

PLANNING FRAMEWORK

The Planning Framework presented in this section provides an organizing strategy for undertaking infrastructure improvements in the Sunrise Mobility Hub study area, with particular emphasis on near-term priorities for investment. The Framework enables both near- and long-term considerations so that investments in early phases do not preclude ‘visionary’ future objectives for the area and establish a strong foundation for subsequent phases of coordinated investment in the coming years.

Framework development included reviewing study area activities, and circulation patterns into and through the planning area for multimodal connectivity opportunities, including the functionality of bike/pedestrian connections and the future impact of in-progress and anticipated redevelopment. The Framework is consistent with the City’s development and redevelopment efforts and long-term aspirations.

The Planning Framework builds on past planning efforts and an understanding of existing planning area conditions, as described in the preceding **Planning Context**. The Planning Framework guides the application of specific Mobility Hub Elements in defined areas, as described later in this section. The Framework serves as a “pivot point” between a general discussion of City and agency aspirations and the identification of specific investments that support these aspirations, documented in the **Project Elements** and **Implementation Strategy** sections to follow.

This section presents the following:

- **Framework Themes and Considerations** to guide development of the physical Framework.
- **Hub Elements**, consistent with the broader Mobility Hub initiative, that were considered for inclusion in the physical Framework.
- **Framework Layers** that describe the anticipated *development pattern* in the Mobility Hub area, potential investments in the *public realm*, and *multimodal opportunities* that could facilitate a vibrant transit-supportive Mobility Hub.
- **Project Priorities** that break the planning area into discrete segments for purposes of project development and phasing, and to inform design concepts and cost estimates for near-term implementation.

FIGURE F-1: THE GREEN TOAD ROAD MALL ENTRANCE, WHICH ACCOMMODATES THE VAST MAJORITY OF TRANSIT BOARDINGS AND ALIGHTINGS IN THE SUNRISE MOBILITY HUB PLANNING AREA



FRAMEWORK THEMES AND CONSIDERATIONS

Based upon the review of current physical conditions, recent planning efforts, and stakeholder feedback regarding the Sunrise Mobility Hub study area, the following considerations guided development of a Planning Framework. The Planning Framework is intended to guide the development of more detailed strategies for targeted Mobility Hub elements and locations. Building from the Planning Framework, the MPO will pursue both *feasible and actionable short-term investments*, and *partnerships to support longer-term initiatives*.

Considerations are organized around the following “guiding themes”:

TRANSPORTATION: Provide Accessible and Visible Mobility Options for All Users

DEVELOPMENT: Accommodate Efficient Transportation Linkages in the Built Environment

IMPLEMENTATION: Support Varied and Equitable Transit Services

TRANSPORTATION

Transit, bicycle and pedestrian mobility infrastructure in the Sunrise Mobility Hub study area should be expanded, enhanced and coordinated in a manner that results in improved accessibility and a heightened awareness of mobility options. Regardless of travel mode or travel purpose, the Mobility Hub area should provide an ability to orient oneself with consistent orientation devices, and the ability to move about efficiently and safely. An effective multi-modal transportation network is vital to achieving this end.

ACCESSIBLE MOBILITY OPTIONS

- The most effective strategy to improve accessibility for transit users will be to focus enhancements where the riders are already concentrated. A majority of the more than 1,500 daily alighting transit riders are employees destined for the mall (nearly 50%) or are transferring there to reach another destination (estimated at 26%), based on recent intercept survey findings, with the remainder (24%) arriving at the mall to shop. In the past, transit facility prototypes have been developed for nearby properties, but do not acknowledge that the mall is the primary transit destination.
- Beyond the current strong levels of transit ridership, the mall and surrounding employers should encourage transit use. Increased levels of transit ridership can influence land use patterns and reduce the need for parking.
- The mall owners should explore options with the transit provider and the City to provide a transit transfer facility in a convenient location, minimizing idling and passenger waiting adjacent to mall entrances without sacrificing service levels.
- Strategic pedestrian and bicycle infrastructure improvements to NW 136th Avenue and the mall ring road can support mobility options for area residents, employees and visitors (in coordination with recommendations emerging from the ongoing ring road study).
- Improved pedestrian and bicycle connections to the FDOT express bus facility for local residents should be incorporated during improvements to NW 136th Avenue and as property owners develop the outlying mall parcels, with consideration also for longer-term connections to a future LRT terminal station location.
- Ensure that future use of emerging technologies, most likely to serve on-demand last/first-mile needs, is not precluded by short-term decisions about the allocation of right-of-way on secondary (lower speed) roadways.

VISIBLE MOBILITY OPTIONS

- A well-defined transit transfer facility in a high-profile location is needed to serve mall transit users, working effectively with the internal mall roadway system and minimizing curbside congestion. (in coordination with recommendations emerging from the ongoing ring road study).
- NW 136th Avenue should be treated as a key multimodal corridor, with visible and well-marked destinations accessed from it, through consistent streetscape treatments and high-impact crossing improvements at selected locations as future developments are approved.
- Deploy a comprehensive wayfinding strategy to direct all mall area visitors (drivers, bus and shuttle riders, bicyclists, and pedestrians) to major destinations, considering varying scales for various travel speeds, and associating transit facilities with the color-coded routes that are already well established.
- Provide clear and consistent signage and identity elements for all mobility services, both public and private (including the City-operated fixed minibus route and on-demand shuttle service that is expected to begin service in 2020).

