LYNX®
Transit Master Plan

2030 Paw Print: The LYNX Transit Master Plan

Technical Memoranda #3 and #4 Methodology and Results

June 2011

metroplan orlando
A REGIONAL TRANSPORTATION PARTNERSHIP

LYNX®

(This page intentionally left blank.)

LYNX
Long Range
Strategic Master Plan

Technical Memoranda #3 and #4:
Methodology and Results

Prepared for

Central Florida Regional Transportation Authority (LYNX)
455 N. Garland Avenue
Orlando, FL 32801

METROPLAN Orlando
315 East Robinson Street, Suite 355
Orlando, FL 32801

June 2011

Prepared by

Tindale-Oliver & Associates, Inc.
1000 Ashley Drive, Suite 100
Tampa, FL 33602
Telephone: (813) 224-8862
Facsimile: (813) 226-2106

(This page intentionally left blank.)

Table of Contents

LIST OF MAPS

LIST OF TABLES

1. Introduction

The 2030 Paw Print is a long range strategic master plan (LRSMP) initiated to refine the network of 14 high-capacity transit corridors identified in LYNX's 2006 Comprehensive Operations Analysis (COA) and recent Transit Development Plan (TDP). At the request of METROPLAN Orlando, four corridors were added to the study and two corridors were extended based on its Streetcar/Bus Rapid Transit (BRT) project and the associated collector/distributor or circulation systems. The resulting 18 corridors cover three counties: Orange, Seminole, and Osceola.

The study will evaluate each corridor for transit modal improvements through 2030. Modal improvements could include local bus, enhanced express bus, BRT, streetcar, light rail, and commuter rail. High speed rail is considered only in the sense that these modes may connect in the future with proposed high speed rail stations. In addition, the 2030 Paw Print will establish a plan that prioritizes these modal improvements between now and 2030.

The initial study identified 18 corridors. During the public involvement activities, it became clear that four additional corridors should be added to the study. These technical memoranda provide the methodology used for all 22 corridors.

These technical memoranda are the third and fourth in a series for this study. The first technical memorandum focused on baseline, or current, conditions for the 18 corridors. The second memorandum focused on future conditions, or regional growth trends, for the 18 corridors. An addendum to these two technical memoranda provides the same information for the four additional corridors. These technical memoranda focus on the methodology employed and the resulting modal assignments for all 22 corridors. These technical memoranda are divided into two sections in addition to this introduction:

Section 2 provides an overview of the methodology.

Section 3 provides the results of the application of the methodology to the corridors.

(This page intentionally left blank.)

2. Methodology

This section provides an overview of the methodology used in the development of preliminary future premium modes for each corridor. The formal methodology is divided into five steps:

- Mode identification
- Segmentation
- Evaluation
- Preliminary modal assignment
- Final modal assignment

Segmentation is the division of the corridors into segments of similar characteristics. The evaluation uses a set of characteristics to evaluate each segment for transit potential.

MODE IDENTIFICATION

In order to assign modes to the corridors, a list of potential modes had to be determined. The following modes were determined to be appropriate for possible consideration:

- **Local bus** is the primary service that LYNX operates today. Local bus operates with traditional bus stops, makes very frequent stops, and travels at lower speeds. It operates in regular traffic, but it can have high or low frequencies.
- **Enhanced express bus** operates with coach-style vehicles, travels in regular traffic, and trips are typically concentrated during peak commute periods. Stops are concentrated at the ends of the route with few or none in the middle. Enhanced express bus often operates out of park-and-ride lots and provides passengers with longer distance rides. The vehicles may offer amenities such as wireless internet, television, or radio. LYNX currently operates several express routes.
- **BRT** operates in mixed traffic or an exclusive lane. The vehicles are typically stylized to look more like a rail car than a bus, can be articulated, and are usually branded. BRT usually operates at higher frequencies and can use traffic signal priority to reduce travel time. Optional premium features include level-boarding, off-board fare payment, and larger stations. LYNX's only example of a BRT in operation is the LYMMO service in downtown Orlando.

MODE INFORMATION

Express Bus

CHARACTERISTICS

- Coach-style vehicles
- Medium-to-high capacity vehicles
- Travel in regular traffic
- Limited stops
- Medium frequency (30-minute headways)
- Transit stops



Premium Rapid Bus (also known as Bus Rapid Transit)

CHARACTERISTICS

- Stylized vehicle design
- High capacity vehicles
- Segregated from traffic
- Traffic signal priority
- High frequency (10- to 15-minute headways)
- Specially branded
- Larger, more substantial stations


Rail/Streetcar

CHARACTERISTICS

- Single or multiple cars
- Operated on rail
- High frequency
- Segregated from traffic
- Specially branded
- Larger, more substantial stations




Photo courtesy of www.seefloridago.com

- **Streetcar** is typically a single car operated on rails traveling at lower speeds. It is used for shorter distances of travel than light rail and works well with tourist populations. It is specially branded, has medium frequencies, and is usually semi-segregated from traffic. Stops can have minimal or more substantial infrastructure. LYNX does not currently operate any streetcars.
- **Light rail** is not currently used by LYNX. While streetcar is a form of light rail, they tend to serve different markets. Light rail can be one or two cars in length, operates on rail, and is segregated from traffic. It operates at medium speeds, medium frequencies, and makes frequent stops. Light rail is specifically branded and has significant stations.
- **Commuter rail** is planned for the area in the form of SunRail, but is not currently operational. Commuter provides an option for long distance travel. Stations are substantial and fairly far apart. Commuter rail has multiple train cars and operates on rail. It is segregated from traffic at high speed and lower frequency.

Figure 1 provides a description of the basic characteristics and graphic representation of the three latter modes.

SEGMENTATION

While the 22 corridors identified provide obvious connections between two points, they are not always uniform in their characteristics along their entire lengths. As the corridors traverse the study area, they may weave through more transit supportive areas and areas that are not as transit supportive. For this reason, the corridors were subdivided into segments. The goal is to identify segments that are more uniform in characteristics than the corridor as a whole.
Segmentation was based on six characteristics:

- Population density
- Employment density
- Land use
- Area type
- User market
- Accessibility

Population and employment densities are based on 2030 transit oriented development (TOD) population and employment densities approved in the 2030 METROPLAN Long Range Transportation Plan (LRTP). The land use characteristic examined the breakdown of commercial, residential, industrial, right-of-way, institutional, and other land uses. Area type refers to a downtown environment versus suburban environments. The user market characteristic focuses on whether the uses along the segment primarily served local residents or tourists. Accessibility refers to the

connectivity of the system. In addition, for those areas where there is overlap between two corridors, a separate segment was typically identified. These segments were isolated because more than one corridor was feeding into them. A map of the segments is provided in Map 2-1. Corridors range from one to six segments, although the average corridor has three segments.

EVALUATION

After segmentation, each segment was evaluated to determine the appropriate mode for that segment. The segment evaluation examined six characteristics:

- Population density
- Employment density
- Transit propensity index
- Land use
- Transit ridership
- Activity centers

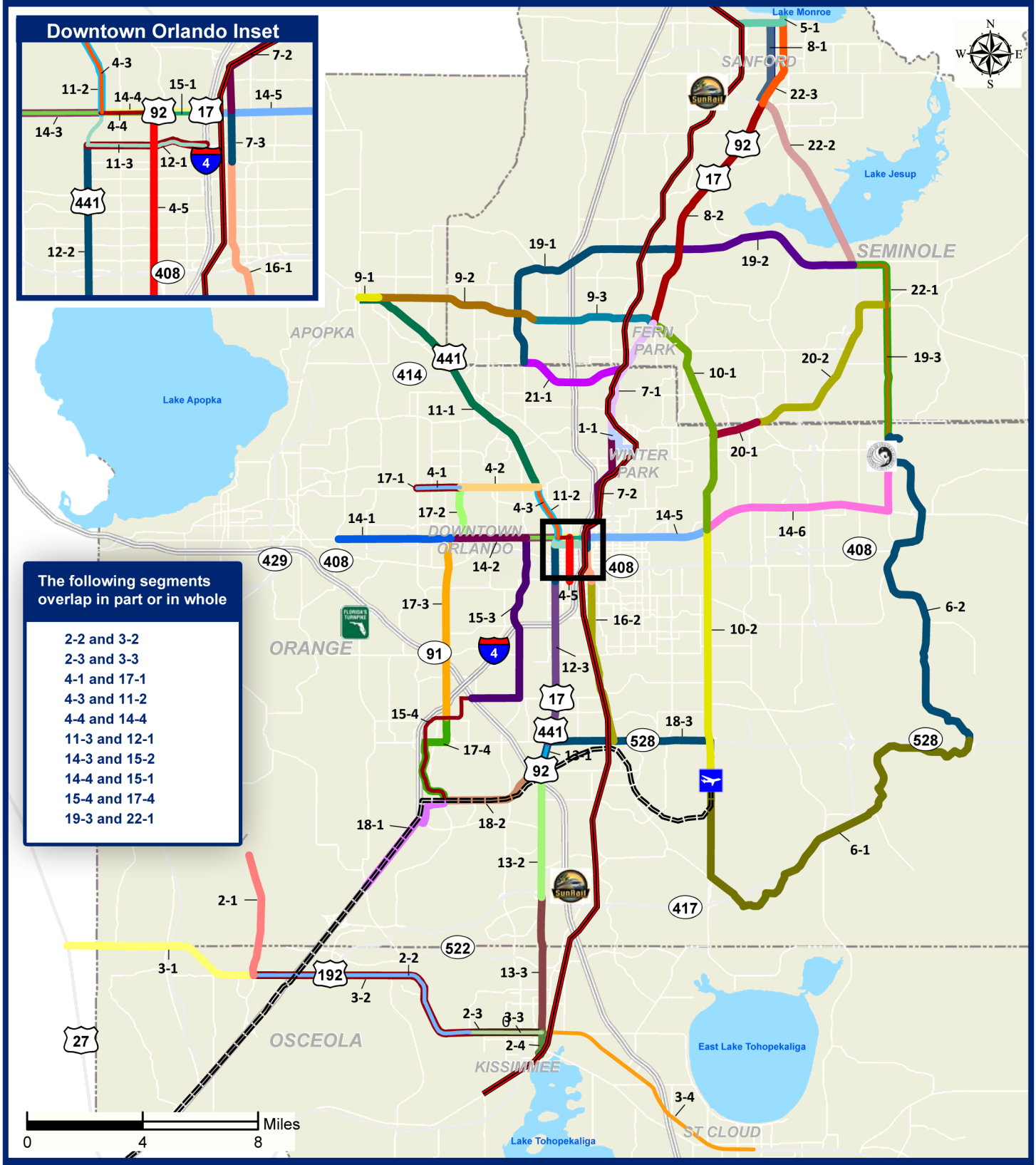
Each segment received a ranking for each characteristic. Rankings typically were low, medium, and high. These rankings were translated into scores. The scores were weighted by characteristic, and a total score per corridor was developed. The total score was used to determine the mode for each segment.

The evaluation process was undertaken for a baseline and two scenarios:

- Existing land use conditions
- 2030 under Trend land use development patterns
- 2030 under Transit-oriented land use development patterns

The Trend land use development pattern is based on current development patterns, and the Transit-oriented land use development pattern is based on the adopted LRTP adopted in August 2009. Funding levels will be examined in a future technical memorandum.

2030 Paw Print: The LYNX Transit Master Plan



Map 2-1: Corridor Segments

Legend

- SunRail
- Potential High Speed Rail Corridor
- Orlando International Airport

LYNX 2030 Transit Master Plan

LYNX

metroplan orlando
A REGIONAL TRANSPORTATION PARTNERSHIP

Population Density

Population density was calculated from two measurements: dwelling units per acre and occupied hotel rooms per acre. Because Orlando is a popular tourist destination, the analysis included both permanent and tourist populations in order to more fully capture the demographic nature of the segments. Dwelling units per acre data were gathered from 2030 population data from the socioeconomic data developed for the LRTP depending upon the scenario being undertaken. Appendix A contains a copy of a memorandum describing the sources of the socioeconomic data. The area was determined by the amount of area in the ½-mile buffer around the segment.

Occupied hotel rooms per acre data were taken from the 2030 hotel data from the socioeconomic data developed for the LRTP. Occupied hotel rooms per acre were converted to dwelling units per acre based on an assumed persons per occupied room figure. The two numbers were summed to determine an equivalent dwelling units per acre for each segment.

Each segment was given a rank of low, medium, or high. Table 2-1 displays dwelling unit densities found to be supportive of various types of transit. The densities were based on technical research in various sources with thresholds tailored to the Orlando area. Scores were based on these dwelling unit densities.

- Segments with dwelling unit densities equal to or below 5.5 received a rank of low.
- Segments with dwelling unit densities greater than 5.5 and below or equal to 7.5 received a rank of medium.
- Segments with dwelling unit densities above 7.5 received a rank of high.

Table 2-1
Population Density Thresholds

Mode	Population Density Threshold (dwelling units/acre)
Bus (Minimum to Enhanced Service)	3-5
Bus Rapid Transit	6-7
Light Rail	8-10
Heavy Rail	11+
Commuter Rail	5-7

Source: TRB, National Research Council, TCRP Report 16, Volume 1 (1996), "Transit and Land Use Form," November 2002; MTC Resolution 3434, TOD Policy for Regional Transit Expansion Projects.

Employment Density

Employment density was based on the number of employees per acre. The number of employees was based on 2030 employment data from the socioeconomic data developed for the LRTP. The area was determined by the amount of area in the ½-mile buffer around the segment. Each segment was ranked based on employment density. Table 2-2 displays employment densities found to be supportive of various types of transit. The densities were based on technical research in various sources with thresholds tailored to the Orlando area. Ranks were based on these employment densities.

- Segments with employment densities equal to or below 4.5 received a rank of low.
- Segments with employment densities greater than 4.5 and below or equal to 6.5 received a rank of medium.
- Segments with employment densities above 6.5 received a rank of high.

Table 2-2
Employment Density Thresholds

Mode	Employment Density Thresholds (employees/acre)
Bus (Minimum to Enhanced Service)	4
Bus Rapid Transit	5-6
Light Rail	7-9
Heavy Rail	10+
Commuter Rail	4-5

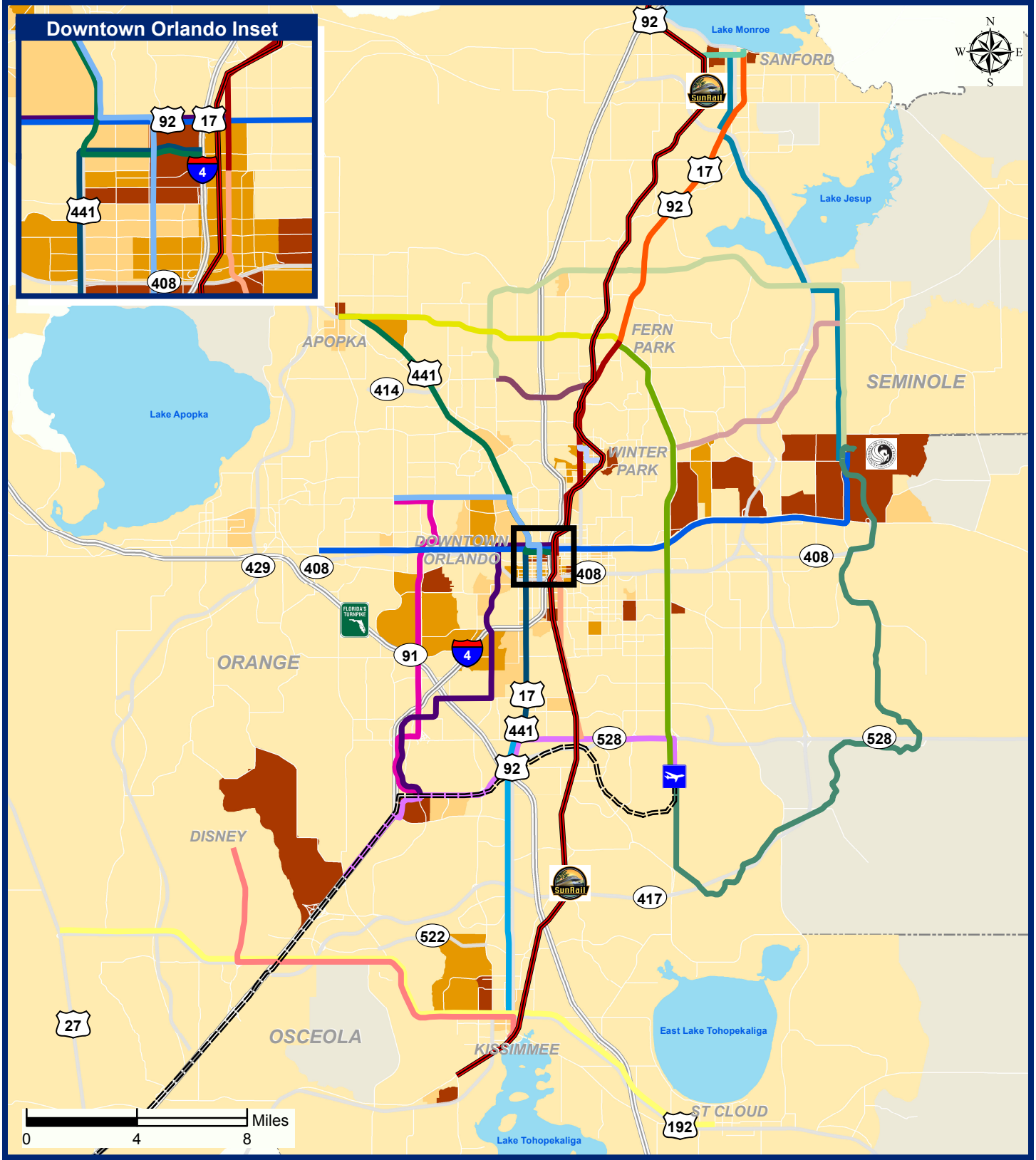
Source: Based on a review of recent research on the relationship between transit technology and employment densities, thresholds were established for the Orlando Metropolitan Area.

Transit Propensity Index

The transit propensity index is based on geographic concentrations of traditional transit markets. Traditional transit markets refer to population segments that historically have had a higher propensity to use transit. Population segments include the following groups:

- Older adult population (i.e., age 60 years or older)
- Youth population (i.e., age 15 to 24)
- Low-income population (i.e., households with annual income less than $10,000)
- Areas with high population density

2030 Paw Print: The LYNX Transit Master Plan



Map 2-2: Transit Propensity Index

Legend

Study Corridors

- Winter Park SunRail Connector
- US 192: Disney to Kissimmee
- US 192: Lake County to St. Cloud
- Silver Star Rd to Parramore
- Sanford SunRail Connector
- Innovation Way: OIA to UCF
- US 17-92: Fern Park to Downtown
- US 17-92: Sanford to Fern Park
- SR 436: Apopka to Fern Park
- SR 436: Fern Park to OIA
- US 441: Apopka to Downtown
- US 441/17-92: Downtown to Florida Mall
- US 441/17-92: Florida Mall to Kissimmee
- SR 50: West Oaks Mall to UCF
- John Young Pkwy: Downtown to International Drive
- Orange Ave: Downtown to Sand Lake Rd
- Kirkman Rd: Park Promenade to International Drive
- SR 528: Disney to OIA
- SR 434: Maitland Blvd to UCF
- Aloma Ave: Winter Park to Oviedo
- Maitland Blvd: SR 434 to US 17-92
- Seminole Way: Sanford to UCF
- SunRail
- Potential High Speed Rail Corridor
- Orlando International Airport

2009 Transit Propensity

- Very High
- High
- Medium
- Low
- Very Low

LYNX 2030 Transit Master Plan

LYNX

metroplan orlando

Data were taken from the socioeconomic data prepared for the LRTP. A transit propensity index was developed for the study area. The four population segments identified previously were used to develop an index that identifies segments with higher concentrations of transit-oriented markets relative to other segments. The complete methodology for conducting a transit propensity index can be found in Appendix B. Map 2-2 provides the transit propensity for the entire study areas.

