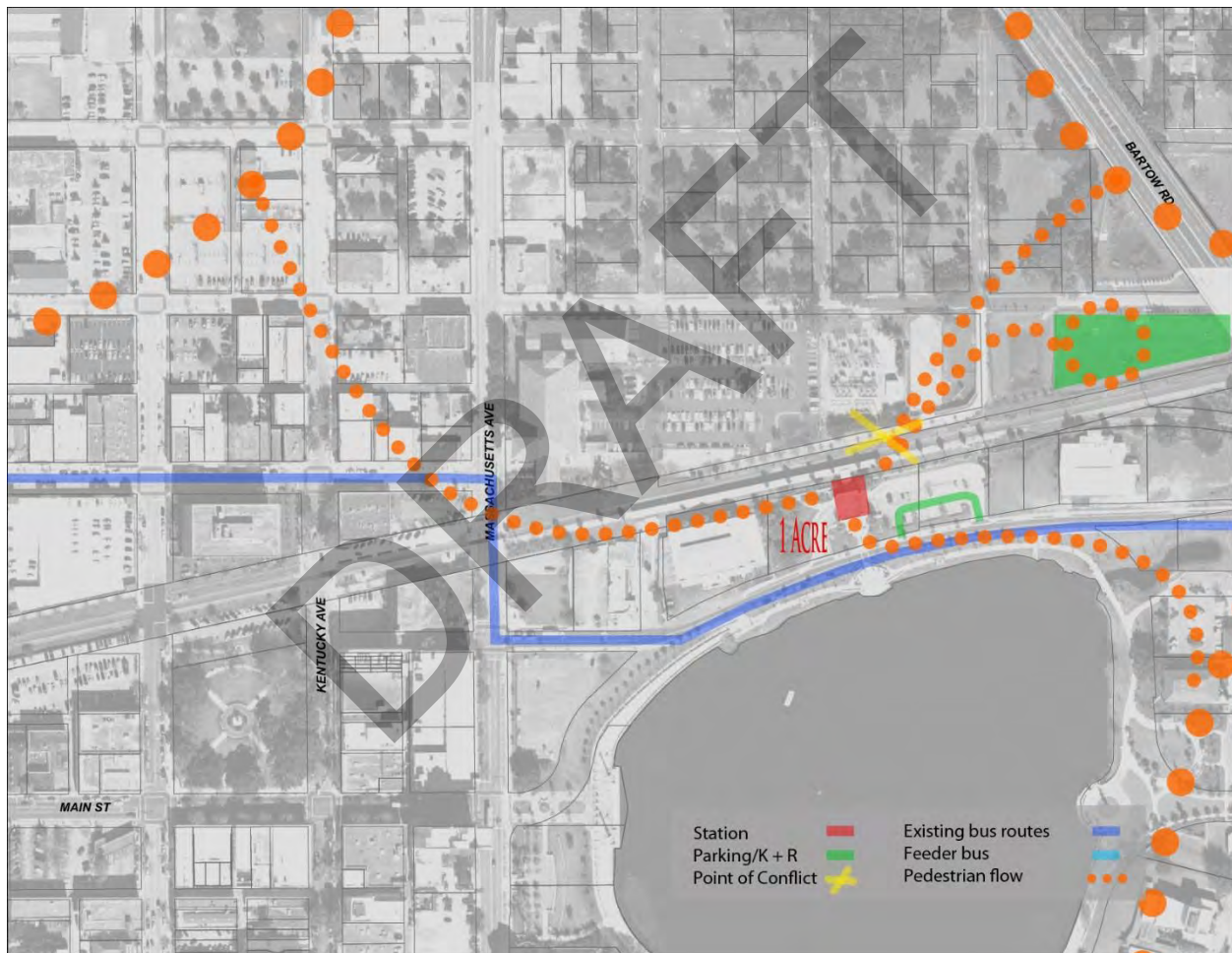


Figure 14 Lakeland Station, Proposed Sites

Much like Auburndale, pedestrian access is expected to come from all directions, with Massachusetts Avenue and Cedar Street the most likely pedestrian routes. For passengers arriving from the north, a rail safe rail crossing at Massachusetts Avenue will require pedestrian infrastructure in addition to any standard auto barriers like crossbucks. The primary parking lot is proposed on the south side of Bay Street, and the possibility exists for a pedestrian tunnel underneath the tracks linking the



parking to the station. Sidewalks, crosswalks, and pavers are all used routinely in the areas around the station, requiring little if any additional pedestrian-supportive infrastructure.

Transit access would continue be provided on Cedar Street, as it is presently. Kiss-and-ride and bus drop offs may be a bit constrained using the current site layout, but with no available land on the south side of Cedar Street, circulation will likely need to be handled on-site, creating the possibility for discussions with Amtrak about how to accommodate their needs along with those of SunRail.

The latter issue is likely to be the only access and circulation issue at this otherwise walkable, multimodal location. In general, there is no expectation of major barriers to future implementation.

LAND DEVELOPMENT

The long-term timeframe of this project limits the value of a detailed assessment of transit-oriented development opportunities at each station area. Significant turnover in land availability, vacancy, and use should be expected. However, examining current patterns of vacancy and non-residential uses can help give an early glimpse as to the potential magnitude of transit-oriented potential.

Table 2 summarizes the number and size of vacant parcels and non-residential parcels in each half-mile station area.

| | # Non-Residential Parcels | # Vacant Parcels | Non-Residential Acreage | Vacant Acreage | Total Potential Acreage |
|------------|------------------------------|---------------------|----------------------------|-------------------|-------------------------------|
| Haines MLK | 47 | 268 | 78.3 | 106.9 | 185.2 |
| Haines Old | 124 | 151 | 127.0 | 55.0 | 182.0 |
| Auburndale | 108 | 48 | 147.0 | 17.1 | 164.0 |
| Lakeland | 140 | 156 | 80.9 | 41.1 | 122.0 |

Table 2 Land Development Opportunities

As would be expected, the lower-density areas in Haines City have more potential available acreage than the higher-density areas in downtown Lakeland and Auburndale. The location of these parcels and more information about the practical implications of these findings for each station area follow.



Haines City – MLK



Figure 15 Haines City-MLK Land Development Opportunities

This station area has the greatest number of vacant and non-residential parcels and acreage of any evaluated station area (Figure 15). The areas immediately south and west of the station are nearly all in these two categories, creating robust potential. The largest non-residential parcels are light industrial and manufacturing uses adjacent to the station, and would likely command significant attention from prospective developers were a station to be located here. Other non-residential parcels are institutional uses like schools and civic buildings, which would certainly not be impacted by development pressure are important as neighborhood anchors and advocates that could – and should – help steer the direction of redevelopment. Smaller non-residential parcels are dotted throughout the station area, and help to bring potential for smaller, more multi-modally accessible development to the station area. The prevalence of non-residential uses on corner lots is a particular benefit. Note that the Southern Dunes Golf and Country Club is not included in the non-residential land calculation, as it is less likely to transition into other uses.

Large and small vacant parcels are found throughout the study area, in both residential and non-residential portions of the station area. All told, more than 250 parcels were identified as vacant. Some of these vacancies are close together, providing opportunities for combining smaller parcels together to create larger projects.



All told, this area could be expected to have excellent transit-oriented land development potential if land uses and vacancy rates are general unchanged. The prospect of building on the work the City has recently done along MLK Way and potentially spurring new growth and prosperity in this underserved part of Haines City adds to the appeal of this station area.