DEVELOPMENT

Development and redevelopment in the Sunrise Mobility Hub study area is ongoing, with the eventual mix of uses and arrangement still to be defined in the BB&T Center area in particular. While the pattern of “islands” of development presents a challenge for transportation network development, short-term improvements can be supported while long-term improvements remain undefined but accommodated.

FOSTER LINKS BETWEEN NODES OF ACTIVITY

- A pattern of self-contained and separated destinations is well established, and site planning and transportation planning should focus on effective movement between these discrete destinations.

- Ongoing and future developments should accommodate pedestrian and transit access in addition to private vehicle users, being cognizant of likely routes and modes of arrival in addition to movement patterns within sites.

SUPPORT MULTIMODAL LINKAGES

- Incorporate site layouts and entrances that cater not only to drivers, while acknowledging a likely internal orientation away from busy major streets at larger developments.
- Require a consistent “vocabulary” of mobility and placemaking elements in all developments, serving both public and private mobility options; facilitating recognition and use of transit will boost transit mode share overall, including supporting shifts from regional transit modes to various “last mile” options.

IMPLEMENTATION

Implementation of the Sunrise Mobility Hub study recommendations will require a balance of near-term initiatives and longer-term strategies in coordination with partners, to address competing needs and priorities. Decisions and investments made early should be mindful of the future potential for higher capacity transit and/or emerging technologies. Planning considerations include the following:

NEAR-TERM TRANSIT SUPPORT

- The City, BCT and Sawgrass Mills Mall should evaluate a potentially mutually beneficial strategy to relocate BCT functions to alleviate congestion at the Green Toad Road entrance to the mall.
- Consider both public and private mobility providers (such as Transportation Network Companies (TNCs) and shuttles) in planning decisions, as users do not draw a clear distinction.
- Explore “tactical urbanism” approaches to *implement temporary facility and/or service changes for purposes of evaluation* of transit routing and transfer locations when/where warranted, prior to significant investment.

- Prior to installation, have agreements in place that specify the *responsible party for facility maintenance* for Mobility Hub elements. This could involve agreements among the City, BCT, the mall and adjacent property owners.

LONGER-TERM COLLABORATION

- Do not preclude emerging technologies, such as the future accommodation of connected and autonomous vehicles.
- Leverage various *funding mechanisms* in addition to the available FTA funding, including City funding utilizing surtax revenue. With the recent passage of the “Penny for Transportation” surtax county-wide, iterative improvements to transportation infrastructure and services will be forthcoming through coordination with Broward County. These plans should be carefully coordinated with Mobility Hub efforts to maximize the mutual benefits.

MOBILITY HUB ELEMENTS

Potential Mobility Hub elements were presented and discussed with City stakeholders to establish local priorities for the Planning Framework. The elements, consistent with the county-wide Mobility Hub initiative, address three (3) key aspects of Mobility Hub development – Mobility, Safety and Placemaking.

MOBILITY

Figure F-2 provides examples of potential Mobility Hub improvements to enhance multimodal mobility, in particular amenities for transit users and support for transfer and first/last-mile connections. Mobility elements are typically eligible for FTA funding, and are intended to:

- Encourage and promote multimodal travel
- Facilitate use of the transit system

SAFETY

Figure F-3 provides examples of potential Mobility Hub safety improvements to enhance safety for pedestrians and bicyclists through delineation of shared spaces and areas set aside for non-motorized movement. Safety elements may be eligible for funding, and are intended to:

- Increase safety for all users
- Clarify the interface among modes of travel

PLACEMAKING

Figure F-4 provides examples of potential Mobility Hub placemaking improvements related to urban design to enhance both the pedestrian and driver experience, and to strengthen community identity. Alternative local sources of funding will be required to support placemaking elements, which are intended to:

- Activate the public realm
- Serve as a consistent expression of the character of the area
- Support (re)development efforts

