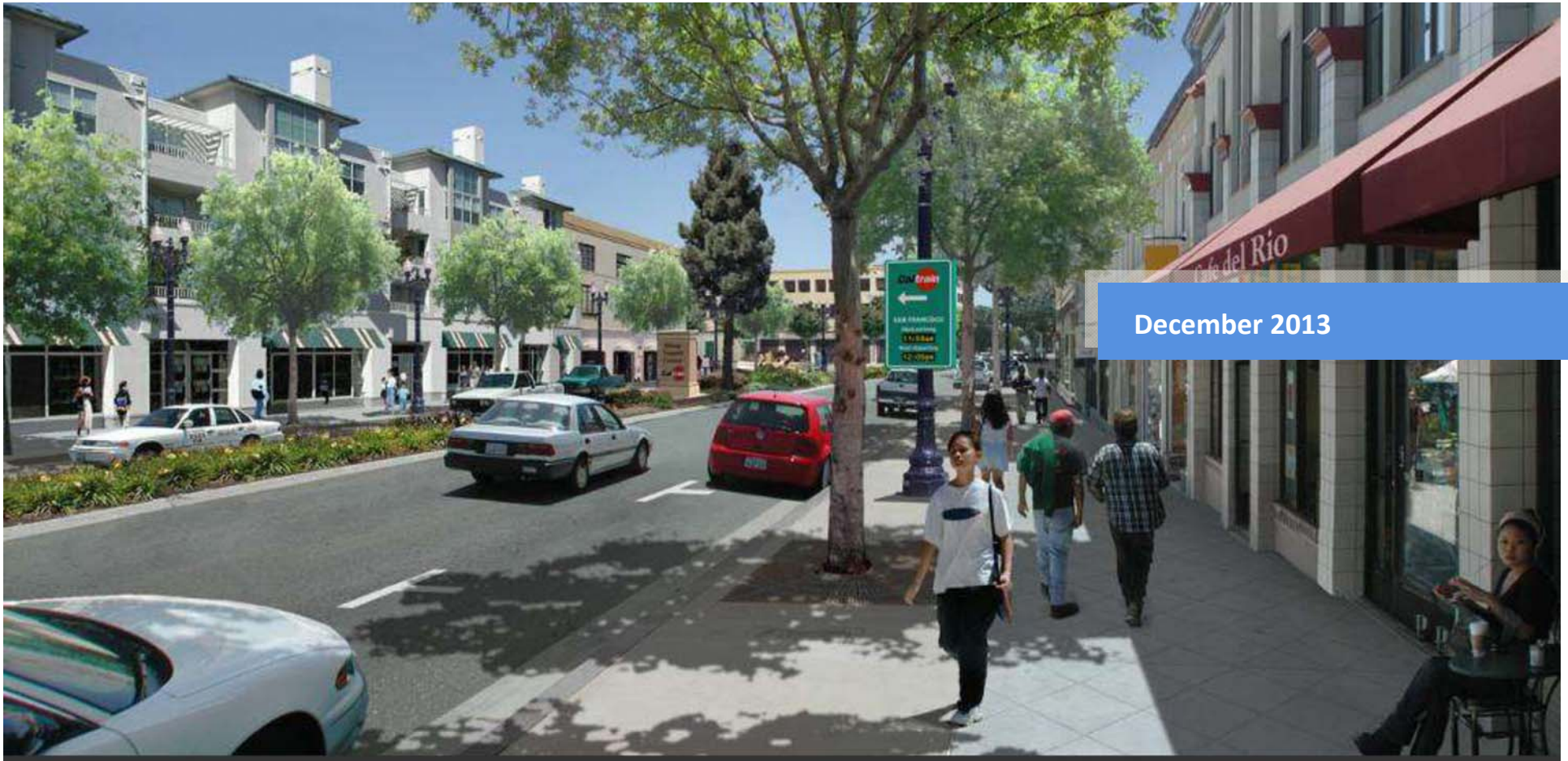


December 2013

# HOLLYWOOD / PINES BOULEVARD

# CONGESTION MANAGEMENT PROCESS/ LIVABILITY PLANNING PROJECT

*FINAL REPORT*

broward MPO
metropolitan planning organization

Hollywood/Pines
*Corridor Project*
www.hollywoodpinescorridorproject.com

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# EXECUTIVE SUMMARY



**BACKGROUND AND PURPOSE:**

The Hollywood/Pines Boulevard Corridor Project combines the Broward Metropolitan Planning Organization's (MPO) Congestion Management Process and Livability Planning study approaches. The Congestion Management Process is intended to identify, develop, prioritize, and implement shorter-term multimodal congestion management and mobility enhancement strategies for identified corridors and sub-areas.

The Broward MPO's Livability Planning studies are intended as a first step to implementing the Mobility Hub concept of the Broward MPO's 2035 Long Range Transportation Plan (LRTP). Mobility Hubs are critical points of interaction between people and the transportation system, including access to and transfers between transit services. Livability Planning studies develop the detailed elements of the Mobility Hubs, including the location of facilities such as stations and transit stops, needed bike and pedestrian infrastructure, and opportunities for connections to local streets. These studies also make recommendations related to the designation of appropriate land use plan categories and policy guidelines to provide an urban fabric that supports transit, walking, and biking.

Combining both approaches within one project allows for the identification of short-term capital projects intended to enhance mobility and safety, provide superior access to existing higher-ridership transit hubs, and plan for longer-term strategies to implement land use and transportation system changes to support transit, walking, and biking.

**PROJECT ADVISORY COMMITTEE**

To facilitate an effective project process and achieve buy-in for the implementation of project recommendations, the Broward MPO established a Project Advisory Committee (PAC) consisting municipal and implementing agency staff.

Throughout the course of the Project, the PAC met nine times in order to:

- Assist in guiding the overall project effort
- Provide necessary data and technical support
- Give feedback and engage in discussion related to the technical review of interim deliverables and findings

In addition to the contributions described above, PAC members were responsible for vetting project recommendations within their respective agencies and will continue to coordinate with the Broward MPO to implement project findings. Accordingly, the individuals selected to serve on the PAC not only have broad technical expertise in their fields but also positions of authority within their organizations.

PAC membership includes staff from Hollywood and Pembroke Pines, representatives from Broward County Transit (BCT), the Broward County Traffic Engineering Department (BCTED), the Florida Department of Transportation (FDOT), the South Florida Regional Transit Authority (SFRTA), the Broward County Planning Council, and other agencies relevant to the project area and subject matter.

**HOLLYWOOD / PINES BOULEVARD CORRIDOR PROJECT AREA**

The Hollywood/Pines Boulevard Corridor Project study area extends north-south for ½ mile from Hollywood/Pines Boulevard (SR 820) and from US 27 at the western edge of the Broward County Urban Services Boundary east to SR A1A along the Atlantic coast. Because Broward County has generally been developed from east to west, the corridor traverses a broad range of development history and urban form typologies, each with different land use and transportation opportunities and challenges.

As shown in the map on the following pages, the corridor includes interchanges at I-75, the Florida Turnpike, and I-95 as well as at-grade intersections with principal arterial streets at US 27, Flamingo Road, University Drive, SR 7, and US 1 (at Young Circle). The corridor also intersects the CSXT rail corridor (on which the current South Florida Regional Transportation Authority [SFRTA] Tri-Rail service operates) as well as the Florida East Coast Railway (FEC) corridor (where Tri-Rail Coastal Link service is being planned).

The Broward MPO's 2035 Long Range Transportation Plan (LRTP) designates 10 locations along the corridor as Mobility Hubs. Mobility Hubs may also have the potential to serve as catalysts for infill and redevelopment. In addition to the 10 locations designated in the LRTP, an additional Mobility Hub location is suggested as part of this project to be sited at Hollywood Boulevard and US 1 (Young Circle).

The 2035 LRTP categorizes Mobility Hubs from most intense to least intense as Gateway, Anchor, and Community Mobility Hubs. These designations indicate the level of infrastructure investment that should be provided and are based on the existing/planned development patterns, type of planned premium transit services, and forecast transit ridership activity. The following are key attributes of each Hub typology:

- Gateway Hubs:
  - ◊ Forecast transit ridership greater than 2,200 daily boardings and alightings in 2035 LRTP
  - ◊ Surrounded by higher-density mixed-use developments, including downtown areas, transit-oriented corridors, and transit-oriented developments defined in the Broward County Future Land Use Plan
  - ◊ Provide connections to two or more high-capacity transit lines
- Anchor Hubs:
  - ◊ Forecast transit ridership between 1,500 and 2,200 daily boardings and alightings in 2035 LRTP
  - ◊ Located near major institutions, employment centers, town centers, and regional shopping centers that are similar to local activity centers and/or regional activity centers and may be identified in local plans to accommodate new transit and pedestrian oriented development
  - ◊ Served by at least one high-capacity transit line
- Community Hubs:
  - ◊ Served by premium rapid bus service
  - ◊ More likely to attract local trips than regional trips

Although the High Capacity and Premium Rapid Bus services contemplated in Chapter 3.2 of the 2035 LRTP and some of the intersecting local bus routes shown in the LRTP are not currently in place or shown as cost-feasible in BCT's recent Transit Development Plan update, Limited-stop (Breeze) service along University Drive, SR 7, and US 1 and the Hollywood Tri-Rail station just west of I-95 provide a starting point for transit infrastructure investments along the Hollywood/Pines Boulevard corridor.

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**Mobility Hub Designations:**

Community Hub  Anchor Hub  Gateway Hub

A

C



B

D

**Mobility Hub Designations:**

Community Hub  Anchor Hub  Gateway Hub

Hollywood/Pines Corridor Project

**GOALS, OBJECTIVES, AND PERFORMANCE MEASURES**

Because this project is one of several initiatives intended to implement the 2035 LRTP, the Goals of the 2035 LRTP were also cast as the goals for the Hollywood/Pines Corridor Project. Based on these goals, the Project Scope of Services, and discussion with the PAC, the following specific Project Objectives were defined:

- OBJECTIVE 1: Confirm Mobility Hub locations and typologies.
- OBJECTIVE 2: Identify potential sites for Mobility Hub infrastructure placement for each Mobility Hub area.
- OBJECTIVE 3: Recommend potential transit operational improvements at each Mobility Hub.
- OBJECTIVE 4: Identify Mobility Hub area intersection safety improvements for all modes.
- OBJECTIVE 5: Identify Mobility Hub area bicycle and pedestrian connectivity improvements.
- OBJECTIVE 6: Identify traffic management and multimodal enhancement strategies for Johnson Street within the city of Hollywood.
- OBJECTIVE 7: Identify traffic operations/congestion management strategies along Hollywood/Pines Boulevard.
- OBJECTIVE 8: Identify opportunities to develop the multimodal network within the study corridor.
- OBJECTIVE 9: Identify strategies to connect existing and future centers along the project corridor to regional employment centers via mass transit.
- OBJECTIVE 10: Provide a toolbox for urban redevelopment of Mobility Hub areas and adjacent segments of the corridor.
- OBJECTIVE 11: Relate benefits of improved mobility and infill and redevelopment along Hollywood/Pines Boulevard to lower-density neighborhoods along the corridor.
- OBJECTIVE 12: Recommend strategies to enhance bicycle and pedestrian safety throughout the project corridor.
- OBJECTIVE 13: Identify, evaluate, and recommend countermeasures for high-crash locations.
- OBJECTIVE 14: Identify urban design strategies to develop mixed-use, “24 hour” neighborhoods in appropriate locations and implement CPTED (Crime Prevention Through Environmental Design) principles along the corridor.
- OBJECTIVE 15: Provide an “Urban Design Toolbox” that promotes development forms that make efficient use of land, water, and energy resources and promotes alternative travel mode.
- OBJECTIVE 16: Identify cost-effective public engagement approaches (for use in future projects).
- OBJECTIVE 17: Identify “place-making” opportunities through planning of Mobility Hubs and other infrastructure consistent with community character.
- OBJECTIVE 18: Consider longer-term operations and maintenance costs of recommended transportation strategies.

Chapter 1 of the Project Report includes a more thorough discussion of the relationship between these Objectives and the Project Goals and also includes suggested performance and monitoring measures to evaluate the long-term effectiveness of the project.

**DATA COLLECTION AND REVIEW**

Data collection for the Hollywood/Pines Boulevard Corridor Project was split into two phases. The first phase involved assembly and review of available transportation and land use data and documents from various stakeholder agencies to develop a baseline assessment of conditions along the corridor.

Among other documents, the following were reviewed and incorporated into the project:

- Broward MPO 2035 Long Range Transportation Plan
- Broward County Transit FY 2012 Transit Development Plan Annual Update
- Broward Complete Streets Guidelines
- Broward County Comprehensive Plan
- Broward County Future Land Use Plan
- City of Hollywood Comprehensive Plan and Citywide Master Plans
- Downtown Hollywood and Hollywood Beach CRA Plans
- City of Pembroke Pines Comprehensive Plan
- City of Pembroke Pines Streetscape Design Guidelines

In addition to these documents, the FDOT 5-Year Work Program and Broward MPO 2035 Cost Feasible Plan were reviewed to identify recent, pending, and planned transportation projects that impact the corridor. To the extent available, roadway design plans were obtained so they could be referenced as the *de facto* existing condition in the event that a project was underway or imminent.

To supplement the document review and transportation project information, more than 40 Geographic Information Systems (GIS) data layers were collected and cataloged to support the project's analysis tasks.

GIS data layers assembled for the project include:

- Recent, high-quality aerial imagery
- Land use, zoning, and property appraiser parcel data
- Roadway network characteristics and traffic data
- Traffic crash data, including bicycle and pedestrian crashes
- Points of interest such as community and regional parks, colleges, hospitals, libraries, and schools
- Transit routes and transit stop locations, including transit stop daily boardings and alightings (ridership)

These documents and data were supplemented by interviews with stakeholder agencies and other entities along the corridor, including representatives from stakeholder agencies included on the Project PAC as well as institutions located within the corridor such as Broward College and Memorial Hospital.

The second phase of data collection involved "primary" data collection activities, primarily related to evaluating traffic conditions and evaluating potential project recommendations. These data collection activities included:

- Intersection traffic turning movement counts
- Intersection and mid-block pedestrian counts
- Traffic queue-length analyses
- Limited intercept surveys of transit patrons
- Field review and photo-inventory of existing conditions

Chapter 2 of the Project Report includes a detailed description of the project document review synthesis, capital project inventory, and GIS database content. Copies of field data inventories are included in related technical appendices.

**PUBLIC INVOLVEMENT**

Effective public involvement is a critical aspect of the Hollywood/Pines Boulevard Corridor Project. Based on a Public Involvement Plan (PIP) developed at the outset of the project, the following key elements were used to inform the public about the project and gather their input to help identify issues and develop recommendations:

- Community Meetings – Shortly after initial data gathering and agency stakeholder interviews were completed, members of the project team attended neighborhood association and other community meetings to present a concise (10-minute) overview of the project, distribute project brochures, and obtain contact information in order to broadcast future project information and transmit invitations for future public workshops.
- Project Website – A comprehensive project website was developed to distribute information about the project, advertise events, and solicit public comments. Website components include:
  - ◊ *Home* page with recent project information and links
  - ◊ *Project Information* page with background information, schedule, and contact information
  - ◊ *Get Involved* page to view the project calendar, sign-up for bulletins, and submit comments
  - ◊ *Documents and Materials* page with links to interim deliverables and PAC agendas/presentations
  - ◊ *Other Resources* page with links to related agencies and similar studies
- Scenario Planning Workshops – Two workshops were held (one in Hollywood and one Pembroke Pines) to get public input on the land use and transportation strategies for two Mobility Hubs selected in each city.
- City Commission, MPO Board, and MPO Committee Presentations – To gather input from elected and appointed officials as well as members of the public present, the project includes interim and final briefings at the following publicly-noticed meetings:
  - ◊ City of Hollywood and City of Pembroke Pines Commissions
  - ◊ Broward MPO Technical Coordinating Committee and Community Involvement Roundtable
  - ◊ Broward MPO Board
- iTownhall Meeting – An iTownhall meeting was conducted to provide an opportunity for the public to comment on project recommendations and facilitate public input on issues related to congestion management and livability within the study corridor.


*Graphic illustrating use of community meetings and newsletters to guide the public to the website to solicit comments and promote workshops.*

Throughout the public involvement process, ZIP code data were captured to evaluate the extent to which the project effectively engaged vulnerable populations along the corridor including minorities, transit-dependent persons, people living in high-poverty areas, and persons over age 65.

Complete documentation of the Project PIP is provided as Chapter 3 of the Project Report.

**TRANSPORTATION ANALYSIS**

Analysis of existing transportation conditions builds on information gathered through the project's data collection, stakeholder interview, and community meeting tasks to identify and evaluate opportunities to reduce congestion and improve modal options throughout the corridor. Key aspects of the project's Transportation Analysis task include:

- Identification/Evaluation of Congestion Hot-Spots – Information from agency stakeholder interviews and community meetings was combined with an evaluation of roadway daily traffic volume to capacity ratios to identify segments and intersections with likely congestion levels. Priority areas for traffic operational improvements identified through this analysis include:
  - ◊ Pines Boulevard from Dykes Road to 142nd Avenue (including the I-75 interchange area)
  - ◊ Johnson Street from University Drive to Dixie Highway
  - ◊ Young Circle (nominally the intersection of US 1 and Hollywood Boulevard)
  - ◊ I-95/Hollywood Boulevard interchange area including the CSXT railroad crossing and 28th Avenue
  - ◊ Florida Turnpike/Hollywood Boulevard interchange area
- Analysis of Traffic Crash History – Traffic crash data from 2007–2011 were obtained from FDOT and evaluated to identify and map high-crash locations. Crash patterns were then reviewed to identify potential mitigation strategies including:
  - ◊ Identification of bicycle and pedestrian safety issues along Hollywood Boulevard from the Florida Turnpike to SR 7 and along US 1 from Young Circle to Johnson Street
  - ◊ Left-turn crash issues at University Drive at Johnson Street, SR 7 at Johnson Street, and Hollywood Boulevard at 28th Avenue
  - ◊ Rear-end, congestion-related crash issues at many major intersections along the corridor.
- Analysis of Transit Service/Ridership – Route alignments, frequencies, and stop-level ridership were evaluated to understand transit demand and to assist in prioritizing bus stop access and safety improvements. Key findings of this work and limited passenger intercept surveys include:
  - ◊ High activity along Hollywood Boulevard at University Drive, SR 7, and from Park Road to Dixie Highway and along US-1 from Young Circle to Johnson Street
  - ◊ Potential for modifications to route operations related to the interface of Route 7 (Hollywood/Pines) with Route 4 (SR A1A), the Pembroke Lakes Mall transfer, and the Century Village route deviation
- Analysis of Multimodal Facilities – All collector and arterial roads within the study area were reviewed to identify opportunities to improve facilities for cyclists and pedestrians. Key links across limited access roadways, canals, and disconnected subdivisions received heightened scrutiny since in these areas, pedestrians and cyclists do not have the option of traveling along lower-volume local streets. Key areas identified for improvement to multimodal facilities include:
  - ◊ Johnson Street, just west of I-95 to US 1
  - ◊ Johnson Street, University Drive to west of I-95
  - ◊ Hollywood Boulevard, Presidential Circle to I-95
  - ◊ Hollywood Boulevard, City Hall Circle to Dixie Highway

Chapter 4 and related appendices of the Project Report provide maps and synthesis of the Hollywood/Pines Boulevard Corridor Project Transportation Analysis.

**LAND USE ANALYSIS**

To prioritize potential infrastructure investments and understand opportunities to promote transit-supportive infill and redevelopment, the project incorporates quantitative, qualitative, and land use policy analyses.

Quantitative analyses include:

- Urban Intensity Analysis – Analysis of traffic analysis zone population and employment data from the 2035 LRTP identifies specific areas within the study corridor where the combined population and employment density is high enough to support premium transit service.
- Land Economic Characteristics – Parcel data characteristics such as land value, building-to-land ratio, building age, and other attributes indicate areas that may be suitable for private-sector investment in infill and redevelopment.

Qualitative analyses incorporated in the project includes fieldwork to assess the Hollywood/Pines corridor from a land use perspective to identify the following three character segments based on existing development patterns:

- Urban Segment – Incorporates traditional land-use characteristics, such as buildings located directly adjacent to the sidewalk, commercial uses organized in storefronts with openings to the street, and a higher-density and diversity of uses benefiting from a robust street grid.
- Transitional Segment – Some traditional land-use characteristics mixed with more suburban and auto-oriented forms. To the west of the I-95, commercial and retail uses typically are organized in small, mid-century, auto-oriented shopping centers. Increased roadway width and less substantial pedestrian features result in a less urban character. Street grid is broken in key places diminishing connectivity.
- Suburban Segment – Very few traditional land-use characteristics. Residential uses do not front the corridor and are either hidden behind landscaped hedges or are cloistered in large, master-planned subdivisions. Out-parceled retail do not visually enclosure on the corridor, and pedestrian circulation is minimal, with limited connections between development and the roadway corridor. Major break-downs in the street grid force most thru traffic onto Pines Boulevard.

In addition to defining the character segments described above, the land use qualitative analysis included a strengths/ weaknesses/opportunities/threats (SWOT) analysis for each of the designated Mobility Hubs. This analysis was relied on by the PAC to select four Mobility Hubs (two in each city) for scenario planning exercises and also influenced the scenario planning process and policy recommendations developed as part of the Project. Based on this analysis, the following Mobility Hubs were selected for scenario planning:

- Pines Boulevard at Flamingo Road
- Pines Boulevard at University Drive
- Hollywood Boulevard at SR 7
- Hollywood Boulevard at Dixie Highway

The final element of the Project Land Use Analysis is the Plan and Policy Analysis. This includes a review/assessment of the existing regulatory framework along the corridor, including the Broward Countywide Plan, local comprehensive plans, land development codes, and redevelopment plans. This analysis also informs the scenario planning and policy recommendation aspects of the project.

A complete discussion of the Project Land Use Analysis, including a map series related to the quantitative analyses discussed above, is included as Chapter 5 (and related technical appendices) of the Project Report.

**PROJECT DEVELOPMENT AND PRIORITIZATION**

Project development activities include identifying shorter-term multimodal infrastructure/congestion management recommendations as well as longer-term concepts for improvements to the transportation system. Shorter-term congestion management recommendations include:

- Provision of bicycle and pedestrian facilities along Hollywood/Pines Boulevard as well as along supporting parallel and perpendicular roadways
- Bus stop enhancements and re-positioning of bus stops to provide safer, more convenient access to signalized intersections
- Implementation of pedestrian-friendly design treatments at major intersections and interchanges
- Recommendations related to specific, observed traffic safety issues including improvements to street lighting and traffic signal operational modifications
- identification of potential traffic operational improvements including additional applications for FDOT District 4's Transportation System Management and Operations projects to provide Arterial Traffic Management Systems

Tables describing the shorter-term congestion management recommendations for the Hollywood/Pines Boulevard Corridor Project are provided on the following pages. The first three tables show linear multimodal facilities projects and include the relative priority of each project recommendation based on points assigned for each of the following factors:

- Traffic Characteristics – 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.
- Quality of Existing Multimodal Facilities – 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).
- 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.
- Critical Link – Projects that provide for multimodal connectivity or address congestion issues where alternative routes are not available are generally a higher priority than enhancements to facilities that complement adequate existing parallel facilities.
- Safety Benefit – Projects that directly address a documented traffic crash issue are a higher priority for this factor than projects that implement safety best practices or are not relevant to improving safety for all road users
- Environmental Justice – Projects that serve disadvantaged populations are prioritized above projects where environmental justice is not at issue.

The fourth table shows bus stop siting/accessibility, pedestrian/bicycle safety, and traffic operations opportunities that supplement the prioritized "linear" projects.

Longer-term transportation system improvement concepts, discussed in the Implementation Plan chapter of the Project Report, include development of supporting multimodal circulation networks around Mobility Hubs and implementation of queue-jump lanes to facilitate bus stop placement and provide buses with travel time savings.

| On Street | From/At | To | Recommendation | Priority Score | Planning Cost Estimate |
|---|---|---|---|---|---|
| Pines Blvd | US 27 | 208th Ave | • Provide sidewalk along south side of Pines Blvd and intersection pedestrian features at Pines Blvd and US 27. | 24 | $ 144,000 |
| 196th Ave | Pines Blvd | Sheridan St | • Widen pavement to provide marked bike lanes.<br>• Provide a marked crosswalk at 4th St. | 17 | $ 1,251,000 |
| 186th Ave<br><br>Taft St | Pines Blvd<br><br>196th Ave | NW 20th St/ Taft St<br><br>186th Ave/NW 20th St | • Reconstruct/widen sidewalk as a multi-use path.<br>• Provide a marked crosswalk across 186th Ave at Johnson St. | 13 | $ 588,000 |
| Johnson St | 209th Ave | W of 203rd Ave | • Provide a multi-use path along the south side of Johnson St.<br>• Enhance crosswalks to Price Park and connecting existing trail sections at NW 202nd Ave. | 15 | $ 274,000 |
| Dykes Rd | Pembroke Rd | Sheridan St | • Provide bike lanes by marking existing paved shoulder and providing additional paved areas, providing right-turn "key-holes," and narrowing travel lane widths.<br>• Alternatively, widen/reconstruct existing sidewalk and transition bike lanes to multi-use paths on either side of road. | 24 | $ 1,858,000 |
| SW 101st/ Palm Ave | Pembroke Rd | Johnson St | • Provide sidewalk along west side of 101st/Palm Ave. | 27 | $ 277,000 |
| Johnson St | Flamingo Rd | Hollywood City Limits | • Widen pavement to provide marked bike lanes.<br>• Modify intersection geometry at Flamingo Rd and Douglas Rd to improve pedestrian safety.<br>• Construct sidewalk along north side of Johnson St from Douglas Rd to University Dr.<br>• Provide mid-block crosswalks at NW 87th Way, NW 85th Way, NW 83rd Way, and entrance to Fletcher Park. | 31 | $ 3,974,000 |
| 72nd Ave | Pembroke Rd | N of Johnson St | • Widen pavement to provide marked bike lanes. | 27 | $ 1,208,000 |
| Johnson St | Hollywood City Limits | C-10 Canal | • Widen pavement to provide marked bike lanes.<br>• Provide crosswalk markings and enhance lighting at signalized intersections and provide marked, enhanced mid-block crossings at various locations.<br>• Conduct round-about feasibility study at 64th Ave and 62nd Ave.<br>• Complete sidewalk along north side of Johnson St to the C-10 Canal Bridge. | 35 | $ 3,812,000 |

**Priority Group 1**
**> 40 points**

**Priority Group 2**
**20–39 points**

**Priority Group 3**
**< 20 points**

Hollywood/Pines Corridor Project

| On Street | From/At | To | Recommendation | Priority Score | Planning Cost Estimate |
|---|---|---|---|---|---|
| NW 64th Ave | Hollywood Blvd | N of Sheridan St | • Widen pavement and narrow travel lanes to provide marked bike lanes. | 21 | $ 1,232,000 |
| Washington St | SW 62nd Ave | Park Rd | • West of SR 7 and East of SW 56th Ave, widen pavement and narrow travel lanes to provide marked bike lanes.<br>• Longer-term consider a road diet from SR-7 to SW 56th Ave. | 27 | $ 1,323,000 |
| 62nd Ave | Pembroke Rd | Johnson St | • Widen pavement/narrow lanes to provide marked bike lanes. | 24 | $ 1,208,000 |
| 58th Ave, Fillmore St Columbus Pkwy, and Glen Pkwy (area bound by SR 7, Johnson St, 56th Ave North, and Hollywood Blvd) | | | • Fill sidewalk gaps, provide curb ramps.<br>• Provide shared lane arrow markings. | 18 | $ 169,000 |
| Johnson St | C-10 Canal | US 1 | • Provide bicycle and pedestrian facilities across canal bridge; update pedestrian features at the intersection at 30th Rd; and complete sidewalks east of I-95.<br>• Reconstruct the 2-lane divided roadway to a 2-lane undivided roadway to provide bike lanes and complete sidewalks; consider converting signalized intersections at 24th and 26th Aves to roundabouts.<br>• Provide bus-stop and pedestrian safety enhancements at US-1. | 45 | $ 9,964,000 |
| Johnson St | Federal Hwy | N 8th Ave | • Provide shared lane arrow markings. | 16 | $ 48,000 |
| 56th Ave | Washington St | Stirling Rd | • Widen pavement/narrow lanes to provide marked bike lanes. | 24 | $ 2,417,000 |
| 46th Ave | Washington St | Johnson St | • South of Hollywood Blvd, widen pavement/narrow lanes to provide marked bike lanes.<br>• North of Hollywood Blvd, reduce width of grass median to provide space for marked bike lane or mark outside lane with shared lane arrows. | 26 | $ 827,000 |
| Polk St<br>North Rainbow Dr | Glenn Pkwy<br>Polk St | N Rainbow Dr<br>Johnson St | • Implement road diet to provide bike lanes or mark outside lane with shared lane arrows. | 12 | $ 564,000 |
| Van Buren St<br>South Rainbow Dr | S 56th Ave<br>Van Buren St | S Rainbow Dr<br>Washington St | • Implement road diet to provide bike lanes or mark outside lane with shared lane arrows. | 11 | $ 448,000 |
| Park Rd | Washington St | Johnson St | • Provide bike facilties by various means including multi-use path, narrowing lanes, and narrowing medians. | 25 | $ 1,073,000 |

**Priority Group 1**
**> 40 points**

**Priority Group 2**
**20–39 points**

**Priority Group 3**
**< 20 points**

Hollywood/Pines Corridor Project

| On Street | From/At | To | Recommendation | Priority Score | Planning Cost Estimate |
|---|---|---|---|---|---|
| Hollywood Blvd | Presidential Cir | 28th Ave | • Provide bike facilities by various means including narrowing lanes and narrowing medians.<br>• Provide various pedestrian safety enhancements including enhanced markings, lighting, signing, bus stop relocation, revised curb radii geometry, and north-south crosswalks at I-95 ramps.<br>• Improve lane designation signage at 28th Ave and address left-turn crash issue. | 50 | $ 1,987,000 |
| 35th Ave | S Rainbow Dr | Johnson St | • Widen pavement/narrow lanes to provide marked bike lanes. | 22 | $ 398,000 |
| 30th Ave | Pembroke Rd | Hollywood Blvd | • Provide a multi-use path pending potential redevelopment of city golf course. | 23 | $ 388,000 |
| 30th Rd | Hollywood Blvd | Johnson St | • Redevelop City Park right-of-way to provide a thru street connection with multimodal facilities. | 18 | $ 3,975,000 |
| Hollywood Blvd | City Hall Cir | Dixie Hwy | • Complete Streets project to provide median refuge, bike lanes, bus stop enhancements, mid-block cross-walks, and lighting and landscape enhancements. | 51 | $ 6,857,000 |
| Van Buren St | 28th Ave | 24th Ave | • Complete Streets project to provide bike facilities and pedestrian safety enhancements. | 14 | $ 3,431,000 |
| Polk St | 28th Ave | 22nd Ave | • Complete Streets project to provide bike facilities and pedestrian safety enhancements. | 16 | $ 4,275,000 |
| 24th Ave | Washington St | Johnson St | • Provide shared lane arrows. | 19 | $ 36,000 |
| Dixie Hwy | Pembroke Rd | Sheridan St | • Complete Streets/road diet project to provide bike facilities and pedestrian safety enhancements, complete sidewalk gaps.<br>• Consider turn prohibitions at Dixie Highway and Hollywood Boulevard to reduce congestion. | 46 | $14,175,000 |
| 14th Ave | Hallandale Beach City Limit | Hollywood Blvd | • Widen pavement/narrow lanes to provide marked bike lanes; complete sidewalk segments as necessary. | 27 | $ 811,000 |
| 13th Ave | Washington St | Johnson St | • Complete sidewalk segments as necessary. | 14 | $ 191,000 |
| SR A1A | Hallandale Beach Blvd | Johnson St | • South of Hollywood Boulevard, consider a road diet to provide bike lanes and multimodal enhancements.<br>• Provide pedestrian enhancements to intersection/ interchange of Hollywood Blvd and SR A1A.<br>• North of Hollywood Blvd, provide enhanced cross-walks and intersection lighting at signalized inter-sections, consider mid-block crossing locations, and relocate bus stops to be to signalized intersections. | 25 | $13,595,000 |

**Priority Group 1**
**> 40 points**

**Priority Group 2**
**20–39 points**

**Priority Group 3**
**< 20 points**

Hollywood/Pines Corridor Project

| On Street | From/At | Recommendation |
|---|---|---|
| **Bus Stop Enhancements and Siting Modifications** | | |
| Pines Blvd | US 27 to I-75 | • Enhance and modify location of bus stops at 186th Ave and Westfork Plaza. |
| Pines Blvd | I-75 to Hollywood City Limit | • Enhance and modify location of bus stops at various locations.<br>• Evaluate potential for right-turn queue jump lanes pending completion of FDOT Pilot Project at 136th Ave, Hiatus Rd, Palm Ave, and Douglas Rd. |
| Hollywood Blvd | 56th and 58th Ave | • Modify bus stop locations to improve access to signalized crossings. |
| **Mid-Block Crosswalks and Intersection Pedestrian Feature Enhancements** | | |
| City of Pembroke Pines | Various Locations | • Provide (or enhance existing) marked mid-block crosswalks at the following locations: 184th Ave at 9th St, 184th Ave at Johnson St, 178th Ave at 9th St, 10th St at 129th Ave, 129th Ave South of 3rd St. |
| Pines Blvd | Various Intersections | • Improve pedestrian design features and/or enhance crosswalk lighting to improve safety/ mobility at the following intersections along Pines Blvd: 184th Ave, 172nd Ave, 136th Ave, 129th Ave, 118th Ave, Palm Ave, Flamingo Rd, Douglas Rd, 64th Way. |
| Pines Blvd | 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. |
| Hollywood Blvd | Florida Turnpike Area | • Provide enhanced crosswalks and pedestrian-scale lighting across planned southbound-to-westbound off ramp; shift sidewalk along south side of Hollywood Blvd farther from roadway; construct raised right-turn island to facilitate pedestrians crossing eastbound right turn into Turnpike entrance. |
| Hollywood Blvd | Various Intersections | • Improve pedestrian design features and/or enhance crosswalk lighting to improve safety/ mobility at the following intersections along Hollywood Blvd: 62nd Ave, 58th Ave, 56th Ave, 52nd Ave, 46th Ave, 26th Ave (both intersections), |
| Hollywood Blvd | Various Locations | • Provide (or enhance existing) marked mid-block crosswalks at the following locations: East of 28th Ave, City Hall Cir (west end and east end), and 8th Ave. |
| **Traffic Operations** | | |
| Pines Blvd | Dykes Rd to 136th Ave | • Extend TSM&O/ATMS system to improve signal coordination/reduce congestion. |
| Pines Blvd | Various Intersections | • Evaluate and, if necessary, extend turn lanes to back-of-queue at the following locations: Grand Palms Dr (EBR), 136th Ave (EBR and WBR), Walmart driveway (WBL) |
| Hollywood Blvd | Florida Turnpike Area | • Extend eastbound right-turn lane to immediate east of 63rd Terr.<br>• Evaluate options to restrict eastbound left turns at 62nd Ave to provide additional left-turn storage onto Turnpike. |
| Hollywood Blvd | US 1/Young Cir | • BCTE is currently evaluating options to improve operations in Young Cir; consider implementing TSM&O/ATMS system to improve signal coordination/reduce congestion.<br>• Provide enhanced (in pavement) way-finding to help tourists navigate circle |
| Hollywood Blvd | 14th Ave/13th Ave | • Coordinate with City of Hollywood and FDOT to implement measures to mitigate impacts of recent access management project on Hollywood Lakes neighborhoods. |

## SCENARIO PLANNING

Four Mobility Hubs were selected (from the 11 along the corridor) based on quantitative and qualitative analysis and input from the PAC. For each selected Mobility Hub, three potential scenarios were developed as shown below:

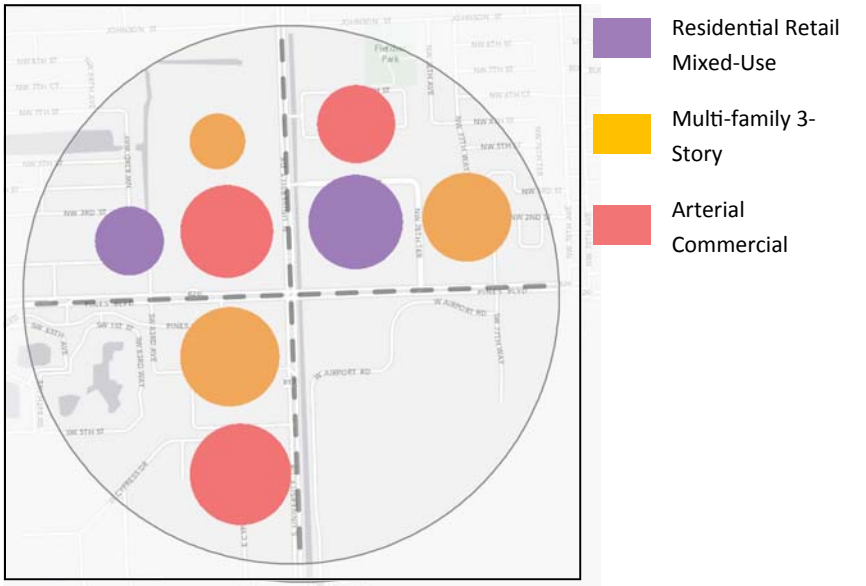
| | Policy | Building Types | Forecast Jobs and Population* |
|---|---|---|---|
| **Trend** | No Change | Typical Existing Building Types | Pro-rata share of 2035 TAZ forecast |
| **Alt. 1** | Housing allowed in commercial zones | Encourage mixed uses | 100% of capture of TAZ forecast in Hubs |
| **Alt. 2** | Disregard current plans; zoning | Mixed-use + shared parking | Focus 120% of TAZ forecast in Hubs |

* Population and employment forecasts for the Mobility Hub scenarios were developed using Traffic Analysis Zone (TAZ) data from the 2035 LRTP. In Alternative 2, it is assumed development potential from surrounding TAZs is focused in the Mobility Hubs.

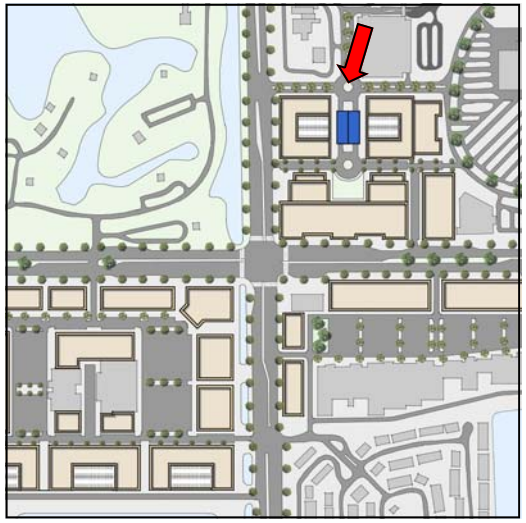
These alternative scenarios were refined to a "preferred" scenario using input from the public workshops, guidance from the PAC, and input from City planning officials. The preferred scenarios were then illustrated for demonstration purposes, analyzed to evaluate their ability to mutually reinforce the transit system, and used as a basis for the development of the Urban Form Toolkit (discussed as part of the Implementation and Monitoring aspects of the Project).

Outcomes of the scenario planning process are shown to the right and on the following pages. A complete description of the scenario planning process is included in Chapter 6 of the Project Report while policy recommendations and implementation activities are discussed in Chapter 7.

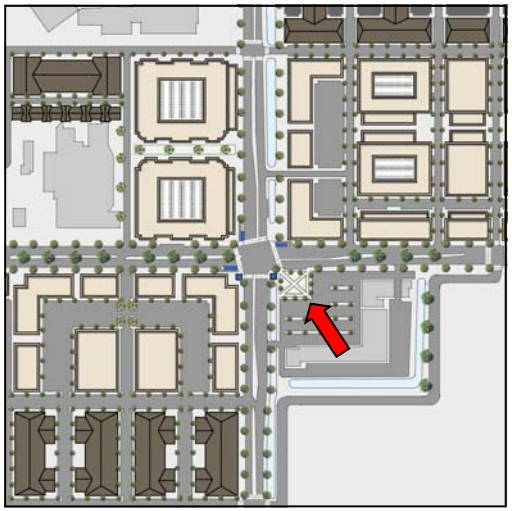

*At the **Flamingo Road** Mobility Hub, existing transfer activity between bus service along Hollywood/Pines Boulevard, local circulator, and community bus routes is shifted from the mall to a new transfer the northeast quadrant of the intersection.*




*The **University Drive** Mobility Hub is a high-volume transit transfer point with several stops placed a great distance from the intersection. The large canal and airport uses along the west side of University Drive limit land use options.*



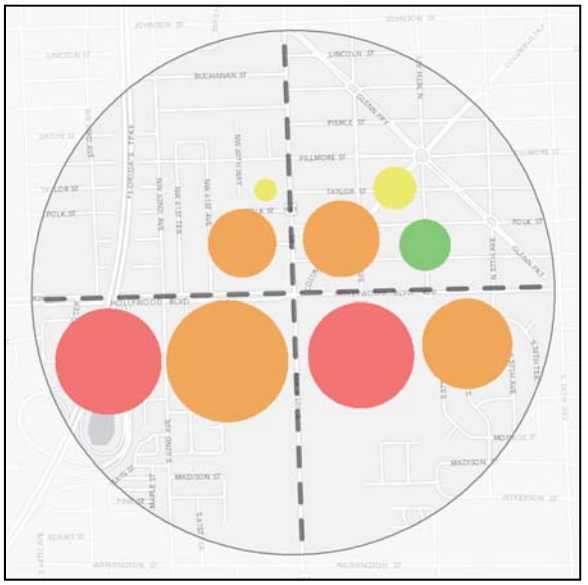
*The Preferred Scenario for Flamingo Road and Pines Boulevard reflects a significant increase in office uses and a hotel option to support the regional employment center anchored by Memorial Hospital West. Crossing the large intersection of Pines Boulevard and Flamingo Road will remain a challenge, but arterial commercial development type is used to retrofit healthy existing retail surface parking lots to create a more walkable environment within each quadrant.*



*The Preferred Scenario for Pines Boulevard and University Drive illustrates substantial redevelopment of three quadrants to retrofit suburban retail in order to provide a mixed-use and walkable environment that better supports transit service. While the development of building types were limited in some quadrants because of flight patterns, substantial residential development was still able to be accommodated including various residential types.*

| SCENARIO | Flamingo Rd | University Dr | SR 7 | Dixie Hwy |
|---|---|---|---|---|
| **POPULATION** | | | | |
| Trend | 0 | 264 | 727 | 3,631 |
| Preferred | 1,443 | 5,766 | 5,150 | 9,869 |
| **LAND AREA MIX** | | | | |
| **TREND** | | | | |
| Mixed Use | 0% | 0% | 2% | 4% |
| Multifamily | 0% | 11% | 7% | 58% |
| Townhome | | 0% | 2% | 21% |
| Single Family | | | 1% | 0% |
| Retail | 57% | 89% | 67% | 7% |
| Office | 43% | | 21% | 10% |
| **PREFERRED** | | | | |
| Mixed Use | 33% | 24% | 0% | 40% |
| Multifamily | 2% | 33% | 40% | 46% |
| Townhome | | 3% | 3% | 13% |
| Single Family | | | 0% | 1% |
| Retail | 25% | 40% | 57% | 0% |
| Office | 40% | | 0% | 0% |
| **HOUSING MIX** | | | | |
| **TREND** | | | | |
| Multifamily | 0% | 100% | 87% | 90% |
| Townhome | | 0% | 9% | 9% |
| Small Lot Single Family | | | 3% | 1% |
| Conventional Single Family | | | 2% | |
| **PREFERRED** | | | | |
| Multifamily | 100% | 97% | 97% | 97% |
| Townhome | | 3% | 1% | 2% |
| Small Lot Single Family | | | 1% | 1% |
| Conventional Single Family | | | 0% | |
| **EMPLOYMENT MIX** | | | | |
| **TREND** | | | | |
| Retail | 31% | 100% | 52% | 23% |
| Office | 69% | 0% | 48% | 77% |
| **PREFERRED** | | | | |
| Retail | 29% | 86% | 100% | 49% |
| Office | 71% | 14% | 0% | 51% |


*At the **Dixie Highway** Mobility Hub, sited 2-blocks north of Hollywood Boulevard, the City of Hollywood is planning for a Tri-Rail Coastal Link Commuter Rail station area that will augment and leverage existing downtown infill/redevelopment.*




*The **SR 7** Mobility Hub is already a high-volume transit destinations and transfer point. The Preferred Scenario incorporates the planned widening and reconstruction of SR 7 as well as the construction of a Walmart on the Millennium Mall Site.*

*The Preferred Scenario for Hollywood Boulevard & Dixie Highway reflects a significant increase in multifamily housing to achieve the critical mass required of premium transit in this Mobility Hub. Because of the substantial amount of existing, in some cases underutilized main street commercial retail, residential retail mixed-use development was only recommended in areas, mostly around the proposed station, where the public realm needed activation.*


*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 to create a better pedestrian environment. 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.*

## URBAN DESIGN AND IMPLEMENTATION TOOLKIT

The purpose of the Urban Design and Implementation Toolkit is to guide the application of land use and urban design recommendations made at the four selected Mobility Hubs in such a way to also be applicable along the remainder of the corridor or in other parts of Broward County. This will be instrumental in transforming the Hollywood/Pines Corridor over the long term into a more transit-supportive, multimodal environment.

The Toolkit focuses on five urban design and planning principles, supported by case studies and academic research that meet two development goals: encourage and support multimodal transportation, especially premium transit, and preserve and enhance the character of existing neighborhoods.

**Connectivity** is a term that refers to the degree to which streets, roads, and pedestrian routes are joined together. The more connected the street/pedestrian network, the more access and circulation options are provided. If an area has a high degree of connectivity, it provides many ways for users to navigate their environment and, in the process, reduces the extent to which all travelers must rely on one route. This can help alleviate automobile congestion by providing more navigational choices, allow the corridors to maintain their current width or be narrowed through a road diet to accommodate multimodal options, and create a physical environment that is conducive to mixed-use development and increased transit ridership. Additionally, increasing the number of multimodal routes that connect with transit-oriented corridors will allow pedestrians who live and work near the transit-oriented corridor to more efficiently access transit stations and supporting land uses.

**Public Realm** refers to space that is publicly-owned, accessible, and maintained and includes streets, pathways, and parks. The term can also refer to privately-owned space between the right-of-way and the building frontage. Design enhancements to the public realm along major corridors provide more appropriate facilities for transit, transit-users, and mixed-uses supportive of transit. Routes to these facilities should be safe and comfortable. This can be achieved by providing a physical buffer between high speed traffic and the pedestrian through the provision of parallel parking, a larger sidewalk, or a tree planting strip, which also provides shade to help mitigate Florida's hot, sunny climate.

**Site Orientation** is how buildings are located in relation to the street and sidewalk (the public realm). A building's relationship to the public realm is important because it creates an enclosure along the street, which helps to create a comfortable environment for pedestrians. Site orientation is an essential element in the development of a transit-supportive area because it can increase the efficiency of travel for transit users and pedestrians. When buildings are located directly adjacent to the public realm, as opposed to a parking lot, walking distances between transit stations and destinations are shorter and the pedestrian environment is more pleasant. This situation is more appropriate and friendly for all users, including those who use transit frequently, such as older adults and parents with small children. Additionally, it is common for parking lots located between a sidewalk and a building to provide little or no circulation infrastructure for pedestrians. This can contribute to lack of safety and comfort along the corridor.

**Ground Floor Design/Use** is critical to the quality of adjacent to pedestrian space and transit facilities can have a significant effect on the safety, comfort, and commercial success of the corridor. To achieve this, the interior space adjacent to the public realm should be inhabited by people for an active use, and a majority of the façade should be transparent to allow maximum interaction between public and private spaces. Additionally, active uses and interaction between interior and exterior spaces along the corridor will contribute to place-making opportunities and, therefore, will attract a variety of users. This will create a healthy atmosphere for mixed-uses and premium transit to thrive. If transit is integrated into a place where people naturally want to spend time, ridership can benefit.

**Transition to Neighborhoods** from designated transit-oriented and mixed-use corridors is important to protect the character of adjacent neighborhoods by regulating the transition from higher densities and more intense land uses to lower-density and single-family residential development. While a positive characteristic of mixed-use zoning is that it allows a wide variety of uses along a corridor, it is important that land directly adjacent to private residential property be protected from unnecessary smell, noise, or light pollution. Additionally, a gradual increase in residential density around and behind mixed-use/non-residential uses along the corridor will buffer the neighborhood edges. While people enjoy living near retail uses, it is common that they want to preserve the existing natural environment that is found in many urban neighborhoods.