Haines City – Old Station

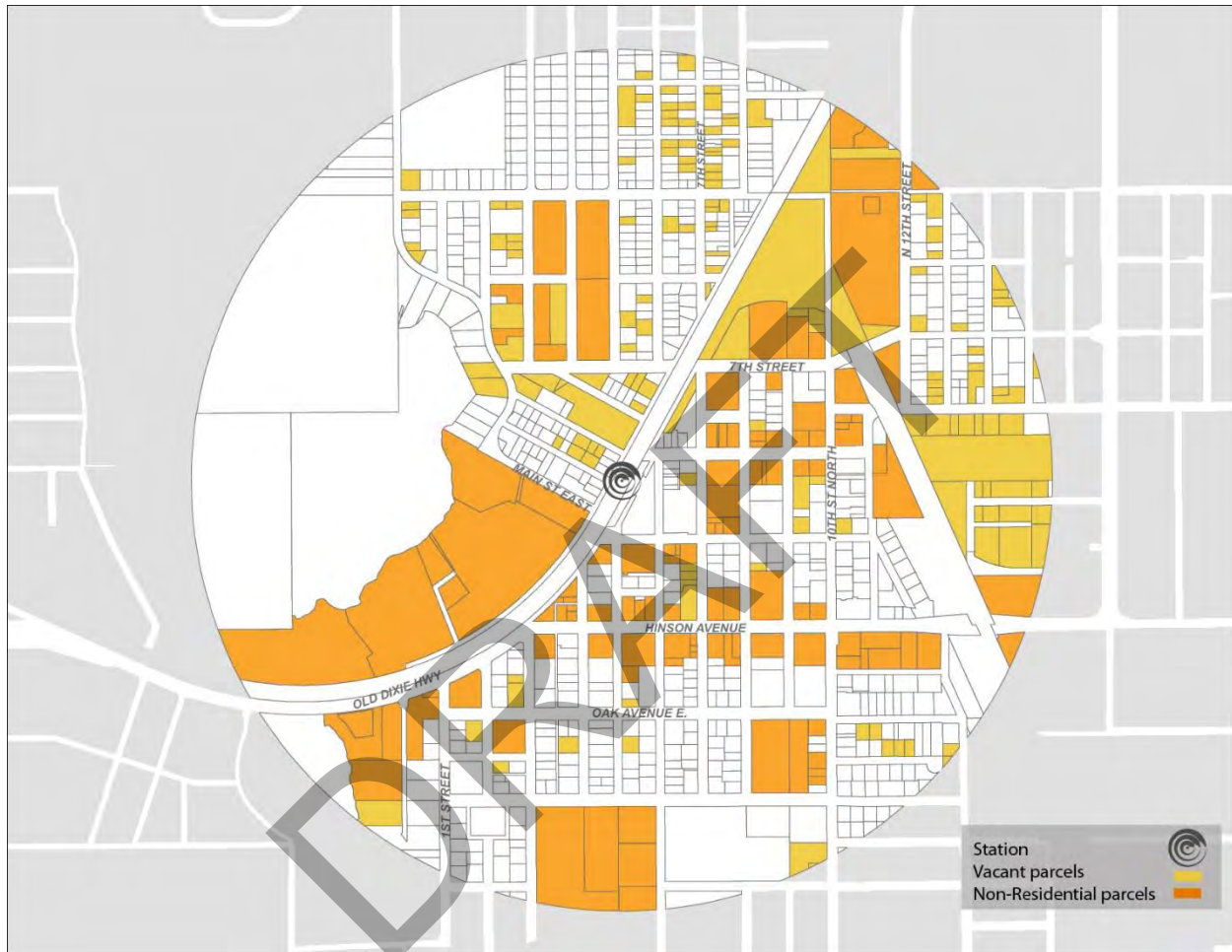


Figure 16 Haines City- Old Station Land Development Opportunities

This station area has more concentrated areas of non-residential and vacant parcels, with land assembly - particularly north of 7th Street on west side the tracks and along the rail spur to the southeast of the main line – a distinct possibility (Figure 16). This area has established commercial corridors along Hinson Avenue and elsewhere, along with institutional uses that can serve as anchors and advocates for development. Residential vacancy is currently low to the south and east, with more vacancies north and west. The largest vacant parcel is in the wye of the mail line and rail spur, and more likely to be useful as a small maintenance yard and shop than as commercial development.

Overall, the patterns of non-residential and vacant patches suggests the possibility for a decent amount of development interest, but it is perhaps lower than the MLK option despite similar acreage.

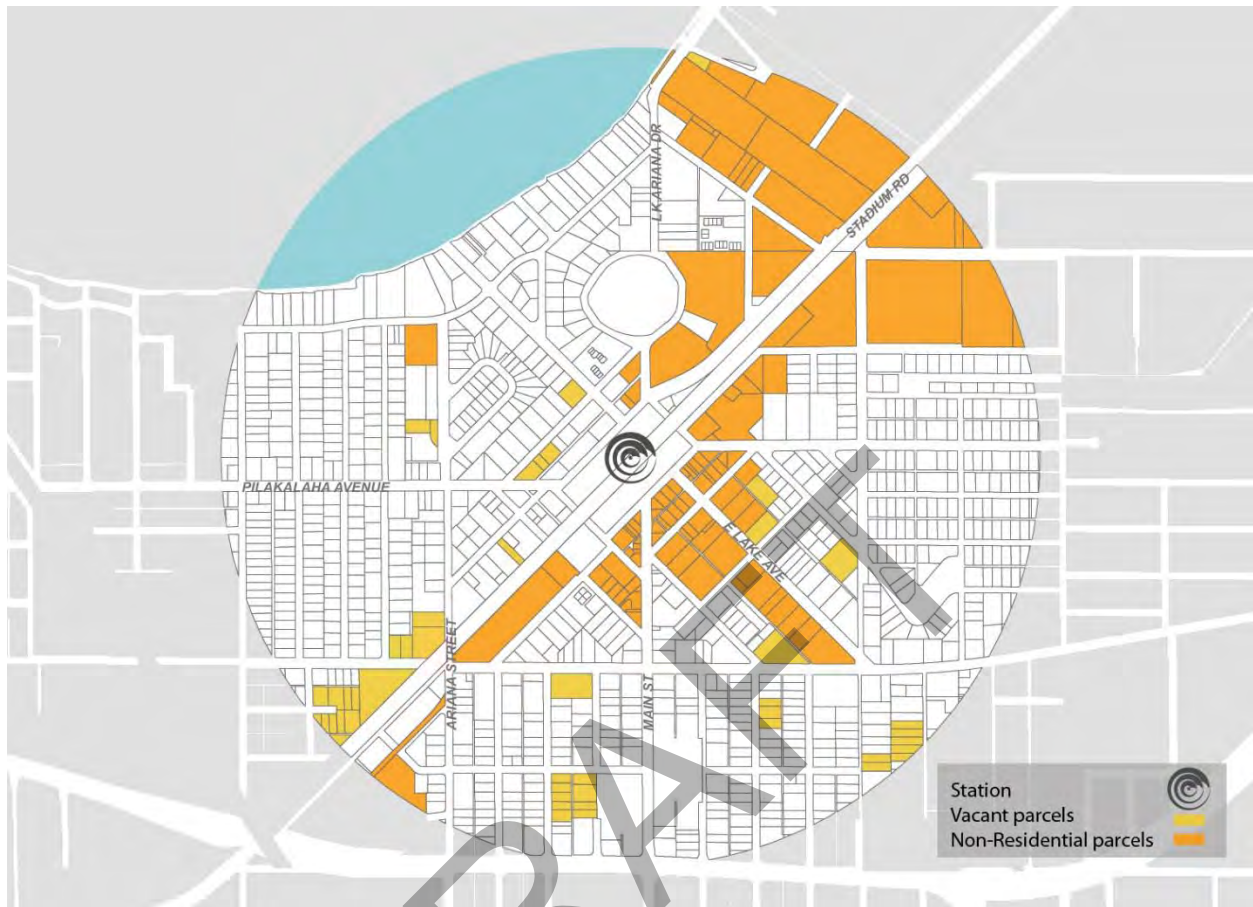
**Auburndale**

Figure 17 Auburn Dale Land Development Opportunities

Downtown Auburn Dale's largest areas of non-residential acreage are along Lake Avenue and Stadium Drive (Figure 17). Lake Avenue's active commercial corridor would likely see development pressure were a station located here, though this pressure would by no means require that existing uses be displaced. Stambaugh Middle School, and associated school board lands make up much of the area along Stadium Drive, though there are significant industrial uses along the corridor as well. Light industrial and warehousing uses are found along the rail line south of the station, and these sites, along with adjacent vacancies, comprise another area of development opportunity. The rest of the station area is heavily residential, with very few vacancies.

Overall, areas adjacent to the rail line and along Lake Avenue look to be the only places where development interest may be expressed, but the size of these areas may be promising for major developments if the City is interested in pursuing such efforts.