FIGURE F-2: MOBILITY ELEMENT EXAMPLES

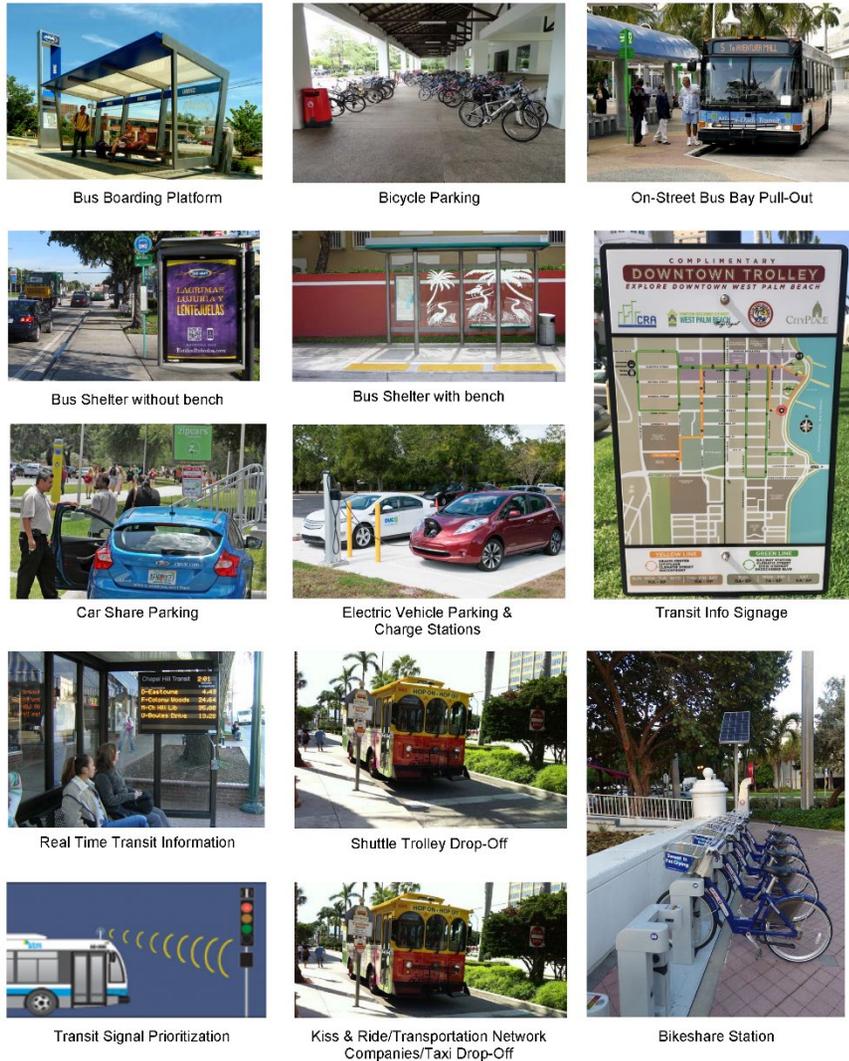
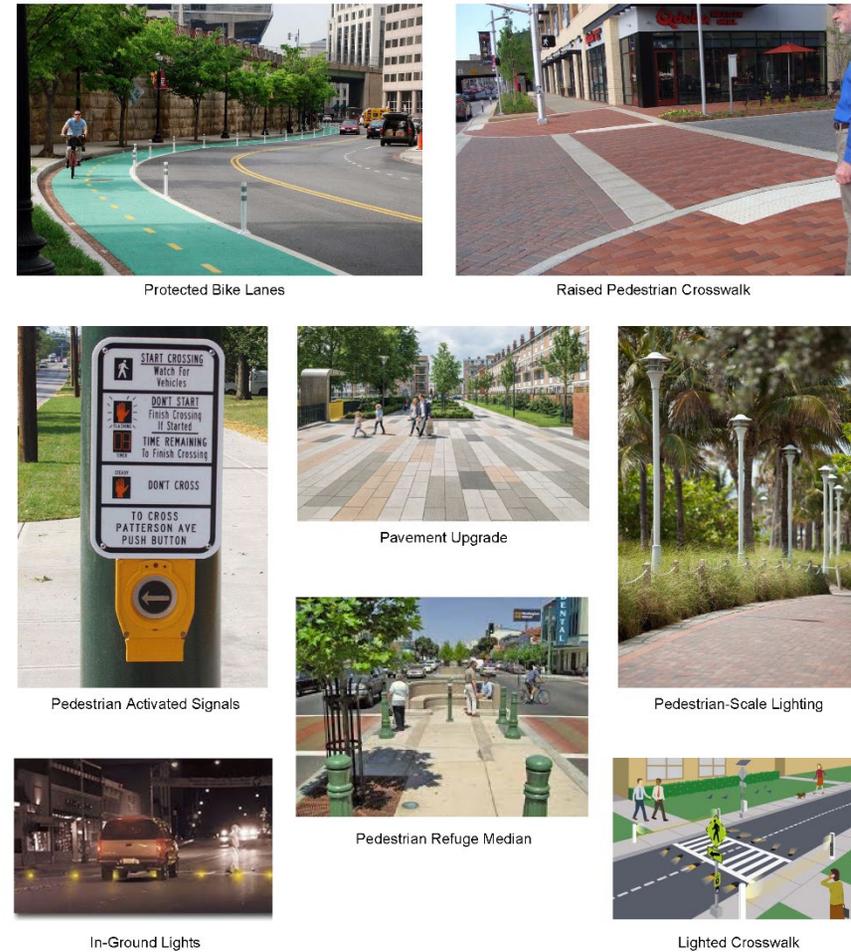


FIGURE F-3: SAFETY ELEMENT EXAMPLES



F-4: PLACEMAKING ELEMENT EXAMPLES



Community Entry Marker



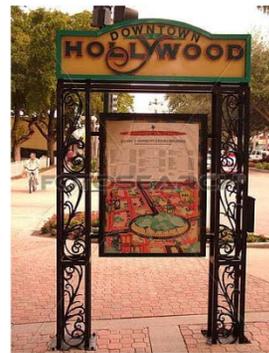
Wayfinding Signage



Canopies / General Shading



Community Plaza with Public Art



Community Identity Feature / Wayfinding Map (Monument)



Community Event Space



Community Identity Feature



Public Restroom



Hallandale Beach Mural Building

FRAMEWORK LAYERS

The Framework layers depicted in Figures F-5 and F-6 reinforce the interconnected nature of the underlying land use and development pattern, the environment within the public right-of-way, various types and modes of movement, and elements that support the modes. The Framework provides a *conceptual depiction of potential improvements* to guide more detailed design efforts in conjunction with the Mobility Hub elements.