**LAND USE/LAND DEVELOPMENT CODE RECOMMENDATIONS**

The project also provides specific recommendations related to applicable zoning districts and land development codes necessary to facilitate development of the four selected Mobility Hubs consistent with the preferred scenarios. Key recommendations related to each Mobility Hub include:

- Pines Boulevard & Flamingo Road
  - ◊ Allow residential mixed-use development and consider mixed-use district zoning with a site plan.
  - ◊ More closely evaluate whether the preferred scenario can be accommodated within the current 1.0 floor-area-ratio (FAR) allowances.
- Pines Boulevard & University Drive
  - ◊ Expand allowances for residential development and consider mixed-use district zoning with a site plan.
  - ◊ Consider prohibition of certain auto-oriented uses and provide opportunities for shared parking.
- Hollywood Boulevard & SR 7
  - ◊ Expand allowances for residential and mixed-use development types.
  - ◊ Modify set-back requirements in the Commercial Corridor Zoning District.
- Hollywood Boulevard & Dixie Highway (north of Hollywood Boulevard)
  - ◊ Modify the zoning code to allow a broader range of uses in certain areas, especially residential.
  - ◊ Increase height limits and the depth of more intense uses along major corridors.

A complete discussion of the Toolkit and land use/land development code policy recommendations are provided in Chapter 7 of the Project Report.

**CONGESTION MANGAGEMENT PROJECT IMPLEMENTATION**

Several of the high-priority Congestion Management projects emerging from the Hollywood/Pines Boulevard Corridor Project have already been programmed for funding by the Broward MPO. These include:

- Hollywood Boulevard Complete Streets retrofit from City Hall Circle to Dixie Highway
- Johnson Street Complete Streets retrofit from the C-10 Canal (just west of I-95) to US 1
- Sidewalk completion along 13th Avenue North from Hollywood Boulevard to Johnson Street.

Other project recommendations related to multimodal facilities, safety enhancements, and congestion management solutions will be reviewed by FDOT for constructability issues at a level of detail beyond that provided for in the Hollywood/ Pines Boulevard Corridor Project. These could include underground utility conflicts, right-of-way conflicts (that are not apparent from field review and review of parcel maps), and potential constraints related to drainage and environmental issues.

Once the constructability reviews are complete, more detailed cost estimates will be developed using FDOT's Long Range Estimating (LRE) system. FDOT District 4 is also in the process of finalizing internal review of project recommendations along the State Highway System for consistency with internal standards and practices. The Broward MPO will then coordinate with FDOT and the Cities of Hollywood and Pembroke Pines to package the individual project recommendations and program funding for design, right-of-way and construction.

Projects along State-maintained roadways, including projects to expand the Districts Arterial Traffic Management System, will be constructed using normal FDOT production processes. Projects along City or County-maintained facilities will be implemented through FDOT's Local Agency Program (LAP). The LAP process provides for local agencies to be reimbursed for design, right-of-way, and construction costs provided that these efforts are executed in a manner consistent with State and federal standards/criteria. Projects related to site-specific safety issues may be eligible for federal funding/programming through the Highway Safety Improvement Program, a separate funding source from MPO-managed funds.

Short-term project recommendations related to transit stop enhancements and relocations are being reviewed by Broward County Transit. These recommendations are mostly for bus stop facilities along the State-maintained sections of Hollywood/Pines Boulevard and will be implemented as cooperative efforts between FDOT and Broward County Transit.

Longer-term project recommendations include concepts related to how transit operations along Hollywood/Pines Boulevard (Route 7) and implementation of Mobility Hub infrastructure along the corridor. FDOT District 4 has programmed a comprehensive transit data collection effort along Hollywood Boulevard that will collect detailed transit usage information including origins and destinations, trip purposes, and transfer activities. This data collection effort has been augmented, based on the findings of the Hollywood/ Pines Corridor Project, to provide data necessary to evaluate potential modifications to the operations of Route 7 and make more specific recommendations related to bus-stop placement at key mobility hubs.

Chapter 7 of the Project Report includes a more complete description of the Hollywood/Pines Boulevard Corridor Project Implementation Plan.

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**Hollywood/Pines**
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# Chapter 1:

# PERFORMANCE MEASURES

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# GOALS, OBJECTIVES, AND PERFORMANCE MEASURES

The Hollywood-Pines Corridor Congestion Management Process/Livability Planning Project is one of several efforts to implement the Broward 2035 Long Range Transportation Plan (LRTP). The Mission of the LRTP is to *"[promote] the safe, secure, and efficient movement of people and goods by providing balanced transportation choices that support superior mobility through improvements in all modes with a focus on mass transit and transit-supportive land use in key corridors and Mobility Hubs."*

To achieve this mission, the LRTP articulates the following seven goals:

1. Provide a balanced multi-modal transportation system that serves the local and regional movement of people, freight, and services and that encourages travel by public transit.
2. Ensure that the transportation system furthers the economic vitality of Broward County.
3. Increase the safety of the transportation system for all of its users.
4. Increase the security of the transportation system for all of its users.
5. Promote sustainable systems and programs.
6. Provide an aesthetically-pleasing transportation system that improves the relationship between public transportation and land use development and promotes the quality of life for the community.
7. Preserve the existing and planned transportation system.

Based on feedback from the Project Advisory Committee (PAC), the following identifies specific project objectives related to achieving the overall goals of the LRTP. The relationship of each objective to the seven LRTP goals is shown in the table at the end of this section.

**OBJECTIVE 1: Confirm Mobility Hub locations and typologies.**

The Broward Metropolitan Planning Organization (MPO) LRTP identifies 10 Mobility Hubs along the corridor including 2, Gateway Hubs, 2 Anchor Hubs, and 6 Community Hubs. The project should verify/modify the Mobility Hub assignments made by the LRTP to help prioritize funding for Mobility Hub implementation and related land-use and transit planning.

**OBJECTIVE 2: Identify potential sites for Mobility Hub infrastructure placement for each Mobility Hub area.**

The LRTP defines the general vicinity of Mobility Hubs, but does not make specific recommendations about where Hub infrastructure should be placed. The project should review each Mobility Hub area and identify one or more site-specific options for investment in Mobility Hub infrastructure based on land uses/property allocation, transit operations and transfer activity, and overall intersection/Hub area traffic operations.

**OBJECTIVE 3: Recommend potential transit operational improvements at each Mobility Hub.**

For each Mobility Hub, identify preferred stop locations, make recommendations as to whether transit vehicles should leave the main roads to enter a Mobility Hub facility, determine if bus-bays are necessary/possible, and identify opportunities to introduce bus rapid transit (BRT) features such as queue jump lanes.

**OBJECTIVE 4: Identify Mobility Hub area intersection safety improvements for all modes.**

Many of the Mobility Hubs along the project corridor are located at high-capacity intersections that may be challenging for pedestrians, cyclists, and motorists to navigate safely. The project should identify safety improvements that a) address documented crash patterns and b) implement design and operations best practices

**OBJECTIVE 5: Identify Mobility Hub area bicycle and pedestrian connectivity improvements.**

For the Mobility Hubs to be effective, their service area must extend beyond the immediate vicinity of the Hub intersection. Therefore, the project should identify barriers to bicycle and pedestrian access in the area surrounding (e.g., 0.5 miles) each Mobility Hub and recommend infrastructure projects to improve access.

**OBJECTIVE 6: Identify traffic management and multimodal enhancement strategies for Johnson Street within the city of Hollywood.**

Johnson Street is specifically identified within the Project Scope of Services because it is the only parallel roadway within the project corridor that provides a continuous route under both I-95 and the Florida Turnpike. Johnson Street also serves as a primary access way to the Memorial Regional Hospital and DiMaggio Children's Hospital. Traffic count data suggest that this roadway exhibits high levels of peak-hour congestion. The roadway also has an incomplete sidewalk system, no bike lanes or other bicycle facilities, and exhibits spot safety issues. The project should identify a range of options to improve Johnson Street within the city of Hollywood and, where appropriate, identify minor safety and multimodal enhancement opportunities within the city of Pembroke Pines.

**OBJECTIVE 7: Identify traffic operations/congestion management strategies along Hollywood/Pines Boulevard.**

In addition to identifying opportunities to enhance transit access/operations and bicycle and pedestrian mobility, the project should identify general traffic operations, access management, and congestion management strategies along Hollywood/Pines Boulevard. Examples include identification of potential signal timing issues, recommendations related to intersection geometry/auxiliary lanes, and potential opportunities to improve grid connectivity.

**OBJECTIVE 8: Identify opportunities to develop the multimodal network within the study corridor.**

To enable pedestrians and cyclists to access transit and land use assets along the Hollywood/Pines corridor, a relatively dense grid of streets with adequate bicycle and pedestrian facilities is necessary. The project should inventory the network of those parallel and perpendicular streets that serve as collector and "neighborhood collector" streets and identify opportunities to improve bicycle and pedestrian facilities. Where the street grid is limited, opportunities to provide connections in key locations, such as bridges and shared-use paths, should be identified.

**OBJECTIVE 9: Identify strategies to connect existing and future centers along the project corridor to regional employment centers via mass transit.**

Most of the employment uses along the project corridor are retail and service-oriented; however, residents along the corridor also commute to regional employment centers in Dade, Broward, and Palm Beach counties. To facilitate access to these centers, the project should evaluate the potential for premium bus service along Hollywood/Pines Boulevard, identify strategies to efficiently access existing and planned north-south premium transit services, and define opportunities to enhance express bus and park-and-ride facilities.

**OBJECTIVE 10: Provide a toolbox for urban redevelopment of Mobility Hub areas and adjacent segments of the corridor.**

A specific objective of the Project Scope of Services is to identify Urban Design Tools that are applicable to the communities within the project corridor (and may be useful along other corridors). The project should develop this toolbox and illustrate the use of transit-supportive urban design principles for key Mobility Hubs.

**OBJECTIVE 11: Articulate the benefits of improved mobility and infill and redevelopment along Hollywood/Pines Boulevard to lower-density neighborhoods along the corridor.**

Many of the transportation recommendations from the project are expected to focus on Hollywood/Pines Boulevard itself, and land use recommendations will address the infill and redevelopment of Mobility Hub areas as well as the corridor's commercial frontage. However, existing neighborhoods and business will remain the primary users of the corridor. As such, it is important that the project describe how these recommendations benefit existing, lower-density neighborhoods along the corridor.

**OBJECTIVE 12: Recommend strategies to enhance bicycle and pedestrian safety throughout the project corridor.**

Most of the project corridor is a higher-speed, high-volume, multi-lane arterial street with high-volume intersecting roadways. These types of roadways are inherently challenging for cyclists and pedestrians. Additionally, several locations along the corridor have a demonstrated pedestrian or bicycle crash history. Enhancing safety is important for its own sake and to improve the use of transit investments in the corridor. As such, the project should identify options to address specific bicycle/pedestrian safety issues and identify opportunities to implement best design practices throughout the corridor.

**OBJECTIVE 13: Identify, evaluate, and recommend countermeasures for high-crash locations.**

In addition to implementing specific and best-practice bicycle and pedestrian strategies, the project should identify correctable high-crash locations and recommend countermeasures with a particular focus on reducing high-severity crash types.

**OBJECTIVE 14: Identify urban design strategies to develop mixed-use, "24 hour" neighborhoods in appropriate locations and implement CPTED (Crime Prevention Through Environmental Design) principles along the corridor.**

Although the Broward MPO LRTP Goals specifically address "security," most of the outcomes of this project are not expected to enhance the security of the transportation system. However, the project should identify strategies to promote

"eyes on the street" and design practices that enhance the personal security of transit users.

**OBJECTIVE 15: Provide an "Urban Design Toolbox" that promotes development forms that make efficient use of land, water, and energy resources and promotes alternative travel mode.**

The Urban Design Toolbox, discussed in Objective 10, should consider strategies to make efficient use of land and water resources and consider green building principles.

**OBJECTIVE 16: Identify cost-effective public engagement approaches.**

To help ensure that project recommendations are consistent with community values and, therefore, improve quality of life, the project should incorporate cost-effective public involvement techniques.

**OBJECTIVE 17: Identify "place-making" opportunities through planning of Mobility Hubs and other infrastructure consistent with community character.**

The investment in transportation infrastructure, *vis-à-vis* implementation of Mobility Hubs, provides an opportunity to create/enhance the sense of place/community for the surrounding area. This can have an economic benefit by promoting infill/redevelopment and by enhancing the value of existing land uses.

**OBJECTIVE 18: Consider longer-term operations and maintenance costs of recommended transportation strategies.**

The LRTP Goals address preservation of the existing and planned transportation system. While many of the project objectives will leverage existing facilities and services, few relate directly maintenance of facilities. However, the project should consider the longer-term maintenance and operations cost of transportation system recommendations.

Table 1-1 summarizes the 18 Project Objectives previously identified and how they relate to achieving the seven LRTP goals.

Table 1-2 summarizes each of the Project Objectives, and one or more Project Performance Measures and Monitoring Measures have also been identified and are summarized in Table 1-2.

The Project Performance Measures are intended to measure the extent to which the project meets each of the objectives, and the Monitoring Measures are intended to reflect the extent to which the implementation of the project helps to achieve overall LRTP Goals.

# Table 1-1: Summary of Project Objectives/LRTP Goals

| | Goal 1 | Goal 2 | Goal 3 | Goal 4: | Goal 5 | Goal 6 | Goal 7 |
|---|---|---|---|---|---|---|---|
| **Project Objectives** | Provide a balanced multi-modal transportation system that serves the local and regional movement of people, freight, and services and that encourages travel by public transit. | Ensure that the transportation system furthers the economic vitality of Broward County. | Increase the safety of the transportation system for all of its users. | Increase the security of the transportation system for all of its users. | Promote sustainable systems and programs. | Provide an aesthetically pleasing transportation system which improves the relationship between public transportation and land use development, and promotes the quality of life for the community. | Preserve the existing and planned transportation system. |
| 1. Confirm Mobility Hub locations and typologies. | X | X | | | | X | |
| 2. Identify potential sites for Mobility Hub infrastructure placement for each Mobility Hub area. | X | X | X | X | | | |
| 3. Recommend potential transit operational improvements at each Mobility Hub. | X | X | X | | X | | |
| 4. Identify Mobility Hub area intersection safety improvements for all modes. | X | X | X | | | | |
| 5. Identify Mobility Hub area bicycle and pedestrian connectivity improvements. | X | X | X | | X | X | |
| 6. Identify traffic management and multimodal enhancement strategies for Johnson Street within the city of Hollywood. | X | X | X | | X | X | |
| 7. Identify traffic operations/ congestion management strategies along Hollywood/Pines Boulevard. | X | X | | | X | X | |
| 8. Identify opportunities to develop the multimodal network within the study corridor. | X | X | X | | X | X | |
| 9. Identify strategies to connect existing and future centers along the project corridor to regional employment centers via mass transit. | X | X | | | X | X | |
| 10. Provide a toolbox for urban redevelopment of Mobility Hub areas and adjacent segments of the corridor. | | X | | | X | X | |

# Table 1-1 (cont'd): Summary of Project Objectives/LRTP Goals

| Project Objectives | Provide a balanced multi-modal transportation system that serves the local and regional movement of people, freight, and services and that encourages travel by public transit. | Ensure that the transportation system furthers the economic vitality of Broward County. | Increase the safety of the transportation system for all of its users. | Increase the security of the transportation system for all of its users. | Promote sustainable systems and programs. | Provide an aesthetically pleasing transportation system which improves the relationship between public transportation and land use development, and promotes the quality of life for the community. | Preserve the existing and planned transportation system. |
|---|---|---|---|---|---|---|---|
| 11. Articulate the benefits of improved mobility and infill and redevelopment along Hollywood/Pines Boulevard to lower-density neighborhoods along the corridor. | | X | | | X | | |
| 12. Recommend strategies to enhance bicycle and pedestrian safety throughout the project corridor. | X | | X | | | | |
| 13. Identify, evaluate, and recommend countermeasures for high-crash locations. | | | X | | | | |
| 14. Identify urban design strategies to develop mixed-use, "24 hour" neighborhoods and implement CPTED (Crime Prevention Through Environmental Design) principles along the corridor. | | | | X | | X | |
| 15. Provide an "Urban Design Toolbox" that promotes development forms that make efficient use of land, water, and energy resources and promotes alternative travel modes. | | | | | X | | |
| 16. Identify cost-effective public engagement approaches. | | | | | | X | |
| 17. Identify "place-making" opportunities through planning of Mobility Hubs and other infrastructure consistent with community character. | | | | | | X | |
| 18. Consider longer-term operations and maintenance costs of recommended transportation strategies. | | X | | | X | | X |

# Table 1-2: Summary of Project Objectives/Performance Measures

| Project Objectives | Project Performance Measures | | | Monitoring Measure |
|---|---|---|---|---|
| 1. Confirm Mobility Hub locations and typologies. | Acceptance by PAC and MPO Project Manager of Mobility Hub locations and typologies | | | |
| 2. Identify potential sites for Mobility Hub infrastructure placement for each Mobility Hub area. | Acceptance by PAC and MPO Project Manager of Mobility Hub site options | | | |
| 3. Recommend potential transit operational improvements at each Mobility Hub. | Reduction in walking distance from transit stops to controlled roadway crossings (signals) | Reduction of number of transit stops in Hub areas | Reduction in transit-vehicle/ automobile conflicts | Improved route headways |
| 4. Identify Mobility Hub area intersection safety improvements for all modes. | Number of feasible recommendations identified | Reduction in pedestrian exposure | Estimated crash reduction | Reduced crash frequency and severity |
| 5. Identify Mobility Hub area bicycle and pedestrian connectivity improvements. | Estimated increase in number of dwelling-units and employees with safe walking/biking access to Mobility Hubs | | | Transit ridership at Hubs |
| 6. Identify traffic management and multimodal enhancement strategies for Johnson Street within the city of Hollywood. | Percent of Johnson Street with complete, contiguous bicycle and pedestrian facilities | Estimated crash reduction due to operational recommendations | | Increased transit ridership and bicycle and pedestrian activity |
| 7. Identify traffic operations/ congestion management strategies along Hollywood/Pines Boulevard. | Estimated reduction in vehicle delay | | | Improved travel time through congested sections of the roadway |
| 8. Identify opportunities to develop the multimodal network within the study corridor. | Estimated increase in number of dwelling-units and employees with safe walking/biking access to Hollywood/Pines Boulevard | Increase in proportion of the identified network with acceptable bicycle and pedestrian facilities | | Improved transit ridership throughout corridor; reduction in bicycle and pedestrian crashes |
| 9. Identify strategies to connect existing and future centers along the project corridor to regional employment centers via mass transit. | Acceptance by PAC and MPO Project Manager of Park-and-Ride related recommendations | Estimated increase in number of Dwelling-Units and Employees with safe walking/biking access to regional transit routes with no more than one transfer | | Increased boardings of regional transit (e.g., Express Bus/Tri-Rail) in the corridor |
| 10. Provide a toolbox for urban redevelopment of Mobility Hub areas and adjacent segments of the corridor. | Acceptance by PAC and MPO Project Manager of recommended urban design tools | Extent to which Mobility Hub and corridor land use visioning is acceptable to the community | Extent to which Mobility Hub and corridor land use visioning increases transit-supportive densities/intensities in the corridor | Extent of urban infill and redevelopment related to other areas of the county; increased transit ridership |

# Table 1-2 (cont'd): Summary of Project Objectives/Performance Measures

| Project Objectives | Project Performance Measures | | | Monitoring Measure |
|---|---|---|---|---|
| 11. Articulate the benefits of improved mobility and infill and redevelopment along Hollywood/Pines Boulevard to lower-density neighborhoods along the corridor. | Extent to which the Mobility Hub and corridor land use and transportation strategies are acceptable to the community | | | Increase in property values of property in the corridor related to other areas of the county |
| 12. Recommend strategies to enhance bicycle and pedestrian safety throughout the project corridor. | Number of feasible best-practices recommendations identified | Estimated crash reduction due to recommendations related to established high-crash locations | | Reduction in bike/pedestrian crashes |
| 13. Identify, evaluate, and recommend countermeasures for high-crash locations. | Estimated crash reduction due to recommendations related to established high-crash locations | | | Reduction in crashes at high-crash locations |
| 14. Identify urban design strategies to develop mixed-use, "24 hour" neighborhoods and implement CPTED (Crime Prevention Through Environmental Design) principles along the corridor. | Acceptance by PAC and MPO Project Manager of recommended strategies | | | Reduced crime in the corridor |
| 15. Provide an "Urban Design Toolbox" that promotes development forms that make efficient use of land, water, and energy resources and promotes alternative travel modes. | Extent to which recommended tools promote higher floor-area-ratios and are acceptable to the community | | | Average floor-area-ratio of future development in the corridor |
| 16. Identify cost-effective public engagement approaches. | Workshop attendance | Website sign-ups and comments, ZIP code monitoring | Community meeting attendance | Public Involvement Plan |
| 17. Identify "place-making" opportunities through planning of Mobility Hubs and other infrastructure consistent with community character. | Acceptance by PAC and MPO Project Manager of recommended strategies | Extent to which Mobility Hub and corridor land use visioning is acceptable to the community | | Increase in property values of property in the corridor related to other areas of the county |
| 18. Consider longer-term operations and maintenance costs of recommended transportation strategies. | Acceptance by PAC and MPO Project Manager of recommended strategies | | | Cost per passenger for transit service in the corridor |

# Chapter 2:

# DATA COLLECTION

Hollywood/Pines Corridor Project

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# DATA COLLECTION OVERVIEW

The data collection task was undertaken to identify and evaluate the essential data items needed for the development of the Hollywood/Pines Corridor Project. The data collected as part of this task will develop the project framework and assist in the identification of opportunities to implement congestion management and livability strategies along the Hollywood/ Pines Corridor. A two-phase data collection approach was applied to the Hollywood/Pines Corridor Project:

- Phase I – focused primarily on the assembly of available data
- Phase II – focused primarily on the collection of field data

This chapter serves to document the efforts made to ensure a comprehensive approach to the Hollywood/Pines Corridor Project. The following sections outline and summarize the data collection task of the Hollywood/Pines Corridor Project.

# PHASE I – AVAILABLE DATA COLLECTION

Phase I of the data collection task focused primarily on the assembly of available data. The data for Phase I were collected to provide the necessary background information about the corridor and to develop and support the evaluation and analysis of key traffic operational characteristics and land use attributes along the corridor. The effort also assisted in the identification the field data collected as part of Phase II by identifying data "gaps" and verifying initial assumptions made about the corridor. The Phase I data collection effort is summarized into the following three sub-sections:

- Document Review Summary
- Review of Current and Future Corridor Enhancements
- Review and Inventory of Available Data

A review of recent plans, studies, and programs was

# DOCUMENT REVIEW SUMMARY

conducted as part of the Hollywood/Pines Corridor Project. The document review served two main goals: to develop a better understanding of what planning tools have been examined in the past and what tools are currently available (to avoid "reinventing the wheel"), and to provide the necessary policy and informational background for the development of the project. Table 2-1 provides a summary of the reviewed documents and identifies key concepts, data, and resources available that will support the Hollywood/Pines Corridor Project. The following documents were reviewed during this task.

**LIST OF REVIEWED DOCUMENTS**

- Broward 2035 Long Range Transportation Plan
- Broward County Transit FY 2012 Transit Development Plan Annual Update
- Broward County, Transit Housing Oriented Redevelopment (THOR) Initiative
- Subtropical Sustainable – Transit/Housing Oriented Redevelopment Pilot Study
- Oakland Park Boulevard Corridor Study
- FDOT – A Framework for Transit-Oriented Development (TOD) in Florida
- Broward County, County-Wide Community Design Guidebook
- South Florida East Coast Corridor Transit Analysis: Conceptual Alternative Analysis/Environmental Screening Report
- SFRTA Fast Start Plan
- SEFTC Southeast Florida Passenger Rail Evaluation
- Broward County, 2011 Comprehensive Plan Evaluation and Appraisal Report (EAR)
- Broward County Comprehensive Plan
- Broward County Land Use Plan
- City of Hollywood Comprehensive Plan
- City of Hollywood Citywide Master Plan
- Downtown Hollywood Master Plan
- Hollywood Beach CRA Master Plan
- City of Pembroke Pines Comprehensive Plan
- City of Pembroke Pines Streetscape Design Guidelines
- FDOT – SR 93/I-75 Project Development and Environmental Study, Project Development Summary Report

# Table 2-1: Documents Review

| Document/Program Reviewed | Study/Program Details | | Purpose of Study/Program | Available Data/Resources and Key Consideration to Support the Corridor Plan |
|---|---|---|---|---|
| | Lead Agency/ Department | Document Date | | |
| Broward 2035 Long Range Transportation Plan (LRTP) | Broward MPO | 2009 | • Identify goals and policies to direct long-range transportation planning.<br>• Identify long-range cost needs and affordable networks for roads, transit, bicycle, and pedestrian modes.<br>• Promote the safe, secure, and efficient movement of people and goods by providing balanced transportation choices that support superior mobility through improvements in all modes with a focus on mass transit and transit-supportive land use in key corridors and mobility hubs. | • Policy guidance for long-range planning.<br>• Existing and future road, transit, bicycle, trail, and pedestrian networks.<br>• Identification of key corridors and mobility hubs.<br>• Recommended combining the Congestion Management Process and Livability Planning Initiative.<br>• Policy guidance on the integration of transit and transit-supportive land uses.<br>• Identification of mobility hubs and premium transit corridors. |

| Document/Program Reviewed | Study/Program Details | | Purpose of Study/Program | Available Data/Resources and Key Consideration to Support the Corridor Plan |
|---|---|---|---|---|
| | Lead Agency/ Department | Document Date | | |
| Transit Development Plan (TDP) | Broward County Transit | Annual update 2012 | • Update of the FY 2009–18 TDP.<br>• Evaluate existing transit services and identify future public transportation needs.<br>• Develop a 10-year implementation and financial plan to strategically guide public transportation in Broward County. | • 10-Year Transit Implementation Plan (Needs Plan) for Broward County Transit.<br>• Evaluation of prior TDP's implementation progress.<br>• Guidance on the development of transit needs policy.<br>• Identification of recent and future capital improvements.<br>• Identification of changes to existing and future transit service. |
| Broward County Transit/Housing Oriented Redevelopment (THOR) Initiative | Broward MPO | 2006 | • Develop a strategy to establish vibrant transit corridors throughout the county while protecting existing residential neighborhoods. | • Laid foundation for transit-oriented land use patterns through the development of a countywide Community Design Guidebook and the creation of three new land-use designations.<br>• Guidance on leveraging public infrastructure investments to attract private investment/re-investment. |
| Subtropical Sustainable – Transit/Housing Oriented Redevelopment Pilot Study | Broward County Planning and Redevelopment | 2008 | • Development of sustainable, context-sensitive design strategies for redevelopment and urban design. | • Summary of the Transit Housing Oriented Redevelopment (THOR) Pilot Study<br>• Real-world examples of sub-tropical climate integration of transportation, land use, and design.<br>• Enhancement of vision and application of sustainable, context-driven planning and design principles. |

| Document/Program Reviewed | Study/Program Details | | Purpose of Study/Program | Available Data/Resources and Key Consideration to Support the Corridor Plan |
|---|---|---|---|---|
| | Lead Agency/ Department | Document Date | | |
| Oakland Park Boulevard Corridor Study | FDOT District IV/ Broward MPO | November 2009 | • Promote transit access and the development of strategies for implementing a vision for transit- and housing-oriented redevelopment along the 3.5-mile corridor along Oakland Park Boulevard between NW 31st Avenue and Dixie Highway.<br>• Link FDOT's modal development efforts with Broward County Transportation Department's transit planning and the THOR initiative. | • Policy guidance for developing incentives for and facilitating multimodal improvements.<br>• Recommended land use plan and land development code revisions and strategies for achieving economic development and housing goals along the corridor.<br>• Examples of transit-supportive infrastructure improvements. |
| A Framework for Transit-Oriented Development (TOD) in Florida | FDOT/Florida Dept. of Community Affairs | March 2011 | • Address how transit-oriented development can be a part of transforming Florida's existing auto-oriented, largely suburban patterns of development into more compact, livable patterns that support walking, biking, transit, and shorter-length auto trips. | • Guidance on key consideration and questions to be addressed when dealing with TOD and transit planning.<br>• Provide framework for TOD place types addressing land use and design considerations for transit service areas . |

| Document/Program Reviewed | Study/Program Details | | Purpose of Study/Program | Available Data/Resources and Key Consideration to Support the Corridor Plan |
|---|---|---|---|---|
| | Lead Agency/ Department | Document Date | | |
| Broward County County-Wide Community Design Guidebook | Broward County | July 2007 | • Provided foundation for THOR studies.<br>• Develop guidebook for establishing a "sense of place" for Broward County.<br>• Achieve the following goals and principles:<br>– Sustainable Transportation Choices<br>– Civic Beauty<br>– Accommodation for a Diverse Population<br>– Economic Vitality and Sustainability<br>– Sense of Place | • Guidance and considerations for development of policy related to integration of transportation and land use.<br>• Guidance on development of performance guidelines, especially as related to pedestrian mobility.<br>• Policy guidance for integration of transportation and land use.<br>• Key concepts related to urban design, transportation and sense of place to assist in development of corridor plan. |
| South Florida East Coast Corridor Transit Analysis: Conceptual Alternative Analysis/ Environmental Screening Report | FDOT | January 2009 | • Provide description of early planning activities associated with alternatives analysis for South Florida East Coast Corridor Transit Analysis study. | • Provide background information and general knowledge to early planning efforts that have taken place along Florida East Coast (FEC) rail corridor.<br>• Provide potential transit scenarios for FEC rail corridor. |

| Document/Program Reviewed | Study/Program Details | | Purpose of Study/Program | Available Data/Resources and Key Consideration to Support the Corridor Plan |
|---|---|---|---|---|
| | Lead Agency/ Department | Document Date | | |
| SFRTA – Fast Start Plan | SFRTA | 2011 | • Provide Southeast Florida with Mobility, Economic Development, and Transportation Choice through reintroduction of passenger rail service in FEC corridor between downtown Miami and Jupiter, integration with Tri-Rail. | • Identify potential new rail service and station locations within FEC corridor.<br>• Guidance on development of future transit needs policies. |
| Southeast Florida Passenger Rail Evaluation | Southeast Florida Transportation Council | July 2012 (draft) | • Identify ways in which a more regional planning and decision-making process could be established, with greater transparency and clear agency roles.<br>• Identify similarities and differences between two proposals to re-establish passenger service of the FEC rail corridor.<br>• An evaluation of the SFECC and SFRTA Fast Start Plan | • Provide background information and general knowledge related to planning efforts that have taken place along FEC rail corridor. |

| Document/Program Reviewed | Study/Program Details | | Purpose of Study/Program | Available Data/Resources and Key Consideration to Support the Corridor Plan |
|---|---|---|---|---|
| | Lead Agency/ Department | Document Date | | |
| Broward County 2011 Evaluation and Appraisal Report (EAR) | Broward County | February 2011 | • Address County's progress in achieving goals, objectives and policies identified in County's Comprehensive Plan.<br>• Address major issues identified by County:<br>– Planning for Climate Change<br>– Water Supply Planning<br>– Mobility and Land Use<br>– Population Growth and Impacts on Public Services<br>– Housing Challenges | • Policy guidance and implementation strategies for coordinating land use and transportation planning. |
| Broward County Comprehensive Plan | Broward County | 2006 | • Vision of what Broward County strives to be in the future.<br>• Primary policy document concerning land use, transportation, and other planning matters for Broward County.<br>• Required by Florida law; must be consistent with state and regional plans. | • Policy framework for future direction of key public service areas, including land use and transportation.<br>• Goals, objectives, and policies contained in each Element of Comprehensive Plan. |

| Document/Program Reviewed | Study/Program Details | | Purpose of Study/Program | Available Data/Resources and Key Consideration to Support the Corridor Plan |
|---|---|---|---|---|
| | Lead Agency/ Department | Document Date | | |
| Broward County Land Use Plan | Broward County | 2010 | • Creates specific, measurable, intermediate end that is achievable and marks progress towards County's future land use goals. | • Goals, objectives, and policies related to the Countywide Land Use Plan categories. |
| City of Hollywood Comprehensive Plan | City of Hollywood | January 2008 | • Primary policy document concerning land use, transportation, and other planning matters for Broward County.<br>• Required by Florida law; must be consistent with State and regional plans. | • Provides policy framework for future direction of key public service areas, including land use and transportation.<br>• Goals, objectives, and policies contained in each Element of Comprehensive Plan. |
| City of Hollywood Citywide Master Plan | City of Hollywood | 2001 | • Define citywide vision while establishing series of guiding principles and strategies to enhance and sustain existing quality of life while focusing interest and efforts in areas that offer potential for growth and development.<br>• Create urban lifestyle options, improve mobility, and increase the economic well-being of the city. | • Policy guidance related to issues dealing with multimodal transportation, housing, land use, development/redevelopment, and environmental factors.<br>• Guiding principles used to establish citywide vision. |

| Document/Program Reviewed | Study/Program Details | | Purpose of Study/Program | Available Data/Resources and Key Consideration to Support the Corridor Plan |
|---|---|---|---|---|
| | Lead Agency/ Department | Document Date | | |
| Downtown Hollywood Master Plan | City of Hollywood | NA | • Illustrate overall vision for future of Downtown Hollywood.<br>• Serve as guide to ensure that development and capital improvements support community's vision and that downtown Hollywood evolves in a cohesive manner.<br>• Establish area-wide recommendations that promote sustainable growth and enhance quality of life in downtown Hollywood. | • Policy and strategy guidance related to sustainability, connectivity, and mobility. |
| Hollywood Beach CRA Master Plan | City of Hollywood | December 2007 | • Provide for development of sustainable, mixed-use environment that embodies uniqueness of Hollywood Beach.<br>• Promote development of pedestrian-oriented, mixed-use community. | • Policy guidance, including strategies related to mobility and parking.<br>• Zoning and design recommendations. |

| Document/Program Reviewed | Study/Program Details | | Purpose of Study/Program | Available Data/Resources and Key Consideration to Support the Corridor Plan |
|---|---|---|---|---|
| | Lead Agency/ Department | Document Date | | |
| City of Pembroke Pines Comprehensive Plan | City of Pembroke Pines | 1999 (amended 2011) | • Primary policy document concerning land use, transportation, and other planning matters for Broward County.<br>• Required by Florida law; must be consistent with state and regional plans. | • Provides policy framework for future direction of key public service areas, including land use and transportation.<br>• Goals, objectives, and policies contained in each Element of Comprehensive Plan. |
| City of Pembroke Pines Streetscape Design Guidelines | City of Pembroke Pines | April 2012 (draft) | • Develop set of streetscape guidelines to attract economic revitalization, enhance livability and improve overall aesthetics of the city.<br>• City's first step in initiating a comprehensive revitalization. | • Mobility guidelines and recommendations that include pedestrian and bicycle facilities standards for all new roads; establish minimum transit facility criteria.<br>• Guidance in relationship between aesthetics and economic viability, land use, mobility, and safety. |
| SR 93/I-75 PD&E Study – Project Development Summary Report | FDOT | March 2012 | • Document results of I-75 PD&E Study and summarize pertinent information for recommended alternatives, including potential impacts project may have on natural, social, and physical environment. | • Identification of potential design alternatives along I-75 corridor. |

# REVIEW OF CURRENT AND FUTURE ROADWAY/MOBILITY ENHANCEMENTS

State (FDOT), County, and municipal plans and programs were reviewed for ongoing, committed, and planned transportation (and relevant civil) infrastructure projects. Table 2-2 provides a summary of the enhancements identified with the Hollywood/ Pines Corridor Project study area. For the purpose of evaluating existing conditions, the available design plans for "committed" projects were reviewed and are considered the "effective" existing condition for future roadway analyses within the study area.

# Table 2-2: Ongoing and Future Roadway/Mobility Improvements

| Project Type | Source | Project ID | Project Extent & Description | Project Date |
|---|---|---|---|---|
| Capacity | FDOT 5-Year Work Program | 422796-1/-2 | • I-95 – Golden Glades (Miami-Dade County) to Broward Blvd<br>• Extension of HOT lanes | 2012 (Construction) |
| | | 406095/99-1 | • Turnpike widening & modify interchange at Hollywood Blvd<br>• Widening and interchange modification | 2012 (PE/ROW) |
| | | 419343-1<br>430763-2 | • I-75 – north of Homestead Extension of the Florida Turnpike (HEFT) to I-595<br>• Preliminary Engineering for future capacity | 2012 (PD&E/PE) |
| | | 227774-1<br>227775-1 | • US 441/SR 7 – north of Hallandale Beach to south of Stirling Rd<br>• Add lanes and reconstruct | 2014 (Construction) |
| | | 423031-1 | • US 27/SR 25 – through Pembroke Pines, Southwest Ranches, and Weston<br>• Resurfacing plus – drainage improvements and widening turn lanes at Pines Blvd, Johnson St, Sheridan St, and Griffin Rd | 2012 (Construction) |
| | Broward MPO 2035 LRTP Cost Feasible Plan | NA | • Pines Blvd @ University Dr<br>• Intersection improvement | 2016–2020 (Cost Feasible Plan) |
| | | NA | • Pines Blvd @ Flamingo Rd<br>• Intersection improvement | 2016–2020 (Cost Feasible Plan) |
| | | NA | • US 441/SR 7 @ Hollywood Blvd<br>• Intersection improvement | 2016–2020 (Cost Feasible Plan) |

| Project Type | Source | Project ID | Project Extent & Description | Project Date |
|---|---|---|---|---|
| Resurfacing | FDOT 5-Year Work Program | 421659-1 | • SR 820/Pines Blvd – Douglass Rd to 64th Way (Pembroke Pines)<br>• Includes widening of shoulders, installation of sidewalks | 2011–2013 (Construction) |
| | | 427007-1 | • SR 820/Hollywood Blvd – east of 64th Way to east of NW 61st Ave (Hollywood) | 2013 (Construction) |
| | | 427006-1 | • SR 820/Pines Blvd – east of SW 196th Ave to east of 150th Ave | 2013 (Construction) |
| | | 430603-1 | • US 27/SR 25 – Miami-Dade county line to SR 818/Griffin Rd | 2016 (Construction) |
| Bicycle & Pedestrian | Broward MPO 2035 LRTP Cost Feasible Plan | NA | • Pines Blvd – east of Dykes Rd to NB I-75 on-ramp<br>• Pedestrian enhancements | 2016–2020 (Cost Feasible Plan) |
| | | NA | • Hollywood Blvd – 64th Ave to 46th Ave<br>• Bicycle enhancements | 2016–2020 (Cost Feasible Plan) |
| | | NA | • Hollywood Blvd – City Hall Circle to 17th Ave<br>• Bicycle enhancements | 2016–2020 (Cost Feasible Plan) |
| | | NA | • Hollywood Blvd – 46th Ave to eastern I-95 on-ramp<br>• Bicycle enhancements | 2016–2020 (Cost Feasible Plan) |
| Safety | FDOT 5-Year Work Program | 423031-1 | • US 27/SR 25 – SR 820/Pines Blvd to SR 818/Griffin Rd | 2012 (PE) |
| | | 428275-1 | • SR 820/Hollywood Blvd at 35th Ave | 2013 (Construction) |

| Project Type | Source | Project ID | Project Extent & Description | Project Date |
|---|---|---|---|---|
| Public Transportation | FDOT 5-Year Work Program | 429575-1 | • US 1/SR 5 – Miami-Dade county line to Broward Blvd<br>• PTO studies | 2013 (Planning) |
| | | 431771-1 | • SR 817/University Dr – Miami-Dade county line to SR 834/ Sample Rd<br>• PTO studies | 2013 (Planning) |
| | | 429576-1 | • US 441/SR 7 Transit Corridor<br>• Urban corridor improvements | 2014 (Planning) |
| | | 431770-1 | • SR 820/Hollywood Blvd/Pines Blvd – I-75 to Young Circle<br>• PTO studies | 2016 (PD&E) |
| | Broward MPO 2035 LRTP Cost Feasible Plan | NA | • Hollywood/Pines Blvd – I-75 to SR A1A<br>• Premium High Capacity Transit | 2026–2030 (Cost Feasible Plan) |
| | | NA | • US 441/SR 7<br>• Premium high capacity transit | 2026–2030 (Cost Feasible Plan) |
| | | NA | • University Drive<br>• Premium bus rapid transit | 2026–2030 (Cost Feasible Plan) |
| | | NA | • SR A1A<br>• Premium bus rapid transit | 2026–2030 (Cost Feasible Plan) |
| Other/ Miscellaneous | FDOT 5-Year Work Program | 424496-1 | • SR 820/Pines Blvd – US 27 to University Dr<br>• Lighting enhancement | 2013 (PE & Construction) |
| | | 429687-1 | • Broward County Non-Intrastate Highways<br>• ATMS Deployment in Southern Broward County | 2013 (Construction) |
| | | 431156-1 | • SR 823/Flamingo Rd – south of Pembroke Rd to south of Griffin Rd<br>• Road/slope protection | 2015 (Construction) |

# REVIEW AND INVENTORY OF AVAILABLE DATA

The third component of the Phase I data collection was to obtain data items that relate to and aid in the analysis and development of the Hollywood/Pines Corridor Project. State, county, municipal, and other entity agencies and departments were contacted to request needed data items. The obtained data items were organized into two categories: spatial data and informational data.

The obtained spatial data items consist mainly of geographical information system (GIS) shapefiles but also include studies, plans, and projects that correspond to a specific geographic location that could be geocoded to a map. A geodatabase was created to store the obtained spatial data items. Table 2-3 lists the data that have been complied into the geodatabase and provides a brief summary of the items, the source of the data, and the date it was obtained.

Informational data items mainly consist of documents that either directly or indirectly relate to the development of the Hollywood/Pines Corridor Project. These items include many of the documents that are listed in Table 2-1, Documents Reviewed. The obtained informational data items have been indexed within an Excel document that provides a link to an electronic version of the document.

# Table 2-3: Summary of Geodatabase Contents

| Title | Description | Source | Date Obtained |
|---|---|---|---|
| 2035 LRTP CF Plan BCT Local Routes | 2035 LRTP Cost Feasible BCT local routes | Broward MPO | July 2012 |
| 2035 LRTP CF Plan Bicycle Projects | 2035 LRTP Cost Feasible Plan bicycle facility projects | Broward MPO | July 2012 |
| 2035 LRTP CF Plan Greenways | Location of existing and proposes greenways from the 2035 LRTP Cost Feasible Plan | Broward MPO | July 2012 |
| 2035 LRTP CF Plan Pedestrian Projects | 2035 LRTP Cost Feasible Plan pedestrian projects | Broward MPO | July 2012 |
| 2035 LRTP CF Plan Premium Transit | 2035 LRTP Cost Feasible Plan Premium Transit Projects | Broward MPO | July 2012 |
| 2035 LRTP CF Plan Roadways | 2035 LRTP Cost Feasible Plan roadway enhancements | Broward MPO | July 2012 |
| Aerial | 2010 high resolution aerial of Broward County | Broward MPO | July 2012 |
| Airports & Aviation | Aircraft landing facility locations and attributes | Florida Geographic Database Library | June 2012 |
| Capacity Report | 2009 and 2035 Roadway Capacity and Level of Service Analysis | Broward MPO | June 2012 |

| Title | Description | Source | Date Obtained |
|---|---|---|---|
| Census Block Groups | Geographic area containing groups of Census Blocks used for summarizing Census Data | U.S. Census Bureau | June 2012 |
| Census Blocks | Geographic area used for summarizing Census Data | U.S. Census Bureau | June 2012 |
| Census Tracts | Geographic area containing Census Blocks and Block Groups used for summarizing Census Data | U.S. Census Bureau | June 2012 |
| Cities | A general delineation of city limits of all communities and unincorporated areas in Broward County | Broward County GIS | June 2012 |
| City Halls | Location of municipal government command facilities | Broward County GIS | June 2012 |
| Colleges | Local Colleges and Universities in Broward County | Broward County GIS | June 2012 |
| County Boundary | Dataset providing location/boundary and attribute information on all 67 Florida counties | Florida Geographic Database Library | June 2012 |
| Crash Data | Five-year crash history (2007–2011) | FDOT - Crash Analysis Reporting System (CARS) | June 2012 |
| Developments of Regional Impact | Developments of Regional Impact (DRIs) information from the South Florida Regional Planning Council | Broward County GIS | June 2012 |
| Future Land Use | Future land use categories as determined by the Broward County Future Land Use Plan | Broward County GIS | June 2012 |

| Title | Description | Source | Date Obtained |
|---|---|---|---|
| Hallandale, Hollywood Sidewalks | Sidewalk coverage along the streets in the southeastern portion of the County | Broward MPO | July 2012 |
| Hollywood Route 2012 | Proposed SFRTA Hollywood Shuttle Route | SFRTA | August 2012 |
| Hospitals | Major Health Facilities in Broward County | Broward County GIS | June 2012 |
| Libraries | Broward County public libraries | Broward County GIS | June 2012 |
| May 2012 Bus | Existing Broward County Transit Bus Routes with operational and ridership data | Broward County Transit | July 2012 |
| May 2012 Community Bus | Broward County Transit administered community bus routes | Broward County Transit | July 2012 |
| May 2012 Stops | Existing Broward County Transit Bus Stops with ridership and stop amenity data | Broward County Transit | July 2012 |
| Mobility Hubs | Location and Type of Mobility Hub as identified in the 2035 LRTP | Broward MPO | July 2012 |
| Parcels | Parcel level data containing existing values and property use | Broward County Property Appraiser | September 2011 |
| Parks (State, County, and City) | Dedicated park land | Broward County GIS | June 2012 |

| Title | Description | Source | Date Obtained |
|---|---|---|---|
| Rails | Rail Network | Florida Geographic Database Library | June 2012 |
| Roadway Inventory | Depicts the County's major roadways and provides data including functional classification, speed limits, and number of lanes | Broward MPO | July 2012 |
| Schools | Educational facilities K-12 | Broward County GIS | June 2012 |
| Study Area Boundaries | Area within a half-mile of the Hollywood/Pines Blvd Corridor | Tindale-Oliver & Associates, Inc. | Created June 2012 |
| TIP Highway Improvements | FY 2012/13–FY 2016/17 Transportation Improvement Program (TIP) Projects | Broward MPO | July 2012 |
| Traffic Analysis Zones (TAZ) | Traffic Analysis Zones required for long-range transportation modeling purposes. Demographic, socio-economic, and other information can be summarized by TAZs | Broward MPO | July 2012 |
| Traffic Signals | Location of traffic signals in Broward County | Broward MPO | June 2012 |
| Trafficways (Right-of-Way) | A summary of the available right-of-way along the major roadways in Broward County | Broward County GIS | June 2012 |
| Transit Stations | Location of fixed-guideway transit facilities | Florida Geographic Database Library | June 2012 |
| Truck Volume | Average Annual Daily Traffic (AADT) for trucks | Broward MPO | July 2012 |

| Title | Description | Source | Date Obtained |
|---|---|---|---|
| Water | Representation of surface water | Broward County GIS | June 2012 |
| ZIP Codes | ZIP code boundaries | Broward County GIS | July 2012 |

# PHASE II – FIELD DATA COLLECTION

The second phase of data collection involves the identification and collection of necessary field data that were either not obtained through Phase I or require further data to validate existing conditions.

**FIELD DATA COLLECTION PLAN**

The collection of field data is expected to focus primarily on conducting operational and infrastructure-related data collection and will be used to complete the analysis and evaluation of the corridor and the feasibility of possible congestion management/safety projects. Although the majority of field data collection is expected to occur following the initial evaluation and analysis of key traffic operational characteristics and land use attributes along the corridor, the process for evaluating the following data has already begun:

- Evaluation of the availability/usability of traffic operations data collected along the corridor as part of Phase I.
- Preliminary inventory of major roadway cross-sections and "neighborhood collector" streets to determine the extent of existing conditions data collection necessary to establish multimodal Quality/Level of Service.

The following are potential data items that may be collected as part of the Phase II "field" data collection:

- Typical roadway sections
- ADA field assessments
- Travel time data
- Driveway or local roadway turning movement counts

# Chapter 3:

# PUBLIC INVOLVEMENT PLAN

Hollywood/Pines Corridor Project

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# PUBLIC INVOLVEMENT OVERVIEW



*Please note: this chapter was developed and written at the beginning of the project, describing the public involvement process. For results of this Public Involvement Plan, please see Appendix 3A: Public Involvement Activities.*

A Public Involvement Plan (PIP) was prepared for the Hollywood/Pines Corridor Project to describe the process of how and when interested parties could be involved and the flow of information among all persons involved in the project. The PIP also describes how targeted audiences will be identified and engaged and evaluation measures to demonstrate the effectiveness of the public involvement activities as this project progresses.

