



I-Drive Transit Feasibility and Alternative Technology Assessment

Purpose and Need

March 13, 2020

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1.0 Introduction

This document presents the purpose and need for the International Drive Transit Feasibility and Alternative Technology Assessment (TFATA), building on the information presented in the Study Area Conditions and Characteristics Report. This introductory section provides an overview of the study area and defines the mobility and transportation problem in the International Drive area. The second, third and fourth sections address each of the three interrelated goals and objectives. The fifth section provides a summary of how the goals and objectives will be integrated into the evaluation framework and applied to assess each of the transit alternatives.

1.1 Background

The International Drive Transit Feasibility and Alternative Technology Assessment (TFATA) is analyzing the potential of implementing a premium transit service as an urban circulator operating within the International Drive District (I-Drive District).

The project purpose is to improve mobility options for a diverse set of travel markets within the rapidly growing I-Drive District, and to implement a sustainable multimodal system that reflects and complements the surrounding environment. The International Drive 2040 Vision Plan developed by Orange County includes a policy directive to enhance and sustain the economic viability of the I-Drive District and the Orange County Convention Center. Carefully planning and designing an effective premium transit system with multiple transportation modes can achieve this directive and will be essential to the existing and future growth of the I-Drive District.

1.2 Study Area

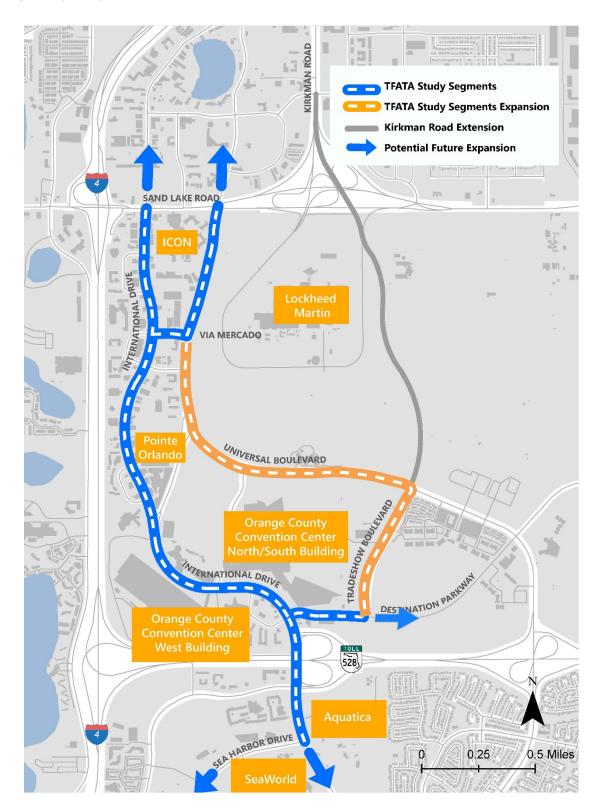
The study area for a potential premium transit service is illustrated in Figure 1, including key roadway segments where the existing I-Ride Trolley operates between Sand Lake Road and Orange County's Destination Parkway Superstop, and continues further south to Sea Harbor Drive. The study area encompasses the Orange County Convention Center (OCCC) and surrounding land uses including hotels, restaurants, entertainment venues and theme parks. The five roadway segments being studied include:

- International Drive (I-Drive) from Sea Harbor Drive to Sand Lake Road,
- Via Mercado from I-Drive to Universal Boulevard,
- Destination Parkway from I-Drive to Tradeshow Boulevard,
- Tradeshow Boulevard from Destination Parkway to Universal Boulevard, and
- Universal Boulevard from Tradeshow Boulevard to Sand Lake Road.

The arrows on Figure 1 pointing to the north of Sand Lake Road and to the south of Sea Harbor Drive reflect an understanding that this study area is a subset of the I-Drive District, and that mobility options within the study area will need to consider multiple opportunities for subarea and regional expansion to the north and south, and potentially the east and west.



Figure 1 | Study Area





1.3 Definition of the Problem

The I-Drive District is a major economic generator within Orange County, and presents significant mobility challenges for visitors, commuters, and residents alike. The I-Drive District is home to six theme parks, four entertainment complexes, 35 additional major attractions, over 120 hotels and resorts, more than 300 restaurants and nightlife venues, and will soon home to Universal Studio's newest theme park, EPIC Universe.¹ A 2017 economic impact analysis found the I-Drive District's economic impact accounts for \$7.3 billion in Gross Regional Product (GRP), which is approximately 7% of the total Metropolitan Statistical Area (MSA) GRP.² The I-Drive District also accounts for approximately 12% of the jobs in Orange County,³ hosts 20% of all Orlando visitors,⁴ and produces over \$3.4 billion in personal income. Major employers include Universal Orlando Resorts, SeaWorld Orlando and Aquatica, as well as the numerous associated hotels, commercial and entertainment facilities.