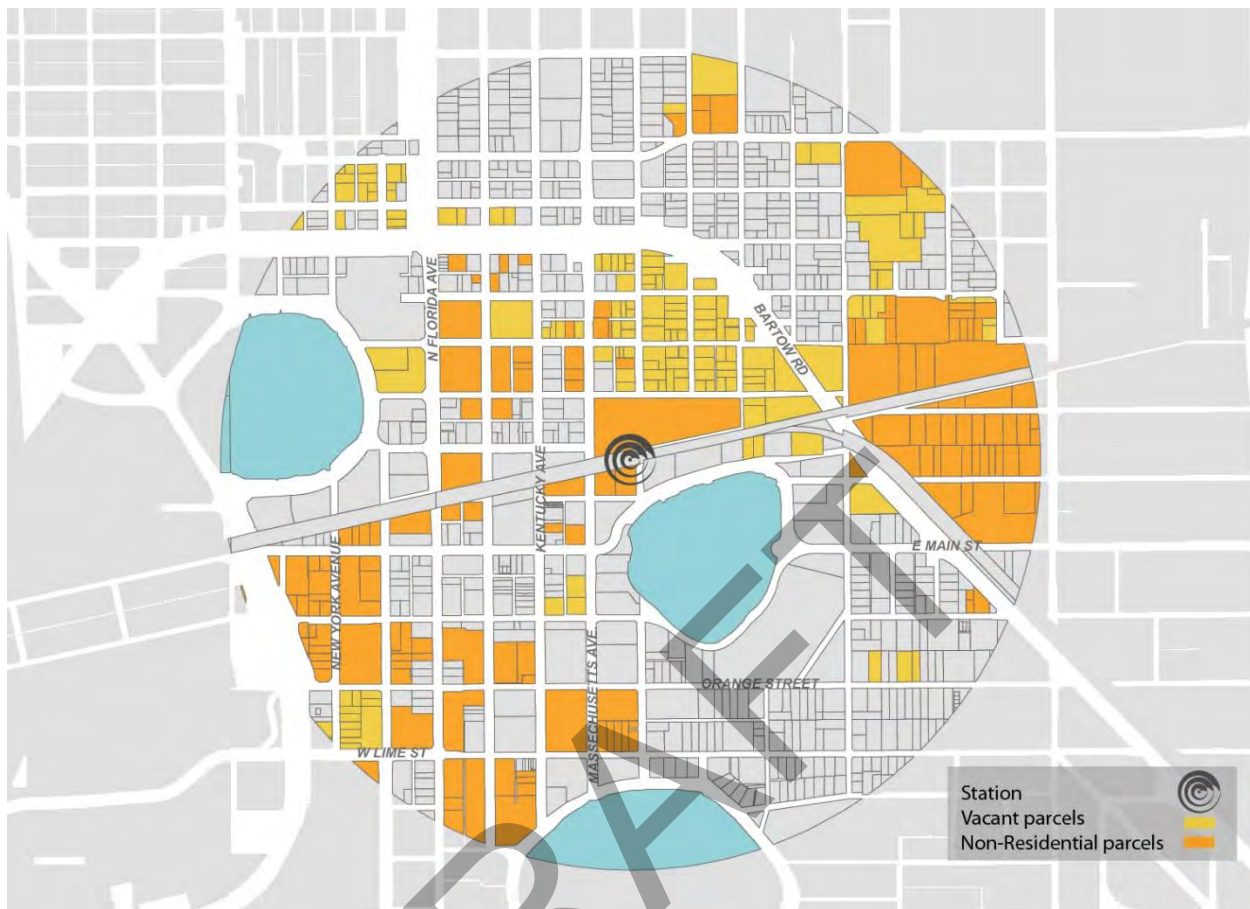
**Lakeland**

Figure 18 Lakeland Land Development Opportunities

Lakeland has the least vacant and non-residential acreage of the four station areas, though these areas are often found in clusters, conducive to redevelopment or parcel assemblage (Figure 18). The station area's largest areas of vacancy or non-residential land are found directly north of the station, and on the eastern and southwestern quadrants of the half-mile station area. Among the vacancies are multiple square blocks of land currently owned by the Lakeland Community Redevelopment Agency, and totaling well over 15 acres. To the east of this land, wholesale and light industrial uses dominate a multi-block area.

Overall, the patterns of non-residential and vacant properties, particularly north of the station, suggest transit-oriented development opportunities are possible in the station area, with the station being a catalyst for an eastward expansion of downtown.



FEEDER BUS SERVICE

Conceptual feeder bus services were created to support the various staging alternatives. The Phase I staging alternative consists exclusively of bus service connecting Polk County to Poinciana Station, while Phases II, III, and IV include extensions of SunRail service to Haines City, Auburndale, and Lakeland, respectively.

FEEDER BUS CONSIDERATIONS / METHODOLOGY

Express and feeder bus services were designed with the following considerations in mind:

Existing service patterns – Express and feeder services should connect to major transit hubs or major points of overlap in existing or planned service

Travel time – Express and feeder service must minimize travel times, avoiding circuitous routes or frequent stops

Equitable access – Particularly for feeder bus services to future Polk County rail stations, connecting transit-dependent populations to the station should be a priority

PHASE I CONCEPT

Phase I focused on limited express service to Poinciana. Limited express service serves dual purposes for Polk County; it provides a connection to SunRail service, and also helps gauge potential ridership in a rail extension. Existing service patterns and travel time were the primary considerations in locating service, but an additional goal was to create a route or series of routes that would attract riders and provide justification for rail extension.

In order to minimize travel times and waiting times, a single express service for all of Polk County would be ideal. However, any route connecting Lakeland, Auburndale, Winter Haven, and Haines City would be time prohibitive, especially for Lakeland commuters. This severely limits the ridership potential of the service. This same issue occurs when trying to serve both Auburndale and Winter Haven. As such, three separate routes are suggested, with two of them having priority. The first of the high-priority services connects Lakeland to Poinciana, originating at the Lakeland Bus Depot and using I-4 to connect to Poinciana. This “Lakeland Connector” would likely be a true express service, with no stops between downtown Lakeland and Poinciana, with a likely travel time of approximately 50 minutes. The second high-priority service would connect Auburndale to Poinciana, passing through Lake Alfred and Haines City via US 17, on the way to Poinciana. Stops would be provided at Haines City, with consideration given for stops in Lake Alfred and Davenport if there is evidence for sufficient ridership. Depending on number of stops, this service would take between 50 and 55 minutes. A third service could originate Winter Haven at the bus terminal off NW 6th Street, traveling along US 17, and passing through Lake Alfred on the way to Haines City bus depot off of 17th Street before continuing to Poinciana. Because of some of the redundancy with the Auburndale Connector, this route would be beneficial only if there was sufficient ridership from Winter Haven, or if Haines City requires additional service. This route is expected to be approximately 50 minutes from end-to-end.



All routes would operate during peak AM and PM commuting hours only. Given the length of each route, four buses for each route (or 12 buses total) would be necessary to provide 30 minute headways. At 45 or 60 minute headways, as little as two buses each (or 6 buses total) would be sufficient.

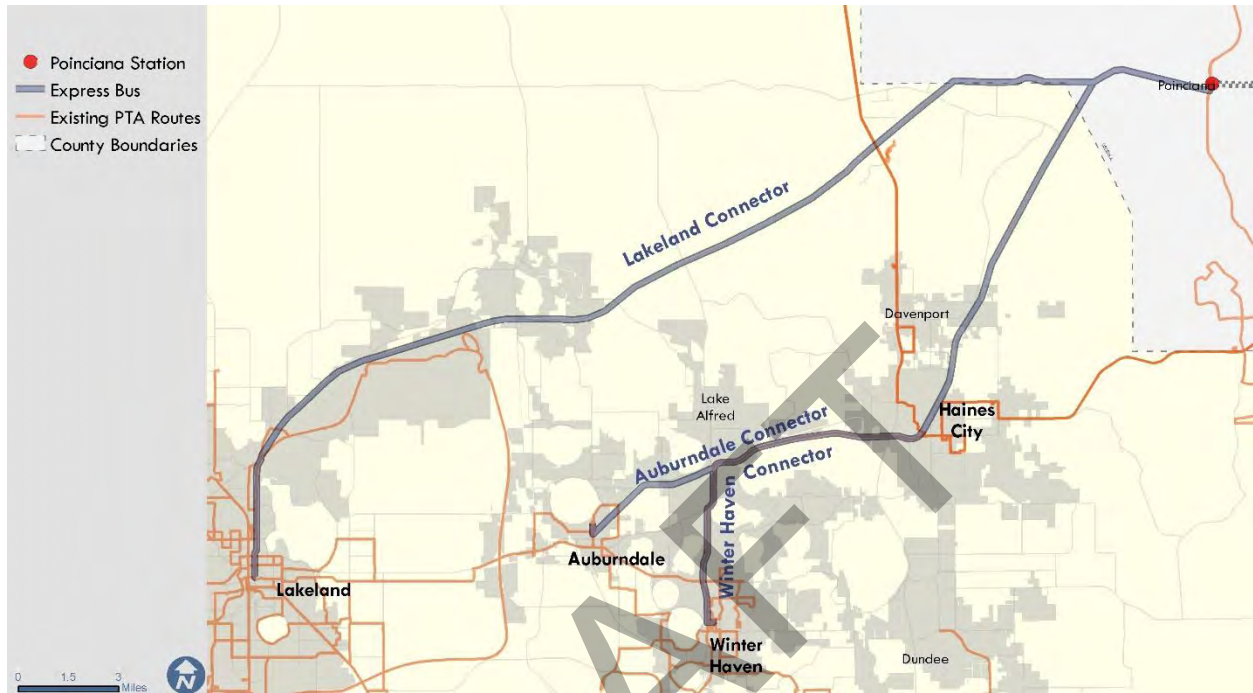


Figure 19 Proposed Phase I Express Bus Routes

PHASE II, III, AND IV CONCEPTS

Phase II focused on improving service to downtown Haines City. Projected 2040 population and auto-dependency were added to the list of considerations in locating service, as there is clear benefit in serving locations with high projected populations or high transit-dependent populations with a direct link to SunRail. Maps of both are provided below. In general, they show that there are very few gaps in Polk County transit connectivity, and that service for Lakeland, Winter Haven, and even Auburndale is robust and well connected to the respective cities' downtowns. Only Haines City provides opportunity for service upgrades.