The PIP incorporates the process and ideals identified in the Broward MPO's PIP (last revised October 10, 2011). The Broward MPO's PIP emphasizes the importance of participation and involvement of a broad range of interest groups to result in more creative and effective decision-making. The objectives of the Broward MPO's PIP are also applicable to the public involvement process for this specific project:

- **Inform** the public of project-related meetings and other events.
- **Educate** the public regarding their role in this project.
- **Involve** the public by providing opportunities early and often in the project process.
- **Reach out** to all communities affected by the project.
- **Improve** the public involvement process based on benchmark assessments and public feedback.

The public involvement process specific to the Hollywood/ Pines Corridor Project is in line with the methods outlined in the Broward MPO's PIP to ensure consistency between the public involvement and outreach goals of the project and the responsible entity.

# ROLES AND RESPONSIBILITIES

Three groups are responsible for the successful outcome of the Hollywood/Pines Corridor Project, which includes the public involvement and outreach component. These groups include the Project Team, the Project Advisory Committee (PAC) established specifically for this project, and the Broward MPO Board.

**PROJECT TEAM**

The Project Team consists of selected Broward MPO staff and the consultant team named through a competitive bidding process, led by Tindale-Oliver & Associates, Inc. (TOA). The role of the Broward MPO staff is to oversee the progress of the consultant team and provide direction as needed. Broward MPO staff also are responsible for administering the consultant contract, with direction from the PAC and Broward MPO Board. While it is the responsibility of the consultant team to execute this PIP, Broward MPO staff will provide support and guidance concerning public involvement and outreach throughout the course of this project. Specifically, the Broward MPO's Public Information Officer will be a resource for the consultant team to ensure consistency among the project, federal requirements, and Broward MPO public involvement procedures.

The role of the consultant team is to use the available technical and professional expertise to guide the project while following direction given by Broward MPO project staff, the PAC, and the Broward MPO Board. The consultant team is responsible for providing information and high-quality project deliverables to the Project Team, the PAC, and the Broward MPO Board in a timely manner. The consultant team also is responsible for executing this Public Involvement Plan in a manner that meets the public involvement goals and evaluation measures identified for this project.

**PROJECT ADVISORY COMMITTEE**

The Hollywood/Pines Corridor Project PAC was formed specifically for the purpose of providing technical review and overall guidance. The PAC is responsible for reviewing and responding to information provided by the Project Team and will ultimately provide recommendations to the Broward MPO Board concerning adoption and implementation of this project. Members of the PAC are municipal and implementing agency staff with high levels of expertise who will provide data and technical support and ultimately can pursue the implementation of projects and recommendations resulting from this effort. The PAC includes elected officials to increase awareness throughout the process and ensure the political support necessary for the ultimate implementation of project recommendations.

In addition to its advisory function and serving as a data and technical resource, the PAC is viewed as a public involvement resource that can function as an extension of the Project Team to inform individuals and groups about the project. It is envisioned that some PAC members may make short

presentations to members of their respective organizations/ agencies or externally at various meetings. The presentations will be brief and likely will mirror the short presentations made by the Project Team at the Community Information Meetings (described later in this chapter).

The PAC is anticipated to hold a total of nine meetings once the project contract is in place. The PAC has held several meetings prior to the contract to review the project scope and approve the project contract. All PAC meetings are open to the public and will be advertised according to the requirements of the Sunshine Law.

**BROWARD MPO BOARD**

The Broward MPO Board is a policy-making board comprising 19 voting members, including representatives from the South Florida Regional Transportation Authority/Tri-Rail (SFRTA) and the Broward County School Board, along with three Broward County Commissioners.

The Broward MPO meets on the second Thursday of every month, and meetings are open to the public. A minimum of two presentations to the Broward MPO Board are anticipated during the course of this project. It is anticipated that the first meeting will be to provide an initial bench-mark progress report (about midway through the project after Transportation and Land Use Analysis has been completed), and the second meeting will be to present the project findings, though the timing of these meetings may be adjusted based on the needs of the project. At these meetings, the Broward MPO Board may receive direct input from the public and may provide direction to Broward MPO staff and the consultant team regarding how that input should be incorporated into this project process. At the conclusion of this project, the Broward MPO will be asked to approve the recommendations developed for the Hollywood Pines Corridor Project.

The consultant team will provide guidance to the Broward MPO project staff and PAC regarding how issues raised during the public participation process may be addressed during the development of this project; however, the Broward MPO project staff, PAC, and Broward MPO Board will have the ultimate authority to determine if and how issues raised through public input are addressed in the process of developing this project.

# PUBLIC INVOLVEMENT GOALS

Four overarching goals pertaining to the public involvement and outreach process for the Hollywood/Pines Corridor Project were identified, as described on the following pages.

**GOAL 1: Early and Consistent Involvement**

Involve the public and stakeholder agencies early and regularly in the project by engaging during each of the three key phases of involvement:

A. *Informational Phase.* Inform the public and stakeholder agencies of the project's purpose, timeline, and major milestones, as well as how they can get involved and stay informed as the project progresses.

B. *Decisionmaking Phase.* Identify specific opportunities for the public and stakeholder agencies to provide input at key decision-making points that will affect the development of project deliverables.

C. *Review Phase.* Allow the public to review and provide input on a draft version of the completed products.

**GOAL 2: Opportunity**

Provide all citizens and interested stakeholder agency groups with the opportunity to participate in all phases of the public involvement process, with a focus on engaging traditionally under-represented or under-served populations.

**GOAL 3: Information and Communication**

Provide all citizens and interested stakeholder agency groups with clear, timely, and accurate information relating to the project as it progresses.

**GOAL 4: Range of Techniques**

Use a broad-spectrum of techniques to gather input from a diverse population within the project area. To ensure that the above goals are met, a wide range of public involvement and outreach techniques is proposed for use during the course of the Hollywood/Pines Corridor Project.

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal funds. In addition to consideration of minority and low-income persons required by Title VI, environmental justice also considers other groups of traditionally under-represented or under-served populations, such as older adults and transit-dependent persons, in the transportation decisionmaking processes.

# ENVIRONMENTAL JUSTICE



**ENVIRONMENTAL JUSTICE TARGET AREAS**

The corridor study area includes the section of Hollywood/ Pines Boulevard from US 27 to SR A1A. The study area also includes the area ½-mile to the north and ½-mile to the south of the boulevard. To determine the Environmental Justice Target Areas within the corridor study area, four socio-economic variables were reviewed:

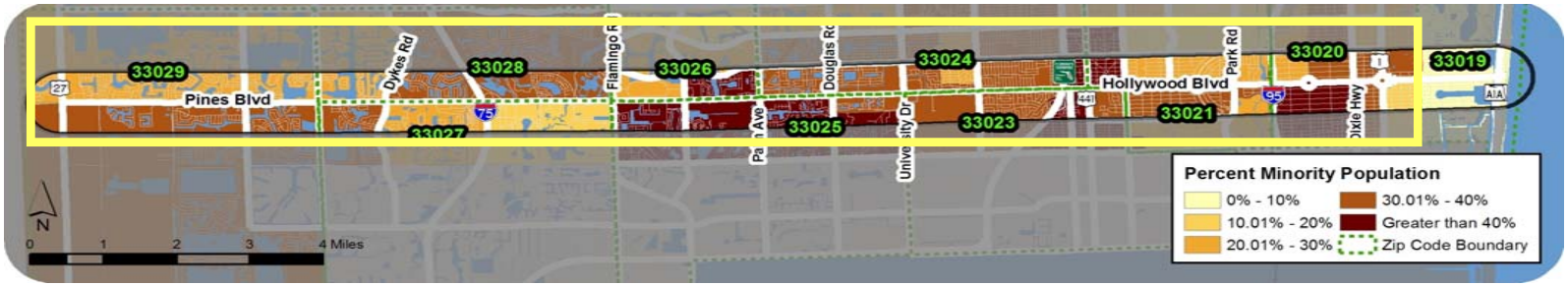
- Percent of Minority Population (Figure 3-1)
- Percent of Transit-Dependent Population (Figure 3-2)
- Percent of Population Below the Poverty Line (Figure 3-3)
- Percent of Population Age 65 and Over (Figure 3-4)

The Environmental Justice Target Areas shown on these four figures highlight locations where higher concentrations of population exhibiting these characteristics are found within the corridor study area. To determine the five thresholds for each variable, a Geographic Information Systems (GIS) analysis was performed and the data were separated into five classes based on natural groups in the data distribution. These areas of higher concentration, illustrated as Environmental Justice Target Areas on each figure, correspond to ZIP codes where population within the two highest thresholds for that socio-economic variable are found.

Figure 3-1 illustrates a significant portion of the corridor includes minority populations that make up 30 percent or more than the total population. Minority population is defined as "non-white" based on the U.S. Census categories of Race and Ethnicity. The significant minority population found throughout the entire corridor study area illustrates the need to strongly emphasize public participation and engagement tools that will evoke participation and input from the entire community. Environmental Justice Target Areas for the remaining three variables highlight smaller sub-areas within the corridor where higher concentrations of these populations are found and should be monitored.

A separate analysis of data provided by the U.S. Census Bureau's American Community Survey (2006–2010) (ACS) revealed that the percentage of Limited English Proficiency (LEP) persons within the project study area is 17.72 percent. The majority (12.90%) of these persons speak Spanish, with the remainder speaking French Creole (1.46%) or a variety of other languages (3.36%). Consistent with the Broward MPO's PIP, a LEP person is defined by the Census as a person that speaks "English less than very well." The Hollywood/Pines Corridor Project study area has a slightly higher percentage of persons considered LEP than Broward County as a whole (17.72% vs. 14.82%, respectively). Although included under the broader "minority" environmental justice population, the public involvement process will need to be sensitive to engaging the significant LEP population within this study area, as well as minorities, students, older adults, and other traditionally under-served populations, as appropriate.

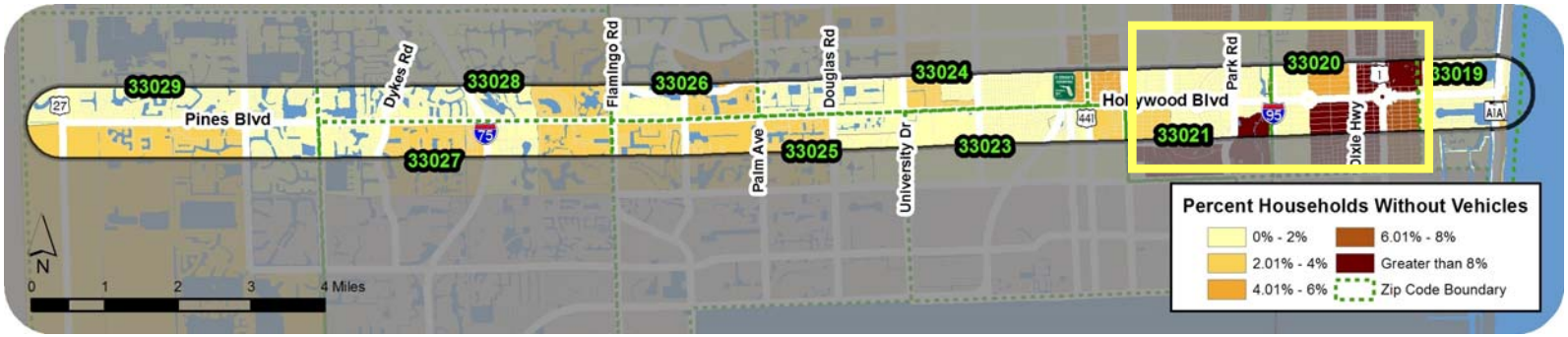
## Figure 3-1: Percent of Minority Population per Census Tract




Source: U.S. Census Bureau, 2010 Summary File 1

Environmental Justice Target Area

## Figure 3-2: Transit-Dependent Population per Census Tract




Source: U.S. Census Bureau, Five-Year 2010 American Community Survey

Environmental Justice Target Area

## Figure 3-3: Percent Below Poverty Line per Census Tract


Source: U.S. Census Bureau, Five-Year 2010 American Community Survey

Environmental Justice Target Area

## Figure 3-4: Percent of Population Age 65+ per Census Tract


Source: U.S. Census Bureau, 2010 Summary File 2

Environmental Justice Target Area

**ENVIRONMENTAL JUSTICE ASSESSMENT**

Participants in the public engagement activities for this project will be asked to provide ZIP code information so that analyses can be performed to determine where they live or work. Periodically, the Project Team will evaluate the distribution of participant ZIP codes to ensure that environmental justice target areas have reasonable participation in relation to the activities that have been undertaken to-date and participation within the entire study area. If it is determined that less than desired involvement is occurring is a specific area, adjustments can be made to the pubic involvement approach to better target participation from those areas. For example, if there is significantly less participation originating in the Transit-Dependent Environmental Justice Target Area compared to participation in the rest of the study area, one or more smaller community meetings within that immediate area may be necessary so participants will not have to travel as far to be involved.

# PUBLIC INVOLVEMENT AND OUTREACH TECHNIQUES

**PROJECT IDENTITY**

In an effort to create an identity for this project, a logo will be developed for approval by the PAC. The logo will be aesthetically pleasing and convey the concept of the project, but also will be consistent with the brand of the Broward MPO. The logo will be used on all printed materials, presentations, and the project website to identify materials and other efforts related to this project.

**PROJECT WEBSITE**

A website for the Hollywood/Pines Corridor Project will be developed early in the process to provide benefit during the "Informational Phase" of the project. The website will be a principal method for gaining continuous input from both stakeholder agencies and the public and will provide a consistent stream of information regarding the project to the stakeholder agencies and the public. It is recommended that the website be designed as a website independent from the existing Broward MPO site consistent with the project brand. For ease of access, the project website can be made accessible from the homepage of the Broward MPO website as well as by an independent URL. A link to the project website can also be provided on the websites of other agencies and organizations involved in this process.

Via the website, the user will be able to accomplish the following:

- Access the calendar of events, including alerts for upcoming public input opportunities.
- Provide an e-mail address to receive e-mail notices, newsletters, and other information electronically.
- Provide input via surveys, polls, discussion boards, etc.
- Provide comment on documents, maps, presentations, and other work products.

The Hollywood/Pines Corridor website is anticipated to be "live" in September 2012 and will consist of the following elements:

- **Homepage** will provide all the basic information about the project in an easy-to-navigate format. Information to be included on the homepage will include:
  - A brief introduction to the project.
  - Alerts advertising upcoming public involvement activities (e.g., public meetings, new surveys, etc.).
  - A "quick links" section whereby important tools and links (e.g., calendar, project schedule, e-blast sign up, etc.) can be easily accessed.
  - A form for contacting the Broward MPO Project Manager with questions, concerns, etc.
- **"Project Information" Page** will provide a more detailed introduction to the Hollywood/Pines Corridor Project than is provided on the homepage and will be updated regularly to reflect progression of the project. This page also will include a map of the study area and a regularly-updated project schedule.
- **"Get Involved" Page** will be the main source of public input for the project and will include:
  - Calendar of upcoming meetings/events.
  - Form to request a brief presentation at an existing community meeting (i.e., a Community Information Meeting).
  - Form to join the mailing list.
  - Surveys and discussion boards that will be tailored to solicit response on specific topics throughout the project.
- **"Documents and Materials" Page** will provide to the public the latest documents and other project materials for viewing and download. In addition, the public also will be able to provide general comments on documents and other project material. Documents will be organized by subject area, such as the following:
  - Project Advisory Committee Meetings
  - Technical Reports
  - Public Involvement
  - Newsletters
  - Press Releases
  - Presentations
  - Photo Gallery
- **"Other Resources" Page** will provide links to outside agencies/organizations or to studies previously conducted that are relevant to the Hollywood/Pines Corridor Project, enabling the public to easily access additional information if desired.

**COMMUNITY CONTACT DATABASE**

A database of community contacts will be developed early in the project to identify and collect contact information for community and stakeholder agency representatives as well as

members of the public who wish to be engaged in this planning process.

To develop the initial community contact database, the following steps will be undertaken:

- Research municipal websites of the cities of Hollywood and Pembroke Pines for public officials' names and contact information, including elected office holders, municipal managers, deputies, and key staff.
- Ask representatives from the City of Pembroke Pines and Hollywood, as well as other PAC members, what contacts from local agencies and organizations should be included in the database. This effort also includes working with the Public Information Officer from each municipality.
- Contact staff of public officials and transportation agencies to learn of transportation activists or other potentially interested stakeholders and to obtain contact lists from recent transportation studies and projects .
- Contact the Clerk's Office for the City of Hollywood and City of Pembroke Pines to obtain lists of homeowners associations and proof lists to account for changes.
- Conduct research at city halls and regional libraries to supplement the consultant team's major media list with local newspapers, magazines, and blogs.
- Obtain property tax and occupational license data for the database manager to merge.
- Scout the transportation corridor for major employers, educational institutions, hospitals, and commercial interests and contact them to determine who should be added to the database.
- Review the South Broward subset of the consultant team's in-house database for other potential stakeholders.

It is envisioned that the community contact database will include, but may not be limited to, representatives from the following groups:

- Local, state, and federal departments, agencies and representatives; both PAC members and non-PAC members
- Special interest groups, including civic, political, and cultural organizations
- Members of the private sector, including land/property owners
- Professional and business groups
- Redevelopment agencies
- Public and private educational facilities
- Members of the media
- Interested members of the general public

Over the course of the project, the contact database will grow to include people attending the various public outreach events or who use the website form to submit their contact information.

**COMMUNITY INFORMATION MEETINGS**

As the project continues to progress, it is critical to maintain an outreach program to inform the community about the project and solicit preliminary input related to corridor mobility and livability issues.

One way this will be accomplished is through the use of Community Information Meetings. These meetings will be held throughout the three phases of the project previously described under Goal 1 (Informational Phase, Decision-Making Phase, and Review Phase). These meetings will help inform the public of upcoming engagement activities and direct interested persons to the project website.

A community information meeting is a brief presentation (10–15 minutes) made by a representative of the Project Team to an organization or agency during its existing meeting. "Piggy-backing" on these organizations' already-scheduled meetings/ events provides an existing audience and forum, making these meetings extremely cost- and time-effective. Up to 20 Community Information Meetings are anticipated for this project.

The purpose of the Community Information Meetings is to both provide an overview presentation of the project and let the attendees know how they can receive more information about and participate in this project. Meeting attendees will be provided with a leave-behind flyer and comment form available in English and Spanish. Attendees who provide their contact information will be added to the community contact database to receive project updates and information via e-mail. As part of the evaluation process, comment forms will be made available to participants to complete.

**PROJECT INFORMATIONAL MATERIALS**

Project informational materials will be prepared as leave-behind materials to inform the public about the project and direct them to the project website for future public engagement opportunities.

- High-level and simple-to-understand materials (i.e., fact sheet, flyer, brochure, etc.) will be prepared and distributed primarily at Community Information Meetings. These materials also may be placed in government and community offices, provided to the media, and circulated as part of the Broward MPO newsletter and/or e-mail blasts.
- Project e-newsletters will be created to provide updates as the project progresses. The e-newsletters will provide highlights from the technical analysis, a summary of public input received to date, and notice of upcoming events/ public input opportunities. Four project e-newsletters are planned to be provided during the course of this project.
- Brief e-mail notices will be created to inform those in the contact stakeholder database of upcoming meetings/ events or opportunities for input on the project website.

Electronic project information, such as e-newsletters and e-mail notices, will be sent to those included in the community contact database, made available on the project website, and excerpted (as desired) for the Broward MPO newsletter.

It is important to update the informational materials as the project progresses, but creating too many versions or providing information too often can dilute interest. Therefore, it is proposed that project informational materials be modified in conjunction with the three phases of public involvement identified under Goal 1:

A. *Informational Phase.* This project information will inform the public and stakeholder agencies of the project's purpose, timeline, and major milestones, as well as how they can get involved and stay informed as the project progresses. Highlighting the project website, availability of community meetings, and project timeline are important here.

B. *Decisionmaking Phase.* This information will identify specific opportunities for the public and stakeholder agencies to provide input at key decision-making points. Identifying details for community meetings, website

activities, and other opportunities for the public's input to influence the decisions of this project are important here.

C. *Review Phase*. Information for this phase will provide high-level results of the project and identify opportunities where full documents can be reviewed, input can be provided on draft versions of the completed products, and presentations will be made to present the findings.

**AGENCY/COMMUNITY STAKEHOLDER INTERVIEWS**

In addition to the PAC members, other community stakeholders will play an important role in providing input and direction for this project. To gather this input, a total of 10 community stakeholder interviews will be conducted early in the project to help get a baseline understanding of the project issues, concerns, and opportunities. The list of stakeholders will be identified using input from the Broward MPO project manager and the PAC. A summary of the common themes/ issues identified by the stakeholders will be prepared and shared with the PAC.

**COMMUNITY VISIONING WORKSHOPS**

As part of the scenario planning process for this corridor, two community visioning workshops will be held to obtain input from the public related to the future vision for transportation and land use. Recognizing that there are two very different communities in the study area, the intent is that one workshop will be held in and focus on issues related to Pembroke Pines, and one will be held in and focus on issues related to Hollywood.

During the Community Visioning Workshops, interactive techniques will be used to obtain input from the public on transportation/congestion management strategies and livability issues and re/development scenarios. The input will be incorporated into the technical analysis to help identify a preferred development scenario for selected Mobility Hubs and the identification of priority projects and recommendations. Mechanisms for follow-up input from these meetings (via surveys, polls, etc.) will be posted on the project website to obtain feedback on these topics from those not able to physically attend either visioning workshop.

**TELEPHONE "iTOWN HALL" MEETING**

A telephone town hall meeting is a live forum where people can participate via phone without traveling to a meeting site. The telephone town hall meeting uses voter registrations to obtain phone numbers of residents within the study area. An initial automated call can be made to inform the public about the upcoming telephone town hall meeting. During the meeting, maps or graphics can be used via the Internet to accompany the speakers. The public is able to follow the meeting and submit comments during the forum to be answered by the project team. A separate toll-free number can be provided to allow people to call in if unavailable to take the automated town-hall phone call. This also allows business owners and others who are not residents of the study area to participate in the meeting. Questions and answers generated during this telephone meeting will be published on the project website. The project will support one telephone town hall meeting to gather input from the public using this forum, although the use and timing of this tool can be decided at a later date.

**MULTIMEDIA/ALTERNATIVE PUBLIC ENGAGEMENT**

Flexibility has been built into the project scope and budget so that multimedia or alternative public engagement activities, such as those listed below, may be used:

- Public Access TV – The Project Team can coordinate with local public access TV production staff to develop content for a public access seminar related to the project corridor.
- Intercept Surveys – The Project Team can conduct surveys to engage members of the community in the field, on buses, or at other public places.
- Social Media – Social media accounts, such as Facebook or Twitter, can be created and maintained to broadcast project information and direct interested parties to the official project website. Social media will be used for informational purposes only, such as meeting notification, and not to solicit public input.
- Paid Advertising – Newspaper or other advertisement beyond basic public notice requirements may be engaged to help promote interest in the Community Visioning Workshops or other public engagement events.
- Additional Community Meetings – Additional community informational meetings or meetings/interviews with stakeholder agencies, local policy leaders, etc., can be held as requested/desired.

**PROJECT MEETINGS AND WORKSHOPS**

Up to 10 meetings with local policy makers are planned for this project. Each of these meetings will be open to the public to provide a forum in which they can provide comments on the project. In addition to the Broward MPO Board, it is envisioned that presentations will be made to the City Commissions of Pembroke Pines and Hollywood and to the Broward County Board of County Commissioners. It is anticipated that the first meeting with each group will be to provide an initial bench-mark progress report (about midway through the project after Transportation and Land Use Analysis has been completed), and the second meeting will be to present the project findings and request official action be taken concerning the recommendations of the Hollywood Pines Corridor Project. The timing of these meetings may be adjusted based on the needs of the project.

**SUMMARY OF PUBLIC INVOLVEMENT AND OUTREACH**

Table 3-1 presents a summary of the meetings, events, and outreach efforts planned as part of this PIP developed for the Hollywood/Pines Corridor Project.

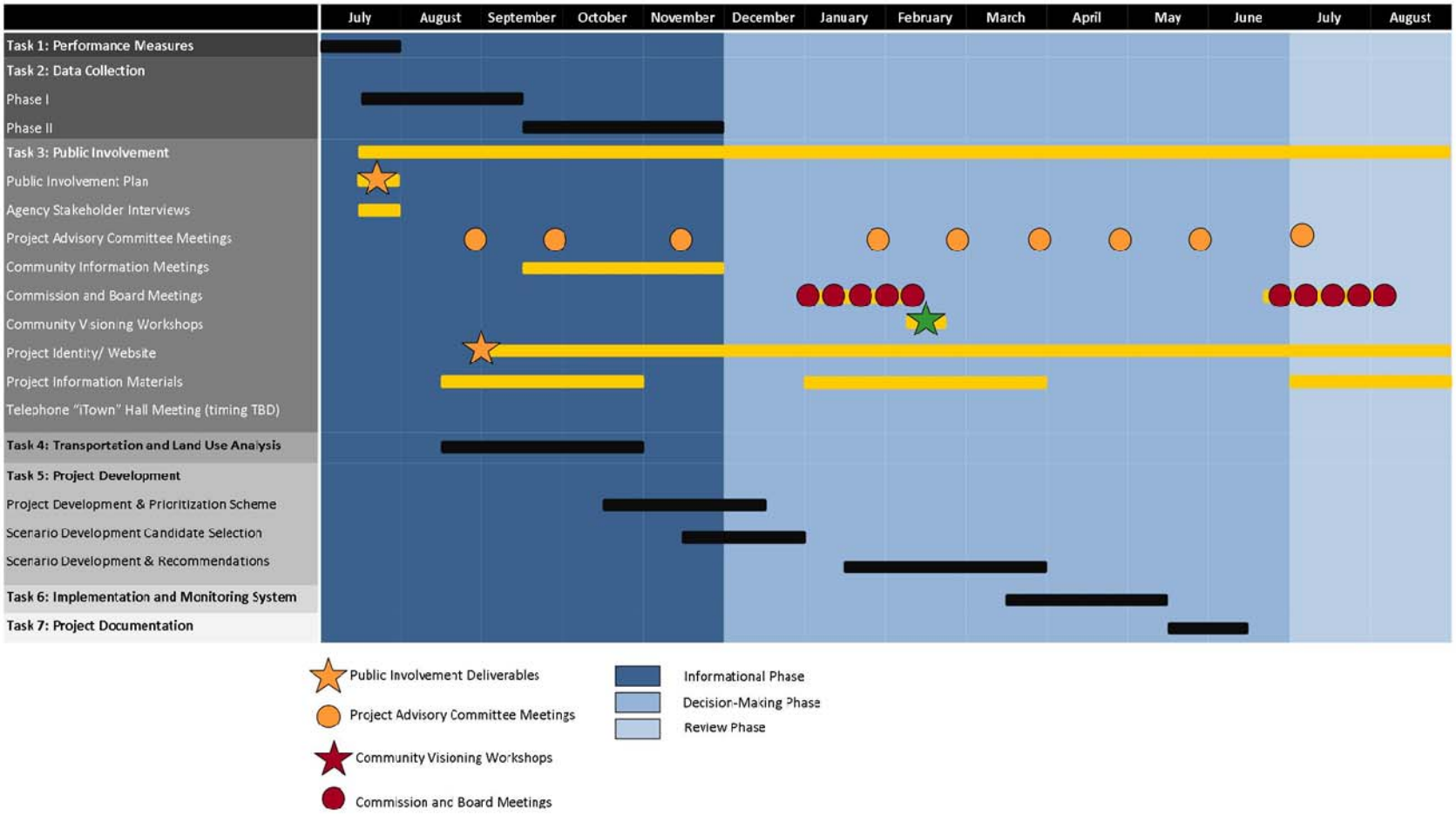
Table 3-1: Summary of Public Involvement and Outreach

| Description | Number Planned |
|---|---|
| Project Advisory Committee briefings | 9 |
| Project e-newsletters | 4 |
| Project email notices | 10 |
| Agency/Community stakeholder summaries | 10 |
| Community information meetings | 20 |
| Community visioning workshops | 2 |
| Council/Board briefings | 10 |
| Telephone “iTown” Hall meeting | 1 |

# PUBLIC INVOLVEMENT TIMELINE

The timeline presented in Figure 3-5 provides an overview of the project schedule and includes the planned timing for the public involvement activities outlined in this PIP. The specific timing of each activity will be determined as the project progresses and will be posted to the event calendar on the project website.

## Figure 3-5: Public Involvement Timeline



# PUBLIC INVOLVEMENT EVALUATION MEASURES

To measure the effectiveness of the PIP, evaluation measures have been developed for each public involvement goal identified for this project. The success of the PIP against these evaluation measures will be evaluated midway through the project and at the end of the project, with the findings documented in the public involvement section of the technical report.

## Table 3-2: Public Involvement Evaluation Measures

| Public Involvement Goal | Strategy | Evaluation Measure |
|---|---|---|
| **Goal 1: Early and Consistent Involvement**<br><br>Involve the public and stakeholder agencies early and regularly in the project by engaging during each of the three key phases of involvement. | • Stratify a variety of public involvement and outreach activities to provide opportunity during each of the three phases of the project: Information Phase, Decision-making Phase, and Review Phase (see Figure 1: Public Involvement Timeline).<br><br>• Increase the number of individuals providing input and requesting information as the project progresses through each of the three phases. | • Prepare and maintain a public involvement schedule that includes a variety of activities during each phase of the project.<br><br>• Catalogue the number of participants (both website "hits" and participants at physical meetings) on a monthly basis throughout the project. |

| Public Involvement Goal | Strategy | Evaluation Measure |
|---|---|---|
| **Goal 2: Opportunity**<br><br>Provide all citizens and interested stakeholder agency groups with the opportunity to participate in all phases of the public involvement process for this project, including those included in the traditionally under-represented populations, such as youth, persons with disabilities, older adults, or those who have limited English proficiency (LEP). | • Provide multiple opportunities for input regarding a specific subject/area so that if a person cannot attend a meeting or activity in person, he/she can still provide input via the website or a secondary forum.<br><br>• Identify target groups early on in the process during the initial compilation of the Community Stakeholder Database.<br><br>• Provide printed marketing-type materials in both English and Spanish.<br><br>• Provide either Spanish or French Creole translators at meetings where persons with LEP are expected.<br><br>• Provide a language translation function on project website. | • Request ZIP code information from all public involvement participants to analyze participant location compared to identified environmental justice target areas. Update map of participant ZIP codes bi-monthly to determine if efforts need to be adjusted to increase participants from those target areas, as well as other specific geographic areas. |

| Public Involvement Goal | Strategy | Evaluation Measure |
|---|---|---|
| **Goal 3: Information and Communication**<br><br>Provide all citizens and interested stakeholder agency groups with clear, timely, and accurate information relating to the project as it progresses. | • Provide information at regular intervals via the project website and other means.<br><br>• Provide summaries of technical information in a format that is easily understood by the public.<br><br>• Make information available to the public at the Broward MPO office for those individuals who do not have access to the project website (e.g., providing printed copies of newsletters, presentations, summaries at the Broward MPO office available for pick up, etc.) | • Provide comment forms that participants can submit in writing (made available via meetings or for pick up at the Broward MPO office) or via website during the project process to determine if adjustments should be made to improve the public involvement process or better engage participants.<br><br>• At the close of the project, send a survey to all participants in the contact database to assess the quality, diversity, timeliness, and convenience of the public involvement process. |
| **Goal 4: Range of Techniques**<br><br>Use a broad-spectrum of techniques to gather input from a diverse population within the project area. | • Employ the techniques identified in this PIP to provide a broad range opportunities, including website, meetings, printed materials, and alterative media formats as supported by the project. | • At the conclusion of the project, conduct an assessment of the public involvement process to:<br>- Demonstrate how each public involvement goal was met<br>- Determine the participation from targeted environmental justice areas<br>- Determine the effectiveness of the public involvement process from the participant's perspective using feedback obtained during the process and the post-project survey |


# Chapter 4:

# TRANSPORTATION ANALYSIS SUMMARY

Hollywood/Pines
*Corridor Project*
www.hollywoodpinescorridorproject.com

broward MPO
metropolitan planning organization

# INTRODUCTION

Developing an integrated, well connected transportation network requires infrastructure investments that all users of the network to be able to seamlessly transition from one mode to the next. The purpose of the Transportation Analysis contained within this chapter is to summarize the analyses conducted to assess the existing transportation network conditions along the corridor.

This chapter contains analysis on the following topic areas:

- Traffic Volumes - focuses on identifying segments within the corridor that are currently experiencing higher levels of vehicular traffic and congestion.
- Multimodal Network - focuses on identifying where current multimodal network investments (sidewalks, bike lanes, paths) are located and where future investments may be needed.
- Transit Network - focuses on the existing transit network within the corridor and understanding how transit, especially stop-level ridership, can be used to prioritize future infrastructure investments.
- Crash History - includes an assessment of recent crash data and includes identifying where locations with a high re-occurrence of injury and fatal crashes, as well as a history of pedestrian and bicycle crashes.

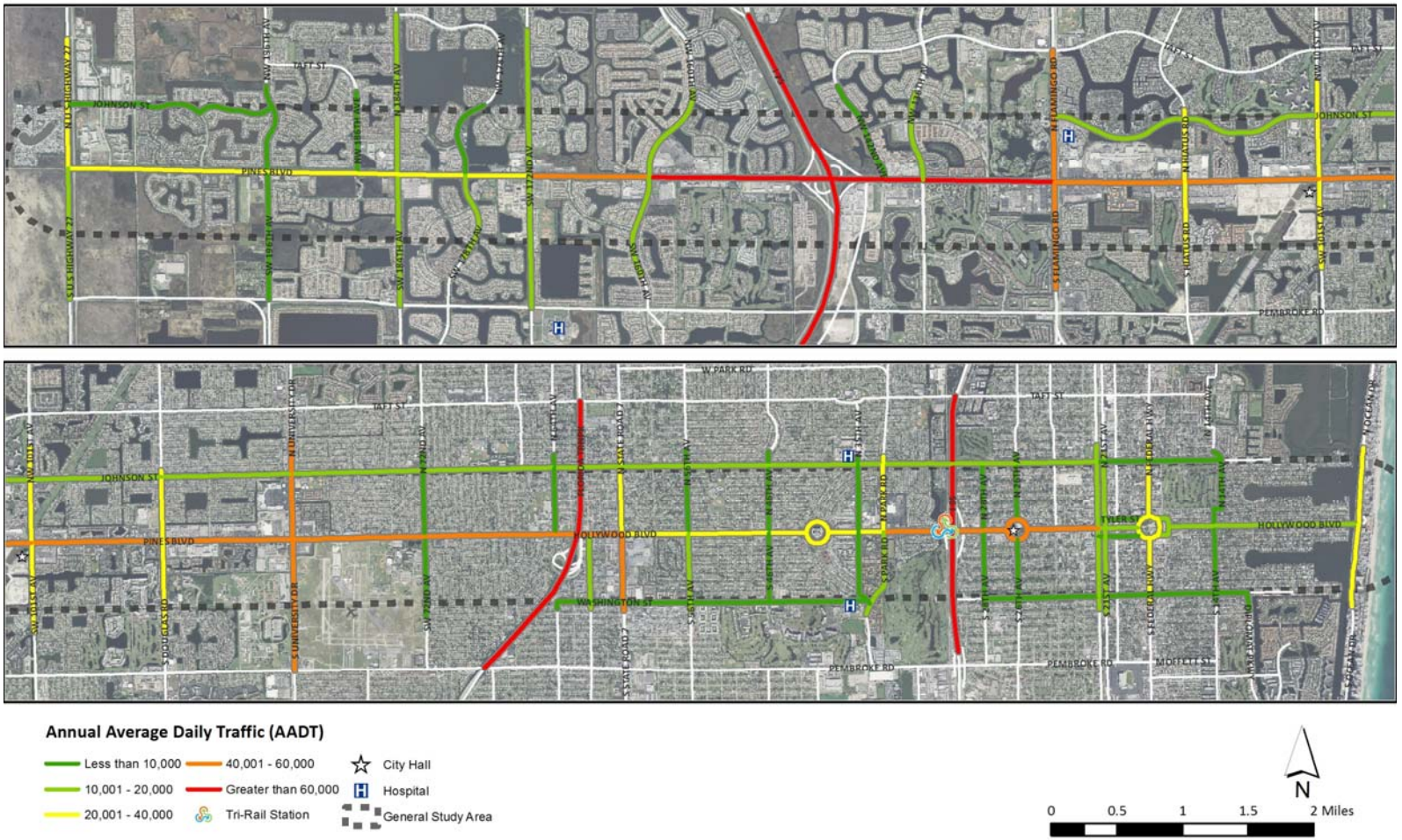
# TRANSPORTATION ANALYSIS

**TRAFFIC VOLUMES:**

To understand which elements of the roadway system had the greatest congestion and prioritize efforts to develop congestion management solutions, overall traffic volumes and estimated roadway level of service was analyzed. Figure 4-1 shows existing Annual Average Daily Traffic (AADT) or traffic volumes. This map is based on the most recent system-wide counts available from the Broward MPO (2009) and available State Highway System counts provided by the FDOT Transportation Statistics Office. As shown the map, the highest traffic volumes in the corridor along non-limited access roadways are along Pines Boulevard in the vicinity of I-75.

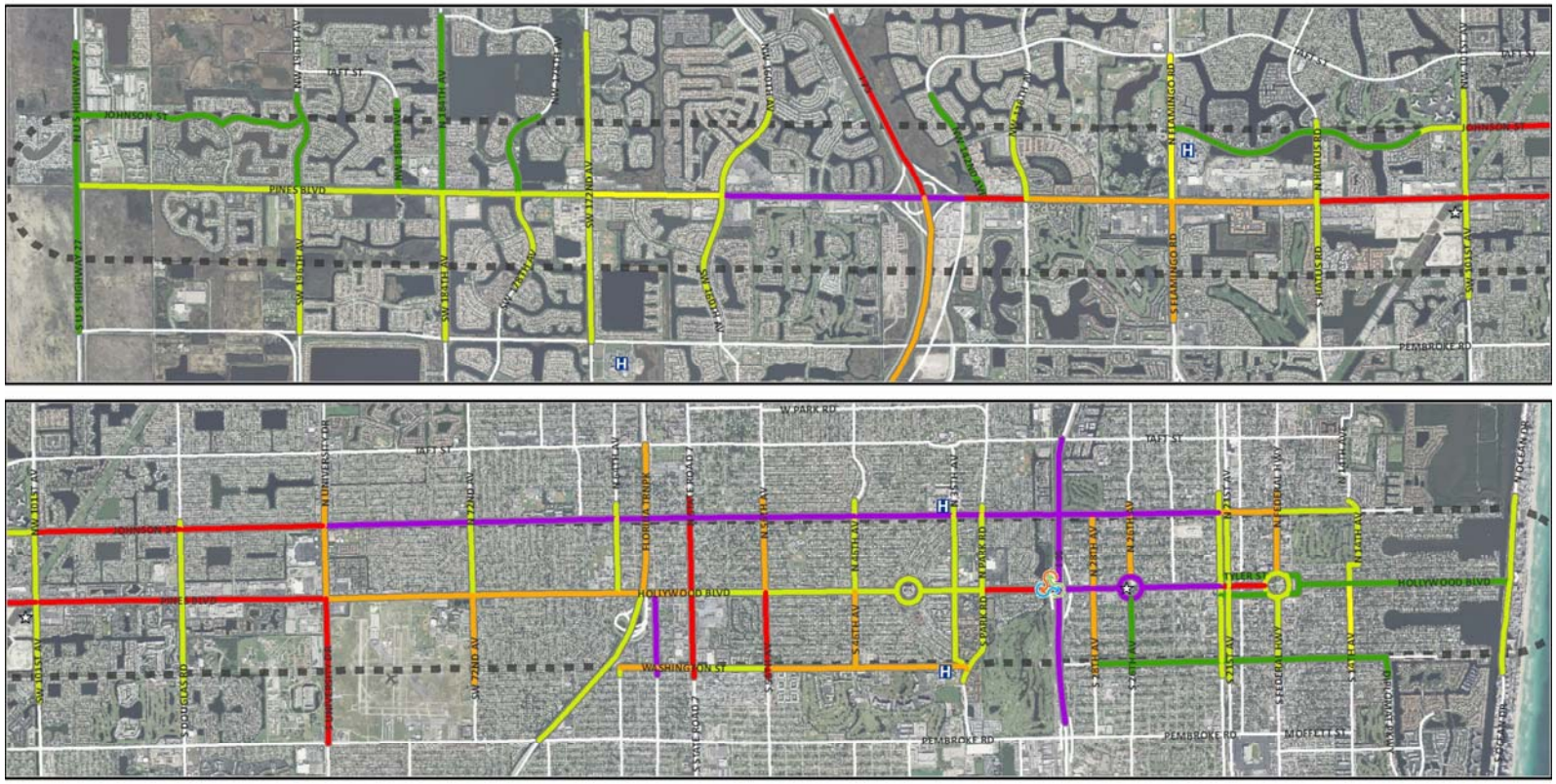
While it is important to understand overall roadway traffic volumes, AADT alone does not indicate the extent to which roadways are congested. Short of performing detailed intersection analyses, daily roadway volume-to-capacity (v/c) ratios can be used to identify roadway segments and intersections that are likely to be congested. Figure 4-2 shows the existing v/c ratios within the corridor. Generally roadway segments with v/c ratios less than 0.80 will have little to no congestion while segments with a v/c ratio above 1.0 may be congested depending on more detailed operational and travel demand characteristics. Segments with v/c ratios above 1.2 are almost certain to be congested regardless of operational factors. As shown in Figure 4-2 there are many roadway segments within the corridor that exhibit congestion.

Figure 4-1: Annual Average Daily Traffic (AADT)




2009 Annual Average Daily Traffic - data from the Broward MPO roadway inventory GIS data

Figure 4-2: Volume to Capacity Ratio




Roadway volume and capacity data (2009) from the Broward MPO roadway inventory GIS data

**MULTIMODAL NETWORK:**

Through a review of recent aerial photography and limited field reviews, existing multimodal network was identified. The review process was used to identify gaps in the existing bicycle and pedestrian facility network (bike lanes, sidewalks, and trails) and was used to help identify and prioritize locations for potential multimodal network enhancements.

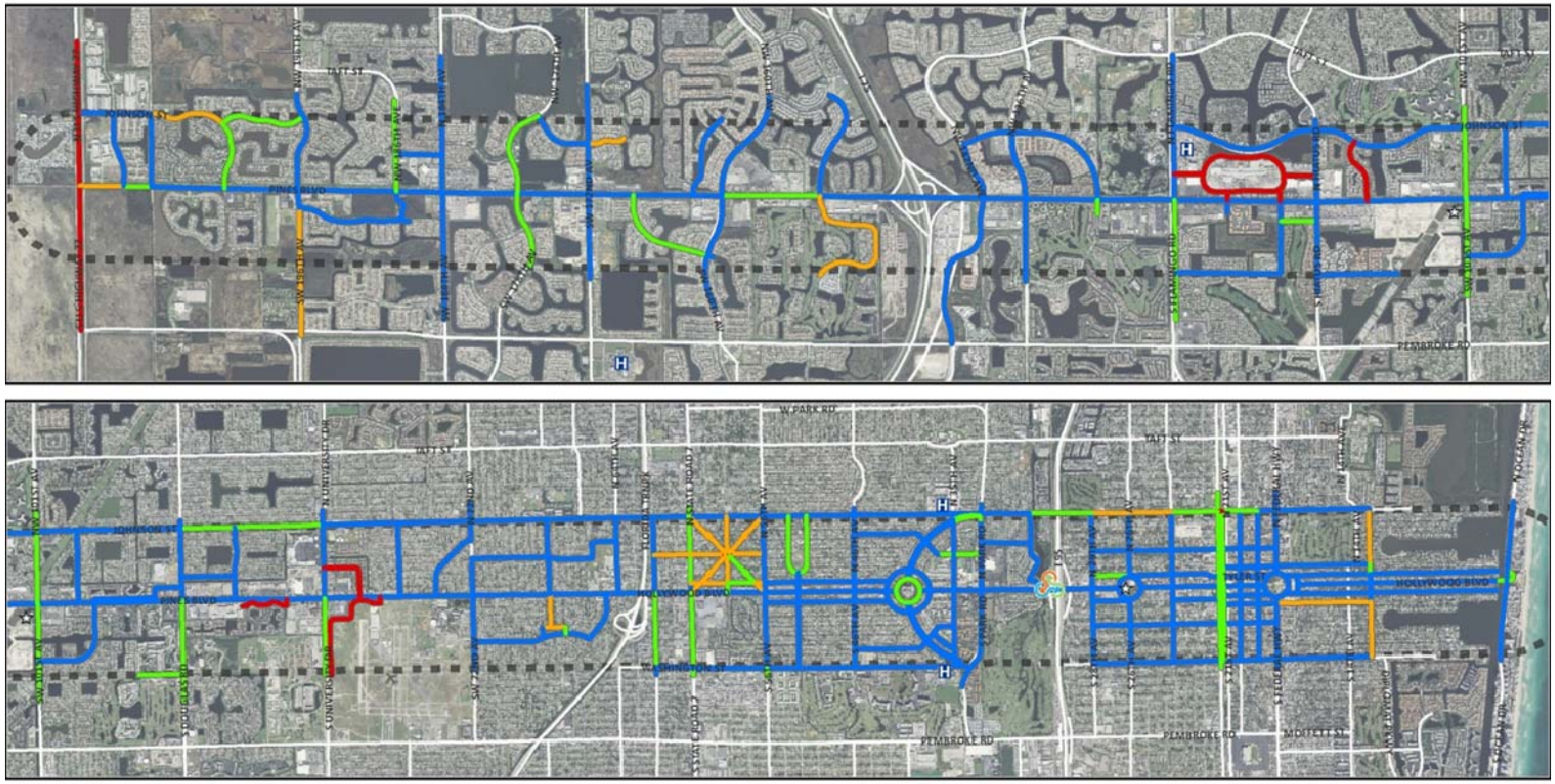
Figure 4-5 shows the identified sidewalk network along the major roadway system within the study corridor. While much of the corridor network has existing sidewalks, there are still some roadway segments that have either incomplete sidewalks or no sidewalks.

Figure 4-6 shows the identified bicycle facility (bike lane) network. Unlike the existing sidewalk network, many of the roadway segments within the corridor do not have existing on-street bicycle facilities. Issues such as missing right-turn lane bike lane "key-holes" were also identified through the field review process but are not shown on the Map. These are however included in recommendations as part of Chapter 6.


Figure 4-3: Example of a sidewalk along Hollywood Boulevard

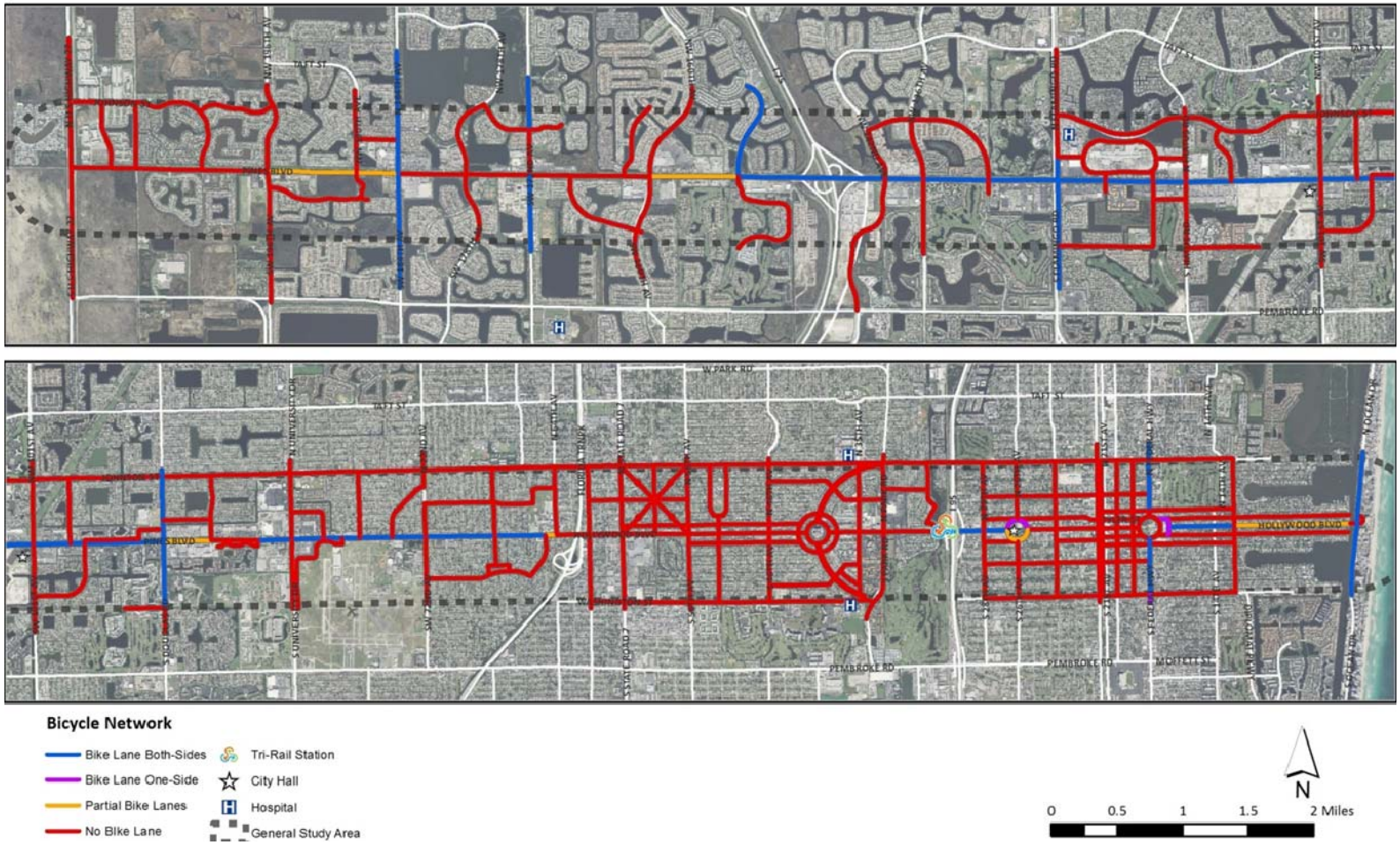
Figure 4-4: Bicycle lane along Pines Boulevard near University Avenue

Figure 4-5: Multimodal Network - Sidewalks




Source: Aerial imagery and field data review

Figure 4-6: Multimodal Network - Bicycle Lanes




Source: Aerial imagery and field data review

**TRANSIT NETWORK:**

This section provides an evaluation of existing transit service within the corridor and summarizes existing fixed-route service, community bus route service, and commuter rail services.

