



December 2013

HOLLYWOOD / PINES BOULEVARD

CONGESTION MANAGEMENT PROCESS/ LIVABILITY PLANNING PROJECT

FINAL REPORT



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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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A



C



Mobility Hub Designations:



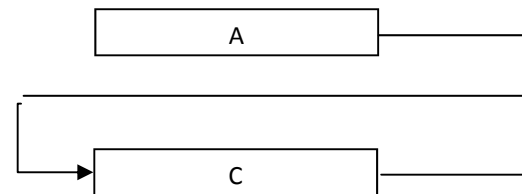
Community Hub

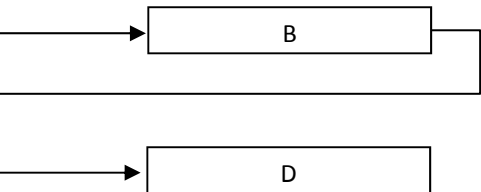


Anchor Hub



Gateway Hub





Mobility Hub Designations:



Community Hub



Anchor Hub



Gateway Hub



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:

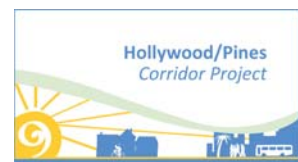
- Recent, high-quality aerial imagery
- Land use, zoning, and property appraiser parcel data
- Roadway network characteristics and traffic data
- Traffic crash data, including bicycle and pedestrian crashes
- Points of interest such as community and regional parks, colleges, hospitals, libraries, and 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 in Pembroke Pines) to get public input on the land use and transportation strategies for two Mobility Hubs selected in each city.

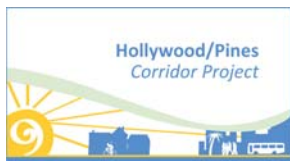
- City Commission, MPO Board, and MPO Committee Presentations – To gather input from elected and appointed officials as well as members of the public present, the project includes interim and final briefings at the following publicly-noticed meetings:
 - ◇ City of Hollywood and City of Pembroke Pines 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.

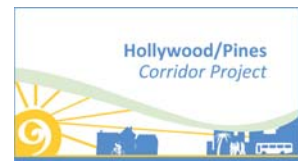


TRANSPORTATION ANALYSIS

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

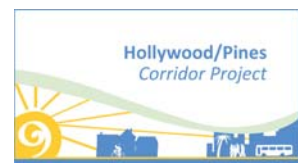
Tables describing the shorter-term congestion management recommendations for the Hollywood/Pines Boulevard Corridor Project are provided on the following pages. The first three tables show linear multimodal facilities projects and include the relative priority of each project recommendation based on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






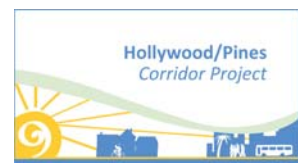
-  **Priority Group 1**
> 40 points
-  **Priority Group 2**
20–39 points
-  **Priority Group 3**
< 20 points




| On Street | From/At | To | Recommendation | Priority Score | Planning Cost Estimate |
|-----------------------|-------------------------|--|---|--|------------------------|
| Pines Blvd | US 27 | 208th Ave | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> Widen pavement to provide marked bike lanes. Provide a marked crosswalk at 4th St. |  17 | \$ 1,251,000 |
| 186th Ave Taft St | Pines Blvd 196th Ave | NW 20th St/ Taft St 186th Ave/NW 20th St | <ul style="list-style-type: none"> Reconstruct/widen sidewalk as a multi-use path. Provide a marked crosswalk across 186th Ave at Johnson St. |  13 | \$ 588,000 |
| Johnson St | 209th Ave | W of 203rd Ave | <ul style="list-style-type: none"> Provide a multi-use path along the south side of Johnson St. Enhance crosswalks to Price Park and connecting existing trail sections at NW 202nd Ave. |  15 | \$ 274,000 |
| Dykes Rd | Pembroke Rd | Sheridan St | <ul style="list-style-type: none"> Provide bike lanes by marking existing paved shoulder and providing additional paved areas, providing right-turn “key-holes,” and narrowing travel lane widths. 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 | <ul style="list-style-type: none"> Provide sidewalk along west side of 101st/Palm Ave. |  27 | \$ 277,000 |
| Johnson St | Flamingo Rd | Hollywood City Limits | <ul style="list-style-type: none"> Widen pavement to provide marked bike lanes. Modify intersection geometry at Flamingo Rd and Douglas Rd to improve pedestrian safety. Construct sidewalk along north side of Johnson St from Douglas Rd to University Dr. 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 | <ul style="list-style-type: none"> Widen pavement to provide marked bike lanes. |  27 | \$ 1,208,000 |
| Johnson St | Hollywood City Limits | C-10 Canal | <ul style="list-style-type: none"> Widen pavement to provide marked bike lanes. Provide crosswalk markings and enhance lighting at signalized intersections and provide marked, enhanced mid-block crossings at various locations. Conduct round-about feasibility study at 64th Ave and 62nd Ave. Complete sidewalk along north side of Johnson St to the C-10 Canal Bridge. |  35 | \$ 3,812,000 |