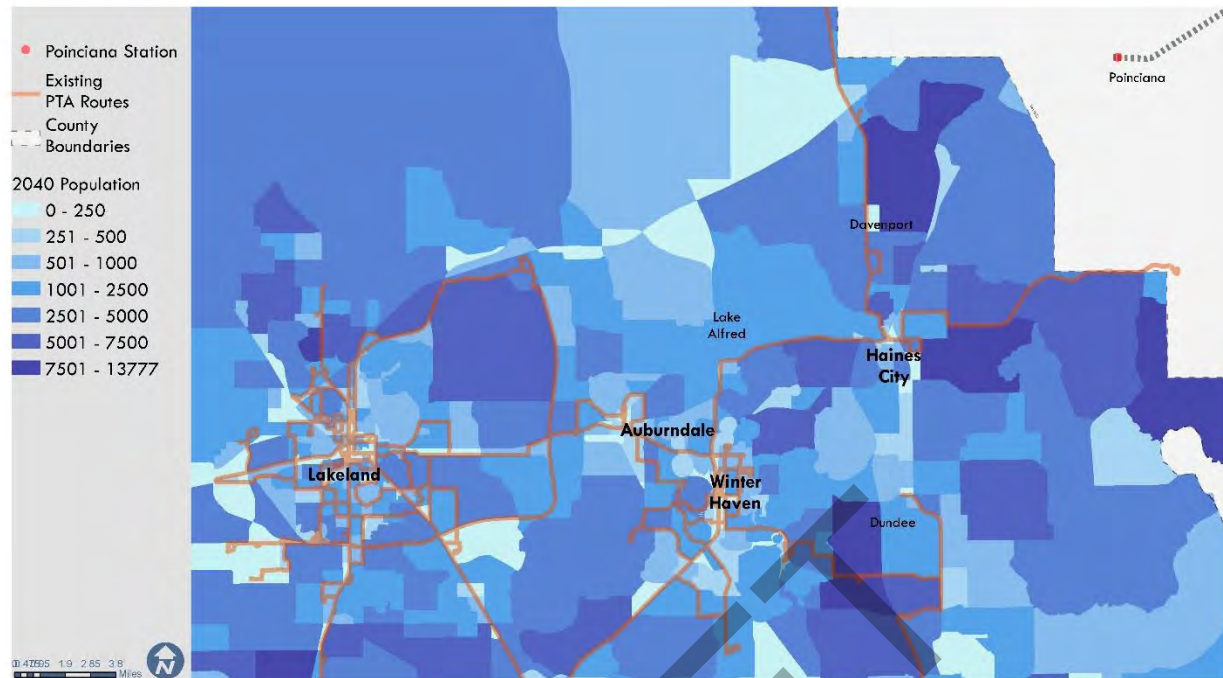


Figure 20 2040 Population

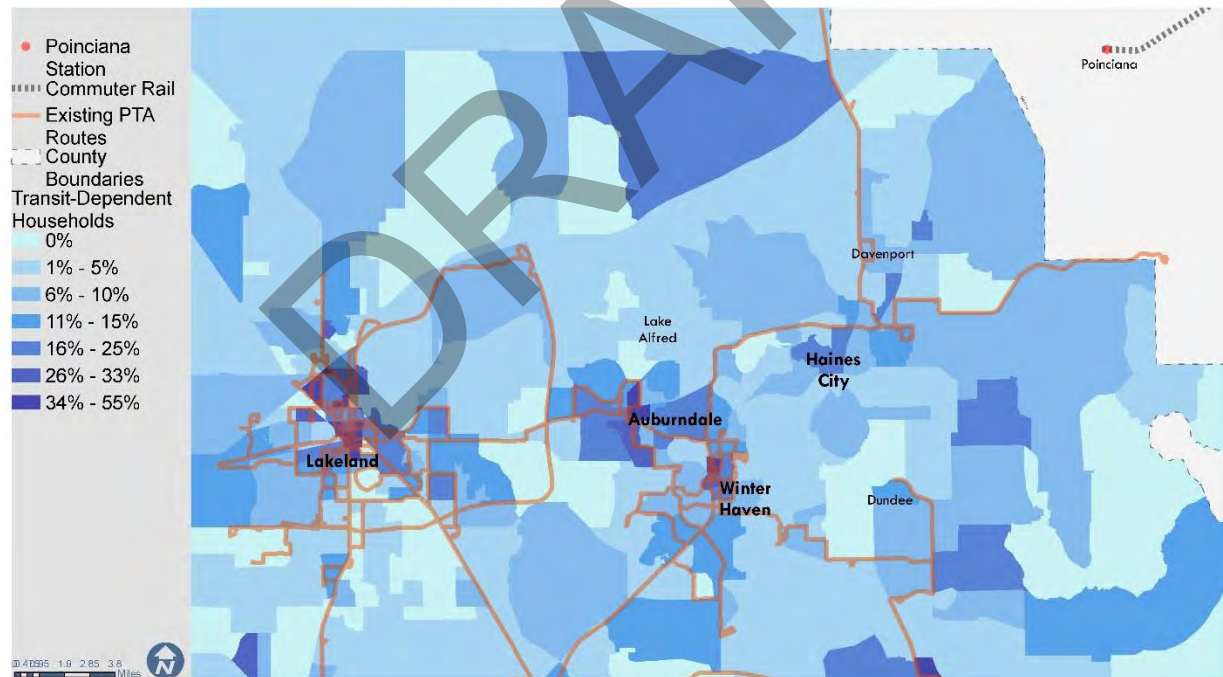


Figure 21 Existing Transit-Dependent Populations

Based on these variables, as many as four new routes have been identified as feeders to Haines City rail service. They are:

Connection to Winter Haven via S 1st Street and Lucerne Park Road / SR 544. The route serves a large population base all along its route, and could have two or more stops. It is expected to be



approximately 20 minutes from end-to-end, with additional stops lengthening the trip. One bus could serve the route with 60 minute headways.

Connection to Lake Wales, via US 27. The route serves a large auto-dependent population in the heart of Lake Wales, as well as larger population centers north of town. The route is expected to take approximately 25 minutes from end-to-end, with a potential midpoint stop at Cypress Gardens Boulevard. One bus could serve the route with 60-70 minute headways.

Connection to Ronald Reagan Parkway, via US 92 and County Road 547. This route serves auto-dependent populations in Davenport, and new population centers closer to the Parkway. The route would take approximately 20 minutes, so one bus could serve the route with a 45-60 minute headway.

Connection to Lakeland and Auburndale, via US 92. This route would serve population centers in Lakeland and Auburndale, as well as auto-dependent communities, and would easily connect to major transit hubs in the region. The route is expected to operate as an express service, with stops only in Lakeland and Auburndale. The route would take approximately 40 minutes, so two buses could serve the route with a 45-60 minute headway.

For Phases III and IV existing transit routes provide a high degree of coverage that could connect to new SunRail Stations. In fact, the Lakeland and Auburndale express bus service would be removed if rail service extends beyond Haines City. Existing Lakeland-to-Auburndale service could be bolstered if sufficient ridership interest is found.

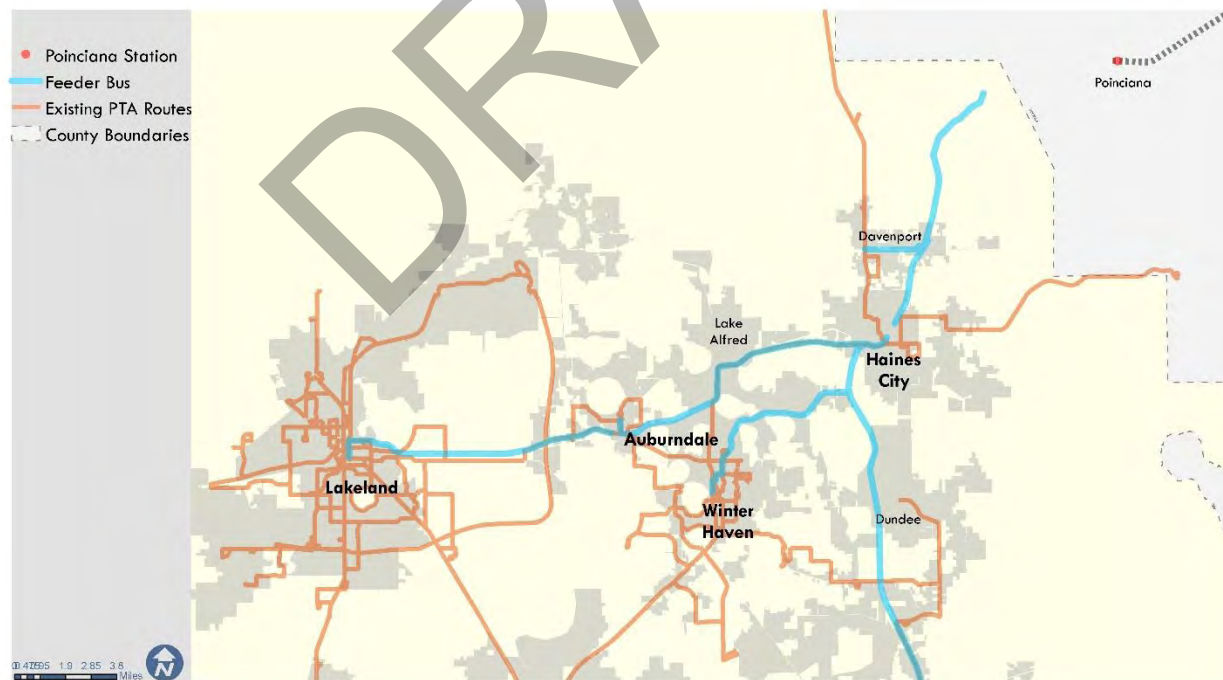


Figure 11 Map of Feeder Buses



RIDERSHIP PROPENSITY ANALYSIS

This analysis is designed to quantify potential ridership in Polk County. The analysis uses population projections for the year 2040 and current commuting patterns to and from the county's proposed station areas (including the future Orlando International Airport station, which adds opportunities for air travelers and to interregional rail via All Aboard Florida) to determine a range of likely ridership figures at each proposed station. The methodology is verified using current ridership at existing SunRail stations.