***Existing Fixed-Route Bus Service***

Broward County Transit (BCT) is the main transit service provider within the corridor and serves the corridor with 11 local routes, 2 express route, and 3 breeze (commuter) routes. Route 7 (Hollywood/Pines Blvd) is the main east/west route that serves the corridor, and runs between US 27 to the west and Young Circle to the east. Most of the other BCT routes within the corridor provide north-south transit service. Figure 4-9 shows the existing route alignments within the corridor. Table 4-1 provides summary information on all of the BCT routes that serve the corridor. Included in Table 4-1 is information on route frequency and span, and average daily and hourly ridership figures.

Figure 4-10 displays stop-level ridership figures throughout the corridor. As shown in Map 4-6 some of the highest ridership areas along the corridor are located where Hollywood/Pines Boulevard intersects US 1, State Road 7, University Avenue, and 24th Avenue. Table 4-2 lists the top 20 stops within the corridor in terms of daily ridership.


Figure 4-7: BCT Route 7, stop along Pines Boulevard near Flamingo Avenue

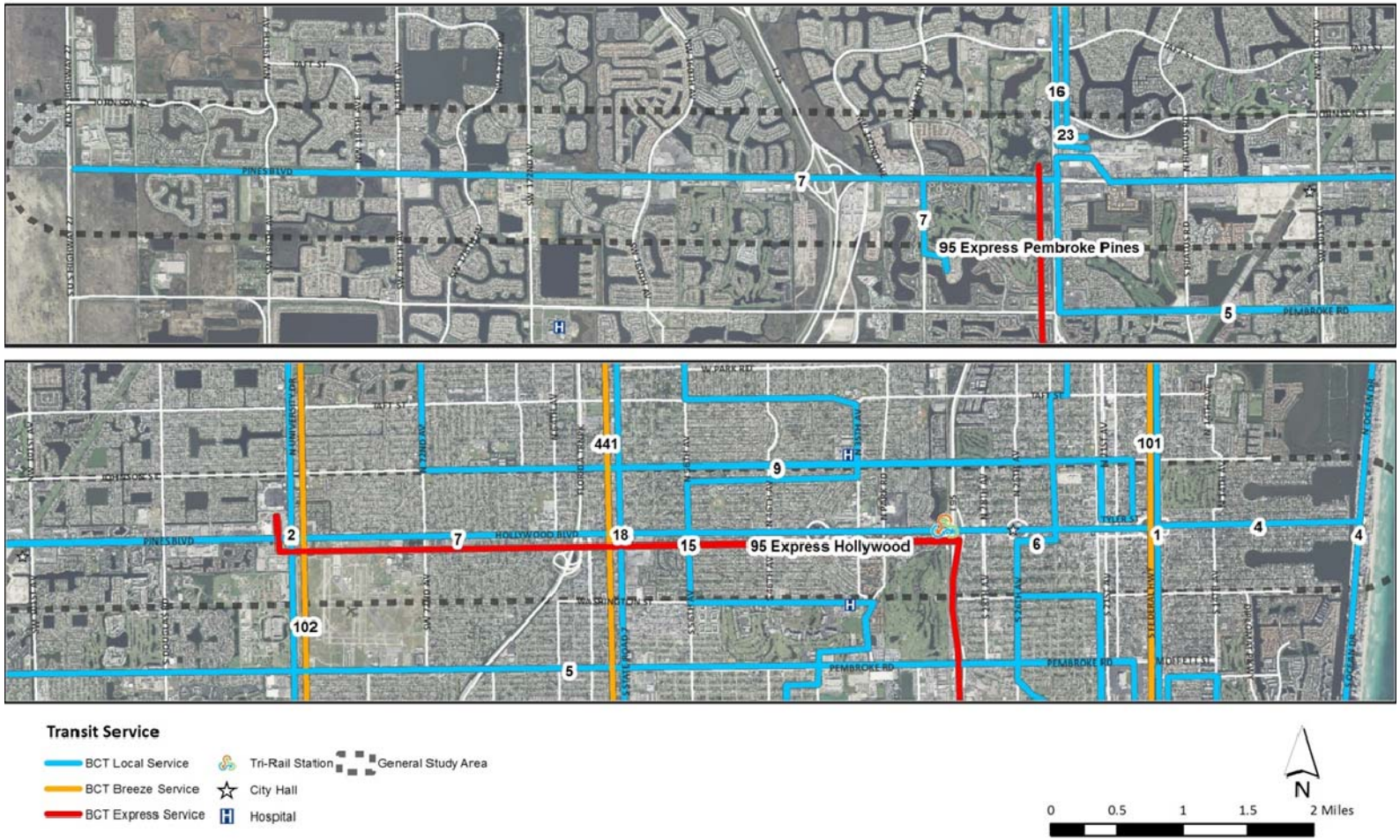
Figure 4-8: BCT Route 7, stop along Hollywood Boulevard near State Road 7

# Table 4-1: BCT Route Service and Ridership Summary

| Routes | Service | Corridor | Service Days | Weekday Span (hours) | Weekday Peak Headway (minutes) | Weekday Off-Peak Headway (minutes) | Average Weekday Ridership (Sept. '13) | Weekday Passengers per Hour (Sept. '13) |
|---|---|---|---|---|---|---|---|---|
| 1 | Local | US 1 - South of Broward Terminal | Weekday, Weekend | 18.75 | 15 | 15 | 7,320 | 44.2 |
| 2 | Local | University Drive | Weekday, Weekend | 19.00 | 20 | 30 | 6,547 | 38.5 |
| 4 | Local | A1A - Dania Beach Blvd to Hallandale | Weekday, Weekend | 17.00 | 45 | 45 | 919 | 18.8 |
| 5 | Local | Pembroke Rd - Hallandale Bch City Hall | Weekday, Weekend | 16.00 | 30 | 45 | 1,610 | 27.8 |
| 6 | Local | Broward Terminal - SR 84 - County Line Rd | Weekday, Weekend | 17.50 | 30 | 30 | 2,340 | 25.6 |
| 7 | Local | Hollywood/Pines Blvd | Weekday, Weekend | 18.00 | 20 | 20 | 4,734 | 37.9 |
| 9 | Local | Broward Terminal - Davie Rd - Johnson St | Weekday, Weekend | 16.50 | 45 | 45 | 2,215 | 34.4 |
| 15 | Local | N 56th Ave - Griffin Road | Weekday | 13.00 | 60 | 60 | 182 | 11.6 |
| 16 | Local | Stirling Rd - Pembroke Lakes Mall | Weekday, Saturday | 14.75 | 30 | 60 | 1,047 | 25.4 |
| 18 | Local | State Road 7 | Weekday, Weekend | 19.50 | 15 | 15 | 14,813 | 48.4 |
| 23 | Local | Sawgrass Mills - Pembroke Lakes Mall | Weekday | 12.75 | 60 | 60 | 284 | 18.5 |
| 101 - (US 1 Breeze) | Breeze | US 1 Breeze | Weekday | 6.50 | 30 | 30 | 1,154 | 31.2 |
| 102 - (University Breeze) | Breeze | University Breeze | Weekday | 7.75 | 30 | 30 | 1,063 | 27.8 |
| 441 - (441 Breeze) | Breeze | 441 Breeze | Weekday | 14.75 | 30 | 30 | 2,389 | 45.1 |
| 95 Express Pembroke Pines | Express | 95 Express - Pembroke Pines - Miami | Weekday | 8.25 | 30 | 30 | 618 | 25.1 |
| 95 Express Hollywood | Express | 95 Express - Hollywood - Miami | Weekday | 8.25 | 30 | 30 | 203 | 10.1 |

Source: BCT and the BCT September 2013 Ridership Report

Figure 4-9: Existing BCT Bus Service




Source: Broward County Transit (BCT)

Hollywood/Pines Corridor Project

# Table 4-2: Top 20 Ridership Volume Stops with Amenity Information

| Stop ID | Stop Area | Routes | Route Direction | Daily Riders | Transit Shelter (Y/N) | Bench (Y/N) | Sidewalk (Y/N) | Bike Rack (Y/N) | ADA Accessible (Y/N) | Existing Bus Bay (Y/N) |
|---|---|---|---|---|---|---|---|---|---|---|
| 608 | Tyler St at Young Cir | 4; 7; 9 | WB | 1,741 | N | Y | Y | Y | Y | Y |
| 34 | Young Cir Publix | 1; 101 | NB | 1,562 | N | Y | Y | Y | Y | Y |
| 5041 | Pines Blvd at US 27 | 7 | EB | 499 | N | Y | N | N | N | N |
| 4566 | University Dr at Pines Blvd | 2; 102 | NB | 348 | N | Y | Y | N | N | Y |
| 4743 | SR 7 at Tyler St | 18; 441 | NB | 306 | N | Y | Y | N | N | N |
| 1540 | Pines Blvd at University Dr | 7; 107 | WB | 265 | Y | Y | Y | N | N | Y |
| 4583 | Hollywood Blvd at SR 7 | 7 | EB | 258 | N | Y | Y | N | N | N |
| 4249 | SR 7 at Hollywood Blvd | 18; 441 | SB | 222 | N | Y | Y | N | N | N |
| 3811 | Hollywood Blvd at N 24th Ave | 6; 7 | WB | 220 | Y | Y | Y | N | N | N |
| 1542 | Broward Community College Library | 7 | EB | 212 | N | Y | Y | N | N | Y |
| 340 | Hollywood Blvd at SR 7 | 7; 107 | WB | 211 | N | Y | Y | N | N | N |
| 4621 | Hollywood Blvd at SR 7 | 7 | WB | 209 | N | Y | Y | N | N | N |
| 3003 | Flamingo Plaza Publix | 5 | SB | 199 | N | Y | NA | N | N | N |
| 3517 | Pembroke Lakes Mall | 5; 7; 23 | WB | 198 | N | Y | Y | N | N | Y |
| 2449 | Broward Community College Library | 7 | WB | 191 | Y | Y | Y | N | N | N |
| 300 | University Dr at Pines Blvd | 2; 102 | SB | 185 | N | Y | Y | N | Y | N |
| 33 | US 1 at Polk St | 1 | SB | 184 | N | Y | Y | Y | Y | N |
| 3486 | N 24th Ave at Polk St | 6 | SB | 177 | N | N | Y | N | N | N |
| 4769 | Pines Blvd at University Dr | 7 | EB | 176 | Y | Y | Y | N | N | N |
| 3161 | Flamingo Plaza Publix | 5 | SB | 167 | Y | Y | NA | N | N | Y |



Data source: BCT May 2012 Stop GIS shapefile

Figure 4-10: BCT Stop-Level Daily Ridership


Data source: BCT May 2012 Stop GIS shapefile. Stops within 200 ft of each other were grouped to show high volume stop areas.

***Community Bus Service***

In addition to the regular fixed-route service provided by BCT, there are six community bus routes that serve the Hollywood/ Pines corridor (Figure 4-12) The six community bus routes are operated by BCT in partnership with the Cities of Pembroke Pines, Miramar, and Hallandale Beach. The community bus routes primarily serve residential areas and help connect riders to the routes that serve the major thoroughfares. Table 4-3 provides a service summary for each community bus route, including a list of the BCT "fixed" routes that each community bus route connects to along with the average monthly ridership and average weekday passengers per hour figures for each route.

***Hollywood Downtown/Beach Trolley Service***

In addition to Community Bus Service, the City of Hollywood Community Redevelopment Agency (CRA) operates a trolley bus system funded by a Public Transport Service Development Grant from the Florida Department of Transportation with matching funds from the Hollywood Community Redevelopment Agency and its funding partners: City of Hollywood, Broward County, Children's Services Council and South Broward Hospital District.

The trolley operates Wednesday through Sunday from 10am - 10pm Wednesday, Thursday, and Sunday and from 10am - 11pm Friday and Saturday. A map of the trolley system showing the three routes is included as Figure 4-13.

***Commuter Rail Service***

Commuter rail service (Tri-Rail) is provided by the South Florida Regional Transportation Authority (SFRTA). Tri-Rail operates 7 days a week and provides service between Palm Beach County and Miami-Dade County. Hollywood Station is the Tri-Rail stop within the corridor. Figure 4-11 shows the historic annual Tri-Rail ridership for Hollywood Station from the 2011 SFRTA Annual Report. Ridership at Hollywood Station peaked in 2008 with over 220,000 riders and while it has declined some since, it has still seen a nearly 20 percent increase in annual ridership since 2002. Weekday service to Hollywood Station operates from 5 am to 10 pm and while headways vary throughout the day trains typically run 20-30 minute headways during the AM and PM peak hours and hourly throughout the remainder of the day.

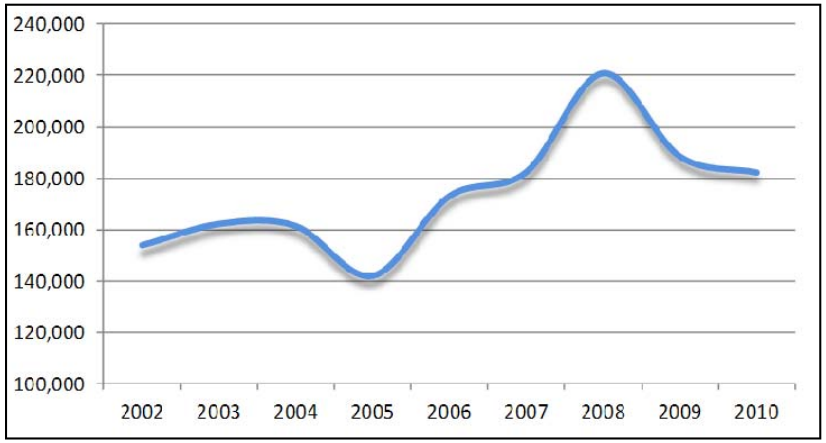
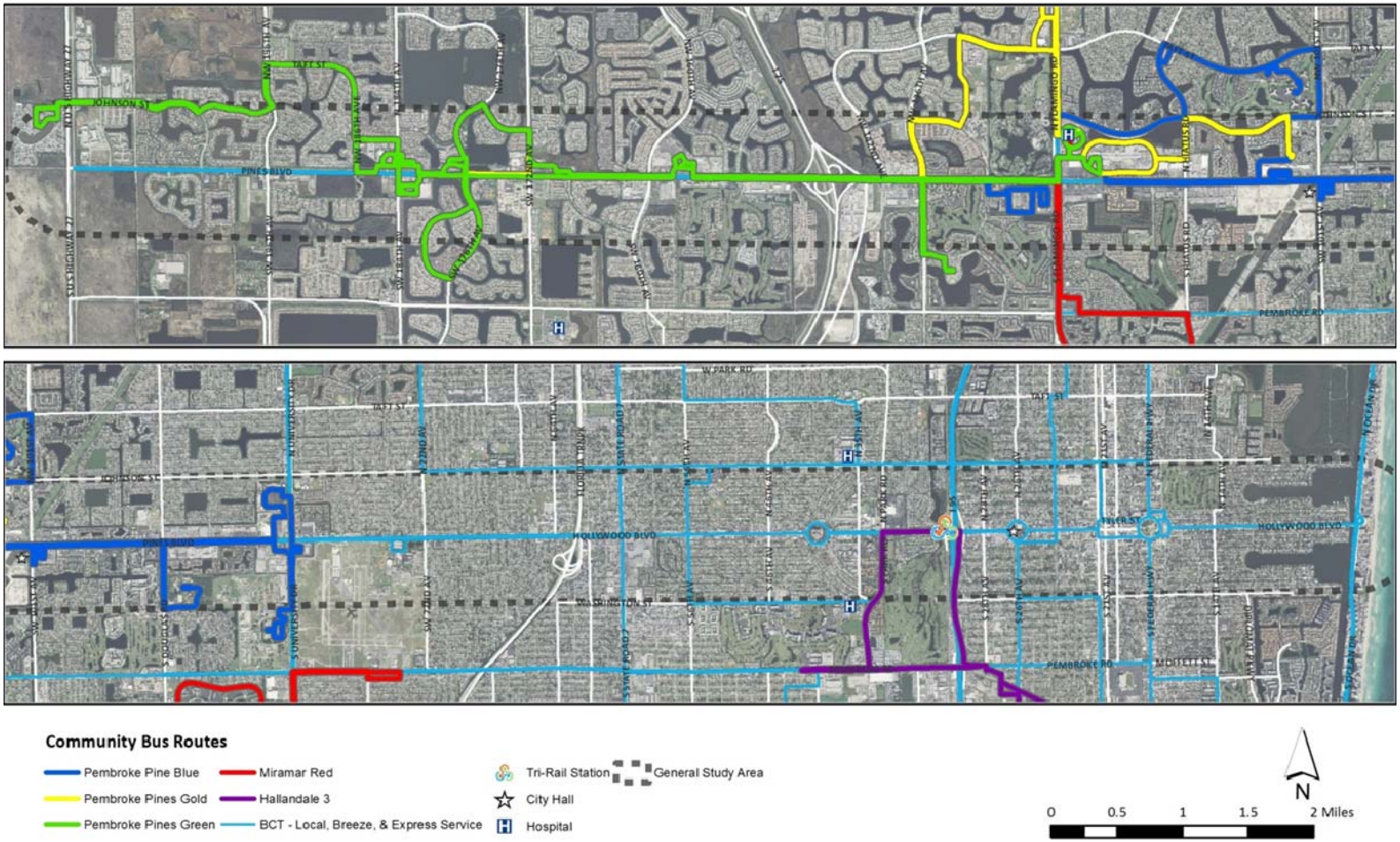



Figure 4-11: Hollywood Station Annual Ridership

Figure 4-12: Community Bus Routes



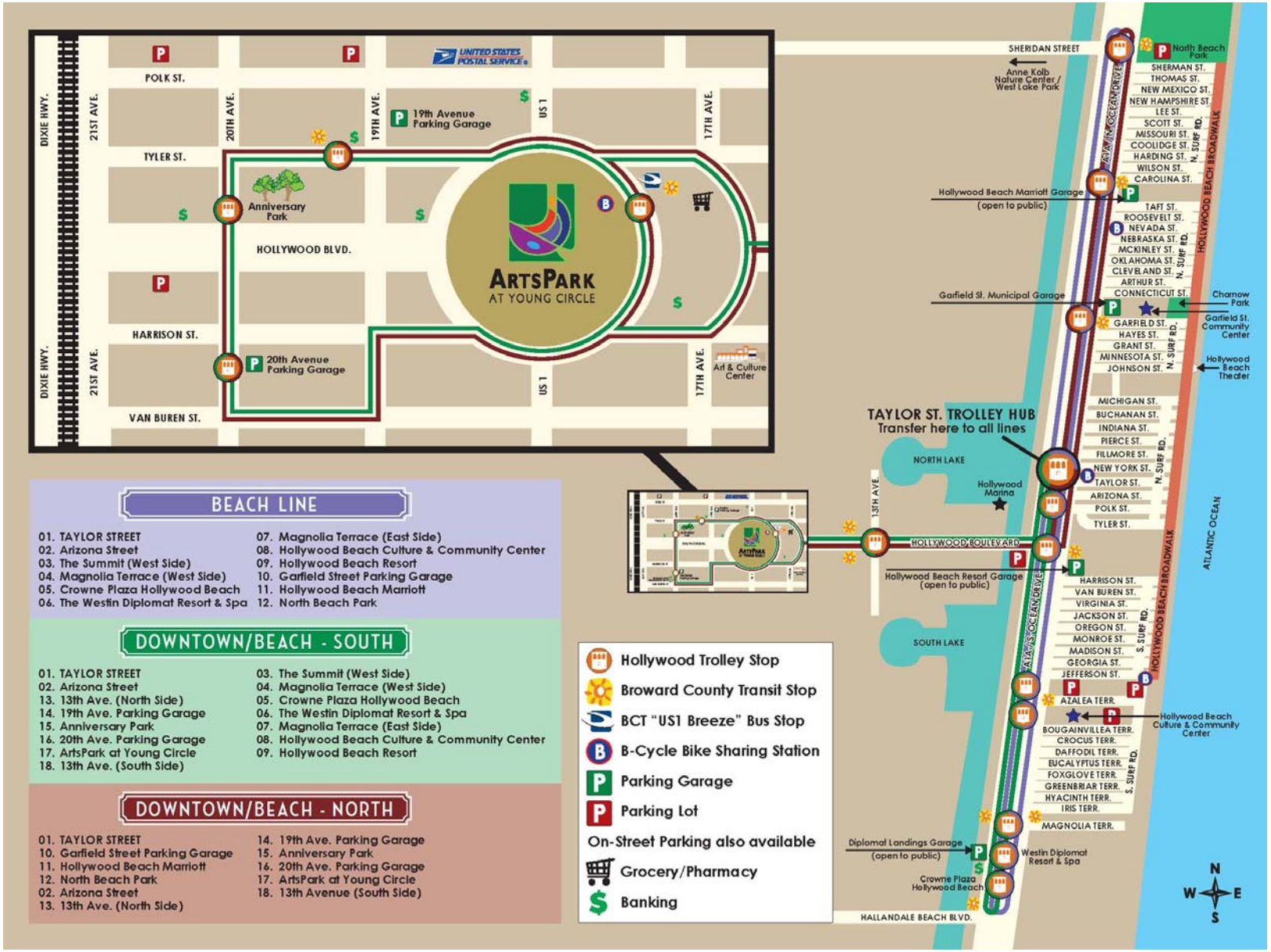

Source: Broward County Transit (BCT)

# Table 4-3: Community Bus Route Service and Ridership

| Routes | Service Days | Service Hours | BCT Route Connections | Monthly Ridership | Passengers per Hour - Weekday |
|---|---|---|---|---|---|
| Pembroke Pines Blue East | Tuesday, Wednesday, Friday | 8:00am - 3:30pm | 5, 7, 23 | 939 | 10.6 |
| Pembroke Pines Blue West | Tuesday, Wednesday, Friday | 8:00am - 3:30pm | 5, 7, 23 | 1,275 | 17.0 |
| Pembroke Pines Gold | Monday - Saturday | 7:00am - 7:30pm | 5, 7, 23 | 8,843 | 10.9 |
| Pembroke Pines Green | Monday - Saturday | 7:30am - 7:30pm | 3, 5, 7, 23 | 6,051 | 11.0 |
| Miramar Red | Monday - Friday | 6:30am - 6:30pm | 2, 3, 5, 7, 16, 23, 28, University Breeze | 3,662 | 15.3 |
| Hallandale Beach 3 | Monday - Friday | 7:00am - 7:00pm | 1, 4, 5, 6, 28, US 1 Breeze | 5,457 | 18.2 |

Source: BCT and the BCT September 2013 Ridership Report

Figure 4-13: Hollywood Downtown/Beach Trolley System Map



**CRASH HISTORY:**

An analysis of crash data from 2007—2011 was completed in order to identify locations (segments and intersections) that may be in need of safety enhancements. Data was gathered from FDOT's Crash Analysis and Reporting (CAR) system for State Highway System Crashes and from the FDOT "All Roads" GIS crash database for local roadway crashes.

***Total Crashes***

Figure 4-14 shows overall crashes with nearby crashes aggregated in "clusters" to indicate areas with high-crash frequency. This methodology helps to compare areas with tight intersection spacing but fewer crashes at each intersection with locations with isolated, high-volume intersections with many crashes. Overall high-crash areas include:

- Pines Boulevard at Flamingo Road
- Pines Boulevard at University Drive
- Hollywood Boulevard at the Florida Turnpike
- Hollywood Boulevard at State Road 7
- State Road 7 in the vicinity of Johnson Street

***Injury Crashes***

Next, the location and frequency of injury crashes (including fatalities) along the corridor were mapped. While a goal is to reduce all crashes, it is important to understanding where injury and fatal crashes are occurring, in order to help identify and prioritize safety concerns within the corridor. Map 4-15 shows the location and frequency of injury crashes within the corridor, similar to in Figure 4-14 (total crashes), the injury crashes were aggregated to identify high-crash clusters. A few locations within the study area that stand-out as having higher frequencies of injury and fatal crashes are:

- Pines Boulevard at Hiatus Road
- Pines Boulevard at University Drive
- Hollywood Boulevard at State Road 7
- Johnson Street at State Road 7

***Pedestrian and Bicycle Crashes***

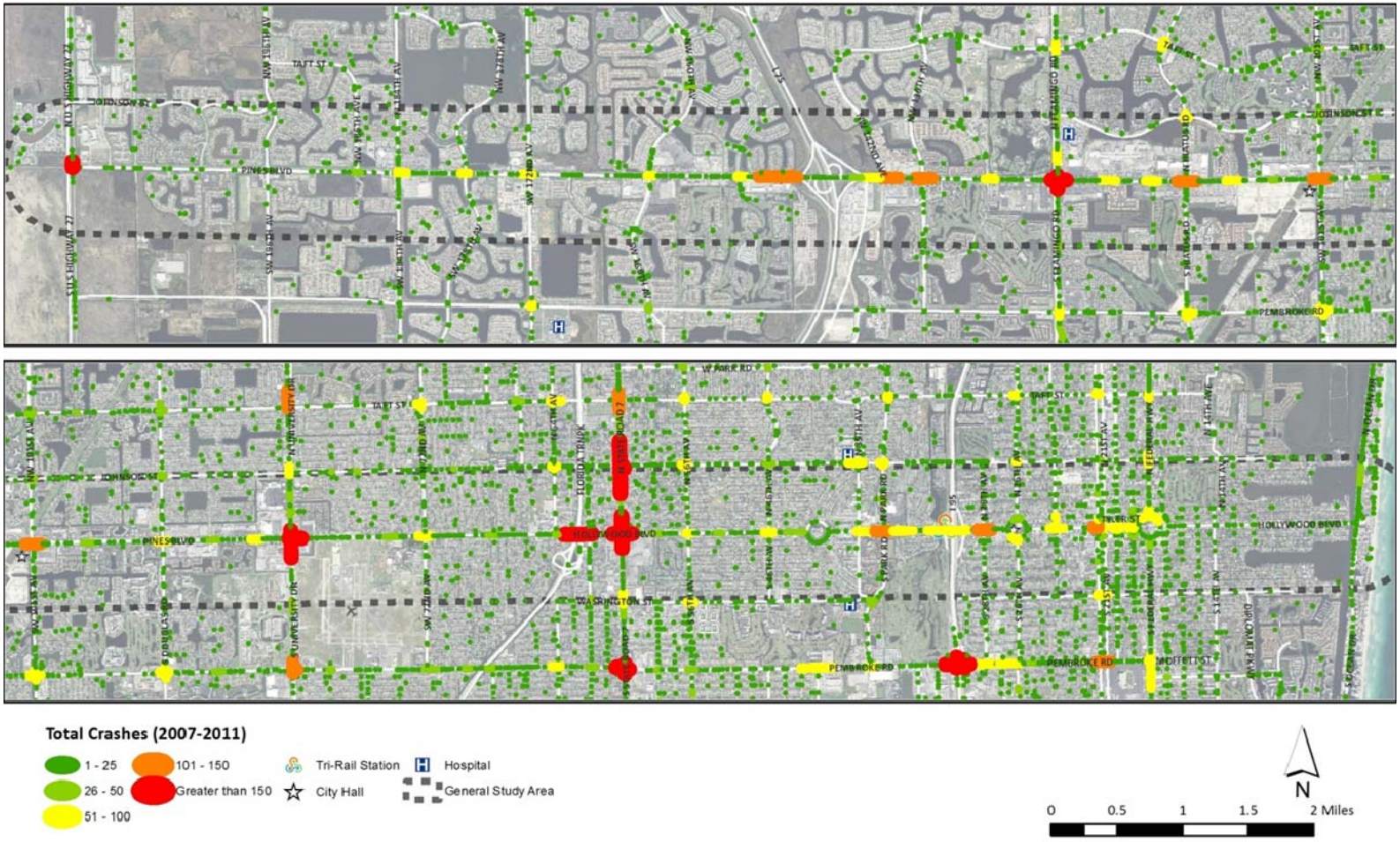
Finally, pedestrian and bicycle crashes were plotted on a map, and then similar to the assessment of injury crashes, pedestrian and bicycle crashes were used to help identify potential safety issues and to prioritize concerns within the corridor. Because pedestrian and bicycle crashes are typically not as concentrated geographically a larger buffer was used to each pedestrian and bicycle crash, as opposed to the 50 foot buffers that were given to both total and injury crashes. The location and frequency of pedestrian and bicycle crashes are shown in Figure 4-16. Some of the areas with higher frequencies of pedestrian and bicycle crashes are:

- Johnson Street at US 1
- Hollywood Boulevard at State Road 7
- Washington Street at 56th Avenue

Less intense but also notable bicycle and pedestrian crash clusters appear at:

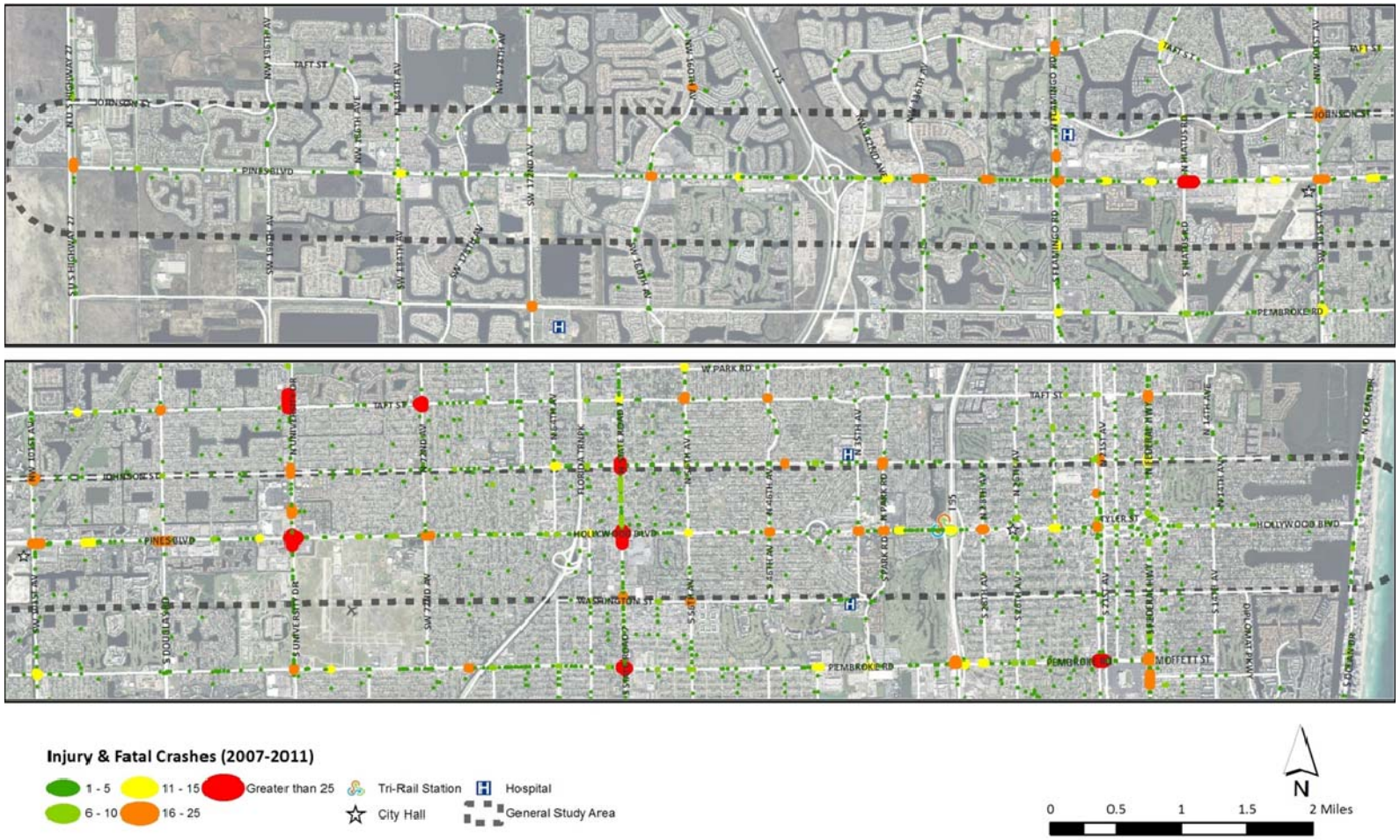
- Pines Boulevard at University Drive
- Johnson Street at University Drive
- Hollywood Boulevard at Park Road
- Hollywood Boulevard at US 1
- SR A1A from Fillmore Street to Johnson Street

Figure 4-14: Total Crash Cluster Map (2007-2011)



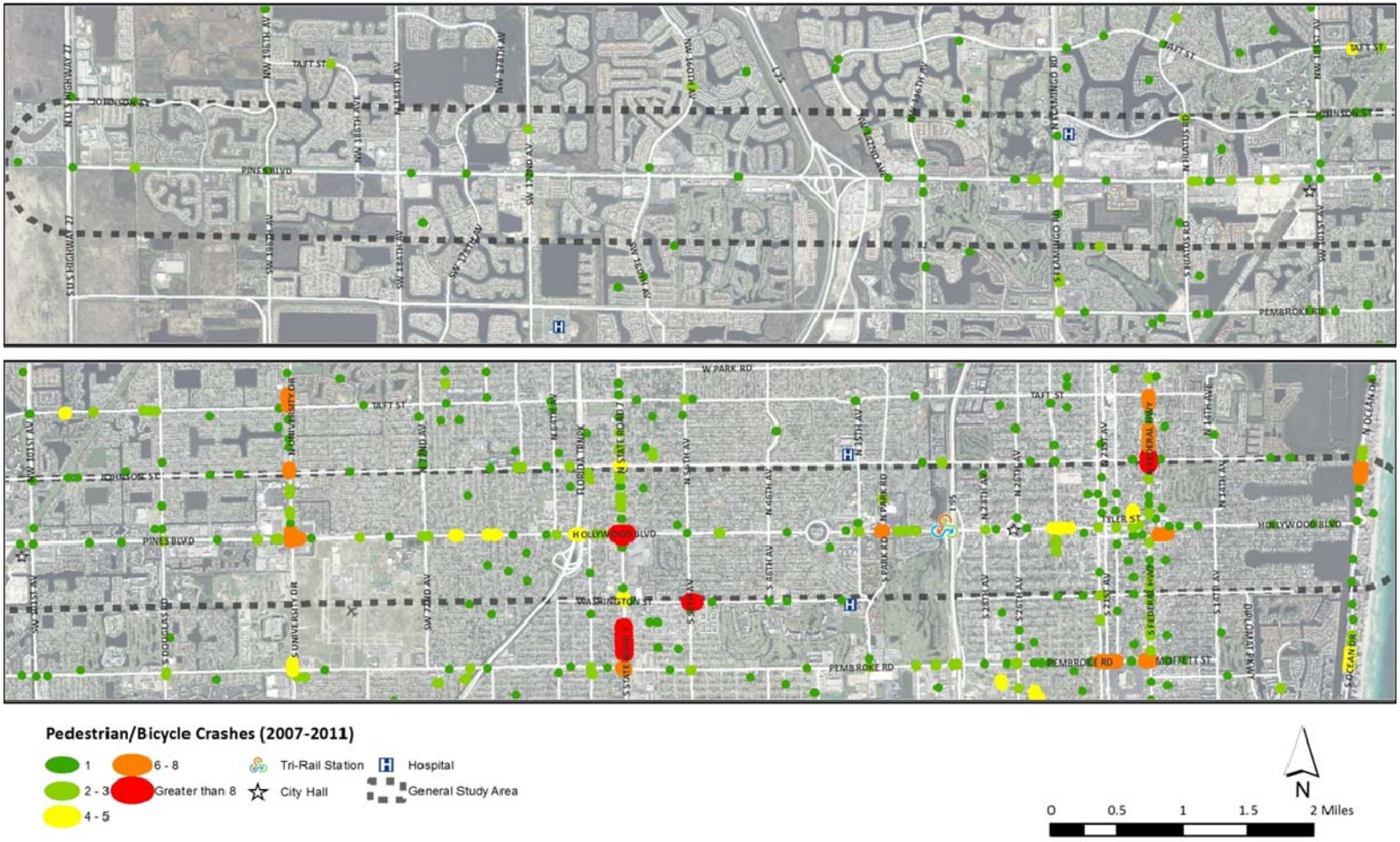

Crashes were located using X, Y coordinate data, crashes within 50 feet of each other were grouped to form crash areas. Data source FDOT Crash Analysis Reporting (C.A.R.) system

Figure 4-15: Injury and Fatal Crash Cluster Map (2007-2011)




Crashes were located using X, Y coordinate data, crashes within 50 feet of each other were grouped to form crash areas. Data source FDOT Crash Analysis Reporting (C.A.R.) system

Figure 4-16: Pedestrian and Bicycle Crash Cluster Map (2007-2011)




Crashes were located using X, Y coordinate data, crashes within 150 feet of each other were grouped to form crash areas. Data source FDOT Crash Analysis Reporting (C.A.R.) system


# Chapter 5:

# LAND USE ANALYSIS

Hollywood/Pines
*Corridor Project*

www.hollywoodpinescorridorproject.com

broward MPO
metropolitan planning organization

# INTRODUCTION





Building a successful, transit-supportive physical environment requires the close integration of land use policy and transportation infrastructure investments. The purpose of the Land Use Analysis contained within this chapter is to summarize and synthesize both the quantitative and qualitative analyses conducted to assess existing/future conditions along the corridor.

This chapter contains analysis on the following topic areas:

- Urban Intensity Analysis – focuses on identifying specific areas along the corridor where the population and employment density is high enough to support different levels of transit service.
- Land Economic Characteristics – focuses on identifying current market conditions along the corridor by examining characteristics such as land value, building-to-land ratio, and building age.
- Fieldwork/Qualitative Analysis – includes the identification of character segments along the corridor and a summary the SWOT analysis that was conducted at each of the mobility hubs.
- Plan/Policy Analysis – includes a review/assessment of the existing regulatory framework along the corridor, including comprehensive plans, land development codes, and redevelopment plans.

This chapter also includes some general conclusions and recommendations for consideration in the scenario development and implementation section of this report.

# URBAN INTENSITY ANALYSIS

**EXISTING/FUTURE URBAN INTENSITY/TRANSIT THRESHOLDS**

As described in detail in Technical Appendix 5-F, the measure of urban intensity (the total number of people [residents] and employees within a specific area) is a good indicator of transit supportiveness. The transit supportiveness levels are representative of the quality of service that could be supported by the existing/future urban intensity and have been grouped into the following three categories:

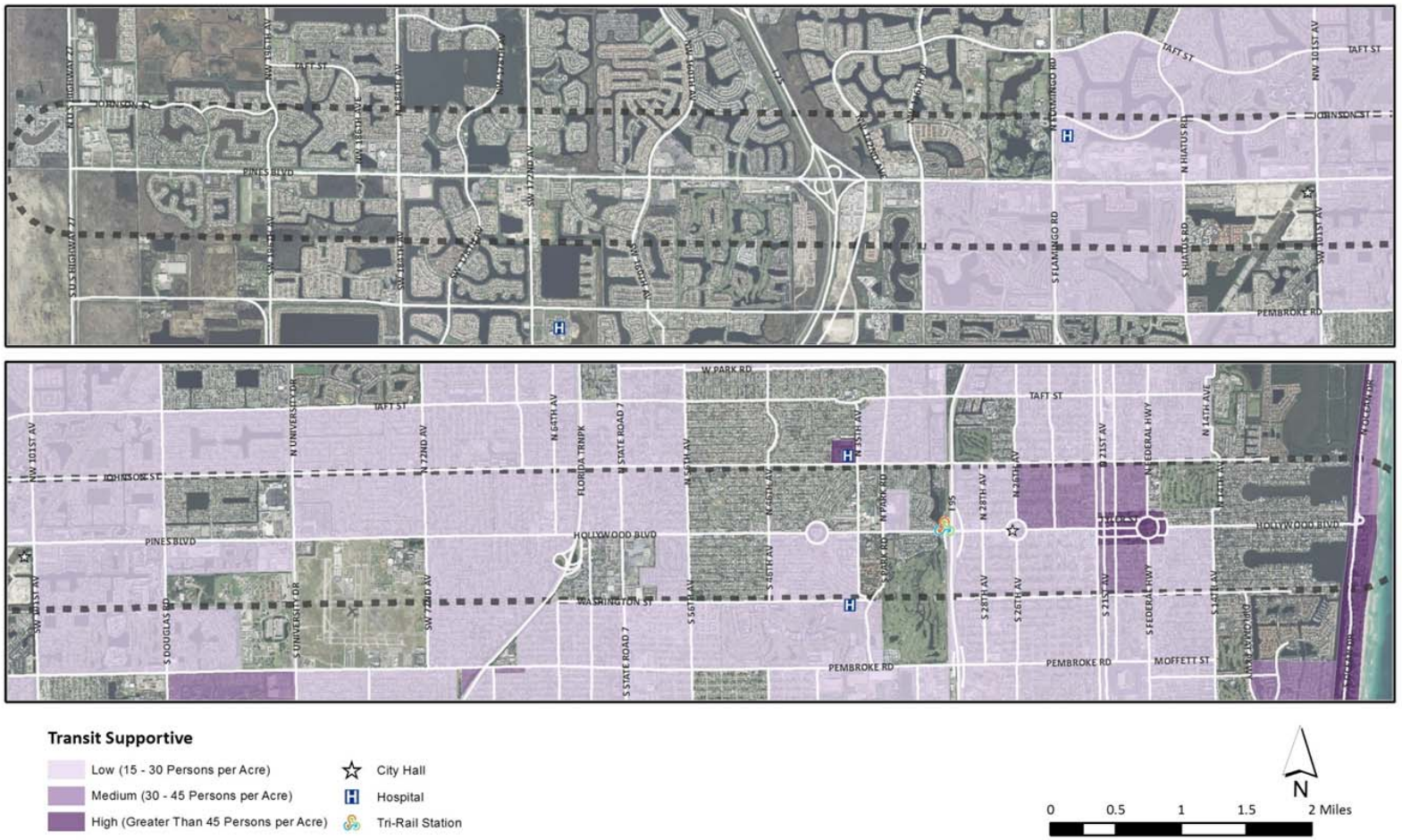
- **Low** (15–30 persons per acre) – supportive of basic bus service (15–30 minute headways)
- **Medium** (31–45 persons per acre) – supportive of enhanced-bus service, such as high-frequency (10-minute) service and bus rapid transit (BRT) service
- **High** (greater than 45 persons per acre) – supportive of enhanced transit modes including BRT and light rail

An urban intensity analysis was completed using population and employment data from the 2035 Broward LRTP. The analysis was completed for both the existing condition (2005) and the future condition (2035).

The urban intensity analysis for the existing condition (Map 5-1) shows that the most transit-supportive Traffic Analysis Zones (TAZ) within the corridor are east of I-95, specifically within Downtown Hollywood, along the coast, and including the area around Memorial Regional Hospital. The future condition (Map 5-2) shows that Medium and High intensity areas will continue to expand around Downtown Hollywood and that the SR 7 corridor is also expected to achieve Medium and High levels of intensity, particularly at the Mobility Hub at Hollywood Boulevard. The one other area of note is in Pembroke Pines at the Mobility Hub located at Pines Boulevard and Flamingo Drive. The continued expansion of retail medical uses in that area is expected to increase intensity sufficient to meet the Medium threshold.

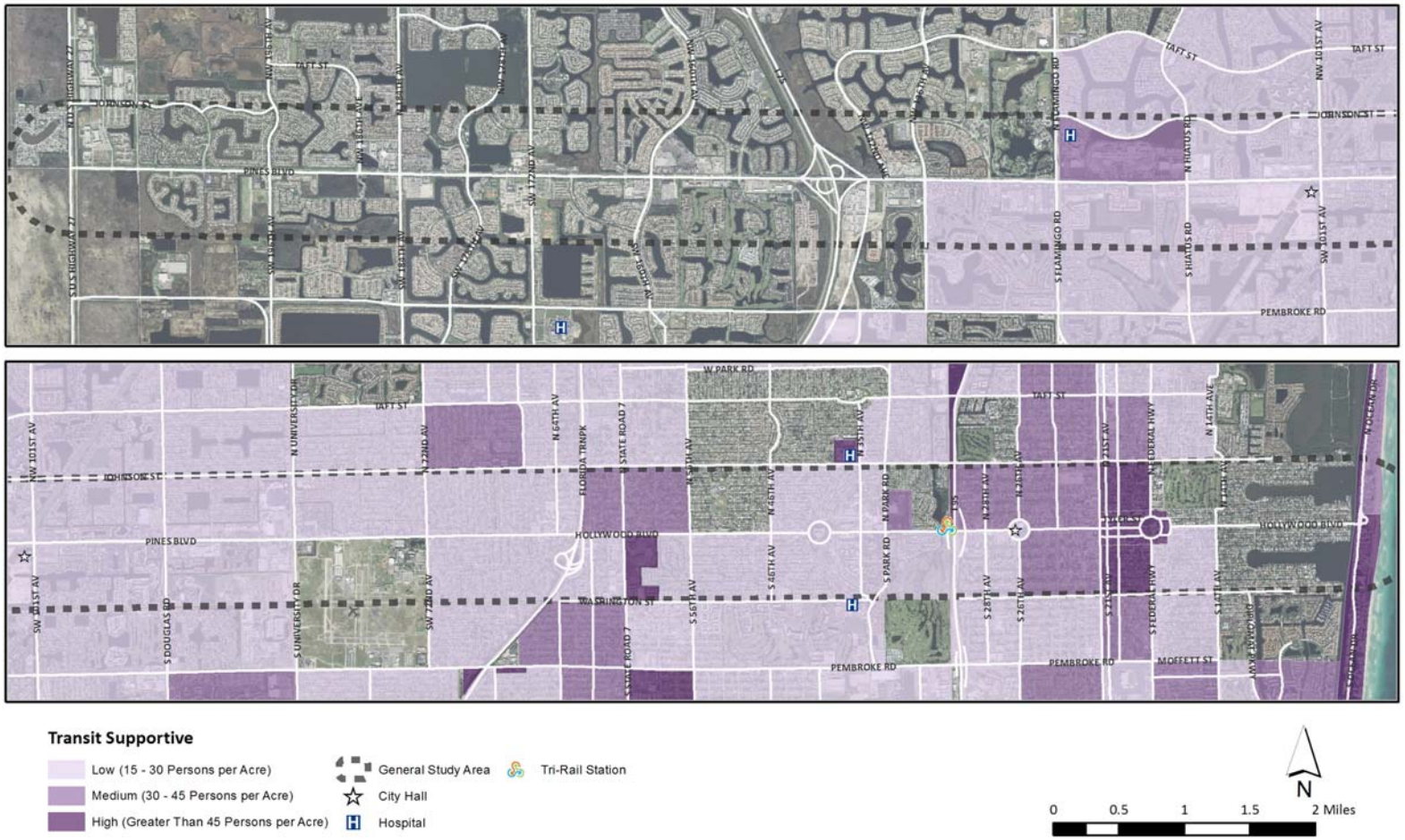
Urban intensity analysis is a good way to identify areas that have or will have the intensity of population and employment to support alternative modes of transit. The analysis performed using 2035 LRTP data shows that without significant increases in intensity, much of the Hollywood/Pines Corridor will not likely be supportive of more than high-frequency bus service. This is particularly true west of I-95 (with the exception of the area around Pembroke Lakes Mall and Memorial Hospital West), which shows little increase of significant intensity through 2035.

