Chapter 6:

PROJECT DEVELOPMENT AND PRIORITIZATION

Hollywood/Pines Corridor Project

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broward MPO metropolitan planning organization

INTRODUCTION

This chapter includes a summary of short-term and longer-term multimodal transportation recommendations for the Hollywood/Pines Boulevard Corridor as well as a description of the Mobility Hub scenario planning process and its outcomes.

Short-term project recommendations, referred to as "congestion management" projects are intended to be implementable within a five-year timeframe pending the availability of funding. As such, they do not generally require significant right-of-way acquisition, have limited or no potential for environmental impacts, and for the most part, do not require significant reconstruction of roadway features (such as curb and drainage systems, street lights/utilities, and traffic signal equipment). The congestion management projects recommended herein also do not assume any additional funding for the operation of transit beyond what is contemplated in the current Broward County Transit Development Plan.

Discussion of the scenario planning process includes a brief description of how the Envision Tomorrow software tool was employed by Fregonese Associates to develop and evaluate trend, alternative, and preferred scenarios for each of the four selected Mobility Hubs. A summary of the criteria used to select each of the four Hubs, from 11 Hubs along the corridor, is also provided along with the quantitative outcomes for the preferred scenarios. Technical Appendices 6D and 6E provide additional detail about the Hub selection and scenario development processes. Chapter 7 shows illustrations of the preferred scenarios and discusses land development code and land use policy planning implications of the scenarios.

Longer-term transportation system recommendations identified as part of this project focus on implementation of Mobility Hub scenarios and potential modifications and enhancements to transit service to serve existing and potential future riders. As discussed in Chapter 7, *Implementation and Monitoring*, the feasibility and specifics of transit system recommendations depend on detailed transit ridership data currently being collected by FDOT, outcomes of the recently started Tri-Rail Coastal Link Planning, Design, and Environmental Study, and resolution of longer-term funding solutions to provide for the operating expense of premium transit in Broward County. Likewise, implementation of recommendations related to the redevelopment of Mobility Hubs and implementation of Mobility Hub infrastructure consistent with the preferred scenarios will rely on a combination of the above transit planning factors and market-driven investment in the Hub areas.

SHORT-TERM CONGESTION MANAGEMENT AND MULTIMODAL SAFETY PROJECTS AND PRIORITIZATION

A critical aspect of the Hollywood Pines Congestion Management/Livability Study Project is the identification of shorter-term transportation system improvements to enhance mobility and safety within the Hollywood/Pines Boulevard corridor. Based on the transportation system analysis described in Chapter 4 and the project objectives defined in Chapter 1, mobility project opportunities were identified to promote the use of transit, address traffic congestion and safety issues, and advance livability and economic development objectives within the corridor. The recommendations developed to enhance mobility and safety in the corridor are summarized as follows:

PEDESTRIAN FACILITIES

A strong pedestrian network is important to provide for general mobility and to facilitate access to transit stops and Mobility Hubs. Project recommendations to enhance walkability include construction of sidewalks or multiuse pathways along collector and arterial streets where facilities are lacking. Sidewalks are typically constructed of concrete, are intended primarily for walking, and are between 5 and 8 feet wide. Multiuse pathways accommodate pedestrians, bicyclists, and other non-motorized modes (e.g. skateboarders), should be at least 12 feet wide to accommodate bicycle traffic in both directions, and are more likely to be constructed of asphalt than concrete.

In addition to "linear" facilities, pedestrian facility recommendations also include opportunities to provide for or enhance marked crosswalks at signalized and un-signalized locations in order to improve overall pedestrian mobility options and to connect existing or proposed facilities. Recommendations also include opportunities to increase the safety and comfort of pedestrians at major intersections by implementing best design practices for intersection geometry, lighting, and signs and pavement markings. In many cases the objective of these design strategies is reduce overall pedestrian exposure, simplify conflicts, and reinforce the pedestrians' right-of-way with respect to turning vehicles.

BICYCLE FACILITIES

Bicycles allow for longer-distance trip making and significantly expand the catchment of transit service. With minor exception, Florida bicyclists may legally ride on sidewalks or, when no bike lane is provided, may ride with motor vehicle traffic using general purpose travel lanes. However, for the safety of cyclists and pedestrians and for the convenience of motor vehicle traffic, the preferred facility type for cyclists along most collector and arterial streets is a marked bike lane. On "urban" roadways with concrete curb and gutter structures, a bike lane should be marked at least four feet from the edge of the asphalt pavement and five feet from the curb face. On "rural" roadways a bike lane should be striped at least five feet from the edge of pavement.

Often bike lanes can be added to existing roadways by narrowing the width of travel lanes and/or adding pavement along the sides of a "rural" roadway. For example, along a roadway with two 12-foot wide travel lanes, bike lanes may be provided by widening the roadway by 10 feet (ostensibly five feet on either side). In the event that widening the roadway to this degree will result in unacceptable or cost-prohibitive impacts to right-of-way, trees, or drainage swales, an alternative strategy is to reduce the lane width to a minimum of 10 feet (depending on speed and percentage of heavy vehicles) and adding a corresponding width of pavement to provide for bike lanes. Reducing lane widths may also be employed on "urban" roadways. For example, a four lane roadway with 12-foot lanes may be reconfigured as a roadway with four 10-foot travel lanes and 4-foot wide bike lanes (minimum of 5 feet wide including gutters).

In some cases, however, adding bike lanes may require significant right-of-way acquisition, reconstruction of roadway curb and drainage systems, and/or removal of canopy trees. In these cases, shared lane arrow markings (sharrows) may be considered as a cost-effective alternative along roads with posted speeds of 35 MPH or less. As implied with its name, shared lane arrow markings, and complementary "share the road" signage, reinforce cyclists' right to "share the road" when no bike lane is provided.

Shared lane arrow markings also help cyclists to position themselves correctly in the lane depending on lane width and conflicts (such as parallel parked cars). For example, in a lane that is at least 12-feet wide, shared lane arrows would typically be placed along the outside portion of the lane since a typical passenger vehicle can pass a cyclist riding near the edge of pavement while still providing three feet of separation. In a lane less than 12-feet wide, shared lane arrow markings would be placed down the center of the lane to indicate that the cyclist should "take" the entire lane since passing within the lane at a safe distance is not possible in most circumstances. While there is no technical prohibition against applying shared lane arrows along higher-volume roadways, provided the posted speed is 35 MPH or less, consideration should be given to the potential impacts on overall congestion, especially when the roadway lane width is too narrow for most motor vehicles to pass a cyclist safely within the lane.

Where neither option is viable, a multiuse path may be considered to provide for the mobility of cyclists. When traveling along a sidewalk or multiuse path, cyclists are considered to be pedestrians and it is the responsibility of drivers crossing the sidewalk/path to yield. However, because cyclists tend to move much faster than pedestrians, their crash risk may increase when travelling along sidewalks and pathways, especially if travelling against the flow of traffic. For this reason, multiuse paths should not be employed along roadways with frequent driveways and local street access points. Where pathways do cross driveways or local streets, the pathway should be brought close to the edge of the parallel roadway to enhance the visibility of cyclists and pedestrians to drivers who may be about to turn off of the major roadway across the path. As noted previously, multiuse paths should be a minimum of 12-feet wide to accommodate two-way bicycle traffic, but exceptions may be made to accommodate canopy trees or right-of-way constraints.

BUS STOP ENHANCEMENTS

In addition to being comfortable, secure, and ADA-accessible, bus stops should be positioned to minimize the extent to which pedestrians travelling to or from bus stops conflict with motor-vehicle traffic. A critical aspect of this principle is avoiding stop placement that "encourages" pedestrians to cross major roadways within the influence area of major intersections rather than at the crosswalk.

Other important, but secondary, considerations include how the position of the bus stop will affect bus-vehicle interactions, how stop placement will influence bus running time, and the extent to which the stop is convenient to major trip generators. Because of the variety of circumstances, no single rule for bus stop placement can achieve all of these goals in all situations, however some general principles do apply for both "intersection" and "mid-block" stops as discussed in Table 6-1:

Table 6-1: Bus Stop Placement Principles

Stop Type	Advantages	Disadvantages
Intersection (Near Side)	Maximizes convenience to signalized crosswalks and reduces distance to make transfers.	Bus cannot load/unload until queue is cleared increasing delay for bus and for traffic (since stops most likely occur during green signal phase). May increase destination to generators. Cannot be done if a right turn lane is present.
Intersection (Far Side)	Improves convenience to signalized crosswalks and reduces distance to make transfers. Bus delay reduced since bus passes through signal before stopping.	Typically requires a bus bay to manage traffic conflicts. This requires right-of-way and can result in the bus being "trapped." Difficult to place stop at signal due to bay and bus length. May increase distance to generators.
Intersection (Near Side with Right-Turn Queue-Jump)	Same as near-side stop but can be used in conjunction with a right-turn lane. Provided right-turn clears adequately, bus can access the stop load/unload and depart ahead of general traffic.	Bus blocks right-turn movement during boarding-alighting. Bus may become trapped in the right-turn lane (similar to a bus bay) in the event it must depart during thru green phase, however it may merge more easily by accelerating through the intersection.
Intersection Near Side with Bus Island	Same as near-side stop. May also incorporate the benefits of a right-turn queue jump lane.	Requires right-of-way/relocation of drainage , utility, and signal structures.
Mid-Block	Avoids intersection conflicts and minimizes delay for buses. May be positioned at the most convenient location to generators.	If generators are along the opposite side of the street, mid-block crossing is likely to occur. Regardless of whether a marked mid-block crosswalk is provided, stop placement and roadway features should follow rules for crosswalks including: clear sight distance, use of median refuge, adequate lighting of (implied) crosswalk area, and avoidance of standing queues and turning vehicle conflicts.

In addition to recommendations related to stop placement, resolution of obvious ADA issues, such as bus stops positioned in roadside swales, are included in the project recommendations along with recommendations to consider installation of bus shelters at higher-volume stop locations.

TRAFFIC OPERATIONAL IMPROVEMENTS

Although this project did not consider roadway widening or major intersection capacity improvements/grade separations (consistent with the overall direction of the Broward MPO 2035 Long Range Transportation Plan), opportunities to reduce general traffic congestion and reduce crashes at specific locations were incorporated in the project recommendations.

Based on quantitative and qualitative data and analysis, the most severe congestion (highest traffic volumes operating significantly below level of service "D") is associated with the section of Pines Boulevard from Dykes Road across Interstate 75 to west of Flamingo Road. This section is not currently included in FDOT's Southern Broward Transportation System Management and Operations (TSM&O) deployment along Hollywood/Pines Boulevard and Hallandale Boulevard. To help address this issue, extension of the TSM&O project to Dykes Road with the addition of adaptive traffic signal control systems has been approved by both FDOT and the Broward County Traffic Engineering Department (BCTED). This extension is recommended for funding by the MPO as part of this report.

Another high-congestion area is the section of Hollywood Boulevard from the Turnpike interchange to east of 62nd Avenue. This congestion will be mitigated somewhat by an ongoing projects to provide a southbound to westbound off-ramp and convert the interchange to all electronic tolling.

Longer term plans for the interchange include provision of a westbound to northbound on-ramp as well as an eastbound to southbound on-ramp. These additional ramp projects will further alleviate congestion by reducing left-turn volumes at the current interchange traffic signal; however, the timeframe of these improvements is uncertain due to the need to relocate a major gas distribution pipe. In the interim, project recommendations include options to restrict eastbound left turns at 62nd Avenue and provide more westbound left turn storage onto the Turnpike.

Other high-congestion areas include Johnson Street from University Drive to Dixie Highway and Young Circle (nominally the intersection of Hollywood Boulevard and US-1). Congestion at Young Circle also impacts neighborhood cut-through traffic issues in the Hollywood Lakes area. As part of bicycle facility and "complete streets" project recommendations modern roundabouts are suggested for several intersections along Johnson Street to improve safety and reduce congestion. At Young Circle, BCTED is actively working with the City of Hollywood and FDOT to identify signal timing and infrastructure options to reduce congestion.

In addition to recommendations related to design best practices for pedestrian safety discussed previously, two locations along the study corridor were identified for potential signal phasing modifications (and other adjustments) to mitigate observed left-turn crash patterns. At Johnson Street and University Drive, switching from protected-permissive to protected-only operations could mitigate the left turn crash pattern and at Hollywood Boulevard and 28th Avenue a combination of signal phasing modifications and possible termination of the added outside westbound lane as a right-turn-only lane should be considered.

COMPLETE STREETS PROJECTS

In the context of these congestion management project recommendations a "complete streets" project is one that addresses multiple modes simultaneously and is transformative with respect to the design and function of the roadway. While projects to add bike lane markings, construct sidewalks, make minor modifications to intersections, or shift bus stops for safety and convenience, certainly help to complete a street, they do not fundamentally change the character of a roadway or significantly impact the way motor vehicle traffic is likely to operate.

The Hollywood/Pines Boulevard corridor "complete streets" project recommendations include combinations of features such as elimination of motor vehicle lanes to provide for bicycle/pedestrian facilities (road diets), streetscape and roadway lighting improvements, conversion of "rural" typical sections with open drainage to "urban" typical sections with curb and gutter systems, and potential conversions of signalized intersections to modern roundabouts.

ORGANIZATION OF PROJECT RECOMMENDATIONS

Because of the range of project types and mixture of linear and point recommendations along the roadway network, grouping and prioritizing the recommended congestion management projects is an imperfect process that continues to evolve as project recommendations move into the implementation phase. Although projects may be regrouped as specific design and contracting approaches are refined, "linear" pedestrian facility, bicycle facility, and complete streets projects are presented here in terms of the roadway segments and are ordered from the west to east and are summarized with cost estimates and priority rankings in Table 6-3.

Recommended bus stop modifications, pedestrian safety/ mobility enhancement opportunities, and traffic operational projects that do not correspond with any of the linear projects are grouped separately by major roadway and intersecting roadway(s) in Table 6-4. These prioritization schema developed for the linear projects does not apply to these and they have not been prioritized or provided a cost estimate.

PROJECT PRIORITIZATION:

For each project recommendation, points were assigned to determine the relative priority of each project based on the factors, criteria and weights summarized in Table 6-2. These are calculated using the following formula:

$$[A \times (B+C)] + [D \times E] + [F + G + H]$$

or

[Traffic Characteristics x (Existing Pedestrian + Existing Bicycle)]

+

[Transit Service x Population & Employment Density]

+

[Critical Link + Safety Benefit + Environmental Justice]

In the event that a project segment changes characteristics with respect to any of the criteria between sub-segments, then the prioritization score is calculated as a weighted average of the sub-segment lengths. A maximum of 20 safety bonus points are allowed any given project with a maximum of 105 points possible overall.