Individual corridor results can be found in Appendix B. The maps illustrate locations throughout the corridor buffer area where the proportion of the transit-oriented population is very high, high, medium, low, and very low.

The transit propensity index was converted to a rank in the following manner. For each segment, the proportion of the half-mile buffer area determined to have a transit propensity of very high or high was calculated. This proportion was used to rank the segments with regard to transit propensity. A rank of low, medium, or high was assigned to each segment based on the proportion of the segment buffer area considered to have a transit propensity of very high or high. An average percentage of buffer area per segment considered to have a transit propensity of very high or high was calculated.

- If an individual segment's proportion of very high and high transit propensity was less than the average for all segments, then it was assigned the rank of low.
- If a segment's proportion of very high and high transit propensity was greater than or equal to the average for all segments and less than or equal to one standard deviation above average, then it was assigned the rank of medium.
- If a segment's proportion of very high and high transit propensity was greater than one standard deviation above the average for all segments, then it was assigned the rank of high.

Land Use

To determine a score for land uses, each type of land use was assigned a weight based on its ability to support transit. Weights ranged from zero to three, where three is the most supportive of transit. For instance, areas designated as water were given a weight of zero because they are unlikely to support transit because there is no population or employment in the water. Areas designated as waterfront/downtown business district were given a weight of three because businesses are more transit supportive in nature. Appendix C provides a list of land uses and the weights assigned.

By weighting the proportion of each type of land use within a segment's buffer area by the weights listed in Appendix C, a land use index was created. The index evaluates segments based on their ability to support transit based on land use type. An average land use index for all 22 segments was calculated for the purposes of comparing the segments. The following rules were used to rank each segment based on the land use index:

- If a segment's land use index was less than the average of all segments, then it was assigned the rank of low.
- If a segment's land use index was greater than or equal to the average of all segments and less than or equal to one standard deviation above average, then it was assigned the rank of medium.
- If a segment's land use index was greater than one standard deviation from the average of all segments, then it was assigned the rank of high.

Existing Transit Ridership

Using ridership data collected between July 2009 and June 2010 through automatic passenger counters (APCs), a ridership analysis was completed for each segment. LYNX may pursue a Very Small Starts grant for implementation of premium transit service on these corridors. For this reason, the ridership analysis was based on a modified benefitting riders analysis. Ridership was calculated by summing the number of current transit passengers weighted by distance of the stop from the center line of the segment buffer area. No attempt to count passengers on parallel corridors was made. This part of the benefitting riders analysis requires knowledge that the transit service on the parallel corridor will be moved to the corridor being studied. This level of analysis is too detailed for this study.

Once the number of benefitting passengers was determined for each segment, a rank of low, medium, or high was assigned. The ranks were based on the requirement to have at least 3,000 benefitting riders to qualify for a Very Small Starts grant.

- Those segments with benefitting riders less than 3,000 received a rank of low.
- Those segments with benefitting riders greater than or equal to 3,000 and less than or equal to 5,000 received a rank of medium.
- Those segments with benefitting riders greater than 5,000 received a rank of high.

Activity Centers

Activity centers were calculated on a per-mile basis. Activity centers included downtown areas, airports, amusement parks, colleges and universities, convention centers, large business centers, and regional shopping malls. An average number of activity centers per mile was calculated for all the segments combined.

- If a segment's activity centers per mile was less than the average for all segments, then it was assigned the rank of low.

- If a segment's activity centers per mile was greater than or equal to the average for all segments and less than or equal to one standard deviation above average, then it was assigned the rank of medium.
- If a segment's activity centers per mile was greater than one standard deviation above the average for all segments, then it was assigned the rank of high.

Total Score

Each segment's score was calculated by assigning a numeric value to each ranking from the individual characteristics that were evaluated.

- Characteristics with ranks of low were given a score of 1.
- Characteristics with ranks of medium were given a score of 2.
- Characteristics with ranks of high were given a score of 3.

Each characteristic was weighted in accordance with its supportiveness to transit. Population density, employment density, and the land use index were weighted highest. Activity centers were weighted in the second tier. Transit propensity index and benefitting riders reflect existing conditions and, since the horizon of this study is the year 2030, they were weighted lowest.

Scores were calculated by summing the product of each of a segment's characteristic scores and weights. The minimum score possible is 10, and the maximum score is 50. Scores were calculated for two different land use patterns:

- Auto-oriented development pattern
- Transit-oriented development pattern

PRELIMINARY MODAL ASSIGNMENT

After calculating the scores for each segment, they were used to determine a preliminary modal assignment. At this phase, the modes considered were local bus, enhanced express bus, BRT, and light rail/streetcar.

- Segments with scores greater than 40.0 were assigned light rail or a greater mode.
- Segments with scores greater than 27.5 and less than or equal to 40.0 were assigned BRT.
- Segments with scores greater than 15.0 and less than 27.5 were assigned enhanced express bus.
- Segments with scores less than or equal to 15.0 were assigned local bus.

STREETCAR ANALYSIS

To further augment the initial analysis, the corridors were further analyzed to determine their ability to support streetcar. Streetcars are typically most successful in downtown areas where passengers are traveling short distances. They also work well in tourist areas, as they are more readily understood by the first-time user than other forms of transit. The feasibility of streetcar implementation was analyzed for six areas:

- Downtown Apopka
- Downtown Kissimmee
- Downtown Orlando
- Downtown Sanford
- Downtown Winter Park
- International Drive

Each area was evaluated to determine whether streetcar could be supported. The area evaluation examined six characteristics:

- Mode (identified in the analysis previously described)
- Trip length
- Presence of sidewalks
- Downtown area
- Capacity needed
- User type

Each area received a ranking for each characteristic. Rankings were low, medium, and high. These rankings were translated into scores. The scores were weighted by characteristic, and a total score per area was developed. The total score was used to determine whether streetcar could be supported by each area.

Mode

The mode supported by each segment/area identified as part of the previous process was the first criterion used in the analysis. Scores were assigned as follows:

- Segments identified as local bus or enhanced express received a rank of low.
- Segments identified as BRT received a rank of medium.
- Segments identified as light rail received a rank of high.

Trip Length

Streetcar operating speeds are relatively low due to low travel speed and frequent stops. Therefore, this mode is more appropriate for short trip lengths (fewer than 2.0 miles). Based on this information, scores were assigned as follows:

- Segments with a trip length greater or equal to 2.0 miles received a rank of low.
- Segments with a trip length less than 2.0 miles and greater or equal to 1.5 miles received a rank of medium.
- Segments with a trip length less than 1.5 miles received a rank of high.

Trip lengths were calculated based on data obtained from the application of the 2030 Orlando Urban Area Transportation Study (OUATS) model developed as part of the LRTP effort. The following information was computed for the trip length analysis:

- Number of trips generated with origin and destination within the segment
- Vehicle miles of travel (VMT) for trips with origin and destination within the segment
- Trip length (VMT divided by number of trips)

Presence of Sidewalks

Due to the frequent stops that streetcar lines typically make, accessibility to stops is a key aspect that needs to be considered for a successful streetcar implementation. The presence of sidewalks within the segment was one of the criteria used in the analysis. To assess the presence of sidewalks, sidewalk density was calculated.

Sidewalk density was calculated by assuming that the corridor has a major cross-street every quarter mile. This assumption is equivalent to having eight major cross-streets per square mile or eight miles of major street per square mile. It is assumed that the minimum amount of sidewalk availability for a successful streetcar is to have a sidewalk on at least one side of every major road. If sidewalks were present on one side of each of the major streets, then there would be eight miles of sidewalk per square mile. Scores were developed based on this minimum sidewalk density.

- Segments with sidewalk densities (mile of sidewalk per square mile) equal to or below 4 received a rank of low.
- Segments with sidewalk densities greater than 4 but less than or equal to 8 received a rank of medium.
- Segments with sidewalk densities above 8 received a rank of high.

Downtown Area

Another condition that contributes to maximizing the success of a streetcar line is a service area that includes a mix of uses or a variety of markets that will generate a significant exchange of trips within the area serviced by the streetcar line. Therefore, downtown areas with travel demands not only during commute times but also during the rest of the day are areas where streetcar lines have a greater potential for success. The scoring of the six corridors under analysis was done in a qualitative manner and was based on the size of the downtown area and mix of land uses present. Scores included low, medium, and high, depending on the size of the downtown area and its mix of land uses.

Capacity Needed

This criterion examined the level of current transit ridership on the corridor. The same calculations used in the preliminary modal assignment analysis were used to determine the level of ridership. The same thresholds from the preliminary modal assignment analysis also were used.

User Type

Streetcars can be a very successful mode for areas with large numbers of tourists. This is because streetcars provide a visible and easy-to-understand routing that helps users avoid confusion; therefore, visitors and occasional users are more inclined to use them. Similar to the downtown area criterion, the scoring of the six corridors under analysis was done in a qualitative manner and based on general knowledge of the areas under study.

Total Score

Similar to the methodology applied to identify the modes, each segment's score was calculated by assigning a numeric value to each ranking from the individual characteristics that were evaluated.

- Characteristics with ranks of low were given a score of 1.
- Characteristics with ranks of medium were given a score of 3.
- Characteristics with ranks of high were given a score of 5.

Each characteristic was weighted in accordance with its supportiveness to streetcar. Mode and downtown area were weighted highest. Presence of sidewalks and user type were weighted in the second tier. Trip length and capacity needed were weighted lowest.

Scores were calculated by summing the product of each of a segment's characteristics scores and

weights. The minimum score possible is 12, and the maximum score is 60.

- Segments with scores lower than 36 (i.e., the average of the minimum and maximum scores) were determined not to be streetcar supportive.
- Segments with scores equal to or greater than 36 were determined to be streetcar supportive.

FINAL MODAL ASSIGNMENT

After the analysis, the segments were recombined into a network. To ensure that the network makes sense as a whole, professional judgment by the consultant team and LYNX staff was used to adjust some of the segment modal assignments to create a logical and coherent network. This was the final step in the modal assignment analysis.

RIGHT-OF-WAY ANALYSIS

As a separate analysis to augment the modal assignments, an assessment to determine the current right-of-way availability was performed on segments identified for modes that have the potential of operating on exclusive right-of-way. These modes are BRT and light rail. For this purpose, 16 typical cross-sections and their right-of-way requirements were defined and are summarized in Table 2-3.

Table 2-3
Typical Cross-Section Right-of-Way Requirements

Number of Lanes	BRT		Light Rail	
	One Lane	Two Lanes	One Track	Two Tracks
2	74 ft	88 ft	73 ft	93 ft
4	120 ft	134 ft	119 ft	139 ft
6	144 ft	158 ft	143 ft	163 ft
8	168 ft	182 ft	167 ft	187 ft

The typical cross section right-of-way requirements were defined based on typical Florida Department of Transportation (FDOT) cross-sections for urbanized areas and the Bus Rapid Transit Functional Classification Study prepared by the Office of Modal Development, FDOT District 4. After defining the cross sections, the available right-of-way along each segment was compared against the cross-section needed to accommodate the previously identified mode to calculate the percentage of right-of-way availability. This percentage is length-based (not area-based).

Finally, after a percentage of right-of-way availability was computed for each segment, if the percentage was greater than 50 percent, then it was assumed that there is potential for the

implementation of the previously identified mode (BRT or light rail). In segments where the percentage of right-of-way availability was equal to or lower than 50 percent, it was assumed that a mode with no additional requirements for right-of-way should be assigned. For these segments, mixed-traffic BRT was assigned.

This analysis simply provides an indication of the percent of right-of-way currently available. For any corridor warranting a mode operating in an exclusive right-of-way, policy determinations can be made to purchase additional right-of-way to accommodate the need for additional space.

3. Results

Applying the methodology explained in Section 2 provided these results under the following scenarios:

- Existing (2010) land use conditions
- 2030 with trend land use development patterns
- 2030 with transit-oriented land use development patterns

PRELIMINARY AND FINAL MODAL ASSESSMENT

The following results were achieved under the three scenarios. These conditions are those that existed in 2010. Table 3-1 provides the preliminary and final modal assignments. Tables containing more detailed information from the analysis can be found in Appendix D. Maps 3-1 through 3-5 provide a visual representation of the data found in Table 3-1.

Table 3-1
Preliminary and Final Modal Assignments

Corridor	Segment	Length [miles]	Mode				
			Existing	2030 Trend		2030 TOD	
				Preliminary	Final	Preliminary	Final
Winter Park SunRail Connector	1-1	1.38	Express	BRT	BRT	Express	BRT
US 192: Disney to Kissimmee	2-1	4.24	BRT	BRT	BRT	BRT	BRT
	2-2	8.82	BRT	BRT	BRT	BRT	BRT
	2-3	2.50	Express	BRT	BRT	LRT	LRT
	2-4	0.83	Express	BRT	BRT	BRT	LRT
US 192: Lake County to St. Cloud	3-1	6.81	BRT	BRT	BRT	BRT	BRT
	3-2	8.82	BRT	BRT	BRT	BRT	BRT
	3-3	2.50	Express	BRT	BRT	LRT	LRT
	3-4	8.88	Local Bus	Express	Express	Express	Express
Silver Star Rd. to Parramore Ave.	4-1	1.49	Local Bus	Local Bus	Local Bus	Local Bus	Local Bus
	4-2	2.71	Local Bus	Local Bus	Local Bus	Local Bus	Local Bus
	4-3	1.91	Local Bus	Local Bus	Local Bus	Express	Local Bus
	4-4	0.41	BRT	BRT	BRT	BRT	BRT
	4-5	1.50	BRT	BRT	BRT	BRT	BRT

Table 3-1 (continued)
Preliminary and Final Modal Assignments

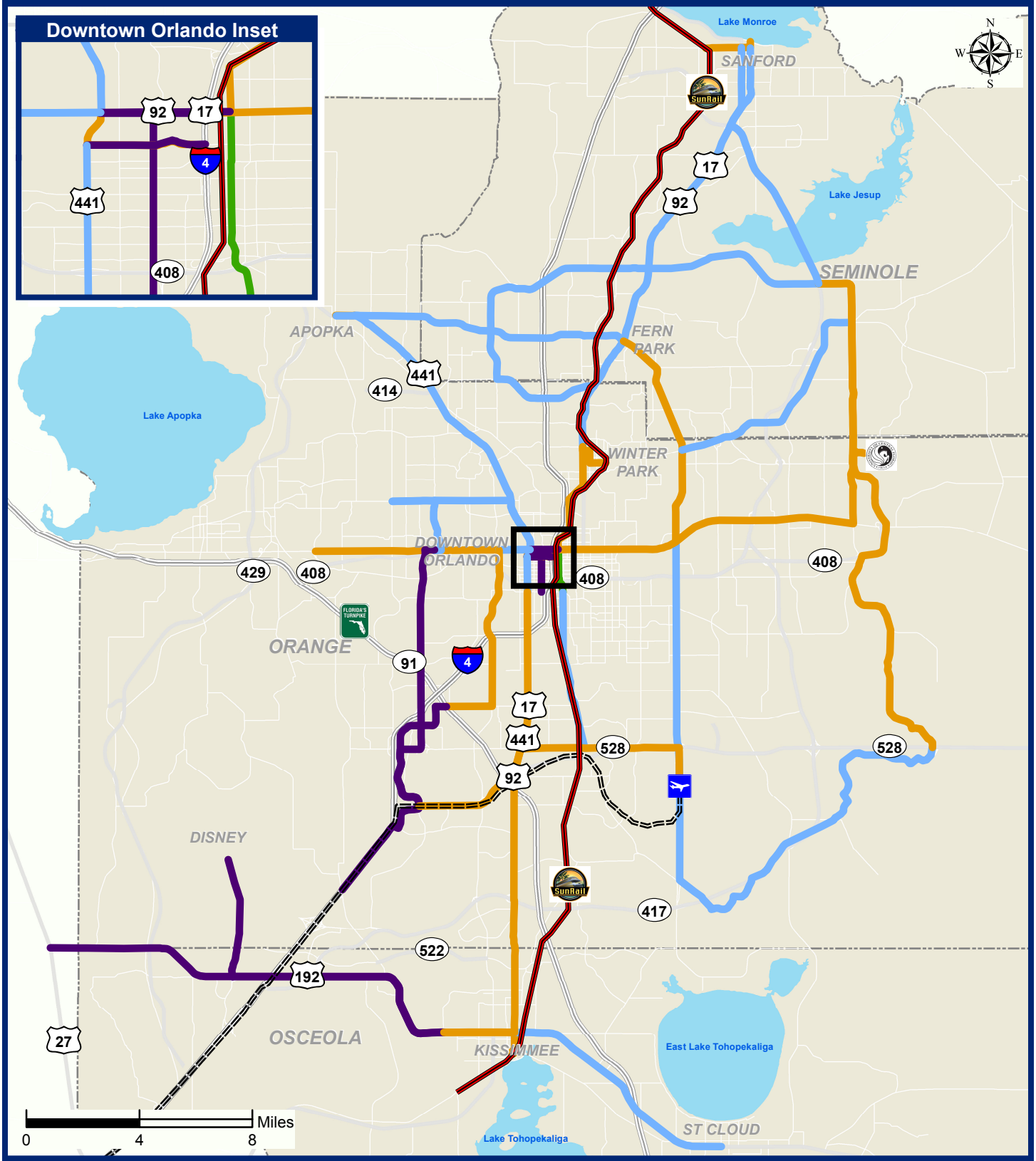
Corridor	Segment	Length [miles]	Mode				
			Existing	2030 Trend		2030 TOD	
				Preliminary	Final	Preliminary	Final
Sanford SunRail Connector	5-1	1.77	Express	Express	Express	Express	Express
Innovation Way: OIA to UCF	6-1	16.87	Local Bus	Express	Express	BRT	BRT
	6-2	13.88	Express	Express	Express	Express	Express
US 17-92: Fern Park to Downtown	7-1	4.18	Local Bus	Local Bus	Local Bus	Local Bus	Local Bus
	7-2	4.06	Express	LRT	LRT	LRT	LRT
	7-3	0.38	LRT	LRT	LRT	LRT	LRT
US 17-92: Sanford to Fern Park	8-1	3.01	Local Bus	Local Bus	Local Bus	Local Bus	Local Bus
	8-2	8.92	Local Bus	Local Bus	Local Bus	Local Bus	Local Bus
SR 436: Apopka to Fern Park	9-1	0.66	Express	Express	Express	Express	Express
	9-2	5.53	Local Bus	Express	Express	Express	Express
	9-3	4.28	Local Bus	Express	Express	Express	Express
SR 436: Fern Park to OIA	10-1	7.95	Express	Express	Express	Express	Express
	10-2	8.69	Local Bus	Express	Express	Express	Express
US 441: Apopka to Downtown	11-1	9.47	Local Bus	Local Bus	Local Bus	Local Bus	Local Bus
	11-2	1.91	Local Bus	Local Bus	Local Bus	Express	Local Bus
	11-3	1.19	Express	BRT	BRT	BRT	BRT
US 441/17-92: Downtown to Florida Mall	12-1	0.92	BRT	LRT	LRT	LRT	LRT
	12-2	1.25	Local Bus	Local Bus	Local Bus	Local Bus	Local Bus
	12-3	5.61	Express	Express	Express	BRT	BRT
US 441/17-92: Florida Mall to Kissimmee	13-1	1.13	Express	Express	Express	Express	Express
	13-2	4.27	Express	Express	Express	Express	Express
	13-3	4.68	Express	Express	Express	Express	Express
SR 50: West Oaks Mall to UCF	14-1	3.89	Express	Express	Express	Express	Express
	14-2	2.61	Express	Express	BRT	Express	BRT
	14-3	1.10	Local Bus	Local Bus	BRT	Express	BRT
	14-4	0.99	BRT	BRT	BRT	BRT	BRT
	14-5	4.41	Express	Express	Express	BRT	BRT
	14-6	8.99	Express	BRT	Express	BRT	BRT

