Transportation Master Plan Proposed Solutions -Plan Study Area





November 14, 2023 | City Commission Meeting

BrowardMPO.org

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1. Proposed Solution Examples

- Bicycle Facilities
- Intersections
- Crossings
- Other / Miscellaneous
- 2. General Solutions for Plan Study Area (Signalized Intersections & New Crossings)

3. Proposed Solutions for the Plan Study Area Roadways

- Powerline Rd
- Andrews Av
- NE 26 St
- Dixie Hwy
- NE 24 St Route
- NE 21 Ct Route
- Westside Route (generic location)





Proposed Solutions Examples

The following pages have examples of Proposed Solutions.

The examples are intended to provide a general depiction of transportation features and terminology listed in the Proposed Solutions for the Plan Study Area Roadways.

Examples labeled as "Quick-Build" are those constructed of low-cost modular materials and are recommended for the City to quickly implement ion a temporary basis.

Additional information can be found at the following websites: National Association of City Transportation Officials Urban Street Design Guide: <u>https://nacto.org/publication/urban-street-design-guide/</u> USDOT, Federal Highway Administration "Proven Safety Countermeasures":

https://highways.dot.gov/safety/proven-safety-countermeasures



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Proposed Solutions Examples: Bicycle Facilities

Shared Use Path





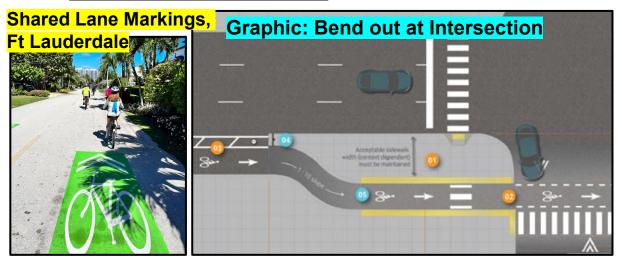
Shared Road sign, Pompano Beach





Ft Lauderdale

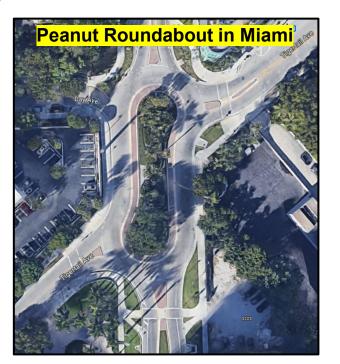


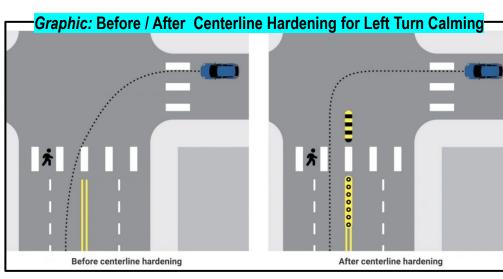


Proposed Solutions Examples: Intersections













Proposed Solutions Examples: Crossings





Crossing with Median Refuge, Jacksonville Beach



*RRFB = Rapid Rectangular Flashing Beacon **PHB = Pedestrian Hybrid Beacon



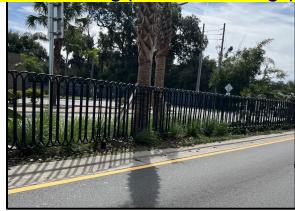






Proposed Solutions Examples: Other









Defined At-Grade Sidewalk

General Solutions for Plan Study Area

Signalized Intersections

- Signals should be retimed to allow for pedestrians to cross at 3.5 ft / second; where senior housing is present, they should allow crossings at 2.8 ft / second
- Leading pedestrian interval treatments will be considered
- ✓ **Protected left turn phases** will be considered
- Left turn calming treatments like hardened centerlines will be considered
- Pedestrian refuge islands or treatments to reduce crossing distance will be evaluated and included as space permits
- Lighting should be evaluated for both drivers and pedestrians
- Signals will be evaluated for no right turn on red treatments

New Crossings

- All mid-block crossings are intended to include
 Rectangular Rapid Flashing Beacons (RRFBs)
- Prior to installation, all identified mid-block crossing locations should be evaluated to see if they meet
 MUTCD warrants for Pedestrian Hybrid
 Beacons (PHBs) or signals.*
- On 2-Lane roads, mid-block crossings should also be raised
- On roads with 3 or more lanes, pedestrian refuge islands should be included where space permits
- Lighting should be evaluated for both drivers and pedestrians

Proposed Solutions Sheets:

- 1. Goals
- 2. Summary of Proposed Solutions
- 3. Raised Bike Lane
- 4. Intersection Improvements at NW 29 St
- 5. Closed Median Access at NW 28 Ct
- 6. New Crosswalk at NW 28 St