Any ridership analysis, particularly a future forecast, uses a host of assumptions that can influence the findings. In addition to the ridership findings provided as part of this analysis, a "what-if" analysis has been created that shows how ridership changes as assumption changes, and points to the influence that public policy and intervention can have on future ridership.

The following sections of this report focus on the analysis methodology, then turn to the findings stemming from that methodology, followed by a discussion of the "what-if" analysis and possible implications.

METHODOLOGY

In brief, the methodology attempted to locate the most likely Polk County SunRail commuters, by determining a reasonable commute shed (i.e. a reasonable distance for people to travel from or to Polk County), then identifying the individuals residing near one station and working near another. By weighting potential riders living within walking distance as more likely travelers than those within driving distance, a reasonable ridership estimate was reached.

The next sections describe this process in more detail.

Determining a Commute Shed

Travel decisions are heavily influenced by travel time. Across the nation, average commute times fall within a fairly narrow range of 20-25 minutes, with nearly all trips completed within 90 minutes. This is true for Polk County as well. As Figure 22 shows, 98% of all trips are less than 90 minutes, even when considering that average transit times nationally are around twice as long as auto trips.

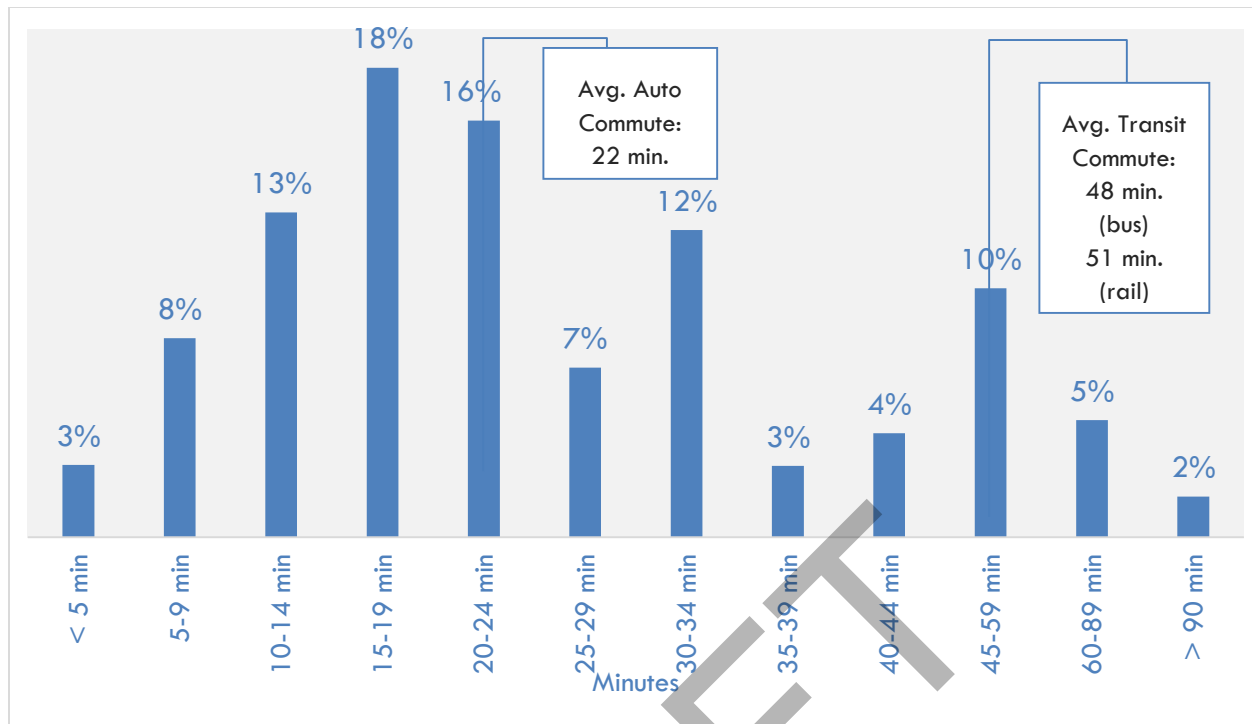


Figure 22 Polk County Commuting Travel Times

For the purposes of this analysis, the focus was on trips of 90 minutes or less, including a 10-minute drive time to the origin station and a 10-minute walk from the destination station. Using the current station-to-station travel times provided by SunRail, only stations that could be reached within 90 minutes were included. From Haines City, passengers can reach as far as Maitland; from Auburndale, commuters can reach Florida Hospital; and from Lakeland, the Orlando Health Station is the farthest accessible destination (Figure 23, Figure 24, Figure 25).



PASSENGER RAIL OPTIONS FOR POLK COUNTY

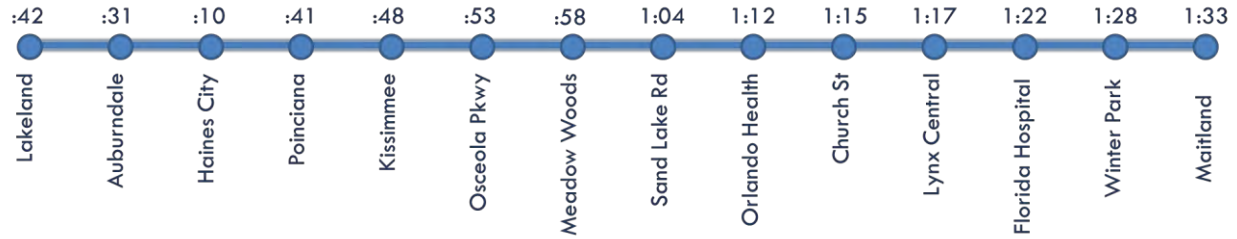


Figure 23 Travel Times from Haines City Station Area

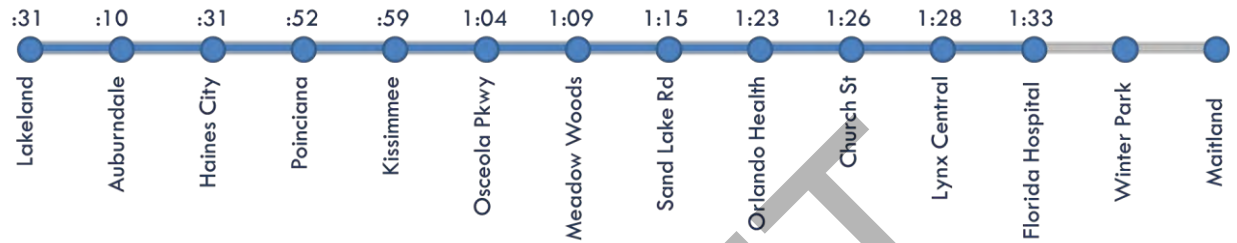


Figure 24 Travel Times from Auburndale Station Area

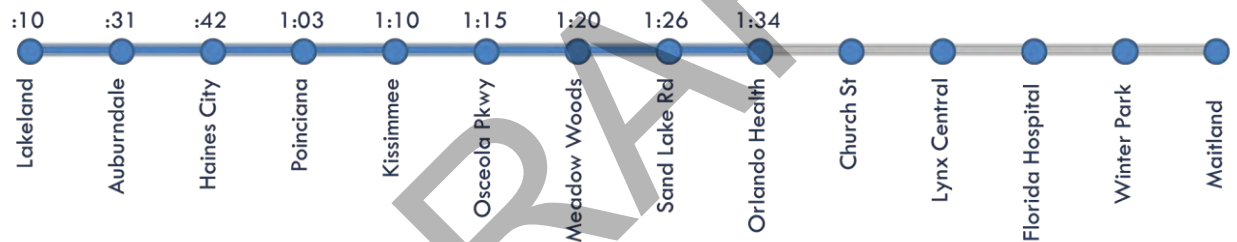


Figure 25 Travel Times from Lakeland Station Area

Origin Station Calculations

As an origin, a station attracts people who live in either the walkshed or the driveshed and work in the walkshed of a different station. The number of people accessing origin stations as pedestrians and as drivers were calculated separately. The percentage of residents currently living in the walkshed of the proposed Polk stations and working in the walkshed of any other station was calculated using 2011 data from the Longitudinal Household Employment Dynamics (LEHD) database. The findings are shown in Table 3 below. They indicate that generally two-to-three percent of all workers who live within a half-mile of Haines City, Auburndale, or Lakeland stations currently work within a half-mile of another station. Importantly, these percentages are much lower than those for existing among other SunRail stations. In other words, origin-destination data suggests that Polk County is much less connected to other SunRail stations than the current stations were to each other in the years immediately preceding SunRail opening. (Note that the data are from 2011, before the opening year of SunRail, so the differences between Polk County origin-destination data and the current SunRail corridor reflect the existence of SunRail.