Table 3-1 (continued)
Preliminary and Final Modal Assignments

Corridor	Segment	Length [miles]	Mode				
			Existing	2030 Trend		2030 TOD	
				Preliminary	Final	Preliminary	Final
John Young Parkway: Downtown to International Dr.	15-1	0.99	BRT	BRT	BRT	BRT	BRT
	15-2	1.10	Local Bus	Local Bus	BRT	Express	BRT
	15-3	7.33	Express	BRT	BRT	BRT	BRT
	15-4	5.38	BRT	LRT	LRT	LRT	LRT
Orange Ave.: Downtown to Sand Lake Rd.	16-1	1.19	LRT	LRT	LRT	LRT	LRT
	16-2	5.63	Local Bus	Express	Express	Express	Express
Kirkman Rd.: Park Promenade to International Dr.	17-1	1.49	Local Bus	Local Bus	Local Bus	Local Bus	Local Bus
	17-2	2.08	Local Bus	Local Bus	Local Bus	Local Bus	Local Bus
	17-3	6.57	BRT	BRT	BRT	BRT	BRT
	17-4	4.04	BRT	BRT	LRT	BRT	LRT
SR 528: Disney to OIA	18-1	4.40	BRT	BRT	BRT	BRT	BRT
	18-2	3.71	Express	Express	BRT	Express	BRT
	18-3	8.14	Express	BRT	BRT	BRT	BRT
SR 434: Maitland Blvd to UCF	19-1	8.91	Local Bus	Express	Express	Express	Express
	19-2	6.56	Local Bus	Express	Express	Express	Express
	19-3	7.48	Express	Express	Express	Express	Express
Aloma Ave.: Winter Park to Oviedo	20-1	1.59	Local Bus	Express	Express	Express	Express
	20-2	7.00	Local Bus	Express	Express	Express	Express
Maitland Blvd.: SR 434 to US 17-92	21-1	3.79	Local Bus	Express	Express	Express	Express
Seminole Way: Sanford to UCF	22-1	7.48	Express	Express	Express	Express	Express
	22-2	6.53	Local Bus	Local Bus	Express	Local Bus	Express
	22-3	2.89	Local Bus	Express	Express	Express	Express

Notes: Segment numbers relate to those shown on Map 2-1.
Yellow highlighting indicates modes that were adjusted during the Final Modal Assessment.
Commuter rail was not deemed appropriate for any corridor.

2030 Paw Print: The LYNX Transit Master Plan



Map 3-1 Modal Assignments - Existing

Legend

Corridor Segments

Mode

- LRT
- BRT
- Enhanced Express
- Local Bus

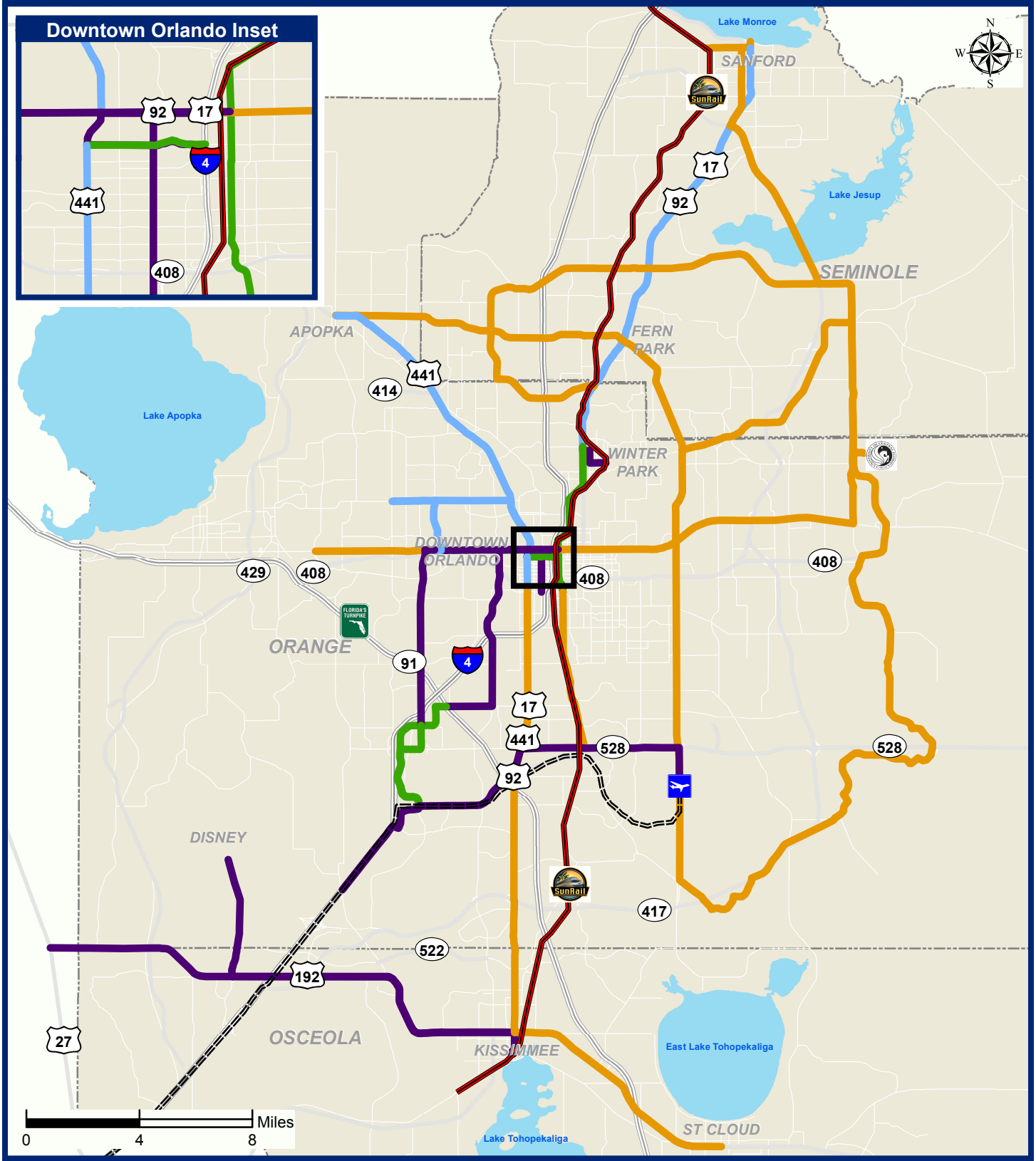
- SunRail
- Potential High Speed Rail Corridor
- Orlando International Airport

LYNX® 2030 Transit Master Plan

LYNX®

metroplan orlando
A REGIONAL TRANSPORTATION PARTNERSHIP

2030 Paw Print: The LYNX Transit Master Plan



Map 3-2 Modal Assignments - 2030 Trend Preliminary

Legend

Corridor Segments

Mode

- LRT
- BRT
- Enhanced Express
- Local Bus

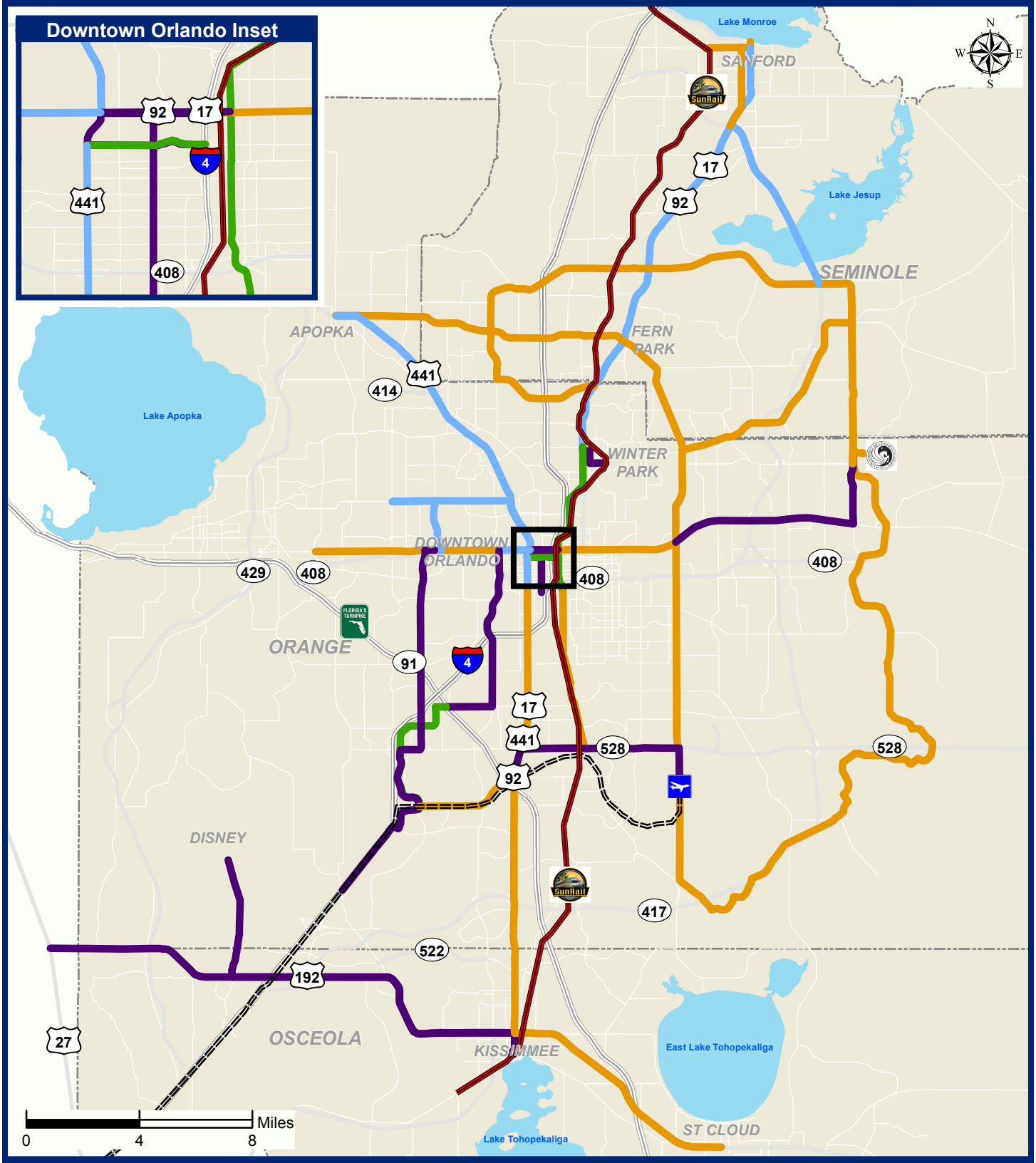
- SunRail
- Potential High Speed Rail Corridor
- Orlando International Airport

LYNX® 2030 Transit Master Plan

LYNX®

metroplan orlando
A REGIONAL TRANSPORTATION PARTNERSHIP

2030 Paw Print: The LYNX Transit Master Plan



Map 3-3 Modal Assignemens - 2030 Trend Final

Legend

Corridor Segments

Mode

- LRT
- BRT
- Enhanced Express
- Local Bus

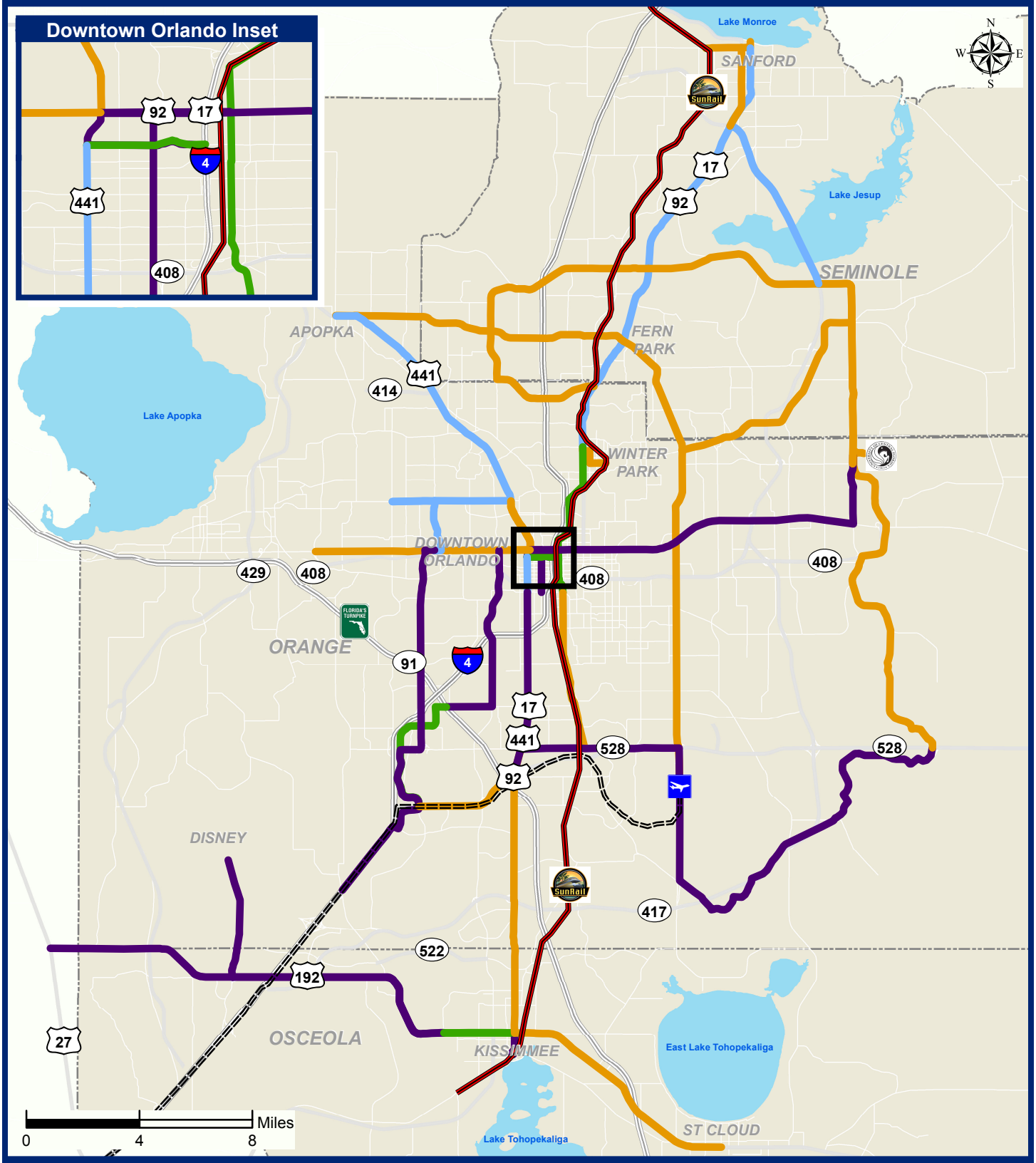
- SunRail
- Potential High Speed Rail Corridor
- Orlando International Airport

LYNX® 2030 Transit Master Plan

LYNX®

metroplan orlando
A REGIONAL TRANSPORTATION PARTNERSHIP

2030 Paw Print: The LYNX Transit Master Plan



Map 3-4 Modal Assignments - 2030 TOD Preliminary

Legend

Corridor Segments

- SunRail
- Potential High Speed Rail Corridor
- Orlando International Airport

Mode

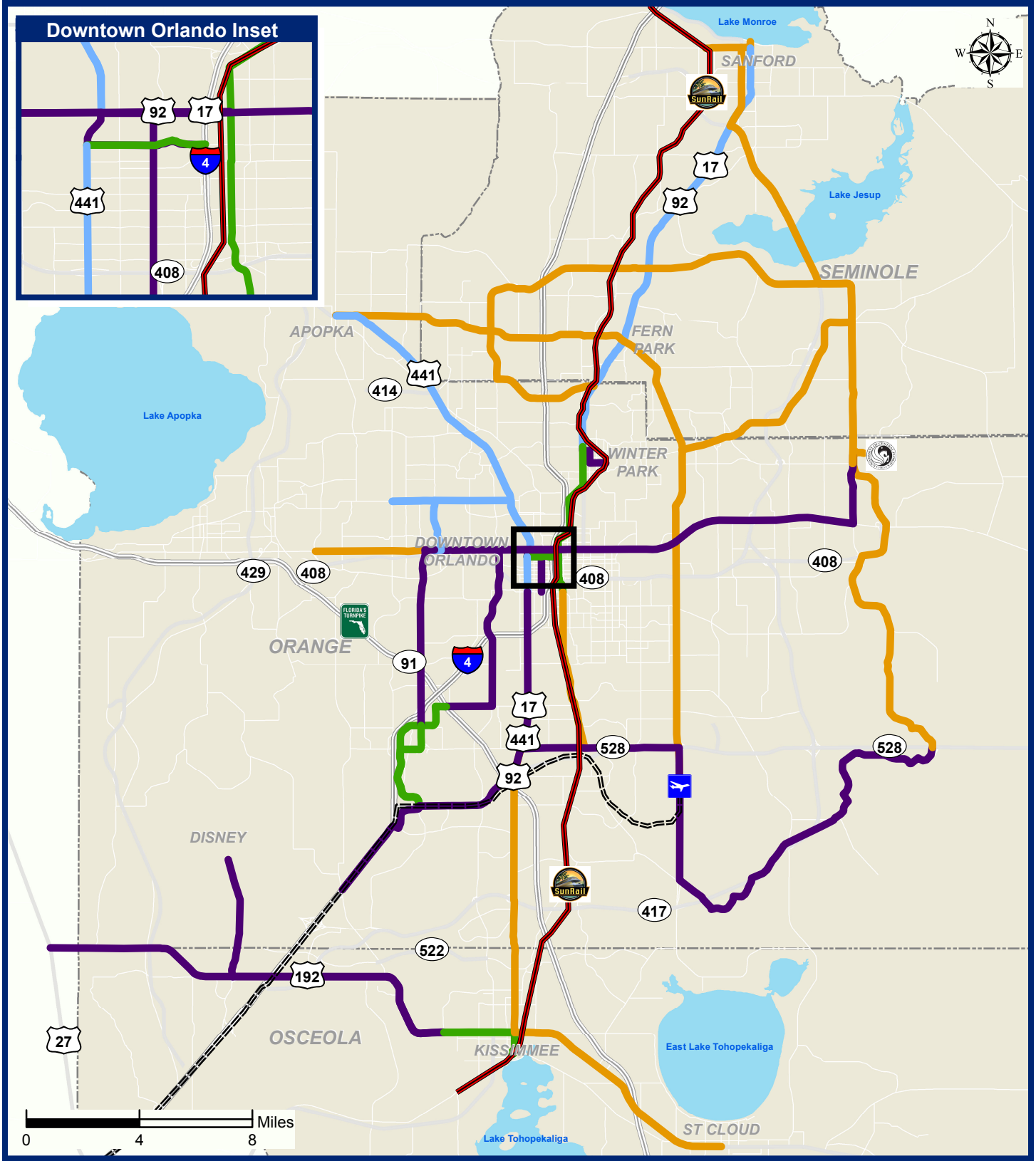
- LRT
- BRT
- Enhanced Express
- Local Bus

LYNX® 2030 Transit Master Plan

LYNX®

metroplan orlando
A REGIONAL TRANSPORTATION PARTNERSHIP

2030 Paw Print: The LYNX Transit Master Plan



Map 3-5 Modal Assignments - 2030 TOD Final

Legend

Corridor Segments

Mode

- LRT
- BRT
- Enhanced Express
- Local Bus

- SunRail
- Potential High Speed Rail Corridor
- Orlando International Airport

LYNX® 2030 Transit Master Plan

LYNX®

metroplan orlando
A REGIONAL TRANSPORTATION PARTNERSHIP

STREETCAR ANALYSIS

As indicated in Section 2, after the preliminary and final modal assessment, certain segments underwent a streetcar analysis. Table 3-2 provides the results of that analysis. More detailed tables can be found in Appendix E. For those segments where streetcar is indicated as a "Maybe," local policymakers should determine ultimate feasibility. Map 3-6 provides a visual presentation of the analysis.