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Goals

- Redesign Roadway to better match surrounding Residential Land Use
- ✓ Lower Speeds to 30 MPH
- ✓ Limit turning conflicts
- ✓ Improved Access Management
- ✓ Reduce severity of crashes
- Improve Comfort and Safety of Pedestrian and Bicycle facilities along roadway
- ✓ Improve Comfort, Safety, and Convenience of Crossings over Powerline Rd

Biking LTS = 4 Ped LTS = 4



Bike Lane **Summary of Proposed Solutions** Signal **Block length between crossings** 1.275 255 450'

20

Q

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Corridor Wide Strategies

Add Conflict Markings at Intersections & Driveways

• Limits turning conflicts

Q

2,000'

Alerts drivers & bicyclists to potential conflict

Q

Evaluate Lighting at Crossings

Address nighttime crashes

Narrow Side Street Curb Radii

- Slows drivers
- Limits turning conflicts

Turning Wedges at Unsignalized Left Turns

- Slows drivers
- Limits turning conflicts

Speed Reduction Strategies

Lower Speed to 30 MPH

Mickel

Park

Powerline Rd

- New <u>Raised</u> Crossing with RRFB (Evaluate for PHB / Signal)*
 - At bus stops, Mickel Park, & across Powerline Rd
 - Quick-Build at grade crossing

*FDM allows raised crosswalks at 30 MPH or lower design speed.

Convert to Raised Bike Lane or Shared Use Path

- South City Limits to NW 29 St
- Deters parking in bike lane
- Slows traffic
- Quick-Build protected bike lanes on east side, bollards at intersections on west side.

Close Median Access at NW 28 Ct

Existing/Committed Facilities

Mid-Block Crossing

Bus Stop

- Limits turning conflicts
- Access becomes right in / right out

Evaluate Lane Repurposing

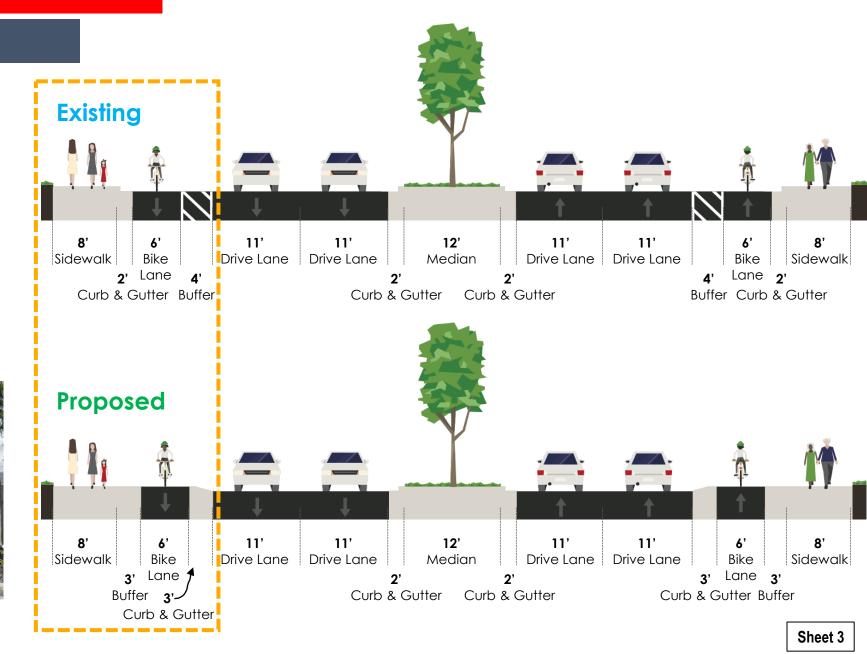
- NW 29 St to Oakland Park Blvd
- Allows for protected bike lanes and bus islands
- **Evaluate Relocating BCT Stop**
 - Far side stops preferred for bus operations
- Convert to Bus Bulb
 - Improves stop comfort
 - Bikeway goes behind stop
 - Reduces bus / bike conflict

Raised Bike Lane

Recommendations

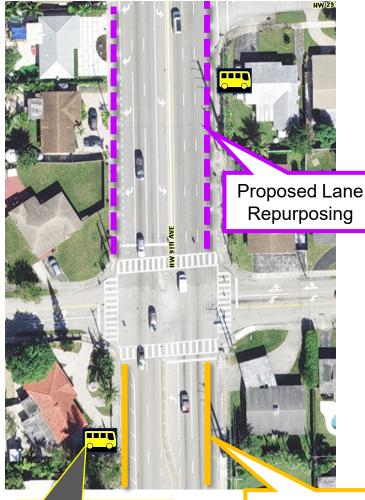
- Redesign Powerline Road to reduce vehicle speeds to 30 MPH.
- Better match residential context form New River to Oakland Park Blvd.
- Sample treatments: raised crossings, narrowed roadways with vertical elements, defined space for nonmotorized users.