Detailed project information, including project recommendation maps, tabulation of prioritization factors, and cost estimates are provided in Appendices 6A-C respectively.

Table 6-2: Linear Project Prioritization Factors, Criteria, and Weights.

Index	Prioritization Factor		Criteria	Points	Max
A	**Traffic Characteristics & Quality of Existing Multimodal Facilities** – Projects along higher-volume, higher-speed roadways are more essential than projects along lower-speed, lower-volume roadways where it is less dangerous to walk or ride a bicycle along the roadside. Projects to provide sidewalks, marked bike lanes, or multi-use trails along roadways with no pedestrian or bicycle facilities are, all else being equal, prioritized above projects to enhance roadways with partial facilities (e.g., wide outside lanes for cyclists or sidewalk along one side of the street).	Roadway	Arterial Street	5	50
			High-Volume Collector (>8,000 ADT)	3	
			Lower-Volume Collector (<8,000 ADT)	2	
			Local Street	1	
B		Pedestrian	No Sidewalks or Substantially Incomplete	5	
			Contiguous Sidewalk on One-Side Only	3	
			Trail/Multiuse Pathway	2	
			Complete Sidewalks on Both Sides	0	
C		Bicycle	No Bicycle Facilities	5	
			Un-marked Shoulder	3	
			Trail/Multiuse Pathway	1	
			Bike Lanes	0	
D	**Demand Potential** – Projects in higher-density areas that provide access to Mobility Hubs or higher-frequency transit routes are more likely to provide a congestion management/livability benefit than projects that serve lower-density areas and do not connect to transit.	Transit	Mobility Hub	5	25
			Premium Transit Corridor	3	
			Local/Community bus Route	1	
			No Transit Service Nearby	0	
E		Density	High (> 35 persons + jobs / acre)	5	
			Medium (25—35 persons + jobs / acre)	3	
			Low (15—25 persons + jobs / acre)	2	
			Very Low (< 15 persons + jobs / acre	1	
F	**Critical Link** – Projects that provide for multimodal connectivity or address congestion issues where alternative routes are not available are a higher priority than enhancements that complement adequate existing routes		Crosses Limited Access Highway or Water Body	5	5
			Neighborhood Connectivity	3	
			None—Facility Complemented by Other Routes	0	
G	**Safety Benefit** – Projects that directly address a documented traffic crash issue are a higher priority than projects that implement safety best practices or are not relevant to improving safety for all road users		Addresses Documented Crash Issue	5	20
			Safety Best Practice—Arterial Street	3	
			Safety Best Practice—Collector Street	1	
H	**Environmental Justice** – Projects that serve disadvantaged populations are prioritized above projects where environmental justice is not at issue.		High Percent Disadvantaged Pop. (>20%)	5	5
			Medium Percent Disadvantaged Pop. (5—20%)	3	
			Low Percent Disadvantaged Pop. (< 5%)	0	

Table 6-3: Linear Congestion Management Projects (Project ID 1 - 32)

ID#	On Street	From/At	To	Recommendation	Priority Score	Approx. Length	Planning Cost Estimate
1	Pines Boulevard	US 27	208th Avenue	• Monitor land development activity and provide sidewalk along the south side of Pines Boulevard and intersection pedestrian features at Pines Boulevard and US 27 if the property along the south side of Pines Boulevard is developed.	24	0.5	$ 144,000
2	196th Avenue	Pines Boulevard	Sheridan Street	• Evaluate constructibility of adding pavement to provide bike lanes. • Consider providing a marked crosswalk supplemented by RRFBs, crosswalk lighting, and appropriate signs and pavement markings at 4th Street.	17	1.5	$ 1,251,000
3	186th Avenue Taft St.	Pines Boulevard 196th Avenue	NW 20th Street/ Taft Street 186th Ave/NW 20th Street	• Reconstruct/widen sidewalk as a multi-use path; provide a marked crosswalk with RRFBs, crosswalk lighting, and appropriate signs and pavement markings across 186th Avenue along the south side of Johnson Street through the existing median island.	13	1.4	$ 588,000
4	Johnson St	209th Avenue	W of 203rd Ave	• Provide a multi-use path along the south side of Johnson Street. • Enhance crosswalk to Price Park • Enhance crosswalk connecting existing trail sections at NW 202nd Avenue	15	0.6	$ 274,000
5	Dykes Road	Pembroke Road	Sheridan Street	• Provide bike lanes by marking existing paved shoulder and providing addition paved shoulder and right-turn lane keyholes where necessary. • In urban typical section from Pines Boulevard to ~1,000 ft south, evaluate whether bike lanes can be provided by reducing the travel and turn lane widths or whether reconstruction of the curb line is necessary. • If reconstruction is necessary, consider widening/ reconstructing the existing sidewalk and transition the bike lanes to multi-use paths on either side of the road.	24	2.7	$ 1,858,000

ID#	On Street	From/At	To	Recommendation	Priority Score	Approx. Length	Planning Cost Estimate
6	SW 101st Ave/ Palm Ave	Pembroke Road	Johnson Street	• Complete sidewalk to provide access to uses, including City Hall. • Consider routing sidewalk along the back side of the drainage ponds if necessary.	27	1.5	$ 277,000
7	Johnson Street	Flamingo Road	Hollywood City Limits	• Widen pavement (5ft each side) and providing marked bike lanes; reconstruct driveway aprons as necessary and provide right turn lane key holes or shared bike/ right turn lane markings at signalized intersections and other right turn lane locations thoughout. • Intersection geometric improvements at Flamingo Road and Douglas Road to improve pedestrian safety • Construct sidewalk along the north side of Johnson Street from Douglas Road to University Drive. • Consider need for mid-block crosswalks at NW 87th Way, NW 85th Way, NW 83rd Way and entrance to Fletcher Park. • Advance coordination with residents is critical to this project.	31	5.9	$ 3,974,000
8	72nd Avenue	Pembroke Road	N of Johnson Street	• Consider widening pavement (5ft each side) and providing marked bike lanes; reconstruct driveway aprons as necessary.	27	1.5	$ 1,208,000
9	Johnson Street	Hollywood City Limits	C-10 Canal	• Consider widening pavement (5ft each side) and providing marked bike lanes; reconstruct residential driveway aprons as necessary and provide right turn lane key holes where necessary. • Provide crosswalk markings and enhance lighting at signalized intersections. • Provide marked, enhanced mid-block crossings at a various locations • Conduct round-about feasibility study to evaluate the feasibility of replacing the traffic signals at 64th Avenue and 62nd Avenue with modern round-abouts. • Apply bike boulevard design treatments along Lincoln Street from SR-7 to N 56th Street where Johnson Street lacks ROW to provide bike lanes • Complete sidewalk along the north side of Johnson Street to the C-10 Canal Bridge.	35	6.2	$ 3,812,000

ID#	On Street	From/At	To	Recommendation	Priority Score	Approx. Length	Planning Cost Estimate
10	NW 64th Ave	Hollywood Boulevard	N of Sheridan Street	• Consider widening pavement and narrowing travel lanes to provide marked bike lanes; reconstruct residential driveway aprons as necessary and provide right turn lane key hole at Johnson Street.	21	1.6	$ 1,232,000
11	Washington Street	SW 62nd Avenue	Park Road	• West of SR 7 and East of SW 56th Avenue, widen pavement and narrow travel lanes to provide marked bike lanes; reconstruct driveway aprons as necessary and provide right turn lane key holes where needed. • Monitor land development activity to determine if it is feasible to convert Washington Street from a 4-lane undivided section to a 2-lane divided section with bike lanes from SR-7 to SW 56th Avenue. (cost not included).	27	2.1	$ 1,323,000
12	62nd Avenue	Pembroke Road	Johnson Street	• Consider widening pavement and narrowing travel lanes to provide marked bike lanes; reconstruct residential driveway aprons as necessary and provide right turn lane key hole at Johnson Street or eliminate northbound right turn lane.	24	1.5	$ 1,208,000
13	58th Avenue, Fillmore Street, Columbus Parkway, and Glen Parkway in area bound by SR 7, Johnson Street, 56th Avenue North, and Hollywood Boulevard			• Fill sidewalk gaps, provide curb ramps. • Provide shared lane arrow markings.	18	2.7	$ 169,000
14	Johnson Street	C-10 Canal	US 1	• Provide adequate bicycle and pedestrian facilities across canal bridge • Provide marked crosswalks and countdown pedestrian signals across all legs of the intersection at 30th Road • Correct ADA issues and complete sidewalks from C-10 Canal to east of I-95 • Reconstruct the 2-lane divided roadway to a 2-lane undivided roadway to provide bike lanes and complete sidewalks; incorporate landscaping enhancements as feasible. • Consider providing for left turn movements and reducing off-peak congestion by replacing the signals at 24th and 26th Avenues with roundabouts. • Provide bus-stop and pedestrian safety enhancements at US-1.	45	1.7	$ 9,964,000
15	Johnson Street	Federal Highway	N 8th Avenue	• Provide Shared Lane Arrow Markings	16	1.4	$ 48,000

ID#	On Street	From/At	To	Recommendation	Priority Score	Approx. Length	Planning Cost Estimate
16	56th Avenue	Washington Street	Stirling Road	• Consider widening pavement and narrowing travel lanes to provide marked bike lanes; reconstruct residential driveway aprons as necessary and provide right turn lane key hole at Washington Street (Southbound).	24	3.0	$ 2,417,000
17	46th Avenue	Washington Street	Johnson Street	• South of Hollywood Boulevard, widen pavement and narrow travel lanes to provide marked bike lanes; reconstruct residential driveway aprons as necessary. • North of Hollywood Boulevard reduce the width of the grass median and shift the travel lanes inward to provide marked bike lane; alternatively, mark outside lane with shared lane arrows.	26	1.0	$ 827,000
18	Polk Street North Rainbow Drive	Glenn Parkway Polk St	N Rainbow Drive Johnson Street	• Convert the current 4-lane divided roadway with 2, 10ft travel lanes in each direction into a 2-lane divided roadway with a 14 foot inside lane and 6ft bike lanes and or utilize shared lane arrows to provide bike facilities. • Alternatively, mark outside lane with shared lane arrows.	12	1.8	$ 564,000
19	Van Buren Street South Rainbow Drive	S 56th Avenue Van Buren Street	S Rainbow Drive Washington Street	• Convert the current 4-lane divided roadway with 2, 10ft travel lanes in each direction into a 2-lane divided roadway with a 14 foot inside lane and 6ft bike lanes and or utilize shared lane arrows to provide bike facilities. • Alternatively, mark outside lane with shared lane arrows.	11	1.5	$ 448,000
20	Park Road	Washington Street	Johnson Street	Provide bike facilities by various means including: • improving the existing paved trail along the east side o Park Road south of Hollywood Boulevard • provide bike lanes by adding paved shoulder southbound (south of Hollywood Boulevard) and reducing lane widths to allow for right turn lane key-holes (or use shared right turn lane bike lane markings) • Narrow the existing grass median (north of Hollywood Boulevard) to accommodate bike lanes and right turn key-holes in the roadway cross-section.	25	1.1	$ 1,073,000

ID#	On Street	From/At	To	Recommendation	Priority Score	Approx. Length	Planning Cost Estimate
21	Hollywood Boulevard	Presidential Circle	28th Avenue	• Reduce travel lane width and/or reduce median width west of the I-95 interchange to provide for standard width bike lanes and consider use of shared lane arrow in right turn lane where key-holes cannot be provided. • Provide various intersection pedestrian enhancements including enhanced markings, lighting, signing, and revised curb radii geometry. • Relocate and/or enhance various bus stops to improve convenience to signalized crossing locations. • Provide crosswalks across Hollywood Boulevard at southbound and northbound I-95 ramp intersections. • Improve lane designation signage at 28th Avenue and consider geometric and signal phasing options to mitigate eastbound left-turn crash pattern.	50	1.3	$ 1,987,000
22	35th Avenue	S Rainbow Drive	Johnson Street	Consider widening pavement and narrowing travel lanes to provide marked bike lanes	22	0.5	$ 18,000
23	30th Avenue	Pembroke Road	Hollywood Boulevard	• Provide a multi-use path along the 30th Avenue right-of-way from Pembroke Road to Hollywood Boulevard pending potential redevelopment of city golf course.	23	1.0	$ 388,000
24	30th Road	Hollywood Boulevard	Johnson Street	• Redevelop the City park right-of-way between Johnson Street and Hollywood Boulevard to provide a thru street connection with multimodal facilities along the 30th Road alignment.	18	0.5	$ 3,975,000
25	Hollywood Boulevard	City Hall Circle	Dixie Highway	• Complete Streets Project to provide median refuge, bike lanes, bus stop enhancements, mid-block crosswalks, and lighting and landscape enhancements.	51	0.5	$ 6,857,000
26	Van Buren Street	28th Avenue	24th Avenue	• Provide curb and gutter on both sides of the street and reconstruct concrete driveway aprons. Consider providing shared lane arrow markings within existing pavement or widen the pavement to provide bike lanes. • At 24th Avenue, restripe crosswalk markings, provide pedestrian push-buttons/signals, provide ADA curb ramps, and provide intersection/crosswalk area lighting.	14	0.6	$ 3,431,000

ID#	On Street	From/At	To	Recommendation	Priority Score	Approx. Length	Planning Cost Estimate
27	Polk Street	28th Avenue	22nd Avenue	• Provide curb and gutter on both sides of the street and reconstruct concrete driveway aprons. Consider providing shared lane arrow markings within existing pavement or widen the pavement to provide bike lanes. • At 24th Avenue, restripe crosswalk markings, provide pedestrian push-buttons/signals, provide ADA curb ramps, and provide intersection/crosswalk area lighting.	16	0.8	$ 4,275,000
28	24th Avenue	Washington Street	Johnson Street	Mark with shared lane arrows	19	1.0	$ 36,000
29	Dixie Highway	Pembroke Road	Sheridan Street	• Reduce travel lanes along Dixie Highway and 21st Avenue from 3 lanes in each direction to 2 lanes in each direction • Provide marked (potentially buffered) bike lanes, wide sidewalks and furniture areas, and enhanced pedestrian crossing features at all signalized intersections. • Complete 5 missing sidewalk segments. • Evaluate left turn prohibitions at Dixie Highway and Hollywood Boulevard to reduce congestion at this intersection.	46	2.5	$14,175,000
30	14th Avenue	Hallandale Beach City Limit	Hollywood Boulevard	• Consider widening pavement (5ft each side) and providing marked bike lanes; reconstruct residential driveway aprons as necessary and provide right turn lane key hole at Washington Street (Southbound). • Complete sidewalk segments as necessary.	27	1.0	$ 811,000
31	13th Avenue	Washington Street	Johnson Street	• Complete sidewalk segments as necessary.	14	1.0	$ 191,000
32	SR A1A	Hallandale Beach Boulevard	Johnson Street	• South of Hollywood Boulevard, conduct operational analysis based on peak season traffic characteristics to assess the feasibility of implementing a road diet from a 6-lane divided roadway to a 4-lane divided roadway. In addition to providing bike lanes in each direction and other traffic operational and multimodal enhancements. • Provide various pedestrian enhancements to intersection of Hollywood Boulevard and SR A1A • North of Hollywood Boulevard, provide enhanced crosswalks and intersection lighting at signalized intersections and potential mid-block crossing locations. • Relocate bus stops to be closer/more convenient to signalized intersections.	25	2.3	$13,595,000