Table 3-2
Streetcar Analysis

Segment	Description	Streetcar Assessment
1-1	Winter Park Connector	Maybe
2-4	Downtown Kissimmee	Maybe
4-5	Parramore Ave. (Downtown Orlando)	Yes
5-1	Downtown Sanford	No
7-3	Orange Ave from SR 50 to Livingston St (Downtown Orlando)	Yes
9-1	Downtown Apopka	No
11-1	Downtown Apopka (partially covered by 9-1)	No
11-3	US 17/92 & Amelia St. (Downtown Orlando)	Yes
12-1	Amelia St. (Downtown Orlando)	Yes
12-2	US 17/92 from Amelia St. to Gore St. (Downtown Orlando)	Yes
15-4	International Dr. from Turnpike to SR 528	Yes
16-1	Orange Ave. from Livingston St. to Gore St. (Downtown Orlando)	Yes
17-4	International Dr./Kirkman Rd. from International Dr. to SR 528	Yes

Note: Segment numbers relate to those shown on Map 2-1.

RIGHT-OF-WAY ANALYSIS

In addition to the modal analysis previously provided, a right-of-way analysis was undertaken for those modes that could or must use exclusive right-of-way: BRT and light rail. Table 3-3 provides the results of this analysis for the 2030 TOD scenario. Maps 3-7 through 3-9 provide a visual

representation of the information found in Table 3-3. More detailed tables can be found in Appendix F.

Table 3-3
Right-of-Way Analysis

Corridor	Segment	Length [miles]	Modes under ROW Constraints		
			Existing	2030 Trend	2030 TOD
Winter Park SunRail Connector	1-1	1.38	Express	MT BRT	MT BRT
US 192: Disney to Kissimmee	2-1	4.24	2L BRT	2L BRT	2L BRT
	2-2	8.82	2L BRT	2L BRT	2L BRT
	2-3	2.50	Express	1L BRT	1T LRT
	2-4	0.83	Express	MT BRT	MT BRT
US 192: Lake County to St. Cloud	3-1	6.81	2L BRT	2L BRT	2L BRT
	3-2	8.82	2L BRT	2L BRT	2L BRT
	3-3	2.50	Express	MT BRT	MT BRT
Silver Star Rd. to Parramore Ave.	4-4	0.41	MT BRT	MT BRT	MT BRT
	4-5	1.50	MT BRT	MT BRT	MT BRT
Innovation Way: OIA to UCF	6-1	16.87	Local Bus	Express	2L BRT
US 17-92: Fern Park to Downtown	7-2	4.06	Express	MT BRT	MT BRT
	7-3	0.38	MT BRT	MT BRT	MT BRT
US 441: Apopka to Downtown	11-3	1.19	Express	MT BRT	MT BRT
US 441/17-92: Downtown to Florida Mall	12-1	0.92	MT BRT	MT BRT	MT BRT
	12-3	5.61	Express	Express	MT BRT
SR 50: West Oaks Mall to UCF	14-4	0.99	MT BRT	MT BRT	MT BRT
	14-5	4.41	Express	Express	MT BRT
	14-6	8.99	Express	Express	2L BRT
John Young Parkway: Downtown to International Dr.	15-1	0.99	MT BRT	MT BRT	MT BRT
	15-3	7.33	Express	1L BRT	1L BRT
	15-4	5.38	MT BRT	MT BRT	MT BRT
Orange Ave.: Downtown to Sand Lake Rd.	16-1	1.19	MT BRT	MT BRT	MT BRT
Kirkman Rd.: Park Promenade to International Dr.	17-3	6.57	2L BRT	2L BRT	2L BRT
	17-4	4.04	2L BRT	1T LRT	1T LRT
SR 528: Disney to OIA	18-1	4.40	2L BRT	2L BRT	2L BRT
	18-3	8.14	Express	2L BRT	2L BRT

Note: MT BRT stands for mixed-traffic BRT; 1L BRT stands for one-lane BRT; 2L BRT stands for two-lane BRT; 1T LRT stands for one-track light rail; 2T LRT stands for two-track light rail.

2030 Paw Print: The LYNX Transit Master Plan

Map 3-6 Streetcar Analysis

Legend

Corridor Segments

Streetcar

- Maybe
- N/A
- No
- Yes

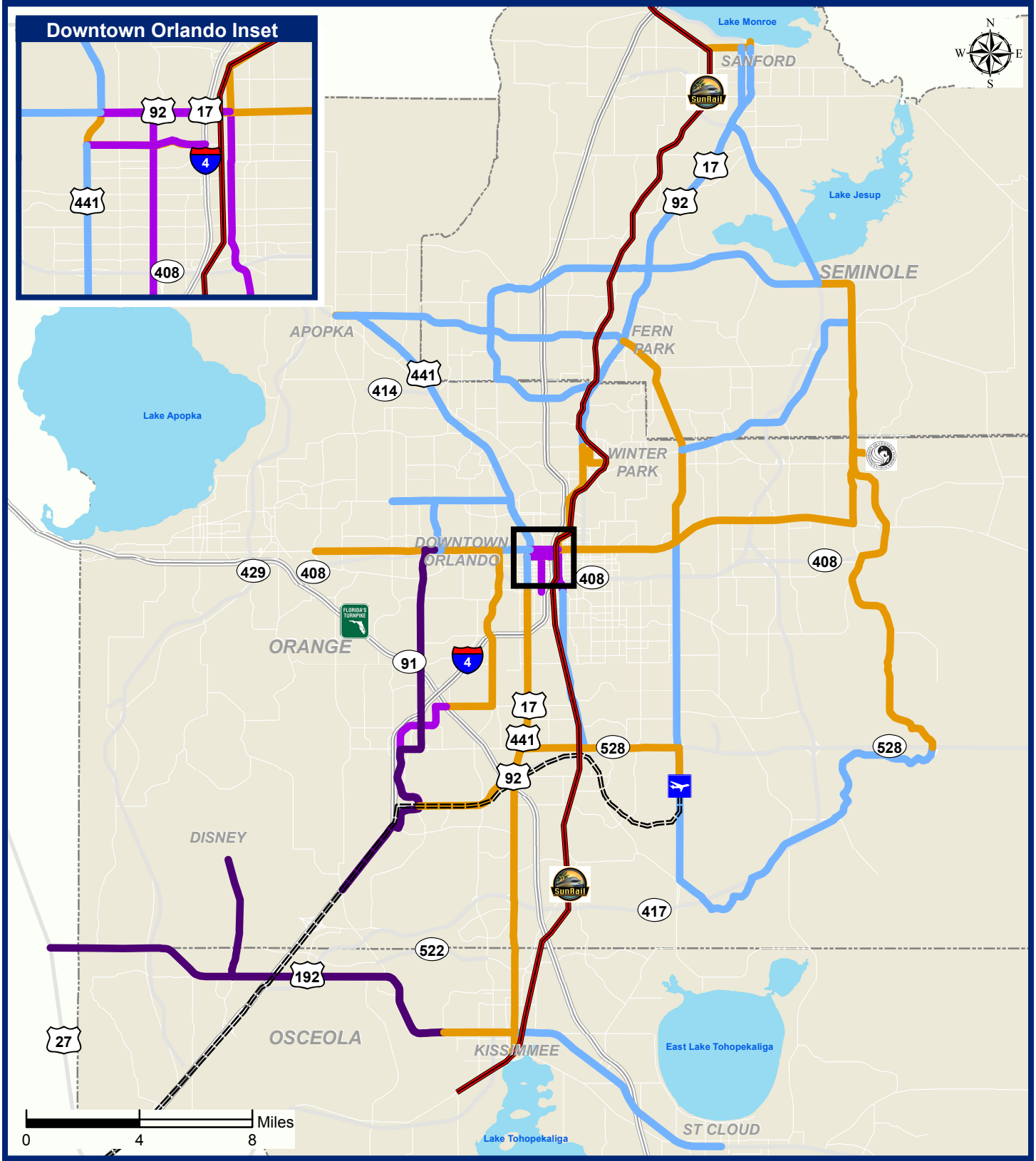
- SunRail
- Potential High Speed Rail Corridor
- Orlando International Airport

LYNX® 2030 Transit Master Plan

LYNX®

metroplan orlando
A REGIONAL TRANSPORTATION PARTNERSHIP

2030 Paw Print: The LYNX Transit Master Plan



Map 3-7 Right-of-Way Analysis - Existing

Legend

Corridor Segments

Mode

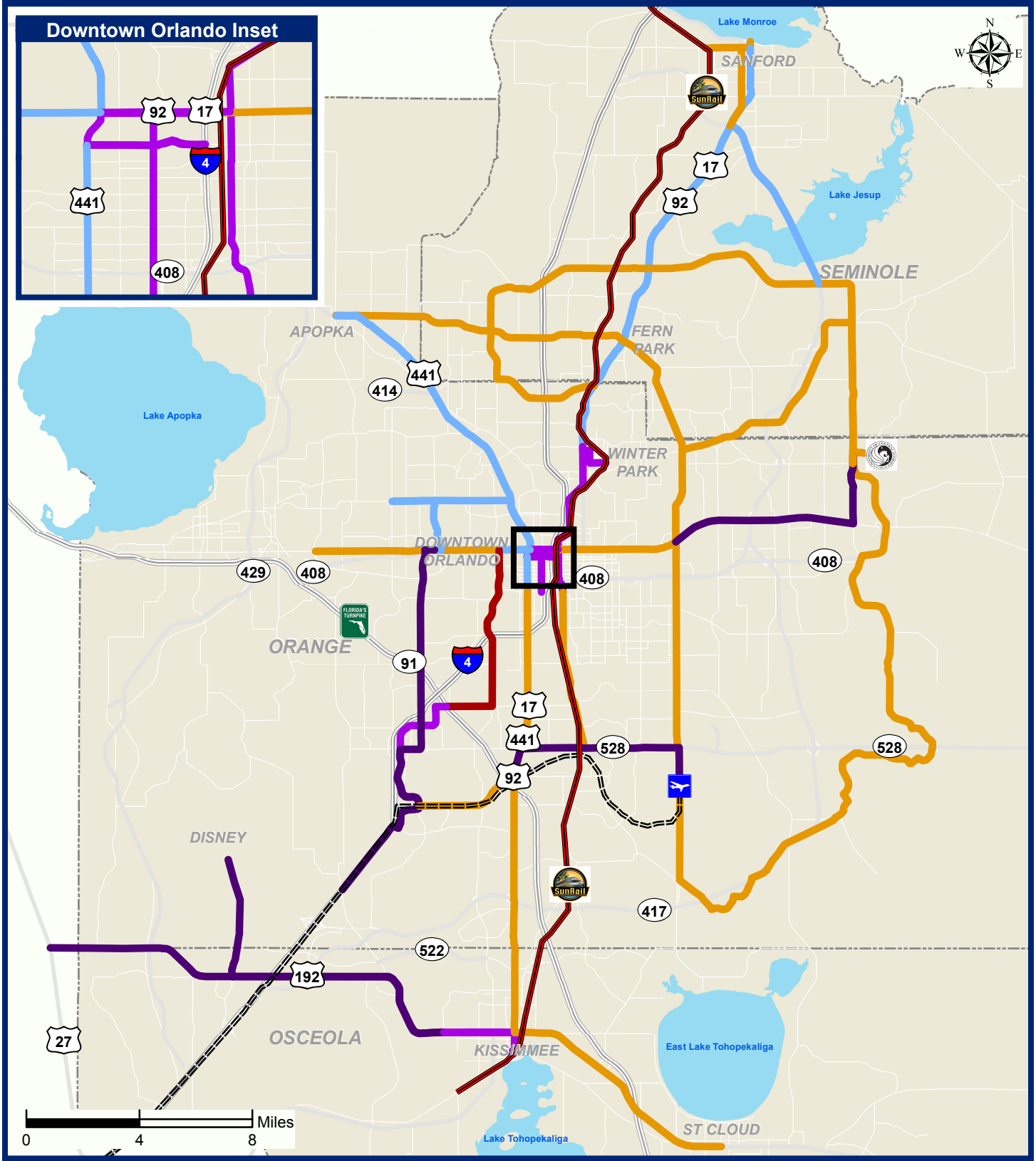
- Two-Lane BRT
- Mixed-Traffic BRT
- Enhanced Express
- Local Bus
- SunRail
- Potential High Speed Rail Corridor
- Orlando International Airport

LYNX® 2030 Transit Master Plan

LYNX®

metroplan orlando
A REGIONAL TRANSPORTATION PARTNERSHIP

2030 Paw Print: The LYNX Transit Master Plan



Map 3-8 Right-of-Way Analysis - 2030 Trend

Legend

Corridor Segments

Mode

- One-Lane BRT
- Two-Lane BRT
- Mixed-Traffic BRT
- Enhanced Express
- Local Bus

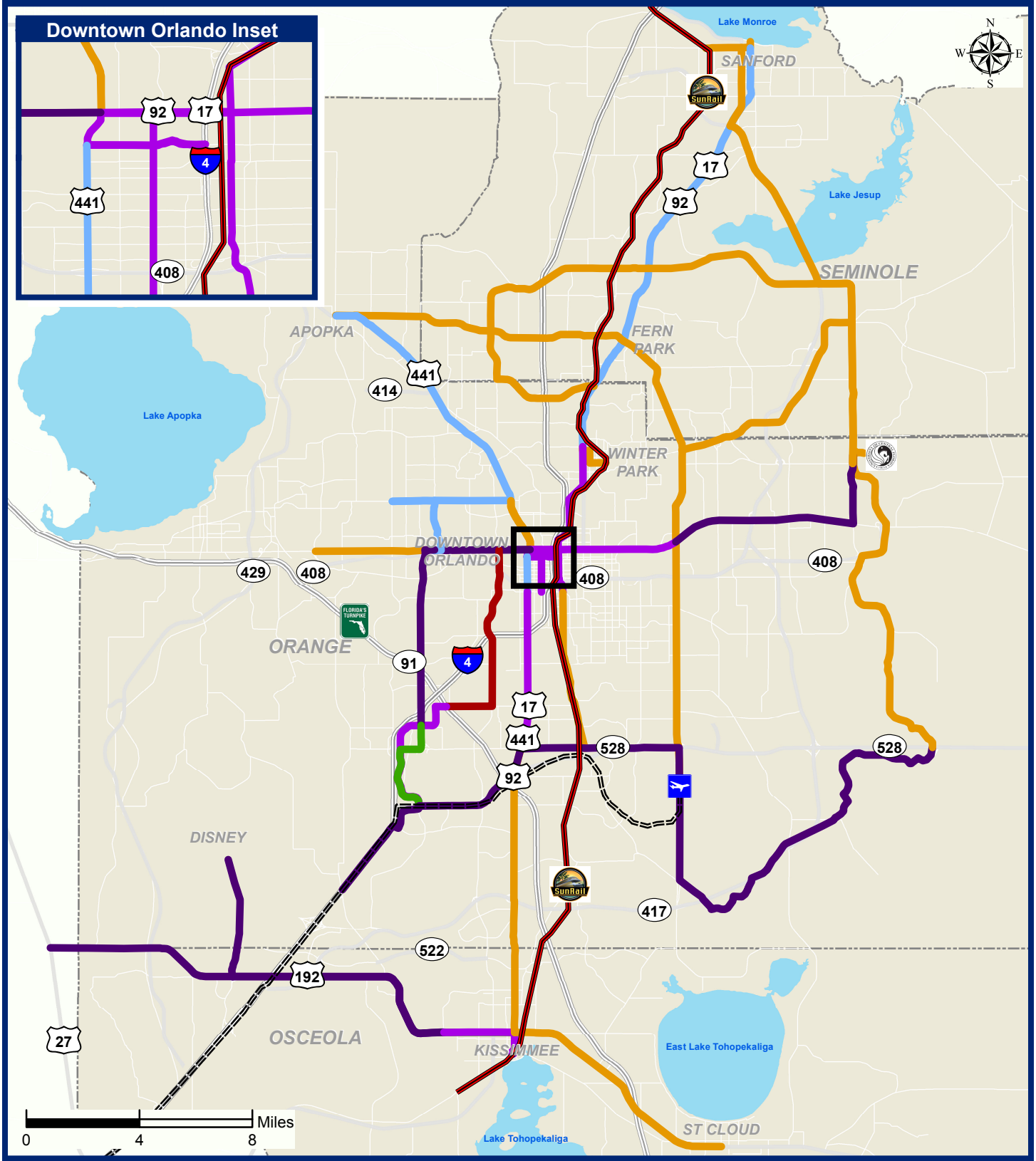
- SunRail
- Potential High Speed Rail Corridor
- Orlando International Airport

LYNX® 2030 Transit Master Plan

LYNX®

metroplan orlando
A REGIONAL TRANSPORTATION PARTNERSHIP

2030 Paw Print: The LYNX Transit Master Plan



Map 3-9 Right-of-Way Analysis - 2030 TOD

Legend

Corridor Segments

Mode

- Single-Lane BRT
- Two-Lane BRT
- Mixed-Traffic BRT
- Single Track LRT
- Enhanced Express
- Local Bus

- SunRail
- Potential High Speed Rail Corridor
- Orlando International Airport

LYNX® 2030 Transit Master Plan

LYNX®

metroplan orlando
A REGIONAL TRANSPORTATION PARTNERSHIP

Appendix A: Socioeconomic Data

Tindale-Oliver & Associates, Inc.