- Proposed Raised Bike Lane starts at southern end of intersection
 - Proposed Lane Repurposing starts at northern end of intersection
 - Only 4-way crossing on Powerline Rd

Intersection Improvements @ NW 29 St



Addressing Turning Movements Traffic Speed

- Implement protected / permissive left turn signal phase for all directions
- Consider removing SB right turn lane
- Add hardened centerlines on Powerline Rd

Biking Improvements

- Add green conflict paint in bike lanes at intersections and driveways
- Construct protected intersection or install bend outs and bike boxes

Supporting Transit Riders

Consider relocating stops (to allow for bus bulbs)

Construct bus bulbs

(shared bus stop option or conflict striping at bus stop options for constrained areas)

Walking Improvements

- Restripe crosswalks
- Lengthen signal for pedestrian crossing
- Add leading pedestrian intervals
- Upgrade to directional curb ramps
- Construct median refuge islands (as space permits)

Evaluate Lighting and improve as needed

Existing BCT Stop location Proposed Raised Bike Lane

Close Median Access @ NW 28 Ct

Close median opening at NW 28 Ct to prohibit LT in / Out

Access Management Improvements

- NW 28 Ct is in close proximity to NW 29 St signalized intersection (~225 ft)
- Reduce potential conflicts with NB drivers from uncontrolled left turns from NW 28 Ct
- Benefit for NB Pedestrian & Bike activity (NB / Right turn drivers will focus more on NB activity – including NB ped & bike activity)

Next LT (both in / out) is 275 ft south (@ NW 28 St)

Residents living on NW 28 NW 28 Ct entrance converted to Ct would be able to make LT Right In / Right Out only in and out of NW 28 St

New Crosswalk @ NW 28 St



Walking Improvements

- Location is approximately 150 ft to Mickel Park's pedestrian-only entrance
- Construct Raised crosswalk over Powerline Rd
- Construct median refuge islands
- Curb extension via raised bikeway shortens crossing distance
- Directional curb ramps improve walking experience for people with disabilities
- Evaluate lighting and improve as needed

Biking Improvements

- Bikeway bends away from the road at intersection to increase visibility
- Add green conflict paint in bike lanes at intersections and driveways
- Raised bikeway is more comfortable for users

- Graphic depicts proposed Raised Bike Lane
- All new crossings to include RRFB's, also be evaluated for PHB's

Proposed Solutions Sheets:

- 1. Goals
- 2. Summary of Proposed Solutions
- 3. Proposed Shared Use Path
- 4. Intersection Improvements at NW / NE 24 St
- 5. Intersection Improvements at NW / NE 21 Ct
- 6. Define Roadway Space at 1901 block



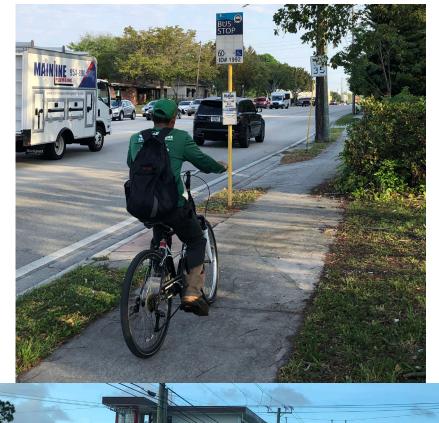


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Goals

- ✓ Re/Connect "west" & "east" Wilton Manors
- Redesign Roadway to better match planned mixed-use redevelopment
- ✓ Limit turning conflicts
- ✓ Improved Access Management
- ✓ Reduce severity of crashes
- ✓ Improve Comfort and Safety of Pedestrian and Bicycle facilities along roadway
- ✓ Improve Comfort, Safety, and Convenience of Crossings over Andrews Av







Summary of Proposed Solutions

Corridor Wide Strategies

2,135'

(to NW 16 St)

Add Conflict Markings at Intersections & Driveways

- Limits turning conflicts
- Alerts drivers & bicyclists to potential conflict

Evaluate Lighting

Address nighttime crashes and pedestrian comfort

Narrow Side Street Curb Radii

- Slows drivers
- Limits turning conflicts

Bike Facilities Strategies

Rachael

Richardson

Park

品的

Underground Utilities

Limits sidewalk obstructions

<mark>- 940'</mark>-

Andrews Ave

Walk & Bike Infrastructure Options

- Require Curb Reconstruction
- Widen sidewalks to create multiuse paths
- Build protected bike lanes

Narrow Lanes to 10' – 11'

 Provides additional space for bike or walking infrastructure and slows traffic New Mid-Block Crossing with Signal or PHB

Block length between crossings

650'

RRFB if does not meet warrant

NE 23th Dr

650'

NE 26

NE23

480³

E25

82

- Construct Pedestrian Refuge Islands
- Improves access to bus stops and across Andrews Ave
- Encourages crossing at designated locations