With Orlando area visitors reaching a record high of 75 million during 2018, the economic well-being of the region relies heavily on the strength of the tourism industry as it represents the area's largest employment sector and provides crucial tax revenue to local governments.

The Orange County Convention Center (OCCC), a major economic contributor in the Central Florida area, is also located in the I-Drive District and within the study area. OCCC attracts over 230 events annually and contributes more than \$2.4 billion in annual economic impact to the area.⁵ With a total of 7 million square feet, the OCCC is the second largest convention center in the country. The OCCC campus includes over 6,200 parking spaces and is easily accessed by private automobile, taxi and shared ride services, as well as contracted shuttle bus and bus transit. Increased auto and bus traffic generated due to events hosted at OCCC contributes to the growing congestion along the I-Drive corridor, particularly when coupled with peak tourist season.

Florida Department of Transportation 2018 traffic counts report higher traffic volumes⁶ along Universal Boulevard in comparison to I-Drive. The current average annual daily traffic (AADT) on Universal Boulevard is about 34,000, while International Drive's AADT is about 27,000. Even higher traffic volumes are experienced along Sand Lake Road with an AADT ranging from 46,000 to 52,000. Traffic studies completed in 2012 and 2016 have assumed a continuing trend of increasing traffic congestion based on historical growth rates of 3.3% annually forecasted through 2035. Figure 2 illustrates the average daily level-of service on key roadways in the corridor.

⁷ 2012 International Drive Traffic Technical Memorandum; 2012 International Drive Design Traffic Report; 2016 Preliminary Engineering Report (PER): International Drive Transit Lanes



¹ I-Drive Business Improvement District Website (www.IDriveDistrict.com)

² I-Drive Economic Impact Analysis (2017)

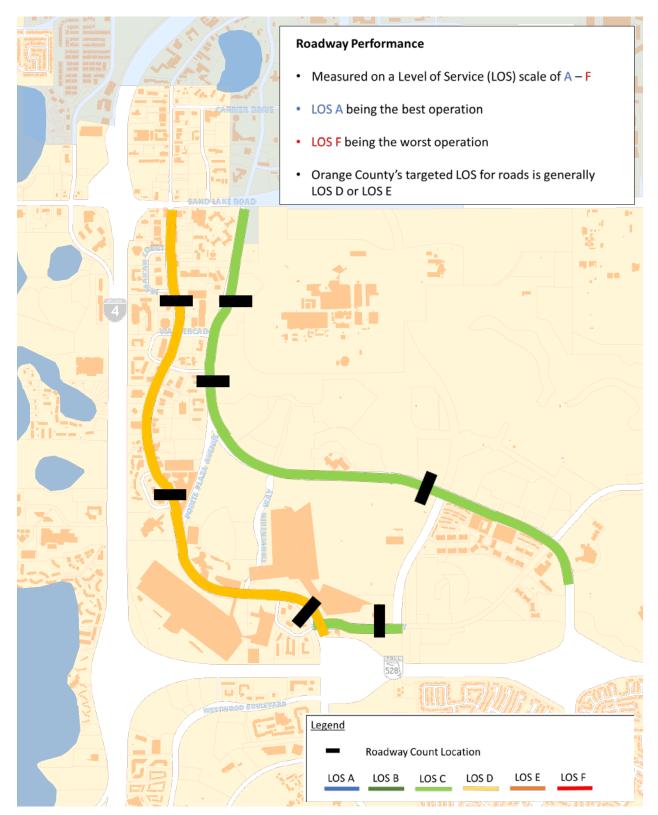
³ I-Drive Economic Impact Analysis, 2017

⁴ I-Drive District Guide, 2019

⁵ Orange County Convention Center Website https://www.occc.net/About-Us

⁶ Florida Department of Transportation Traffic Data, 2018

Figure 2 | 2020 I-Drive Daily Traffic Level of Service





In March 2016, the OCCC published a master plan with a goal to further increase the attractiveness of the facility for large-scale events. Recommended improvements include but are not limited to enhanced vehicular circulation, freight service, transit, monumental art, and unique meeting spaces. These enhancements will assist in continuing to attract global and domestic visitors alike to the I-Drive area.

The I-Drive District's current transportation system faces challenges beyond just increasing vehicular traffic congestion. The I-Ride Trolley, a bus circulator service that operates within the District, experiences long travel times due to short distances between stops and long dwell times for passengers to get on and off the vehicle. The LYNX regional fixed route bus service in the area experiences long travel times coupled with a route system that is sometimes difficult for short-term visitors to comprehend. In addition, convention event organizers often hire private shuttle bus services to transport conventioneers to and from hotels and special events, which adds more vehicles to an already congested corridor. Visitors looking to take advantage of the area's many attractions, shopping, and dining experiences often find mobility options limited and time-consuming.