| | Working Residents in walkshed (2011) | Number working within walkshed of existing stations (2011) | % Walkshed residents working in another walkshed |
|---|---|--|--|
| Phase II (Haines City Only) | | | |
| Haines City Only - MLK | 1 509 | 40 | 2.7% |
| Haines City Only - Old Station | 509 | 12 | 2.4% |
| Phase III (Haines City & Auburndale Stations included) | | | |
| Haines City with Auburndale | 509 | 12 | 2.4% |
| Auburndale | 604 | 3 | 0.5% |
| Phase IV (Haines City, Auburndale, Lakeland Stations included) | | | |
| Haines City | 509 | 13 | 2.6% |
| Auburndale | 604 | 12 | 2.0% |
| Lakeland | 1 003 | 10 | 1.0% |
| Existing SunRail Stations | | | |
| Sand Lake Rd | 9 115 | 620 | 6.8% |
| Winter Park | 670 | 95 | 14.2% |
| Church St | 1 244 | 256 | 20.6% |
| Meadow Woods* | 462 | 49 | 10.6% |

* Meadow Woods is part of SunRail Phase II, and is not yet open. However, it serves to show that new stations also have much better station-to-station connectivity than Polk County station areas.

Table 3 Polk Station Walkshed Residents

The same calculation was done for the driveshed (Table 4). Much like the walkshed, generally less than three percent of all working residents worked in the walkshed of another station. Again, this was much lower than existing SunRail station areas.



| | Working Residents in driveshed (2011) | Number working within walkshed of existing stations (2011) | % Driveshed residents working in another walkshed |
|---|---|--|---|
| Phase II (Haines City Only) | | | |
| Haines City Only - MLK | 7290 | 154 | 2.1% |
| Haines City Only - Old Station | 7290 | 165 | 2.3% |
| Phase III (Haines City & Auburndale Stations included) | | | |
| Haines City with Auburndale | 7290 | 173 | 2.4% |
| Auburndale | 26900 | 447 | 1.7% |
| Phase IV (Haines City, Auburndale, Lakeland Stations included) | | | |
| Haines City | 7290 | 197 | 2.7% |
| Auburndale | 26900 | 878 | 3.3% |
| Lakeland | 49127 | 428 | 0.9% |
| Existing SunRail Stations | | | |
| Sand Lake Rd | 80899 | 8630 | 10.7% |
| Winter Park | 80998 | 12168 | 15.0% |
| Church St | 166560 | 18350 | 11.0% |
| Meadow Woods | 76274 | 6603 | 8.7% |

Table 4 Polk Stations Driveshed Residents

The figures from the far right column can be used to help determine 2040 ridership projections. The following formula was used:

$$\begin{aligned}
 & (2040 \text{ population}) \times (\% \text{ of population in workforce}) \\
 & \quad \times (\% \text{ of workforce working in another station's walkshed in 2011}) \\
 & \quad \times (\text{modeshare})
 \end{aligned}$$

2040 population data was provided by the TPO at the transportation analysis zone (TAZ) level. Several methods for estimating population in the half-mile walkshed were evaluated, as no option is completely precise. For the half-mile walkshed, it was determined that the best option was to



select all TAZs that intersect a particular station area, then determine the average population per acre of those TAZs and apply that average to the station area. For the driveshed, two different methods were averaged because of their large differences; the population of all TAZs whose centroid falls within the driveshed shape, and the population of all TAZs that intersect the driveshed.

The 2040 population data includes non-employed persons as well, so the percent of population in workforce had to be determined. A figure of 55% was used, based on the percent of the population in the workforce in Polk County in the 2013 American Community Survey.

Mode share was set at 10% for commuters living in the walkshed and 2% for commuters living in the driveshed. These shares are at the low end of traditional mode shares for commuter rail, but this was chosen for several reasons:

- The large ratio of longer rail trips that a Polk-to-Orlando line would likely incur lowers the overall ridership potential, so traditional mode shares used for commuter rail projections would likely be overestimates
- Transit mode share is a function of regional context, so using local transit trends rather than national rules-of-thumb can yield major benefits in projection accuracy
- These mode shares when applied to existing stations yielded accurate estimates of current ridership

Despite these reasons, particularly the accuracy of these mode shares in estimating current ridership, an additional set of commuter rail mode shares of 20% for the walkshed and 4% for the driveshed were used to create a second, high-end projection.

In the Phase II and Phase III scenarios, potential Lakeland (or Lakeland and Auburndale) passengers would require an additional transfer from a feeder bus. Because of the decreased transit ridership associated with transfers and out-of-vehicle transit time, 50% of the expected ridership from these stations are applied to Haines City (in Phase II) or Auburndale (in Phase III).

Destination Station Calculations

As a destination, a station attracts people who work in the walkshed of the station and live in either the walkshed or the driveshed of another station. The methodology for calculating the destination portion of a station's ridership closely mirrors the methodology used to calculate the origin portion of a station's ridership. The percentage of people working within the walkshed and living in the walkshed or the driveshed of other stations were calculated separately using data from the 2011 LEHD, and is summarized in Table 5 below.



| | Workers in walkshed (2011) | Number living within walkshed of existing stations (2011) | % Walkshed workers living in another walkshed |
|---|-------------------------------|---|---|
| Phase II (Haines City Only) | | | |
| Haines City Only - MLK | 134 | 1 | 0.7% |
| Haines City Only - Old Station | 1024 | 2 | 0.2% |
| Phase III (Haines City & Auburndale Stations included) | | | |
| Haines City with Auburndale | 1024 | 4 | 0.4% |
| Auburndale | 998 | 2 | 0.2% |
| Phase IV (Haines City, Auburndale, Lakeland Stations included) | | | |
| Haines City | 1024 | 5 | 0.5% |
| Auburndale | 998 | 2 | 0.2% |
| Lakeland | 7919 | 16 | 0.2% |
| Existing SunRail Stations | | | |
| Sand Lake Rd | 24569 | 79 | 0.3% |
| Winter Park | 7782 | 93 | 1.2% |
| Church St | 34745 | 305 | 0.9% |
| Meadow Woods | 46 | 0 | 0.0% |

Table 5 Polk Station Walkshed Workers

Employment in station walksheds was drawn from TAZs in the TPO socioeconomic forecast within one-half mile of a station. A low estimate for destination ridership was then calculated using the formula:

$$(2040 \text{ jobs in walkshed}) \times (\% \text{ living in another station's walkshed in 2011}) \\ \times (\text{modeshare})$$

The same formula was then applied for those working in the Polk station's walkshed and living in the driveshed of another station. Same as for origin stations, mode share was set at 10% for people living in the walkshed and 2% for people living in the driveshed, with 20% and 4% respective mode shares used as a high-end estimate.



TESTING THE METHODOLOGY

As mentioned above, this methodology was first tested on three existing SunRail stations that represent a range of SunRail stations, from more urban areas in downtown Orlando to more origin-oriented suburban stations. Using 2011 LEHD data on commuter origins and destinations, and using 10% mode share for walksheds and 2% mode share for drivesheds, the following ridership estimates were derived (Table 6). As the table shows, this methodology successfully estimated ridership, and in all three instances the estimate met or exceeded observed ridership.

| | Estimated Ridership | Actual Ridership |
|---------------------|---------------------|------------------|
| Sand Lake Rd | 410 | 393 |
| Winter Park | 359 | 360 |
| Church St | 640 | 305 |

Table 6 Existing SunRail Stations Ridership

Based on these findings, it was confirmed that this methodology was appropriate for Polk County stations.