DEVELOPMENT PATTERN AND PUBLIC REALM

The Development Framework is long-term in focus. Despite challenges of an established development pattern that is compartmentalized and disjointed, the Framework suggests a *proactive and intentional strategy* to support a more connected and intensive mix of uses in the Mobility Hub area. Figure F-5 depicts the following:

- **Land Use** in the area is dominated by the Sawgrass Mills Mall, BB&T Center, and big box retail development on outlying parcels outside the ring road. Multi-tenant retail will remain along Sunrise Boulevard also. Significant but isolated concentrations of office and residential uses are accessed from Sunrise Boulevard and NW 136th Avenue. The BB&T Center and associated parking dominate the north end of the study area, with a protected archaeological site between the BB&T Center parcel and the Sawgrass Expressway.

Mobility planning must consider the ongoing mixed-use development at Metropica directly west of the mall (including a DRI obligation to provide a transit facility), and long-term multi-phased redevelopment potential at the BB&T Center parcel. A hotel is currently under construction directly adjacent to the mall. Entitlements are in place for a second hotel, office and additional retail on the mall property.

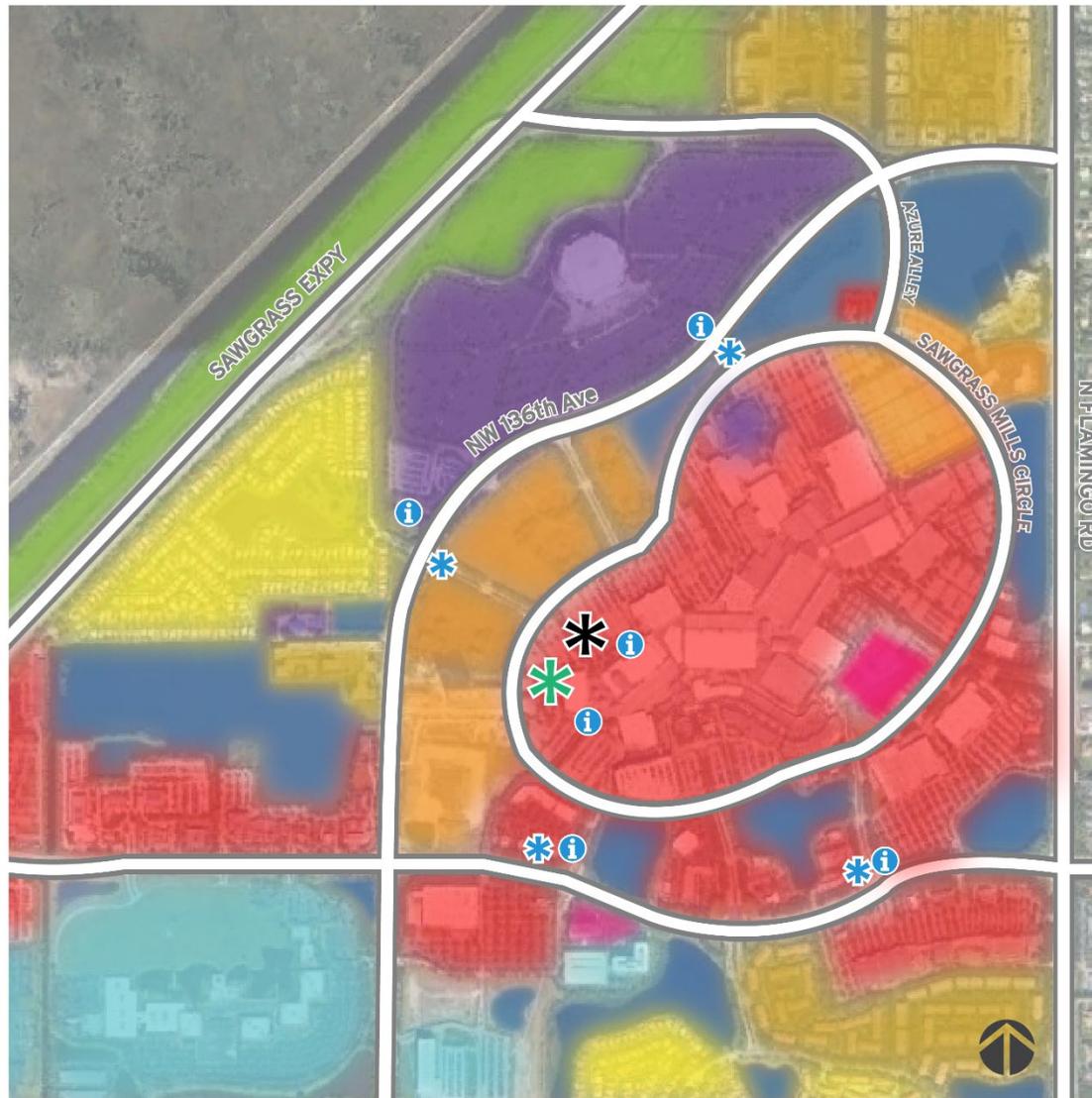
- **Potential Public Realm Investments**, including *conceptual* locations for community identity elements, transit information signage and local wayfinding features. Locations would align with higher-use transit stops and primary entrances into the mall environment.