LYNX provides local bus service for residents and visitors to travel around Orange, Seminole and Osceola Counties. Within the study area, the I-Drive District is served by five regular LYNX bus routes (listed below) which mostly run every 30 minutes during the daytime and reduced service at night.

- Route 8: West Oak Ridge Road to I-Drive with stops at OCCC and Orlando Outlet I-Drive
- Route 38: Downtown Orlando to I-Drive with stops at OCCC and Kirkman Road
- Route 42: I-Drive to OIA with stops at Destination Parkway and Orlando International Premium Outlets
- Route 58: Shingle Creek with a stop at Destination Parkway
- Route 111: OIA to SeaWorld with stops Sea Harbor Drive and Destination Parkway

The I-Ride Trolley exclusively serves the I-Drive District on a 24-mile circular route with two primary lines—Red Line and Green Line. The I-Ride Trolley Red Line route travels primarily along I-Drive north and south, beginning at Orlando International Premium Outlets and traveling southbound on a circular route to Orlando Vineland Premium Outlets. This route stops at many dining and lodging locations in addition to Pointe Orlando, the OCCC, SeaWorld and Aquatica. Red Line Trolleys arrive approximately every 20 minutes. The Green Line Trolley route is the counterpart to the Red Line Trolley route which begins service in the Major Boulevard area and encompasses Kirkman Road and Universal Boulevard then shadows the Red Line route as it continues service south to Orlando Premium Outlets with stops at Pointe Orlando, Westgate Palace Resort, OCCC and SeaWorld. Green Line Trolleys arrive approximately every 30 minutes. The I-Ride Trolley service is provided by a fleet of 17 climate controlled, rubber-tired, replica trolley buses. Each I-Ride Trolley is a replica trolley style bus seating 41 passengers, with a total capacity of 54 passengers, including wheelchair positions and lift system.

As a result of the combination of a growing population, vast employment opportunities, planned developments and attractions, and past funding decisions, the I-Drive District needs better mobility choices for visitors, workers and residents. A visitor may be reluctant to travel to a nearby attraction or



commercial establishment because of traffic congestion around the OCCC, hotels, and attractions. A worker may be forced to pay the costs for driving and parking or to endure a long transit trip with multiple transfers. Residents may face severe traffic congestion in their neighborhood while they try to travel to work, school, shopping and entertainment.

The purpose of this project is to improve mobility options for this diverse set of travel markets within the rapidly growing I-Drive District through an investment in a high-quality transit system (referred to as "premium transit"). In summary, the key characteristics of a premium transit service include:

- Modern transit vehicle technology, including level boarding and multiple doors to improve convenience and timeliness of passenger boarding and alighting;
- Higher service frequencies (at least 10-15 minute headways) and reliable, on-time performance;
- Operation in a dedicated guideway, in an exclusive or semi-exclusive transit lane minimizing operations in mixed traffic, including traffic signal priority and other measures to improve transit operating speeds;
- Reasonable spacing of transit station stops to ensure convenient access for passengers while also minimizing the travel time for the transit vehicle;
- Station amenities including safe, secure, and well-lit station platforms with shelters providing protection from sunlight and rain; and
- Real-time information informing passengers of the time of the next available vehicle at the station stop as well as accessible on smartphone and/or website.

1.4 Goals and Objectives

The purpose and need for a proposed premium transit investment in the I-Drive District is organized around the interrelated goals outlined below.

- **Support Multimodal Connectivity** While the primary goal is to provide a transit circulator serving local trips in the I-Drive District, the proposed premium transit investment will also connect with other transit services serving key destinations within the Orlando region.
- Serve Diverse Travel Markets and Needs A premium transit service will offer a frequent, convenient, and comfortable travel option within the I-Drive District for visitors, residents, conventioneers, and workers.
- Sustain Economic Competitiveness and Development A premium transit service will provide cost effective infrastructure and mobility investment which will support global competitiveness and promote sustainable economic development within the I-Drive District.

The goals and objectives presented in this document will be utilized to develop evaluation measures to assist in analyzing the proposed transit alignment alternatives. The last section of this document summarizes how the stated goals and objectives will be integrated into the TFATA evaluation plan.



2.0 Support Multimodal Connectivity

The primary goal of this project is to provide a transit circulator serving local trips in the I-Drive District. However, the proposed investment in premium transit service will also be designed to improve connections with transit operations and facilities serving other key destinations within the Central Florida region.

The objectives to be assessed in the evaluation of transit alternatives related to the goal to "Support Multimodal Connectivity" include:

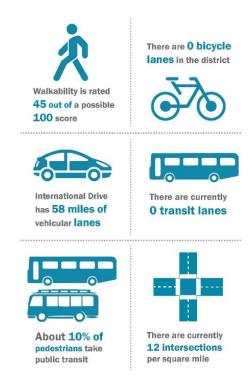
- **Support Local Connectivity** Investment in a transit system providing premium high-quality service to key locations within the I-Drive District. Such investment would increase the share of local trips within the I-Drive District via public transit.
- **Support Regional Connectivity** Investment in a transit system providing premium high-quality service and connections to key regional destinations. Such investment would increase the share of regional trips to and from the I-Drive District via public transit.