Add Spot Medians

- Limits turning conflicts
- Permits left turns at designated locations

Define Roadway Space

- May help slow traffic
- Placemaking opportunity

Add Pedestrian Phase

St Clement's

• Including ped signals & crosswalks

Existing/Committed Facilities

Bus Stop

Bike Lane

Signal

Catholic Church 1,300'

Increase Pedestrian Phase

Allow enough time for average & slower users to cross Andrews Av

Evaluate Relocating BCT Stop

 Far side stops preferred for bus operations

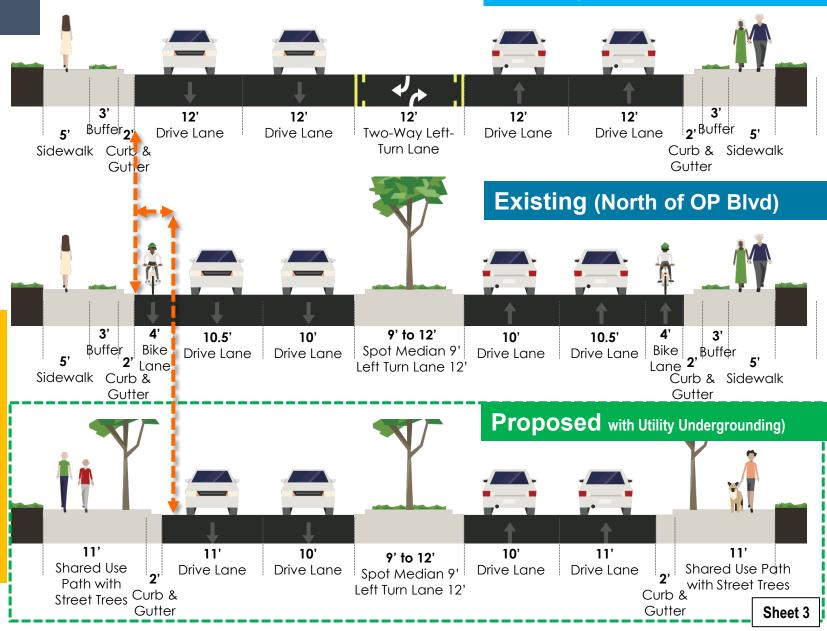


Proposed Shared Use Path

- For entire length of roadway in Wilton Manors
- Underground utilities to improve / increase space for walking and biking
- Shared Use Path to be used by pedestrians and bicyclists
- Introduce spot medians and pedestrian refuge islands to improve crossings
- Narrow lanes to slow traffic
- City previously identified Lane Repurposing as part of Andrews Av Land Use Study (2015)

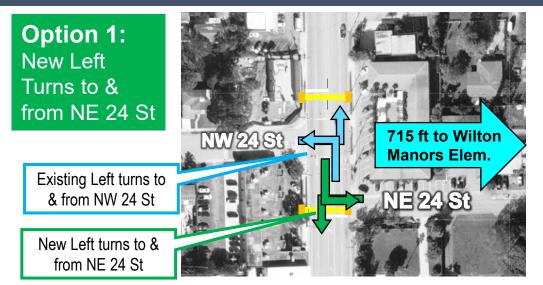
When Utilities are NOT placed underground: NE 26 St @ NE 6 Av



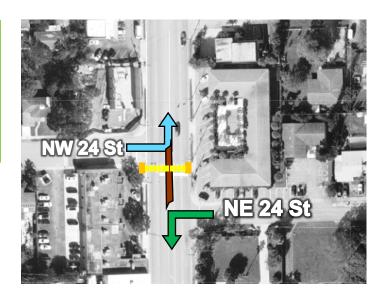


Existing (Wilton Manors)

Intersection Improvements @ 24 St



Option 2: Left Turns ONLY from NW / NE 24 St.



Both Options (changes to left turns) require further study by Broward County to understand Traffic Operations

Option 1 Improvements

- The existing crosswalk removed
- Place two new crosswalks (1north leg of NW 24 St and 2 south leg of NE 24 St)
- Continue to allow Left Turns to / from NW 24 St
- Permit / Signalize Left Turns to / from NE 24 St by bringing the extra leg into the signal

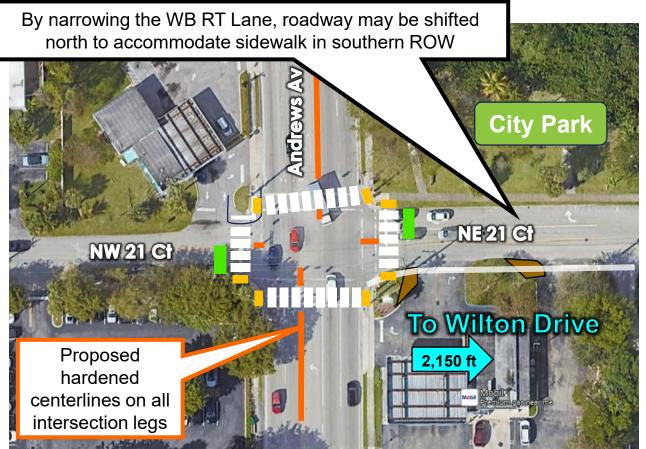
Option 2 Improvements

- The existing crosswalk improved with median refuge island
- Prohibit Left Turn from Andrews Av to NW 24 St
- Permit / Signalize Left Turns from NE 24 St (no left turn from Andrews Av to NE 24 St)