Table 6-4: Point Congestion Management Projects (Project ID 33 - 46)

ID#	On Street	From/At	Recommendation
Bus Stop Enhancements and Siting Modifications			
33	Pines Boulevard	US 27 to I-75	• Enhance and modify location of bus stops at 186th Avenue and Westfork Plaza
34	Pines Boulevard	I-75 to Hollywood City Limit	• Enhance and modify location of bus stops at various locations • Evaluate potential for right-turn queue jump lanes pending completion of FDOT Pilot Project at: 136th Avenue, Hiatus Road, Palm Avenue, and Douglas Road.
35	Hollywood Boulevard	56th and 58th Avenues	• Modify bus stop locations to improve access to signalized crossings
Mid-Block Crosswalks and Intersection Pedestrian Feature Enhancements			
36	City of Pembroke Pines	Various Locations	• Provide (or enhance existing) marked mid-block crosswalks with rectangular rapid-flashing beacons at the following locations: 184th Avenue at 9th Street, 184th Avenue at Johnson Street, 178th Avenue at 9th Street, 10th Street at 129th Avenue, 129th Avenue South of 3rd Street.
37	Pines Boulevard	Various Intersections	• Improve pedestrian design features and/or enhance crosswalk lighting levels to improve pedestrian safety/mobility at the following intersections along Pines Boulevard: 184th Avenue, 172nd Avenue, 136th Avenue, 129th Avenue, 118th Avenue, Palm Avenue, Flamingo Road, Douglas Road, 64th Way.
38	Pines Boulevard	I-75 Interchange Area	• Provide multi-use path as an alternative to existing bike lane transitions across dual right turn lanes; construct raised right turn islands with pedestrian signals to facilitate pedestrian crossing across ramp termini; provide pedestrian lighting as necessary.
39	Hollywood Boulevard	Florida Turnpike Area	• Provide enhanced crosswalks and pedestrian-scale lighting across planned southbound-to-westbound off ramp; shift the sidewalk along the south side of Hollywood Boulevard farther from the roadway; construct a raised right turn island to facilitate pedestrians crossing the eastbound right turn into the Turnpike entrance.
40	Hollywood Boulevard	Various Intersections	• Improve pedestrian design features and/or enhance crosswalk lighting levels to improve pedestrian safety/mobility at the following intersections along Hollywood Boulevard: 62nd Avenue, 58th Avenue, 56th Avenue, 52nd Avenue, 46th Avenue, 26th Avenue (both intersections),
41	Hollywood Boulevard	Various Locations	• Provide (or enhance existing) marked mid-block crosswalks with rectangular rapid-flashing beacons at the following locations: East of 28th Avenue, City Hall Circle (west end and east end), and 8th Avenue.
Traffic Operations			
42	Pines Boulevard	Dykes Road to 136th Avenue	• Extend TSM&O/ATMS system to improve signal coordination/reduce congestion.
43	Pines Boulevard	Various Intersections	• Evaluate and, if necessary, extend turn lanes to back-of-queu at the following locations: Grand Palms Drive (EBR), 136th Avenue (EBR and WBR), Walmart Driveway (WBL)
44	Hollywood Boulevard	Florida Turnpike Area	• Extend eastbound right turn lane to immediate east of 63rd Terrace • Evaluate options to restrict eastbound left turns at 62nd Avenue to provide additional left turn storage onto the Turnpike.
45	Hollywood Boulevard	US 1/Young Circle	• BCTE is currently evaluating options to improve operations in Young Circle; consider implementing TSM&O/ATMS system to improve signal coordination/reduce congestion. • Provide enhanced (in pavement) wayfinding to help tourists navigate the circle
46	Hollywood Boulevard	14th Avenue/13th Avenue	• Coordinate with the City of Hollwyood and FDOT to implement measures to mitigate the impacts of the recent access management project on the Hollywood Lakes neighborhoods.

SCENARIO DEVELOPMENT PROCESS

A description follows of the methodology for the scenario development process. This methodology includes an explanation of how the scenarios were created and a description of the four scenarios that were used for each Mobility Hub. A description of the development characteristics of each of the building prototypes and development types used for building the scenarios is also included.

SCENARIO PLANNING

Scenario planning is a technique intended to help better inform the decisions to be made at present despite the uncertainties of the future. Scenario planning provides a mechanism by which to put forth possible future scenarios for evaluation and study. Land-use scenario planning matches land-use plans with transportation plans, often comparing a "trend" or "base case" to one or more feasible alternatives. It is a useful tool to plan for anticipated growth and develop strategies to optimize outcomes while comparing different choices and potential consequences. This document describes the process for developing scenarios for four Mobility Hubs along the Hollywood Pines Corridor in Broward County.

WHAT ARE THE BENEFITS OF SCENARIO PLANNING?

The reasons to embark on scenario planning are many; however, the primary benefit is to uncover better information about future conditions to help communities, cities, states and regions make decisions. This is done using powerful new tools to estimate likely effects of growth and development patterns over the next 20–25 years. Information from these tools can help local governments evaluate how well existing plans will do in meeting a community's needs and the likely results from implementing these plans. Scenario planning will help identify issues or needs and explore options for refining plans to ensure the community and citizens are better prepared for the future.

TOOLS FOR SCENARIO PLANNING

Envision Tomorrow (ET) is an innovative suite of urban and regional planning tools that can be used to model the development of buildings on a site-by-site basis as well as create and evaluate multiple land use scenarios. The suite includes the Scenario Builder, which is an extension for ArcGIS, and the Return on Investment (ROI) model that provides for creation of future potential building and home types that are combined into a set of Development Types to represent districts and neighborhoods.

WHAT IS SCENARIO BUILDER?

Scenario Builder is an easy-to-use tool that allows land-use scenario creation and evaluation by spatially distributing virtual future development. It helps address the possible circumstances of the future in advance. The process for this project operates at a regional scale. Through scenario planning, the choices and consequences of alternative futures

can be compared using a variety of land-use metrics, resource usage, and transportation and environmental impacts. Working within GIS, data from the scenarios is readily-ported to a range of models beyond ET, such as a four-step travel demand model. For instance, it is possible to explore how alternative land use patterns could reduce the rise in vehicle miles traveled and its associated problems.

CREATING PLAUSIBLE AND REALISTIC BUILDING PROTOTYPES FOR SCENARIO TESTING

Planners can step into developers' shoes by using the Building-Level Return on Investment (ROI) Model. The Tool evaluates physical form (height, unit sizes, parking configurations, etc.) as well as financial reality (rents, sales price, construction costs, land costs, etc.). Current market research informed buildings used for modeling the test scenarios.

BUILDING PROTOTYPES USED FOR BUILDING THE SCENARIOS

A library of building prototypes is shown below, as developed in the Excel Prototype Builder (Figure 6-1).

- Residential SF Medium
- Residential SF High
- Residential MF Low
- Residential MF Low-Med
- Residential MF Medium
- Residential MF High
- Residential MF Very High
- Residential 40
- Residential 60
- Residential 80
- Residential 120
- Mixed Use (Low)
- Mixed Use (High)
- Mixed Use (Very High)
- Mixed Use (Urban)
- Indust./Bus. Park (Low)
- Indust./Bus. Park (High)
- Indust./Bus. Park (Very High)
- Indust./Bus. Park (Urban)
- Office (Low)
- Office (Med)
- Office (High)
- Office (Very High)
- Office (Urban)
- Office (High Urban)
- Commercial (Low)
- Commercial (High)
- Commercial (Very High)
- Commercial (Urban)
- Parks, Open Space
- Public/Semipublic (Low)
- Public/Semipublic (High)
- Public/Semipublic (Very High)
- Public/Semipublic (Urban)
- Condo

Figure 6-1: Excel Prototype Builder

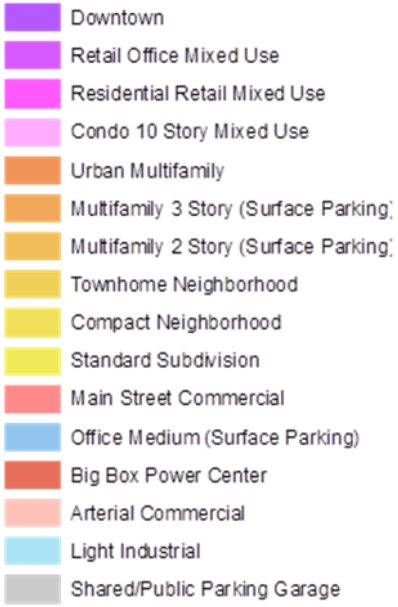
Market research was used to calibrate the building types (Table 6-5).

Table 6-5: Cost per Square Foot Used for Each Building Prototype

Building Type	Cost Per Sq Ft
Small Office	$110
Medium Office	$135
Large Office	$131
Medical Office	$177
Neighborhood Shopping Center (strip mall)	$102
Community Shopping Center	$96
Retail Store	$124
Restaurant	$181
Fast Food Restaurant	$201
Industrial Building (manufacturing)	$63
Small Apartment	$97
Single-Family Residential (average quality)	$89
Single-Family Residential (above average quality)	$105
Single-Family Residential (luxurious quality)	$165

DEVELOPMENT TYPES

Using the library of prototype buildings listed above, the team established a set of development types. These development types become the "paint" used to create the scenarios. The development types comprise a collection of computerized theoretical buildings, grouped together to represent the types of places and neighborhoods that resonate with the community. Appendix 6E: Scenario Development Process includes the set of Development Types use for building the scenarios.



SCENARIO THEMES

Three draft scenarios were initially developed for review by stakeholders and the public at the workshops. A fourth "preferred" scenario was developed in response to input from local stakeholders, the public and the consultant team. Following is a description of the guiding inputs and design parameters for each scenario.

Trend Scenario

- Guided by local general plans and current zoning. New development painted in Envision Tomorrow matched that allowed by general plans and zoning.
- TAZ forecast for 2035. Forecasted jobs and housing were allocated to each TAZ by placing development types that reached the correct future TAZ numbers. In instances where portions of the same TAZ fell part in the Mobility Hub and part outside, a proportion of the forecasted growth in the total TAZ area was calculated.

- Followed the types of development that are out there now, and showed development/redevelopment based on existing development types around the Hubs in order to meet the population/employment projections.

Alternative Scenario 1

- Used the trend population forecast and existing general plan as much as possible.
- Increased mixed-use building types, such as apartments over retail.
- Incorporated housing in areas designated commercial in the general plans, assuming a desire for a more balanced jobs and housing ratio.
- Created neighborhoods (multi-family) within Hubs wherever possible.
- Showed some additional density of use at the Hubs
- Assume all intersecting TAZ growth occurs within the Hub. This results in larger jobs and housing unit increases.

Alternative Scenario 2

- Started with the premise that the LRTP forecast and the General Plan was not considered, and as much development/redevelopment was pushed within the nodes as possible.
- Emphasized the use of mixed-use building types, such as apartments over retail and other urban development types.
- Assumed 120% of all intersecting TAZ growth occurs in the Hub. In general this scenario was designed with the assumption that potential nearby growth would actually occur in the mobility Hub as a result of new amenities and easy access to transportation.
- Relaxed parking minimums and add shared parking structures. This frees up more land for development.
- This alternative really started to consider the new street network into the land use mix.

Preferred Scenario

- Public feedback received during the workshops contributed to the design of the scenario.
- Based on lessons learned through building and testing the trend and two alternative scenarios.
- Improved connectivity and linkage throughout the Hubs was a key element of this scenario.
- Assumed active building fronts and good design were concepts.
- Expected to have walkable urban sidewalks with green features.
- Considered TAZ forecast and current plans as part of the design but were not the primary guiding component.
- Emphasized the use of mixed-use building types, such as apartments over retail and other urban development types.
- Just like Alternative Scenario 2, designed with the assumption that potential nearby growth would actually occur in the mobility Hub as a result of new amenities and easy access to transportation.
- Relaxed parking minimums and ads shared parking structures. This frees up more land for development.

The following section describes the Preferred scenario for each of the four chosen Mobility Hubs. A description of each scenario, per Mobility Hub, along with a summary of scenario indicators, the library of building prototypes and the development type menu can be found in Technical Appendix #6-E: Scenario Development.

PREFERRED SCENARIO SELECTION

The variation in age, style, and intensity of the built environment along the Hollywood/Pines Corridor limits the use of a "one size fits all" approach to land development and urban design. Outside of Downtown Hollywood, where infill/ redevelopment has already begun to take place, it is logical to assume that redevelopment of the Corridor is most likely to occur outside of single-family neighborhoods and, instead, would occur first on the larger commercial properties along the Corridor in the vicinity of the Mobility Hubs. To develop strategies at a more localized level, Mobility Hubs in the three character areas (Urban, Transitional, and Suburban) were presented to the PAC to select four Mobility Hubs for the development of land use scenario planning, as well as to be used to develop short- and long-term land use/livability policy recommendations and long-term transportation infrastructure concepts.