MULTIMODAL OPPORTUNITIES

Figure F-6 depicts the following:

- **Key Movements** at three (3) scales:
 - Regional auto and transit movements along the primary arterial network (including Sunrise Boulevard and Flamingo Road) and into the area via Pat Salerno Drive from the Sawgrass Expressway.
 - Local auto and transit movements on the secondary street network, including “first/last mile” trips on NW 136th Avenue and the mall ring road.
 - Future local pedestrian and bike priority movements, with a focus on highlighting crossings and mall entrance points that are most amenable to pedestrians.
- **Multimodal Opportunities** are intended to serve many all users in a seamless fashion. These users include personal vehicles, BCT buses, charter tour group buses, shuttles, on-demand services, valet parking, and Transportation Network Companies (TNCs) such as Uber and Lyft, etc.
 - Enhanced pedestrian crossings at some intersections are intended to increase the visibility of the pedestrian network and encourage safer crossing at limited and clearly delineated locations that are aligned with transit access.
 - A primary BCT bus hub to serve the mall destination, either as an enhancement to the existing location or in a new location nearby on the mall property; additional study will be required to more fully understand the feasibility of a partial or full relocation.
 - Primary bus stops along Sunrise Boulevard and NW 136th Avenue and including the FDOT express bus facility south of the BB&T Center.
 - Secondary transit stops along Sunrise Boulevard and NW 136th Avenue and the mall ring road, enhanced to serve waiting passengers in the most accessible and visible locations. These secondary stops can also serve minibus and shuttle routes.
 - Proposed TNC and Kiss-and-Ride drop-offs in designated locations convenient to the BCT bus hub.
 - The potential for one (1) or more remote bus staging/layover locations to serve BCT vehicles, and potentially other buses and shuttles as well; coordination with BCT will be required to more fully understand the potential operational advantages of utilizing remote staging.
 - Coordination between modes over the long-term, anticipating opportunities to facilitate multimodal patterns as redevelopment of additional portions of the mall property and/or the BB&T Center site are proposed and considered. In particular, coordination efforts should consider the future potential to connect BCT fixed routes, express bus routes and potential future rail transit to first/last mile options.

FIGURE F-5: DEVELOPMENT PATTERN AND PUBLIC REALM



Land Uses

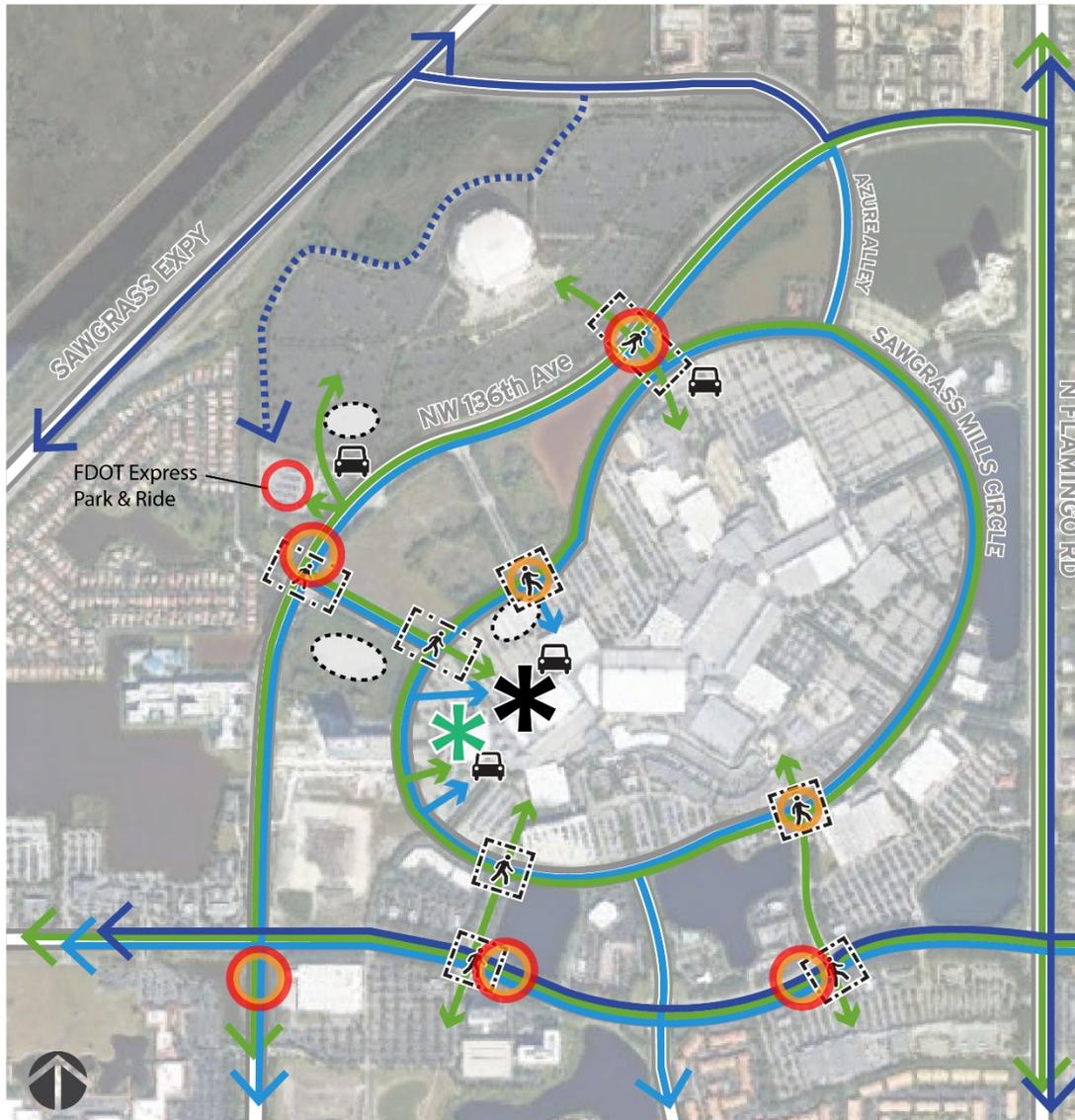
- Commercial
- Mixed-Use (Commercial, Multi-Family, Hotel and/or Office)
- Hotel
- Multi-Family Residential
- Single-Family Residential
- Natural Area
- Office
- Activity Generator
- Water Bodies