Technical Memorandum

Subject: Long Range Strategic Master Plan – Socioeconomic Data
Date: October 4, 2010

This Technical Memorandum summarizes discussions regarding the socioeconomic data to be used in the development of the LYNX Long Range Strategic Master Plan (LRSMP), also known as the *2030 Paw Print: The LYNX Transit Master Plan*.

The study scope indicates that the 2030 LRTP socioeconomic data (adopted September 2009) will be used; however, since these data were developed approximately four to five years ago, current economic conditions were not reflected in them. Therefore, in order to reflect our better understanding of today's conditions, our original recommendation was to adjust the 2010 (existing) socioeconomic data resulting from the LRTP effort to reflect current population estimates from the Bureau of Economic and Business Research (BEBR). In addition, it was determined that the LRTP socioeconomic data probably overestimates projections for 2030. These data seem to be more representative of a Year 2040 scenario rather than a 2030 one. Since the scope required that the LRSMP serve as a bridge document between the Five-Year Service Plan and the 2030 LRTP, it was determined that the 2030 LRTP needed to be used as this effort's horizon timeframe.

During the Regional Working Group meeting held August 20, 2010, the approach to be used was explained to the group members. After the meeting, Osceola and Seminole county representatives expressed concerns about the use of the LRTP socioeconomic data. These concerns led our project team to gather information from all three counties as to the concerns regarding the LRTP socioeconomic data. Following is a county-by-county summary regarding the specific socioeconomic data discussions held with the counties.

Osceola County
Osceola County Planning Office staff was contacted to identify the reasons for their concerns about using the 2030 LRTP socioeconomic data in this study. Osceola County Planning Office staff provided the following information:

- The 2030 LRTP socioeconomic data were developed in 2005 (approximately).
- The County approved (after the 2030 LRTP socioeconomic data were developed) a new Comprehensive Plan that is not reflected in the 2030 LRTP socioeconomic data.
- Several Developments of Regional Impact (DRIs) have been approved since 2005 that are not reflected in the 2030 LRTP socioeconomic data.
- The County's Planning Office believes that the 2030 LRTP socioeconomic data do not reflect the following:
  - Eleven mixed-use districts that were approved after the development of the 2030 LRTP socioeconomic data.
  - Sunrail Stations
  - Transit Emphasis Corridors adopted by the County

For these reasons, Osceola County decided to develop revised Osceola County socioeconomic database. These data are currently under development and are expected to correct all the deficiencies described previously; however, these data are being developed only for 2030 and neither existing nor interim scenarios are being developed. The Osceola County Planning Office staff estimates that the socioeconomic data

development will be finalized in approximately 2 to 3 weeks; after that, the data will be sent to one of the County's consultants for review. This review will take approximately one month. Therefore, Osceola County's revised 2030 socioeconomic data will not be available, under the best case scenario, until the end of November 2010.

Seminole County
To address the issues it had with the socioeconomic data, Seminole County developed a revised set of socioeconomic data. This set of socioeconomic data was provided to the project team on August 23, 2010. These socioeconomic data included the following:

- Socioeconomic data for the following years: 2009, 2010, 2015, 2020, 2025 and 2030.
- Each year includes two scenarios: Base and Energy
    - The *Base Scenario* assumes the currently-adopted Future Land Use plan with updated county-level control total projections and assumptions.
    - The *Energy Scenario* assumes adoption of the Energy Conservation Overlay's (ECO's) associated policies, resulting in a different distribution of redevelopment and growth within Seminole County.
- A discussion about how the two scenarios were developed was provided.
- For the 2009 socioeconomic data, the data are similar under both scenarios. After 2009, differences can be seen between the two scenarios.
- Transportation Analysis Zones (TAZs) have been subdivided into three different subareas (as applicable):
    - *Corridors* are the areas defined as ¼-mile deep off the roadway centerline of the ECO corridors.
    - *Spheres* are the areas defined as a ½-mile radius around major intersections.
    - *Remainders* are the portion of the TAZ not included within either an ECO corridor or sphere area.
- The total socioeconomic data quantities are the same for both scenarios.
- Pursuant to the document provided, the population forecasts are based on the BEBR medium growth projections.

Orange County
A conference call was held September 22, 2010, at the request of the Orange County Planning Department. During this conference call, the use of 2030 LRTP socioeconomic data for future conditions and proposed adjustments to existing scenario data were discussed, among other topics. Department staff expressed their agreement with project staff recommendations and confirmed that, currently, Orange County is not developing any adjusted socioeconomic data.

Based on the above and in consultation with LYNX staff, the following was determined to be the course of action:

Existing Conditions Scenario
- Socioeconomic data provided by Seminole County August 24, 2010, will be used for that county.
- The LRTP data will be adjusted to reflect current economic conditions pursuant to the latest BEBR population estimates for Orange and Osceola Counties.

Future Condition Scenarios
The data developed as part of the 2030 LRTP effort will be used in the analysis. The reasons for this are as follows:
- The LYNX LRSMP scope states that the socioeconomic data developed as part of the 2030 LRTP effort will be used in the analysis.

- One of the main objectives of the LRSMP effort is to serve as a bridge document between the Five-Year Service Plan and the 2030 LRTP; therefore, the 2030 LRTP needs to be used as this effort's horizon timeframe.
- According to the Osceola County Planning Office, the revised socioeconomic data projections will not be available for another two months. This time frame does not fit the current LRSMP schedule.
- Even though Seminole County provided socioeconomic data projections for future years, if these data are used, it will introduce inconsistencies between Seminole County projections and the remaining projections that may affect the study findings. To ensure consistency of data, the LRSMP will use future year data only from the LRTP.
- METROPLAN is currently starting to revise the 2030 LRTP to better reflect current economic conditions. It is estimated that this effort will be completed by the end of 2011.
- After METROPLAN updates its socioeconomic data, the need to update the LRSMP will be evaluated by LYNX and stakeholders.
- This document will establish a prioritization process to be used for the implementation of projects that will create the envisioned network. It is LYNX's intention to update the LRSMP as the conditions evolve over time. Therefore, this document will be updated as considered appropriate and necessary.

If you should have any questions, or require clarification on the above processes and recommendations, please feel free to contact TOA staff.

Sincerely,
Tindale-Oliver & Associates, Inc.

Joel Rey, P.E., AICP
Director of Transit Services

Appendix B: Transit Propensity Index

There are five steps to developing the Transit Propensity Index, as summarized below.

Step 1: Compile data by block group for the four demographic characteristics.

The first step involves the compilation of Census demographic data by block group for each of the following four characteristics:

- population density (persons per square mile)
- proportion of the population age 60 or older (older adults)
- proportion of the population between 15 and 24 (youth)
- proportion of low-income population (i.e., households with annual income less than $10,000)

In particular, the percent distributions for the demographic characteristics are compiled for every block group in each county. These proportions are then ranked in descending order from block groups with the greatest proportion of each characteristic to those with the smallest proportion.

Step 2: Compute an average proportion and standard deviation for each of the demographic characteristics.

An average percent (mean) and standard deviation is then computed for each demographic characteristic. A standard deviation measures the extent to which the actual percent values for each block group vary from the average percent value. With a normal "bell-shaped" distribution, approximately 68 percent of the values will be within 1 standard deviation of the average percent, while 95 percent will be within 2 standard deviations of the average.

Step 3: Stratify the proportions into four segments using the following breaks.

The resulting percent values for each block group fall into one of four categories for each demographic characteristic: below average (low), above average but within one standard deviation (medium), above average but between one and two standard deviations (high), and above average and more than two standard deviations (very high).

Step 4: Assign discrete numerical scores to each of the four categories established for each demographic characteristic.

Scores are assigned through the use of a comparative probability distribution methodology. This is done by first estimating the probability that a block group would end up in a given category for a given demographic characteristic. As an example, assume 7 of 123 block groups are above average and more than 2 standard deviations above average for the older adult population, which translates to 5.69 percent (7 divided by 123). There is a 5.69 percent probability for any given block group in the study area to fall within this above average category. The probability percentage for each group is then divided into the probability percentage for the below average category. Continuing the previous example, the category score for "above average" older adult population is assumed to be 10.57 (60.16% probability percentage for "below average" category divided by 5.69 probability percentage for "above average" category is equal to 10.57).

Step 5: Calculate composite scores.

Composite scores are computed for each block group by summing the individual category scores for each of the demographic characteristics. The block groups are then ranked in descending order using the composite score and then stratified using the same method applied to individual demographic characteristics in Step 3. Block groups in the highest category are indicated as having a very high propensity for transit use based on the four demographic characteristics used to develop the Transit Propensity Index. Other categories are indicated as having a high, medium, and low propensity, respectively.

Appendix C: Land Use Category Scores

This appendix contains the land use categories and scores used in the segment scoring process. Land use categories were taken from more than one county. Different counties use different names for land use categories that are the same or very similar. This list includes all the land use categories used in the study area. Scores were assigned to each land use category based on the assumed level of transit supportiveness for each land use type.

Table C-1
Land Use Categories and Scores

Land Use Category	Score
ACTIVITY CENTER COMMUNITY	2
ACTIVITY CENTER DOWNTOWN	3
ACTIVITY CENTER METROPOLITAN	3
ACTIVITY CENTER MIXED-USE	2
ACTIVITY CENTER NEIGHBORHOOD	2
ACTIVITY CENTER RESIDENTIAL	2
ACTIVITY CENTER URBAN	2
AIRPORT INDUSTRIAL	0
AIC - AIRPORT INDUSTRY & COMMERCE	1
AIRPORT SUPPORT DISTRICT HIGH INTENSITY	1
CASSELBERRY	2
CENTRAL BUSINESS DISTRICT	3
CC	1
COMMERCIAL	3
COMMERCIAL GENERAL DEVELOPMENT	3
CONS	0
CONSV	0
CONSERVATION	0
DESTINATION NEW TOWN	3
DMMP	0
DOWNTOWN ACTIVITY CENTER	3
ENTERTAINMENT	2
GC - GENERAL COMMERCIAL	3
GOFF GENERAL OFFICE	3
HDR HIGH DENSITY RESIDENTIAL	3
HIGH DENSITY RESIDENTIAL	3
HIGH INTENSITY MIXED USE CORRIDOR	3
HIGH INTENSITY NON- RESIDENTIAL/MEDIUM DENSITY R*	2
HIPTI	1
HIPTR	3
HOTEL/RESORT	2

Table C-1 (continued)
Land Use Categories and Scores

Land Use Category	Score
INDUSTRIAL	1
INDUSTRIAL IB	1
INSTITUTIONAL	3
INST INSTITUTIONAL	3
INST_PU	3
IOCH INTEGRATED OFFICE COMMERCIAL- HIGH INTENSITY	3
IOCM INTEGRATED OFFICE COMMERCIAL MEDIUM INTENSITY	2
IORM INTEGRATED OFFICE RESIDENTIAL MEDIUM DENSITY	2
LOW-INTENSITY NON RESIDENTIAL/ MEDIUM DENSITY RES*	2
LOW DENSITY	1
LOW DENSITY RESIDENTIAL	1
LOW MEDIUM DENSITY RESIDENTIAL	2
LDRSF - LOW DENSITY RESIDENTIAL SINGLE FAMILY	1
MAJOR THOROUGHFARE MIXED-USE	3
MEDIUM DENSITY	2
MEDIUM DENSITY RESIDENTIAL	2
MEDIUM INTENSITY MIXED USE CORRIDOR	2
MH MEDIUM DENSITY RESIDENTIAL	2
MIXED USE	3
MU	3
MULTI FAMILY HIGH DENSITY RESIDENTIAL	3
MULTI FAMILY MEDIUM DENSITY RESIDENTIAL	3
NATURAL RESOURCES/RECREATION/OPEN SPACE	0
NC - NEIGHBORHOOD COMMERCIAL	1
NEIGHBORHOOD COMMERCIAL	1
NO DATA	0
NOFLU	1
OFFICE	3
OCL OFFICE COMMERCIAL LOW INTENSITY	1
OFFICE HIGH INTENSITY	3
OFFICE LOW INTENSITY	1
OFFICE MEDIUM INTENSITY	2
OFFICE PROFESSIONAL	2
OFFICE RESIDENTIAL DEVELOPMENT	2
OPEN SPACE	0
OUT PARCEL	2
P/I - INSTITUTIONAL	3
PLANNED UNIT DEVELOPMENT RESIDENTIAL	3
PLANNED DEVELOPMENT	3
PR	0
PRIVATE/INSTITUTIONAL	2
PROFESSIONAL	2

Table C-1 (continued)
Land Use Categories and Scores

Land Use Category	Score
PROFESSIONAL - OFFICE	3
PUBLIC	0
PUBU	2
PUBLIC FACILITIES	2
PUBLIC/SEMI-PUBLIC	0
PUBLIC SERVICE	2
PUBLIC/RECREATIONAL/INSTITUTIONAL	1
PUDM PLANNED UNIT DEVELOPMENT MIXED USE	3
OPEN SPACE RECREATION	0
ORL OFFICE RESIDENTIAL LOW INTENSITY	1
PARKS AND RECREATION/OPEN SPACE	0
RAIL	0
RCOM - RESTRICTED COMMERCIAL	2
RECREATION	0
RECREATION/OPEN SPACE	0
RESIDENTIAL LOW	1
RL	1
RESIDENTIAL MEDIUM	2
RM	2
RESIDENTIAL HIGH	3
RH	3
RLS	1
RML	2
RESOURCE MANAGEMENT	0
RESOURCE MANAGEMENT/RECREATION	0
ROI - RESIDENTIAL/OFFICE/INSTITUTIONAL	2
ROW	0
RP - RESOURCE PROTECTION	0
RURAL ENCLAVE	0
RURAL/AGRICULTURE	0
SE	0
SINGLE FAMILY	2
SINGLE FAMILY LOW DENSITY RESIDENTIAL	1
SINGLE FAMILY MEDIUM DENSITY RESIDENTIAL	2
SUPPORT FACILITIES	0
TOURIST COMMERCIAL	3
UNKNOWN	0
URBAN VILLAGE	2
UTILITY	0
VACANT	0
VILLAGE	2

Table C-1 (continued)
Land Use Categories and Scores

Land Use Category	Score
WATER	0
WDBD - WATERFRONT/DOWNTOWN BUSINESS DISTRICT	3
WIC - WESTSIDE INDUSTRY & COMMERCE	1

Appendix D contains tables detailing the analysis undertaken during the Preliminary Modal Assessment. The Preliminary Modal Assessment was undertaken for three scenarios.

EXISTING LAND USE SCENARIO

Table D-1 contains information on the ranking of each segment by individual characteristic under existing land use conditions.

Table D-1
Existing Land Use Scenario: Ranking by Characteristic

Segment	Segment Measurements		Employment Density		Population Density						Transit Propensity Index		Land Uses		Existing Transit Ridership		Activity Centers		
					Residential		Hotel		Total										
	Length [Miles]	Buffer Area [Miles^2]	Employees/ Acre	Score	Residents/ Acre	Dwelling Units/ Acre	Occupied Rooms/ Acre	Equivalent Dwelling Units/ Acre	Total Equivalent Dwelling Units/ Acre	Score	Percentage	Score	Index	Score	Average Daily	Score	Total	Per Mile	Score
1-1	1.38	2.03	4.43	Low	2.55	1.05	5.93	1.48	2.53	Low	37.7%	High	1.01	Low	2,310	Low	4	2.90	Medium
2-1	4.24	5.02	2.49	Low	1.00	0.41	25.14	6.28	6.69	Medium	0.0%	Low	1.07	Low	2,346	High	1	0.24	High
2-2	8.82	9.59	2.12	Low	1.59	0.65	74.36	18.59	19.24	High	4.3%	Low	1.67	Medium	3,164	Medium	2	0.23	Low
2-3	2.50	3.28	3.47	Low	2.73	1.12	22.73	5.68	6.80	Medium	31.3%	High	0.99	Low	1,772	Low	3	1.20	Low
2-4	0.83	1.58	3.66	Low	2.52	1.03	5.12	1.28	2.31	Low	0.0%	Low	1.36	Low	1,157	Low	2	2.41	Medium
3-1	6.81	7.58	1.63	Low	1.35	0.55	45.72	11.43	11.98	High	0.0%	Low	1.63	Medium	854	Low	0	0.00	Low
3-2	8.82	9.59	2.12	Low	1.59	0.65	74.36	18.59	19.24	High	4.3%	Low	1.67	Medium	3,164	Medium	2	0.23	Low
3-3	2.50	3.28	3.47	Low	2.73	1.12	22.73	5.68	6.80	Medium	31.3%	High	0.99	Low	1,772	Low	3	1.20	Low
3-4	8.88	9.66	2.21	Low	2.06	0.84	9.75	2.44	3.28	Low	0.0%	Low	1.38	Low	1,454	Low	5	0.56	Low
4-1	1.49	2.28	2.28	Low	3.74	1.53	0.00	0.00	1.53	Low	0.0%	Low	1.25	Low	2,055	Low	1	0.67	Low
4-2	2.71	3.49	3.61	Low	2.18	0.89	0.00	0.00	0.89	Low	12.5%	Low	0.98	Low	1,537	Low	0	0.00	Low
4-3	1.91	2.69	3.58	Low	2.19	0.90	9.46	2.37	3.26	Low	2.4%	Low	0.94	Low	1,840	Low	0	0.00	Low
4-4	0.41	1.19	3.92	Low	2.64	1.08	30.15	7.54	8.62	High	22.0%	Medium	0.78	Low	3,323	Medium	3	7.32	High
4-5	1.50	2.28	4.00	Low	2.97	1.22	32.01	8.00	9.22	High	42.6%	High	0.93	Low	2,864	Low	5	3.33	Medium
5-1	1.77	2.52	3.20	Low	2.42	0.99	8.41	2.10	3.09	Low	41.1%	High	1.06	Low	268	Low	2	1.13	Low
6-1	16.87	17.37	1.45	Low	1.15	0.47	4.71	1.18	1.65	Low	0.0%	Low	1.28	Low	0	Low	1	0.06	Low
6-2	13.88	14.41	2.15	Low	2.13	0.87	4.25	1.06	1.93	Low	27.3%	Medium	1.45	Medium	552	Low	4	0.29	Low