| On Street | From/At | To | Recommendation | Priority Score | Planning Cost Estimate |
|---|----------------------------|-------------------------------|---|----------------|------------------------|
| NW 64th Ave | Hollywood Blvd | N of Sheridan St | <ul style="list-style-type: none"> Widen pavement and narrow travel lanes to provide marked bike lanes. | 21 | \$ 1,232,000 |
| Washington St | SW 62nd Ave | Park Rd | <ul style="list-style-type: none"> West of SR 7 and East of SW 56th Ave, widen pavement and narrow travel lanes to provide marked bike lanes. Longer-term consider a road diet from SR-7 to SW 56th Ave. | 27 | \$ 1,323,000 |
| 62nd Ave | Pembroke Rd | Johnson St | <ul style="list-style-type: none"> 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) | | | <ul style="list-style-type: none"> Fill sidewalk gaps, provide curb ramps. Provide shared lane arrow markings. | 18 | \$ 169,000 |
| Johnson St | C-10 Canal | US 1 | <ul style="list-style-type: none"> Provide bicycle and pedestrian facilities across canal bridge; update pedestrian features at the intersection at 30th Rd; and complete sidewalks east of I-95. 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. Provide bus-stop and pedestrian safety enhancements at US-1. | 45 | \$ 9,964,000 |
| Johnson St | Federal Hwy | N 8th Ave | <ul style="list-style-type: none"> Provide shared lane arrow markings. | 16 | \$ 48,000 |
| 56th Ave | Washington St | Stirling Rd | <ul style="list-style-type: none"> Widen pavement/narrow lanes to provide marked bike lanes. | 24 | \$ 2,417,000 |
| 46th Ave | Washington St | Johnson St | <ul style="list-style-type: none"> South of Hollywood Blvd, widen pavement/narrow lanes to provide marked bike lanes. 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 North Rainbow Dr | Glenn Pkwy Polk St | N Rainbow Dr Johnson St | <ul style="list-style-type: none"> Implement road diet to provide bike lanes or mark outside lane with shared lane arrows. | 12 | \$ 564,000 |
| Van Buren St South Rainbow Dr | S 56th Ave Van Buren St | S Rainbow Dr Washington St | <ul style="list-style-type: none"> Implement road diet to provide bike lanes or mark outside lane with shared lane arrows. | 11 | \$ 448,000 |
| Park Rd | Washington St | Johnson St | <ul style="list-style-type: none"> Provide bike facilities 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

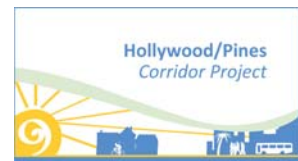


-  **Priority Group 1**
> 40 points
-  **Priority Group 2**
20–39 points
-  **Priority Group 3**
< 20 points