Potential Public Realm Investments

- ✱ Community Identity Element
- i Transit Information / Wayfinding Element
- ✱ Existing BCT Hub
- ✱ Potential Future BCT Hub

Not to scale

FIGURE F-6: MULTIMODAL OPPORTUNITIES



Key Movements

- Regional Connectivity
- Community Connectivity
- Pedestrian / Bike Connections
- Express Bus Access

Multimodal Opportunities

- Enhanced Pedestrian Crossing
- Primary Transit Access
 - BCT, Express Bus
- Secondary Transit Access
 - BCT, Community Shuttle
- TNC/Micro Transit/Kiss-n-Ride Dropoff
 - Off-street zone convenient to transit and mall entrances
- Existing BCT Hub
- Potential Future BCT Hub
- Potential Satellite Transit Staging Area

Not to scale

PROJECT PRIORITIES

In addition to earlier discussions with the Sunrise City staff and BCT regarding the Mobility Hub study area, working meetings were convened with City staff and representatives of Sawgrass Mills Mall. Based on the feedback received, Framework implementation priorities were established to guide more detailed design and inter-agency coordination in the next phase of the planning process. Framework priorities respond to the many pending and planned projects in the Mobility Hub study area and take into consideration the initiatives that have been identified in prior planning studies that do not have committed sponsors and may be eligible for FTA Hub funding.

PREVIOUSLY IDENTIFIED FTA-ELIGIBLE PROJECTS

Table F-1 summarizes previously identified projects that could potentially be eligible for FTA Hub funding. Several of these initiatives were described in more detail in the Context section, as they have been documented in one or more prior planning studies. They align closely with the intent of the Mobility Hub initiative, and care should be taken to ensure that the most effective funding and phasing strategy is identified as each is pursued. While many of these identified improvements may be eligible for FTA funding, they are also likely eligible for funding from public (FDOT for state highways, MPO, County surtax, City) or private (development impact or DRI) sources. Funding sources should be leveraged in the most effective way through ongoing inter-agency coordination.

TABLE F-1: PREVIOUSLY IDENTIFIED FTA-ELIGIBLE PROJECTS

Category	Description	Prior Plan	Next Steps
Pedestrian	Pedestrian Improvements: Closing several gaps in the existing sidewalk system and ensuring pedestrian access to all transit stops.	Western Sunrise Area-Wide Transportation Needs Assessment Study (2017)	Determine which locations within Hub area align with 40 CSLIP*-funded bus stop improvement locations, and timeline for CSLIP and City investments.
Pedestrian	<p>Improve pedestrian crossings along NW 136th Avenue/Panther Parkway.</p> <ul style="list-style-type: none"> Redesign NW 136th Avenue/Panther Parkway from Red Snapper Road to Orange Grove Road; eliminate one (1) travel lane in each direction to four-lane divided <p>Incorporate midblock crossing(s)</p>	Western Sunrise Area-Wide Transportation Needs Assessment Study (2017)	Confirm the basis of the \$1.5M estimate, and locations/improvements included in the estimate.
Bicycle	Bicycle Improvements: NW 136 th Avenue and Sunrise Boulevard.	Western Sunrise Area-Wide Transportation Needs Assessment Study (2017)	NW 136 th Street and Sunrise improvements should/could accommodate bikes; determine timeline of City investments.
Pedestrian and Bicycle	Bicycle and Pedestrian Facilities at Intersections/Crossings: Connections and safety for bicycle/pedestrian passage.	Midtown Plantation and Southwest Sunrise Livability Study (2012)	12 “problem” intersections are to be upgraded with DRI funds; determine which intersections in the Hub-area are impacted and timeline for CSLIP and City investments.