Table D-1 (continued)
Existing Land Use Scenario: Ranking by Characteristic

Segment	Segment Measurements		Employment Density		Population Density						Transit Propensity Index		Land Uses		Existing Transit Ridership		Activity Centers		
					Residential		Hotel		Total										
	Length [Miles]	Buffer Area [Miles^2]	Employees / Acre	Score	Residents / Acre	Dwelling Units / Acre	Occupied Rooms / Acre	Equivalent Dwelling Units / Acre	Total Equivalent Dwelling Units / Acre	Score	Percentage	Score	Index	Score	Average Daily	Score	Total	Per Mile	Score
7-1	4.18	4.96	3.68	Low	2.61	1.07	6.34	1.59	2.66	Low	6.5%	Low	1.15	Low	1,765	Low	2	0.48	Low
7-2	4.06	4.81	4.31	Low	2.66	1.09	22.97	5.74	6.83	Medium	23.3%	Medium	1.02	Low	2,519	Low	10	2.46	Medium
7-3	0.38	1.16	4.89	Medium	2.99	1.23	34.63	8.66	9.88	High	44.8%	High	1.00	Low	4,470	Medium	5	13.16	High
8-1	3.01	3.78	2.57	Low	2.54	1.04	2.21	0.55	1.60	Low	8.6%	Low	1.08	Low	146	Low	1	0.33	Low
8-2	8.92	9.70	2.90	Low	2.18	0.89	1.70	0.43	1.32	Low	0.0%	Low	0.99	Low	1,706	Low	5	0.56	Low
9-1	0.66	1.44	3.25	Low	2.50	1.02	0.68	0.17	1.19	Low	15.0%	Medium	1.01	Low	1,477	Low	2	3.03	Medium
9-2	5.53	6.30	3.03	Low	2.90	1.19	2.17	0.54	1.73	Low	11.2%	Low	1.22	Low	1,436	Low	1	0.18	Low
9-3	4.28	5.05	3.62	Low	2.89	1.19	16.90	4.22	5.41	Low	0.0%	Low	1.20	Low	1,843	Low	4	0.93	Low
10-1	7.95	8.71	3.17	Low	2.95	1.21	1.17	0.29	1.50	Low	15.2%	Medium	1.29	Low	3,055	Medium	3	0.38	Low
10-2	8.69	9.46	3.29	Low	2.71	1.11	7.78	1.95	3.06	Low	3.0%	Low	1.15	Low	4,471	Medium	1	0.12	Low
11-1	9.47	10.24	3.24	Low	2.28	0.93	0.81	0.20	1.14	Low	9.0%	Low	1.06	Low	3,334	Medium	3	0.32	Low
11-2	1.91	2.69	3.58	Low	2.19	0.90	9.46	2.37	3.26	Low	2.4%	Low	0.94	Low	1,840	Low	0	0.00	Low
11-3	1.19	1.86	4.27	Low	2.62	1.07	16.20	4.05	5.13	Low	34.4%	High	1.05	Low	6,014	High	4	3.36	Medium
12-1	0.92	1.70	4.40	Low	2.64	1.08	17.27	4.32	5.40	Low	37.6%	High	1.00	Low	5,955	High	4	4.35	High
12-2	1.25	2.04	3.91	Low	2.65	1.09	6.96	1.74	2.83	Low	26.5%	Medium	0.93	Low	2,964	Low	1	0.80	Low
12-3	5.61	6.39	3.38	Low	2.56	1.05	22.05	5.51	6.56	Medium	3.3%	Low	1.09	Low	7,162	High	2	0.36	Low
13-1	1.13	1.91	4.26	Low	1.18	0.48	16.17	4.04	4.53	Low	0.0%	Low	1.06	Low	2,659	Low	2	1.77	Medium
13-2	4.27	5.05	3.20	Low	2.04	0.84	19.01	4.75	5.59	Medium	0.0%	Low	1.20	Low	2,083	Low	0	0.00	Low
13-3	4.68	5.46	2.66	Low	2.50	1.02	6.03	1.51	2.53	Low	0.0%	Low	1.55	Medium	1,558	Low	2	0.43	Low
14-1	3.89	4.67	3.02	Low	2.81	1.15	5.84	1.46	2.61	Low	0.0%	Low	1.45	Medium	2,271	Low	3	0.77	Low
14-2	2.61	3.39	3.01	Low	2.91	1.19	0.10	0.03	1.22	Low	14.3%	Medium	1.37	Low	4,980	Medium	1	0.38	Low
14-3	1.10	1.88	3.88	Low	2.50	1.03	10.47	2.62	3.64	Low	12.8%	Low	0.96	Low	3,466	Medium	1	0.91	Low
14-4	0.99	1.77	4.25	Low	2.91	1.19	17.67	4.42	5.61	Medium	24.8%	Medium	1.00	Low	3,497	Medium	4	4.04	High
14-5	4.41	5.19	3.78	Low	2.82	1.16	17.14	4.28	5.44	Low	9.2%	Low	1.00	Low	4,217	Medium	8	1.81	Medium
14-6	8.99	9.68	4.10	Low	2.55	1.04	18.16	4.54	5.58	Medium	50.5%	High	1.08	Low	1,835	Low	4	0.44	Low

Table D-1 (continued)
Existing Land Use Scenario: Ranking by Characteristic

Segment	Segment Measurements		Employment Density		Population Density						Transit Propensity Index		Land Uses		Existing Transit Ridership		Activity Centers		
					Residential		Hotel		Total										
	Length [Miles]	Buffer Area [Miles^2]	Employees / Acre	Score	Residents / Acre	Dwelling Units / Acre	Occupied Rooms / Acre	Equivalent Dwelling Units / Acre	Total Equivalent Dwelling Units / Acre	Score	Percentage	Score	Index	Score	Average Daily	Score	Total	Per Mile	Score
15-1	0.99	1.77	4.25	Low	2.91	1.19	17.67	4.42	5.61	Medium	24.8%	Medium	1.00	Low	4,591	Medium	4	4.04	High
15-2	1.10	1.88	3.88	Low	2.50	1.03	10.47	2.62	3.64	Low	12.8%	Low	0.96	Low	3,466	Medium	1	0.91	Low
15-3	7.33	8.05	3.15	Low	2.89	1.18	11.25	2.81	4.00	Low	21.5%	Medium	1.01	Low	6,358	High	4	0.55	Low
15-4	5.38	6.04	4.00	Low	1.42	0.58	250.00	62.50	63.08	High	6.8%	Low	1.44	Medium	7,613	High	4	0.74	Low
16-1	1.19	1.95	4.62	Medium	3.01	1.23	31.62	7.90	9.14	High	62.1%	High	1.00	Low	3,331	Medium	7	5.88	High
16-2	5.63	6.40	3.65	Low	2.51	1.03	6.62	1.66	2.68	Low	9.9%	Low	0.95	Low	3,704	Medium	5	0.89	Low
17-1	1.49	2.28	2.28	Low	3.74	1.53	0.00	0.00	1.53	Low	0.0%	Low	1.25	Low	2,055	Low	1	0.67	Low
17-2	2.08	2.78	3.11	Low	3.16	1.30	1.63	0.41	1.70	Low	0.0%	Low	0.98	Low	3,276	Medium	0	0.00	Low
17-3	6.57	7.30	3.52	Low	2.57	1.05	62.67	15.67	16.72	High	42.8%	High	1.10	Low	5,426	High	3	0.46	Low
17-4	4.04	4.69	4.18	Low	1.19	0.49	227.40	56.85	57.34	High	8.8%	Low	1.54	Medium	3,988	Medium	2	0.50	Low
18-1	4.40	5.07	3.37	Low	1.37	0.56	246.10	61.52	62.09	High	24.4%	Medium	1.61	Medium	2,570	Low	3	0.68	Low
18-2	3.71	4.49	2.89	Low	1.36	0.56	51.66	12.91	13.47	High	8.9%	Low	1.28	Low	569	Low	1	0.27	Low
18-3	8.14	8.84	3.39	Low	1.50	0.61	26.14	6.54	7.15	Medium	0.0%	Low	1.08	Low	4,985	Medium	3	0.37	Low
19-1	8.91	9.68	3.25	Low	2.68	1.10	1.79	0.45	1.55	Low	0.0%	Low	1.32	Low	1,421	Low	0	0.00	Low
19-2	6.56	7.34	1.74	Low	2.25	0.92	0.66	0.16	1.08	Low	0.0%	Low	1.07	Low	204	Low	0	0.00	Low
19-3	7.48	8.23	1.90	Low	2.06	0.85	4.04	1.01	1.86	Low	16.9%	Medium	1.46	Medium	905	Low	1	0.13	Low
20-1	1.59	2.37	3.18	Low	2.99	1.22	0.00	0.00	1.22	Low	13.1%	Low	1.14	Low	443	Low	0	0.00	Low
20-2	7.00	7.75	1.91	Low	2.16	0.89	0.25	0.06	0.95	Low	0.5%	Low	1.32	Low	0	Low	0	0.00	Low
21-1	3.79	4.57	3.54	Low	2.33	0.95	13.90	3.47	4.43	Low	0.0%	Low	1.07	Low	0	Low	1	0.26	Low
22-1	7.48	8.23	1.90	Low	2.06	0.85	4.04	1.01	1.86	Low	16.9%	Medium	1.46	Medium	905	Low	1	0.13	Low
22-2	6.53	7.31	1.34	Low	1.39	0.57	0.96	0.24	0.81	Low	0.0%	Low	1.07	Low	0	Low	0	0.00	Low
22-3	2.89	3.68	2.56	Low	2.55	1.05	3.82	0.96	2.00	Low	5.5%	Low	1.11	Low	129	Low	0	0.00	Low

Table D-2 takes the rankings in Table D-1 and translates them into scores, and then combines them for a total score. The total score is then used to determine the preliminary mode. Weights assigned to individual characteristics were reviewed and supported by LYNX staff and the Regional Working Group.

Table D-2
Existing Land Use Scenario: Score and Mode Assignments

Segment	Employment Density	Population Density	Transit Propensity Index	Existing Ridership	Percentage of Land Uses	Activity Centers	Total Score	Mode
Weight	**3.00**	**3.00**	**3.00**	**1.00**	**1.00**	**3.00**		
1-1	1	1	5	1	1	3	21	Express
2-1	1	3	1	5	1	5	31	BRT
2-2	1	5	1	3	3	1	33	BRT
2-3	1	3	5	1	1	1	23	Express
2-4	1	1	1	1	1	3	17	Express
3-1	1	5	1	1	3	1	31	BRT
3-2	1	5	1	3	3	1	33	BRT
3-3	1	3	5	1	1	1	23	Express
3-4	1	1	1	1	1	1	13	Local Bus
4-1	1	1	1	1	1	1	13	Local Bus
4-2	1	1	1	1	1	1	13	Local Bus
4-3	1	1	1	1	1	1	13	Local Bus
4-4	1	5	3	3	1	5	37	BRT
4-5	1	5	5	1	1	3	33	BRT
5-1	1	1	5	1	1	1	17	Express
6-1	1	1	1	1	1	1	13	Local Bus
6-2	1	1	3	1	3	1	21	Express
7-1	1	1	1	1	1	1	13	Local Bus
7-2	1	3	3	1	1	3	25	Express
7-3	3	5	5	3	1	5	45	LRT
8-1	1	1	1	1	1	1	13	Local Bus
8-2	1	1	1	1	1	1	13	Local Bus
9-1	1	1	3	1	1	3	19	Express
9-2	1	1	1	1	1	1	13	Local Bus
9-3	1	1	1	1	1	1	13	Local Bus
10-1	1	1	3	3	1	1	17	Express
10-2	1	1	1	3	1	1	15	Local Bus
11-1	1	1	1	3	1	1	15	Local Bus
11-2	1	1	1	1	1	1	13	Local Bus
11-3	1	1	5	5	1	3	25	Express

Table D-2 (continued)
Existing Land Use Scenario: Score and Mode Assignments

Segment	Employment Density	Population Density	Transit Propensity Index	Existing Ridership	Percentage of Land Uses	Activity Centers	Total Score	Mode
Weight	3.00	1.00	1.00	3.00	1.00	1.00		
12-1	1	1	5	5	1	5	29	BRT
12-2	1	1	3	1	1	1	15	Local Bus
12-3	1	3	1	5	1	1	23	Express
13-1	1	1	1	1	1	3	17	Express
13-2	1	3	1	1	1	1	19	Express
13-3	1	1	1	1	3	1	19	Express
14-1	1	1	1	1	3	1	19	Express
14-2	1	1	3	3	1	1	17	Express
14-3	1	1	1	3	1	1	15	Local Bus
14-4	1	3	3	3	1	5	31	BRT
14-5	1	1	1	3	1	3	19	Express
14-6	1	3	5	1	1	1	23	Express
15-1	1	3	3	3	1	5	31	BRT
15-2	1	1	1	3	1	1	15	Local Bus
15-3	1	1	3	5	1	1	19	Express
15-4	1	5	1	5	3	1	35	BRT
16-1	3	5	5	3	1	5	45	LRT
16-2	1	1	1	3	1	1	15	Local Bus
17-1	1	1	1	1	1	1	13	Local Bus
17-2	1	1	1	3	1	1	15	Local Bus
17-3	1	5	5	5	1	1	33	BRT
17-4	1	5	1	3	3	1	33	BRT
18-1	1	5	3	1	3	1	33	BRT
18-2	1	5	1	1	1	1	25	Express
18-3	1	3	1	3	1	1	21	Express
19-1	1	1	1	1	1	1	13	Local Bus
19-2	1	1	1	1	1	1	13	Local Bus
19-3	1	1	3	1	3	1	21	Express

Table D-2 (continued)
Existing Land Use Scenario: Score and Mode Assignments

Segment	Employment Density	Population Density	Transit Propensity Index	Existing Ridership	Percentage of Land Uses	Activity Centers	Total Score	Mode
Weight	**3.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**		
20-1	1	1	1	1	1	1	13	Local Bus
20-2	1	1	1	1	1	1	13	Local Bus
21-1	1	1	1	1	1	1	13	Local Bus
22-1	1	1	3	1	3	1	21	Express
22-2	1	1	1	1	1	1	13	Local Bus
22-3	1	1	1	1	1	1	13	Local Bus

TREND LAND USE SCENARIO

Table D-3 contains information on the ranking of each segment by individual characteristic under the trend land use scenario.

Table D-3
Trend Land Use Scenario: Ranking by Characteristic

Segment	Segment Measurements		Employment Density		Population Density						Transit Propensity Index		Land Uses		Existing Transit Ridership		Activity Centers		
					Residential		Hotel		Total										
	Length [Miles]	Buffer Area [Miles^2]	Employees/ Acre	Score	Residents/ Acre	Dwelling Units/ Acre	Occupied Rooms/ Acre	Equivalent Dwelling Units/ Acre	Total Equivalent Dwelling Units/ Acre	Score	Percentage	Score	Index	Score	Average Daily	Score	Total	Per Mile	Score
1-1	1.38	2.03	4.59	Medium	4.59	1.88	5.93	1.48	3.36	Low	37.7%	High	1.51	Medium	2,310	Low	5	3.62	Medium
2-1	4.24	5.02	2.97	Low	2.97	1.22	25.14	6.28	7.50	High	0.0%	Low	1.15	Low	2,346	High	1	0.24	High
2-2	8.82	9.59	2.49	Low	1.94	0.79	95.08	23.77	24.56	High	4.3%	Low	1.84	High	3,164	Medium	3	0.34	Low
2-3	2.50	3.28	3.54	Low	2.86	1.17	24.63	6.16	7.33	Medium	31.3%	High	1.98	High	1,772	Low	3	1.20	Low
2-4	0.83	1.58	3.33	Low	2.42	0.99	9.19	2.30	3.29	Low	0.0%	Low	1.76	High	1,157	Low	4	4.82	High
3-1	6.81	7.58	2.12	Low	1.67	0.69	46.84	11.71	12.40	High	0.0%	Low	1.64	Medium	854	Low	0	0.00	Low
3-2	8.82	9.59	2.49	Low	1.94	0.79	95.08	23.77	24.56	High	4.3%	Low	1.84	High	3,164	Medium	3	0.34	Low
3-3	2.50	3.28	3.54	Low	2.86	1.17	24.63	6.16	7.33	Medium	31.3%	High	1.98	High	1,772	Low	3	1.20	Low
3-4	8.88	9.66	2.60	Low	2.52	1.03	10.07	2.52	3.55	Low	0.0%	Low	1.60	Medium	1,454	Low	5	0.56	Low
4-1	1.49	2.28	2.94	Low	3.74	1.53	0.00	0.00	1.53	Low	0.0%	Low	1.25	Low	2,055	Low	1	0.67	Low
4-2	2.71	3.49	3.79	Low	2.21	0.90	0.00	0.00	0.90	Low	12.5%	Low	0.98	Low	1,537	Low	0	0.00	Low
4-3	1.91	2.69	3.63	Low	2.27	0.93	9.93	2.48	3.42	Low	2.4%	Low	0.94	Low	1,840	Low	0	0.00	Low
4-4	0.41	1.19	3.82	Low	2.90	1.19	29.19	7.30	8.48	High	22.0%	Medium	0.78	Low	3,323	Medium	3	7.32	High
4-5	1.50	2.28	3.95	Low	3.44	1.41	88.41	22.10	23.51	High	42.6%	High	0.93	Low	2,864	Low	6	4.00	High
5-1	1.77	2.52	3.96	Low	2.82	1.16	12.83	3.21	4.36	Low	41.1%	High	1.28	Low	268	Low	3	1.69	Medium
6-1	16.87	17.37	2.59	Low	2.09	0.86	8.49	2.12	2.98	Low	0.0%	Low	1.95	High	0	Low	3	0.18	Low
6-2	13.88	14.41	2.84	Low	2.27	0.93	5.57	1.39	2.32	Low	27.3%	Medium	1.94	High	552	Low	5	0.36	Low
7-1	4.18	4.96	4.05	Low	2.71	1.11	6.16	1.54	2.65	Low	6.5%	Low	1.21	Low	1,765	Low	4	0.96	Low
7-2	4.06	4.81	4.42	Low	3.12	1.28	33.85	8.46	9.74	High	23.3%	Medium	2.20	High	2,519	Low	11	2.71	Medium
7-3	0.38	1.16	4.90	Medium	3.90	1.60	43.89	10.97	12.57	High	44.8%	High	1.51	Medium	4,470	Medium	6	15.79	High
8-1	3.01	3.78	3.22	Low	2.82	1.15	5.00	1.25	2.40	Low	8.6%	Low	1.08	Low	146	Low	1	0.33	Low
8-2	8.92	9.70	3.66	Low	2.29	0.94	1.65	0.41	1.35	Low	0.0%	Low	0.99	Low	1,706	Low	6	0.67	Low
9-1	0.66	1.44	3.82	Low	2.75	1.13	0.68	0.17	1.30	Low	15.0%	Medium	1.57	Medium	1,477	Low	2	3.03	Medium
9-2	5.53	6.30	3.69	Low	2.96	1.21	2.27	0.57	1.78	Low	11.2%	Low	1.57	Medium	1,436	Low	1	0.18	Low
9-3	4.28	5.05	4.03	Low	2.99	1.23	18.44	4.61	5.84	Medium	0.0%	Low	1.56	Medium	1,843	Low	6	1.40	Low