The following criteria were used to evaluate each Mobility Hub as it relates to land use/livability and transportation interventions:

- Current planning or policy in place – Before proposing any significant changes within an influence area, it is important to ensure that there is not adopted policy that precludes those alterations to be realistic solutions.
- Ability to retrofit land use and form – A significant number of Mobility Hubs, especially within the Suburban segment, require a redesign of the urban form, including but not

Figure 6-2: Example of retrofitting land use and form in a suburban context (Image source: Galina Tachieva, *Sprawl Repair Manual*)

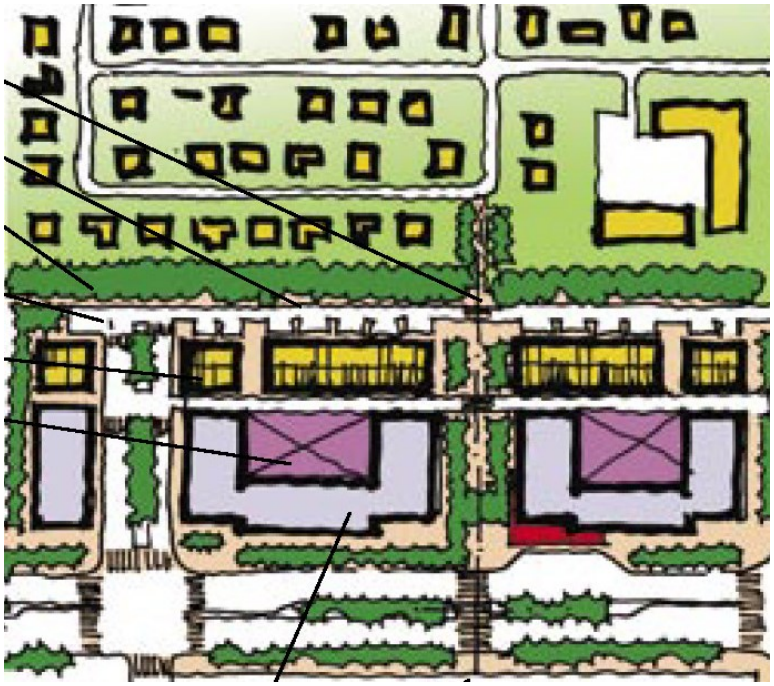


Figure 6-3: Transition from high-density form to single-family residential (Image source: *Broward County County-wide Community Design Handbook*)

Figure 6-4: Suburban street network has little potential for connectivity (Image source: Alastair Somerville)

limited to, the connection of the street network and pedestrian facilities to make the influence area transit supportive.

- Ownership and parcel size (ability to aggregate) – Redevelopment is often dependent on the availability of larger land parcels that can accommodate multi-family/ mixed use development common in transit supportive areas.
- Location of critical mass – Transit is dependent on a significant amount of population (residential and/or employment) within walking distance of premium transit stations. The location of existing critical mass is a determining factor in its appropriateness and success as a Mobility Hub.
- Ability to transition between land uses effectively – Providing infrastructure and critical mass in a concentrated influence area must be done sensitively to existing single-family neighborhoods.
- Locations included in premium transit studies – Mobility Hubs included in premium transit studies are more likely to acquire a premium-level of service before other influence areas. These locations will need to be made transit-ready first.
- Potential for connectivity – In some locations, the street network of existing neighborhoods can be extended to Hollywood/Pines Boulevard. This can alleviate traffic congestion and provide more multimodal accessibility to transit stations.

In working with staff, the PAC, and other stakeholders, the following Mobility Hubs were chosen for the scenario development process It was decided that two Hubs would be chosen from each affected jurisdiction (Hollywood and Pembroke Pines).

Following are the most significant reasons why each of the four was chosen. The ultimate decision was a balance between the previously-listed criteria and the values of local decision makers. Tables 6-6 through 6-9 present the scoring of each Hub as it relates to the criteria is presented.

HOLLYWOOD BOULEVARD & DIXIE HIGHWAY

- Most likely to benefit from premium transit with the consideration of the CSX corridor for FEC and Tri-Rail passenger rail service
- Passenger rail service in this location a major impetus for economic development
- Maximizes the most significant TOD opportunity in the short-term
- Redevelopment will extend success of Downtown
- Existing connected street network conducive to TOD

HOLLYWOOD BOULEVARD & SR 7

- Ensure appropriate land-use transition following the widening of SR 7
- Large redevelopment sites in two southern quadrants
- Opportunity to integrate green open space with transit facilities
- One of the busiest transit corridors in the county, with an AA premium transit study planned
- Alleviate congestion and improve access to transit through connectivity opportunities

PINES BOULEVARD & UNIVERSITY DRIVE

- Premium transit study being conducted on busy transit route
- Airport as detriment to achieving critical mass in Mobility Hub of busy transit corridor
- Commercial uses older and nearing full depreciation (including gas station at corner property)
- Alleviate congestion and improve access to transit through connectivity opportunities

PINES BOULEVARD & FLAMINGO ROAD

- Integrate medical uses/hospital (major employment Hub)
- Very successful existing park-and-ride in need of expansion
- Major regional retail destination with opportunities for densification
- Major community amenity (CB Smith Park)
- Century Village—opportunity to connect residents with medical uses and daily necessities

The following section describes the development types and indicators of the Preferred Scenarios for each Mobility Hub. A report of all scenarios can be found in Appendix #6E: Scenario Development Process.

Table 6-6: Scenario Scoring – Hollywood Blvd & Dixie Hwy

Hollywood Boulevard & Dixie Highway	
Consistent with Policy	☆ ☆ ☆
Ability to Retrofit	☆ ☆ ☆
Parcel Size and Ownership	☆
Critical Mass	☆ ☆ ☆
Land Use Transition	☆ ☆ ☆
Premium Transit Studies	☆ ☆ ☆
Potential for Connectivity	☆ ☆ ☆

Table 6-7: Scenario Scoring – Pines Blvd & University Dr

Pines Boulevard & University Drive	
Consistent with Policy	☆ ☆ ☆
Ability to Retrofit	☆ ☆
Parcel Size and Ownership	☆ ☆
Critical Mass	☆ ☆ ☆
Land Use Transition	☆ ☆
Premium Transit Studies	☆ ☆ ☆
Potential for Connectivity	☆ ☆

Table 6-8: Scenario Scoring – Hollywood Blvd & SR 7

Hollywood Boulevard & SR 7	
Consistent with Policy	☆ ☆ ☆
Ability to Retrofit	☆ ☆ ☆
Parcel Size and Ownership	☆ ☆
Critical Mass	☆ ☆ ☆
Land Use Transition	☆ ☆ ☆
Premium Transit Studies	☆ ☆ ☆
Potential for Connectivity	☆ ☆ ☆

Table 6-9: Scenario Scoring – Pines Blvd & Flamingo Rd

Pines Boulevard & Flamingo Road	
Consistent with Policy	☆
Ability to Retrofit	☆ ☆
Parcel Size and Ownership	☆
Critical Mass	☆ ☆ ☆
Land Use Transition	☆
Premium Transit Studies	☆ ☆
Potential for Connectivity	☆

HOLLYWOOD BOULEVARD & DIXIE HIGHWAY

DEVELOPMENT TYPES

The Preferred scenario for Hollywood Boulevard & Dixie Highway reflects a significant increase in multi-family housing to achieve the critical mass required of premium transit in this Mobility Hub. With the arrival of FEC and Tri-Rail passenger train service very close to the intersection of Hollywood Boulevard and Dixie Highway, the growth was focused around the future station location. Figure 6-5 shows the relative growth between different use types proposed in this Mobility Hub. While the diagram is not parcel-specific, it does reference the location of uses within each quadrant.

Because of the substantial amount of main street commercial retail that significantly contributes to the identity and healthy pedestrian environment of downtown in this location, Residential Retail Mixed-Use development was only recommended in areas, mostly around the proposed station, where the public realm needed activation. In some of these locations closest to the station, Condo 10-story Mixed-Use development is proposed to grow critical residential mass. This type is also proposed adjacent to Young Circle where the condo tower on the north side of the circle sets precedent for more urban and dense growth in this location.

The Main Street Commercial development type was used when possible on infill sites to enhance and continue the existing active public realm in the downtown area, especially east of the Mobility Hub intersection.

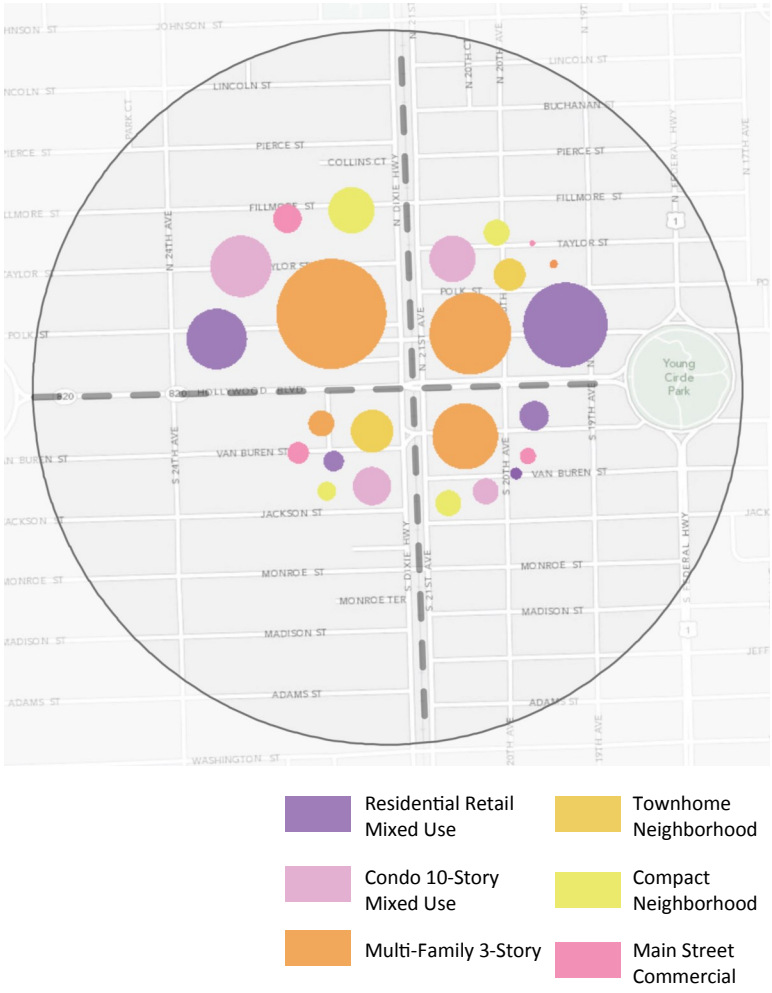


Figure 6-5: Hollywood Blvd & Dixie Hwy – Proposed Uses

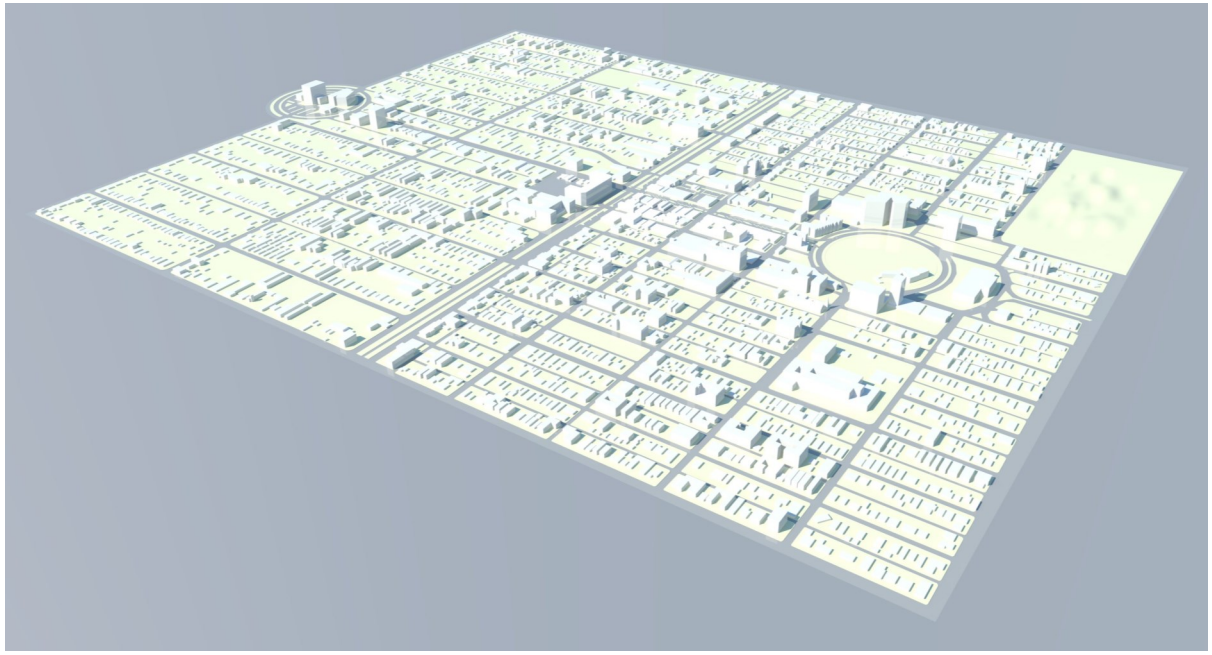


Figure 6-6: Hollywood Blvd & Dixie Hwy – Before

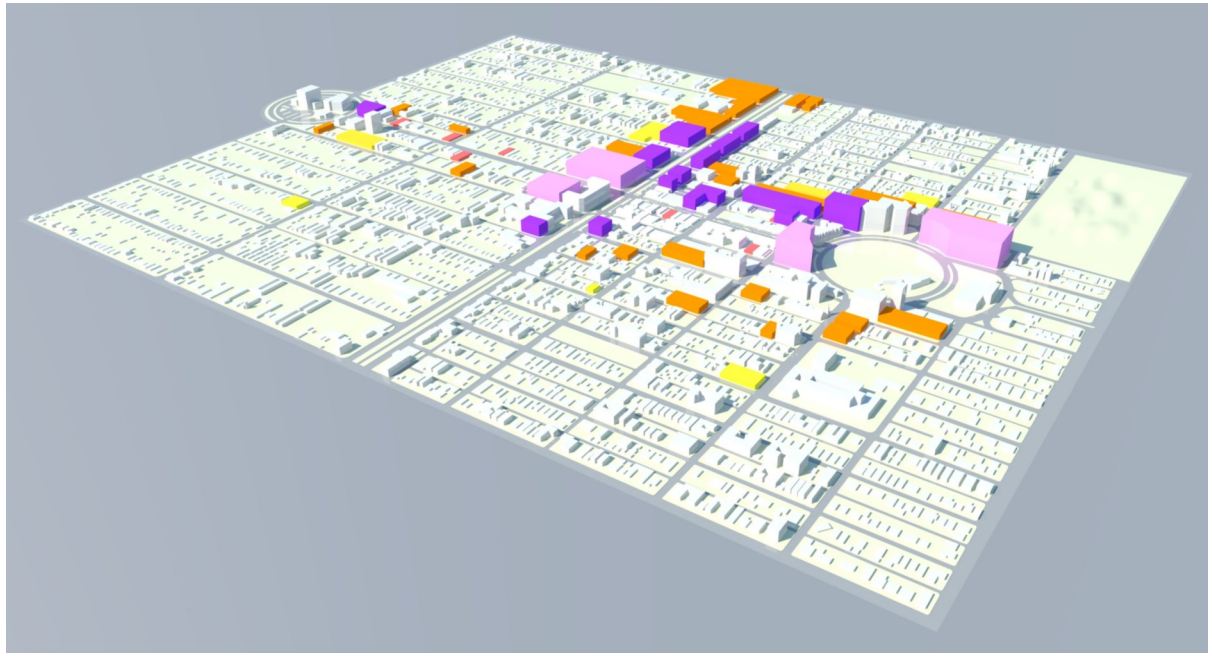


Figure 6-7: Hollywood Blvd & Dixie Hwy – After

Throughout the mobility Hub, townhome and compact neighborhood development types are proposed for small infill parcels of similar building form.