<p>Transit Capital - Hub</p>	<p>Transit mobility hub/intermodal center, to serve as a terminus and transfer point for local bus routes and transit circulators.</p> <ul style="list-style-type: none"> • Locate within walking distance of major destination(s) to optimize usage (mall, Metropica, BB&T, etc.). • Feasible sites identified in 2011 SIP study: along Green Toad Road, and south of Red Snapper Road. • Coordinate with FDOT, BCT and the City of Sunrise to develop scenarios for intermodal facility. 	<p>Western Sunrise Area-Wide Transportation Needs Assessment Study (2017); Urban Land Institute BB&T Center Advisory Services Panel Report (2016); Oakland Park Boulevard Transit Corridor Study (2014); Midtown Plantation and Southwest Sunrise Livability Study (2012)</p>	<p>Establish the ideal location based on mobility needs of current BCT and anticipated circulator users. Define associated ROW and use agreement issues, and associated timeline and cost implications. Confirm the basis of the \$6M prior cost estimate.</p>
<p>Transit Capital - Circulator</p>	<p>Physical infrastructure to support a Freebie-style circulator service to be funded by FDOT</p> <ul style="list-style-type: none"> • City will operate one (1) golf cart and three (3) vans (max of 35mph) on demand • Two (2) years of operation are funded, third year is an option (Metropica and/or Westerra then would take over O&M) • Service anticipated to start July 2020 	<p>Sawgrass Area Intermodal Planning Study (2011)</p>	<p>Develop a limited use lane reconfiguration on NW 136th Street, to be reserved for buses, circulators and bicycles. Align with anticipated routing of circulator and transfer points with BCT routes.</p>
<p>Transit Capital - Circulator</p>	<p>Physical infrastructure to support an alternative fuel shuttle to area (mall, Metropica, BB&T, etc.).</p> <ul style="list-style-type: none"> • Vehicle would accommodate 6 to 10 passengers • Could operate in a limited use lane (not in mixed traffic) 	<p>Identified by City of Sunrise staff; not included in prior planning documents</p>	<p>Limited use lane on NW 136th could be designed now to eventually accommodate AV (providing separation from mixed traffic lanes while on public ROW)</p>

Notes:

1. CSLIP (Complete Streets and other Localized Initiatives Program): The MPO's CSLIP competitive grant program provides funding for small local transportation projects that improve safety and mobility.

IMPLEMENTATION FOCUS AREAS

The planning area has been organized into discrete segments for purposes of further Mobility Hub project design concepts, phasing and implementation strategies, as shown in Figure F-9.

- Relocated BCT Hub:** Design options for a potentially relocated BCT Hub should be explored in a more detailed study. FTA support is possible if the facility design serves the needs of BCT and/or local shuttle riders. The transit-related development program and design elements (pull-through or saw-tooth bays, etc.) will need to be identified in collaboration with BCT. Initial BCT Hub design considerations to be explored further in a more detailed study are summarized in Table 2. Figure 7 depicts the Civic Center station in Denver, a bus hub attached to an existing structure. Figure 8 depicts an early rendering of the Lauderdale Mall bus facility; a similar environment for transit users could be provided on the first level of the proposed parking garage.
- Enhanced BCT Hub:** Design options for enhancements to the existing BCT Hub should be explored if the relocation of some or all BCT services to an alternate location is not pursued.
- Transit stop upgrades:** Upgrades to shelters, signage, sidewalk approaches and ADA accessibility at prioritized stop locations along NW 136th Avenue and Sunrise Boulevard will both improve the transit experience and heighten awareness of transit. This effort should be coordinated with the MPO's Complete Streets and other Localized Initiatives Program (CSLIP) grant-funded commitment to improve bus stops in the City of Sunrise.
- Secondary street improvements:** Reconfiguration of the NW 136th Avenue right-of-way for transit priority and safer crossing, including the potential for limited use or bus priority lanes, should be explored and implemented in phases.

Near-term improvements are intended to support both BCT riders and customers of the City-operated current minibus and planned on-demand shuttles (anticipated to begin service in July 2020). Design concepts, specific locations for Mobility Hub-funded infrastructure, and cost estimates will need to be developed in a subsequent phase of the planning process for near-term investments. Concepts sufficient for cost estimates will require more in-depth review of site conditions, ADA accessibility strategies, and potential partnerships.