Improvements for both Options

- Restripe crosswalks on Andrews Ab and NW 24 St and NE 24 St to high visibility markings
- Lengthen signal for pedestrian crossing
- Add leading pedestrian intervals
- Upgrade to directional curb ramps
- Pedestrian crossing advanced signage
- Hardened Centerlines for Left Turns
- Add green conflict paint at intersections an driveways
- Evaluate lighting and improve as needed

Intersection Improvements @ 21 Ct



Addressing Turning Movements Traffic Speed

- Implement protected / permissive left turn signal phase for SB to EB LT's
- > Add hardened centerlines on all intersection legs

Walking Improvements

- Restripe crosswalks to high visibility markings
- Lengthen signal for pedestrian crossing
- Add leading pedestrian intervals
- Upgrade to directional curb ramps
- Pedestrian crossing advanced signage
- > Tighten curb radii (may require drainage improvements)
- Construct median refuge islands (as space permits)

Biking Improvements

• Add green conflict paint (intersections and driveways)

Improvements on NE 21 Ct

- Install **bend outs** and/or bike boxes on NE 21st Ct to support left turns
- Narrow roadway / WB RT Lane (currently is 13.5 ft wide)
- Use space from narrow roadway to add sidewalk in south ROW
- Tighten gas station's driveway openings







Define Roadway Space @ 1901 Block

Definition Improvements

- Approximately 300 linear feet of paved area that abruptly ends prior to swale
- Near term is add elements such as rumble strips and wider edge lines, or other proven Roadway departure treatments
- Curb can be relocated / area converted to pedestrian space in conjunction with proposed lane narrowing and shared use path





NE 26 St

Proposed Solutions Sheets:

- 1. Goals
- 2. Summary of Proposed Solutions: West of 5-Points
- 3. Summary of Proposed Solutions: East of 5-Points, Lane Repurposing Option
- 4. Summary of Proposed Solutions: East of 5-Points, 5-Lane Option
- 5. Intersection at NE 6 Av
- 6. Bike Movement from NE 8 Te to NE 9 Av
- 7. Lane Repurposing East of 5-Points
- 8. Intersection at NE 15 /16 Av with Lane Repurposing
- 9. Intersection at NE 15 /16 Av without Lane Repurposing





NE 26 St

Goals

- ✓ Redesign Roadway to better match adjacent land use (School / Childcare, Community Facilities, Retirement Homes, Low / Medium Density Residential, and Redevelopment / Mixed-use).
- ✓ Redesign east portion of NE 26 St to have consistent (30 MPH) speed limit as west portion
- Provide dedicated Bike Facilities along entire roadway
- ✓ Limit turning conflicts
- ✓ Improve Access Management
- ✓ Reduce severity of crashes
- Improve Comfort and Safety of Pedestrian facilities along entire roadway
- ✓ Improve Comfort, Safety, and Convenience of for crossing over NE 26 St

West of 5-Points Biking LTS = 3 Ped LTS = 1 & 2



East of 5-Points

Biking LTS = 4

Ped LTS = 4

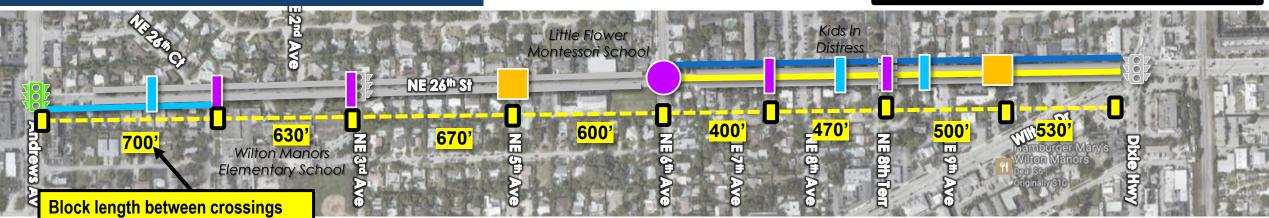
Existing/Committed Facilities

Bike Lane

Mid-Block Crossing

Summary of Proposed Solutions

Signal



Corridor Wide Strategies

Add Conflict Markings at Intersections & Driveways

- Limits turning conflicts
- Alerts drivers & bicyclists to potential conflict

Narrow Side Street Curb Radii

- Slows drivers
- Limits turning conflicts

Add Wayfinding Signage

Identify best routes to nearby destinations

Underground Utilities

- Limits sidewalk obstructions
- Allows for sidewalk completion from Andrews Av to Wilton Manors Elementary
- Allow for widening of sidewalk on south ROW