# Map 5-1: 2005 Transit Supportive Areas




Traffic Analysis Zone (TAZ) population + employment per net acre – data from the Southeast Florida Regional Planning Model (version 6.5.2)

# Map 5-2: 2035 Transit Supportive Areas




Traffic Analysis Zone (TAZ) population + employment per net acre – data from the Southeast Florida Regional Planning Model (version 6.5.2)

# LAND ECONOMIC CHARACTERISTICS

An analysis of land economic characteristics within the Hollywood/Pines Corridor was performed to gain a better understanding of the cost factors that may promote or inhibit redevelopment. Factors including overall value per acre, building-to- land-value ratios, and building age were evaluated at a parcel-level to identify areas where there may be market support to spur redevelopment. Detailed maps for the analysis of each of these indicators can be found within Technical Appendix 5-F.

**LAND VALUES**

Overall value per acre is used to gain a basic understanding of the economic market within a specific area. Using Broward County Property Appraiser data, an analysis of existing property values was completed for the entire corridor. Higher land values typically show either where recent development has occurred or where, due to property size and/or location, the land may be attractive for redevelopment due to its market performance/potential.

The analysis showed that the highest valued properties are found along the coast and inside Downtown Hollywood. The analysis also showed that the newer residential properties in western Pembroke Pines and the established residential fabric between Downtown Hollywood and Hollywood Beach also have significant property values on a per-acre basis.

Land values alone are not an indicator of the likelihood that a parcel will experience redevelopment, but they can help identify where there may be some market interest, including for new development where vacant property is available. In addition to land values, other factors (such as property size, access, allowable density/intensity, proximity to other attractors) must also be considered when determining if an area is likely to redevelop.

**BUILDING-TO-LAND RATIOS**

The building-to-land-value ratio is often used as an indicator of redevelopment readiness by identifying properties with undervalued structures. The ratio is identified by dividing the assessed value of an existing building by that of the land underneath. A low building-to-land ratio (below 1.0) typically indicates that the value of the land is worth more than that of the existing building, which means that there could be an economic desire or need for reinvestment or redevelopment of the structure. However, the building-to-land-value ratio is less sensitive to higher land values that are based on geographic location (such as waterfront properties) and may misrepresent the true relationship between building and land values for some properties. As a general rule, a building-to-land-value ratio is best used to identify land use patterns or areas with undervalued structures.

Along the Corridor are a few areas where low building-to land-value ratios may be indicative of undervalued structures. These areas are typically larger commercial properties located at some of the designated Mobility Hubs. Two examples include some of the larger parcels at SR 7 and University Drive.

**BUILDING AGE**

Building age, especially for non-residential buildings, can also be used as a redevelopment indicator. Commercial buildings typically have around a 30-year life span before they need major reinvestment or redevelopment to remain economically viable. Residential uses typically have longer life spans and do not require the same level of reinvestment to remain viable, so building age becomes less important when looking at residential properties.

The analysis of building age shows the stark contrast between the eastern and western halves of the corridor. The portion east of University Drive is filled primarily with buildings that are 40+ years old, whereas to the west, most of the properties are less than 20 years old. Many of the larger commercial properties located at Mobility Hubs are 20+ years old, which is a good indicator that they could be reaching a point where redevelopment or reinvestment may need to occur for the properties to remain viable. These sites could provide an opportunity for redevelopment in the near future.

**CONCLUSIONS**

The land economic characteristics examined within this section identify areas where, due to various indicators, opportunities may exist for new private-sector investment in development/ redevelopment. Not surprisingly, when examined collectively, the indicators identified similar areas as having the greatest likelihood for redevelopment. These areas, of which the Mobility Hubs at University Drive and SR 7 are prime examples, are places where aging non-residential land uses are located at major intersections with easy access and significant pass-by traffic. In addition, these two Mobility Hubs are also located along corridors with some of the busiest transit routes in Broward County. The combination of these factors creates a supportive environment for new development/redevelopment to occur.

# FIELDWORK AND QUALITATIVE ANALYSIS

**INTRODUCTION TO THE QUALITATIVE ANALYSIS**

To gain a better understanding of the existing conditions on the ground, fieldwork was conducted to qualitatively assess the Hollywood/Pines Corridor from a land-use perspective. This analysis focused on two major areas. First, the overall corridor was examined to identify potential character segments based on the existing development patterns. Second, a strengths/weaknesses/opportunities/threats (SWOT) analysis was completed for each of the designated Mobility Hubs. The purpose of this section is to provide a summary of that qualitative analysis. The detailed assessment can be found in Technical Appendix 5-H.

**CORRIDOR CHARACTER SEGMENT IDENTIFICATION**

The following section includes a description of the three character segments along the Hollywood/Pines Corridor—Urban, Transitional, and Suburban—each of which are illustrated in Figure 5-1.

To define the character segments, three types of data were used :

- Types of tenants
- Quality of construction and age of structures
- Land use design

Land use design has the greatest effect on the character of the corridor; therefore, a significant amount of effort was spent collecting these data.

Identified between each character segment are areas of transition in which the sections overlap. This is an accurate description of the transitions of land use along the corridor and also identifies areas that need the most character definition through redevelopment.


Figure 5-1: Corridor Character Segments

***Urban Segment***

The Urban segment of the Hollywood/Pines Corridor has traditional land-use characteristics, such as buildings located directly adjacent to the sidewalk, commercial uses organized in storefronts with openings to the street, and a higher building density, with more uses in a smaller area. Also, most residential units front the corridor, and well-integrated transit facilities create a pedestrian-oriented environment. Figure 5-2 shows an example of the existing conditions within the Urban segment.

In addition, on-street parking (both angled and parallel) is common, and where there are surface parking lots, they typically are located behind or beside buildings. The corridor design within the segment has an urban cross-section, with curbs, gutters, and drainage.

In general, commercial spaces are smaller and typically house independent and local retailers, which results in few national chains and "big box" developments. Buildings are a mixture of ages, from early/mid-century structures to new construction as a result of redevelopment. In the case of new construction, the size and function of buildings are the result of the lot size and built environment context.

***Transitional Segment***

The Transitional segment of the Corridor has some traditional land-use characteristics and some that are more suburban and auto-oriented. To the west of the I-95 interchange, commercial and retail uses are typically organized in small, mid-century, auto-oriented shopping centers. The building-to-street width ratio (the enclosure created by the height of buildings to the width of the right-of-way) increases, giving the corridor a more suburban character. Because travel lanes increase in width and pedestrian infrastructure diminishes in size with no buffer, the corridor has a less urban character. Figure 5-3 shows an example of existing conditions within the Transitional segment.

In addition, on-street parking is rare. Instead, small surface parking lots line the street in front of commercial strip centers.

Figure 5-2: Example of existing conditions in Urban Segment – Hollywood Blvd between 19th and 20th Sts


Figure 5-3: Example of existing conditions in Transitional Segment – Hollywood Blvd and SR 7

The corridor continues to have an urban cross-section design, with curbs, gutters, and drainage.

In general, retail spaces are mid-size and not large enough for modern-format national chains; instead, many of the spaces are occupied by local commercial tenants.

***Suburban Segment***

The Suburban segment of the Corridor has very few traditional land-use characteristics. Residential uses, especially single-family neighborhoods, front local streets instead of the corridor. Therefore, some parts of the Corridor are framed with landscaped hedges. Neighborhoods are not well-integrated with the Corridor and often are separated by gates and security checkpoints. Out-parceled retail uses create poor enclosure on the Corridor, and pedestrian circulation is minimal, with poor connections between development and the roadway corridor. In addition, the adjacent public realm accommodates transit facilities poorly. Figure 5-4 shows an example of existing conditions within the Suburban segment.

Figure 5-4: Example of existing conditions within Suburban segment – Pines Blvd and Dykes Rd

The Corridor is lined with very large surface parking lots, often serving big box retail. The Corridor transitions to rural, open-ditch drainage with no curbs or gutters. Therefore, sidewalks are separated from travel lanes by drainage ditches.

Much of the retail space was built within the past two decades and serves mostly national chains.

**MOBILITY HUB SWOT ANALYSIS**

The SWOT analysis identified design and land use characteristics at each mobility hub that were either encouraging or inhibiting the development of a pedestrian friendly, transit-supportive environment. The full analysis is located in Technical Appendix 5-H.

To achieve the transit-supportive land use desired both at the mobility hubs and along the remaining Corridor, redevelopment and infill development will be needed that is designed to increase connectivity and improve the interface with transit facilities.

In the Urban segment, the need is to build the critical mass through continued densification and diversification of land uses in and around Mobility Hubs. This will be especially true around the FEC Corridor, which intersects Hollywood Boulevard at the Dixie Highway Mobility Hub. This hub has the potential to become a significant transit-oriented node, with more intense and mixed land uses.

In the Transitional segment, continued public realm improvements should be coupled with land-use densification and diversification to increase transit supportiveness. Specific attention should be paid to the existing Tri-Rail station just west of I-95, which remains isolated from the surrounding

land uses. Additional redevelopment opportunities should be explored in this area.

In the Suburban segment, there are some common remedial actions to existing conditions that, over time, could improve access to transit. These include the following:

- Connecting residential, disconnected street networks with the corridor to improve access for the local population. This should include improvements within new and existing private development as well as in the public realm.
- Improving pedestrian facilities along the corridor and implementing an urban cross-section (curbs, gutters, etc.) where feasible.
- Retrofitting surface parking lots to increase street frontage and enclosure along the corridor.

**CONCLUSIONS**

Each segment within the Hollywood/Pines Corridor has both unique and common land-use characteristics, and the greatest difference in built environment form is between the Suburban and Transitional segments. The most drastic physical changes in land use form must occur in the Suburban segment for the mobility corridor to have the density and access required to be implemented most effectively; these changes will happen only over time. Retrofitting land uses along the Transitional segment will be more easily achievable because development patterns are closer to a pedestrian scale and urban infrastructure (curbs, gutters) are in place and redevelopment potential is increasing. The urban area has an existing land-use pattern that is conducive to transit use, with significant potential for improvement as redevelopment opportunities arise on a regular basis and retrofitting the public realm is facilitated.

# PLAN AND POLICY ANALYSIS

The plan and policy review provides a summary of key aspects from municipal and County plans that may promote or inhibit multimodal development along the corridor. This analysis is based on a review of the Broward County Land Use Plan, the Comprehensive Plans and Land Development Codes of the Cities of Hollywood and Pembroke Pines, and local redevelopment plans. A more detailed review of applicable plans and policies is documented in Technical Appendix 5-F: Quantitative Land Use Assessment.

## COMPREHENSIVE PLANS ASSESSMENT

### *Countywide Plan*

The Broward County Land Use Plan is the official land use plan within the county. The Broward County Charter requires that all local land use plans be consistent with the countywide plan, including designations of special areas such as Regional Activity Centers and Transit-Oriented Corridors. The Broward County Future Land Use Map is provided in Map 5-3. The Countywide Future Land Use Plan does not specifically reference the development of Mobility Hubs identified in the Broward 2035 LRTP.

### *City of Hollywood*

Planning categories and policy components designated in the City of Hollywood's Comprehensive Plan that promote land use and multimodal development within the study area are discussed below.

*Regional Activity Center*

Consistent with the Broward County Land Use Plan, the City of Hollywood has established a Regional Activity Center (shown in Figure 5-5) centered around Downtown Hollywood, where

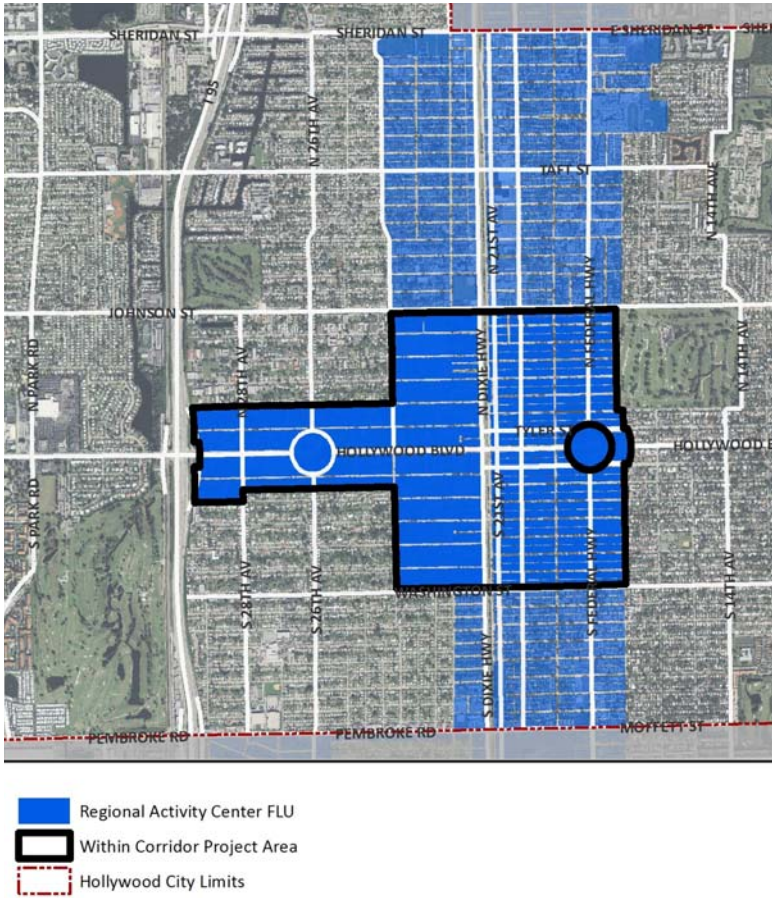
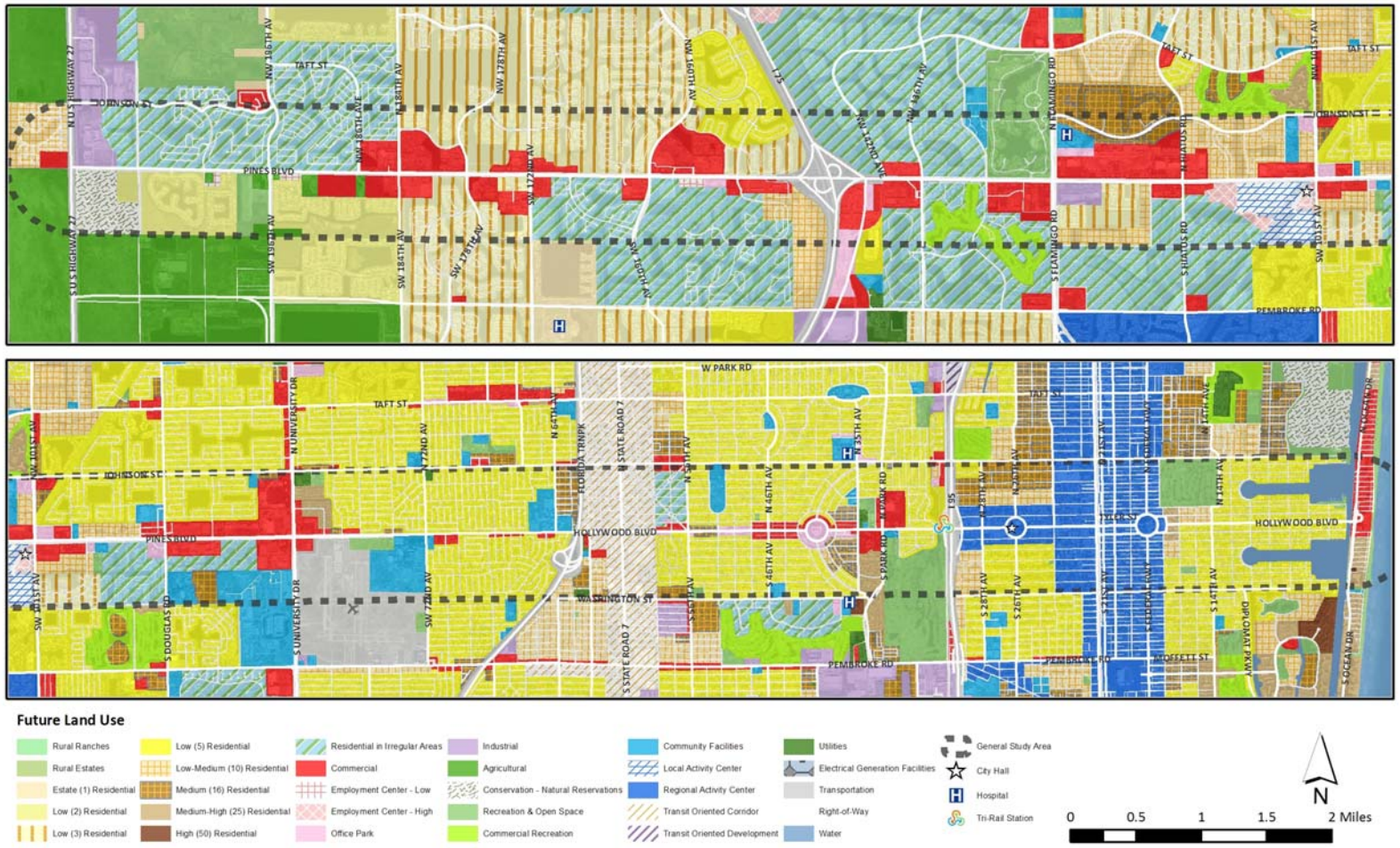



Figure 5-5: Designated Regional Activity Center (Hollywood)

# Map 5-3: Broward County Future Land Use Map

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the majority of population growth is projected to occur. The purpose of the Regional Activity Center is to encourage redevelopment in a way that facilitates multi-use and mixed-use development, encourages mass transit, reduces the need for automobile travel, provides incentives for quality development, and gives definition to the urban form.

According to the City's Future Land Use Element, there are 1,461 acres designed as Regional Activity Center. If the maximum development levels allowed in this area are achieved, the Downtown Regional Activity Center has the mix of uses and densities and intensities necessary to support higher levels of alternative modes of transportation. There are two Mobility Hubs within the Regional Activity Center: Young Circle (identified as a Mobility Hub during the initial phases of this project) and Dixie Highway (a Gateway Mobility Hub).

*Transit-Oriented Concurrency*

The City of Hollywood uses Broward County Transit-Oriented Concurrency for State- and County-maintained facilities. The city is divided into two transit-oriented concurrency districts; within each, the level-of-service (LOS) standards are based on transit performance. Approval of development orders and permits within the Corridor study area must meet the transit-oriented LOS standards.

*Transit-Oriented Corridor*

Consistent with the Broward County Land Use Plan, the City of Hollywood has designated the SR 7 Corridor as a Transit-Oriented Corridor (TOC). Hollywood Boulevard/SR 7 is designated as a Gateway Mobility Hub in the Broward 2035 LRTP. The goal of this designation is to facilitate mixed-use development with access to transit stations or stops along existing and planned high performance transit service corridors.

The area within ¼-mile on either side of the corridor, with additional distance permitted around major intersections, activity nodes, or locations served by existing or funded community shuttle service, is considered part of a transit-oriented corridor. There are approximately 987 acres of land designated as the SR 7 TOC within the city of Hollywood.

There are specific design guidelines within the TOC specified to encourage connectivity between uses and to transit facilities. Stand-alone, low-density, and low-intensity development is discouraged unless designed in a manner to encourage pedestrian and transit usage.

***Pembroke Pines***

Pembroke Pines is characterized predominately by suburban single family housing patterns; non-residential development is limited largely to the fronting major of roadways.

The suburban single family housing patterns found in the city present the challenge of connecting city residents to the rest of the city via alternative modes of transportation, in particular to commercial uses in the Pines Boulevard Corridor.

Planning categories and policy components designated in the City of Pembroke Pines Comprehensive Plan that promote land use and multimodal development within the study area include the following.

*Local Activity Center*

The City of Pembroke Pines allows for the designation of a Local Activity Center to support a balanced mix of land uses characterized by pedestrian-friendly design and access to

public transit. There is a Local Activity Center designed within the corridor study area, a 146-acre site located east of Hiatus Road, bound on the north by Pines Boulevard and on the east by Palm Avenue. This site currently houses the city's government center and is intended to be the community's town center. Of the 1,000 dwelling units allowed at this site, a minimum of 25 percent must be affordable housing units. Other allowable uses at this site include office/commercial, community facilities, hotel, and park/open space. To be designed as a Local Activity Center, a minimum of 75 percent of the area must be within ¼-mile of mass transit or multimodal facilities.

*Transportation/Transit-Oriented Concurrency*

Within the corridor study area, from the eastern city limits to I-75, Transit-Oriented Concurrency applies, and the level of service standard is based on transit performance. There are four Community Mobility Hubs within the Transit-Oriented Concurrency District: Pines Boulevard/University Drive, Pines Boulevard/Douglas Road, Pines Boulevard/Palm Avenue, and Pines Boulevard/Flamingo Road. The Pines Boulevard/I-75 Mobility Hub, a Gateway Mobility Hub, lies on the boundary between the Transit-Oriented Concurrency District and Standard Concurrency District.

West of I-75, standard concurrency applies, and the LOS standard is based on road performance. As previously mentioned, the Pines Boulevard/I-75 Mobility Hub lies on the boundary between the Transit-Oriented Concurrency District and Standard Concurrency District. The Pines Boulevard/Dykes Road Mobility Hub, a Community Mobility Hub, is also located in the Standard Concurrency District.

**HOLLYWOOD REDEVELOPMENT PLANS ASSESSMENT**

There are two Community Redevelopment Areas (CRA) located within the boundaries of the Hollywood Pines Corridor Project, both of which are located within the city of Hollywood. These two areas are the Hollywood Downtown CRA and the Hollywood Beach CRA.

In their respective master plans—the Hollywood Beach CRA Master Plan (2007) and the Downtown Hollywood Master Plan (2011)—each CRA has well-established redevelopment and mobility goals, which should be supported and enhanced by recommendations from the Hollywood Pines Corridor Project. The creation of a CRA allows for the use a specific funding mechanism—Tax Increment Financing (TIF)—within the boundaries of the redevelopment area. TIF provides a revenue source for capital improvement needs within the CRA. This is an especially important consideration for the Downtown CRA, which aligns closely with the boundaries of the Regional Activity Center, which is projected to have significant growth and development.

***Hollywood Downtown CRA Plan***

The Hollywood Downtown CRA Plan examines the existing historical context and cultural resources within the CRA district, as well as principles such as city form, connectivity and mobility, and land use. The document includes economic recommendations based on use type, including housing, retail, office, and hospitality. In addition, it presents a vision for the CRA that is based on the following goals:

- Enhance Downtown CRA's identity as a historic, cultural, and entertainment destination.
- Strengthen Downtown's role as a true city center.

- Revitalize underutilized land and encourage infill and higher densities by using efficient land use strategies.
- Provide a pedestrian-friendly environment with lively streetscapes.

Each has a framework of urban design objectives and strategies by which to achieve them:

- Increase density/intensity downtown to create a sustainable urban district.
- Establish character districts.
- Identify development opportunities.
- Create zoning recommendations to reinforce district character.

***Hollywood Beach CRA Plan***

The Hollywood Beach CRA plan is based on two principles: preserve the character and scale of Hollywood Beach and make Hollywood Beach a model "green" community. Within each principle, strategies and action items are presented to achieve each. These focus on:

- Preserving the character of the boardwalk
- Protecting historic structures
- Defining the characteristics of future development
- Creating mobility and parking plans
- Establishing sustainable standards and practices
- Creating pedestrian friendly streets

This document most directly relates to the Hollywood/Pines Corridor Project in that recommendations for Corridor segments and Mobility Hubs must preserve the urban downtown and beach character, respectively, while enhancing each through future development. Recommendations for the Urban segment of the Corridor not located within CRA boundaries should complement development as required by design guidelines specified in each plan. This will be most applicable to the Dixie Highway Mobility Hub.

**LAND DEVELOPMENT CODE ASSESSMENT**

***City of Hollywood***

*Zoning Designations*

The City of Hollywood has a substantial number of zoning categories within its Land Development Code that have been developed to address the large variety of built-environment characteristics found within the city. As described in the discussion of corridor segments within this chapter, the Corridor study area cuts a transect through the city, with the older, more traditionally-designed areas located to the east and the more transitional, suburban areas located to the west.

This change in character, from the east to the west, is reflected in the type and number of existing zoning designations. Map 5-4 is a map that shows the existing zoning districts surrounding the corridor. Most are standard Euclidean districts, but, as discussed in more detail below, the City has adopted form-based regulations in its more historic and urban areas.

<u>Residential Districts</u>

The majority of lands within the study area boundary are zoned for residential uses. There are 5 primary Multi-family districts (RM-9, 12, 18, 25, WET & BRT-25), and 10 Single-family districts (RS-1—RS-10). These districts allow for primarily residential uses, with some exceptions including for religious, non-profit, and, in the BRT-25 district, commercial uses. Generally, these designations require significant front setbacks for the primary structure (20'–25'), and permit access and parking in the front of the structure.

# Map 5-4: Hollywood Zoning Map


**Zoning**

**Residential**
- Single Family District
- Multiple Family District
- Multiple Family Residential Wetlands District
- Trailer Park District

**Commercial**
- Low Intensity Commercial District
- Low/Medium Intensity Commercial District
- Medium Intensity Commercial District
- Medium/High Intensity Commercial District
- High Intensity Commercial District
- Commercial Corridor District - Low Hybrid
- Commercial Corridor District - Low Hybrid Commercial South
- Commercial Corridor District - Moderate Hybrid Commercial
- Commercial Corridor District - Commercial Core
- Commercial Corridor District - Resort Commercial
- Central City Commercial Low Intensity
- Central City Commercial Mixed Use Medium Density
- Neighborhood Commercial Medium Intensity
- Neighborhood Commercial High Intensity
- Neighborhood Commercial High Intesity District

**Office**
- Light Intensity Office District
- Medium Intensity Office District
- High Intensity Office District
- Mixed Used Office District

**Industrial**
- Low Intensity Industrial and Manufacturing District
- Low/Medium Intensity Industrial and Manufacturing District
- Medium Intensity Industrial and Manufacturing District
- Limited Agricultural District
- Port Everglades Development District

**Government/Institutional**
- Government Use District
- Hospital District

**Planned Development**
- Planned Development District
- Planned Unit Development District
- Planned Unit Development Residential District

**CRA**
- CRA
- Transitional (CRA)
- Low Density Multiple Family (CRA)
- Low/Medium Density Multiple Family (CRA)
- Medium Density Multiple Family (CRA)
- Medium/High Density Multiple Family (CRA)
- High Density Multiple Family (CRA)

**North Downtown**
- North Downtown District 1
- North Downtown District 2

**Young Circle**
- Young Circle Districts

**Beach**
- Beach Resort Residential District
- Beach Resort Commercial District
- Beach Resort Tourist District
- Beach Resort A1A Residential District
- Beach Resort A1A Commercial District
- North Beach Development
- South Central Beach Residential Multiple Family District
- Broadwalk Historic District Residential

**Other**
- Country Club District
- Open Space District

- General Study Area
- City Hall
- Hospital
- Tri-Rail Station

N

0 0.5 1 1.5 2 Miles

Commercial and Office Districts

Within the study area, there is also a significant number of properties zoned with a commercial or office designation. There are five Commercial zoning districts (C-1–C-5) and four Office zoning districts (O-1–O-3 & O-M) within the city of Hollywood. Within the corridor study area, these districts are largely found west of Dixie Highway and primarily are located adjacent to Hollywood Boulevard. The commercial districts allow for a variety of uses, including upper-floor residential in the C-1–C-3 districts. The required setbacks vary greatly and are related to adjacent use and building heights (which can reach 175' in the C-4 and C-5 districts). The O-1–O-3 districts allow primarily for office uses and single family residential. The front setback requirements vary, although the minimum is generally 20'. The maximum allowable height in the O-1–O-3 districts is 75'. The O-M district also allows for office and multi-family residential (instead of single-family), with setbacks of 20' and a maximum height of 50'.

Community Redevelopment Districts

Hollywood has a number of zoning districts that are used only within the two Community Redevelopment Areas in the city. The zoning sub-districts for the Downtown CRA and the Beach CRA are all mixed-use in nature, and those within the Downtown CRA allow for the most significant development density/intensity within Hollywood.

The Central City Commercial Mixed-Use Medium Intensity (CCC-2) zoning designations also include design bonuses that allow for increases in density/intensity in exchange for specific design amenities. These bonuses are broken into five categories: Planning and Design, Building Features, Improvements to Rights-of-Way and On-site Public Spaces, Site Improvements, and Historic Criteria.

State Road 7 Commercial Corridor District (SR 7 CCD)

The SR 7 corridor has special zoning regulations that are supportive of its designation as a Transit-Oriented Corridor in the Comprehensive Plan. The SR 7 CCD has five sub-areas, two of which fall within the study area. To the north of Hollywood Boulevard is the Low Hybrid Sub-Area, which designates areas where small businesses interface with residential areas. To the south of Hollywood Boulevard is the Commercial Core Sub-Area, which is considered the main commercial core of the SR 7 corridor.

The SR 7 CCD development regulations encourage pedestrian connectivity and flexibility and allow for greater building heights (up to 175’). All properties over two acres in size require a master development plan that must be approved by the City Commission.

*Design Guidelines*

City of Hollywood Design Guidelines

In addition to the zoning district requirements, the City of Hollywood has adopted Design Guidelines (amended 2001). These guidelines address a number of architectural details, building construction characteristics, and other aesthetic features. In addition to the general requirements, there are specific guidelines for CRAs.

Design Guidelines for Historic Properties and Districts

The City of Hollywood also has specific design guidelines regulating the preservation of registered historic properties and designated historic districts. The regulations address the preservation and rehabilitation of properties as well as property additions and new construction within historic districts.

*Parking Standards*

The City of Hollywood's parking standards for all zoning districts outside of the CRAs are found in Article 7 of the Land Development Code. The general standards are fairly typical of suburban standards, requiring a minimum number of spaces but not imposing a maximum cap. The parking ratios are also indicative of those that would be found in suburban areas. Examples include retail uses at 4 spaces per 1,000 sf, office uses at 4 spaces per 1,000 sf, and residential requirements at typically between 1.5–2 spaces per unit.

The requirements vary greatly in the city's CRAs. The CRAs have shared parking requirements to help balance demand between uses, and although parking maximums do not exist in all districts, if the minimums are exceeded, additional parking area is counted against the allowable floor area ratio (FAR). There are also specific regulations for some zoning sub-districts within the CRAs. The CCC-1 and CCC-2 districts have no parking requirements for retail, commercial, and office uses on the first two floors of buildings. The North Downtown and Young Circle zoning sub-districts have reduced standards that also include parking maximums.

***City of Pembroke Pines***

*Zoning Designations*

The city of Pembroke Pines historically has developed from east to west, and the zoning designations reflect the changing development pattern that has emerged over time. This east-to-west difference is most obviously reflected in the common use of the Planned Unit Development (PUD) zoning designation, which is a site-plan-controlled district that has been the preferred zoning for many of the large modern suburban residential developments that have been built over the last 20 years. Map 5-5 is a current zoning map of Pembroke Pines.

Residential Districts

Excluding residential PUDs and the R-1T mobile home district, there are three single-family zoning districts (R1-B, R1-C, and RS-7 ) located within the Corridor study area. R1-B and R1-C differ only in allowable lot sizes, whereas the RS-7 district allows for some development clustering through reduced setbacks and shared common spaces. Multi-family districts in the study area include the Two-Family (R2-U), Townhome (TH-12), Low-Density Multiple (R-3), and Apartment (R-4 & R-4A) districts. These districts all have standards that are typical of suburban development patterns, with large required setbacks from public rights-of-way and no requirements for connectivity between developments.

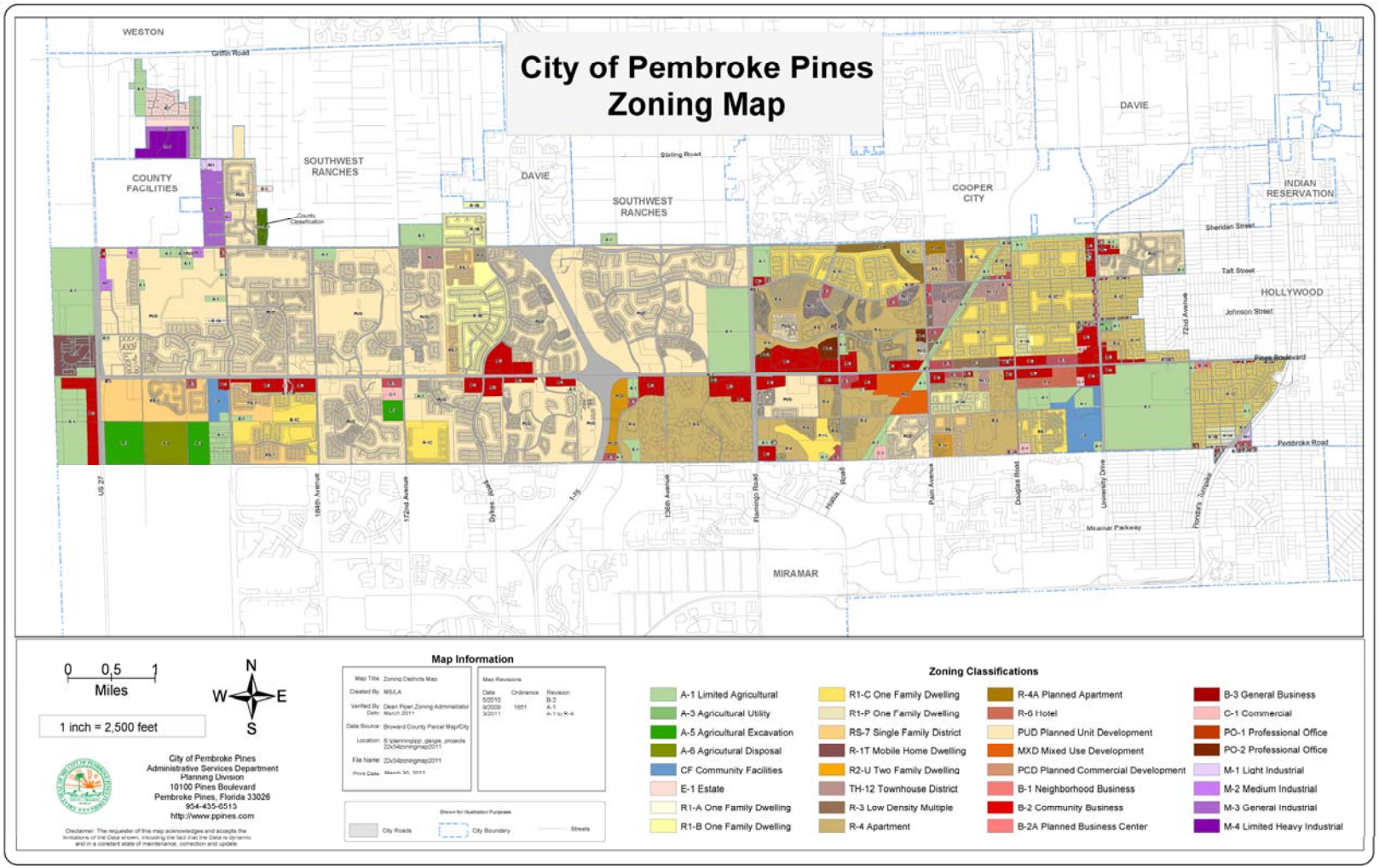
Commercial and Office Districts

There are a number of commercial and office districts within the Corridor study area, most of which are located immediately adjacent to the roadway. The most common of these districts within the study area include General Business (B-3), Community Business (B-2), Professional Office (PO-2), and, to a lesser extent, Commercial (C-1). The B-2 and B-3 districts are primarily for retail and commercial uses, with the B-3 district primarily focused on larger retail developments, including big box centers and regional malls. The P0-2 district along the Corridor is designed to accommodate suburban-style offices, particularly medical offices, and hospitals. The C-1 district is designated for warehouse and other intensive commercial uses and includes the Waste Pro USA facility at 172nd Avenue and two self-storage facilities located off of University Drive.

Mixed-Use Development (MXD) District

A MXD district is designed to encourage the development of mixed-use areas within the city through flexible design

# Map 5-5: Pembroke Pines Zoning Map




Hollywood/Pines Corridor Project

regulations to encourage more innovative developments. This designation can be used only for properties that are at least 25 acres in size and where there are at least two primary land uses. The district places a priority on architectural design and creating quality pedestrian environments by emphasizing quality streetscape and ground floor active uses. The City Centre development, located at the intersection of Pines Boulevard and Palm Avenue, is the only property zoned MXD within the study area at this time.

*Parking Standards*

The required parking standards in Pembroke Pines are found in Section 155.251 of the Land Development Code. These are generally typical suburban standards, requiring a minimum number of spaces but not imposing a maximum cap. The parking ratios are also indicative of those that would be found in most suburban areas. Examples include retail uses at 3.5 spaces per 1,000 sf, office uses at 3.5 spaces per 1,000 sf, and residential requirements between 2.0–2.1 spaces per unit. The City's code prohibits shared parking arrangements and requires that all individual uses have the required number of spaces for each individual use, which has the potential to inhibit mixed-use development.

**CONCLUSIONS**

There are significant differences between the existing land uses in the cities of Hollywood and Pembroke Pines, in large part due to the timeframes in which they were developed, with an east-to-west pattern generally consistent in Broward County. In many ways, Hollywood, an older city with more urban areas in need of new stimulation and redevelopment, has been more proactive in developing facilitating regulations, with an emphasis on creating a more urban and pedestrian-oriented development patterns along the Hollywood Boulevard Corridor. Evidence of this can be found in the CRAs, where regulations are focused more on building form and the public realm and where modified parking regulations allow for more flexibility to developers and reduce standards. In addition, the SR7 zoning districts provide a framework for creating a more transit-supportive development pattern through the thoughtful redevelopment of commercial uses along that corridor.

The land development code within Pembroke Pines is very suburban in nature and offers little design flexibility, consistent with many younger Florida communities. However, the MXD zoning designation emphasizes the characteristics of pedestrian activity and connectivity, which are essential to creating more transit supportive development pattern.

Although there are significant differences between the development patterns and land development codes in Hollywood and Pembroke Pines, there are still many opportunity areas along the Hollywood Pines Corridor where recommendations could be made that would provide for increased densities/intensities upon redevelopment and improving the transit and pedestrian/bicycle environment, particularly near mobility hubs. These recommendations, described in more detail in subsequent chapters, should focus on the following areas:

- Parking Flexibility—Allowances for shared parking, parking ratio reductions, and changes in parking dimensional requirements.
- Setbacks/build-to-lines—Reductions in setback requirements or flexibility within those requirements to encourage a street urban edge to develop over time.

Maximum setbacks or build-to lines could also be considered.

- Connectivity— Internal connectivity within developments, and connectivity between developments to reduce the number of automobile/pedestrian trips required to use Hollywood/Pines Boulevard.
- Design Overlay—Consideration of design overlay or guidelines in special locations to holistically explain to and incentivize the marketplace to undertake redevelopment conducive to these community goals.

# CONCLUSIONS AND RECOMMENDATIONS

The land-use analysis documented in this chapter includes the synthesis of both the quantitative and qualitative analyses included in Technical Appendices 5-F and 5-H, respectively.

The Hollywood/Pines Corridor contains a variety of historical and current land use and development characteristics that are representative of both urban and suburban environments. The corridor has evolved over time, and the existing conditions are the result of changes in demographics, economic conditions, and market preferences that have occurred over the last 100+ years.

The built-out nature of the corridor means that the next wave of population growth, which is expected to be significant, will need to be accommodated through infill development and redevelopment of existing urban fabric. This reality poses both a challenge and a tremendous opportunity to develop transit-supportive land-use patterns over time.

The key will be to concentrate development in locations that, whether as a result of existing land-use conditions or existing/ planned transit infrastructure, will have the greatest impact in supporting transit-supportive development and improving community livability. This will be achieved by focusing on the following:

- Market Demand – Understanding market demand along the corridor is key to identifying the best opportunities to encourage growth and economic development. The study area is large and contains more allowable density/intensity than will be needed to accommodate projected growth in the foreseeable future, although not necessarily in the right places. Identifying key market niches and providing opportunities for them at key locations (specifically Mobility Hubs) will be an important strategy to increasing transit support along the corridor.
- Connectivity – Improvements in connectivity will be extremely important for both pedestrian and automobile traffic. Improving connectivity between land uses will provide options for pedestrians and connect the grid to reduce traffic, specifically at major intersections.
- Public Realm Design – The development of a consistent, market-sensitive, and comfortable public realm design will be essential to the future success of the corridor. Large sidewalks, bike lanes, street lighting, and attractive streetscape should all be considered.
- Form-Based Regulation – Strong consideration should be given to implementing form-based regulations for development along the corridor, particularly at key locations. These regulations will help ensure that the desired development pattern emerges while allowing for land use flexibility.

Using the analysis included within this chapter and in Technical Appendices 5-F and 5-H, three Mobility Hubs were selected for the creation of development scenarios that assessed alternative build-out characteristics and public/private realm concepts at these key locations. The purpose of this exercise was to help the community more fully understand the positive effects of focused growth on the transit system and the overall land use patterns along the entire corridor. Specific land-use and transportation recommendations were made for consideration at the Mobility Hubs and, more generally, along the entire corridor to ensure that growth is managed and leveraged in a manner that creates a more livable, connected, and transit-supportive urban environment for both cities.

# 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.<br>• 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<br><br>Taft St. | Pines Boulevard<br><br>196th Avenue | NW 20th Street/ Taft Street<br><br>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.<br>• Enhance crosswalk to Price Park<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• Intersection geometric improvements at Flamingo Road and Douglas Road to improve pedestrian safety<br>• Construct sidewalk along the north side of Johnson Street from Douglas Road to University Drive.<br>• Consider need for mid-block crosswalks at NW 87th Way, NW 85th Way, NW 83rd Way and entrance to Fletcher Park.<br>• 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.<br>• Provide crosswalk markings and enhance lighting at signalized intersections.<br>• Provide marked, enhanced mid-block crossings at a various locations<br>• Conduct round-about feasibility study to evaluate the feasibility of replacing the traffic signals at 64th Avenue and 62nd Avenue with modern round-abouts.<br>• Apply bike boulevard design treatments along Lincoln Street from SR-7 to N 56th Street where Johnson Street lacks ROW to provide bike lanes<br>• 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.<br>• 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.<br>• 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<br>• Provide marked crosswalks and countdown pedestrian signals across all legs of the intersection at 30th Road<br>• Correct ADA issues and complete sidewalks from C-10 Canal to east of I-95<br>• Reconstruct the 2-lane divided roadway to a 2-lane undivided roadway to provide bike lanes and complete sidewalks; incorporate landscaping enhancements as feasible.<br>• Consider providing for left turn movements and reducing off-peak congestion by replacing the signals at 24th and 26th Avenues with roundabouts.<br>• 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.<br>• 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<br>North Rainbow Drive | Glenn Parkway<br>Polk St | N Rainbow Drive<br>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.<br>• Alternatively, mark outside lane with shared lane arrows. | 12 | 1.8 | $ 564,000 |
| 19 | Van Buren Street<br>South Rainbow Drive | S 56th Avenue<br>Van Buren Street | S Rainbow Drive<br>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.<br>• 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:<br>• improving the existing paved trail along the east side o Park Road south of Hollywood Boulevard<br>• 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)<br>• 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.<br>• Provide various intersection pedestrian enhancements including enhanced markings, lighting, signing, and revised curb radii geometry.<br>• Relocate and/or enhance various bus stops to improve convenience to signalized crossing locations.<br>• Provide crosswalks across Hollywood Boulevard at southbound and northbound I-95 ramp intersections.<br>• 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.<br>• 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.<br>• 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<br>• Provide marked (potentially buffered) bike lanes, wide sidewalks and furniture areas, and enhanced pedestrian crossing features at all signalized intersections.<br>• Complete 5 missing sidewalk segments.<br>• 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).<br>• 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.<br>• Provide various pedestrian enhancements to intersection of Hollywood Boulevard and SR A1A<br>• North of Hollywood Boulevard, provide enhanced crosswalks and intersection lighting at signalized intersections and potential mid-block crossing locations.<br>• 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<br>• 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<br>• 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.<br>• 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

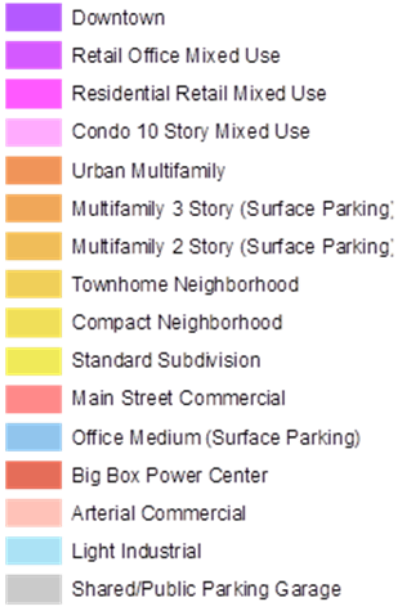
Market research was used to calibrate the building types (Table 6-5).

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*)

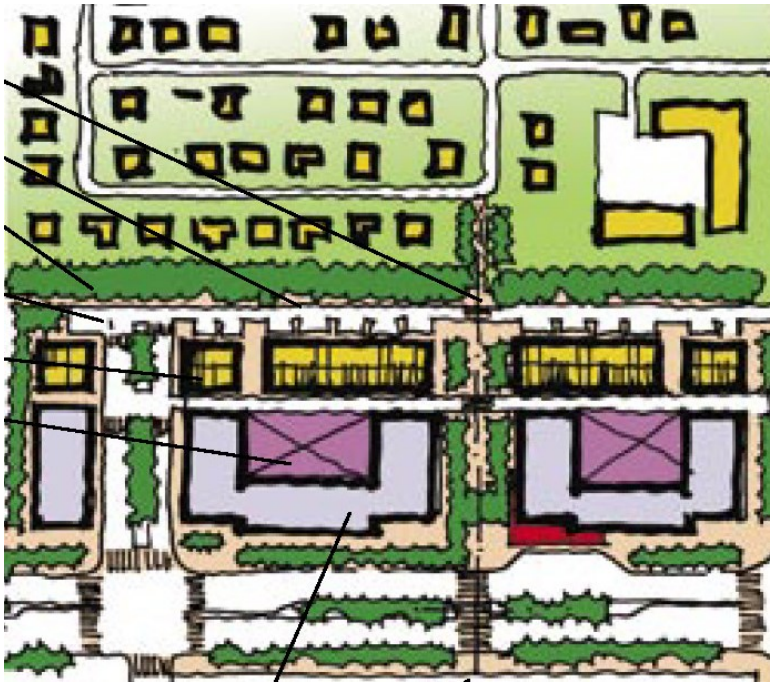


Figure 6-3: Transition from high-density form to single-family residential (Image source: *Broward County County-wide Community Design Handbook*)

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.