**POLK COUNTY RIDERSHIP PROJECTIONS**

Table 7 indicates low- and high-end ridership estimates for Polk County stations.

| | Low-End Mode Share Ridership Estimate | High-end Mode Share Ridership Estimate |
|--|---------------------------------------|--|
| Phase II (Haines City Only) | | |
| Haines City Option A - MLK | 84 | 144 |
| Haines City Option B - Old Station | 86 | 149 |
| Phase III (Haines City & Auburndale Stations included) | | |
| Haines City with Auburndale | 54 | 93 |
| Auburndale | 66 | 115 |
| Phase IV (Haines City, Auburndale & Lakeland Stations included) | | |
| Haines City | 61 | 106 |
| Auburndale | 61 | 106 |
| Lakeland | 73 | 129 |

Table 7 High-Estimate 2040 Ridership Projections

For comparison, Phase I of SunRail set a goal of 4,300 riders per day (average of 358 per station) for the first year (2014-2015).² If Polk County maintains current population distributions and if growth follows current expectations, 2040 ridership estimates for Polk County stations are well below these figures. This likely stems from the greater distances between proposed Polk County stations and the rest of SunRail. There are currently too few people living or working in the station areas whose destination is along this corridor. In the future, this could change, as Polk County continues to develop and new residents self-select residential and employment locations that take advantage of the SunRail system.

² Orlando Sentinel, SunRail ridership up in October, ending 3-month skid for train <http://www.orlandosentinel.com/news/breaking-news/os-sunrail-riders-up-20141105-story.html>



SCENARIO ANALYSIS

While the ridership figures fall below expectations, the formulas employed do not account for increased development near new stations, nor do they incorporate the theory that people may choose to live (or work) near a station in Polk County because they can easily access employment (or housing) centers throughout the region. Additionally, the formulas cannot account for any policy efforts employed by the County to increase population and employment concentrations within the walkshed and driveshed, nor for changes in workforce-to-population ratios. As a result, these potential changes and their impacts on ridership were explored in a scenario analysis exercise.

Variables

Seven variables were considered as part of this analytical exercise. They are as follows:

Transit Mode Share (Walkshed) – As discussed in the calculations sections above, mode share refers to the percent of all eligible commuters who choose SunRail. This number could reasonably be as high as 40-50% in the walkshed if costs and travel times are competitive relative to auto travel.

Transit Mode Share (Driveshed) – Same as above. This number, set at 2-4% in the ridership estimates, could range as high as 10% if auto travel times, and particularly costs of auto travel, become higher.

Percent in Workforce – Set at 55% in the ridership analysis, it is possible that this number could be as high as 65%, particularly in the walkshed, if new, high-density residential development occurs at the station, as such development often has lower numbers of school-age children or other unemployed persons.

2040 Population Modifier (Walkshed) – This variable accounts for increased walkshed population above current 2040 levels.

2040 Population Modifier (Driveshed) – Same as above. Large driveshed increases would be harder to justify than walkshed increases, so this variable should generally be lower than the walkshed version.

2040 Employment Modifier (Walkshed) – This variable accounts for increased walkshed employment above current 2040 levels.

2040 Employment Modifier (Driveshed) – Same as above. Large driveshed increases would be harder to justify than walkshed increases, so this variable should generally be lower than the walkshed version.

Below are two examples of how changes to these variables affects ridership projections. In the first scenario (Table 8), population increase in the walkshed is a major priority, as is improving the transit mode share of that population. This leads to, in general, an increase of 100 riders per station.



35% Transit Modeshare Walkshed
6% Transit Modeshare Driveshed
55% Percent in Workforce
40% increase 2040 Population Modifier - walkshed
10% increase 2040 population modifier - driveshed
0% increase Employment modifier - walkshed
0% increase Employment modifier - driveshed

| | Low-End Mode Share Ridership Estimate | Modified Mode Share Ridership Estimate |
|--|---------------------------------------|--|
| Phase II (Haines City Only) | | |
| Haines City Only - MLK | 84 | 246 |
| Haines City Only - Old Station | 86 | 251 |
| Phase III (Haines City & Auburndale Stations included) | | |
| Haines City with Auburndale | 54 | 159 |
| Auburndale | 66 | 191 |
| Phase IV (Haines City, Auburndale & Lakeland Stations included) | | |
| Haines City | 61 | 180 |
| Auburndale | 61 | 177 |
| Lakeland | 73 | 215 |

Table 8 "What-if" Example Scenario 1

Scenario 2 focuses on employment growth in the station areas as a means to draw more riders from outside the county, but also envisions higher workforce rates and a focus on increasing driveshed mode share (perhaps through investments in feeder bus service or some package of incentives). In this version, ridership routinely reaches 300 boardings, consistent with levels seen elsewhere on the SunRail corridor (Table 9).



25% Transit Modeshare Walkshed
10% Transit Modeshare Driveshed
65% Percent in Workforce
10% increase 2040 Population Modifier - walkshed
5% increase 2040 population modifier - driveshed
30% increase Employment modifier - walkshed
10% increase Employment modifier - driveshed

| | Low-End Mode Share Ridership Estimate | Modified Mode Share Ridership Estimate |
|--|---------------------------------------|--|
| Phase II (Haines City Only) | | |
| Haines City Only - MLK | 84 | 338 |
| Haines City Only - Old Station | 86 | 353 |
| Phase III (Haines City & Auburndale Stations included) | | |
| Haines City with Auburndale | 54 | 222 |
| Auburndale | 66 | 275 |
| Phase IV (Haines City, Auburndale & Lakeland Stations included) | | |
| Haines City | 61 | 252 |
| Auburndale | 61 | 255 |
| Lakeland | 73 | 307 |

Table 9 "What-if" Example Scenario 2

As seen above, these modifiers can have a dramatic impact on ridership estimates, suggesting that public policy intervention aimed at concentrating population and employment growth and mode share capture can greatly enhance the viability of this extension.



INSTITUTIONAL CONSIDERATIONS

The creation of the Central Florida Commuter Rail Commission involved a myriad of institutional issues, as reflected in the collection of legal documents associated with SunRail. These include:

- Interlocal governance agreement
- Interlocal funding agreement
- Interlocal operating agreements
- Joint station use agreements between local governments and Florida DOT
- Agreements with local transit agencies
- Full funding grant agreement between Florida DOT and the Federal Transit Administration
- Applications to the Federal Railroad Administration
- A host of agreements involving the CSX Railroad, Florida DOT, and the Central Florida Commuter Rail Commission, describing purchase provisions, operating provisions, and many other coordination requirements.

As efforts move forward to extend SunRail service into Polk County many, if not all, of these agreements will need to be amended to reflect an expanded SunRail system with the participation of Polk County. For purposes of this technical memorandum, the primary focus will be on institutional considerations related to extending SunRail into Polk County and for early stage implementation of express bus service to the Phase II SunRail Poinciana Station.

Interlocal Governance Agreement

The Interlocal Governance Agreement for Creation of the Central Florida Commuter Rail Commission (CFCRC) was executed in July and August 2007 by Orange, Osceola, Seminole and Volusia Counties and by the City of Orlando. It establishes the CFCRC as a public body and unit of local government. It established a governing board comprised of the Orange County Mayor or County Commissioner designated by the Mayor; a county commissioner from Osceola, Seminole, and Volusia Counties; and the Mayor of the City of Orlando or City Councilmember designated by the Mayor; each of whom are entitled to one vote. There were subsequently two amendments to the Agreement, the first of which merely allowed for alternate member representatives. The second amendment was more substantive and related to changes in the limits of local operating support and provisions for local governments to withdraw from the system after 2036.

The Agreement also established a Technical Advisory Committee including a staff representative of Florida DOT, each local government partner, each local government that has a station within its limits, VOTRAN, LYNX, Metroplan Orlando, and the Volusia MPO. A Customer Advisory Committee is also established with two representatives from each member jurisdiction. Other provisions of the Agreement include:

- Florida DOT is obligated to fund operating deficits for the first seven years of revenue service.



- Following expiration of the FDOT funding period (2020), all assets of the system will be conveyed to the Commission, which will become responsible for all operating requirements including provisions for a self-insurance fund.
- Following expiration of the FDOT funding period, each local government will be responsible for paying a share of the local operating support. The share for each local government will be based on the proportion of daily boarding and alighting passengers at stations in each local government member jurisdiction, and the proportion of peak period boarding and alighting passengers, weighted equally.
- Following the expiration of the FDOT funding period, the amount of the local operating support to be shared will be based on the system net revenue without fare box.
- The local fare box revenue will be allocated to member jurisdictions based on their proportion of total boarding and alighting passengers times the average fare.
- Limits on the maximum collective annual system operating deficit obligation, ranging from \$7.2 million in 2020 to \$10.7 million in 2036. These limits cannot be exceeded without unanimous consent of the member jurisdictions, or a written agreement for one or more jurisdictions to fund the difference.
- If the limits are exceeded and there is not agreement on how to make up the difference, the Commission will terminate service.
- Following the FDOT funding period (2020), capital costs will be shared by local governments in proportion to the track-miles within each member jurisdiction.