The 3D renderings on the preceding page (Figures 6-6 and 6-7) show the existing development at the Mobility Hub, as well as an example of how the diagram could apply to potential parcels for redevelopment.

INDICATORS

The main indicators used to differentiate between the Trend and Preferred scenarios are population, land area mix, housing mix, and employment mix. The Trend scenarios are based on the current LRTP for Broward County (projected year 2035.) Tables 6-10 through 6-13 show the change in increment between the existing conditions and the Trend and Preferred scenarios.

Population

- Based on the Trend scenarios, this Mobility Hub has significantly more existing residents than any other. The Preferred scenario shows the population almost tripling over the trend to support premium transit along the FEC/ Tri-Rail Corridor.

Land Area Mix

- The Preferred Scenario indicates a shift to more residential uses accommodated through mixed use development, multi-family and townhome construction.
- While the historic commercial uses will be preserved, new retail development will be provided through Mixed-Use development.

Housing Mix

- The Preferred Scenario will stay very consistent with the Trend scenario, with a larger increase in multi-family

Table 6-10: Hollywood Blvd & Dixie Hwy – Population

POPULATION	
SCENARIO	**POPULATION**
Trend	3,631
Preferred	9,869

Table 6-11: Hollywood Blvd & Dixie Hwy – Land Area Mix

LAND AREA MIX	
SCENARIO	**% OF TOTAL**
TREND	
Mixed-Use	4%
Multi-Family	58%
Townhome	21%
Single-Family	0%
Retail	7%
Office	10%
PREFERRED	
Mixed-Use	40%
Multifamily	46%
Townhome	13%
Single-Family	1%
Retail	0%
Office	0%

Table 6-12: Hollywood Blvd & Dixie Hwy – Housing Mix

HOUSING MIX	
SCENARIO	**% OF TOTAL**
TREND	
Multi-Family	90%
Townhome	9%
Small Lot Single-Family	1%
PREFERRED	
Multi-Family	97%
Townhome	2%
Small Lot Single-Family	1%

Table 6-13: Hollywood Blvd & Dixie Hwy – Employment Mix

EMPLOYMENT MIX	
SCENARIO	**% OF TOTAL**
TREND	
Retail	23%
Office	77%
PREFERRED	
Retail	49%
Office	51%

development as opposed to townhomes.

Employment Mix

- The Trend scenario is substantially focused on office employment growth, while the Preferred scenario balances between retail and office.

A physical representation of these indicators can be referenced in Chapter 7.

HOLLYWOOD BOULEVARD & SR 7

DEVELOPMENT TYPES

The Preferred scenario for Hollywood Boulevard & SR 7 reflects a significant increase in multi-family housing to achieve the critical mass required of premium transit, as well as an increase in arterial commercial building types in effort to retrofit more suburban retail conditions non-conducive to transit. The majority of proposed growth occurs in the southern quadrants of the mobility Hub because of the large amount of surface parking lots and retail uses ripe for redevelopment. Figure 6-8 shows the relative growth between different use types proposed in this Mobility Hub.

Multi-family housing is proposed as the primary type of residential development because Hollywood, especially close to major transit routes, lacks newly-constructed workforce housing. Multi-family housing is proposed in this location because of the location next to the Florida Turnpike and, therefore, its segregation from other neighborhoods, as well as its close proximity to the SR 7 mobility corridor. Additionally, because SR 7 is being widened and becoming more pedestrian-unfriendly, it is less conducive to mixed-use or compact single-family development.

With the construction of a new Walmart, this Mobility Hub will continue to be a retail Hub for Hollywood. This location will still need to accommodate arterial commercial uses, but should do so with an urban form more conducive to walkable environments.

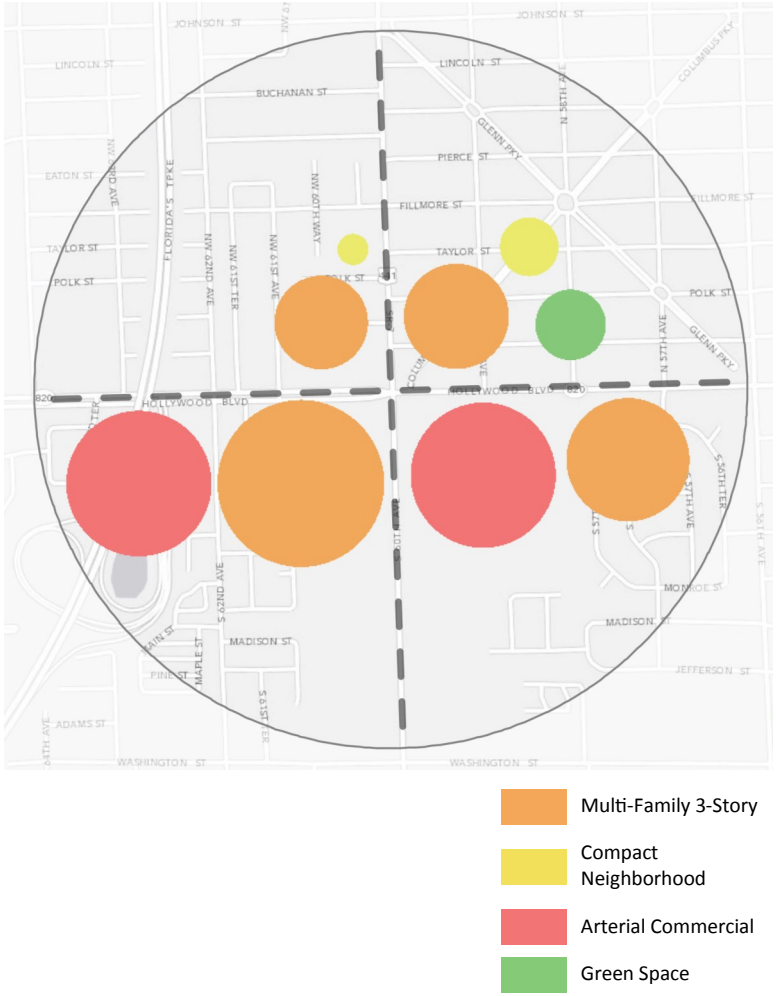


Figure 6-8: Hollywood Blvd & SR 7 – Proposed Uses

Hollywood/Pines Corridor Project

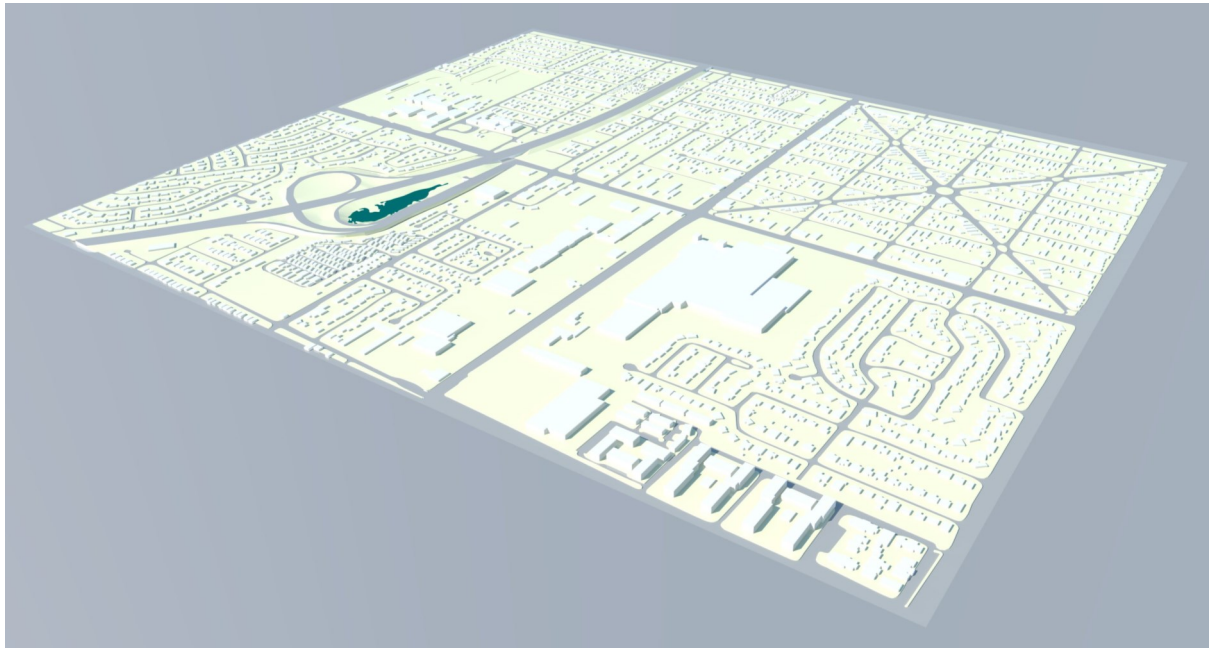


Figure 6-9: Hollywood Blvd & SR 7 – Before

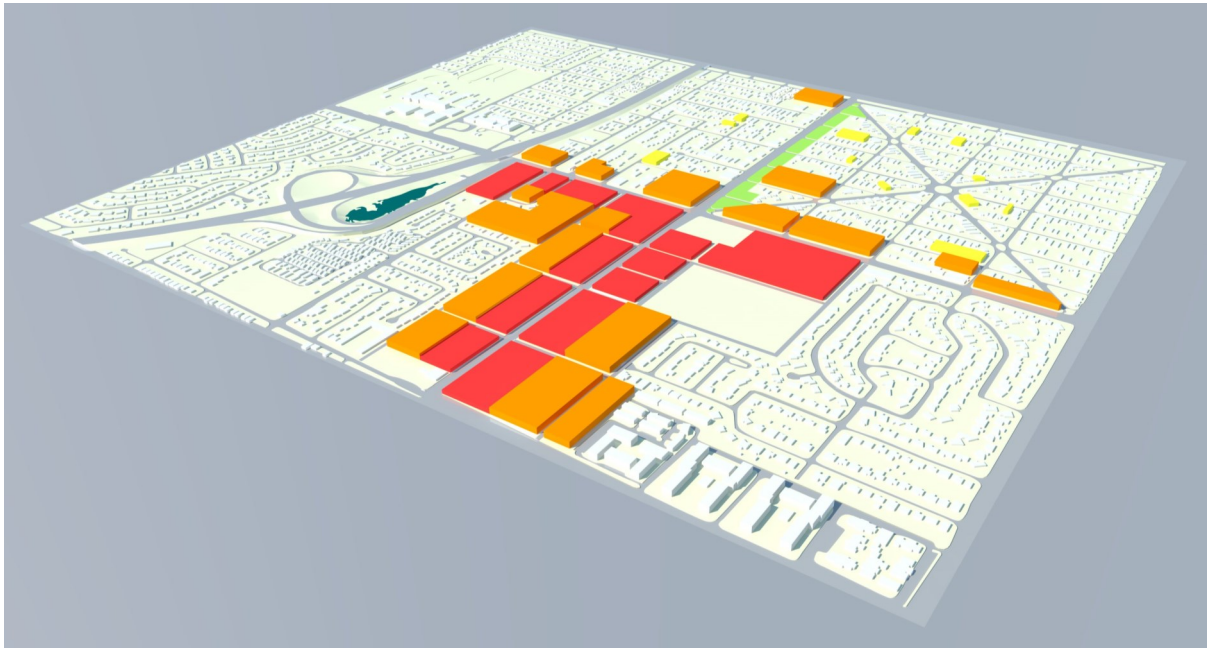


Figure 6-10: Hollywood Blvd & SR 7 – After

The green space in the Preferred scenario is part of the SR 7 road widening project. The storm-water park will provide a community space for the adjacent neighborhood and provide a buffer along SR 7.

Throughout the mobility Hub, compact neighborhood development types are proposed for small infill parcels of similar building form.

The 3D renderings on the preceding page (Figures 6-9 and 6-10) show the existing development at the mobility Hub, as well as, an example of how the diagram could apply to potential parcels for redevelopment.

INDICATORS

The main indicators used to differentiate between the trend and preferred scenarios are population, land area mix, housing mix, and employment mix. The trend scenarios are based on the current Long Range Transportation Plan for Broward County (projected year 2035.) The tables to the right and the following page (Table 6-14 through 6-17) exhibit the change in increment between the existing conditions and the Trend and Preferred Scenarios.

Population

- The Preferred Scenario shows the population seven times greater than the trend to better support the busy SR 7 transit route and introduce a larger supply of workforce multifamily housing.

Land Area Mix

- While the Preferred Scenario maintains growth in retail, it indicates a shift to multi-family development and away from office uses.

Table 6-14: Hollywood Blvd & SR7 – Population

POPULATION	
SCENARIO	POPULATION
Trend	727
Preferred	5,150

Table 6-15: Hollywood Blvd & SR 7 – Land Area Mix

LAND AREA MIX	
SCENARIO	% OF TOTAL
TREND	
Mixed Use	2%
Multifamily	7%
Townhome	2%
Single Family	1%
Retail	67%
Office	21%
PREFERRED	
Mixed Use	0%
Multifamily	40%
Townhome	3%
Single Family	0%
Retail	57%
Office	0%

Table 6-16: Hollywood Blvd & SR 7 – Housing Mix

HOUSING MIX	
SCENARIO	**% OF TOTAL**
TREND	
Multifamily	87%
Townhome	9%
Small Lot Single Family	3%
Large Lot Single Family	2%
PREFERRED	
Multi-Family	97%
Townhome	1%
Small Lot Single-Family	1%
Conventional Lot Single-Family	0%

Table 6-17: Hollywood Blvd & SR 7 – Employment Mix

EMPLOYMENT MIX	
SCENARIO	**% OF TOTAL**
TREND	
Retail	52%
Office	48%
PREFERRED	
Retail	100%
Office	0%

Housing Mix

- The Preferred scenario concentrates on multi-family housing with little growth in townhomes or single-family development types.

Employment Mix

- The Preferred scenario shifts substantially from the Trend with 100% increase in retail employment as opposed to a more even distribution between retail and office.

A physical representation of these indicators can be referenced in Chapter 7.