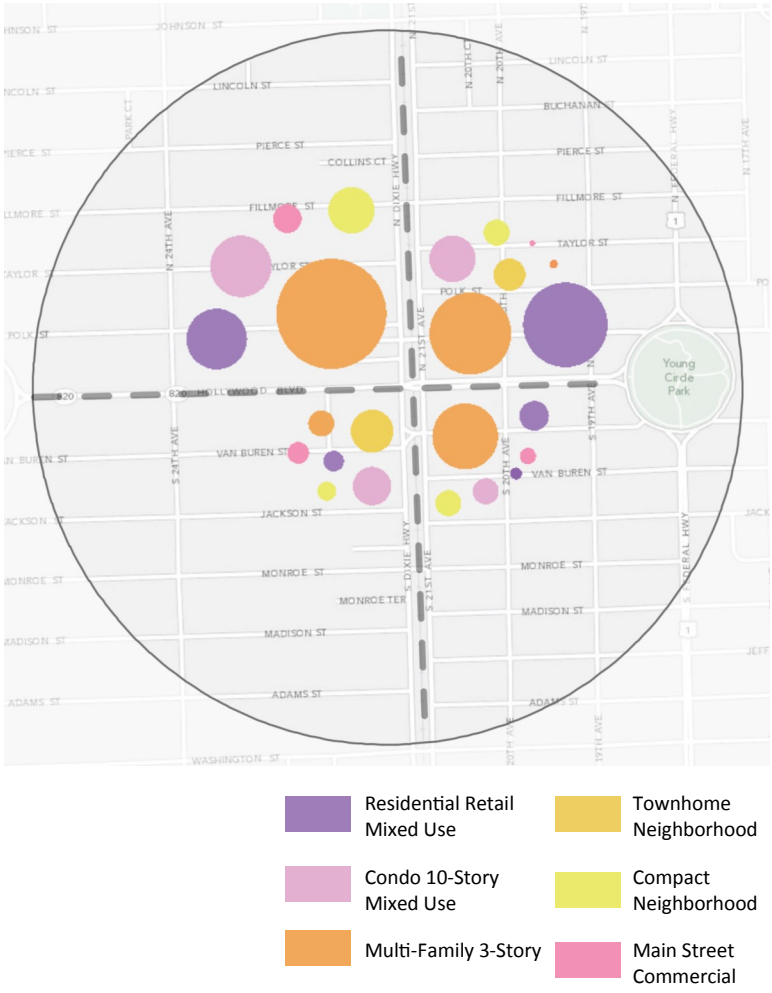



Figure 6-5: Hollywood Blvd & Dixie Hwy – Proposed Uses

Hollywood/Pines Corridor Project

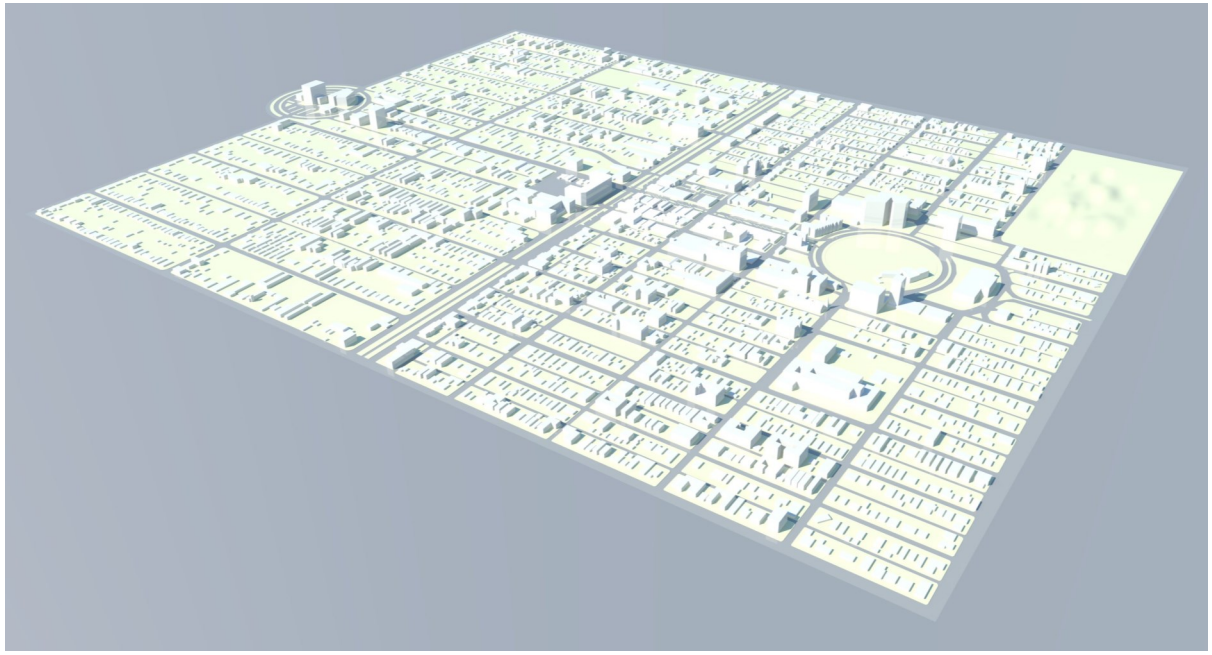


Figure 6-6: Hollywood Blvd & Dixie Hwy – Before

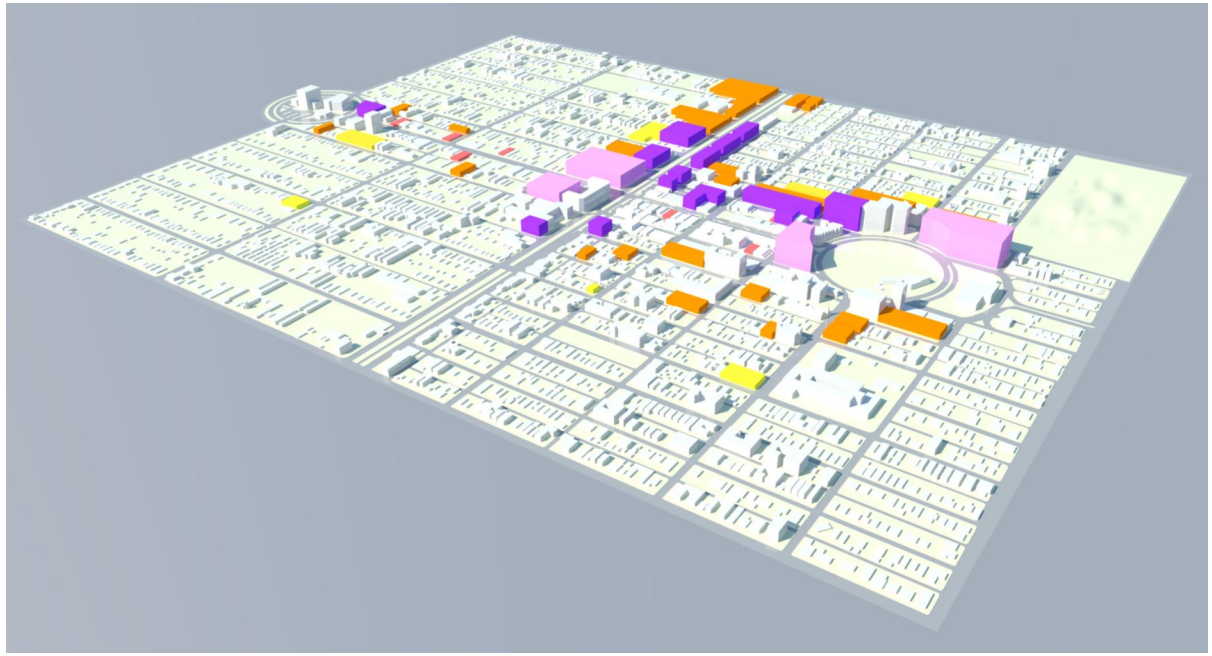


Figure 6-7: Hollywood Blvd & Dixie Hwy – After

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.

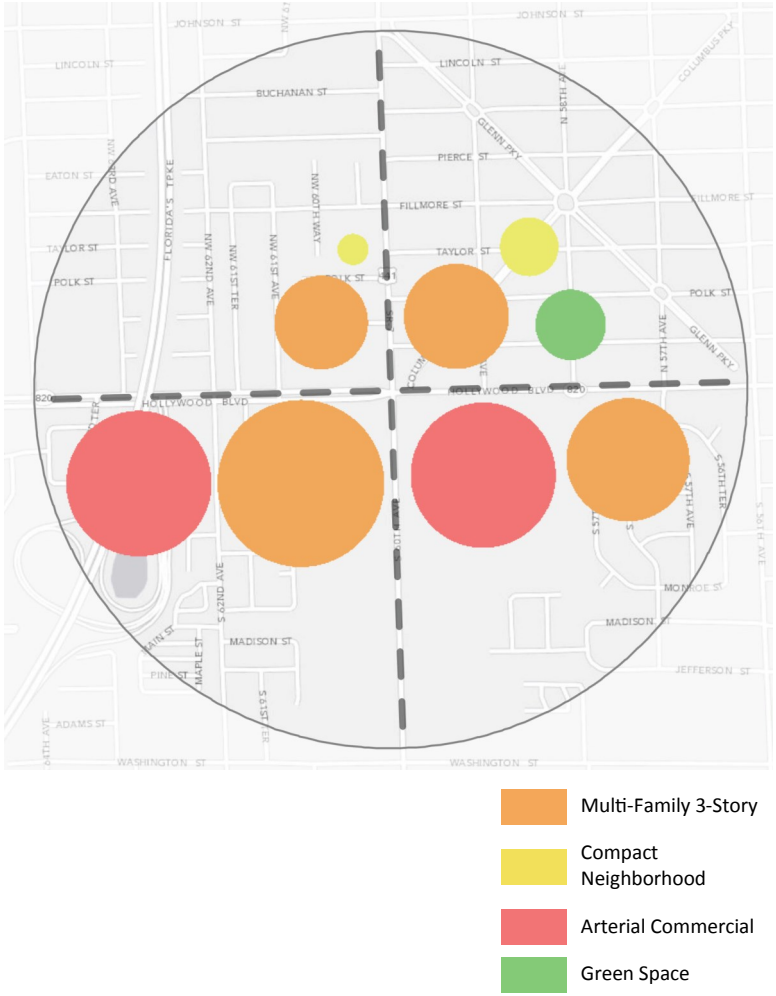



Figure 6-8: Hollywood Blvd & SR 7 – Proposed Uses

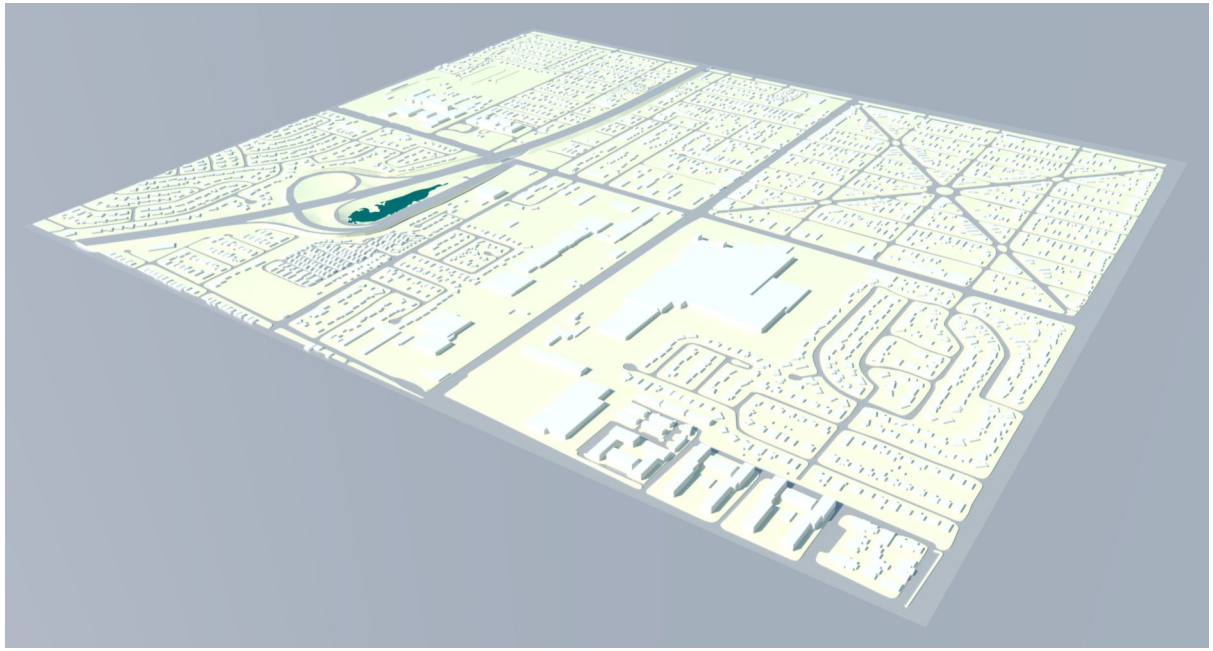


Figure 6-9: Hollywood Blvd & SR 7 – Before

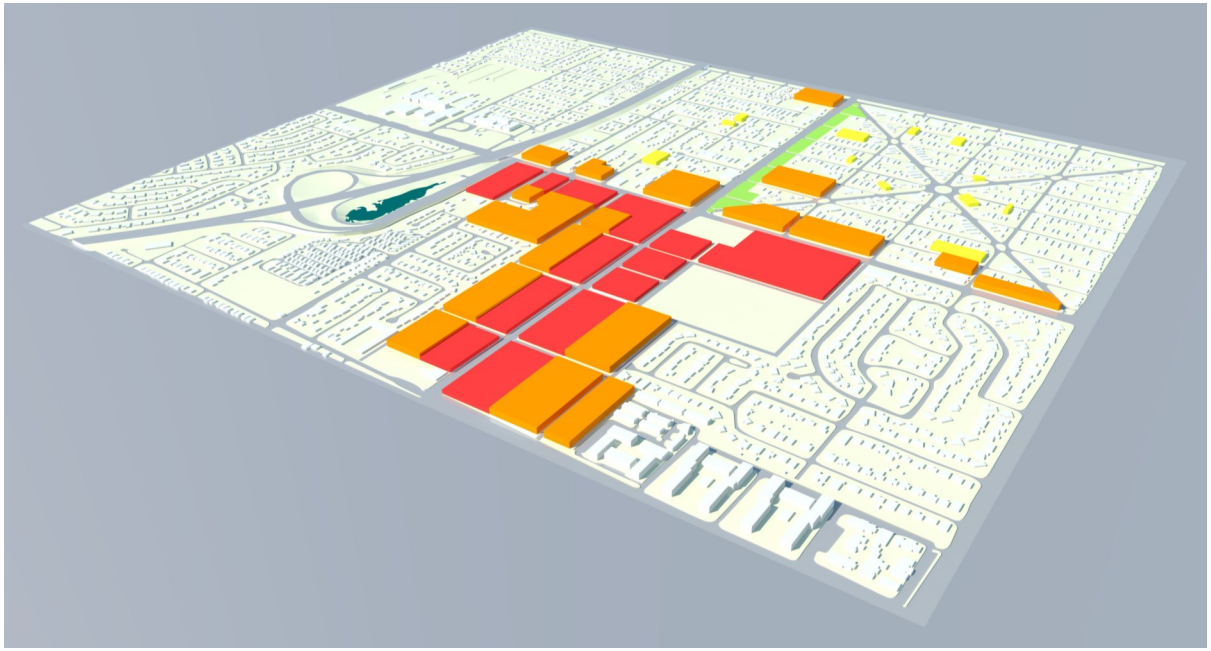


Figure 6-10: Hollywood Blvd & SR 7 – After

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.

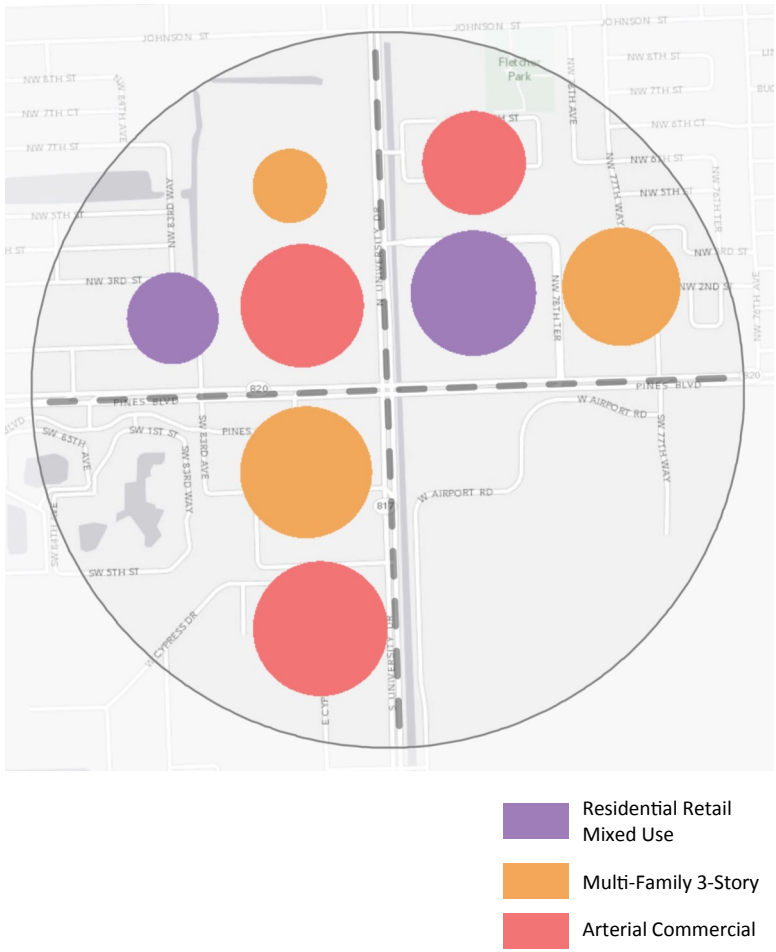



Figure 6-11: Pines Blvd & University Dr – Proposed Uses

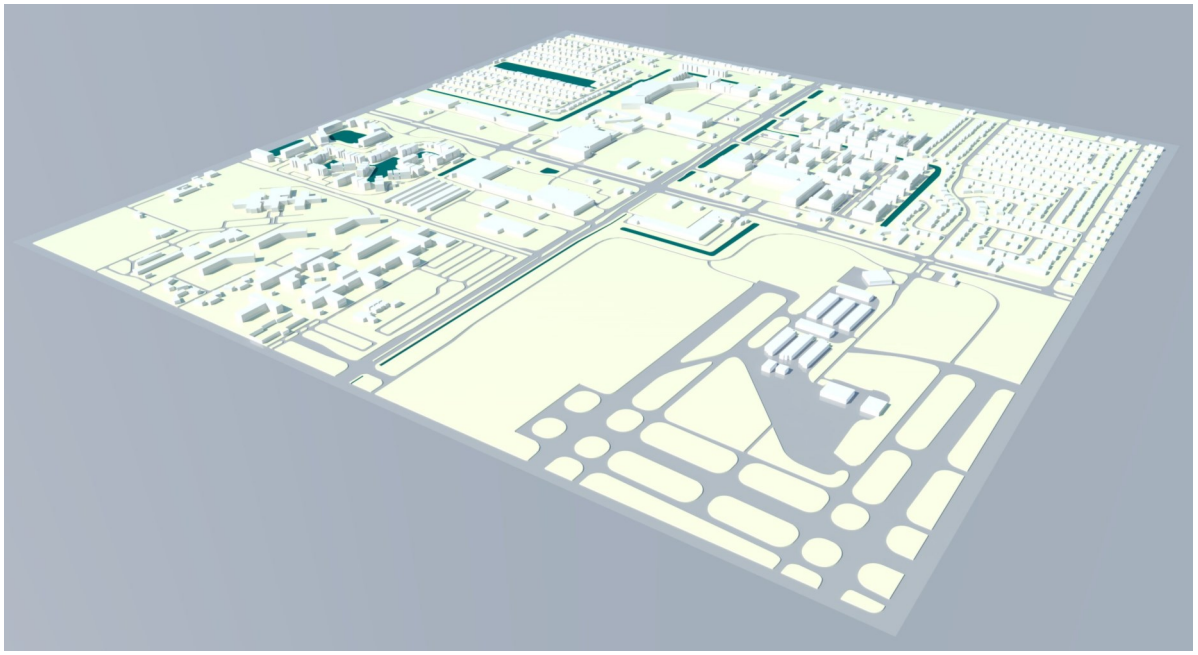


Figure 6-12: Pines Blvd & University Dr – Before

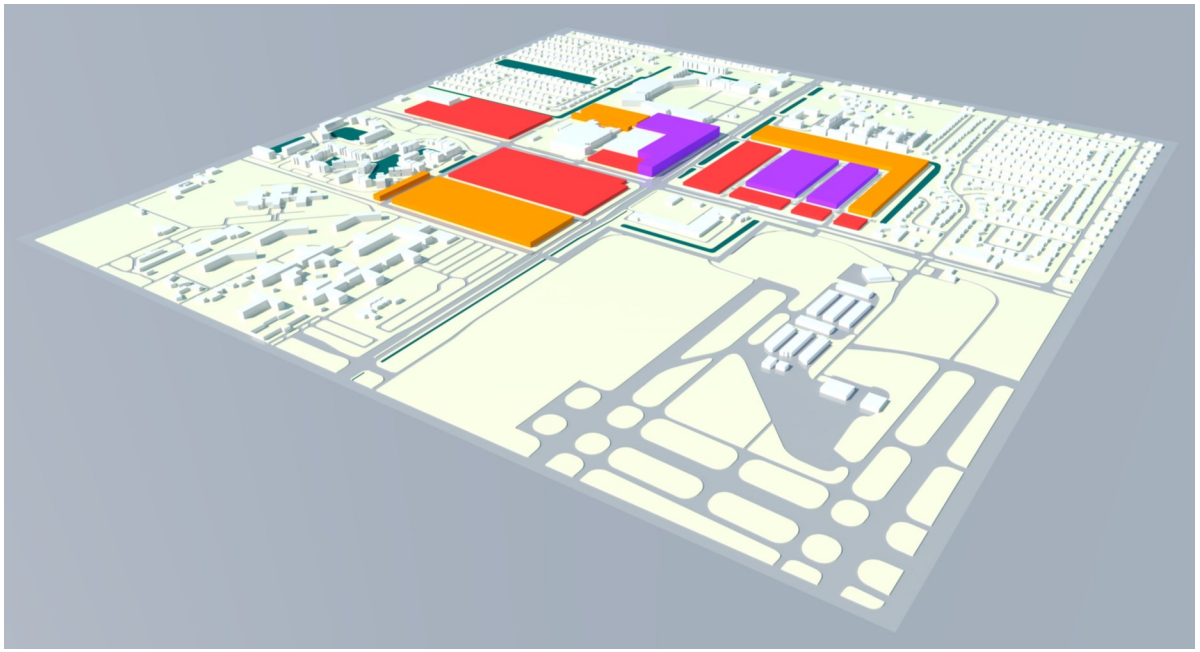


Figure 6-13: Pines Blvd & University Dr – After

**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

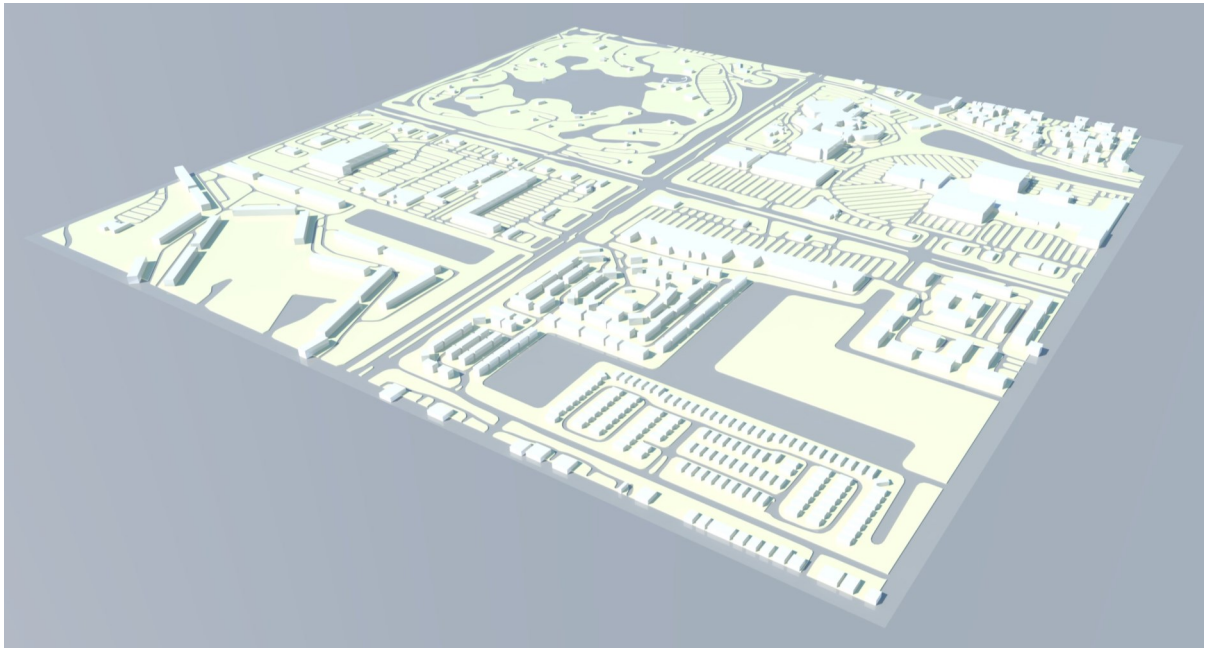


Figure 6-15: Pines Blvd & Flamingo Rd – Before

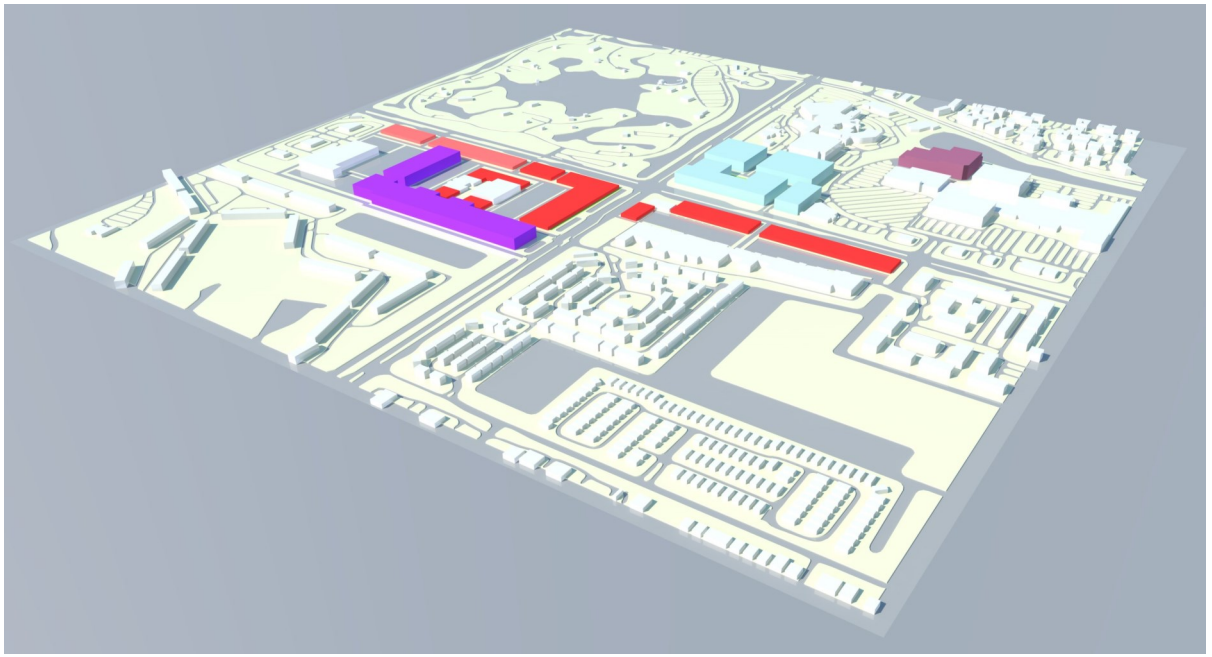


Figure 6-16: Pines Blvd & Flamingo Rd – After

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.


Chapter 7:

# IMPLEMENTATION AND MONITORING SYSTEMS

Hollywood/Pines Corridor Project

www.hollywoodpinescorridorproject.com

broward MPO metropolitan planning organization

# INTRODUCTION

Previous chapters discussed project goals and objectives, baseline conditions, transportation and land use analyses, short-term and longer-term transportation project opportunities, and Mobility Hub scenario planning outcomes for the Hollywood/Pines Boulevard Corridor. This chapter focuses on implementation steps for both transportation projects and strategies but also for incremental and transformative land use changes consistent with the project scenario planning activities.

With respect to implementation of transportation strategies, this chapter includes a status report summarizing actions that are already underway for many of the short-term "congestion management" projects identified in Chapter 6 and identifies potential next steps for other high-priority congestion management projects. Additionally, this chapter recommends strategies to move toward longer-term transit system enhancements and Mobility Hub facility and operational improvements identified in the prior chapter.

With respect to corridor land uses, this chapter provides recommendations related to land use plan and land development code modifications necessary to achieve the preferred alternative Mobility Hub scenarios discussed in Chapter 5 and 6. For each of the four scenario planning Mobility Hubs, plan and perspective views are provided illustrating how the toolkit concepts are applied to each.

Also, an "Urban Design Toolkit" is provided to show how the urban design strategies employed for each Mobility Hub preferred scenario can be abstracted to retrofit other Hubs and premium transit corridors throughout the county.

# CONGESTION MANAGEMENT PROJECT IMPLEMENTATION PLAN

As summarized in Chapter 6 and detailed in Technical Appendix 6-A, a major objective of the Hollywood/Pines Boulevard Corridor project is the identification and implementation of improvements to the corridor's transportation system. Project recommendations include mobility and safety enhancements for pedestrians, cyclists, motorists, and transit users with a strong focus on better connecting transit-supportive land uses to existing and planned/potential premium mass transit services.

Most of the project recommendations are grouped as thirty-two "linear" projects that run along segments of the major roadway network. These projects include pedestrian and/or bicycle facilities such as sidewalks, multi-use pathways, bike lanes, and shared lane arrow markings, and may also include point mobility and safety improvements such mid-block crosswalks, improvements to signalized intersection pedestrian features, or other improvements that fall within the extents of the primary facility project. Additionally, there are fourteen "point" projects that address specific types of mobility/safety issues at individual locations or clusters of locations where no "linear" project has been identified.

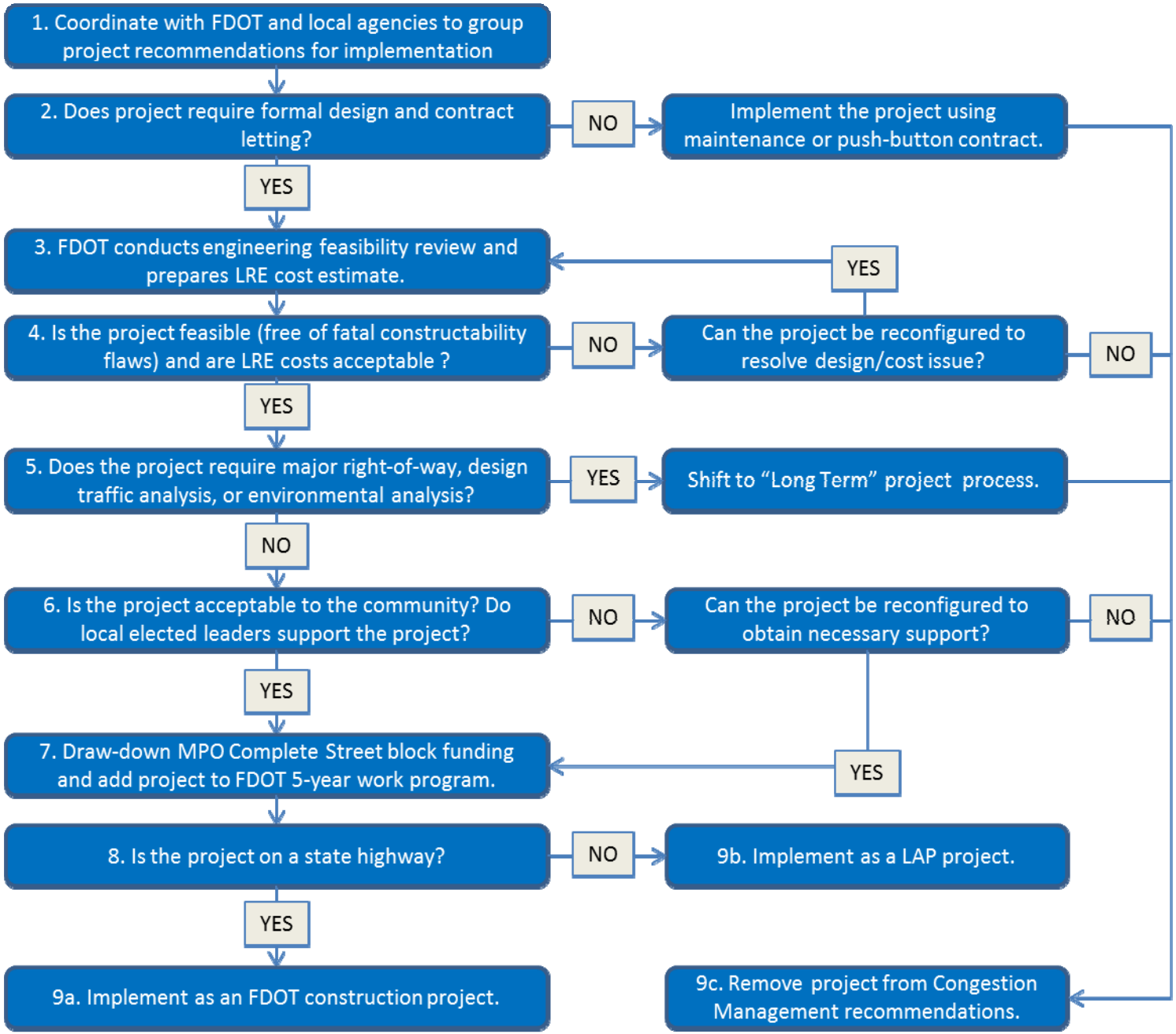
With the exception of the Johnson Street "complete street/ sidewalk" project, where there is a known need for right-of-way acquisition, the majority of the shorter-term congestion management projects were conceived in such a manner as to require little or no right-of-way acquisition. Also, these projects are intended to fall within the National Environmental Protection Act (NEPA) criteria for Categorical Exclusions and therefore should not require analysis of environmental impacts. In the event that further engineering analysis establishes that significant right-of-way acquisition or environmental impact analyses are necessary, these phases would need to be incorporated in the Implementation Plan and may impact the priority of the projects for funding within the MPO's 5-year Transportation Improvement Program (TIP).

## IMPLEMENTATION AND MONITORING PROCESS

Corresponding with the flow-chart shown to the right as Figure 7-1, the implementation process for the congestion management project recommendations incorporates nine major steps as follows:

1. **Verify Project Grouping:** The 32 project groups defined in Chapter 6 are based on logical extents for linear projects and individual locations for "spot" projects. However, there may be opportunities to regroup and/or combine projects for more efficient implementation. For example, spot sign and pavement marking upgrades included in a linear project could also be implemented using state or local agency maintenance contracts with a follow-on project to complete the bike-lane or sidewalk component of the project recommendation.

Figure 7-1: Short Term Congestion Management Implementation Process



It may also be expedient to combine multiple similar projects under one work program item to reduce administrative overhead associated with project design, construction contracting, and project management. It is anticipated that FDOT will primarily be responsible for determining project (re)grouping and that this will be a somewhat iterative process incorporating the outcomes of Step 3, Preliminary Project Report and LRE Cost Estimate.

**Monitoring Activity:** Regroup project elements in tracking spreadsheet.

2. **Determination of Implementation Mechanism:** As suggested above, some project recommendations may not require a formal design phase and can be implemented using maintenance forces or "push-button" contracts. Push-button contracts are pre-existing construction contracts that provide for construction of a narrow range of items on a work-order basis using pre-negotiated bid item prices. Examples of work that could be completed using maintenance or push-button contracts include bus stop relocation or shelter installation, spot lighting enhancements, and sign and pavement marking upgrades. Signal timing/phasing adjustments can also be accomplished through work-orders (provided the existing signal infrastructure can support the recommended modifications). Project/component recommendations that can be implemented in this way should be removed from the Congestion Management project list and tracked accordingly.

   **Monitoring Activity:** Note "work-order" implementation mechanism where appropriate and document as "complete" once task work order has been executed.

3. **Preliminary Project Report and LRE Cost Estimate:** Generally, the next step for projects that cannot be implemented using maintenance or push-button mechanisms is to perform a field review and develop a Preliminary Project Report (PPR) that will identify fatal flaws, general project parameters, need for design standard variances or exceptions, recommended community engagement process, and potential drainage and environmental permitting requirements. As part of the PPR, FDOT will also prepare a more specific cost estimate using the Department's Long Range Estimating (LRE) system. The LRE uses estimated quantities for various construction bid-items and is more accurate than the per-mile planning costs used to develop rough cost estimates shown in Chapter 6.

   **Monitoring Activity:** Append PPR to project group line-item in Monitoring Spreadsheet; update project costs.

4. **Determination of Project Feasibility and Acceptable Cost:** Based on the PPR and LRE cost estimate, issues may be identified that were not apparent in the conceptual project development process. These could include significant drainage or sub-surface utility impacts, unforeseen impacts to canopy trees, or right-of-way needs that will incur total takings or business damages. While no project is "unbuildable," significant feasibility issues may impact project cost and complexity to the extent that a determination may be made on the part of the MPO, in conjunction with FDOT and the subject local agency, that pursuing the project is not an appropriate use of resources. In this event, it will be necessary to either modify the project to eliminate the feasibility issue or remove the project from the Implementation Plan.

**Monitoring Activity:** Document cost-feasibility issues and disposition of the recommendation if deleted.

5. **Determination of Project Complexity:** Some projects may be cost-feasible in general, but through the PPR process, it may be determined that additional study or analysis is necessary before the project can be programmed. For example, if a project requires significant right-of-way acquisition (that cannot be assembled up-front by the local partner), cannot be processed through NEPA as a Categorical Exclusion (will require an Environmental Assessment), or will require significant design traffic or traffic operational analysis (potentially necessary for a road-diet), then the short-term implementation task will become this subsequent analysis or documentation rather than implementation of the actual project recommendation.

   **Monitoring Activity:** Update the project recommendation to describe the follow-up study/analysis process and/or shift to longer-term project tracking, if appropriate.

6. **Determination of Community Support:** If a project is generally feasible and does not require significant additional preliminary engineering/analysis work, then the next step in the implementation process is to verify that the project is acceptable to the public and to the elected leadership of the subject community. Although both the City of Pembroke Pines and City of Hollywood Commissions were briefed on the Congestion Management recommendations and tacitly endorsed the report, project-specific coordination is recommended prior to expending funds necessary to design and construct the project recommendations. As part of the PPR process, a community awareness plan should be developed that should include a determination of who (which agency) will be responsible for public outreach, what sort of public outreach activities shall be completed, and what sort of formal action shall be required from the City Commission prior to programming the project for design and construction. In most circumstances, a project that is not supported by the community and its elected officials should not be the subject of additional project development effort; however, there may be instances when a project to complete a key regional link is sufficiently important to the County as a whole that further project development and public engagement work may be merited despite initial opposition. In these events, it is recommended that direction be provided by the MPO Board and its committees prior to engaging in further effort to develop and promote the project.

   **Monitoring Activity:** Update the project recommendation to describe the public engagement process and outcomes. Document any formal endorsements (or objections) from the relevant City Commission or other local elected body.

7. **Formal inclusion in FDOT Work Program:** Once a project has been vetted for constructability/cost-feasibility and accepted by the community, the next step is to draw-down from the MPO's Complete Streets programmatic funding category to establish a specific, funded project in FDOT's 5-year work program. The MPO may also elect to identify the specific project in its TIP, although this is not mandatory. As part of establishing the project in the District Work Program, specific schedule points for formal scoping, design, and letting for construction will be established and can be updated in the project monitoring process.

**Monitoring Activity:** Update the project recommendation to document the work program Financial Management Number. From here, information about project schedule and financial information can be tracked using the Department's Work Program system and Project Suite.

8. **Determination of Production Approach:** If the project is on a State highway right-of-way, then FDOT will be responsible for project implementation. If the project is on a city or county road right-of-way, then FDOT will coordinate with either Broward County or the relevant city to enter into a LAP agreement (or other appropriate implementation process).

   **Monitoring Activity:** Document LAP agreements and summarize process (will local agency be responsible for design and contracting or will design services be provided by FDOT).

9. **Final Disposition of the Project:** The project shall be constructed by FDOT (Step 9a), through a LAP agreement by the city or county (Step 9b), or eliminated from the project recommendations implementation plan (Step 9c). Elimination of the project from the short-term project implementation plan can be accomplished by deleting the project or shifting it to the longer-term project implementation plan.

   **Monitoring Activity:** Update monitoring spreadsheet to reflect project completion (or deletion). Include final project costs for future reference.

**PROJECTS IN PROCESS**

Several of the Congestion Management project recommendations from the Hollywood Pines Corridor Project have already moved forward into the MPO's TIP and are being evaluated by FDOT. These include:

- Project ID# 14, Johnson Street from C-10 Canal to US-1 Complete Streets Project
- Project ID# 25, Hollywood Boulevard from City Hall to Dixie Highway Complete Streets Project

Additionally, funds are committed for design of an Anchor Hub along the project corridor in FY 15/16 with construction in FY 17/18. Project ID# 42, TSMO/ATMS implementation from 136th Street to Dykes Road has also been tacitly approved for implementation, though the current TIP has not yet been updated to include this project.

FDOT District 4 Office of Modal Development (OMD) is also working with the District Office of Traffic Operations to evaluate several project recommendations along Hollywood/ Pines Boulevard related to pedestrian safety/mobility enhancements. These include:

- Pines Boulevard at 62nd Avenue lighting enhancements
- Hollywood Boulevard at Tri-Rail pedestrian crossing
- Hollywood Boulevard at I-95 Interchange ramp treatments
- Pines Boulevard at Flamingo Road curb radii
- Flamingo Road at NW 4th Street curb radii
- SR A1A at Indiana Street crosswalk markings
- SR A1A at Johnson Street crosswalk markings

# LONG-TERM PROJECT IMPLEMENTATION PROCESS

Long-term projects identified in Chapter 6 include modifications to transit service and implementation of Mobility Hub land use and infrastructure design concepts. The specific implementation and monitoring processes for these recommendations are diverse but an outline of potential processes is provided here:

**TRANSIT SERVICE MODIFICATIONS**

As discussed in Chapter 6, potential modifications to transit service include:

- Splitting Route 7 into west and east route segments with a "turn-around" point at either the Flamingo Road or University Drive Mobility Hub.
- Eliminating Route 7 deviations—especially the deviation into Century Village.
- Leveraging Pembroke Pines Community Bus and Hollywood CRA Trolley service to more directly supplement the service provided by Route 7.
- Consideration of future premium, high-frequency service along the eastern portion of the project corridor.
- Implementation of right-turn-queue-jump and bus island infrastructure.

Each of these concepts requires further analysis to develop specific, actionable recommendations. As discussed in Chapter 6, the FDOT District 4 Office of Planning and Environmental Management is completing detailed transit data collection for the Hollywood/Pines Corridor. Originally, this data collection activity was going to be used as part of a planned PD&E/ Alternative Analysis study. Because of the absence of any projected new operating revenue to implement premium service, the PD&E study has been indefinitely postponed. However, the transit data collection outputs can still be used to evaluate the concepts discussed here.

**Recommended Implementation Items:** Upon completion of the FDOT transit data collection study the following next steps should be undertaken:

- BCT should review the analysis products to:
  - ◊ Determine if the route deviation into Century Village is appropriate given the Route 7 boardings and alightings at this stop and the extent to which these trips could be serviced by Community Bus or private shuttle services.
  - ◊ Determine if Route 7 should/could operate more efficiently if split into an east route and a west route, and whether the east/west route should split at Flamingo Road, University Drive, or one of the Mobility Hubs between these points (Palm Avenue or Douglas Road). This determination should consider the extent to which existing or modified Pembroke Pines Community Bus service can complement Route 7 (west).
- The Broward MPO should coordinate with FDOT District 4, BCT, and the City of Hollywood to evaluate the transit data

collection analysis products to determine whether a sub-section of the project corridor (e.g. US 1 to SR 7) has sufficient ridership density to warrant further analysis for premium transit service including BRT or high-frequency circulator service. This analysis should consider the extent to which the existing Hollywood Downtown/Beach Trolley service and perceived demand for a Tri-Rail shuttle service could be integrated into premium bus service along some sub-segment of the study corridor. Also, the analysis should incorporate the potential Tri-Rail Coastal Link station along Dixie Highway just north of Hollywood Boulevard.

- FDOT District 4, following completion of the Right Turn Queue-Jump Pilot Project at SR 7 and Prospect Road, should coordinate with the Broward MPO and BCT to establish parameters for the prioritization and implementation of right-turn queue jump facilities on a countywide basis. Once these parameters have been established, the potential queue-jump intersections identified in this report should be evaluated consistent with the District's parameters.

**MOBILITY HUB RECOMMENDATIONS**

As discussed in Chapter 6 and in this chapter, there are opportunities to improve the multimodal infrastructure at Mobility Hubs. These include improvements provided through the conventional transportation project development processes and opportunities to implement urban form, connectivity, and transit and traffic circulation improvements on the adjacent properties through coordination with, and encouragement of, redevelopment and adaptive reuse.

**Recommended Implementation Items:** Table 7-1 provides an overview of the Mobility Hub infrastructure recommendations described in Chapter 6 as well as land use, urban form recommendations included later in this Chapter. The table also provides suggested implementation/monitoring activities to help facilitate the long-term implementation of these recommendations.