2.1 Local Connectivity

One of the I-Drive District's goals is to provide improved transportation options, connecting people, jobs, shopping destinations. hotels, amusements, entertainment, restaurants. Major destinations such as Sea World and the OCCC are geographically separated from the many restaurants and hotels located along I-Drive. There are currently no bicycle lanes nor dedicated transit lanes within most of the I-Drive District. About 10% of pedestrians take public transit and the walkability rating along I-Drive is 45 out of 100. Implementing a premium transit service that provides connections to available sidewalks, LYNX and I-Ride Trolley stops, the Destination Parkway Superstop station, and parking resources will improve the overall multimodal connectivity within the I-Drive District's local network. This increased connectivity would increase the share of trips within the I-Drive District by public transit.

2.2 Regional Connectivity

As a regional activity center, the I-Drive District is considered a major tourist hub and employment center for Central Florida.



As the I-Drive District continues to grow and transform into a vibrant place to live, work and play, moving people to and from their desired destinations throughout the region is vital for residents, visitors, and businesses alike. While the proposed project is responding to the need for a local transit circulator, it is also important that efficient transit connections exist to the north of Sand Lake Road, to the south of Sea Harbor Drive, and to the east on Destination Parkway. These transit connections could be supported by



the implementation of transit hubs enabling convenient transfer to other regional services as well as potential expansions, at a future date, to the north, south, and/or east. This increased connectivity would increase the share of regional trips to and from the I-Drive District by public transit.

3.0 Serve Diverse Travel Markets and Needs

The I-Drive District includes a unique and diverse set of travel markets. The area is known for a large population of leisure travelers, conventioneers and business travelers, and a significant employment base. Each diverse travel market has its own unique travel needs and patterns.

The objectives to be assessed in the evaluation of transit alternatives related to the goal to "Serve Diverse Travel Markets and Needs" include:

- **Serve Tourist Travel Market** Investment in a transit system providing premium high-quality service to key attractions, lodging, entertainment and dining locations supporting the visitor and tourist market. Such investment would increase ridership among tourists visiting the I-Drive District.
- Serve Conventioneer Travel Market Investment in a transit system providing premium highquality service to key attractions, lodging, entertainment and dining locations supporting individuals and groups attending events at the Orange County Convention Center. Such investment would increase ridership among those visiting the OCCC.
- Serve Employee Travel Market Investment in a transit system providing premium high-quality service to employees working within the I-Drive District, including evening and weekend services. Such investment would increase ridership among employees in the I-Drive District.
- Implement a Safe Transit System Investment in a transit system that is connected to a multimodal network that reduces crashes between vehicular modes and pedestrians.

3.1 Serve Tourist Travel Market

The I-Drive District is increasing in popularity as a desirable location for entertainment, attractions, and dining, drawing visitors from all over the world as well as local residents. Visit Florida reports that 90% of visitors to the State of Florida are visiting for leisure purposes. The Central Florida area welcomed 75 million visitors in 2018. As illustrated in Figure 3, the I-Drive area accommodated approximately 20% of these visitors and 18% of the Central Florida leisure visitors. It is important to ensure that visitors have a positive experience when traveling to and from the I-Drive District and circulating to the many attractions and activities within the District. In order to do so, it is necessary to provide transit services which satisfy the expectations of both locals and tourists. It is also important to provide rapid, reliable and efficient transit service with connections to parking facilities within the I-Drive District to encourage locals and visitors to park their car once and use other mobility options for circulation to activities and locations.

⁹ VisitOrlando



8

⁸ VisitFlorida

All Visitors

Leisure

Group Meetings

40%

72%

Other Orlando

Figure 3 | Central Florida Visitor Market Share

Source: I-Drive Economic Impact Analysis 2017.

3.2 Serve Conventioneer Travel Market

The I-Drive District is home to the nation's second largest convention center and hosts numerous national and international as well as regional and local events and conventions. In 2019, the OCCC hosted over 170 events serving approximately 1.5 million attendees. The business traveler and conventioneer place a consistent and heavy demand on existing transportation, transit and parking resources. Many attendees at OCCC events travel to additional locations and attractions within the I-Drive District, including hotels, restaurants/lounges, key attractions, and other commercial establishments. Existing transportation infrastructure within the I-Drive District can support a finite capacity based on the width of roadways, rights-of-way and available land for parking. Transportation options for conventioneers include the OCCC circulator, I-Ride Trolley, LYNX buses, private shuttle buses, taxicabs, transportation network companies (TNCs) such as Uber and Lyft, and other services involving single occupancy personal vehicles.