The Governance Agreement has significant implications for Polk County as it moves toward extension of SunRail:

- Provision would need to be made for adding Polk County to the voting membership of the Commission, including modifications to current super-majority requirements of certain Commission actions.
- It might be expected that Polk County would be subject to the same operating deficit-sharing and revenue-sharing formulas as current Commission members.
- Since the current Governance Agreement spells out limits on the maximum total operating deficits, these would need to be adjusted to reflect the addition of one or more Polk County stations. For years beyond 2036, these limits have not been established. It will remain to be seen the posture of individual member jurisdictions beyond 2036.
- If Polk County is successful in implementing an extension prior to 2020, there would need to be a determination of Florida DOT's ability and willingness to incur any additional operating obligation.
- Polk County might want to explore opportunities for Florida DOT operating assistance beyond 2020 if they could be convinced to offer the same start-up provisions to Polk County as were offered to the existing Commission member jurisdictions.
- As a nuance of the agreement for sharing operating deficits, since they are prorated based on boarding and alighting passengers, member jurisdictions may find themselves subsidizing riders from adjacent jurisdictions, particularly since free parking is planned at



park and ride stations. This effect could be especially noticeable near county boundaries, since there is a one dollar surcharge when a county line is crossed.

- It might be expected that Osceola County will take measures to minimize the financial impact of Polk residents using the Poinciana station. This conceivably could take the form of requiring a resident sticker to use the park and ride and expecting some financial remuneration from Polk County based on shuttle bus ridership, or developing a separate pay for parking facility adjacent to the commuter lot.

Interlocal Funding Agreement

The Interlocal Funding Agreement for Acquisition and Construction of the Central Florida Commuter Rail System also was executed in July and August 2007 by Orange, Osceola, Seminole and Volusia Counties and by the City of Orlando. Subsequently, it was substantially amended in May 2010. Major features of the Interlocal Funding Agreement include:

- Requirements that station joint use agreements be executed between Florida DOT and each local government. The agreements define mutual responsibilities for management and operation of each station.
- To the extent any federal or state funds are used to construct parking, there will be no charges during the Florida DOT funding period. Subsequent to that period, implementation of a station parking fee requires a super-majority vote of the Commission members.
- Local governments can retain revenues generated from concessions, facility rental, parking operations not part of the commuter rail project, advertising and naming rights.
- Initial capital costs are shared on the basis of 50 percent federal, 25 percent local, and 25 percent State of Florida. The initial capital contributions of local governments for both Phase I and Phase II, inclusive of engineering, property acquisition, final design, and construction range from \$13.7 million for the City of Orlando to \$46.2 million for Seminole County. There are also provisions for construction cost contingencies to be shared equally between Florida DOT and local governments.

The Funding Agreement also has implications for Polk County:

- Polk County could develop revenue-generating activities associated with station developments, including concessions, advertising, naming rights, and if necessary, following the end of FDOT financial participation could determine to charge for parking.
- Polk County would need to be prepared to handle all maintenance and operations activities at station areas.
- Assuming 50 percent federal and 25 percent state funding could be secured, Polk County would need to be prepared to contribute the remaining twenty-five percent of capital costs, which would likely be on the order of tens of millions of dollars.



Joint Use Agreement

Florida DOT has executed joint use agreements with each of the local governments that reiterate ownership and maintenance responsibilities for each for each SunRail station. During the first seven years of operation, the stations will be owned, operated and managed by Florida DOT. Starting in year eight, the stations will be owned by the Central Florida Commuter Rail Commission, which will be responsible for all maintenance, operations, and security.

Interlocal Operating Agreement between Florida DOT and the Central Florida Commuter Rail Authority, as Amended in 2010

The Interlocal Operating Agreement for Operation of the Central Florida Commuter Rail System defines the relationship and the terms of the agreement between Florida DOT and the Central Florida Commuter Rail Commission for the operation of SunRail. Major provisions include:

- All capital facilities and rolling stock are owned by Florida DOT.
- At the conclusion of seven years of revenue operation, the station properties will revert to the Commission.
- Specifies that FDOT and the Commission will enter into agreements with LYNX and VOTRAN regarding transfers and fares vending equipment are compatible with SunRail.

Florida DOT/CSX Agreements, Including the Contract for Sale and Purchase, the Master Projects Agreement, and Various Amendments

There are several agreements and amendments that describe the terms and conditions for Florida DOT's purchase of portions of the CSX A-Line between Deland and Poinciana. Major features of the agreements include:

- The Florida DOT has purchased those portions of the A-Line between DeLand and Poinciana for a purchase price of \$150 million.
- FDOT also paid CSX \$198 million for improvements to the CSX S-Line to facilitate movement of freight from the A-Line to the S-Line.
- FDOT contributed \$52 million toward other freight improvement projects to create additional capacity on other CSX lines in the State of Florida.
- FDOT contributed \$9 million for roadway improvements to the Winter Haven ILC.
- FDOT contributed \$23 million to relocate portions of the Taft Yard to the new ILC
- The agreement specifically allows use of the corridor by freight rail, commuter rail, and intercity rail.
- CSX has exclusive right to use the line for freight rail.
- CSX pays the State a fixed fee of \$104,666.66 per calendar month, to be adjusted every ten years, based on economic factors.
- CSX pays the State a variable fee of \$0.39 per car mile, adjusted annually based and railroad cost indices, for each locomotive and for each rail car handled on the state property.



- Operations on the route are limited to passenger operations from 5:00 a.m. to 10:00 a.m. and from 3:00 p.m. to 10:00 p.m.; between midnight and 5:00 a.m. operations are limited to freight; from 10:00 a.m. to 3:00 p.m. and from 10:00 p.m. and midnight mixed passenger and freight operations are permitted.

There are major implications for Polk County of the FDOT/CSX Agreements:

- The portion of the CSX A-Line south of Poinciana remains in CSX ownership.
- There would need to be an agreement to allow commuter rail to operate on the portion of the A-Line south of Poinciana.
- It is unknown if Florida DOT would be willing to purchase the additional portions of the CSX A-Line for use of SunRail, or under what terms CSX would be willing to sell or otherwise allow commuter rail operations.

Key Provisions of the Florida Statutes, 341.302, Dealing with Rail Programs

There are several key provisions of Florida Statutes that define the role of Florida DOT that could impact the implementation of passenger rail in Polk County:

- FDOT is to provide technical assistance to many central Florida counties, including Polk County, to develop a rail system plan that addresses passenger and freight opportunities, including the TBARTA Master Plan and the SunRail Project.
- FDOT may fund up to 50 percent of the costs of rail capital improvements, and 100 percent of the costs right of way acquisition.
- FDOT is authorized to fund up to 100 percent of the net operating costs of an intercity or commuter rail system for up to seven years from the open to service date.
- FDOT is authorized to fund 100 percent of the planning and development cost related to a passenger rail system, including preliminary engineering, revenue studies, environmental studies, financial services, and engineering design.



ACTION STEPS

The findings of this study suggest that there are significant hurdles to the extension of SunRail in Polk County. However, it is important to note that these hurdle are not insurmountable. Below are a series of early action steps that can pave the way for future rail success. While this process will not necessarily be easy, it can be done. Ultimately, the actions of Polk County residents, businesses, and policy makers will decide the fate of a SunRail extension.

1. Plan for initial bus transit connections to Poinciana SunRail station.
 - a. Enter into discussions with Osceola County regarding access to Poinciana Station.
 - b. Plan for Polk Transit service and access to Poinciana station.
 - c. Identify and secure Polk County park and ride locations for express bus service to Poinciana station. These should definitely include Haines City, Auburndale and Lakeland.
 - d. Initiate express bus services from selected Polk County park and ride lots to Poinciana Station.
2. Monitor usage of Poinciana Station park and ride lot and ridership of express feeder buses by residents of Polk County for a period of one year.
3. Summarize and analyze actual Polk County ridership.
4. Starting with demonstrated ridership from Polk County residents, update forecasts of future ridership for scenarios ranging from continuation of express bus connections to Poinciana to sequential implementation of SunRail extensions to Haines City, Auburndale, and Lakeland, with appropriate feeder bus services.
5. Evaluate likely ridership scenarios and, if forecasts indicate strong ridership, proceed to PD&E study.
6. Undertake detailed PD&E study of alternatives, detailing conceptual design considerations, preliminary station locations, ridership estimates, cost and economic studies, and ultimately leading to the preparation of a detailed alternatives analysis that can be used to justify the project to state and federal officials.
7. Initiate discussions with Central Florida Commuter Rail Commission related to Polk County joining the Commission:
 - a. Governance issues.
 - b. Financial conditions.
8. Initiate discussions with Florida DOT and with CSX to secure ownership or operating rights for passenger rail on additional portions of CSX A-Line.
9. Secure access to CSX A-Line south of Poinciana.
10. Secure commitment from Florida DOT for early seven years of support of operating and maintenance costs (similar to that done for SunRail Phase I and Phase II).
11. Apply for federal new starts funds.
12. Station Area Improvements:
 - a. Identify permanent station locations with park and ride and also transit-oriented development opportunities.
 - b. Acquire or arrange for use of needed properties.



- c. Design and construct station area improvements and park and ride lots.
- 13. Make necessary improvements to CSX A-Line for passenger rail movement south of Poinciana:
 - a. Double tracking.
 - b. Passing sidings.
 - c. Overnight storage yard.

DRAFT