

# IMPLEMENTATION STRATEGY

The package of Mobility and Safety project elements prioritized for near-term Mobility Hub implementation includes custom shelters, pedestrian connectivity and other shelter area improvements, high-emphasis crosswalks and bike lane markings at and near the intersections of NW 103<sup>rd</sup> and NW 106<sup>th</sup> Avenues with Pines Boulevard, and bicycle and pedestrian connectivity improvements along Washington Street.

As noted at the outset of the master planning process, the Broward MPO assigned FTA funds to expend on Mobility Hub near-term projects to improve mobility and safety for pedestrians, bicyclists, and transit users. In determining the type and location of investments, the project team also considered how public investments might encourage redevelopment. The most visible near-term investments will be made along Pines Boulevard and SW City Center Boulevard to leverage other planned investments, signaling a commitment to multimodal access for the area, with future opportunities for the City to install similar improvements elsewhere in conjunction with development projects as opportunities arise.

While near-term project implementation is underway, it will be important for all stakeholders to continue to consider the broader strategies outlined in the Planning Framework, and to seek opportunities to collaborate on additional projects that will build on the near-term investments. Upgrades to additional bus and shuttle stops, and incorporation of wayfinding and community identity elements in additional locations will signal to the development community that the Mobility Hub is a vibrant and high priority investment location for the City.

If high capacity regional transit and/or park-and-ride facilities are considered to serve the area in the longer term, the implications for the Mobility Hub location to provide additional transfer and parking functions would also impact planning decisions. While these functions are not warranted or anticipated now, the long-term potential should remain in consideration as City planners discuss redevelopment opportunities within the Mobility Hub.

The City of Pembroke Pines must continue to engage, as appropriate, in discussions or negotiations with private property owners and developers regarding private investments in the Mobility Hub area. The City will seek opportunities to secure easements or use agreements to advance longer-term City goals for additional mobility, safety, and placemaking improvements. The City of Pembroke Pines must also coordinate Mobility Hub improvement efforts for the planned signalization of the Pines Boulevard / NW 106<sup>th</sup> Avenue intersection. This must precede Mobility Hub improvements, with ongoing City Center redevelopment and potential future redevelopment north of Pines Boulevard.

## PROCESS OVERVIEW

The Broward MPO will assist with development of some preliminary design documents and permitting coordination. The City of Pembroke Pines will issue procurement documents, oversee final design, construction, and be responsible for maintenance of all elements, which are to be located within the public right-of-way (ROW).

The Design Phase of the project will be conducted for most project elements over the next year, with construction anticipated to be completed two years after design. Elements associated with the Pines Boulevard / NW 106<sup>th</sup> Avenue intersection will require additional coordination and may take longer to implement to align with the schedule for signalization.

The Broward MPO will lead the following tasks in 2020 and 2021 in close coordination with the City of Pembroke Pines, Broward County Transit (BCT), Broward County, Florida Department of Transportation (FDOT) and FTA:

### Coordination and Permitting

Identify local, state and federal permitting requirements for near-term MPO-funded project elements. Address NEPA compliance, and Federal Highway Administration

(FHWA) and/or FDOT procedural reviews of crash data and traffic studies to warrant application of special treatments for bike/pedestrian safety. Collect updated traffic counts and crash data and analyze as needed to support warrant of design exceptions review.

### Right-of-Way Research

Determine jurisdictional responsibilities for permitting authorities for near-term projects and confirm and document public ownership for placement of project elements and useful life maintenance responsibilities.

### Environmental Reviews and NEPA Documentation

Review class of action and potential environmental impacts of the near-term projects, including impacts during construction, to determine the type of categorical exclusion. A categorical exclusion is a class of action that a Federal agency has determined, after review, does not individually or cumulatively have a significant effect on the human environment and for which, therefore, neither an environmental assessment nor an environmental impact statement is normally required.<sup>1</sup>

### 30% Conceptual Design and Coordination

Develop conceptual design drawings for near-term MPO-funded projects and update conceptual cost estimates based on FDOT approved unit costs and recent similar projects. Coordinate between the City, FDOT and BCT, as needed for transit stops, sidewalks, ADA improvements, bike lane markings, and high-emphasis crosswalks.