The OCCC plays an important role in the area's development and redevelopment. With more than 1.5 million attendees in 2019 and with future expansion plans, connectivity and enhanced mobility options are essential in drawing future shows and attracting more conventioneers to the Central Florida region. The demand for a more transit-oriented district was identified in the Orange County Convention Center Market Feasibility Study, completed in 2015. As shown in Figure 4, a survey of conventioneers revealed the desire for walkability to hotels, restaurants, and night life, as well as better transit options. ¹⁰

¹⁰ OCCC Market Feasibility Study, 2015



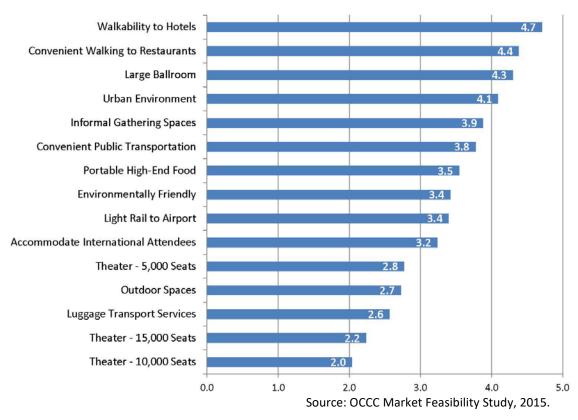


Figure 4 | Rating of Desire Center and Community Features

The OCCC operates a bus circulator service during selected events, only providing connections within the OCCC campus facilities and nearby parking garages. The I-Ride Trolley is servicing numerous activities with frequent stops along international Drive and Universal Boulevard, resulting in what is perceived as a slow transit trip and an unattractive option for business travelers and conventioneers traveling between a hotel and the OCCC or other activities. OCCC event organizers contract directly with private shuttle bus services connecting I-Drive District hotels and the OCCC. Large events can require hundreds of shuttle bus runs, which add to traffic congestion in the I-Drive District and can add significant cost to the event organizer. OCCC management and staff have stated that these transportation and cost obstacles can be a disadvantage for the OCCC in competition with other convention centers located in areas with more convenient transit and mobility options. To remain competitive and prosperous, the area around the OCCC needs to continue responding to current market trends and build on the innovation that has led to its current success. The District's competitiveness and livability is directly influenced by the quality and capacity of mobility connections between the OCCC and nearby lodging, entertainment and dining (as shown in Figure 5). A premium quality transit system with the potential to serve internal trips effectively, to avoid peak-hour and event-related congestion, and to connect to regional transit connections and parking resources is needed.



Main Public Parking Garages Main Hotel/Resort Areas LOCKHEED MARTIN UNIVERSAL BOULEVARD UNIVERSAL BOULEVARD **Orange County** Convention Orange County Convention 528 **AQUATICA** SeaWorld

Figure 5 | Study Area Main Attractions, Hotel, and Parking



3.3 Serve Employee Travel Market

The high number of visitors to the I-Drive District generates a significant demand for lodging accommodations, dining, retail, and transportation services. Most I-Drive businesses fall within the Leisure & Hospitality, Trade, and Transportation & Utilities sectors. More than 75,000 people work in the I-Drive District, making it one of the most prominent job centers in the region. The largest employer in the I-Drive District is Universal Studios with about 25,000 employees, followed by Sea World/Aquatica/Discovery Cove employing approximately 9,500 people. The hotel and hospitality industry employs over 20,000 people. Table 1 presents a list of the ten largest employers within the I-Drive District. Employment will continue growing with planned developments and redevelopments that include new hotels, restaurants, additional OCCC space, and the new Universal's EPIC Theme Park.

LYNX, the regional transit operator, provides five bus routes serving the I-Drive District (8, 38, 42, 58, and 111) which mostly run every 30 minutes during the daytime and reduced service at night. These five LYNX bus routes primarily provide employees access to work locations from outlying areas. While the I-Ride Trolley is primarily oriented toward the visitor market, the Red and Green Lines do provide service that can support employee travel to and from work locations within the I-Drive District.

While several transit routes serve the I-Drive area, limitations in reliability frequency, and other factors may make it difficult for employees to arrive at work on time and be able to get home if their schedules suddenly change. Premium transit has an opportunity to ease their commutes by adding transit frequency and running in a dedicated lane. Having a dedicated transit lane improves reliability, as the travel time would be less sensitive to traffic congestion.

Table 1 | Ten Largest Employers within the I-Drive District

Company	Estimated Number of Employees
Universal Orlando Resort	25,000
Sea World/Aquatica/Discovery Cove	9,500
Westgate Resorts	5,000
Rosen Hotel & Resorts	4,261
Wyndham Vacation Ownership	3,200
Marriot Vacations	2,741
Loews Royal Pacific Resort	2,300
Hyatt Regency Orlando	1,300
Lowes Hotel Portofino Bay	1,000
Orange County Convention Center	968

Source: I-Drive Economic Impact Analysis 2017.