Traffic Calming Strategies

Construct Raised Intersection

Slows traffic & supports pedestrian crossing

Evaluate for Mini Roundabout

- Slows traffic
 - Improves safety

Construct Speed Hump/Table*

*ITE Guidelines for the Design and Application of Speed Humps recommends spacing of 260' to 500' to keep 85th percentile operating speed between 25 and 30 mph

New Raised Crossing with RRFB

Slows traffic & supports pedestrian crossing

Evaluate Potential to Widen Sidewalk to 8'

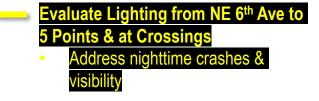


Requires underground utilities



Add Pedestrian Phase

 Including ped signals and crosswalks



Summary of Proposed Solutions

<mark>730'</mark>

AND DESCRIPTION OF THE OWNER.

RD Wilton Manors

Future Development

Existing/Committed Facilities

Bike Lane

Mid-Block Crossing

Lane Repurposing Option

600'

430'

Signal

1.050

Block length between crossings

Corridor Wide Strategies

Add Conflict Markings at **Intersections & Driveways**

- Limits turning conflicts
- Alerts drivers & bicyclists to potential conflict

Underground Utilities

Limits sidewalk obstructions

Evaluate Lighting at Crossings

Address nighttime crashes k visibility

Lane Repurposing Strategies

Explore Lane Repurposing & Lower Design Speed

500'

- Current volumes same or lower than 2-lane segment
- One 11' lane each direction + two-way left turn center lane
- Reduce speed limit to 30 mph through redesign
- Adds space for bike, walking, and transit features
- Adds space to address back out parking
- Extents: 5 Points to US 1 or Middle River Drive (based on further analysis)

Evaluate for Peanut Roundabout

430'

NE 26th St

E DGTh

400'

- Slows traffic
- Improves safety
- **Back Out Parking/Frequent**

Driveway Solutions

- Paint conflict paint across driveways
- Add raised bike lanes & widen sidewalks
 - (with lane repurposing)
- Use new road space to provide space to back into
- Long term: policy to remove during redevelopment

Speed Reduction Strategies

- Construct Raised Intersection*
- Slows traffic & supports pedestrian crossing (with lane repurposing)

Narrow Side Street Curb Radii / Eliminate Channelized **Right Turn Lanes**

- Slows drivers & Limits turning conflicts
- New Raised Crossing with RRFB (Evaluate for PHB / Signal)*
 - Encourages crossing at designated locations
 - Quick Build: At grade crossing

*FDM allows raised crosswalks and raised intersections at 30 MPH or lower design speed.

- **Convert to Bus Bulb**
- Improves stop comfort + Reduces bus / bike conflict
- Bikeway goes behind stop

Sheet 3

Existing/Committed Facilities

Bike Lane

Mid-Block Crossing

Summary of Proposed Solutions

730'lton

RD Wilton Manors

Future Development

Condos

5-Lane Option

500'

1Gin A

Signal

R 1.000 600³ **330' 500'** NE 26th St

Block length between crossings

Corridor Wide Strategies

Add Conflict Markings at **Intersections & Driveways**

- Limits turning conflicts
- Alerts drivers & bicyclists to potential conflict

Underground Utilities

Limits sidewalk obstructions

Evaluate Lighting at Crossings

Address nighttime crashes visibilit

Speed Reduction Strategies

Construct Raised Intersection*

450'

Slows traffic & supports pedestrian crossing

Narrow Side Street Curb Radii / Eliminate Channelized **Right Turn Lanes**

- Slows drivers & Limits turning conflicts
- New Raised Crossing with RRFB (Evaluate for PHB / Signal)*
 - Encourages crossing at designated locations
 - Quick Build: At grade crossing

*FDM allows raised crosswalks and raised intersections at 30 MPH or lower design speed.