PINES BOULEVARD & UNIVERSITY DRIVE

DEVELOPMENT TYPES

The Preferred scenario for Pines Boulevard & University Drive reflects a balanced increase in mixed-use, multi-family, and arterial commercial development types. This Mobility Hub has substantial suburban retail that has reached its useful age and would benefit from redevelopment. It is Pembroke Pines' most significant opportunity to retrofit suburban retail. With substantial redevelopment of three quadrants, a mixed-use and walkable environment could be accomplished to better support transit service.

The airport's location in the southeast quadrant of the Mobility Hub will continue to grow. While the development of building types was limited in some quadrants because of flight patterns, substantial residential development was still able to be accommodated. Figure 6-11 shows the relative growth between different use types proposed in this Mobility Hub.

The varied residential uses in this Mobility Hub allow for a buffered transition from the Pines Boulevard and University Drive arterials to single-family neighborhoods. Pure retail uses, such as arterial commercial use along the corridors, to pure residential uses, such as multi-family adjacent to neighborhoods, ensure a transition of use and form.

The 3D renderings on the next page (Figures 6-12 and 6-13) show the existing development at the Mobility Hub, as well as an example of how the diagram could apply to potential parcels for redevelopment.

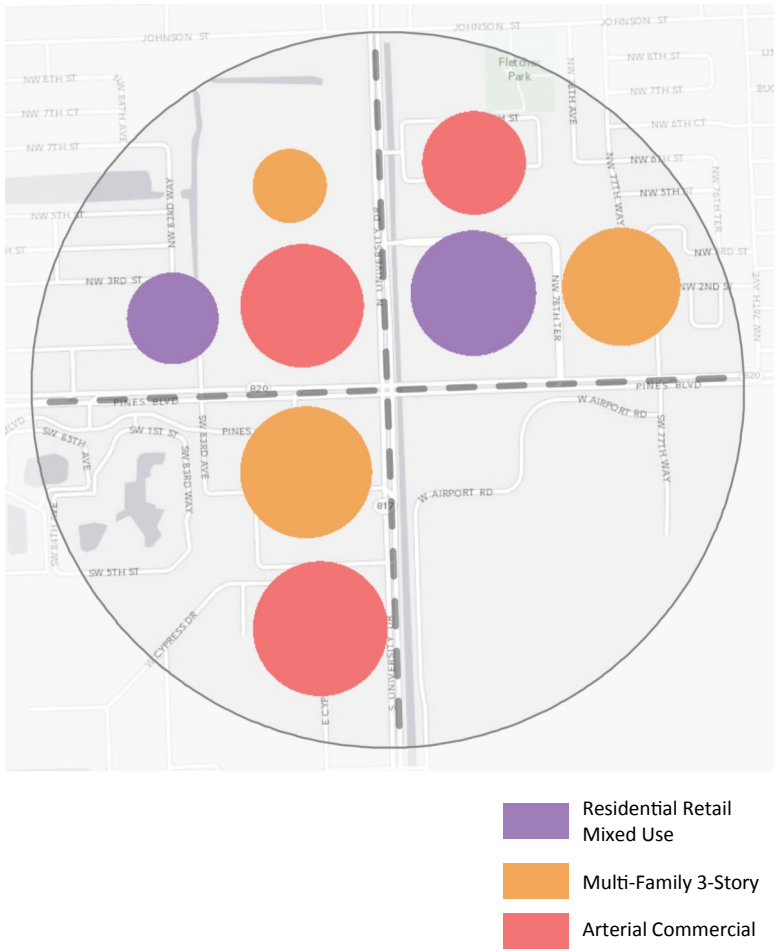


Figure 6-11: Pines Blvd & University Dr – Proposed Uses

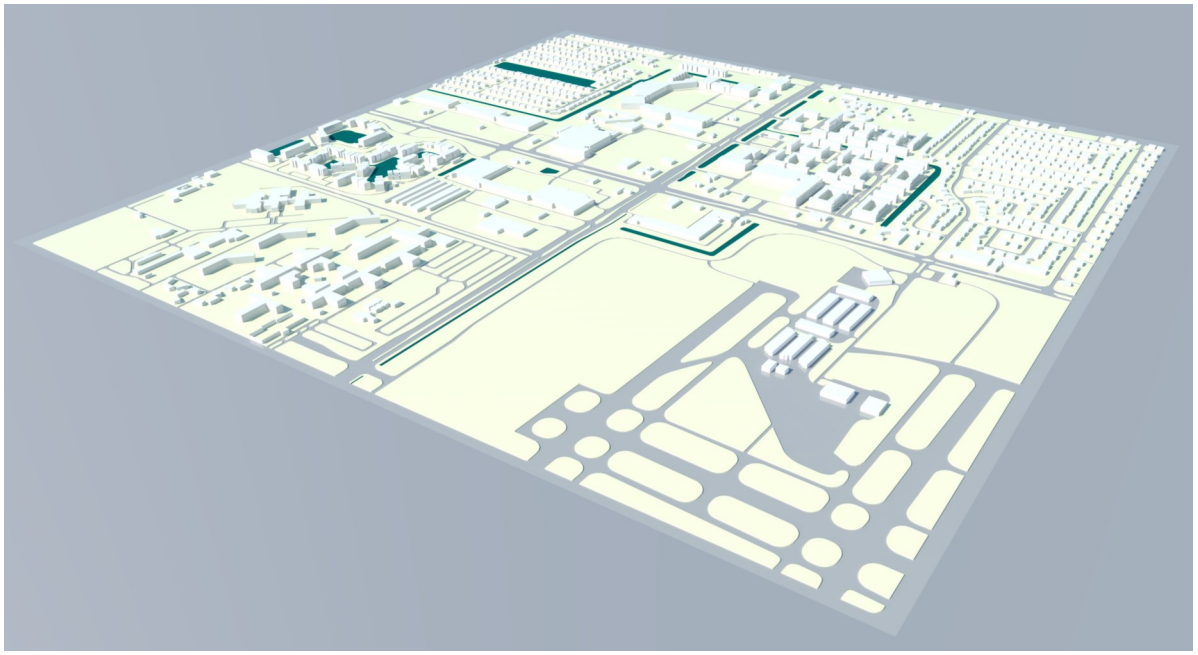


Figure 6-12: Pines Blvd & University Dr – Before

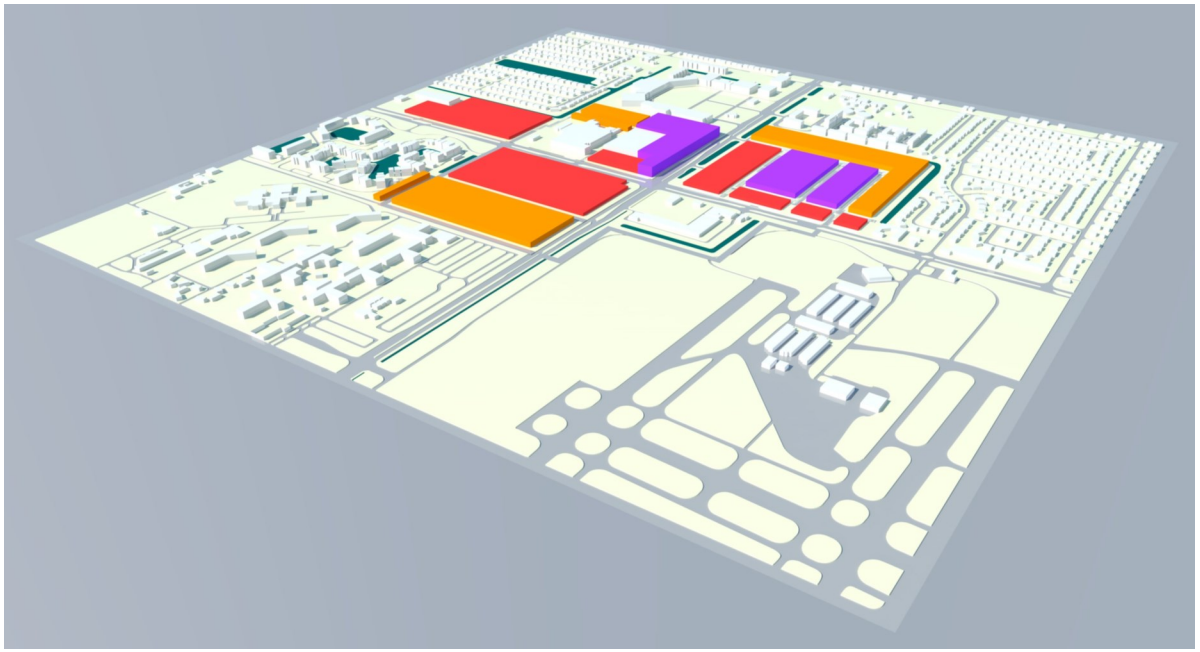


Figure 6-13: Pines Blvd & University Dr – After

INDICATORS

The main indicators used to differentiate between the Trend and Preferred scenarios are population, land area mix, housing mix, and employment mix. The Trend scenario is based on the current LRTP for Broward County (projected year 2035.) Tables 6-18 through 6-21 show the change in increment between the existing conditions and the Trend or Preferred scenarios.

Population

- With little existing population in the Mobility Hub, the Preferred scenario shows a large jump in population, approximately 20 times that in the Trend scenario, to support better the existing transit route.

Land Area Mix

- The Preferred scenario shifts growth away from retail to a more balanced development palette that includes mixed-use and multi-family building types.

Housing Mix

- The Preferred scenario reflects the Trend scenario, with a larger increase in multi-family development as opposed to townhomes and small lot single family.

Employment Mix

- The Preferred scenario maintains primarily a retail-based employment mix, but does introduce more office-based jobs.

A physical representation of these indicators can be referenced in Chapter 7.

Table 6-18: Pines Blvd & University Dr – Population

POPULATION	
SCENARIO	POPULATION
Trend	264
Preferred	5,766

Table 6-19: Pines Blvd & University Dr – Land Area Mix

LAND AREA MIX	
SCENARIO	% OF TOTAL
TREND	
Mixed Use	0%
Multi-Family	11%
Townhome	0%
Retail	89%
PREFERRED	
Mixed Use	24%
Multi-Family	33%
Townhome	3%
Retail	40%

Table 6-20: Pines Blvd & University Dr – Housing Mix

HOUSING MIX	
SCENARIO	**% OF TOTAL**
TREND	
Multi-Family	100%
Townhome	0%
PREFERRED	
Multi-Family	97%
Townhome	3%

Table 6-21: Pines Blvd & University Dr – Employment Mix

EMPLOYMENT MIX	
SCENARIO	**% OF TOTAL**
TREND	
Retail	100%
Office	0%
PREFERRED	
Retail	86%
Office	14%

PINES BOULEVARD & FLAMINGO ROAD

DEVELOPMENT TYPES

The Preferred scenario for Hollywood Boulevard & Flamingo Road reflects a significant increase in office uses to support the regional employment center anchored by Memorial Hospital West. The Preferred scenario was focused on preserving healthy retail development and retrofitting it with additional uses to support the Mobility Hub as an employment center and enhance the walkable environment at each quadrant. Figure 6-14 shows the relative growth between different use types proposed in this Mobility Hub.

As stated previously, the main increase in development type is office in the Preferred scenario. This will allow Memorial Hospital West and the services that support the industry to grow at this location. Within the same quadrant as the hospital, the hotel development type will also support the growing employment center.

The arterial commercial development type is used to retrofit healthy existing retail surface parking lots to create a more walkable environment required of transit.

While employment growth is the main priority of this Mobility Hub, in the appropriate quadrants, residential retail mixed use was introduced to try to grow residential critical mass.

The CB Smith Park, a major community amenity, is located in this Mobility Hub, and in areas with residential and