¹¹I-Drive Economic Impact Analysis 2017, I-Drive Business Improvement District Website (www.IDriveDistrict.com)



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3.4 Implement a Safe Transit System

The OCCC campus and I-Drive corridors experience a high-volume of pedestrian activity alongside high-volumes of vehicular traffic. Stakeholders have pointed to the need for additional pedestrian infrastructure and amenities to promote an inviting and walkable area. The demand for better pedestrian access and accommodations was echoed in the I-Drive Walkability Audit that was completed in 2014. Walkability along I-Drive and surrounding corridors is critical not only to pedestrians circulating within the area, but also to visitors and employees who want to use public transportation or to be able to park and visit multiple destinations within the area. Additionally, while pedicabs serve a demand for quick short range travel, their presence on sidewalks limits space for pedestrians and causes conflicts during peak travel periods.

The introduction of premium transit will provide a convenient and safe alternative for circulation along I-Drive, reducing the need to rely on automobiles and for-hire services (e.g., pedicabs), promoting a safer environment. Vehicle trips will be diverted to the safer transit mode, in turn, lowering the risk of automobile accidents with other vehicles, bicycles and pedestrians. The use of public transit over driving can reduce stress for travelers, improving their overall quality of life. Additionally, it would facilitate travel via active modes, as such can be used for the first or last mile of a trip. Furthermore, people can walk or cycle knowing that they have transit as a backup in the event of inclement weather. Providing a complete, comfortable, and connected multimodal network that reduces crashes between modes will ensure that everyone can get around safely and quickly, in a pleasant environment while meeting the various needs of local residents, employees, and visitors to the I-Drive District.

4.0 Sustain Economic Competitiveness and Development

Investment in the District has continued to make International Drive a world-renowned location for employers, visitors, and residents, as well as an anchor for Central Florida's economic vitality. The FDOT Visitor Study found that Central Florida's tourists spend \$9,000 annually per resident population. With the I-Drive District claiming 14 million of the 75 million annual visitors to the greater Orlando area, annual tourist spending and the labor market that supports this sector of the area's economy is the driving force behind the I-Drive District's economic competiveness and future development. Existing transit services, privately funded shuttle services, and private taxicabs and rideshare networks do support mobility needs within the I-Drive District. However, they are often operating at capacity and contributing to increasing congestion in the corridor. Stakeholders, business owners and employers have expressed the need for an expanded transit system with premium, high-quality levels of service.

The objectives to be assessed in the evaluation of transit alternatives related to the goal to "Sustain Economic Competitiveness and Development" include:

¹² FDOT District 5 Central Florida Visitor Study (2019)

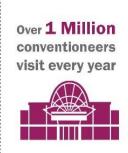


- Global Economic Competitiveness Investment in a transit system providing premium high-quality service to key locations within the I-Drive District and connections to key regional destinations. Such investment would increase the number of visitors to the I-Drive District as well as consumer spending.
- **Support New and Sustainable Development** Investment in a transit system that not only serves existing development within the I-Drive District, but that improves transit accessibility to new developments either planned or programmed. Such accessibility can be measured by the share of trips to and from these developments that are by transit.
- Implement Cost Effective Transit Investment Investment in a cost-effective transit system considering the life-cycle costs for capital infrastructure and vehicle needs as well as annual operation and maintenance costs. Costs would be normalized to the number of passengers and assume enough supply to accommodate demand.
- Support County and Local Community Development Goals and Plans Investment in a transit system that supports both county and local goals for sustainable development and creation of a walkable and transit-oriented community. The walk score of new development areas within the I-Drive District would increase.

4.1 Global Economic Competitiveness

Transportation has provided the backbone of economic activity, connecting employees to work places, products to vendors and to consumers, and visitors to attractions. Per the I-Drive Business Improvement District's website, the tourism corridor is set to provide "more than \$2 billion of high-profile development...for 2020 and beyond in the thriving I-Drive Resort Area." The I-Drive District continues to increase its presence as a major player in Orlando's booming hospitality industry. With the growing visitor trends and the associated positive impacts on the







There are **35,000** jobs today

economy, it is critical that the region continues to invest in the transportation infrastructure necessary to meet the mobility needs of tourists, local residents, employees, and businesses. On the global front, introduction of premium transit within the I-Drive District will better ensure that the District remains competitive with other world-class locations by providing convenient local circulation and connectivity to many of the region's destinations, without the need for using an automobile for that travel.