Convert to Bus Bulb

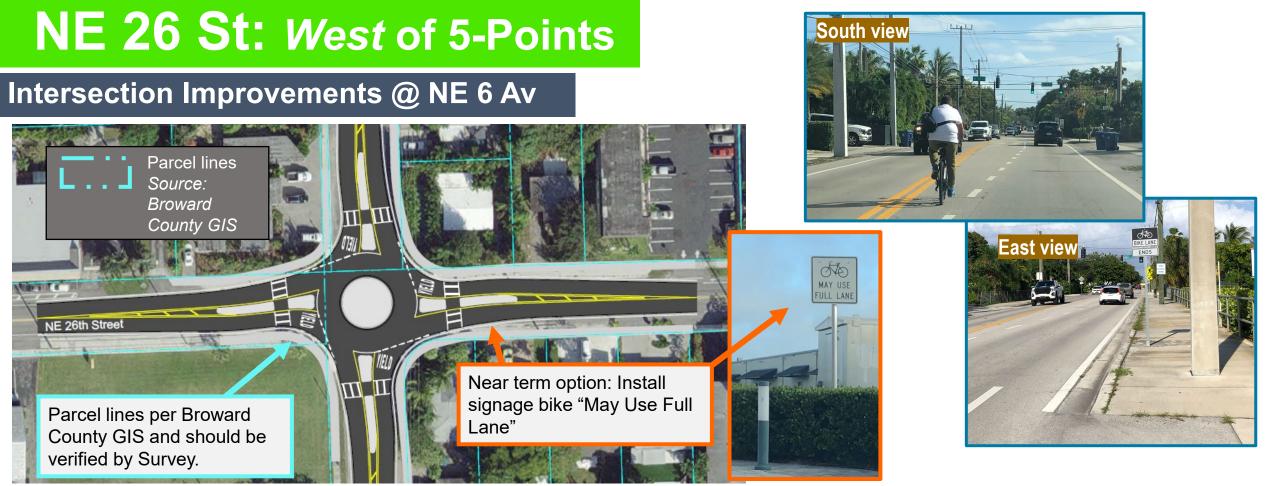
- Improves stop comfort + Reduces bus / bike conflict
- Bikeway goes behind stop

Add Spot Medians

- Limits turning conflicts
- Permits left turns at designated locations

Add Lane Definition

- Slow traffic & increase driver alertness
- Utilize profiled thermoplastic to define space
- Long term: policy to remove back out parking / frequent driveways during redevelopment



Roundabout Improvements

- Likely requires small ROW purchases in NW and NE corners
- Provides a signature element + slows traffic in all directions
- Raised crosswalks

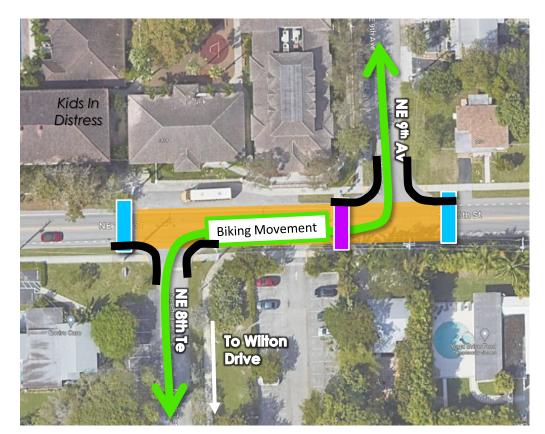
 Mini-Roundabout, such as in Flagler
 Village at NE 5 Av and NE 5 St, may be better accommodated in existing ROW.

Alternative Intersection Options (No Roundabout)

- Removal of left turn lanes on NE 26 St and repurpose additional space to provide bike lanes leading to / through the intersection
- Add bike boxes on all legs of the intersection
- If all lanes are required, move curb to maintain 5' bike lanes
- Consider raising intersection



Biking Improvements - NE 8 Te to NE 9 Av





Speed Hump / Table Raised Crosswalk with RRFB Slow Zone



Curb Extension

Biking Movement Improvements

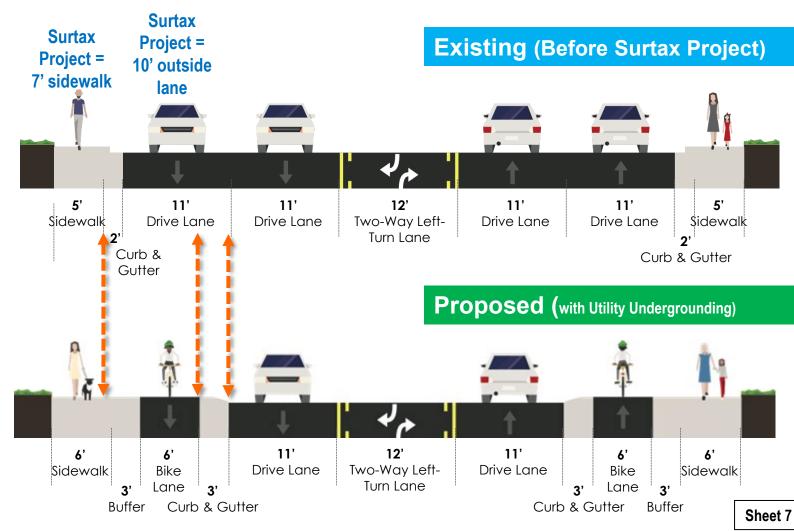
- Raised features, including speed tables and raised crosswalks, placed at frequent intervals to calm traffic
- Side Street curbs are widened to slow car turn movements and reduce crossing distance for pedestrians
- Improves comfort for bicyclists crossing roadway, especially at off-set intersections
- Quickbuild speed tables and curb extensions can be implemented in the near term