Table D-3 (continued)
Trend Land Use Scenario: Ranking by Characteristic

Segment	Segment Measurements		Employment Density		Population Density						Transit Propensity Index		Land Uses		Existing Transit Ridership		Activity Centers		
					Residential		Hotel		Total										
	Length [Miles]	Buffer Area [Miles^2]	Employees/ Acre	Score	Residents/ Acre	Dwelling Units/ Acre	Occupied Rooms/ Acre	Equivalent Dwelling Units/ Acre	Total Equivalent Dwelling Units/ Acre	Score	Percentage	Score	Index	Score	Average Daily	Score	Total	Per Mile	Score
10-1	7.95	8.71	3.63	Low	3.11	1.27	1.02	0.25	1.53	Low	15.2%	Medium	1.29	Low	3,055	Medium	3	0.38	Low
10-2	8.69	9.46	3.30	Low	2.85	1.17	11.09	2.77	3.94	Low	3.0%	Low	1.45	Medium	4,471	Medium	1	0.12	Low
11-1	9.47	10.24	3.60	Low	2.50	1.03	0.80	0.20	1.22	Low	9.0%	Low	1.19	Low	3,334	Medium	3	0.32	Low
11-2	1.91	2.69	3.63	Low	2.27	0.93	9.93	2.48	3.42	Low	2.4%	Low	0.94	Low	1,840	Low	0	0.00	Low
11-3	1.19	1.86	4.20	Low	3.12	1.28	22.87	5.72	7.00	Medium	34.4%	High	1.16	Low	6,014	High	5	4.20	High
12-1	0.92	1.70	4.33	Low	3.19	1.31	24.85	6.21	7.52	High	37.6%	High	1.16	Low	5,955	High	5	5.43	High
12-2	1.25	2.04	3.86	Low	2.71	1.11	9.83	2.46	3.57	Low	26.5%	Medium	0.93	Low	2,964	Low	1	0.80	Low
12-3	5.61	6.39	3.69	Low	2.70	1.10	23.86	5.97	7.07	Medium	3.3%	Low	1.09	Low	7,162	High	2	0.36	Low
13-1	1.13	1.91	4.32	Low	1.26	0.52	17.38	4.34	4.86	Low	0.0%	Low	1.10	Low	2,659	Low	2	1.77	Medium
13-2	4.27	5.05	3.74	Low	2.21	0.90	19.78	4.95	5.85	Medium	0.0%	Low	1.20	Low	2,083	Low	0	0.00	Low
13-3	4.68	5.46	3.52	Low	2.90	1.19	7.36	1.84	3.03	Low	0.0%	Low	1.55	Medium	1,558	Low	2	0.43	Low
14-1	3.89	4.67	3.66	Low	3.32	1.36	6.33	1.58	2.94	Low	0.0%	Low	1.56	Medium	2,271	Low	3	0.77	Low
14-2	2.61	3.39	3.37	Low	3.05	1.25	0.10	0.03	1.28	Low	14.3%	Medium	1.37	Low	4,980	Medium	1	0.38	Low
14-3	1.10	1.88	3.82	Low	2.32	0.95	13.75	3.44	4.39	Low	12.8%	Low	0.96	Low	3,466	Medium	1	0.91	Low
14-4	0.99	1.77	4.19	Low	3.29	1.35	26.42	6.61	7.95	High	24.8%	Medium	1.10	Low	3,497	Medium	5	5.05	High
14-5	4.41	5.19	4.10	Low	3.18	1.30	22.23	5.56	6.86	Medium	9.2%	Low	1.06	Low	4,217	Medium	9	2.04	Medium
14-6	8.99	9.68	4.19	Low	2.89	1.19	23.13	5.78	6.97	Medium	50.5%	High	1.47	Medium	1,835	Low	4	0.44	Low
15-1	0.99	1.77	4.19	Low	3.29	1.35	26.42	6.61	7.95	High	24.8%	Medium	1.10	Low	4,591	Medium	5	5.05	High
15-2	1.10	1.88	3.82	Low	2.32	0.95	13.75	3.44	4.39	Low	12.8%	Low	0.96	Low	3,466	Medium	1	0.91	Low
15-3	7.33	8.05	3.29	Low	3.10	1.27	27.60	6.90	8.17	High	21.5%	Medium	1.01	Low	6,358	High	4	0.55	Low
15-4	5.38	6.04	4.20	Low	2.34	0.96	345.62	86.40	87.36	High	6.8%	Low	2.03	High	7,613	High	4	0.74	Low
16-1	1.19	1.95	4.57	Medium	3.96	1.62	47.01	11.75	13.38	High	62.1%	High	1.34	Low	3,331	Medium	8	6.72	High
16-2	5.63	6.40	3.75	Low	2.89	1.19	31.15	7.79	8.97	High	9.9%	Low	0.95	Low	3,704	Medium	6	1.07	Low
17-1	1.49	2.28	2.94	Low	3.74	1.53	0.00	0.00	1.53	Low	0.0%	Low	1.25	Low	2,055	Low	1	0.67	Low
17-2	2.08	2.78	3.49	Low	3.10	1.27	1.63	0.41	1.68	Low	0.0%	Low	0.98	Low	3,276	Medium	0	0.00	Low
17-3	6.57	7.30	3.74	Low	3.00	1.23	117.86	29.46	30.69	High	42.8%	High	1.35	Low	5,426	High	3	0.46	Low
17-4	4.04	4.69	4.41	Low	1.90	0.78	282.60	70.65	71.43	High	8.8%	Low	1.94	High	3,988	Medium	2	0.50	Low
18-1	4.40	5.07	4.35	Low	2.89	1.19	314.34	78.59	79.77	High	24.4%	Medium	1.61	Medium	2,570	Low	3	0.68	Low
18-2	3.71	4.49	3.54	Low	1.70	0.70	52.13	13.03	13.73	High	8.9%	Low	1.28	Low	569	Low	1	0.27	Low
18-3	8.14	8.84	3.65	Low	1.60	0.65	31.94	7.99	8.64	High	0.0%	Low	1.48	Medium	4,985	Medium	4	0.49	Low

Table D-3 (continued)
Trend Land Use Scenario: Ranking by Characteristic

Segment	Segment Measurements		Employment Density		Population Density						Transit Propensity Index		Land Uses		Existing Transit Ridership		Activity Centers		
					Residential		Hotel		Total										
	Length [Miles]	Buffer Area [Miles^2]	Employees/ Acre	Score	Residents/ Acre	Dwelling Units/ Acre	Occupied Rooms/ Acre	Equivalent Dwelling Units/ Acre	Total Equivalent Dwelling Units/ Acre	Score	Percentage	Score	Index	Score	Average Daily	Score	Total	Per Mile	Score
19-1	8.91	9.68	3.56	Low	2.73	1.12	2.27	0.57	1.69	Low	0.0%	Low	1.65	Medium	1,421	Low	1	0.11	Low
19-2	6.56	7.34	2.50	Low	2.00	0.82	0.06	0.02	0.84	Low	0.0%	Low	1.74	Medium	204	Low	0	0.00	Low
19-3	7.48	8.23	2.57	Low	2.37	0.97	4.18	1.05	2.02	Low	16.9%	Medium	1.85	High	905	Low	1	0.13	Low
20-1	1.59	2.37	3.75	Low	3.04	1.24	0.00	0.00	1.24	Low	13.1%	Low	1.45	Medium	443	Low	0	0.00	Low
20-2	7.00	7.75	2.78	Low	2.48	1.02	0.64	0.16	1.18	Low	0.5%	Low	1.64	Medium	0	Low	0	0.00	Low
21-1	3.79	4.57	4.11	Low	2.45	1.00	13.30	3.32	4.33	Low	0.0%	Low	1.72	Medium	0	Low	1	0.26	Low
22-1	7.48	8.23	2.57	Low	2.37	0.97	4.18	1.05	2.02	Low	16.9%	Medium	1.85	High	905	Low	1	0.13	Low
22-2	6.53	7.31	1.60	Low	1.56	0.64	0.96	0.24	0.88	Low	0.0%	Low	1.36	Low	0	Low	0	0.00	Low
22-3	2.89	3.68	3.46	Low	2.90	1.19	7.86	1.97	3.15	Low	5.5%	Low	1.68	Medium	129	Low	0	0.00	Low

Table D-4 takes the rankings in Table D-3 and translates them into scores, and then combines them for a total score. The total score is then used to determine the preliminary mode. Weights assigned to individual characteristics were reviewed and supported by LYNX staff and the Regional Working Group.

Table D-4
Trend Land Use Scenario: Score and Mode Assignments

Segment	Employment Density	Population Density	Transit Propensity Index	Existing Ridership	Percentage of Land Uses	Activity Centers	Total Score	Mode
Weight	3.00	3.00	1.00	1.00	3.00	2.00		
1-1	3	1	5	1	3	3	33	BRT
2-1	1	5	1	5	1	5	37	BRT
2-2	1	5	1	3	5	1	39	BRT
2-3	1	3	5	1	5	1	35	BRT
2-4	1	1	1	1	5	5	33	BRT
3-1	1	5	1	1	3	1	31	BRT
3-2	1	5	1	3	5	1	39	BRT
3-3	1	3	5	1	5	1	35	BRT
3-4	1	1	1	1	3	1	19	Express
4-1	1	1	1	1	1	1	13	Local Bus
4-2	1	1	1	1	1	1	13	Local Bus
4-3	1	1	1	1	1	1	13	Local Bus
4-4	1	5	3	3	1	5	37	BRT
4-5	1	5	5	1	1	5	37	BRT
5-1	1	1	5	1	1	3	21	Express
6-1	1	1	1	1	5	1	25	Express
6-2	1	1	3	1	5	1	27	Express
7-1	1	1	1	1	1	1	13	Local Bus
7-2	1	5	3	1	5	3	43	LRT
7-3	3	5	5	3	3	5	51	LRT
8-1	1	1	1	1	1	1	13	Local Bus
8-2	1	1	1	1	1	1	13	Local Bus
9-1	1	1	3	1	3	3	25	Express
9-2	1	1	1	1	3	1	19	Express
9-3	1	3	1	1	3	1	25	Express
10-1	1	1	3	3	1	1	17	Express
10-2	1	1	1	3	3	1	21	Express
11-1	1	1	1	3	1	1	15	Local Bus
11-2	1	1	1	1	1	1	13	Local Bus
11-3	1	3	5	5	1	5	35	BRT

Table D-4 (continued)
Trend Land Use Scenario: Score and Mode Assignments

Segment	Employment Density	Population Density	Transit Propensity Index	Existing Ridership	Percentage of Land Uses	Activity Centers	Total Score	Mode
Weight	3.00	3.00	1.00	1.00	3.00	2.00		
12-1	1	5	5	5	1	5	41	LRT
12-2	1	1	3	1	1	1	15	Local Bus
12-3	1	3	1	5	1	1	23	Express
13-1	1	1	1	1	1	3	17	Express
13-2	1	3	1	1	1	1	19	Express
13-3	1	1	1	1	3	1	19	Express
14-1	1	1	1	1	3	1	19	Express
14-2	1	1	3	3	1	1	17	Express
14-3	1	1	1	3	1	1	15	Local Bus
14-4	1	5	3	3	1	5	37	BRT
14-5	1	3	1	3	1	3	25	Express
14-6	1	3	5	1	3	1	29	BRT
15-1	1	5	3	3	1	5	37	BRT
15-2	1	1	1	3	1	1	15	Local Bus
15-3	1	5	3	5	1	1	31	BRT
15-4	1	5	1	5	5	1	41	LRT
16-1	3	5	5	3	1	5	45	LRT
16-2	1	5	1	3	1	1	27	Express
17-1	1	1	1	1	1	1	13	Local Bus
17-2	1	1	1	3	1	1	15	Local Bus
17-3	1	5	5	5	1	1	33	BRT
17-4	1	5	1	3	5	1	39	BRT
18-1	1	5	3	1	3	1	33	BRT
18-2	1	5	1	1	1	1	25	Express
18-3	1	5	1	3	3	1	33	BRT
19-1	1	1	1	1	3	1	19	Express
19-2	1	1	1	1	3	1	19	Express
19-3	1	1	3	1	5	1	27	Express
20-1	1	1	1	1	3	1	19	Express
20-2	1	1	1	1	3	1	19	Express

Table D-4 (continued)

Trend Land Use Scenario: Score and Mode Assignments

Segment	Employment Density	Population Density	Transit Propensity Index	Existing Ridership	Percentage of Land Uses	Activity Centers	Total Score	Mode
Weight	**3.00**	**3.00**	**1.00**	**1.00**	**3.00**	**2.00**		
21-1	1	1	1	1	3	1	19	Express
22-1	1	1	3	1	5	1	27	Express
22-2	1	1	1	1	1	1	13	Local Bus
22-3	1	1	1	1	3	1	19	Express

TRANSIT ORIENTED DEVELOPMENT LAND USE SCENARIO

Table D-5 contains information on the ranking of each segment by individual characteristic under the TOD land use scenario.

Table D-5
TOD Land Use Scenario: Ranking by Characteristic

Segment	Segment Measurements		Employment Density		Population Density						Transit Propensity Index		Land Uses		Existing Transit Ridership		Activity Centers		
					Residential		Hotel		Total										
	Length [Miles]	Buffer Area [Miles^2]	Employees/ Acre	Score	Residents/ Acre	Dwelling Units/ Acre	Occupied Rooms/ Acre	Equivalent Dwelling Units/ Acre	Total Equivalent Dwelling Units/ Acre	Score	Percentage	Score	Index	Score	Average Daily	Score	Total	Per Mile	Score
1-1	1.38	2.03	4.48	Low	4.48	1.84	5.93	1.48	3.32	Low	37.7%	High	1.51	Medium	2,310	Low	5	3.62	Medium
2-1	4.24	5.02	1.44	Low	1.44	0.59	25.18	6.29	6.89	Medium	0.0%	Low	1.15	Low	2,346	High	1	0.24	High
2-2	8.82	9.59	2.19	Low	2.68	1.10	97.45	24.36	25.46	High	4.3%	Low	1.84	High	3,164	Medium	3	0.34	Low
2-3	2.50	3.28	3.64	Low	3.69	1.51	24.45	6.11	7.62	High	31.3%	High	1.98	High	1,772	Low	3	1.20	Low
2-4	0.83	1.58	3.83	Low	3.57	1.46	6.20	1.55	3.01	Low	0.0%	Low	1.76	High	1,157	Low	4	4.82	High
3-1	6.81	7.58	1.84	Low	1.81	0.74	50.16	12.54	13.28	High	0.0%	Low	1.64	Medium	854	Low	0	0.00	Low
3-2	8.82	9.59	2.19	Low	2.68	1.10	97.45	24.36	25.46	High	4.3%	Low	1.84	High	3,164	Medium	3	0.34	Low
3-3	2.50	3.28	3.64	Low	3.69	1.51	24.45	6.11	7.62	High	31.3%	High	1.98	High	1,772	Low	3	1.20	Low
3-4	8.88	9.66	2.48	Low	2.57	1.05	9.75	2.44	3.49	Low	0.0%	Low	1.60	Medium	1,454	Low	5	0.56	Low
4-1	1.49	2.28	2.55	Low	3.73	1.53	0.00	0.00	1.53	Low	0.0%	Low	1.25	Low	2,055	Low	1	0.67	Low
4-2	2.71	3.49	3.92	Low	2.14	0.88	0.00	0.00	0.88	Low	12.5%	Low	0.98	Low	1,537	Low	0	0.00	Low
4-3	1.91	2.69	3.87	Low	2.34	0.96	50.99	12.75	13.71	High	2.4%	Low	0.94	Low	1,840	Low	0	0.00	Low
4-4	0.41	1.19	4.28	Low	3.17	1.30	125.34	31.34	32.63	High	22.0%	Medium	0.78	Low	3,323	Medium	3	7.32	High
4-5	1.50	2.28	4.43	Low	3.52	1.44	119.75	29.94	31.38	High	42.6%	High	0.93	Low	2,864	Low	6	4.00	High
5-1	1.77	2.52	4.49	Low	3.54	1.45	12.53	3.13	4.58	Low	41.1%	High	1.28	Low	268	Low	3	1.69	Medium
6-1	16.87	17.37	3.17	Low	2.37	0.97	23.82	5.96	6.93	Medium	0.0%	Low	1.95	High	0	Low	3	0.18	Low
6-2	13.88	14.41	3.23	Low	2.40	0.98	4.72	1.18	2.16	Low	27.3%	Medium	1.94	High	552	Low	5	0.36	Low
7-1	4.18	4.96	4.15	Low	3.66	1.50	7.28	1.82	3.32	Low	6.5%	Low	1.21	Low	1,765	Low	4	0.96	Low
7-2	4.06	4.81	4.40	Low	3.53	1.44	36.64	9.16	10.60	High	23.3%	Medium	2.20	High	2,519	Low	11	2.71	Medium
7-3	0.38	1.16	4.90	Medium	4.01	1.64	28.58	7.14	8.79	High	44.8%	High	1.51	Medium	4,470	Medium	6	15.79	High
8-1	3.01	3.78	3.43	Low	3.14	1.29	6.15	1.54	2.82	Low	8.6%	Low	1.08	Low	146	Low	1	0.33	Low
8-2	8.92	9.70	3.92	Low	2.71	1.11	13.09	3.27	4.38	Low	0.0%	Low	0.99	Low	1,706	Low	6	0.67	Low
9-1	0.66	1.44	3.97	Low	3.20	1.31	2.03	0.51	1.82	Low	15.0%	Medium	1.57	Medium	1,477	Low	2	3.03	Medium
9-2	5.53	6.30	3.10	Low	2.99	1.23	0.39	0.10	1.32	Low	11.2%	Low	1.57	Medium	1,436	Low	1	0.18	Low
9-3	4.28	5.05	4.17	Low	3.65	1.50	18.48	4.62	6.12	Medium	0.0%	Low	1.56	Medium	1,843	Low	6	1.40	Low
10-1	7.95	8.71	3.50	Low	3.06	1.25	1.02	0.26	1.51	Low	15.2%	Medium	1.29	Low	3,055	Medium	3	0.38	Low
10-2	8.69	9.46	3.49	Low	2.89	1.18	10.20	2.55	3.73	Low	3.0%	Low	1.45	Medium	4,471	Medium	1	0.12	Low