¹³ I-Drive Business Improvement District, https://www.internationaldriveorlando.com/



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The OCCC, the nation's second largest convention center, hosts hundreds of international, national, regional and local events and conventions annually. The business traveler and conventioneer place a consistent and heavy demand on existing transportation, transit and parking resources. The OCCC plays an important role in the area's development and redevelopment. With more than 1.5 million attendees in 2019 and with future expansion plans, connectivity and enhanced mobility options are essential in drawing future shows and attracting and more conventioneers to the Central Florida region. The demand for a more transit-oriented district was identified in the Orange County Convention Center Market Feasibility Study completed in 2015.

4.2 Support New and Sustainable Development

Private automobile travel will become increasingly difficult as population and employment continues to increase. Future residential development within the study area is projected to add 1,000 dwelling units spread over three new apartment complexes planned to be completed over the next five years. ¹⁴ As shown in Figure 6, there are multiple new projects scheduled to be completed within the next five years that will bring more employment within the District, including hotels, restaurants, Universal Studio's new theme park, EPIC Universe, and other hospitality driven businesses. The Orange County Convention Center has embarked upon a \$605M Capital Improvement Plan for two projects:

- Convention Way Grand Concourse an enclosed connection between the North and South concourses that includes an additional 60,000 square feet in meeting space and an 80,000-squarefoot ballroom.
- Multipurpose Venue a 200,000-square-foot, flexible, divisible space to accommodate between 18,000-20,000 guests.



¹⁴ International Drive Development Updates



Type Name Element Hotel at Vue 360 Hotel ICON Park Restaurants / Entertainment Redevelopment / Open CARRIER DRIVE Pointe Orlando Improvements space Las Palmeras Timeshares Residential / Mixed-Use Essex at Universal Apartments Residential Residential The Addison at Universal Blvd Apartments SAND LAKE ROAD Orange County Convention Center North/South Improvements Hotel Expansion Waterside Apartments Residential Tru by Hilton Hotel Westwood Hotel Hotel Renaissance at SeaWorld Meeting space expansion VIA MERCADO **EPIC Universe** Theme Park DESTINATION 528 WESTWOOD BOULEVARD Hotel Residential / Mixed-Use Other

Figure 6 | Recent Completed and Planned Developments



More convenient and reliable means of access and circulation are essential for the District's long term success. The introduction of a well-connected rapid, reliable and efficient transit service can help to meet existing and future demands as well as more efficiently using the right-of-way and creating a true multimodal network. As new construction displaces surface parking lots, the availability of short-term parking will diminish and parking costs will likely increase. Distance and physical barriers make walking an unattractive option for all but very short trips, particularly during the summer months. The existing I-Ride Trolley connects key destinations within the District; however, this system has been at or over capacity for years and is limited in ability to serve long-term transit needs in the corridor due to the smaller vehicle size, slow travel speeds, and other factors. The addition of premium transit can serve both current and latent demand, and the share of trips to and from new development by transit would increase.

The introduction of premium transit aims to support sustainable development balancing the economic, social and environmental objectives of the I-Drive community. A high quality and frequent circulator service will help promote and support a shift in travel patterns that will in turn reduce vehicle miles traveled (VMT) and encourage a more multimodal system, including public transit, biking, or walking. Future developments are planned along the I-Drive and Universal Boulevard corridors, which is anticipated to increase population and employment growth. These developments will entice people to work or live in the area and thus result in increased travel demand, placing further strain on the already stressed transportation system. The introduction of premium transit will promote long-term sustainable development, with development patterns that are less automobile-oriented and support regional environmental goals. As previously mentioned, a premium service would improve connections within the District with hotels, attractions, and the convention center, which will reduce the need for automobile trips. These changes in overall travel behaviors can help reduce emissions and improve air quality.

4.3 Implement Cost Effective Transit Investment

When assessing the feasibility of implementing a premium transit service, the cost effectiveness of design and construction as well as the long-term cost of system operations and maintenance needs to be taken into consideration. Tradeoffs between system costs and measures of effectiveness of the investment will be addressed in the upcoming evaluation of alternatives.

Capital costs may range significantly from one alternative and technology to another, based on system length, number and type of station stops, number and type of transit vehicles, power source and supply, communications and other systems along the right-of-way, requirements for a vehicle maintenance and storage facility, and professional services. Longer term life-cycle costing is important when comparing different transit vehicle technologies and systems, (e.g., comparing bus and rail transit alternatives). "Right sizing" the infrastructure and capital needs for premium transit service can be challenging, but must take into consideration a variety of factors, including ridership, population and employment density, and improving regional mobility, just to name a few. In addition to capital costs, the estimated annual operations and maintenance costs must be evaluated for each transit alternative, and will vary for different transit vehicle technologies under consideration. When evaluating this objective, the total costs would be normalized to the number of passengers and assume enough supply to accommodate demand.



4.4 Support County and Local Community Development Goals and Plans

The International Drive 2040 Vision Plan developed by Orange County includes a policy directive to enhance and sustain the economic viability of the I-Drive District and the Orange County Convention Center. Carefully planning and designing an effective premium transit system with multiple transportation modes can achieve this directive and will be essential to the existing and future sustainable growth of the I-Drive District.