Table 7-1: Mobility Hub Recommendation Implementation Process

| Mobility | Recommendation Overview | Implementation and Monitoring Activities |
|---|---|---|
| **Dykes Road** | • Consider the postal distribution center at southeast quadrant as possible express bus terminal park-and-ride and mixed-use development site.<br>• Signalize the intersection approximately 0.25 miles east of Dykes road and develop a perimeter road system through the postal distribution center property leveraging the existing shopping center roadway on the northeast quadrant of the Hub area. | • Contact USPS to verify status of the postal distribution center.<br>• Coordinate with BCT, FDOT, and USPS to determine level of interest to develop this site as a park-and-ride facility. If desired, evaluate opportunities to use part of the site as a park-and-ride facility on an interim basis pending relocation of the postal distribution center.<br>• If the site is acquired as a park-and-ride and the service is successful, consider issuing a RFP for development of the site consistent with appropriate TOD goals/guidelines—consider interim and final build-out options. If developed as a park-and-ride, evaluate feasibility of signalizing the subject intersection and developing a perimeter road system to bypass the Dykes Road intersection to the east. |
| **I-75** | Not currently an access point for I-75 express bus service. No recommendations at this time. | Monitor for future consideration as an I-75 Express Bus access point |
| **Flamingo Road** | • Recommendations to create off-road hub facility are described in the Flamingo Road Preferred Land Use Scenario.<br>• No Interim recommendations for Hub infrastructure are included in this Report. BCT is making some improvements to the existing mall transfer center. | • Coordinate with City of Pembroke Pines and Broward Planning Council to implement Land Use Plan, Zoning, and Land Development Code modifications consistent with this Chapter.<br>• Coordinate with the City of Pembroke Pines to monitor development opportunities for the site. Consider leveraging Mobility Hub funding to provide for structured parking or other public-private partnership incentives to ensure that redevelopment (if and when it occurs) is consistent with the transit infrastructure vision established in this Chapter. |
| **Palm Avenue** | • Provide for connectivity and circulation improvements to create perimeter street system using 103rd Avenue, NW 2nd Street, 96th Avenue, and SW 2nd Street (City Hall/ City Center entrance) and connect 103rd Avenue through to Johnson Street.<br>• Short-term recommendations and longer-term recommendations related to potential for queue jump lanes and/or bus islands are included in the "Congestion Management" recommendations section of this report. | • Coordinate with the City of Pembroke Pines to monitor development opportunities for the northwest and southeast quadrants in order to implement perimeter street system.<br>• Encourage the City of Pembroke Pines to coordinate with property owners and the neighborhood to provide the recommended bike/ped connection on 103rd Avenue. Provide Complete Streets funding if necessary.<br>• Proceed with Implementation and Monitoring Strategies for "Congestion Management" recommendations and transit service modification recommendations described here-in. |

Table 7-1 (continued): Mobility Hub Recommendation Implementation Process

| Mobility | Recommendation Overview | Implementation and Monitoring Activities |
|---|---|---|
| **Douglas Road** | Short-term recommendations and longer-term recommendations related to potential for queue jump lanes and/or bus islands are included in the "Congestion Management" recommendations section of this report. | Proceed with Implementation and Monitoring Strategies for "Congestion Management" recommendations and transit service modification recommendations described here-in. |
| **University Drive** | • Shift stop locations to increase use of the traffic signal and provide for more convenient transfers.<br>• Consider creating an off-road hub facility leveraging the Broward County Aviation Authority Property on the southeast quadrant of the intersection.<br>• Consider opportunities for queue-jump and/ or bus island infrastructure.<br>• Implement land use and perimeter street system contemplated in the Preferred Land Use Scenario. | • Evaluate FDOT ridership data and supplemental data collected for this Hub to understand transfer and pedestrian flow patterns, and to determine if University Drive is the more logical point (compared with Flamingo Road) to split Route 7—if a split is merited at all.<br>• Contact the Broward County Aviation Authority to review Mobility Hub Preferred Scenario and gauge level of interest and potential for cooperation to develop Mobility Hub infrastructure including the recommended perimeter street system.<br>• Coordinate with City of Pembroke Pines and Broward Planning Council to implement Land Use Plan, Zoning, and Land Development Code modifications consistent with this Chapter.<br>• Coordinate with the City of Pembroke Pines and Broward County Aviation Authority to monitor redevelopment activity to implement the Preferred Land Use Plan Scenario urban design and perimeter street concept.<br>• Coordinate with University Drive Alternatives Analysis. |
| **SR-7** | • Shift stop locations to increase use of the traffic signal and provide for more convenient transfers.<br>• Consider opportunities for queue-jump and/ or bus island infrastructure.<br>• Implement land use and street grid improvements identified in the Preferred Land Use Scenario. | • Evaluate FDOT ridership and transfer data collected for this Hub to understand transfer and pedestrian flow patterns to determine best stop placement and develop conceptual designs and cost estimates as part of the SR-7 Multimodal Corridor Study.<br>• Coordinate with City of Hollywood to implement zoning, and land development code modifications consistent with this Chapter and necessary to implement the TOC overlay plan category.<br>• Coordinate with BCT and FDOT to determine level of interest to acquire the General Food Services site and develop a park-and-ride facility and or TOD public-private-partnership consistent with the Preferred Land Use Plan Scenario. |

Table 7-1 (continued): Mobility Hub Recommendation Implementation Process

| Mobility Hub | Recommendation Overview | Implementation and Monitoring Activities |
|---|---|---|
| **Tri-Rail/ I-95** | • Short-term "Congestion Management" recommendations include provision of bike lanes along this critical section of Hollywood Boulevard, provision of bike facilities along Park Road to provide proximate north-south access, and pedestrian safety/mobility improvements to the I-95 interchange<br>• Long-term, the City of Hollywood has developed a concept to connect 30th Road from Johnson Street to Hollywood Boulevard though the Tri-Rail/Amtrak parking lot by reconfiguring the Stanley Goldman Park property. This "Complete Streets" project would provide vehicular access to the Tri-Rail station from Johnson Street, could provide for additional Tri-Rail parking, and would make the current trail through the wooded, undeveloped park more secure for pedestrians and cyclists. Non-residential development opportunities are also possible on park property as well as in place of the mini-storage facility that could buffer adjacent neighborhoods from noise associated with the train activity and I-95. | • Proceed with Implementation and Monitoring Strategies for "Congestion Management" recommendations and transit service modification recommendations described here-in.<br>• Coordinate with the City of Hollywood and SFRTA, to further develop the concept of reconfiguring Stanley Goldman Memorial Park to provide safe, convenient through access for cyclists, pedestrians, and motor vehicles from Hollywood Boulevard to Johnson Street, nominally connecting at Johnson Street at the existing traffic signal at 30th Road. Consider leveraging Mobility Hub funding to help finance the roadway/Tri-Rail access component of the project or to provide for parking that could initially be used to support Tri-Rail commuters but eventually leveraged to promote development of surplus park land.<br>• Continue to monitor potential development opportunities associated with the large golf course property between Park Road, Hollywood Boulevard, I-95, and Pembroke Road for possible TOD opportunities related to the Tri-Rail Mobility Hub.<br>• Continue to monitor progress towards positive train control. implementation, which will offer opportunities to address the "phantom" gate closings at Hollywood Boulevard (and other CSX/Tri-Rail crossings adjacent to I-95 throughout Broward County). |
| **Dixie Highway** | Dixie Highway Mobility Hub recommendations are, for the most part, contingent on the provision of a Tri-Rail Coastal Link station at this Hub. In this event, there will be a need to relocate a bus stop along Tyler Street to better serve the Hub/station and a need to restructure the Hollywood Downtown/Beach Trolley System as well. | • Monitor progress of Coastal Link PD&E. If the project moves forward, accelerate funding for the Dixie Highway Complete Streets project and coordinate with SFRTA, BCT, the City of Hollywood, and the Hollywood CRA to provide appropriate mainline bus and circulator trolley bus connections. |

Table 7-1 (continued): Mobility Hub Recommendation Implementation Process

| Mobility Hub | Recommendations | Implementation and Monitoring Activities |
|---|---|---|
| **US-1/Young Circle** | • Short-term recommendations include provision of bus shelters to support transfer activities along Young Circle adjacent to the Publix property and implementation of signal timing, coordination, and ATMS investments to improve traffic flow around the Circle which is thought to contribute to cut-through traffic in the Hollywood Lakes neighborhoods.<br>• Longer-term, if Publix relocates to the northeast quadrant of Young Circle, opportunities may exist to connect Hollywood Boulevard directly to the circle on the west side and eliminate or diminish the intersections at Harrison and Tyler Street. This could provide for significant Mobility Hub design options, but there are too many unknowns to make a specific recommendation at this time. | • Encourage BCT to provide bus shelters along the Circle improve conditions at these stops.<br>• Monitor efforts by BCTED and FDOT to improve signal coordination and signal infrastructure around the Circle and prioritize funding for ATMS implementation consistent with overall MPO priorities.<br>• Monitor activities to redevelop the Publix site and participate in Mobility Hub design strategies that could improve overall mobility in the Circle for all road users.<br>• Coordinate with the BCT US-1 Corridor Study. |
| **A1-A** | • Shift Hub designation to visitors center at A1-A and Johnson Street<br>• Short-term recommendations include relocating BCT Route 4 stops to nearside locations at Johnson Street to make better use of the existing signal and evaluation of the potential for mid-block marked crosswalks at Fillmore Street and Michigan Street. | • Update Hub location and typology to “Community Hub.”<br>• Coordinate with BCT to evaluate the feasibility of shifting stop locations consistent with the “Congestion Management” recommendations.<br>• Coordinate with FDOT and the City of Hollywood to evaluate the feasibility of proposed mid-block crosswalks. |

# MOBILITY HUB TRANSFORMATIONS AND LAND USE AND CODE RECOMMENDATIONS

**INTRODUCTION**

The purpose of this section of the report is to build upon the land use analysis completed in Chapter 5 and the scenario development process described in Chapter 6 to illustrate conceptual design solutions that show how the approximate density, use, development type, and urban form can be accomplished by following the Urban Design and Implementation Toolkit principles (described at the end of this Chapter). For each four Mobility Hub preferred scenarios, the following conceptual graphics were completed to demonstrate the Mobility Hub transformations:

- ***Master Plan*** – The master plan shows an example of how specific parcels targeted for redevelopment could accommodate building types that meet the development standards defined in the Preferred Scenario. The scale of these drawings show a ¼-mile radius (instead of the defined ½-mile radius) around the center of the Mobility Hub to be able to include a certain level of detail and a comprehensive graphic of development solutions.
- ***Section*** – The sections demonstrate example design details and proportions that should be included in the public realm in the Mobility Hubs. These sections are of side streets that provide access to transit for pedestrians, provide alternative routes to alleviate congestion, and accommodate transit facilities.
- ***Perspective*** – The perspectives of chosen views within each Mobility Hub are intended to represent the detailing of the public realm and overall environment that the urban design standards are intended to create.

This section also identifies recommendations for potential land use and land development code modifications that may help facilitate the evolution of the Preferred scenario for each of the four selected Mobility Hubs. For recommendations related to local LDC, it is important to note that the selected approach (new zoning districts, design overlays, or Form-Based Code regulations) will depend greatly on the local municipality's preferred method of implementation. For the purpose of this section, recommendations were developed based on zoning changes within the existing zoning atlases of Hollywood and Pembroke Pines. However, this approach to describing potential changes was not meant to preclude an alternative (e.g., new zoning designations) or more comprehensive (e.g., implementation of a Form-Based Code) approach by the local municipalities.

This section is not a comprehensive assessment of the regulatory framework, but instead represents an important starting point to identifying where regulatory conflicts are limiting the possibilities of the physical transformation of the selected Mobility Hubs.

# HOLLYWOOD BOULEVARD & DIXIE HIGHWAY DESIGN CONCEPTS AND LAND USE RECOMMENDATIONS

The following urban design standards have been implemented in the Hollywood Boulevard & Dixie Highway Mobility Hub. The numbers correspond to the location on the master plan of where they have been exemplified.

## 1 CONNECTIVITY

This Mobility Hub benefits from an existing connected street network. The grid was maintained in proposed redevelopment sites; no streets were closed to aggregate larger parcels. The location called out on the Master Plan (Figure 7-2) is an important side street that will accommodate bus and other transit facilities that will support passenger rail.

## 2 SITE ORIENTATION

Proposed redevelopment building types are located adjacent to the public realm with little setback. Buildings like the one called out on the Master Plan (Figure 7-2) are oriented to address the more prominent Dixie Highway, with service access located toward a service alley.

## 3 PUBLIC REALM DESIGN

This Mobility Hub benefits greatly from a very walkable pedestrian environment on Hollywood Boulevard, east of the Dixie Highway intersection and a funded project to reconstruct Hollywood Boulevard as a “complete street” west of Dixie Highway. Large sidewalks, a tree canopy, and on street parking, for example, support the historic Main Street commercial uses. This treatment should be continued throughout the Mobility Hub, especially along Dixie Highway and to the east of the main intersections (as called out in Figure 7-3) By continuing the same design detail in the public realm along the length of Hollywood Boulevard, the healthy downtown identity and economic vitality could be extended to a larger part of the City of Hollywood.

## 4 GROUND FLOOR DESIGN/USE

Mixed-use buildings proposed along Dixie Highway can take advantage of the proposed rail transit station and their active ground floor uses will enliven the public realm. Ground-floor retail and commercial spaces will also take advantage of a customer base that extends beyond the existing walkable downtown as users of the commuter rail service transfer to and from connecting bus and circulator systems.

## 5 TRANSITION TO NEIGHBORHOODS

Sensitivity to the surrounding context is important to preserve the vibrant Main Street that exists along Hollywood Boulevard. (Figure 7-4) Where possible, infill retail buildings should be constructed in vacant sites and on surface parking lots to continue the active frontage along this section of the Corridor that is an influential part of Hollywood’s identity. Sensitive infill development is also important to grow the vibrant downtown throughout Mobility Hub, extending the neighborhood uses closer to existing residential areas.

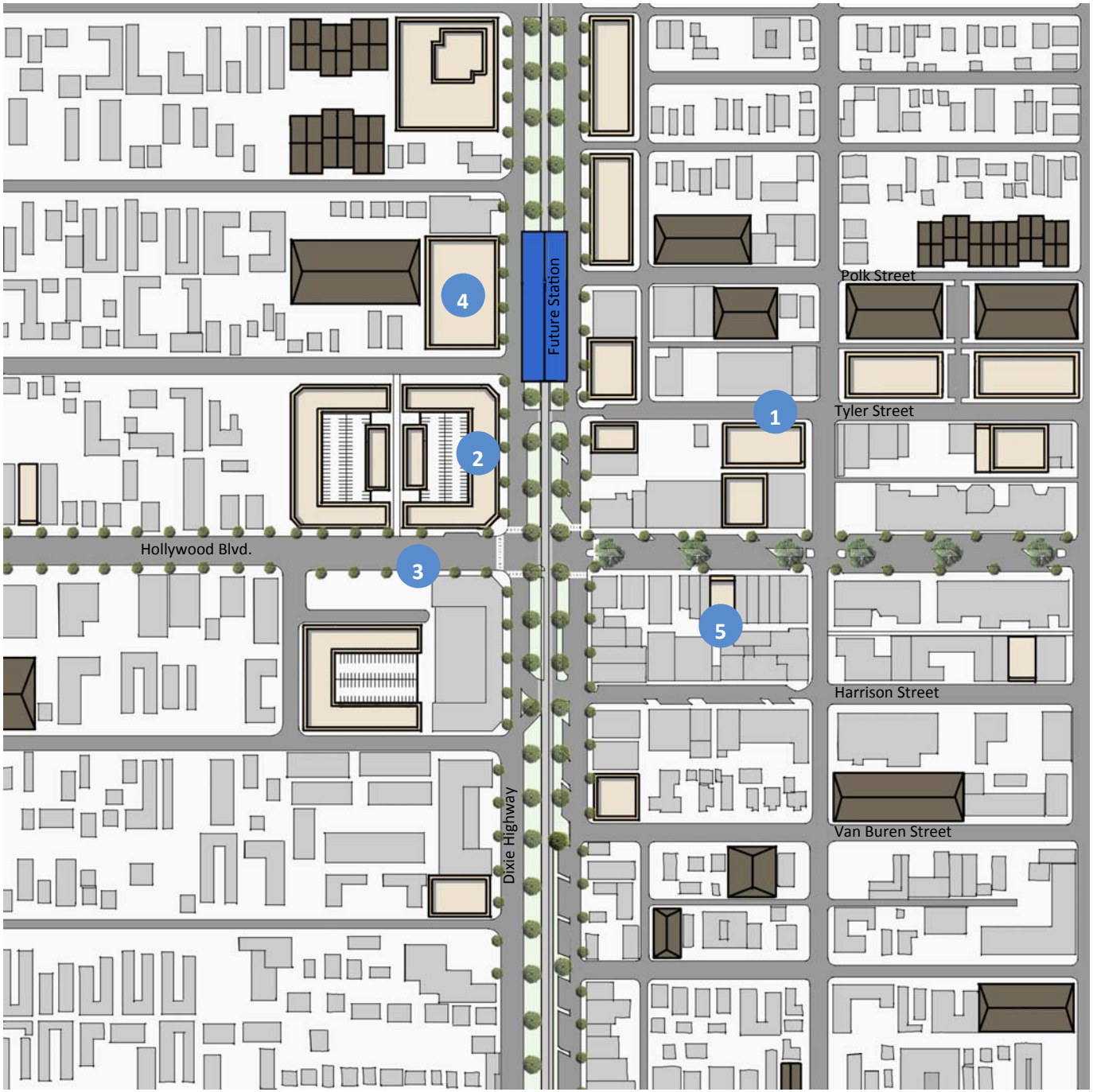
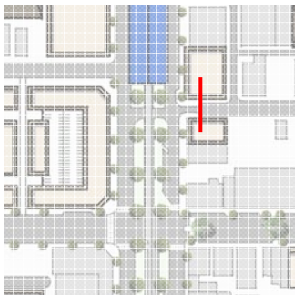



Figure 7-2: Hollywood Blvd & Dixie Hwy – Proposed Master Plan



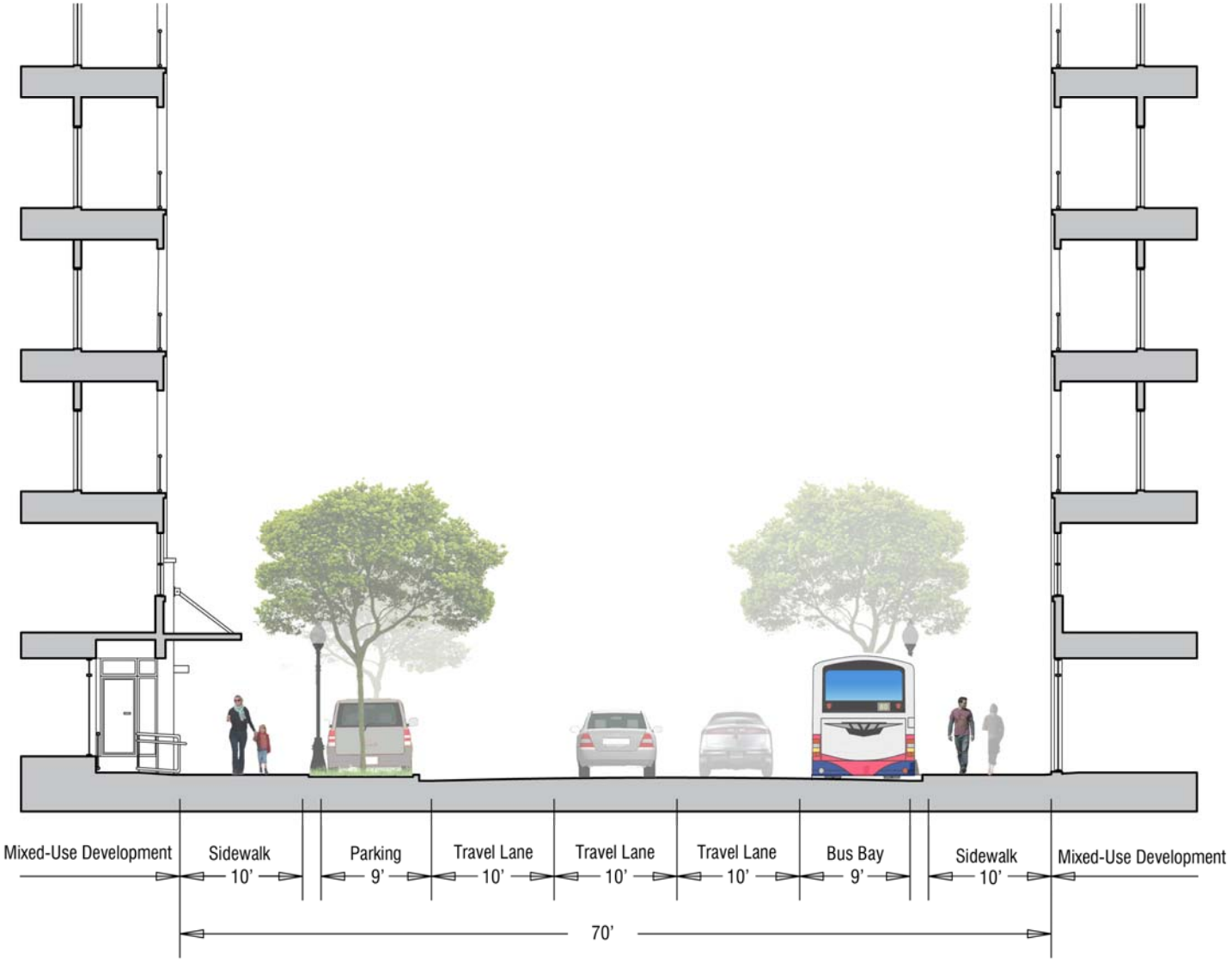



Figure 7-3: Hollywood Blvd & Dixie Hwy – Public Realm Section

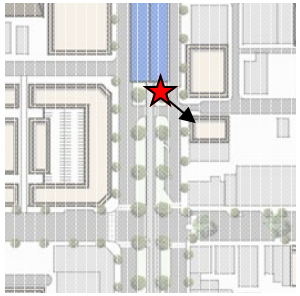


Figure 7-4: Hollywood Blvd & Dixie Hwy – Tyler Street

**HOLLYWOOD BOULEVARD & DIXIE HIGHWAY LAND USE, ZONING, AND LAND DEVELOPMENT CODE RECOMMENDATIONS**

As described in more detailed elsewhere in this report, the Mobility Hub at Hollywood Boulevard & Dixie Highway represents an opportunity for significant transit-oriented development (TOD) as a result of the establishment of a new rail station along the FEC rail corridor, which will be located immediately to the north of Hollywood Boulevard. This station location will act as the future core of this Mobility Hub.

The Preferred scenario assumes mixed-use redevelopment and urban infill that will increase both residential and non-residential uses within close proximity of the Mobility Hub. This scenario assumes the use of a variety of development types, which are listed in Table 7-2 along with the average building height and FAR assumed for each.

To determine potential comprehensive plan and LDC changes that may be required in order to accommodate the Preferred scenario, building type characteristics (allowable uses, building height, and FAR) were compared to those allowed within the existing regulatory framework.

***Hollywood Comprehensive Plan***

As noted in Chapter 5 (See Figure 5-5), the majority of this Mobility hub is located within a designated Regional Activity Center (RAC), which includes much of Downtown Hollywood and allows for a variety of uses and development densities/ intensities. Unlike most Future Land Use designations, the RAC does not have specific density/intensity limits, and instead has an overall development program assigned to it. Within the RAC, the total allowable development is as follows:

- Residential Land Uses – 16,100 dwelling units
- Commercial Land Uses – 3,280,000 sf
- Office Land Uses – 1,500,000 sf
- Community Facilities – 390,000 sf
- Open Space/Recreation Uses – approximately 47.44 acres

Based on the current development pattern and the scale of the proposed uses, the RAC can more than accommodate the development identified within the Preferred scenario.

Table 7-2: Hollywood Blvd & Dixie Hwy Development Type Characteristics

| Development Type* | Characteristics |
|---|---|
| Downtown | Avg. Height - 6 stories<br>Avg. FAR - 3.98 |
| Residential Retail Mixed-Use | Avg. Height - 3 stories<br>Avg. FAR -1.56 |
| Condo 10-Story | Avg. Height - 10 stories<br>Avg. FAR - 6.67 |
| Urban Multi-Family | Avg. Height - 5 stories<br>Avg. FAR - 2.87 |
| Multi-Family | Avg. Height - 3 stories<br>Avg. FAR - .85 |
| Townhome Neighborhood | Avg. Height 2 stories<br>Avg. FAR - .45 |
| Compact Neighborhood | Avg. Height - 2 stories<br>Avg. FAR - .49 |
| Main Street Commercial | Avg. Height - 2 stories<br>Avg. FAR - 1.0 |

* building type details can be found in Tech Appendix 6-E, Figure 6E-17

***Hollywood LDC***

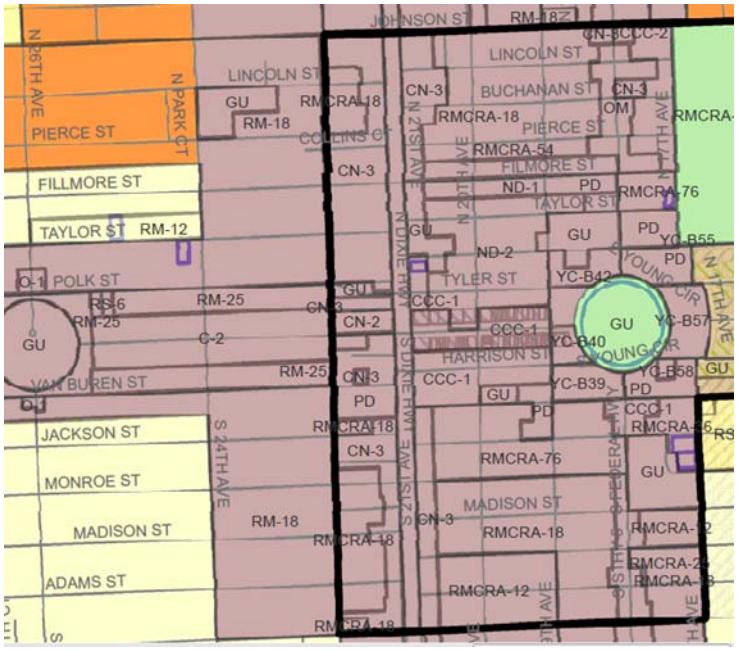
The Hollywood Boulevard & Dixie Highway Mobility Hub is located at the western end of Downtown Hollywood and, therefore, significantly changes in character from east to west. The land located east of Dixie Highway is within the Downtown CRA, which has specialized zoning districts. The western boundary of the Downtown CRA is located just to the west of Dixie Highway and, outside of this boundary, the standard zoning districts are used, consistent with the remainder of the city. As shown in Figure 7-5, the Preferred scenario includes new growth located primarily adjacent to the existing corridors. In this scenario, the potential development north of Hollywood Boulevard on Dixie Highway is particularly significant, driven by the future rail station located there.

Due to the urban setting of this Mobility Hub, the zoning designations in place are transit-supportive and are fairly consistent with the needs of the Preferred scenario. However, the following changes should be considered for each quadrant of the Mobility Hub area.

*NW Quadrant (within Downtown CRA)*
This area is located immediately adjacent to the future rail station and should be allowed to transition from low-scale, low-density commercial uses to mixed uses with residential. The following recommended potential changes will help to create an urban edge along Dixie Highway with easy pedestrian connections to the station:

- Consider modifications to the existing Neighborhood Commercial High Intensity Zoning District (CN-3) to allow for a full mix of uses, including residential.

Figure 7-5: Dixie Highway Zoning Map




- Consider removing provisions within the CN-3 District limiting height to 35' within 100' of property zoned single-family, RM-9, RM-12, or RMCRA-18 if the new development is mixed use, including residential.
- Allow for a full mix of uses, including residential, near the intersection of Hollywood Boulevard & Dixie Highway. This area is currently zoned Neighborhood Commercial Medium Intensity Zoning (CN-2) CN-3, and Government Use. Also consider the allowance of additional height in this area to accommodate larger redevelopment similar in scale to Hollywood Station immediately across Hollywood Boulevard.

*NW Quadrant (outside Downtown CRA)*

The NW Quadrant outside of the Downtown CRA boundary primarily contains two multi-family zoning districts (RM-18 & RM-25) and the Low/Medium Commercial District (C-2) zoning district, which is located immediately adjacent to Hollywood Boulevard. These zoning districts allow for mid-rise (5–6 story) infill and redevelopment projects to occur. However, consideration should be given to extending the depth of the C-2 zoning along Hollywood Boulevard to the opposing block face (Polk Street) which would create the potential for some aggregation of parcels and development flexibility along the corridor.

*NE Quadrant (within Downtown CRA)*

The NE Quadrant is located entirely within the Downtown CRA and represents the core of the city of Hollywood. The existing zoning designations allow for significant density/intensity and a full mix of uses. The new rail station will likely encourage infill and redevelopment within this area closer to the maximum allowed building heights and intensities than what is currently existing.

*SE Quadrant (within the Downtown CRA)*

The SE Quadrant is located entirely within the Downtown CRA. This area contains zoning districts consistent with the densities/intensities needed to support the Preferred scenario.

*SW Quadrant (within Downtown CRA)*

The portion of the SW Quadrant located within the CRA contains the Hollywood Station development, which is zoned as a Planned Development District with multiple phases. Recommendations for changes within the CRA are minimal and designed primarily to allow for the evolution of the area to allow for a mix of uses.

- Consider removing provisions within the CN-3 District limiting height to 35' within 100' of property zoned single-family, RM-9, RM-12, or RMCRA-18 if the new development is mixed-use including residential.

*SW Quadrant (outside Downtown CRA)*

The NW Quadrant outside the Downtown CRA Boundary primarily contains two multi-family zoning districts (RM-18 & RM-25), and the Low/Medium Commercial District (C-2) Zoning District, which is located immediately adjacent to Hollywood Boulevard.

- These zoning districts allow for mid-rise (5–6 story) infill and redevelopment projects to occur. However, consideration should be given to extending the depth of the C-2 zoning along Hollywood Boulevard to the opposing block face (Jackson Street), which would allow for development flexibility along the corridor.

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# HOLLYWOOD BOULEVARD & SR 7 DESIGN CONCEPTS AND LAND USE RECOMMENDATIONS

The following urban design standards have been implemented in the Hollywood Boulevard & SR 7 Mobility Hub. The numbers correspond to the location on the master plan of where they have been exemplified.

## 1 CONNECTIVITY

Although there is an existing connected grid in a substantial amount of this Mobility Hub, it has been interrupted drastically in the construction of large retail developments. In their redevelopment into retail and multi-family uses, it is important to reestablish the grid to provide more access (pedestrian and multimodal) to the Corridor and transit stations. As seen in Figure 7-6, connecting streets are included in the Wal-Mart development to alleviate the Mobility Hub's main intersection. As part of the overall SR-7 Project additional signalized intersections are planned at Fillmore Street and the main Wal-Mart Driveway 0.25 miles south of Hollywood Boulevard (not pictured in Figure 7-6).

## 2 SITE ORIENTATION

While this hub is being maintained for arterial retail uses, the form of these commercial buildings can be oriented in a way that is more conducive to a pedestrian environment. Locating outparcels adjacent to the sidewalk along Hollywood Boulevard and SR 7 and locating surface parking behind them will create better enclosure along some of the most traveled routes.

## 3 PUBLIC REALM DESIGN

Providing better pedestrian and multimodal facilities throughout the hub is important. This Mobility Hub will benefit from a linear park that is integrated with stormwater ponds and the cul-de-sac treatment applied to the diagonal street. It is being designed to be a contributing amenity to recommended transit facilities at this corner of the intersection and will act as a community gathering place for the adjacent neighborhood.

## 4 GROUND FLOOR DESIGN/USE

Retrofitting the current retail parcels with buildings adjacent to Hollywood Boulevard and SR 7 (Figure 7-7) will provide opportunities to have active ground floor uses directly beside sidewalks.

## 5 TRANSITION TO NEIGHBORHOODS

Existing compact neighborhoods in the Mobility Hub are buffered from the newly widened SR 7 and Hollywood Boulevard by a transition of uses and building scale. Arterial retail adjacent to the Corridor is buffered by multi-family housing, which transitions to single-family housing (Figure 7-6) In areas with little room to transition, the form and scale of mixed-use buildings buffer residential neighborhoods from the corridor.

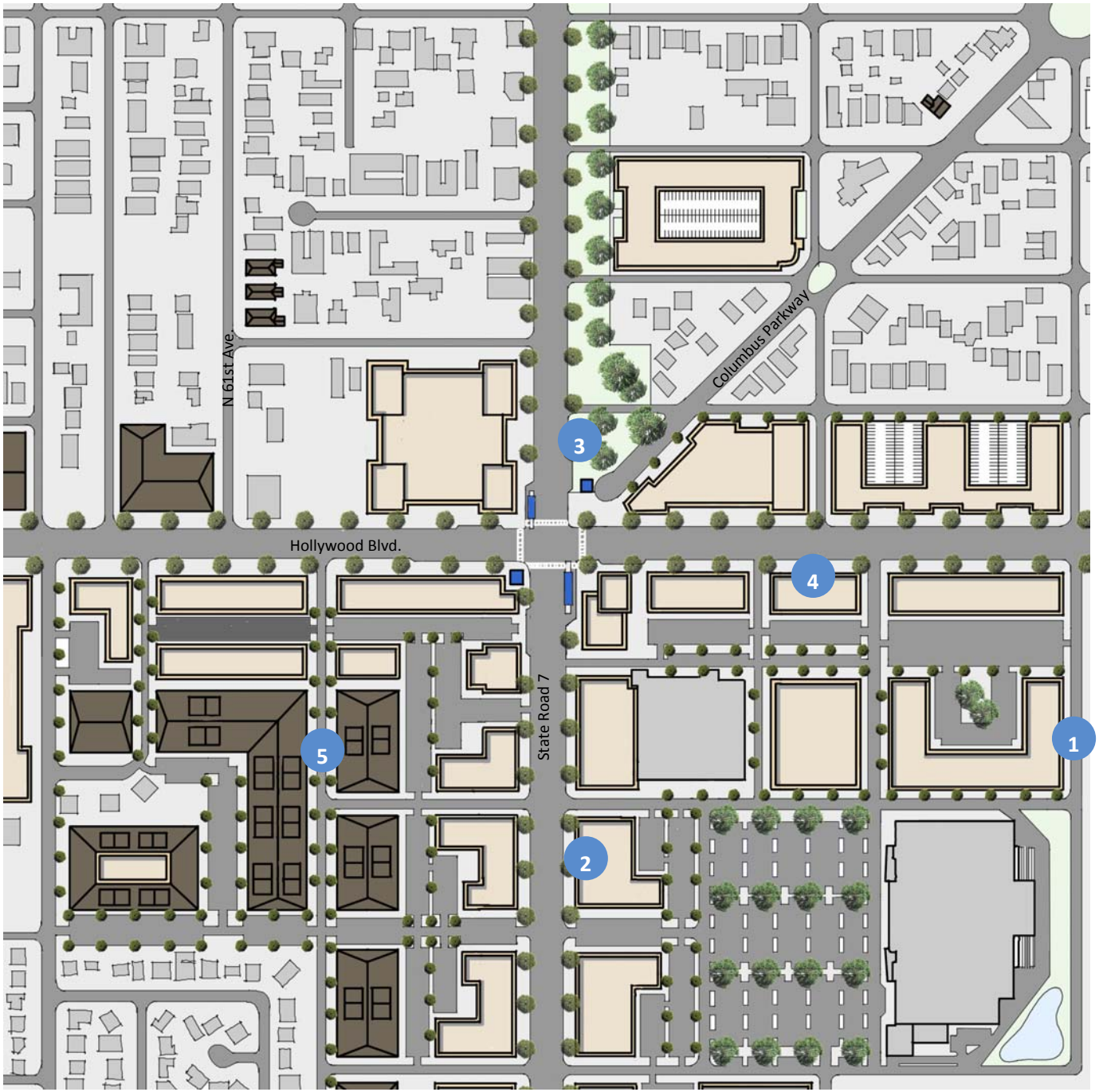



Figure 7-6: Hollywood Blvd & SR 7 – Proposed Master Plan

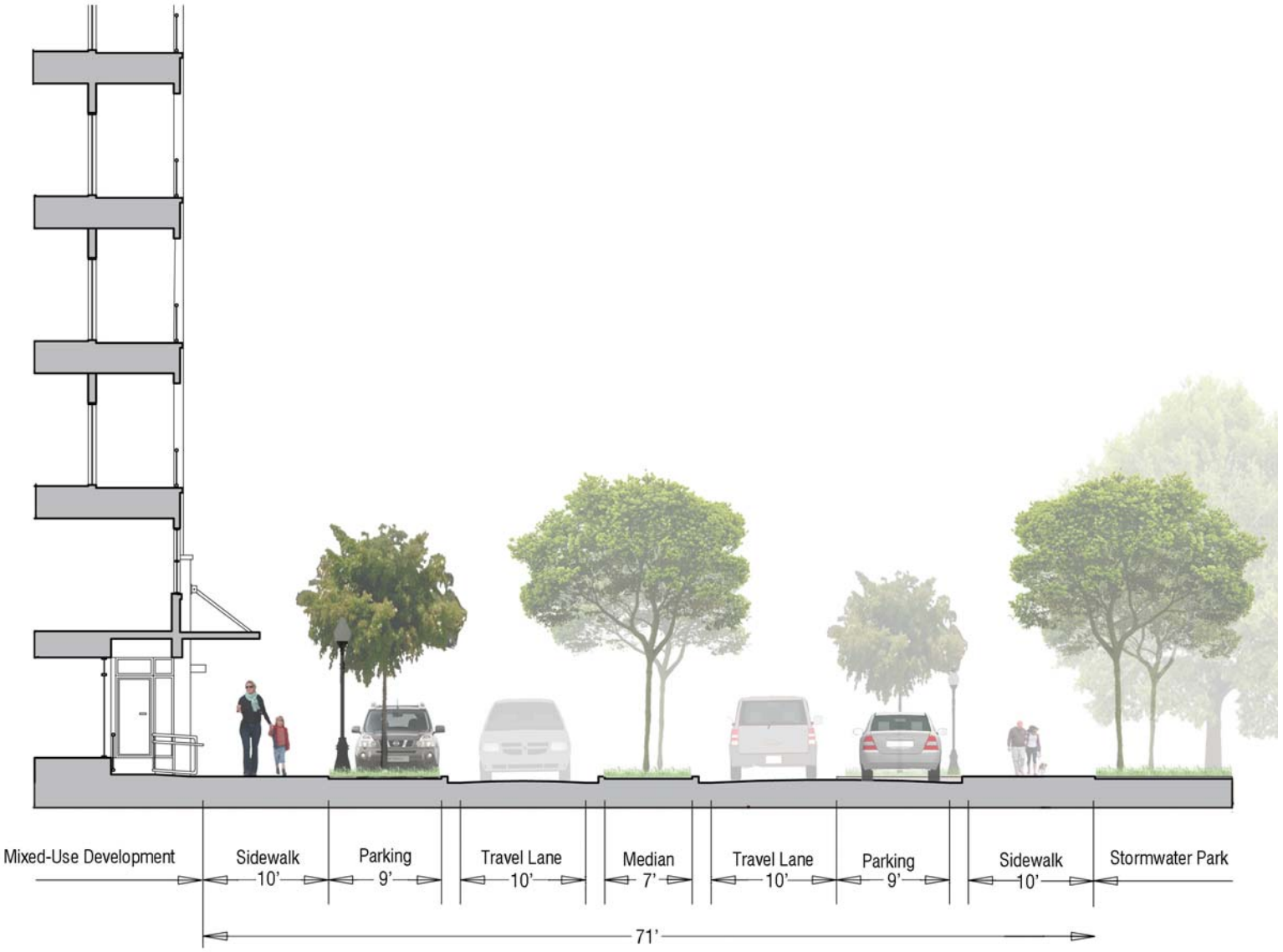



Figure 7-7: Hollywood Blvd & SR 7 – Public Realm Section


Figure 7-8: Hollywood Blvd & SR 7 – Columbus Parkway

## HOLLYWOOD BOULEVARD & STATE ROAD 7 LAND USE, ZONING, AND LAND DEVELOPMENT CODE RECOMMENDATIONS

The Mobility Hub at Hollywood Boulevard & SR 7 is located at a major intersection that is currently undergoing a physical transformation as a result of the addition of new travel lanes along SR 7. As shown in the master plan graphics (Figure 7-6, 7-7, 7-8), this reconfiguration will create some barriers to pedestrian connection, but will also allow opportunities for new park spaces and amenities, particularly in the NE Quadrant.

This Mobility Hub location has long been a busy commercial area, with the now-defunct Hollywood Fashion Center Mall located in the SE Quadrant. A significant effort has been made to plan for a more transit-oriented future along SR 7, and the Preferred scenario illustrates a potential change in land use that this potential transformation may bring. The scenario calls for more infill commercial uses along the street edge on Hollywood Boulevard and SR 7 and the introduction of new multi-family residential uses to the area. The development of multi-family residential near the corridors will serve the dual purpose of bringing residents in proximity to service/ commercial uses while creating a more attractive and appropriate transition in density and use to the surrounding single-family neighborhoods. This scenario assumes the use of a variety of building types, which are listed in Table 7-3 along with the average building height and floor area ratio (FAR) assumed for each (Building Type details can be found in Tech Appendix 6-E) within the Mobility Hub (see Figures 7-9 for Preferred Scenario details).

Table 7-3: Hollywood Blvd. & SR 7 Development Type Characteristics

| Development Type | Characteristics |
|---|---|
| Arterial Commercial | Avg. Height - 1 story<br>Avg. FAR - .42 |
| Multi-Family | Avg. Height - 3 stories<br>Avg. FAR - .85 |
| Compact Neighborhood | Avg. Height - 2 stories<br>Avg. FAR - .49 |

To determine potential comprehensive plan and land development code changes that may be required to accommodate the Preferred scenario, Building Type characteristics (allowable uses, building height, and FAR) were compared to those allowed within the existing regulatory framework.

### *Hollywood Comprehensive Plan*

State Road 7 has been the focus of a large-scale planning effort in recent years that included the development of a new Future Land Use designation in the Comprehensive Plan, the Transit-Oriented Corridor (TOC). This designation covers most of the Mobility Hub area.

According to the Hollywood Comprehensive Plan, the TOC designation is intended to:

> Facilitate mixed use development with access to transit stations or stops along existing and planned high performance transit service corridors (such as bus rapid transit or rapid bus) designated in the Broward County Comprehensive Plan Transportation Element, the Broward County

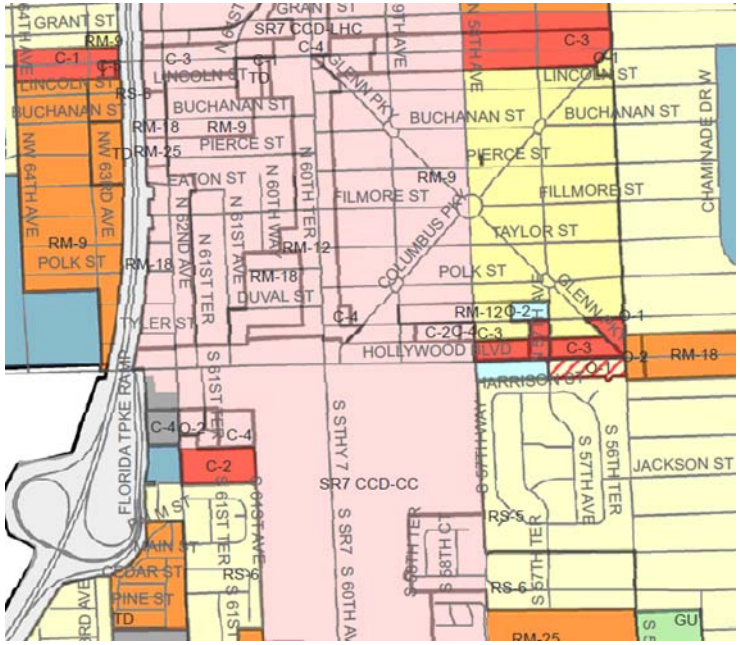
Transit Master Plan and Broward County Metropolitan Planning Organization's (MPO) Long Range Transportation Plan, Broward County Transit Development Plan, or local adopted financially feasible transportation or transit plan, through the establishment of a Transit Oriented Corridor (TOC) land use category within the Broward County Land Use Plan.

The TOC designation is designed to encourage the development of a transit-supportive environment that allows for a mix of uses including residential (primarily multi-family) and non-residential (retail, office, light industrial, etc.) that are of a sufficient density/intensity to support transit services along the designated corridor. The TOC designation allows up to a 2.0 FAR for non-residential uses, and residential density is determined by the underlying zoning districts. Although no specific analysis of FAR was completed as part of this study, it does appear that the proposed development within the Preferred scenario can be accommodated within the allowable densities/intensities of the currently designated TOC.

***Hollywood LDC***

As noted above, the Hollywood Boulevard & State Road 7 Mobility Hub has been the focus of significant planning efforts to encourage the development of a transit-supportive environment. This has included the designation of much of the area as a TOC in the Comprehensive Plan. This planning has also included the creation of the SR7 Commercial Corridor District, which includes both the Low Hybrid Sub-Area and the Commercial Core Sub-Area. The other major zoning districts within this Mobility Hub area include the RM-9, RM-12, and RM-18 Multi-Family Districts, the RS-5 and RS-6 Single Family Districts, the O-2 Office District, and the Government Use District. As shown in Figure 7-9, the Preferred scenario includes new growth located primarily adjacent (within 1–2 parcels in depth) to the existing corridors.

Figure 7-9: SR7 Zoning Map




The zoning districts within this area are fairly consistent with the needs of the Preferred scenario. However, there are some potential changes that should be considered to further encourage transit-supportive growth within the area. Many of these changes are specific to the SR7 CCD zoning districts, which are used throughout the Mobility Hub.

*SR7 CCD Zoning Districts*

- Allow for residential development in the SR7 CCD Commercial Core Sub-Area to exceed 50% of the total floor area of a building.

- Allow for residential only development for properties designated with the SR7 CCD Commercial Core Sub-Area zoning district.
- Reduce minimum setbacks for both the SR7 CCD Commercial Core Sub-Area and the Low Hybrid Sub Area should be considered. Currently, the setbacks are 15' for a one-story building, with increases of 10' per each additional story.
- Reduce maximum setbacks for the SR7 CCD Commercial Core Sub-Area and the Low Hybrid Sub-Area within the Mobility Hub. Currently, the maximum can be as high as 55'.

*NE Quadrant*

The NE Quadrant of this Mobility Hub will be significantly altered as a result of the construction of a series of stormwater ponds along the eastern edge of SR7 in conjunction with the widening of that roadway. The Preferred scenario identifies these ponds as part of a future park/open space amenity that will help to buffer the roadway from the residential uses to the east. In addition, the scenario includes new multi-family residential along the Hollywood Boulevard and SR 7 frontages and some infill and small scale redevelopment of compact neighborhood residential uses.

- Consider rezoning of parcels west of N. 59th Avenue from RM-9 to allow more intense multi-family residential development. This new development would help create a buffer between the new stormwater park and lower density residential development to the east.

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# PINES BOULEVARD & UNIVERSITY DRIVE DESIGN CONCEPTS AND LAND USE RECOMMENDATIONS

The following urban design standards have been implemented in the Pines Boulevard & University Drive Mobility Hub. The numbers correspond to the location on the master plan of where they have been exemplified.

## 1 CONNECTIVITY

The street network in this Mobility Hub is very disconnected. Retail development in each of the four intersection quadrants is segregated from the neighborhoods adjacent to it. Through redevelopment of the retail sites, a grid should be reestablished to allow access from multi-family and mixed-use buildings to the transit corridors. As seen in Figure 7-10, connecting streets are included through the airport property to alleviate the Mobility Hub's main intersection.

## 2 SITE ORIENTATION

Similar to the Hollywood Boulevard & SR 7, this Mobility Hub can be maintained as an arterial commercial center through building orientation conducive to a pedestrian environment. Locating parking behind outparcels adjacent to the sidewalk will create better enclosure along some of the most traveled routes.

## 3 PUBLIC REALM DESIGN

Even in areas where vehicular streets to the main corridors are not possible, providing pedestrian and bicycle routes can improve access to transit facilities. In Figure 7-11, a pedestrian mall between two mixed-use buildings can provide an active public space for businesses and retail while providing access to transit.

## 4 GROUND FLOOR DESIGN/USE

Retrofitting the current retail parcels with buildings adjacent to Pines Boulevard and University Boulevard (Figure 7-11) will provide opportunities to have active ground floor uses directly beside sidewalks.

## 5 TRANSITION TO NEIGHBORHOODS

Like at Hollywood Boulevard & SR 7, this Mobility Hub buffers existing neighborhoods from the corridor by providing a transition from arterial retail or mixed-use to multi-family residential, especially in the NE and SE quadrants. While the neighborhoods mostly have a disconnected street network, creating this buffer will protect them from drastic changes in building form and scale.

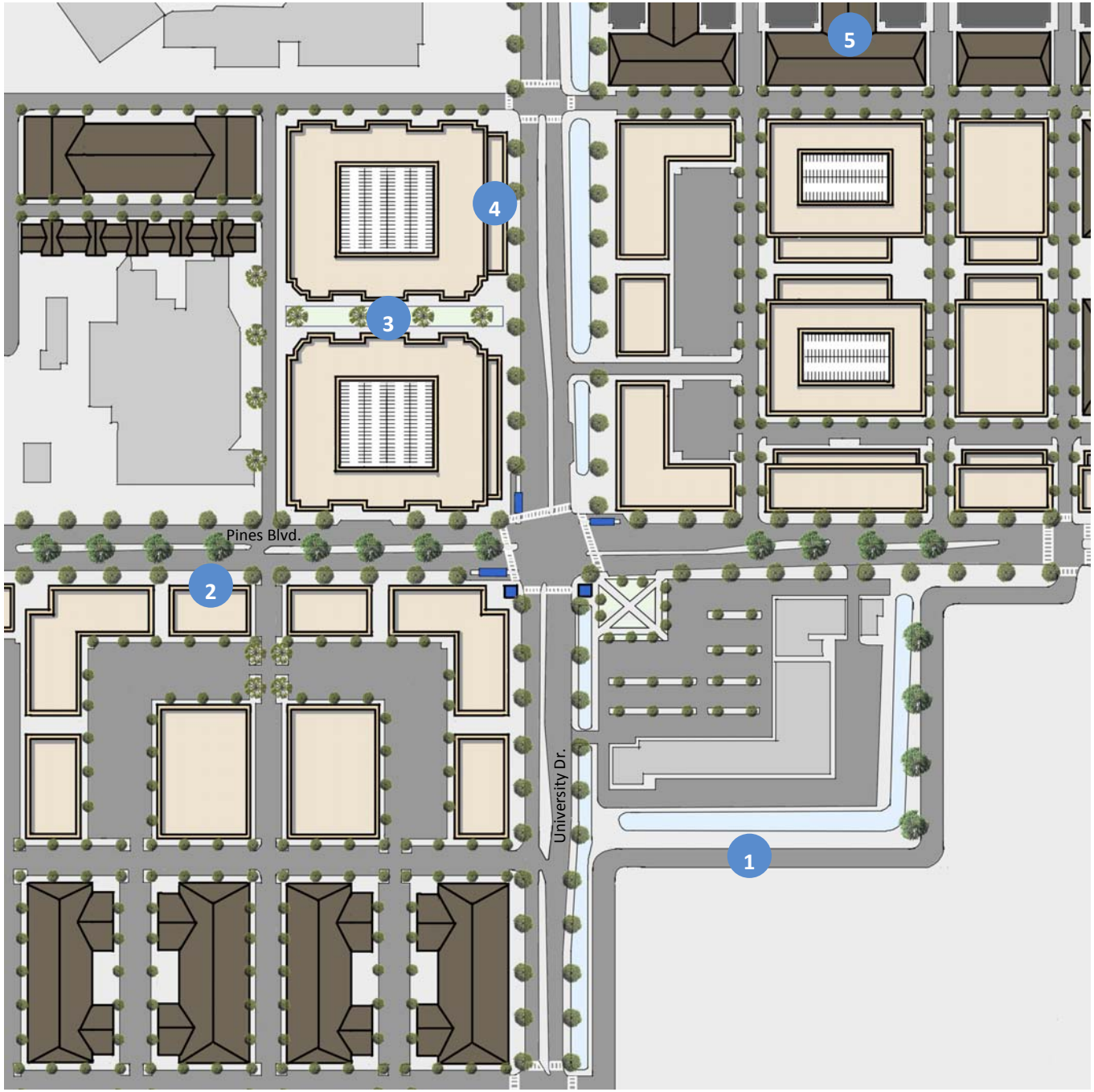



Figure 7-10: Hollywood Blvd & University Dr – Proposed Master Plan

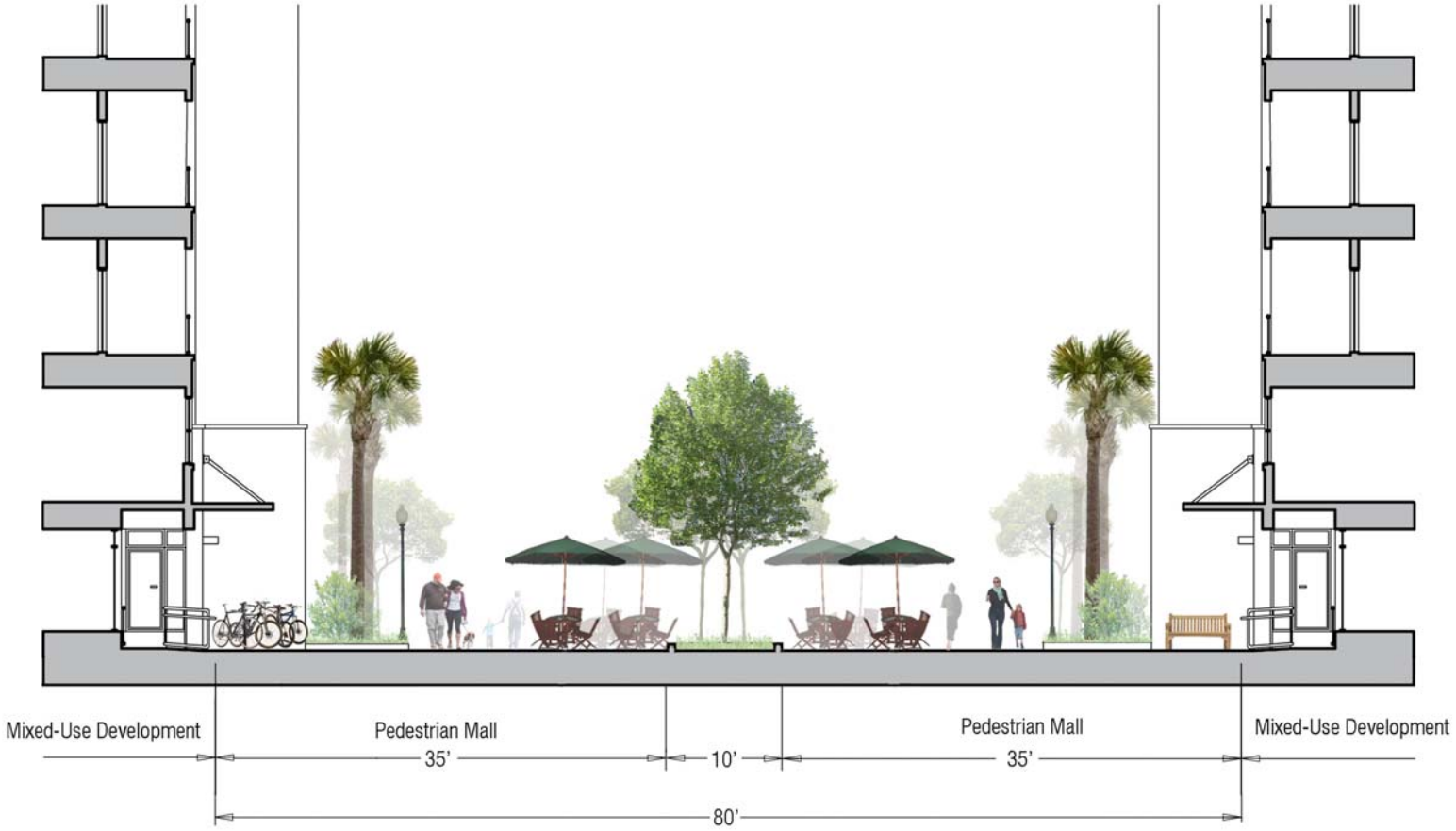



Figure 7-11: Hollywood Blvd & University Dr – Public Realm Section

Figure 7-12: Hollywood Blvd & University Dr – Pines Boulevard

**PINES BOULEVARD & UNIVERSITY DRIVE**

Shifting to the City of Pembroke Pines, the Pines Boulevard & University Drive Mobility Hub is located at a major intersection currently dominated by large-scale commercial developments and multi-family residential. It also includes portions of the North Perry General Aviation Airport, which is located in the SE Quadrant and is expected to remain largely the same due to proximity to airport operations.