### Engineering Plans Review, Documentation and Construction

Develop a Final Design Report and associated civil engineering and architectural plans for permitting and construction documents for award of contract. This includes documentation for design variations in accordance with City of Pembroke Pines and FDOT criteria for solicitation of construction bids, updated estimates for

costs and quantities, and standard technical specification packages for unique features.

The Broward MPO has launched a new construction division called Metro Transportation Engineering & Construction Cooperative (M-TECC). Member municipalities who wish to join can benefit from a variety of services such as a streamlined procurement of construction projects. M-TECC takes over all aspects of the project management in accordance with Federal and State laws, which include assistance in Procurement, Design, and Construction. This eliminates the need for additional city staff to administer FTA funded transportation projects and can offer a time/cost savings with increased project efficiencies to member municipalities. M-TECC staff, MPO administrative costs, Engineering Consultant and Contractors are all eligible expenses. Municipalities are free to choose to administer the procurement and construction of FTA eligible projects if utilizing M-TECC is not a viable option for them.

### Stakeholder Coordination

Coordination efforts between the Broward MPO project team, the City of Pembroke Pines, BCT, FDOT and other stakeholders will include the following:

- The Broward MPO and City will coordinate with FDOT for the permitting of elements within the ROW, including bus shelters, lighting, decorative sidewalks, stamped asphalt crosswalks, benches, trash cans, and wayfinding.
- The City will coordinate with BCT on the installation of new custom shelters along Pines Boulevard. BCT has reviewed bus stop locations and confirmed the shelter locations are acceptable. Ridership changes will be monitored after construction is complete.
- The Broward MPO and City will provide opportunities for public review and comment on the near-term projects, including direct coordination with potentially impacted and/or adjacent property owners. It is not anticipated that near-term projects, which will all occur in the public right-of-way or on City property, will impact access or visibility for any private property owners.

<sup>1</sup> <https://ceq.doe.gov/nepa-practice/categorical-exclusions.html>

- In the long term, as documented in the Planning Framework report, the City may choose to negotiate easements or use agreements with Hub-area property owners to accommodate desired features such as shuttle stops, bus transfer facilities and park-and-ride facilities. For example, establishing an improved pedestrian connection and potential shuttle route north-south through the shopping center north of Pines Boulevard, as depicted in the Project Elements report, will require an agreement with the property owner. A mutually beneficial agreement will ensure that safe and effective movement patterns can be accommodated.

## PRELIMINARY SCHEDULE

The Broward MPO will provide implementation support to the City of Pembroke Pines. The tasks outlined above will proceed on the timeline outlined below:

- **Preliminary Design Documentation:** July 2020 – March 2021
- **FTA Funding Application Approval:** December 2020 – March 2021
- **Design/Build Construction Contract Procurement:** March 2021 – July 2021
- **Mobility Hub Construction:** July 2021 – June 2023
- **Construction Completion and Project Closeout:** July 2023

<sup>2</sup><https://www.fdot.gov/programmanagement/estimates/basisofestimates/boemanual/boeonline.shtm>

<sup>3</sup><https://www.fdot.gov/programmanagement/estimates/historicalcostinformation/historicalcost.shtm>

<sup>4</sup><https://www.fdot.gov/programmanagement/estimates/lre/costpermilemodels/cpmsummary.shtm>

## PRELIMINARY COST ESTIMATE

The Opinion of Probable Cost (on the following page) represents a preliminary and general cost estimate as the basis for design elements. Cost estimates will be modified and refined, as appropriate, during subsequent implementation support tasks. Adjustments to locations or quantities of elements may be made in the design phase.

The Broward MPO will continue to work with the City of Pembroke Pines to monitor opportunities to leverage available funds with City of Pembroke Pines as it plans for potential Placemaking improvements adjacent to BCT and shuttle transit stops.

Features and quantities included in the cost estimate table below are depicted and described in the preceding Project Elements section of this report.