The I-Drive District 2040 Vision Plan also outlined goals to make the District more walkable and transit oriented. Investment in a transit system providing premium high-quality service can certainly help achieve this goal and will encourage and support pedestrian-friendly and transit-oriented development in the I-Drive District. Premium transit that is supported by a well-connected regional transit network can benefit the I-Drive District and the Orlando region as a whole. Premium transit can improve mobility and reduce travel times, improve reliability and customer experience, and increase system capacity. Branding of the entire transit system, station stops and transit vehicles that ties into the unique, resort atmosphere and experience of the I-Drive District can create a sense of place that users can identify with. Implementing premium transit would direct new development patterns to be more walkable, which can be measured via the walk score of the development area.

5.0 Purpose and Need Integrated in Evaluation Framework

The TFATA Evaluation Plan is presented in a separate document, and will assess the feasibility of transit alternatives and vehicle technologies based on a number of factors including effectiveness, community impacts, cost analysis, financial feasibility, air quality and noise. Several measures of effectiveness will be applied, but the evaluation will include an assessment of how each alternative addresses the set of goals and objectives set forth in this Purpose and Need document. Some of the measures included in this evaluation will be quantitative, while others may be more qualitative in nature.

While the specific evaluation measures are identified in the separate TFATA Evaluation Plan, Table 2 below provides a general overview of the types of measures to be applied addressing each of the goals and objectives.



Table 2 | Types of Evaluation Measures

Goals and Objectives

Support Multimodal Connectivity:

- Support Local Connectivity providing premium high-quality service to key locations within the I-Drive District. Such investment would increase the share of local trips within the I-Drive District via public transit.
- Support Regional Connectivity providing premium high-quality service and connections to key regional destinations. Such investment would increase the share of regional trips to and from the I-Drive District via public transit.

Serve Diverse Travel Markets and Needs:

- Serve Tourist Travel Market providing premium high-quality service to key attractions, lodging, entertainment and dining locations supporting the visitor and tourist market. Such investment would increase transit ridership among tourists visiting the I-Drive District.
- Serve Conventioneer Travel Market providing premium high-quality service to key attractions, lodging, entertainment and dining locations supporting individuals and groups attending events at the Orange County Convention Center. Such investment would increase transit ridership among those visiting the OCCC.
- Serve Employee Travel Market providing premium high-quality service to employees working within the I-Drive District, including evening and weekend services. Such investment would increase transit ridership among employees in the I-Drive District.
- Implement a Safe Transit System connected to a multimodal network that reduces crashes between vehicular modes and pedestrians.

Types of Evaluation Measures

- Service to existing regional and local transit hubs
- Service to existing parking facilities
- Service to existing regional transit services
- Quality of transit service: frequencies, travel time, boarding/alighting time and convenience, comfort of ride
- Share of local trips within the I-Drive District via public transit
- Share of regional trips to and from the I-Drive District via public transit
- Population/Employment (hotel rooms) within 1/4 mile (2020)
- Access for transit-dependent population
- Entertainment/tourism/educational venues within 1/4 mile
- Pedestrian Accesssibility
- Crashes between transit, pedestrians and auto/truck
- Share of tourist trips in the I-Drive District via transit.
- Share of trips among Convention Center visitors via transit
- Share of trips to and from work in the I-Drive District via transit



Goals and Objectives

Sustain Economic Competitiveness and Development:

- Global Economic Competitiveness providing premium high-quality service to key locations within the I-Drive District and connections to key regional destinations. Such investment would increase the number of visitors to the I-Drive District as well as consumer spending.
- Support New and Sustainable Development –
 serving existing development within the I-Drive
 District and improving transit accessibility to new
 developments either planned or programmed.
 Such can be measured by the share of trips to
 and from these developments that are by transit.
- Implement Cost Effective Transit Investment –
 consider the life-cycle costs for capital
 infrastructure and vehicle needs as well as annual
 operations and maintenance costs. Costs would
 be normalized to the number of passengers and
 assume enough supply to accommodate demand.
- Support County and Local Community
 Development Goals and Plans support county and local goals for sustainable development and creation of a walkable and transit-oriented community. The walk score of new development areas within the I-Drive District would increase.

Types of Evaluation Measures

- Population/Employment (hotel rooms) with 1/4 mile (2040)
- Planned development within 1/4 mile
- Direct connection between OCCC and key activity centers in study area
- Life-cycle capital costs
- Capital cost per mile and other factors
- Annual operations and maintenance (O&M) costs
- O&M cost per mile and other factors
- System, station and vehicle branding
- Station stop amenities
- Share of trips to and from new developments via transit
- Cost per passenger over 20 years, assuming enough vehicles to accommodate the demand.
- Walk score of new developments compared to existing developments