The area has long been a commercial hub, and the Preferred scenario recognizes its continued importance as such. The scenario assumes an increase in the mix of uses, with new residential development included alongside the existing commercial. The Preferred scenario includes significant commercial and multi-family residential redevelopment in the SW Quadrant and mixed-use, multi-family, and commercial redevelopment in the NW and NE quadrants. The potential variety of building types are listed in Table 7-4 along with the average building height and FAR assumed for each (Building type details can be found in Tech Appendix 6-E) within the Mobility Hub (see Figure 7-13 for Preferred scenario details).

To determine potential comprehensive plan and LDC changes that may be required to accommodate the Preferred Scenario, Building Type characteristics (allowable uses, building height, and FAR) were compared to those allowed within the existing regulatory framework.

***Pembroke Pines Comprehensive Plan***

The Pembroke Pines Comprehensive Plan designates the areas located immediately adjacent to the intersection of Pines Boulevard and University Drive with the Commercial Future Land Use Designation. This designation allows primarily non-residential uses, including retail and office. Under limited circumstances, residential uses are allowed, but these were not evaluated in detail for the purpose of the Preferred scenario. The other primary Future Land Use designation within the Mobility Hub area is the Medium High (25) Residential, which allows residential-only development up to 25 units per acre. To implement the types of development envisioned in the Preferred scenario, it is likely that plan amendments would be required. Potential amendments for consideration are listed below.

Table 7-4: Pines Blvd & University Drive Development Type Characteristics

| Development Type | Characteristics |
|---|---|
| Arterial Commercial | Avg. Height - 1 story<br>Avg. FAR - .42 |
| Residential Retail Mixed-Use | Avg. Height - 3 stories<br>Avg. FAR -1.56 |
| Multi-Family | Avg. Height - 3 stories<br>Avg. FAR - .85 |

*SW Quadrant*

Amending a portion of the area designated Commercial to allow for multi-family residential. This could potentially be one of the multi-family designations, likely the Medium Residential (16 du/acre) or the Medium High Residential (25 du/acre). The Mixed-Use Residential designation should also be considered to allow for maximum flexibility on the site.

*NW Quadrant*

To allow for the mix of commercial, mixed-use, and multi-family redevelopment shown in the Preferred scenario, the Mixed-Use Residential designation should be considered in those areas where redevelopment is being encouraged.

*NE Quadrant*

In those areas along the frontages of Pines Boulevard and University Drive where commercial redevelopment is expected to occur, the Commercial Future Land Use Designation should remain in use. However, for the mixed-use and multi-family redevelopment envisioned behind the commercial parcels, the Mixed-Use Residential Designation is recommended.

***Pembroke Pines LDC***

As described in Chapter 5 Land Use Analysis, the large majority of zoning districts within Pembroke Pines are suburban in nature. To allow for the evolution of uses and form envisioned within the Preferred scenario, it is recommended that an overlay be implemented, or new zoning categories be developed to allow for the more urban, mixed-use redevelopment that is needed to support transit.

*NE and NW Quadrants*

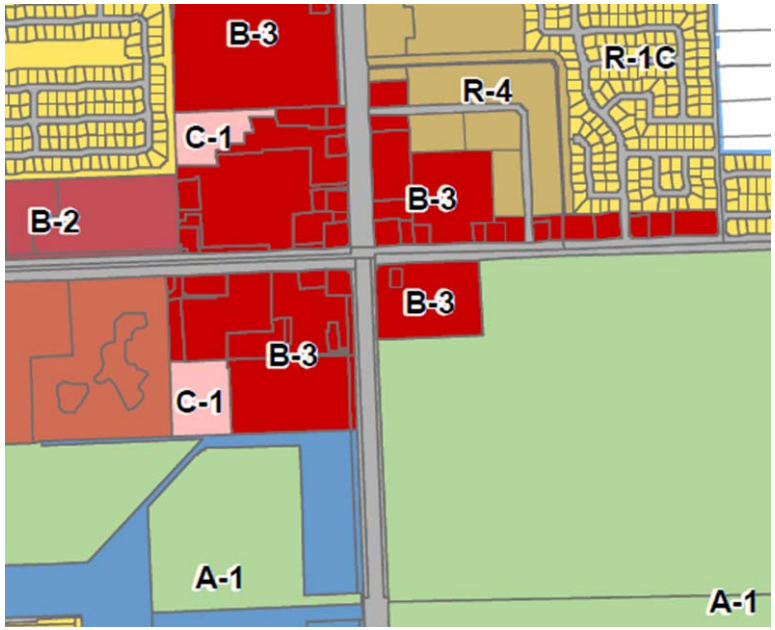
In these areas, the Preferred scenario envisions the addition of a mixed-use and multi-family residential to augment and support the existing commercial uses while providing for shared parking. This arrangement of uses and shared parking will require close coordination with property owners and development of a phased master plan. It is likely that an approach using a Mixed Use District (MXD) with an overall site plan would most effectively allow for this transformation to occur in a way that will improve pedestrian connectivity through a cohesive development program.

*SW Quadrant*

In the SW Quadrant, the Preferred scenario includes the potential redevelopment of the existing commercial shopping center located along Pines Boulevard and the commercial uses immediately to the south fronting University Drive.

- Consider modifications to the existing B-3 zoning district to allow for multi-family development within the Hub.
- Consider reduction of front and street side yards from the current minimum of 15' (with a requirement that the setback be landscaped). This reduction could allow for creation of street edge along corridor frontages.
- Consider establishment of maximum front- and street-side setbacks. A maximum would require development to be brought closer to the street to act as a street edge.
- Consider a prohibition on uses that are not compatible with the preferred scenario including, but not limited to:
  - Car washes, services stations, and garages
  - New/used automobile, truck, trailer sales and repairs
  - Mini-warehouse storage; storage of rental vehicles
  - Boxing or sports arena, golf driving range, miniature golf course, bowling alley, skating rink, swimming pool, drive-in theater

Figure 7-13: University Drive Existing Zoning Districts



# PINES BOULEVARD & FLAMINGO ROAD DESIGN CONCEPTS AND LAND USE RECOMMENDATIONS

The following urban design standards have been implemented in the Pines Boulevard & Flamingo Road Mobility Hub. The numbers correspond to the location on the master plan of where they have been exemplified.

### 1 CONNECTIVITY

Large retail developments, the Memorial Hospital West employment center, and the CB Smith Park segregate existing residential uses from efficient access to the center of the Mobility Hub. Reestablishing a street grid through redevelopment of the NE and SE quadrants will provide more access for future residents in those areas. Providing roads that connect Flamingo Road with Pines Boulevard away from the center of the intersection, as called out in Figure 7-14, can alleviate congestion.

### 2 SITE ORIENTATION

Arterial retail sites can be retrofitted in this location instead of completely redeveloped. A vibrant grocery store and educational institution in the SW Quadrant can be maintained while outparcel development complements a more pedestrian environment. The same is true in the SE Quadrant, where an existing outparcel building already exists (Figure 7-14).

### 3 PUBLIC REALM DESIGN

A transit transfer station integrated into the hospital expansion plan will provide easy access to workers at a major employee center (Figure 7-15). Instead of locating this facility directly adjacent to the corridor, having it incorporated among new buildings will allow plenty of space for an active and well-designed pedestrian environment. This can create a center of mixed-use activity that contributes to the identity of this Mobility Hub.

### 4 GROUND FLOOR DESIGN/USE

While retail or commercial uses will not always be accommodated in an office/hospital development, the ground floors of the buildings should host the most lively of activities, with direct entrances to the sidewalk. This is most important for interior spaces that are adjacent to public plazas and green space (Figure 7-16).

### 5 TRANSITION TO NEIGHBORHOODS

Because of the regional uses located at this Mobility Hub, substantial existing residential uses are located on the periphery of the ½-mile radius. Where residential uses are introduced in this hub, they are mixed-use buildings buffered by retail from the main corridors.

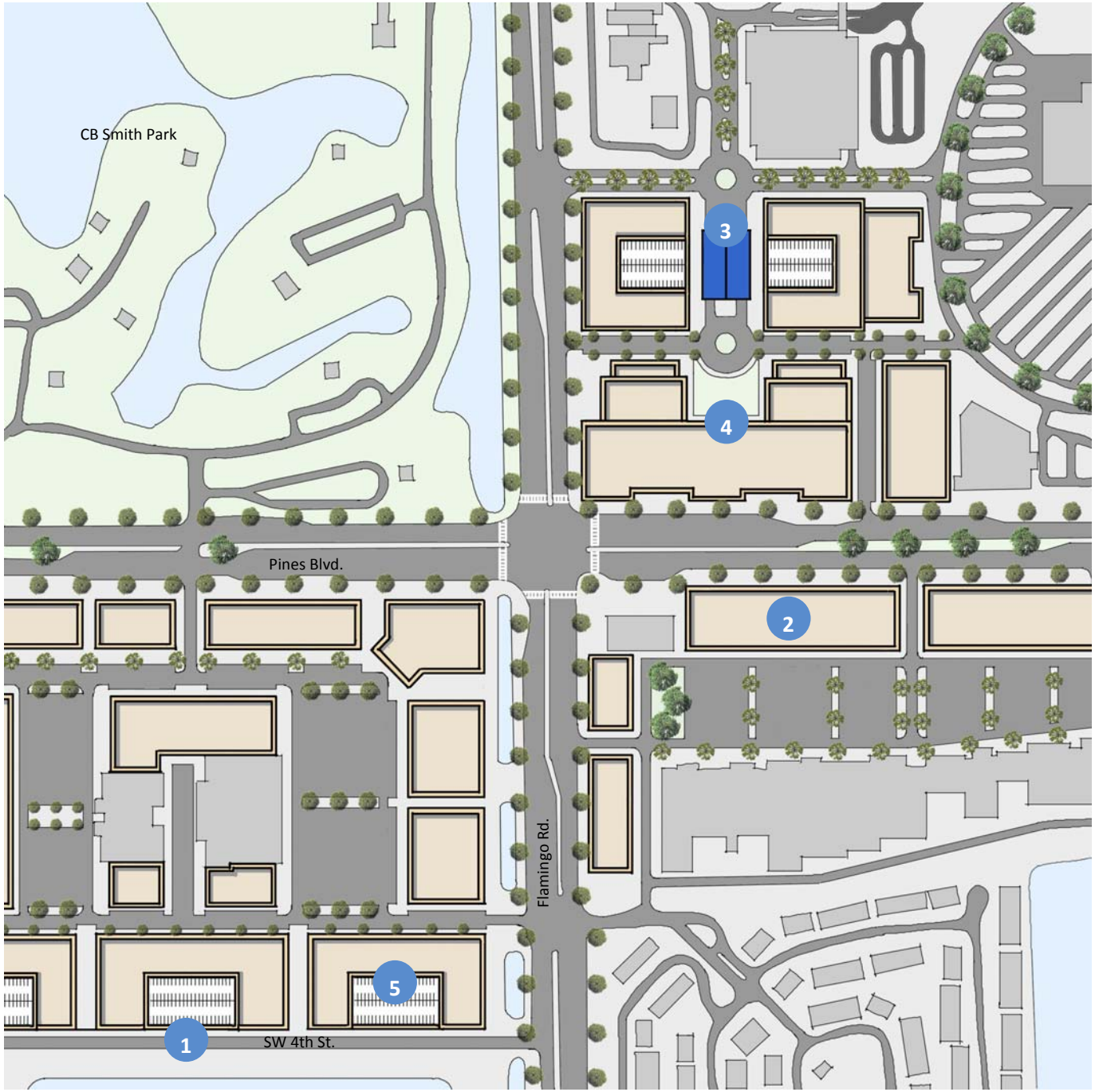



Figure 7-14: Pines Blvd & Flamingo Rd – Proposed Master Plan


Figure 7-15: Pines Blvd & Flamingo Rd – Public Realm Section

Figure 7-16: Pines Blvd & Flamingo Rd - Memorial Hospital West Campus

**PINES BOULEVARD & FLAMINGO DRIVE**

The Pines Boulevard & Flamingo Drive Mobility Hub contains major employment activity centers that will act as the impetus for the long-term evolution of the area into a more connected, transit-supportive area. The area contains both the Pembroke Lakes Mall and Memorial Hospital West campus, which are both located in the NE Quadrant. The SE and SW quadrants contain significant retail and multi-family residential uses, although they are physically disconnected from each other. The NW Quadrant contains CB Smith Park, a major amenity that also provides a location for a successful BCT Park-and-Ride facility.

The Preferred scenario envisions the existing developments to continue to evolve from single-use areas into more connected mixed-use centers over time through densification of uses and the conversion of surface parking areas into parking garages and building sites over time. This scenario assumes the use of a variety of building types, which are listed in Table 7-5 along with the average building height and FAR assumed for each (Building Type details can be found in Tech Appendix 6-E) within the Mobility Hub (see Figure 7-17 for preferred scenario details).

To determine potential comprehensive plan and land LDC changes that may be required to accommodate the Preferred scenario, Building Type characteristics (allowable uses, building height, and FAR) were compared to those allowed within the existing regulatory framework.

Table 7-5: Hollywood Blvd & Flamingo Rd Development Type Characteristics

| Development Type | Characteristics |
|---|---|
| Arterial Commercial | Avg. Height - 1 story<br>Avg. FAR - .42 |
| Main Street Commercial | Avg. Height - 2 stories<br>Avg. FAR - 1.0 |
| Residential Retail Mixed-Use | Avg. Height - 3 stories<br>Avg. FAR -1.56 |
| Hotel | Avg. Height - 4 Stories<br>Avg. FAR - 1.76 |

***Pembroke Pines Comprehensive Plan***

The primary Future Land Use designations within this area are the Commercial designation (covering the Pembroke Lakes Mall area and the retail in the SW Quadrant), Industrial Flex (covering the retail in the SE Quadrant), Community Facilities, and residential designations, which includes the surrounding multi-family areas. The Preferred scenario includes significant commercial and mixed-use (including residential) redevelopment in the SW Quadrant, office and hotel development in the NE Quadrant, and commercial development in the SE Quadrant. and mixed-use, multi-family, and commercial redevelopment in the NW and NE quadrants. To implement the types of development envisioned in the Preferred scenario, the following plan amendments could be considered.

*SW Quadrant*

Amend a portion of the area designated Commercial to the Mixed-Use Residential designation to allow for maximum flexibility of commercial and mixed-use residential on the site.

*NE Quadrant*

The Preferred scenario includes the addition of hotel and medical office to this area, which is consistent with the existing Commercial designation. Although a detailed calculation has not been performed as part of this study, the Commercial designation does allow for an overall maximum of a 1.0 FAR with City Commission approval. It is likely that this will provide enough allowable density/intensity for the envisioned development. Another potential option would be the designation of the area as a Local Activity Center (LAC).

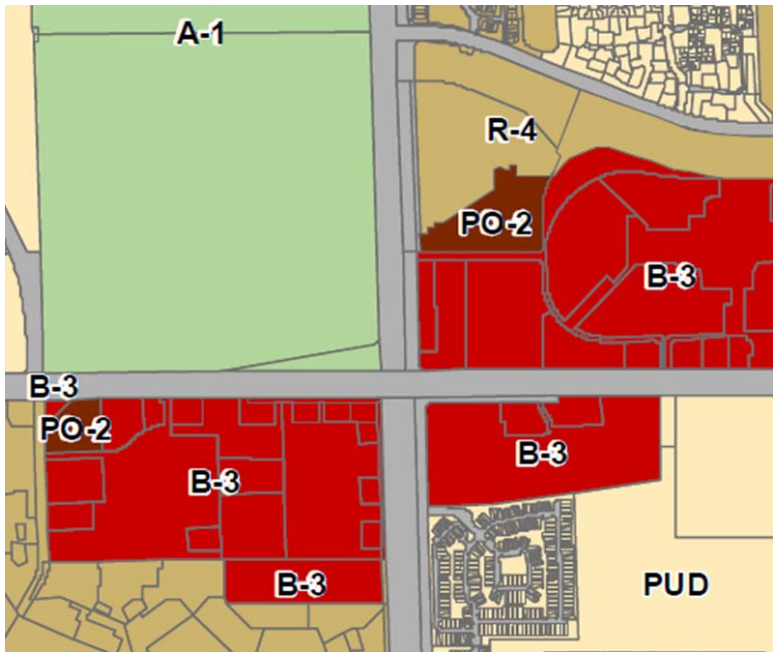
*SE Quadrant*

The existing Industrial flex designation is subject to the allowable non-residential maximum 1.0 FAR. Although a detailed calculation was not performed for the purposes of this study, it is likely that the additional commercial redevelopment envisioned in the preferred scenario could be accommodated within this density/intensity maximum.

***Pembroke Pines LDC***

To allow for the evolution of uses and form envisioned within the Preferred scenario, it is recommended that an overlay be implemented or new zoning categories be developed to allow for the more urban, mixed-use redevelopment that is needed to support transit.

Figure 7-17: Flamingo Road Existing Zoning Districts




*SW Quadrant*

In the SW Quadrant, the Preferred scenario envisions the addition of a mixed-use (including residential) and commercial development to augment existing commercial uses in the area while providing for shared parking. This arrangement of uses and shared parking will require close coordination with property owners and development of a phased master plan. An approach using an MXD with a detailed site plan would help ensure the long term evolution of the site into a more connected, mixed-use environment.

*NE Quadrant*

In the NE Quadrant, the Preferred scenario envisions the addition of hotel and medical office to the area, which would be consistent from a use perspective with the B-3 zoning district, although modifications would likely be required in to allow for the site characteristics (see potential modifications listed under SE Quadrant). However, to allow for greater flexibility, a site-plan-controlled MXD could be used in close coordination with the major property owners. This would allow for the necessary staging of development and the flexibility of site placement needed to allow for the evolution of a connected, mixed-use environment.

*SE Quadrant*

It is envisioned that the SE Quadrant will remain largely commercial, with some new commercial redevelopment taking shape in the form of liner buildings along the corridor frontage. The existing B-3 zoning district would allow for this development from a use perspective, but modifications may need to be considered to allow for a more connected mixed-use development to occur. These include the following:

- Consider reduction of front- and street-side yards from the current minimum of 15' (with a requirement that the setback be landscaped). This reduction could allow for creation of street edge along corridor frontages.
- Consider establishment of maximum front- and street-side setbacks. A maximum would require development to be brought closer to the street to act as a street edge.
- Consider a prohibition on uses that are not compatible with the Preferred scenario including, but not limited to:
  - Car washes
  - New/used automobile, truck, trailer sales and repairs
  - Services stations, repair and service garages
  - Mini-warehouse storage
  - Boxing or sports arena, golf driving range, miniature golf course, bowling alley, skating rink, swimming pool, drive-in theater
  - Storage of rental vehicle

# URBAN DESIGN AND IMPLEMENTATION TOOLKIT



The purpose of the Urban Design and Implementation Toolkit is to synthesize the application of land use and urban design recommendations made at the four selected Mobility Hubs along the corridor into a toolkit that can be used to implement transformative land use strategies along this corridor and other similar corridors in Broward County. The Toolkit focuses on five urban design and planning principles, supported by case studies and academic research that meet two development goals: encourage and support multimodal transportation, especially premium transit, and preserve and enhance the character of existing neighborhoods. The Urban Design and Implementation Toolkit will present urban design standards that should be met by development,  steps for their physical application, and implementation strategies.

# URBAN DESIGN STANDARDS

## CONNECTIVITY

Connectivity is a term that refers to the degree to which streets, roads, and pedestrian routes are joined together. The more connected the street/pedestrian network, the more access and circulation options are provided. If an area has a high degree of connectivity, it provides many ways for users to navigate their environment and, in the process, reduces the extent to which all travelers must rely on one route. This can help alleviate automobile congestion by providing more navigational choices to users to reach destinations more efficiently, allow the corridors to maintain their current width or be narrowed through a road diet to accommodate multimodal forms of transportation, and create a physical environment that is conducive to mixed-use development and increased transit ridership. Additionally, increasing the number of multimodal routes that connect with transit-oriented corridors will allow pedestrians who live and work near the transit-oriented corridor to more efficiently access transit stations and mixed-uses that support a transit-oriented urban environment.

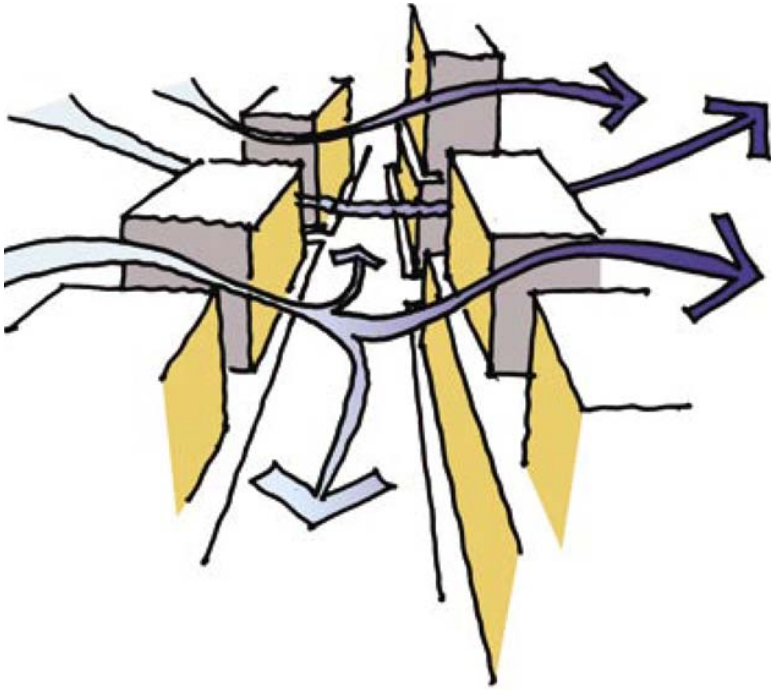


Figure 7-18: A grid network of streets increases the number of available routes between destinations and creates more accessibility to a transit corridor. (Image courtesy of Broward County)

**GUIDING PRINCIPLES**

1. *Reduction of Automobile Congestion* – The more connected the street network through a area, the more access and circulation options are provided. If an urban area has a high degree of connectivity, it provides a variety of ways for users to navigate their environment and, in the process, reduces the extent to which all travelers must rely on one route.

2. *Maintaining or Reducing Roadway Corridor Size* – Increasing the number of multimodal routes that connect with transit-oriented corridors will allow the corridors to maintain their current size or to be retrofitted over time as additional routes for traffic circulation are provided.

3. *Urban Fabric Conducive to Mixed-Use Development* – Mixed-use and commercial development as well as premium transit requires a large market-base. If those uses are accessible through a connected urban fabric, multimodal users will be able to more easily and efficiently access businesses along the corridor.

Figure 7-19: Urban fabric connecting a corridor with residential development. (Image courtesy of The Gazette)


Figure 7-20: Maintain or reduce roadway corridor size while providing multimodal facilities. (Image courtesy of City of Fresno)

# URBAN DESIGN STANDARDS

## SITE ORIENTATION

Site orientation is how buildings are located on a property parcel in relationship to the street and sidewalk (the public realm). A building's relationship to the public realm is important because it creates an enclosure along the street, which helps to create a comfortable environment for pedestrians. Site orientation is an essential element in the development of a transit-supportive area because it can increase the efficiency of travel for transit users and pedestrians. When buildings are located directly adjacent to the public realm, as opposed to a parking lot, walking distances between transit stations and destinations are shorter and the pedestrian environment is more pleasant. This situation is more appropriate and friendly for all users, including those who use transit frequently, such as older adults and parents with small children. Additionally, it is common for parking lots located between a sidewalk and a building to provide little or no circulation infrastructure for pedestrians. This can contribute to lack of safety and comfort along the corridor.

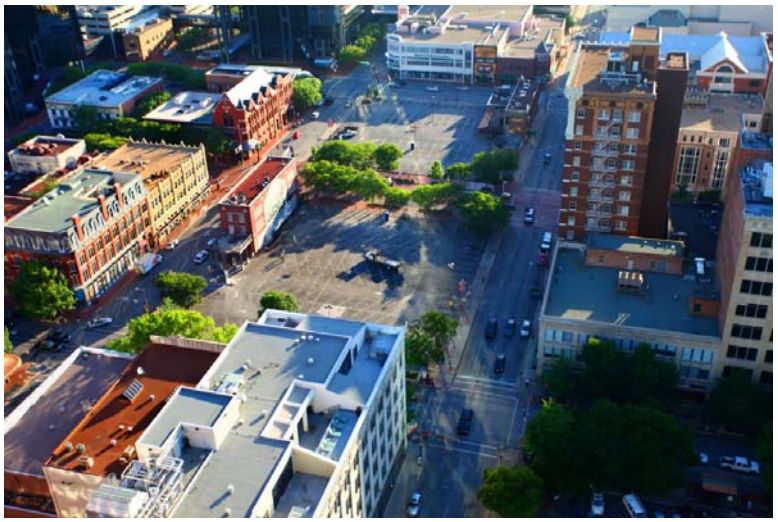


Figure 7-21: Relationship of buildings to public realm in an urban environment. (Image courtesy of Fort Worth Forum)

**GUIDING PRINCIPLES**

1. *Enclosure on the Street* – Increasing the building-height-to-right-of-way-width ratio will create a human-scaled built environment that will support and enhance pedestrian and multimodal behavior.

2. *Increase Efficiency for Transit Users and Pedestrians* – If buildings are located closer to the public right-of-way, pedestrian routes between destinations (including transit facilities) will be more efficient and attractive to users.

3. *Increase Safety for Pedestrians Along the Corridor* – The location of parking lots behind buildings with access off side roads will dramatically decrease the number of curb cuts along the corridor. The decrease in interruption of pedestrian infrastructure will preserve the identity of a multimodal, mixed-use corridor.

Figure 7-22: Pedestrian-friendly street enclosure. (Image courtesy of Better! Cities & Towns)

# URBAN DESIGN STANDARDS

## PUBLIC REALM DESIGN

The “public realm” refers to space that is publicly-owned, accessible, and maintained and includes streets, pathways, and parks. The term can also refer to privately-owned space between the right-of-way and the building frontage. Design enhancements to the public realm along major corridors provide more appropriate facilities for transit, transit-users, and mixed-uses supportive of transit. Routes to these facilities should be safe and comfortable. This can be achieved by providing a physical buffer between high speed traffic and the pedestrian through the provision of parallel parking, a larger sidewalk, or a tree planting strip. The latter will also provide a shade canopy, which is especially important in creating comfort on corridors in Florida’s sunny and hot climate.

Figure 7-23: A pedestrian-friendly public realm is buffered from the street with trees, awnings, and café tables. (Image courtesy of The Virtual Tourist)

**GUIDING PRINCIPLES**

1. *Encourage Multimodal Users on Corridors* – For people to reach transit stations efficiently and safely, facilities for bicyclists and pedestrians must be provided to fully encourage use of the corridor

2. *Provide "Placemaking" Opportunities to Encourage Economic Development* – Providing space for the many pedestrian uses and the appropriate buffers between the corridor and building entrances will create places that contribute to the identity of the neighborhood and city.

3. *Better Accommodate Transit Facilities* – Permanent transit facilities are hubs for economic development and attract commercial, office, and mixed-use development. Providing a well-designed public realm right-of-way to support these uses will create corridor activity centers.

Figure 7-24: A complete street encourages multimodal uses. (Image courtesy of Streetsblog New York City)

Figure 7-25: Public realm right-of-way near a transit facility creates corridor activity. (Image courtesy of Places: Design Observer)

# URBAN DESIGN STANDARDS

## GROUND FLOOR DESIGN/USE

Instrumental in creating an urban environment that is conducive to transit-oriented development is an active public realm. Regulating the design and use of the ground floor of buildings adjacent to pedestrian space and transit facilities can have a significant effect on the safety, comfort, and commercial success of the corridor. To achieve this, the interior space adjacent to the public realm should be inhabited by people for an active use, and a majority of the façade should be transparent to allow maximum interaction between public and private spaces. Additionally, active uses and interaction between interior and exterior spaces along the corridor will contribute to placemaking opportunities and, therefore, will attract a variety of users. This will create a healthy atmosphere for mixed-uses and premium transit to thrive. If transit is integrated into a place where people naturally want to spend time, ridership can benefit.


Figure 7-26: Transparent ground floor facades encourage interaction between interior and exterior spaces. (Image courtesy of Archinect)

**GUIDING PRINCIPLES**

1. *Create an Active and Safe Environment for Pedestrians* – One of the most influential factors in creating an actual and perceived safe place is by ensuring that buildings overlook public spaces. Pedestrians will choose to spend time in a place that is full of activity and people. This is required for mixed-use, transit-supportive development.

2. *Create a Mixed-Use Commercial Market-Base for Pedestrians* – Active public spaces along corridors will provide a market-base for mixed-use, commercial, and neighborhood uses. This will help a corridor to evolve into one that is attractive to potential customers that are arriving by car, transit, or on foot.

3. *Prohibit Pedestrian Dead-Zones* – To create an active and safe public realm along a corridor, pedestrian dead-zones, or places lacking activity, must be minimized. Spots of inactivity can thwart the progression of economic development and dissuade pedestrians from fully utilizing the corridor.


Figure 7-27: Awnings, trees, lamp posts, and mixed-uses on the ground floor encourage pedestrian activity. (Image courtesy of PlanPhilly)

# URBAN DESIGN STANDARDS

## TRANSITION TO NEIGHBORHOODS

As the designated transit-oriented and mixed-use corridors become developed over time, it is important to protect the character of adjacent neighborhoods by regulating the transition from higher densities and more intense land uses to lower-density and single-family residential development. While a positive characteristic of mixed-use zoning is that it allows a wide variety of uses along a corridor, it is important that land directly adjacent to private residential property be protected from unnecessary smell, noise, or light pollution. Additionally, a gradual increase in residential density around and behind mixed-use/non-residential uses along the corridor will buffer the neighborhood edges. While people enjoy living near retail uses, it is common that they want to preserve the existing natural environment that is found in many urban neighborhoods.

Figure 7-28: Trees create a buffer between a mixed-use development along a corridor and a residential neighborhood. (Image courtesy of Google Maps)

**GUIDING PRINCIPLES**

1. *Preserve the Residential Character of Neighborhoods* – Residential character commonly defined by calm traffic, walkable routes, landscaping, quiet atmosphere, etc., should be preserved in established neighborhoods.

2. *Prohibit Encroaching Redevelopment* – As corridor redevelopment occurs and the intensity of the built environment increases, the scale of structures should be sensitive to the scale of adjacent neighborhoods.

Figure 7-29: Preservation of the residential character of a neighborhood. (Image courtesy of The Fifth Estate)

# TOOLKIT STEPS

Based on the principles described on the previous pages, a series of seven potential steps was developed that, if taken, will help to encourage transit-supportive redevelopment along the Hollywood/Pines corridor. Urban design decisions will be made at every physical scale, and this Toolkit begins with the largest decisions—often the first made—and finishes with the smallest—often the last. These steps include design recommendations for each of the factors listed below.

## 1. DEFINE THE FOCUS

The project goals of a transit-oriented development or corridor segment and the context in which they are being achieved must be defined. The three potential focus areas described below are not mutually exclusive from one another, but instead represent three different starting points for improving the integration of land use and transportation in designated areas. Implementation strategies in each transit-oriented development will vary depending on the policy objectives and long-term infrastructure investment planned by Broward County or the local municipality and other transportation agencies, including the Broward MPO, BCT, and FDOT. Each of the three focus areas is addressed in differing degrees during the planning process for transit-oriented development.

Figure 7-30: Land Use/Economics Mobility Hub focus: uses and form support a hub of activity and economic development. (Image courtesy of California TOD Database)

Figure 7-31: The built environment formed around transit development increases ridership. (Image courtesy of Transit Works For Us)

***Type 1: Land Use/Economics***

The primary goal of focusing on land use/economics is to provide jobs and improve property values by attracting infill and redevelopment, most often taking the form of new building construction. If this is the primary focus, economic incentives may be developed to entice new developments, and more emphasis may need to be put on the scale, density, height, etc., to ensure that the new development is consistent and compatible with surrounding areas.

***Type 2: Transit Development***

If the primary focus is to increase transit ridership, particularly on premium transit modes (light rail, BRT, etc.), then an emphasis must be placed on creating an environment conducive to supporting these modes. To ensure that the desired performance of the premium transit mode is achieved, right-of-way allocation to pedestrian, bike, or vehicular infrastructure could be minimized somewhat to provide for the higher-quality station facilities required of premium transit.

***Type 3: Multimodal Focus***

For Mobility Hubs where premium transit may not be available, the focus may be on improving the overall multimodal network that supports the hub. This focus will help to create an environment that is most supportive to bicycle and pedestrian facilities. This can include the creation of additional bike lanes (buffered or unbuffered), shared-use paths and multi-use recreational trails, separated cycling tracks, and bike racks and storage facilities. Travel lanes for cars or buses could need to be somewhat limited in size to accommodate these facility requirements.


Figure 7-32: A multimodal focus should incorporate facilities such as a cycle track and parking furniture. (Image courtesy of The Bikeway Network Recipe)

## 2. CONDUCT A TRANSIT ASSESSMENT

A transit assessment is necessary to determine the amount, patterns, and trends in vehicular, multimodal, and transit behavior in a Mobility Hub or corridor segment. Determining a strategy by which to minimize car usage in favor of alternative modes of transportation will require an understanding of the entire mobility system.

***Document Routes***

Understanding where routes cross along a transit corridor and within a Mobility Hub will inform where the public realm should be enhanced to support activity associated with transit. Additionally, documenting transit routes will lead to a greater understanding of rider behavior and routes approaching and leaving stations.

***Stops and Stations***

Elements most affecting the urban design in mobility areas are where transit routes stop and the station requirements for each location. These and the pedestrian traffic surrounding them should be mapped and incorporated into project improvements.


Figure 7-33: Document existing transit stops and stations as part of a transit assessment. (Image courtesy of Seattle Transit Blog)

### 3. DEFINE THE STREET NETWORK

The first step in a redevelopment project is to determine navigation and access to, from, and within the site. This will be in the form of vehicular, pedestrian, or multimodal facilities and connections. Each system should integrate within site design and encourage maximum connectivity as possible.

***Restore Existing City Grid***

As parcels are redeveloped, existing connecting streets to the corridor must be preserved for all uses of transportation. For larger parcel redevelopment projects, the development plan should incorporate the addition of any roads that were historically located there in the past.

***Identify New Connections***

In suburban contexts, where an existing block structure does not exist or where existing streets do not connect to one another, new roads should be built to enhance connectivity to the Corridor or Mobility Hub.

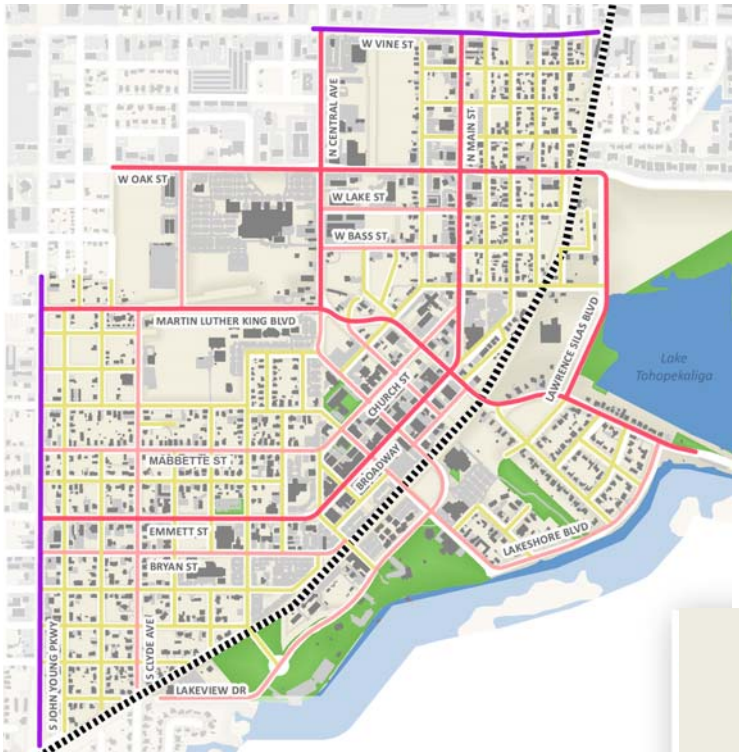



Figure 7-34: Define the street network by mapping existing streets and creating a street hierarchy diagram.

### 4. MANAGE BLOCK SIZE AND LOT SHAPE

Blocks shape and size is determined by the design of the street network. Smaller block sizes (300—400 ft. in length) are more conducive to pedestrian and transit oriented development and should be encouraged through land development code and site plan review when large, monolithic commercial centers are redeveloped.

***Accommodate Appropriate Uses***

Blocks and lots should be shaped and sized to accommodate a variety of appropriate uses. Standard lot sizes should be able to be organized efficiently within the block structure.

***Allow for Transition of Uses Over Time***

Because development types will transform over time and building technologies continuously evolve, the block size should be able to accommodate the majority of uses, including large-scale commercial and single-family housing. This will ensure that the street network that will remain will allow the urban fabric to evolve over time.

***Appropriate to Encourage Walkability***

Block sizes should be small enough to encourage walkability. If blocks are too large, pedestrians will not easily or efficiently be able to navigate the urban fabric and connectivity will suffer.

Figure 7-35: Double-checking block sizes ensures that they will support appropriate development. (Image courtesy of Google Maps)

**5. DETERMINE SITE REQUIREMENTS FOR BUILDINGS**

Buildings and elements appropriately located on a site are imperative for creating a built environment that is supportive of transit. The specific location of buildings in relationship to the public realm, the location of parking, and allowable development are the most influential factors.

***Setbacks***

Where not already part of a historical development pattern, buildings should have a minimal setback, big enough to allow for appropriate pedestrian, bicycle, and transit facilities, but close enough to the street to create enclosure. Corners and the more dominant frontage should be given priority in the building design.

***Density***

An appropriate amount of density is required to support premium transit and transit-oriented development. National standards and benchmarks should be used to guide redevelopment in the Mobility Hubs and Corridor segments. In the case where very low density needs to be offset, much higher densities than the average can be allowed to achieve an overall appropriate average.

***Height***

Building height should be greatest around the center of the Mobility Hub or Corridor and stepped back gradually to create an appropriate transition to lower-density, single-family neighborhoods. Creating enclosure along roads without blocking out natural light is part of the balance that must be considered when establishing allowed building heights.

***Parking***

In pedestrian/transit-oriented developments such as Mobility Hubs, surface parking lots, if deemed necessary, should be located behind buildings. In unique circumstances, they may also be located to the side of a building, but in no case should they be permitted in front of buildings. The ground floor of parking garages should be wrapped with active commercial or residential uses.

Figure 7-36: The relationship of buildings to the public realm is a vital element in the development of a transit supportive environment. (Image courtesy of Buffalo Rising)

## 6. BUILDING DESIGN AND FORM

Building design and form affect how buildings will interact with the public realm. Creating active and vibrant publics spaces in Mobility Hubs and along the Corridor will contribute greatly to achieving transit-supportive development.

***Building Façades***

A majority of building façades, especially those located on streets, should have openings transparent to activity in the interior of the building. Blank walls should be minimized as much as possible.

***Building Entrances***

Primary building entrances should face streets, not parking lots. Wherever possible, each residential or commercial unit should have an individual entrance to the street.

***Ground Floor Usage***

Ground floor spaces, especially along streets and public space, should have active uses. Activity on the interior buildings should be able to flow easily to exterior public space when appropriate, as in the case of sidewalk cafes.

Figure 7-37: The design of building façades, entrances, and ground floor usage aid in the definition of vibrant urban spaces. (Image courtesy of ERCO Light Scout)

## 7. STREETSCAPE AND PUBLIC SPACE DESIGN

The streetscape and design of public space should support transit, pedestrian, and bicycle facilities required of transit-oriented development. Ultimately, transforming streets with the highest-quality design and materials is a large investment of time and money. While policy should encourage this to be achieved in the long term, short-term solutions can encourage pedestrian behavior required for premium transit.

### *Incremental Solutions*

Incremental solutions such as reducing the size of travel lanes, introducing bike lanes, and striping off extra right-of-way where appropriate should be used. Measures such as activated pedestrian crossings and signage should be introduced to increase safety. Sidewalks should be widened and trees planted in buffer space where possible. Any incremental changes should be part of or complement longer-term streetscape redesign plan.

### *Long-Term Solutions*

Long-term solutions often include street reconstruction. Curb lines will be moved, the construction of stormwater facilities, building of urban infrastructure like curb and gutter, widened sidewalks and the accommodation of stations, and expanding vegetation areas are all common projects in a streets reconstruction.

Figure 7-38: A well-designed streetscape and public realm can aid the development of a transit-oriented development. (Image courtesy of Bustler)

## 8. STRATEGIES FOR IMPLEMENTATION

The following strategies are methods by which the previously-stated urban design standards can be implemented the most effectively. These might be offered alone or in various combinations. Case studies to show how other cities have implemented transit-oriented development design standards.

***Simplified/Expedited Development Process***

Regulatory complexity or rigidity can restrict a jurisdiction's ability to attract certain types of desired development or may discourage developers from building in a community. Unpredictability, delay and excessive process in project review and approval can drive up the cost of development. To ensure that local regulations are supportive of adopted development/ redevelopment goals, jurisdictions should consider reviewing and streamlining their permitting processes and development regulations to eliminate unnecessary costs and barriers and facilitate the development desired within the Mobility Hubs.

***Shared Parking Schemes***

Shared parking is an effective tool for reducing the number of parking spaces needed for a project or neighborhood. Shared parking strategies can be implemented within a new mixed-use development, through simple agreements between adjacent owners, or through the creation of a parking management district. Parking districts can also encourage pedestrian activity by encouraging people to park once and walk from destination to destination.

***Phasing***

Development phasing strategies recognize the "chicken-and-egg" nature of transit-oriented development and articulate a pathway to facilitate private sector investment prior to the implementation of permanent, premium transit services. This investment then lends credibility to the longer-term land use vision for the corridor or Mobility Hub which in turn improves the case for the premium transit investment. Strategies include:

- Development of sub-area plans and pre-approval of entitlements
- Definition of interim uses that can make a site more attractive as a park-and-ride site but do not constrain the site for more intense development in the future
- Zoning and density bonuses
- Infrastructure improvements, special assessments, and tax incentives, including financial participation in development of structured parking.
- Joint development, revenue sharing and cost sharing

***Financial Incentives***

Financial incentives are part of an overall strategy to leverage investment, lower the cost of doing business, and level the

playing field for businesses and property owners choosing to invest in the long-term economic, social, and cultural vitality of the local area. Such financial incentives may include the following:

- Tax abatement
- Lien waivers
- Bond issuance
- Economic/business loan programs
- Grant programs
- Renovation/improvement programs

***Density/Intensity Bonuses***

Increased density allows a developer to take advantage of greater economies of scale. Allowing higher densities near transit gives more people easy access to transit from their home or work, encouraging transit use. Creating compact, pedestrian-friendly neighborhoods can also help support neighborhood-serving local businesses.

***Height Bonuses***

Increased allowable heights can result in higher revenues from development where higher density projects are feasible. To qualify for a height bonus, the applicant must provide sufficient amenities or public benefit use to build the additional height to take advantage of that bonus density, as well as comply with urban design and building standards and guidelines.

***Unique Public/Private Partnerships***

A Public-Private Partnership is an arrangement between a public agency (federal, state or local) and a private-sector entity. Through this arrangement, the expertise and assets of each sector (public and private) are combined to deliver a service or facility for the benefit of the community. The scale can be as small as providing a façade grant to a small business owner or as large as contributing land in a real estate development project. Such programs may include the following:

- Negotiation of major real estate or land deals
- Assistance in structuring development deals
- Analysis of a development project
- Assistance with land acquisition strategy and assembly
- Identification of development objectives for specific sites
- Development of incentive programs for retailers and developers

***Case Studies***

- *Cleveland, Ohio* – Public and private investments catalyzed a striking transformation along Euclid Avenue in Cleveland, generated in part by the construction of a new BRT system. To encourage new residential, retail, and commercial development, the City offers financial incentives for developers and businesses that invest in Cleveland.
- *El Paso, Texas* – The City is expanding and improving transit service by planning four BRT lines through the city. A form-based code, Downtown Incentive Programs, Historic Tax Exemption, and Infill Development Incentive Program are being used to ensure a high quality of urban spaces that surround the bus stops and transfer centers in terms of TOD.
- *Los Angeles, California* – Los Angeles corridor enhancements through station development and TOD-

based construction incentive have been focused on BRT and light rail. Successful station-area development has grown from the initiatives of private developers and local jurisdictions, and supportive land use policies and helpful joint development agreements. To qualify for the incentives of the policy, plans must adhere to characteristics of the station area and are specific to type of improvements made.

- *Phoenix, Arizona* – Planning efforts and land-use guidelines provide a vision for future development along the METRO light rail system in terms of TOD, as well as the potential positive impact of tools that can be used to support TOD in the metropolitan area. Implementation tools include fast track development review, capital funding for infrastructure, tax increment financing, reduced impact fees, streetscape improvements, façade and site frontage improvement program, tax exempt bonds, tax abatement, joint development programs, and land acquisition loan funds.
- *Puget Sound, Washington* – Growing Transit Communities is designed to help make the most of this investment by locating housing, jobs, and services close enough to transit so that more people will have a faster and more convenient way to travel. Implementation tools include regulatory incentives, enacting TOD overlays, developer incentives, flexible development standards, and financial assistance programs.