Figure 6-14: Pines Blvd & Flamingo Rd – Proposed Uses

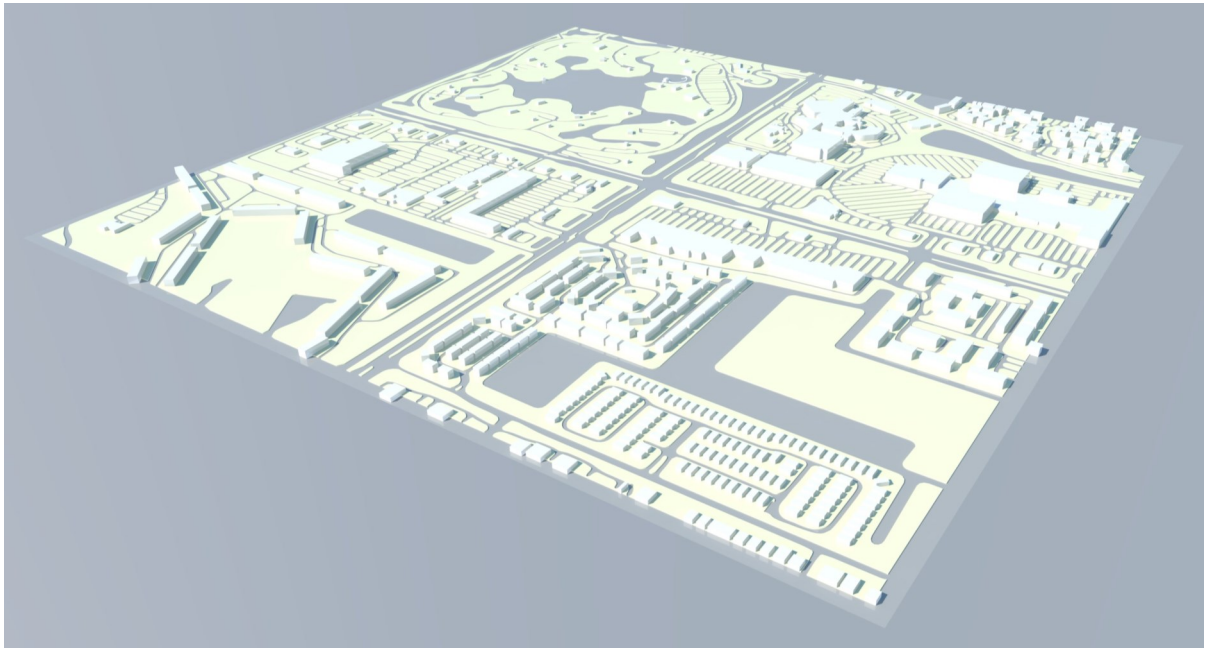


Figure 6-15: Pines Blvd & Flamingo Rd – Before

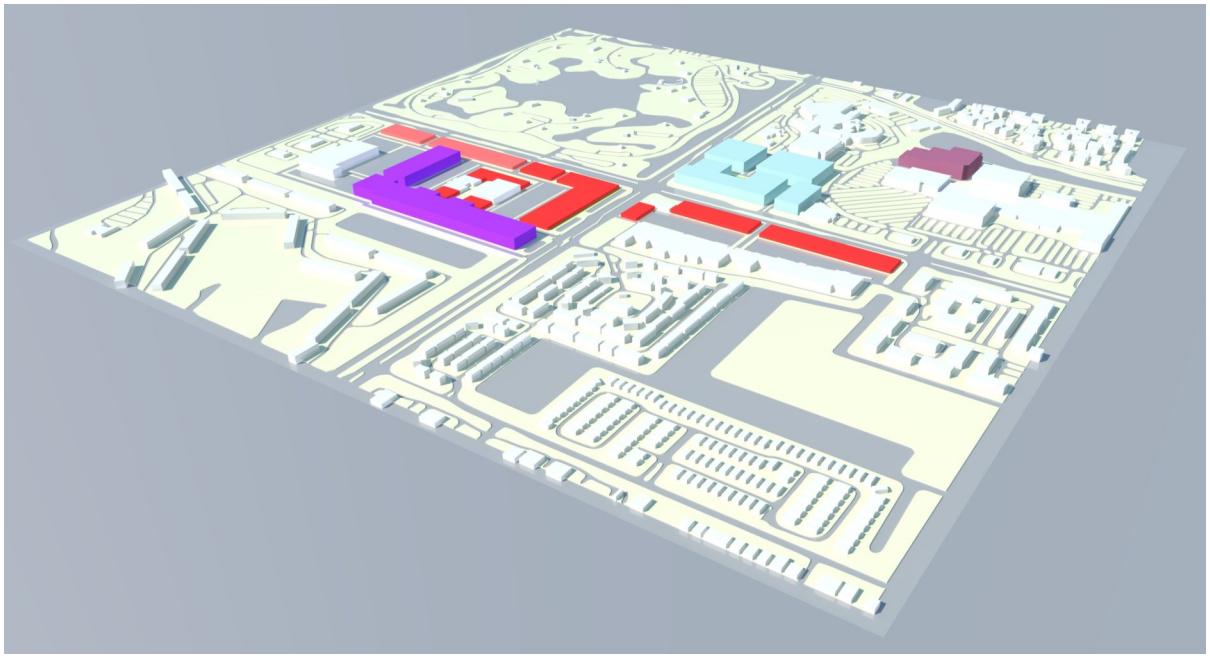


Figure 6-16: Pines Blvd & Flamingo Rd – After

employment uses, green spaces are included to ensure community based uses.

The 3D renderings on the preceding page (Figures 6-15 and 6-17) show the existing development at the mobility Hub, as well as an example of how the diagram could apply to potential parcels for redevelopment.

INDICATORS

The main indicators used to differentiate between the Trend and Preferred scenarios are population, land area mix, housing mix, and employment mix. The Trend scenario is based on the current LRTP for Broward County (projected year 2035.) Tables 6-22 through 6-25 show the change in increment between the existing conditions and the Trend and Preferred scenarios.

Population

- The population for the Preferred scenario reflects this Mobility Hub's role as an employment center. However, the inclusion of mixed-use development types introduces a residential component.

Land Area Mix

- The Preferred scenario maintains office growth but shifts growth away from retail to achieve a residential base through mixed-use development types.

Housing Mix

- The Preferred scenario reflects the introduction of residential development in the Mobility Hub with a 100% increase in this use.

Employment Mix

- The Preferred scenario reflects the Trend very closely by maintaining the Hub as an office-based employment center with office use at 71%.

Table 6-22: Pines Blvd & Flamingo Rd – Population

POPULATION	
SCENARIO	POPULATION
Trend	0
Preferred	1,443

Table 6-23: Pines Blvd & Flamingo Rd – Land Area Mix

LAND AREA MIX	
SCENARIO	% OF TOTAL
TREND	
Mixed Use	0%
Multi-Family	0%
Retail	57%
Office	43%
PREFERRED	
Mixed Use	33%
Multi-Family	2%
Retail	25%
Office	40%

A physical representation of these indicators can be referenced in Chapter 7.

Table 6-24: Pines Blvd & Flamingo Rd – Housing Mix

HOUSING MIX	
SCENARIO	% OF TOTAL
TREND	
Multifamily	0%
PREFERRED	
Multifamily	100%

Table 6-25: Pines Blvd & Flamingo Rd – Employment Mix

EMPLOYMENT MIX	
SCENARIO	% OF TOTAL
TREND	
Retail	31%
Office	69%
PREFERRED	
Retail	29%
Office	71%

LONGER TERM PROJECT CONCEPTS AND MOBILITY HUB TRANSIT FACILITY RECOMMENDATIONS

Longer-term transportation project opportunities include potential modifications and enhancements to transit service operating within the corridor and transit infrastructure investments at each of the designated Mobility Hubs.

TRANSIT SERVICE MODIFICATIONS

Based on detailed ridership data currently being collected by FDOT, the following aspects of transit service along the project corridor should be evaluated:

Splitting Route 7

Currently, Route 7 operates at 20-minute headways from US 1 to the transfer center at the Pembroke Lakes Mall/Flamingo Road and at 40-minute headways from Flamingo Road to SR 27. Limited intercept surveys indicate that the majority of Route 7 passengers using the transfer station transfer from/to local or community bus routes rather than continue on Route 7. If the FDOT data confirms this, efficiencies may be achieved by having all buses originating from US 1 return immediately rather than dwell at the Flamingo Road transfer center.

It is also possible that the FDOT data will show that the route could be split at University Drive rather than at Flamingo Road. In this case, it may be possible to rebalance current revenue hours to either provide higher frequency west of University Drive to US 27 or east of University Avenue to US 1 without significantly raising the overall cost of service.

Eliminating Route Deviations

Route 7 currently undertakes three route deviations: Broward College, Pembroke Lakes Mall (Flamingo Road Transfer Center), and Century Village.

- The Broward College deviation serves over 400 daily riders and enhances the convenience of using transit to access the campus. The eastbound stop could be shifted to the far side of the College entrance at 73rd Avenue with minor on-campus modification of the existing walking path. This would increase the walking distance by approximately 450 feet or two minutes. The westbound stop could be placed at the immediate nearside of the signal at McArthur Parkway. This would increase walking distance by approximately 900 feet or four minutes plus signal delay.
- Pembroke Lakes Mall (Flamingo Road) serves as a transfer center between Route 5, 7, 16, and 23 as well as Pembroke Pines community bus service. Destinations include the mall itself as well as Memorial West Hospital. This route deviation is necessary for two reasons: 1) the walking distance from Pines Boulevard to the Hospital is approximately 0.25 miles and the deviation helps to serve this major destination and 2) facilitating transfers using roadside stops at the massive intersection of Flamingo Road (9 lanes wide) and Pines Boulevard (11 lanes wide) would present pedestrian safety/comfort challenges.

- Century Village is served directly by Route 7 resulting in a round-trip deviation of nearly two miles. Century Village is also served by the Green and Gold Pembroke Pines community bus routes and a privately operated shuttle van service with similar spans of service and superior headways to Route 7. Data being collected by FDOT should be analyzed to determine if the Century Village route deviation can be eliminated without significant impacts to the mobility of Century Village residents.

Leveraging Pembroke Pines Community Bus and Hollywood Downtown/Beach Trolley Service

Community and trolley bus services provide more direct access to uses than mainline bus services but may take longer to traverse major waypoints because of more complex routes and more frequent stops. This section identifies potential opportunities to better integrate existing community bus and trolley service to complement mainline bus along Hollywood/ Pines Boulevard for revenue-neutral overall service benefits.

In Pembroke Pines, the community bus system operates in the corridor from US 27 to University Drive. Further analysis is necessary to consider revenue-neutral hybrid service where off-peak revenue hours on Route 7 west of Flamingo Road (or University Drive) are traded for a combination of better frequency/span of service for community bus routes, better peak-hour frequency for Route 7 (east and west of University Drive), and/or more express bus service.

In Hollywood, the downtown/beach trolley system travels from 20th Avenue (just east of Dixie Highway) to SR A1A. It is likely that this service can replace the three-mile round trip Route 4 deviation from SR A1A to Young Circle and could potentially be combined with Tri-Rail Shuttle funding to extend through downtown Hollywood to service the Hollywood Tri-Rail station just west of I-95.

Future Premium Transit Options

The 2035 LRTP envisions premium transit in the context of higher-speed, limited-stop service; however, the definition is currently being broadened to include high-frequency service with superior amenities. This is especially relevant in corridors with shorter transit trip lengths where higher frequency can provide more travel time savings than faster running speeds.

Analysis of ridership data being collected by FDOT can help to evaluate the sort of trip-making occurring along Hollywood/ Pines boulevard including "Z" movement trips between major north-south routes along University Drive, SR 7, Tri-Rail, and US 1. This data can help to determine which portions of the corridor would be best served by limited-stop, higher-speed service and which portions would benefit most by simply increasing frequency and providing more comfortable and more easily accessible stops.

If high-frequency service is ultimately provided along the eastern part of the corridor through Hollywood, the following options to provide a fixed guideway without significant right-of-way acquisition should be considered:

- ***SR 7 to west of I-95:*** Since 1997 Hollywood Boulevard traffic volumes from SR 7 to Park Road have ranged between 35,500 and 43,000 AADT with volumes ranging between 44,500 and 53,000 AADT from Park Road to I-95. Recent observed peak-hour, peak-direction volumes of approximately 1,800 vehicles per hour suggest it may be possible to convert the outside lane to a Business-Access Transit (BAT) lane with only moderate impacts to roadway level of service.

- City Hall Circle to Dixie Highway: A transit guideway could be provided by either sacrificing the median parking along Hollywood Boulevard (contemplated as part of the Complete Street concept described in Congestion Management Project ID# 25) or by implementing a road-diet with corresponding improvements to calm traffic likely to be diverted to the parallel Polk and Van Buren Street one-way pair system.

Right-Turn Queue-Jump Lanes and Bus Islands

As described in Table 6-1, Right-turn queue-jump lanes and bus islands both allow near-side stops to be placed at the intersection stop-bar without adversely impacting bus operations. In addition to optimal stop placement, queue-jump lanes have the advantage of providing potential travel-time advantages for transit users. Bus islands minimize impacts on right-turning vehicles, "tighten" the intersection for pedestrians, and can offer travel time advantages for transit when combined with a right-turn queue-jump or BAT lane.

Data collected for this project indicates several locations in Pembroke Pines where right-turn queue-jump lanes may be feasible given observed thru traffic queues and existing or potentially constructible turn lane lengths. Operationally there are several concerns with right-turn queue jump lanes that would need to be evaluated at each location before moving forward:

- ***Stop Access:*** To be effective, the bus must be able to consistently access the nearside stop location and load/ unload passengers while the thru movement is red. To achieve this, it is first necessary for the queue-jump lane to extend past the typical peak-hour thru queues so that the bus may access the lane. Next it is essential for the right-turn queue to clear so that the bus can advance to the near-side stop location to begin boarding/alighting. This can be facilitated by it incorporating a right-turn overlap phase with the cross-street's left turn phase to ensure the queue clears. In a typical, leading left-turn signal phasing system, the bus then has the duration of the cross-street thru movement phase to load/unload passengers.
- ***Impact on Right Turn Traffic:*** Right-turn-on-red traffic may be impacted by a bus stopped in a right-turn queue-jump lane; however in most cases, this is considered to be a reasonable accommodation for superior stop placement and bus travel time savings. If the bus arrives on a green light, then the stopped bus will delay right-turning traffic; however, this may still be considered a better outcome than a conventional near-side stop, since thru traffic will not be blocked by the bus as would normally be the case. Incorporating a bus island with a right-turn queue jump provides the best of both worlds since neither the thru nor right-turn movements are blocked by the stopped bus.
- ***Traffic Re-entry:*** If the bus is departing a right-turn queue-jump lane on green, then operations are similar to a bus attempting to depart from a bus bay. Although drivers are required by law to buses reentering traffic, buses often become "trapped" in bus bays when through traffic is heavy and moving quickly. Reentry from a near-side queue-jump lane can be easier than from a far-side bay, however, since the bus can use the width of the intersection to accelerate and does not have to vie with traffic turning right from the cross-street that can further hamper the departure of buses in far-side bus bays.

MOBILITY HUB TRANSIT FACILITY RECOMMENDATIONS

Dykes Road

The 2035 LRTP Classifies Dykes Road as a "Community Hub;" however, there currently is no connecting north-south service. Weekday headways on Route 7 (Hollywood/Pines Boulevard) are at 40 minutes and in 2012 there were less than 100 daily bus riders using stops in the vicinity. Increased bus frequency along this part of Pines Boulevard is not a high priority for BCT given the relatively low propensity for ridership and without significant infill of higher-density, more diverse development, ridership is not expected to increase dramatically in the future.

As discussed in Technical Appendix 6D, there is a large postal distribution at the southeast quadrant of the intersection which is expected to close within the next few years. Whether developed as a public-private partnership or as a strictly public initiative, this site should be considered as a potential terminal park-and-ride for express bus service and/or van-pool service developed around the pending I-75 managed lanes project.

The advantage of this site, other than its size and public ownership, is that it is easily accessible from western Pembroke Pines and Miramar and commuters who live west of I-75 can access the site without having to deal with congestion at the interchange. The shopping center on the adjacent northeast quadrant of the intersection includes a grocery store and stand-alone discount department store as well as numerous outparcel and general shopping center uses which improve the site's convenience for commuters. The site itself is over 160 acres and is large enough to accommodate both a park-and-ride lot and other development which could include multifamily residential or other pass-by or diverted trip uses such as a gym or pre-school.

If developed as an express bus and/or vanpool-oriented park and ride lot, consideration should be given to signalizing the intersection at the northeast corner of the property (approximately 0.25 miles east of Dykes Road). This intersection could be used by buses and commuters to access the site, would provide improved connectivity (for drivers, cyclists, and pedestrians) between the site and the existing shopping center to the north. It could also be used to form a the eastern half of a perimeter road system allowing northbound and westbound right turning traffic and southbound and westbound left turning traffic to bypass the Dykes Road intersection.

I-75

This Hub is classified as an Anchor Hub predicated on future express bus service and managed lanes on I-75. Longer-term, this project contemplates an express bus ramp system at Pines Boulevard; however, within the current managed lanes project scope the nearest express bus access point will be at Griffin Road approximately four miles to the north.