FIGURE F-7: CIVIC CENTER STATION, DENVER

Source: <https://www.rtd-denver.com/projects>

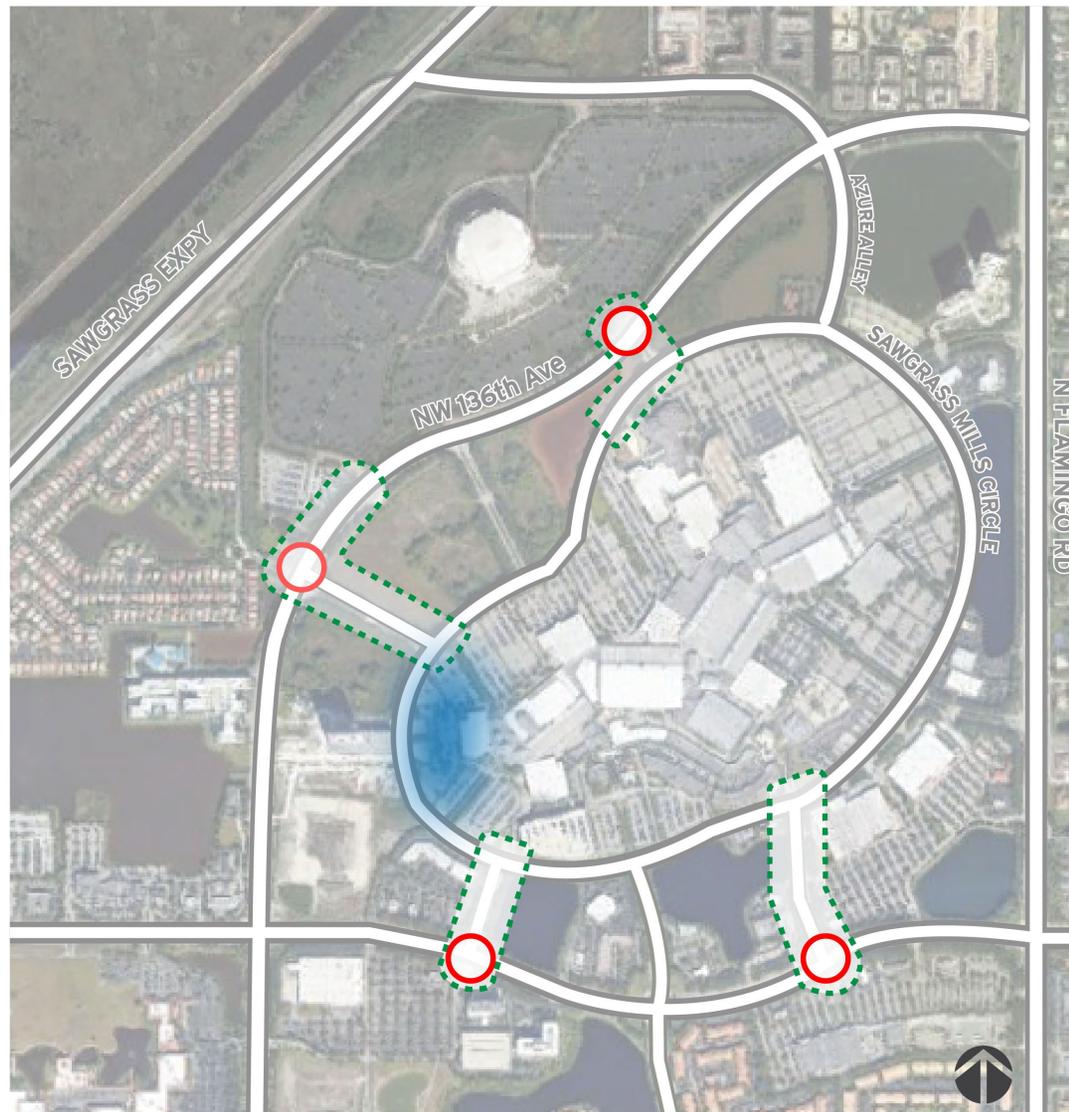


FIGURE F-8: LAUDERHILL MALL TRANSIT CENTER DESIGN CONCEPT

Source: <https://www.broward.org/construction/Projects/Pages/Lauderhill-Mall-Transit.aspx>



FIGURE F-9: PROJECT IMPLEMENTATION FOCUS AREAS



Not to scale

Legend

Bus Hub Relocation Study Area

Transit Stop Improvements
 - visibility
 - rider amenities
 - informational signage

Secondary Street Improvements
 - multi-use path connection
 - crossing upgrades

TABLE F-2: BUS HUB RELOCATION - PRELIMINARY DESIGN CONSIDERATIONS

Source: FDOT Design Manual, Design Handbook for Florida Bus Passenger Facilities and BCT Design Standards

Parallel Bus Bay Configuration			
No. of Buses	Bus Bays (Square Feet)	Rider Waiting Area (Square Feet) ¹	Overall Area (Square Feet) ²
4	5,046	960	22,700
8	10,092	1,920	45,400
12	15,138	2,880	68,100
Sawtooth Bus Bay Configuration			
No. of Buses	Bus Bays (Square Feet) ³	Rider Waiting Area (Square Feet) ¹	Overall Area (Square Feet) ²
4	3,560	960	14,500
8	7,120	1,920	29,000
12	10,680	2,880	43,500

Notes:

1. Generally, each row of existing 90-degree parking spaces can be replaced with either two parallel bays or four sawtooth bays.
2. The *approximate* size of each double-loaded parking aisle in the potential relocation area is 70' wide by 330' long, or *approximately* 23,000 SF. There are two double-loaded parking aisles in the potential relocation area for a *total of approximately* 46,000 SF without significant reconfiguration impacting the surrounding parking layout.
3. For purposes of traffic safety, bus lanes and loading areas should be separated as much as possible from car lanes and parking areas.
4. Total area needed will be impacted by options related to:
 - a. lane configuration – parallel or sawtooth bays or a combination
 - b. traffic pattern – one-way or two-way, ingress/egress points
 - c. waiting area(s) configuration – shared between drive aisles or separated by drive aisles

¹ Rider waiting area calculations are based on recommended minimums.

² Overall square feet of areas include bus bays, rider waiting area, drive aisles, pedestrian walkways and landscaping.

³ Calculation of the values for the sawtooth configuration of bus bays is approximate.