Costs were developed based upon recent similar project experience in the south Florida market by both Marlin Engineering and HNTB. Relevant industry standards and cost estimate sources referenced in developing the cost estimate include:

- FDOT Basis of Estimate (for intersection design elements)<sup>2</sup>
- FDOT Pay Item Cost History (for intersection design elements)<sup>3</sup>
- FDOT Cost Per Mile Models for Long Range Estimating<sup>4</sup>, including
  - Sidewalk cost model (5' wide, 4" deep)<sup>5</sup>
  - Shared Use Path cost model (12' wide, asphalt)<sup>6</sup>
  - Additional Lane cost model (asphalt)<sup>7</sup>
- RSMMeans 2020 Square Foot Costs Book (for bus shelter concepts)

<sup>5</sup> [https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/estimates/lre/costpermilemodels/o03.pdf?sfvrsn=734a20a3\\_8](https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/estimates/lre/costpermilemodels/o03.pdf?sfvrsn=734a20a3_8)

<sup>6</sup> [https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/estimates/lre/costpermilemodels/o01.pdf?sfvrsn=dfe7cd6\\_10](https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/estimates/lre/costpermilemodels/o01.pdf?sfvrsn=dfe7cd6_10)

<sup>7</sup> [https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/estimates/lre/costpermilemodels/u10.pdf?sfvrsn=96fd4359\\_4](https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/estimates/lre/costpermilemodels/u10.pdf?sfvrsn=96fd4359_4)

## NEAR-TERM PROJECT ELEMENTS - OPINION OF PROBABLE COST (MAY 2020)

Sources for unit costs: Marlin Engineering, HNTB

Project Element	Unit	Qty	Cost/Unit	Cost	Description
<b>Custom Bus Shelters</b> - Estimates below include shelter structure and associated site and pavement work, user amenities as depicted in the Project Elements section. Cost/unit includes design, survey, Construction Engineering and Inspection (CEI), and 20% contingency.					
Type 1	Each	1	\$17,730	\$17,730	At City Hall west porte-cochere
Type 2	Each	2	\$42,745	\$85,490	Verify two one-way stops or one paired stop on Washington Street
Type 3	Each	2	\$61,430	\$122,860	Verify two one-way stops or one paired stop at City Center park
Type 4	Each	4	\$80,935	\$323,740	Two paired stop locations (Pines/NW 103 <sup>rd</sup> Avenue, Pines/NW 106 <sup>th</sup> Avenue)
<b>Total</b>				<b>\$549,820</b>	
<b>Pines Boulevard Intersection Safety Improvements</b> - Estimates below include ADA accessible sidewalk, crosswalk, curb work and painted bike lane improvements as depicted in the Project Elements section. Shelter-related costs for four (4) Pines Boulevard stop locations are included above. Signalization costs are not included at NW 106 <sup>th</sup> Avenue intersection. Cost/unit includes design, survey, CEI, and 20% contingency.					
NW 103 <sup>rd</sup> Avenue/ Pines Intersection	Each	1	\$336,464	\$336,464	
NW 106 <sup>th</sup> Avenue / Pines Intersection	Each	1	\$436,178	\$436,178	Excludes signalization
Bus Pullout / Curb Modification	Each	4	\$70,405	\$281,620	Estimate of cost to accommodate pullout at each stop (not depicted in the Project Elements section)
<b>Total</b>				<b>\$1,054,262</b>	
<b>Washington Street Ped/Bike Connection</b> - Hiatus Road to SW City Center Boulevard; supports a connection further west via Raintree Park. Cost/unit includes design, survey, CEI, and 20% contingency.					
Multi-Use Path	Linear Feet	2,685	\$86	\$231,910	North side only; off-street; asphalt, 12' wide; assumes existing sidewalk remains

<b>5' Bicycle Lanes</b>	Linear Feet	2,685	\$133	\$356,690	Roadway widening to accommodate east- and west-bound on-street lanes; no off-street multi-use path included
<b>7' Bicycle Lanes</b>	Linear Feet	2,685	\$185	\$497,310	Roadway widening to accommodate east- and west-bound on-street lanes; no off-street multi-use path included
<b>TOTAL Cost with Multi-Use Path</b>				<b>\$1,835,992</b>	No bike lanes
<b>TOTAL Cost with 5' Bicycle Lanes</b>				<b>\$1,960,772</b>	No multiuse path
<b>TOTAL Cost with 7' Bicycle Lanes</b>				<b>\$2,101,392</b>	No multiuse path