Flamingo Road

Flamingo Road, designated as a Community Hub in the 2035 LRTP, was one of the four Hubs selected for scenario planning. The transit concept incorporated within the preferred scenario is to re-locate the existing transfer center at the western end of the Pembroke Lakes Mall to the center of an envisioned "medical city" infill development at the northeast quadrant of the intersection. This scenario is described in detail in Chapter 7 and contemplates splitting Route 7 as discussed above under *Transit Service Modifications*. In the interim, there are no substantive recommendations to modify transit operations/ stops at this Hub.

Palm Avenue

The Palm Avenue Hub, classified as a Community Hub in the 2035 LRPT lacks connecting north-south service; however, stops in the vicinity generate approximately 200 daily riders. This number is likely to increase as the City Center development comes on line over the next few years.

As part of Congestion Management Recommendation 34-G (see Appendix 6A), Palm Avenue is a candidate for consideration for right-turn queue jump lanes both eastbound and westbound and consolidation of nearby transit stops to near-side stops supported by the queue jump facilities. Right-of-way appears available to develop bus islands at the intersection as well, though the signal mast-arm assemblies at the northeast and southwest quadrants of the intersection would likely need to be relocated within the islands.

An opportunity also exists long-term to create a perimeter street system to enhance connectivity and reduce volumes at Pines Boulevard and Palm Avenue using 103rd Avenue, NW 2nd Street, 96th Avenue, and SW 2nd Street (City Hall/City Center entrance). As part of this system, efforts should also be made to connect 103rd Avenue at 2nd Street to the portion of 103rd Avenue that connects north thru to Johnson Street.

Consideration should also be given to providing enhanced transit facilities to support the City Center development at either 107th Avenue or 103rd Avenue. 107th Avenue is a more obvious location since it is closer to the retail component of City Center, provides greater connectivity to existing multifamily development to the north, and effectively entends through to Johnson Street. However, 107th is not currently signalized and so would be unsafe for transit patrons traveling between City Center and the westbound stop.

If signalized in the future, near-side transit shelters should be considered at this location, possibly in conjunction with either right-turn queue-jump lanes and/or bus islands. If 107th Avenue remains un-signalized, shelters should be provide at far side stops at 103rd Avenue along with a marked crosswalk on the east leg of the intersection.

Douglas Road

Douglas Road is another Community Hub that currently lacks connecting north-south service. Stops at the northwest and southeast corners of Douglas Road currently generate over 160 daily riders. Although the current far-side stop placements are relatively close to the signal and allow for departing buses to accelerate through right-turn lanes to reenter traffic, Congestion Management Project 34-I (see Appendix 6A) identifies Douglas Road as a potential candidate for right-turn queue-jump lanes in both the eastbound and westbound direction with corresponding near-side transit stops. It may also be possible to provide bus islands with minimal right-of-way impacts. Opportunities to enhance street connectivity to improve automobile or bicycle/pedestrian circulation are limited at this location.

University Drive

University Drive is designated as a Community Hub in the 2035 LRTP, and is the second Pembroke Pines Hub selected for scenario planning. The transit concept incorporated within the preferred scenario includes a combination of near-side and far -side stops to service Route 7 (Hollywood/Pines Boulevard) and Routes 2 and 102 (University Avenue and Breeze Service). The Broward Aviation Authority-owned shopping center on the southeast quadrant is identified as a potential site for park-and -ride spaces and Hub facilities.

Further analysis of detailed transit characteristics data being developed by FDOT in the first quarter of 2014 could indicate that the Hollywood/Pines Boulevard route should be split at University Drive (rather than at the existing transfer station at Flamingo Road). In this event higher-frequency buses arriving from the east could enter the Hub at the existing dual-directional median opening approximately 660 feet east of University Drive and circulate through the Hub to transfer passengers before returning to Hollywood.

Lower-frequency buses arriving from the west could stop near -side to access uses and facilitate transfers to southbound Route 2 and then pass through the University Drive intersection and access a far-side stop, ideally at a new bus bay immediately east of the intersection (in front of the Hub facility). These buses could continue to Broward College and use the route deviation to turn around and head back west. The combination of higher-frequency buses traveling between the University Drive Hub and Hollywood and lower-frequency buses using Broward College as a turn-around would result in excellent headways between the University Drive Hub and the College.

If FDOT's transit data suggests that higher frequency service should continue west past University Drive to Flamingo Road then the bus should not deviate into the Hub facility. The eastbound stop placement (near-side and far-side) should remain, but the westbound bus should stop at the immediate near-side of University Drive rather than further west in advance of the right-turn lane as is currently the case. Because the right-turn lane does not extend past peak hour westbound queues, a bus island without a full queue-jump could be considered for this stop. The existing westbound bus bay approximately 300 feet west of the intersection should continue to be used.

Route 2 northbound and southbound bus stops should be provided both near-side and far-side. The southbound far-side stop should be shifted to the immediate far-side of the intersection employing a bus bay and using the shopping center right-turn lane to assist in accelerating to re-entering traffic. This and the proposed eastbound bus island would likely require right-of-way from the abandoned gas station.

The southbound and northbound near-side stops could be positioned using either right-turn queue jumps and/or bus islands (pending the recommendations of the University Drive Alternatives Analysis). Bus islands would likely require relocation of the northwest and southeast signal strain poles and decking over a portion of the canal at the southeast corner of the intersection. Depending on whether there is a clear area destinations or directional pairing of transfers (e.g. Northbound Route 2 to westbound Route 7), Breeze stops could be positioned at either near-side or far-side only. If no clear directionality is observed, then Breeze stops should be far-side southbound and near-side northbound to provide the most convenient access to the Hub facilities.

Longer-term redevelopment of adjacent lower intensity uses and older multifamily residential areas can allow for a complete perimeter street system using 83rd Avenue (and it's natural alignment to the south of Pines Boulevard, NW 3rd Street, 78th Terrace, elements of the airport perimeter road, and the unnamed roadway aligned with South 5th Street. This will reduce volumes at the intersection of University Drive and Pines Boulevard and provide for enhanced circulation for automobiles and non-motorized modes.

SR-7

This is designated as a Gateway Hub in the 2035 LRTP and is one of two Hollywood Hubs for which scenario planning was undertaken. This Hub is served by Route 7 along Hollywood/ Pines Boulevard and Route 18 and Route 441 Breeze service along SR 7. Currently there are near-side and far-side stops for each route/direction (although the northbound near-side stop is some distance south of the intersection).

Since this is not anticipated to be a terminal Hub for either route and is not currently served by community bus service, stops for Route 7, Route 18, and Route 441 Breeze should remain roadside. Preliminary plans for the SR-7 widening design-build project show a far-side southbound bus bay relatively close to the intersection and development of a park/ gateway feature on the northeast corner of the intersection in conjunction with the planned cul-de-sac of Columbus Parkway.

This is a high-crash location for cyclists and pedestrians and widening of SR 7 will increase pedestrian exposure. Although both the design-build roadway project and redevelopment of the Millennium Mall site are underway, potentially limiting the ability to adjust stop placement, strategies to locate stops near to the signalized intersection should be pursued none-the-less.

Westbound the current near-side stop should be shifted as close to the intersection as possible to increase use of the crosswalk and facilitate transfers to southbound service. An easement or right-of-way should also be acquired to provide a far-side bus bay so that this stop can be moved closer to the intersection. The nearside eastbound stop should also be shifted close to the intersection and consideration should be given to providing a triangular bus island (without right-turn lane) to allow right turn traffic to pass behind the bus and to shorten and simplify pedestrian crossings across the north and east legs of the intersection.

As part of the design-build project, the southbound right-turn lane will be extended to Polk Street (approximately 700 feet from the intersection) and the feasibility of a right-turn queue jump lane and stop placement at the immediate near-side of the intersection should be evaluated. Northbound a bus-bay should be provided (using part of the linear park/pond) envelope to shift the far-side stop closer to the signal.

In the long term, through redevelopment or acquisition of the General Food Services property on the southeast corner of the intersection a northbound, near-side bus island and park-and-ride facility could be constructed.

Tri-Rail/I-95

This location, designated as a Gateway Hub in the 2035 LRTP was nearly selected as a scenario planning subject because of the unique land use opportunities and importance of Tri-Rail as a regional transit facility. Concurrent with this Project, the City of Hollywood has developed a vision for the Stanley Goldman Memorial Park property and trail which runs from Hollywood Boulevard to Johnson Street along the C-10 canal. This vision includes connecting 30th Road thru to Hollywood Boulevard as a complete street (Congestion Management Project ID# 24) and redeveloping passive park property to provide for additional station area parking and development opportunities, including likely redevelopment of the mini-storage facility near Johnson Street between the park and the railroad tracks and planned redevelopment of the Sunset Golf Course along the north side of Johnson Street east of I-95.

Low to mid-rise employment-oriented development between the canal and the railroad tracks/I-95 would directly benefit

from proximity to the commuter rail station and would help to buffer residential areas west of the canal from freeway and train noise. The ability to access the Tri-Rail station from Johnson Street would reduce pressure on the congested entrance at Hollywood Boulevard and would make the station more accessible to potential shuttle service from Memorial Hospital. Also, north of Johnson Street, 30th Road provides access to Rotary Park via the Arthur Street footbridge and ultimately could connect to the Sheridan Street Tri-Rail Station and Topeekeegee Yugnee Park.

South of Hollywood Boulevard, as noted in Congestion Management Project ID# 23, a multiuse trail should be completed connecting Pembroke Road to Hollywood Boulevard along Jaycee Boulevard along the east property line of the Golf Course immediately west of the railroad tracks. This connection could utilize the new north-south crosswalk recommended in Congestion Management Project ID# 21.

Dixie Highway

Based on the potential for a Tri-Rail Coastal Link station being sited between Tyler Street and Fillmore Street along Dixie Highway, this has been designated as a Gateway Hub in the 2035 LRTP and is the subject of the second Hollywood scenario plan. Currently Dixie Highway is served by Route 7 and Route 9. Eastbound Route 7 stops at the nearside corner of Hollywood Boulevard and Dixie Highway while Westbound Route 7 and Route 9 stop along Tyler Street 500 feet east of Dixie Highway/21st Avenue. This stop placement is necessary for Route 7 to merge left to return to Hollywood Boulevard. Eastbound Route 9 does not stop near the Dixie Highway station area since it approaches Young Circle from Johnson Street along US 1.

In addition to the road diet/complete street project proposed as part of the Congestion Management Project ID# 29, the preferred scenario for this Hub does not contemplate major realignment of transit stops. Minor modifications include locating the eastbound Route 7 stop on Hollywood Boulevard closer to Dixie Highway to discourage mid-block crossing and the addition of a north/westbound route 9 stop along northbound Dixie Highway immediately north of Tyler Street (adjacent to the station area).

Since Young Circle is the terminal Hub for Route 7 and is only a 10-minute walk from the Dixie Highway station area, transfers between westbound Route 7 and the Dixie Highway Hub should be minimal. Rather, the City should consider extending the Downtown/Beach—South (Green) and Downtown/ Beach—North (Brown) trolley bus system to directly serve the Dixie Highway Hub/Coastal Link station area. One option is to continue west on Tyler Street, then north on Dixie Highway/21st Avenue stopping adjacent to the proposed station. Then east on Polk Street and south on 20th Street resuming the current alignment. Other options include extending the trolley service, using non-CRA funds, along Polk Street to City Hall Circle returning along either Hollywood Boulevard or Van Buren Street.

If Tri-Rail Coastal Link service is not developed or the PD&E study does not recommend a station in Hollywood, then the Dixie Highway Hub designation should be eliminated or merged with the recommended Hub at US 1 Hub.

US 1 (Young Circle)

US 1 is not identified as a Hub in the 2035 LRTP, however the level of existing ridership and intersection of two important transit routes suggests that it should be designated as a

Gateway Hub going forward or included as part of the Dixie Highway Hub. Because all buses orbit around Young Circle, stop and transfer activity is concentrated on the east side of Young circle with Route 1 and Route 101 Breeze stopping in front of the Publix shopping center and Routes 7, 4, and 9 stopping to the north-east of the Circle along Tyler Street.

In the short-term, bus shelters should be provided for transit patrons at the Route 1 and Route 101 Breeze stops and at the Route 4, 7, and 9 stops. Longer-term, the City of Hollywood expects the Publix grocery store to relocate to the vacant parcel at the northeast of Young Circle bound by US 1, Polk Street, 17th Avenue, and Tyler Street. In this event, it is anticipated that Hollywood Boulevard will intersect the circle directly at which point all transit stops could be positioned at the new intersection and Hub facilities could be incorporated in whatever new development occupies the Publix site.

Because of the range of options for this development, including the potential for right-of-way swaps/realignment of US-1 and/or establishing two-way flow for US-1 around the east side of the circle, it is not possible to recommend a specific configuration for the stops at this time.

SR A1A

In the 2035 LRTP, the SR A1A Hub is designated as an Anchor Hub and is nominally sited at the interchange of Hollywood Boulevard and SR A1A. However the current locus of transit activity served by BCT Route 4 and the Hollywood Downtown/ Beach Trolley system is at the Hollywood Beach Visitors Center locate near Johnson Street. Therefore, it is recommended that the Hub designation be shifted to this location and, due to the lack of planned premium transit along SR A1A, be re-designated as a Community Hub.

CONCLUSIONS

As described throughout this section, there are numerous opportunities for short-term and longer-term improvements to the multimodal transportation system to support the objectives of the Hollywood/Pines Boulevard Corridor Project. These include sidewalk, pathway, and bike lane projects; relocation of and enhancements to transit stops; point and systems traffic operations and safety improvements; and evaluation of longer-term options to reconfigure and enhance transit service. While no additional funding has been identified for transit operational improvements, coordination of "mainline" service along Route 7 with community bus/trolley service and elimination of route deviations may provide for revenue-neutral opportunities to better serve the transit market.

Irrespective of the quality of infrastructure, for multimodal transportation options to be viable, denser, more diverse land uses are necessary along most of the corridor. Today, many of the Mobility Hub areas are dominated by auto-oriented retail/ employment uses. Through the scenario planning process summarized in this chapter, reasonable infill and redevelopment scenarios have been developed illustrating how Mobility Hub areas can be retrofit to include more transit-supportive uses and, in some cases, provide a better connected, more urban street grid.

While most of the short-term "Congestion Management" projects can be implemented without significant private property impacts, many of the long-term recommendations either require redevelopment activity to avoid right-of-way and business damage costs or may not makes sense from a benefit-cost perspective without corresponding private sector investment. As such, the long-term success of this project will rely on the ability and commitment of the project stakeholders to implement project recommendations by partnering with private-sector developers in the course of future land development activities.

Implementation steps for the infrastructure project recommendations and land use/code concepts necessary to facilitate the Mobility Hub preferred scenarios are described in Chapter 7. Further details regarding the congestion management project recommendations are incorporated in Technical Appendices 6A—C.