| On Street | From/At | To | Recommendation | Priority Score | Planning Cost Estimate |
|----------------|-----------------------------|----------------|--|--|------------------------|
| Hollywood Blvd | Presidential Cir | 28th Ave | <ul style="list-style-type: none"> • Provide bike facilities by various means including narrowing lanes and narrowing medians. • 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. • Improve lane designation signage at 28th Ave and address left-turn crash issue. |  50 | \$ 1,987,000 |
| 35th Ave | S Rainbow Dr | Johnson St | <ul style="list-style-type: none"> • Widen pavement/narrow lanes to provide marked bike lanes. |  22 | \$ 398,000 |
| 30th Ave | Pembroke Rd | Hollywood Blvd | <ul style="list-style-type: none"> • Provide a multi-use path pending potential redevelopment of city golf course. |  23 | \$ 388,000 |
| 30th Rd | Hollywood Blvd | Johnson St | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • Complete Streets project to provide median refuge, bike lanes, bus stop enhancements, mid-block crosswalks, and lighting and landscape enhancements. |  51 | \$ 6,857,000 |
| Van Buren St | 28th Ave | 24th Ave | <ul style="list-style-type: none"> • Complete Streets project to provide bike facilities and pedestrian safety enhancements. |  14 | \$ 3,431,000 |
| Polk St | 28th Ave | 22nd Ave | <ul style="list-style-type: none"> • Complete Streets project to provide bike facilities and pedestrian safety enhancements. |  16 | \$ 4,275,000 |
| 24th Ave | Washington St | Johnson St | <ul style="list-style-type: none"> • Provide shared lane arrows. |  19 | \$ 36,000 |
| Dixie Hwy | Pembroke Rd | Sheridan St | <ul style="list-style-type: none"> • Complete Streets/road diet project to provide bike facilities and pedestrian safety enhancements, complete sidewalk gaps. • Consider turn prohibitions at Dixie Highway and Hollywood Boulevard to reduce congestion. |  46 | \$14,175,000 |
| 14th Ave | Hallandale Beach City Limit | Hollywood Blvd | <ul style="list-style-type: none"> • Widen pavement/narrow lanes to provide marked bike lanes; complete sidewalk segments as necessary. |  27 | \$ 811,000 |
| 13th Ave | Washington St | Johnson St | <ul style="list-style-type: none"> • Complete sidewalk segments as necessary. |  14 | \$ 191,000 |
| SR A1A | Hallandale Beach Blvd | Johnson St | <ul style="list-style-type: none"> • South of Hollywood Boulevard, consider a road diet to provide bike lanes and multimodal enhancements. • Provide pedestrian enhancements to intersection/interchange of Hollywood Blvd and SR A1A. • North of Hollywood Blvd, provide enhanced crosswalks and intersection lighting at signalized intersections, consider mid-block crossing locations, and relocate bus stops to be to signalized intersections. |  25 | \$13,595,000 |



| On Street | From/At | Recommendation |
|--|------------------------------|---|
| Bus Stop Enhancements and Siting Modifications | | |
| Pines Blvd | US 27 to I-75 | <ul style="list-style-type: none"> Enhance and modify location of bus stops at 186th Ave and Westfork Plaza. |
| Pines Blvd | I-75 to Hollywood City Limit | <ul style="list-style-type: none"> Enhance and modify location of bus stops at various locations. Evaluate potential for right-turn queue jump lanes pending completion of FDOT Pilot Project at 136th Ave, Hiatus Rd, Palm Ave, and Douglas Rd. |
| Hollywood Blvd | 56th and 58th Ave | <ul style="list-style-type: none"> Modify bus stop locations to improve access to signalized crossings. |
| Mid-Block Crosswalks and Intersection Pedestrian Feature Enhancements | | |
| City of Pembroke Pines | Various Locations | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> Extend TSM&O/ATMS system to improve signal coordination/reduce congestion. |
| Pines Blvd | Various Intersections | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> Extend eastbound right-turn lane to immediate east of 63rd Terr. Evaluate options to restrict eastbound left turns at 62nd Ave to provide additional left-turn storage onto Turnpike. |
| Hollywood Blvd | US 1/Young Cir | <ul style="list-style-type: none"> BCTE is currently evaluating options to improve operations in Young Cir; consider implementing TSM&O/ATMS system to improve signal coordination/reduce congestion. Provide enhanced (in pavement) way-finding to help tourists navigate circle |
| Hollywood Blvd | 14th Ave/13th Ave | <ul style="list-style-type: none"> Coordinate with City of Hollywood and FDOT to implement measures to mitigate impacts of recent access management project on Hollywood Lakes neighborhoods. |



SCENARIO PLANNING

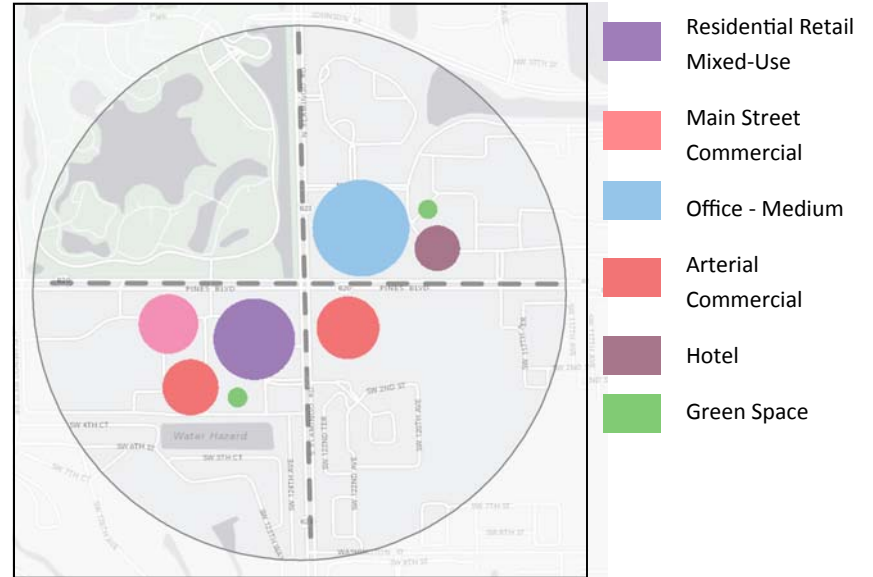
Four Mobility Hubs were selected (from the 11 along the corridor) based on quantitative and qualitative analysis and input from the PAC. For each selected Mobility Hub, three potential scenarios were developed as shown below:

| | 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 |

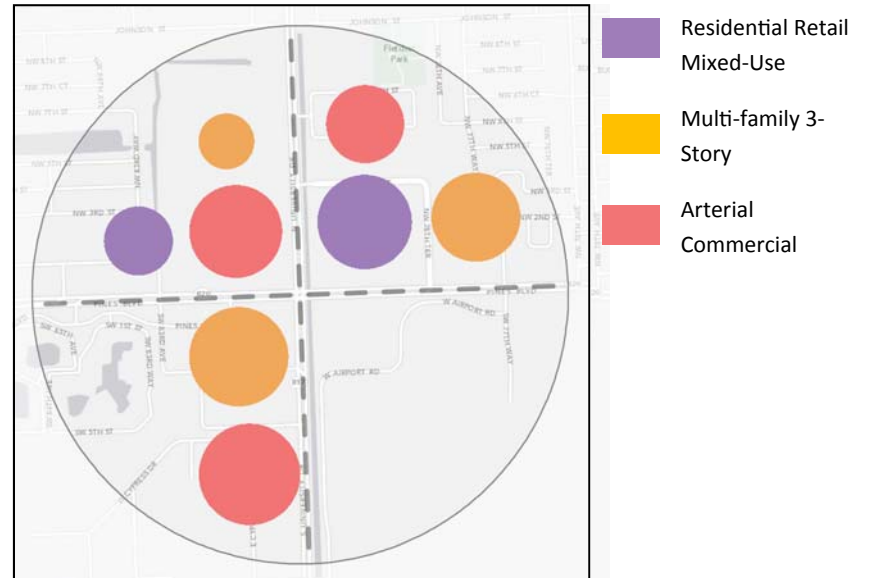
* Population and employment forecasts for the Mobility Hub scenarios were developed using Traffic Analysis Zone (TAZ) data from the 2035 LRTP. In Alternative 2, it is assumed development potential from surrounding TAZs is focused in the Mobility Hubs.

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.

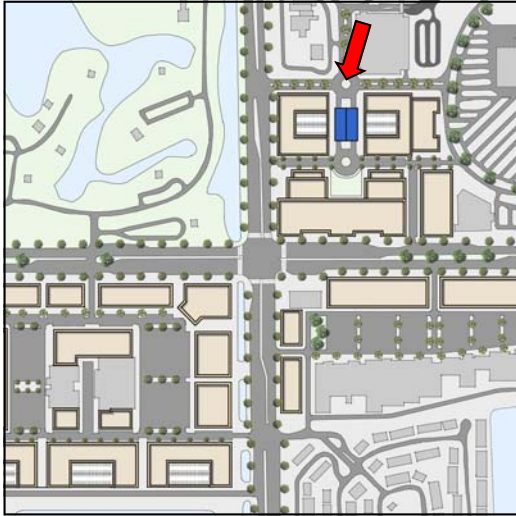


At the **Flamingo Road** Mobility Hub, existing transfer activity between bus service along Hollywood/Pines Boulevard, local circulator, and community bus routes is shifted from the mall to a new transfer the northeast quadrant of the intersection.



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.

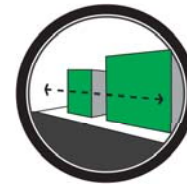
The Toolkit focuses on five urban design and planning principles, supported by case studies and academic research that meet two development goals: encourage and support multimodal transportation, especially premium transit, and preserve and enhance the character of existing neighborhoods.



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.



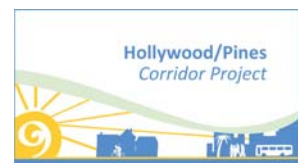
Transition to Neighborhoods from designated transit-oriented and mixed-use corridors is important to protect the character of adjacent neighborhoods by regulating the transition from higher densities and more intense land uses to lower-density and single-family residential development. While a positive 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 MANAGEMENT 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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