Table D-5 (continued)
TOD Land Use Scenario: Ranking by Characteristic

Segment	Segment Measurements		Employment Density		Population Density						Transit Propensity Index		Land Uses		Existing Transit Ridership		Activity Centers		
					Residential		Hotel		Total										
	Length [Miles]	Buffer Area [Miles^2]	Employees/ Acre	Score	Residents/ Acre	Dwelling Units/ Acre	Occupied Rooms/ Acre	Equivalent Dwelling Units/ Acre	Total Equivalent Dwelling Units/ Acre	Score	Percentage	Score	Index	Score	Average Daily	Score	Total	Per Mile	Score
11-1	9.47	10.24	3.52	Low	2.58	1.06	0.80	0.20	1.26	Low	9.0%	Low	1.19	Low	3,334	Medium	3	0.32	Low
11-2	1.91	2.69	3.87	Low	2.34	0.96	50.99	12.75	13.71	High	2.4%	Low	0.94	Low	1,840	Low	0	0.00	Low
11-3	1.19	1.86	4.48	Low	3.41	1.40	22.80	5.70	7.10	Medium	34.4%	High	1.16	Low	6,014	High	5	4.20	High
12-1	0.92	1.70	4.53	Medium	3.50	1.44	23.16	5.79	7.23	Medium	37.6%	High	1.16	Low	5,955	High	5	5.43	High
12-2	1.25	2.04	4.20	Low	2.91	1.19	6.39	1.60	2.79	Low	26.5%	Medium	0.93	Low	2,964	Low	1	0.80	Low
12-3	5.61	6.39	3.81	Low	2.66	1.09	29.47	7.37	8.46	High	3.3%	Low	1.09	Low	7,162	High	2	0.36	Low
13-1	1.13	1.91	4.26	Low	1.57	0.64	17.38	4.34	4.99	Low	0.0%	Low	1.10	Low	2,659	Low	2	1.77	Medium
13-2	4.27	5.05	3.56	Low	2.39	0.98	19.78	4.95	5.92	Medium	0.0%	Low	1.20	Low	2,083	Low	0	0.00	Low
13-3	4.68	5.46	3.24	Low	3.35	1.37	7.36	1.84	3.21	Low	0.0%	Low	1.55	Medium	1,558	Low	2	0.43	Low
14-1	3.89	4.67	3.70	Low	3.29	1.35	6.33	1.58	2.93	Low	0.0%	Low	1.56	Medium	2,271	Low	3	0.77	Low
14-2	2.61	3.39	3.60	Low	3.50	1.43	0.10	0.03	1.46	Low	14.3%	Medium	1.37	Low	4,980	Medium	1	0.38	Low
14-3	1.10	1.88	4.51	Medium	3.52	1.44	8.98	2.24	3.69	Low	12.8%	Low	0.96	Low	3,466	Medium	1	0.91	Low
14-4	0.99	1.77	4.49	Low	3.58	1.47	27.31	6.83	8.29	High	24.8%	Medium	1.10	Low	3,497	Medium	5	5.05	High
14-5	4.41	5.19	4.44	Low	3.50	1.44	27.78	6.95	8.38	High	9.2%	Low	1.06	Low	4,217	Medium	9	2.04	Medium
14-6	8.99	9.68	4.27	Low	3.01	1.23	37.71	9.43	10.66	High	50.5%	High	1.47	Medium	1,835	Low	4	0.44	Low
15-1	0.99	1.77	4.49	Low	3.58	1.47	27.31	6.83	8.29	High	24.8%	Medium	1.10	Low	4,591	Medium	5	5.05	High
15-2	1.10	1.88	4.51	Medium	3.52	1.44	8.98	2.24	3.69	Low	12.8%	Low	0.96	Low	3,466	Medium	1	0.91	Low
15-3	7.33	8.05	3.60	Low	3.24	1.33	70.63	17.66	18.99	High	21.5%	Medium	1.01	Low	6,358	High	4	0.55	Low
15-4	5.38	6.04	4.19	Low	1.89	0.78	481.32	120.33	121.10	High	6.8%	Low	2.03	High	7,613	High	4	0.74	Low
16-1	1.19	1.95	4.70	Medium	4.10	1.68	52.51	13.13	14.81	High	62.1%	High	1.34	Low	3,331	Medium	8	6.72	High
16-2	5.63	6.40	4.05	Low	3.35	1.37	30.56	7.64	9.01	High	9.9%	Low	0.95	Low	3,704	Medium	6	1.07	Low
17-1	1.49	2.28	2.55	Low	3.73	1.53	0.00	0.00	1.53	Low	0.0%	Low	1.25	Low	2,055	Low	1	0.67	Low
17-2	2.08	2.78	3.48	Low	3.61	1.48	5.49	1.37	2.85	Low	0.0%	Low	0.98	Low	3,276	Medium	0	0.00	Low
17-3	6.57	7.30	3.67	Low	2.87	1.17	152.03	38.01	39.18	High	42.8%	High	1.35	Low	5,426	High	3	0.46	Low
17-4	4.04	4.69	4.38	Low	1.74	0.71	398.56	99.64	100.35	High	8.8%	Low	1.94	High	3,988	Medium	2	0.50	Low
18-1	4.40	5.07	4.35	Low	2.55	1.04	314.34	78.59	79.63	High	24.4%	Medium	1.61	Medium	2,570	Low	3	0.68	Low
18-2	3.71	4.49	3.28	Low	2.07	0.85	72.64	18.16	19.01	High	8.9%	Low	1.28	Low	569	Low	1	0.27	Low
18-3	8.14	8.84	3.87	Low	1.93	0.79	59.06	14.76	15.56	High	0.0%	Low	1.48	Medium	4,985	Medium	4	0.49	Low
19-1	8.91	9.68	3.49	Low	2.92	1.20	2.27	0.57	1.77	Low	0.0%	Low	1.65	Medium	1,421	Low	1	0.11	Low
19-2	6.56	7.34	2.20	Low	2.34	0.96	0.06	0.02	0.98	Low	0.0%	Low	1.74	Medium	204	Low	0	0.00	Low
19-3	7.48	8.23	2.48	Low	2.14	0.88	4.18	1.05	1.92	Low	16.9%	Medium	1.85	High	905	Low	1	0.13	Low

Table D-5 (continued)
TOD Land Use Scenario: Ranking by Characteristic

Segment	Segment Measurements		Employment Density		Population Density						Transit Propensity Index		Land Uses		Existing Transit Ridership		Activity Centers		
					Residential		Hotel		Total										
	Length [Miles]	Buffer Area [Miles^2]	Employees/ Acre	Score	Residents/ Acre	Dwelling Units/ Acre	Occupied Rooms/ Acre	Equivalent Dwelling Units/ Acre	Total Equivalent Dwelling Units/ Acre	Score	Percentage	Score	Index	Score	Average Daily	Score	Total	Per Mile	Score
20-1	1.59	2.37	3.18	Low	2.88	1.18	0.00	0.00	1.18	Low	13.1%	Low	1.45	Medium	443	Low	0	0.00	Low
20-2	7.00	7.75	2.71	Low	2.39	0.98	0.64	0.16	1.14	Low	0.5%	Low	1.64	Medium	0	Low	0	0.00	Low
21-1	3.79	4.57	3.88	Low	2.71	1.11	13.30	3.32	4.44	Low	0.0%	Low	1.72	Medium	0	Low	1	0.26	Low
22-1	7.48	8.23	2.48	Low	2.14	0.88	4.18	1.05	1.92	Low	17%	Medium	1.85	High	905	Low	1	0.13	Low
22-2	6.53	7.31	1.60	Low	1.51	0.62	0.96	0.24	0.86	Low	0.0%	Low	1.36	Low	0	Low	0	0.00	Low
22-3	2.89	3.68	3.75	Low	3.30	1.35	7.86	1.97	3.32	Low	5.5%	Low	1.68	Medium	129	Low	0	0.00	Low

Table D-6 takes the rankings in Table D-3 and translates them into scores, and then combines them for a total score. The total score is then used to determine the preliminary mode. Weights assigned to individual characteristics were reviewed and supported by LYNX staff and the Regional Working Group.

Table D-6
TOD Land Use Scenario: Score and Mode Assignments

Segment	Employment Density	Population Density	Transit Propensity Index	Existing Ridership	Percentage of Land Uses	Activity Centers	Total Score	Mode
Weight	3.00	3.00	1.00	1.00	3.00	2.00		
1-1	1	1	5	1	3	3	27	Express
2-1	1	3	1	5	1	5	31	BRT
2-2	1	5	1	3	5	1	39	BRT
2-3	1	5	5	1	5	1	41	LRT
2-4	1	1	1	1	5	5	33	BRT
3-1	1	5	1	1	3	1	31	BRT
3-2	1	5	1	3	5	1	39	BRT
3-3	1	5	5	1	5	1	41	LRT
3-4	1	1	1	1	3	1	19	Express
4-1	1	1	1	1	1	1	13	Local Bus
4-2	1	1	1	1	1	1	13	Local Bus
4-3	1	5	1	1	1	1	25	Express
4-4	1	5	3	3	1	5	37	BRT
4-5	1	5	5	1	1	5	37	BRT
5-1	1	1	5	1	1	3	21	Express
6-1	1	3	1	1	5	1	31	BRT
6-2	1	1	3	1	5	1	27	Express
7-1	1	1	1	1	1	1	13	Local Bus
7-2	1	5	3	1	5	3	43	LRT
7-3	3	5	5	3	3	5	51	LRT
8-1	1	1	1	1	1	1	13	Local Bus
8-2	1	1	1	1	1	1	13	Local Bus
9-1	1	1	3	1	3	3	25	Express
9-2	1	1	1	1	3	1	19	Express
9-3	1	3	1	1	3	1	25	Express
10-1	1	1	3	3	1	1	17	Express
10-2	1	1	1	3	3	1	21	Express
11-1	1	1	1	3	1	1	15	Local Bus
11-2	1	5	1	1	1	1	25	Express
11-3	1	3	5	5	1	5	35	BRT

Table D-6 (continued)
TOD Land Use Scenario: Score and Mode Assignments

Segment	Employment Density	Population Density	Transit Propensity Index	Existing Ridership	Percentage of Land Uses	Activity Centers	Total Score	Mode
Weight	**3.00**	**3.00**	**1.00**	**1.00**	**3.00**	**2.00**		
12-1	3	3	5	5	1	5	41	LRT
12-2	1	1	3	1	1	1	15	Local Bus
12-3	1	5	1	5	1	1	29	BRT
13-1	1	1	1	1	1	3	17	Express
13-2	1	3	1	1	1	1	19	Express
13-3	1	1	1	1	3	1	19	Express
14-1	1	1	1	1	3	1	19	Express
14-2	1	1	3	3	1	1	17	Express
14-3	3	1	1	3	1	1	21	Express
14-4	1	5	3	3	1	5	37	BRT
14-5	1	5	1	3	1	3	31	BRT
14-6	1	5	5	1	3	1	35	BRT
15-1	1	5	3	3	1	5	37	BRT
15-2	3	1	1	3	1	1	21	Express
15-3	1	5	3	5	1	1	31	BRT
15-4	1	5	1	5	5	1	41	LRT
16-1	3	5	5	3	1	5	45	LRT
16-2	1	5	1	3	1	1	27	Express
17-1	1	1	1	1	1	1	13	Local Bus
17-2	1	1	1	3	1	1	15	Local Bus
17-3	1	5	5	5	1	1	33	BRT
17-4	1	5	1	3	5	1	39	BRT
18-1	1	5	3	1	3	1	33	BRT
18-2	1	5	1	1	1	1	25	Express
18-3	1	5	1	3	3	1	33	BRT
19-1	1	1	1	1	3	1	19	Express
19-2	1	1	1	1	3	1	19	Express
19-3	1	1	3	1	5	1	27	Express
20-1	1	1	1	1	3	1	19	Express
20-2	1	1	1	1	3	1	19	Express

Table D-6 (continued)

TOD Land Use Scenario: Score and Mode Assignments

Segment	Employment Density	Population Density	Transit Propensity Index	Existing Ridership	Percentage of Land Uses	Activity Centers	Total Score	Mode
Weight	**3.00**	**3.00**	**1.00**	**1.00**	**3.00**	**2.00**		
21-1	1	1	1	1	3	1	19	Express
22-1	1	1	3	1	5	1	27	Express
22-2	1	1	1	1	1	1	13	Local Bus
22-3	1	1	1	1	3	1	19	Express

Table E-1 provides the calculations undertaken in the streetcar analysis.

Table E-1
Streetcar Analysis

Segment	Description	Criteria						Score						Final Score	Streetcar Assessment
								3.00	1.00	2.00	3.00	1.00	2.00		
		Mode	Trip Length	Presence of Sidewalks	Downtown Area	Capacity Needed	User Type	Mode	Trip Length	Presence of Sidewalks	Downtown Area	Capacity Needed	User Type		
1-1	Winter Park Connector	Express	High	Low	High	Low	High	1	5	1	5	1	5	36	Maybe
2-4	Downtown Kissimmee	BRT	High	Medium	Medium	Low	Medium	3	5	3	3	1	3	36	Maybe
4-5	Parramore Ave. (Downtown Orlando)	BRT	High	High	High	Low	Medium	3	5	5	5	1	3	46	Yes
5-1	Downtown Sanford	Express	High	Low	Low	Low	Low	1	5	1	1	1	1	16	No
7-3	Orange Ave. from SR 50 to Livingston St. (Downtown Orlando)	LRT	High	High	High	Medium	Medium	5	5	5	5	3	3	54	Yes
9-1	Downtown Apopka	Express	High	Low	Low	Low	Low	1	5	1	1	1	1	16	No
11-1	Downtown Apopka (partially covered by 9-1)	Local Bus	Medium	Low	Low	Medium	Low								
11-3	US 17/92 & Amelia St. (Downtown Orlando)	BRT	High	High	High	High	Medium	3	5	5	5	5	3	50	Yes
12-1	Amelia St. (Downtown Orlando)	LRT	High	High	High	High	Medium	5	5	5	5	5	3	56	Yes
12-2	US 17/92 from Amelia St. to Gore St. (Downtown Orlando)	Local Bus	High	High	High	Low	Medium	1	5	5	5	1	3	40	Yes
15-4	International Dr. from Turnpike to SR 528	LRT	Medium	Medium	High	High	High	5	3	3	5	5	5	54	Yes
16-1	Orange Ave. from Livingston St. to Gore St. (Downtown Orlando)	LRT	High	High	High	Medium	Medium	5	5	5	5	3	3	54	Yes
17-4	International Dr./Kirkman Rd. from International Dr. to SR 528	BRT	High	Medium	High	Medium	High	3	5	3	5	3	5	48	Yes

(This page intentionally left blank.)

Appendix F: Right-of-Way Analysis

Table F-1 provides details for the right-of-way analysis. It is important to note that this analysis considers only existing available right-of-way and does not assume the acquisition of any land for potential premium transit improvements.

Table F-1
Right-of-Way Analysis

Segment	Length [miles]	Available ROW				Modes under ROW Constraints		
		BRT		Light Rail				
		One Lane	Two Lane	One Track	Two Track	Existing	2030 TOD	2030 Trend
1-1	1.38	7%	7%	7%	7%	Express	MT BRT	MT BRT
2-1	4.24	100%	100%	100%	99%	2L BRT	2L BRT	2L BRT
2-2	8.82	100%	100%	100%	100%	2L BRT	2L BRT	2L BRT
2-3	2.50	64%	49%	66%	27%	Express	1T LRT	1L BRT
2-4	0.83	18%	18%	18%	18%	Express	MT BRT	MT BRT
3-1	6.81	92%	82%	93%	80%	2L BRT	2L BRT	2L BRT
3-2	8.82	94%	90%	94%	89%	2L BRT	2L BRT	2L BRT
3-3	2.50	4%	3%	4%	3%	Express	MT BRT	MT BRT
3-4	8.88	n/a	n/a	n/a	n/a	Local Bus	Express	Express
4-1	1.49	n/a	n/a	n/a	n/a	Local Bus	Local Bus	Local Bus
4-2	2.71	n/a	n/a	n/a	n/a	Local Bus	Local Bus	Local Bus
4-3	1.91	n/a	n/a	n/a	n/a	Local Bus	Local Bus	Local Bus
4-4	0.41	7%	7%	7%	7%	MT BRT	MT BRT	MT BRT
4-5	1.50	16%	15%	16%	14%	MT BRT	MT BRT	MT BRT
5-1	1.77	n/a	n/a	n/a	n/a	Express	Express	Express
6-1	16.87	100%	100%	100%	100%	Local Bus	2L BRT	Express
6-2	13.88	n/a	n/a	n/a	n/a	Express	Express	Express
7-1	4.18	n/a	n/a	n/a	n/a	Local Bus	Local Bus	Local Bus
7-2	4.06	6%	3%	6%	3%	Express	MT BRT	MT BRT
7-3	0.38	9%	9%	9%	9%	MT BRT	MT BRT	MT BRT
8-1	3.01	n/a	n/a	n/a	n/a	Local Bus	Local Bus	Local Bus
8-2	8.92	n/a	n/a	n/a	n/a	Local Bus	Local Bus	Local Bus
9-1	0.66	n/a	n/a	n/a	n/a	Express	Express	Express

Table F-1 (continued)
Right-of-Way Analysis

Segment	Length [miles]	Available ROW				Modes under ROW Constraints		
		BRT		Light Rail				
		One Lane	Two Lane	One Track	Two Track	Existing	2030 TOD	2030 Trend
9-2	5.53	n/a	n/a	n/a	n/a	Local Bus	Express	Express
9-3	4.28	n/a	n/a	n/a	n/a	Local Bus	Express	Express
10-1	7.95	n/a	n/a	n/a	n/a	Express	Express	Express
10-2	8.69	n/a	n/a	n/a	n/a	Local Bus	Express	Express
11-1	9.47	n/a	n/a	n/a	n/a	Local Bus	Local Bus	Local Bus
11-2	1.91	n/a	n/a	n/a	n/a	Local Bus	Local Bus	Local Bus
11-3	1.19	10%	10%	10%	10%	Express	MT BRT	MT BRT
12-1	0.92	12%	12%	12%	12%	MT BRT	MT BRT	MT BRT
12-2	1.25	n/a	n/a	n/a	n/a	Local Bus	Local Bus	Local Bus
12-3	5.61	13%	12%	13%	12%	Express	MT BRT	Express
13-1	1.13	n/a	n/a	n/a	n/a	Express	Express	Express
13-2	4.27	n/a	n/a	n/a	n/a	Express	Express	Express
13-3	4.68	n/a	n/a	n/a	n/a	Express	Express	Express
14-1	3.89	n/a	n/a	n/a	n/a	Express	Express	Express
14-2	2.61	n/a	n/a	n/a	n/a	Express	2L BRT	2L BRT
14-3	1.10	n/a	n/a	n/a	n/a	Local Bus	2L BRT	2L BRT
14-4	0.99	12%	10%	12%	10%	MT BRT	MT BRT	MT BRT
14-5	4.41	23%	22%	23%	21%	Express	MT BRT	Express
14-6	8.99	74%	73%	74%	72%	Express	2L BRT	Express
15-1	0.99	16%	15%	16%	15%	MT BRT	MT BRT	MT BRT
15-2	1.10	n/a	n/a	n/a	n/a	Local Bus	2L BRT	2L BRT
15-3	7.33	51%	41%	52%	39%	Express	1L BRT	1L BRT
15-4	5.38	36%	26%	37%	24%	MT BRT	MT BRT	MT BRT
16-1	1.19	10%	10%	10%	10%	MT BRT	MT BRT	MT BRT
16-2	5.63	n/a	n/a	n/a	n/a	Local Bus	Express	Express

Table F-1 (continued)
Right-of-Way Analysis

Segment	Length [miles]	Available ROW				Modes under ROW Constraints		
		BRT		Light Rail				
		One Lane	Two Lane	One Track	Two Track	Existing	2030 TOD	2030 Trend
17-1	1.49	n/a	n/a	n/a	n/a	Local Bus	Local Bus	Local Bus
17-2	2.08	n/a	n/a	n/a	n/a	Local Bus	Local Bus	Local Bus
17-3	6.57	86%	83%	86%	83%	2L BRT	2L BRT	2L BRT
17-4	4.04	67%	53%	69%	50%	2L BRT	1T LRT	1T LRT
18-1	4.40	87%	83%	87%	82%	2L BRT	2L BRT	2L BRT
18-2	3.71	n/a	n/a	n/a	n/a	Express	2L BRT	2L BRT
18-3	8.14	69%	62%	69%	60%	Express	2L BRT	2L BRT
19-1	8.91	n/a	n/a	n/a	n/a	Local Bus	Express	Express
19-2	6.56	n/a	n/a	n/a	n/a	Local Bus	Express	Express
19-3	7.48	n/a	n/a	n/a	n/a	Express	Express	Express
20-1	1.59	n/a	n/a	n/a	n/a	Local Bus	Express	Express
20-2	7.00	n/a	n/a	n/a	n/a	Local Bus	Express	Express
21-1	3.79	n/a	n/a	n/a	n/a	Local Bus	Express	Express
22-1	7.48	n/a	n/a	n/a	n/a	Express	Express	Express
22-2	6.53	n/a	n/a	n/a	n/a	Local Bus	Express	Express
22-3	2.89	n/a	n/a	n/a	n/a	Local Bus	Express	Express

Note: MT BRT stands for mixed-traffic BRT; 1L BRT stands for one-lane BRT; 2L BRT stands for two-lane BRT; 1T LRT stands for one-track light rail; 2T LRT stands for two-track light rail.

(This page intentionally left blank.)