Proposed Lane Repurposing

- Redesign road to reduce vehicle speeds to 30 MPH.
- Includes raised, protected bike facilities (*Surtax* project does not include bicycle facilities)
- Underground utilities to improve / increase space for walking and biking.
- Add raised elements and crossings to improve multimodal environment
- City previously identified lane elimination as part of TOD Master Plan Study (2019)







Intersection Improvements @ NE 15 / 16 Av

Lane Repurposing Option





Option 1: Peanut Roundabout

- Slows traffic and eliminates high speed right turns
- Bikes share road with vehicles
- Pedestrian crossings include RRFBs
- Can be mountable for emergency vehicles
- Addresses issues brought on by skew of intersection



Option 2: Geometry Changes

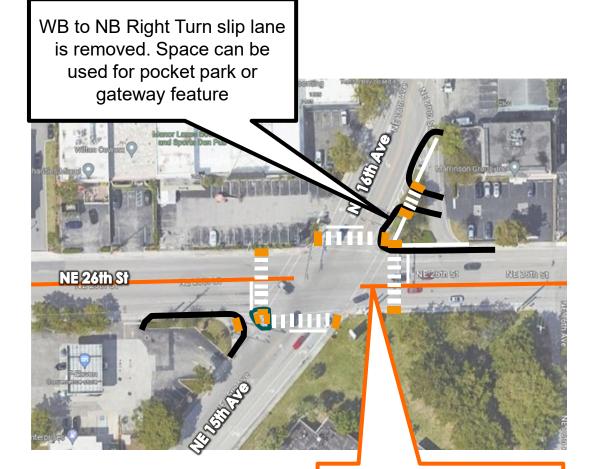
- Eliminates high speed right turns
- Provides space for raised bikeways or bend outs
- Straightens and shortens pedestrian crossings
- Provides directional pedestrian crossings
- Provides space for pocket park or placemaking treatments



Sheet 8

Intersection Improvements @ NE 15 / 16 Av

5-Lane Option



Proposed hardened centerlines on NE 26 St intersection legs

Addressing Turning Movements Traffic Speed

- Add hardened centerlines on NE 26 St intersection legs
- Remove WB to NB Right turn slip lane (from NE 26 St to NE 16 Av); Limits high speed right turns

Geometry Improvements

- Straighten and shorten pedestrian crossing
- Stop Bar moved behind crosswalks

Walking Improvements

- Implement no right turn on red for turns from NE 15 Ave and NE 16 Ave to NE 26th Street to allow for protected pedestrian crossing
- Restripe crosswalks to high visibility markings
- Add leading pedestrian intervals
- Upgrade to directional curb ramps
- Pedestrian crossing advanced signage
- Tighten curb radii at EB to SB Right Turn Slip Lane
- Construct median refuge islands (as space permits)

Dixie Hwy

Proposed Solutions Sheets:

- 1. Goals
- 2. Summary of Proposed Solutions: South of 5-Points
- 3. Summary of Proposed Solutions: North of 5-Points
- 4. Proposed Spots Medians near Publix & Dunkin Donuts
- 5. Proposed Midblock Crossing @ 2748





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Dixie Hwy

Goals

- Redesign Roadway to improve access from Wilton Manors to Oakland Park
- Create cohesive Dixie Hwy character (from Fort Lauderdale to Oakland Park)
- ✓ Lower Speeds to 30 MPH
- ✓ Limit turning conflicts
- ✓ Improved Access Management
- ✓ Reduce severity of crashes
- ✓ Improve Comfort and Safety of Pedestrian and Bicycle facilities along roadway
- Improve Comfort, Safety, and Convenience of Crossings over Dixie Hwy

North of 5-Points Biking LTS = 3 Ped LTS = 3







Dixie Hwy: South of 5-Points

Existing/Committed Facilities

Bike Lane

Raised Intersection

Summary of Proposed Solutions



Corridor Wide Strategies

Add Crosswalks and Conflict Markings at Intersections & Driveways

- Limits turning conflicts
- Alerts drivers, bicyclists, and pedestrians to potential conflict

Evaluate Lighting at Crossings

Address nighttime crashes & improve pedestrian comfort

Narrow Side Street Curb Radii

- Slows drivers
- Limits turning conflicts

Add Wayfinding Signage

Identify best routes to nearby destinations

Traffic Calming Strategies

- **Rebuild Raised Intersection**
- Utilize current best practice as seen at Dixie Hwy & NE 16th St
- Construct Raised Intersection
- Slows traffic & supports pedestrian crossing
- Construct Speed Hump/Table*

*ITE Guidelines for the Design and Application of Speed Humps recommends spacing of 260' to 500' to keep 85th percentile operating speed between 25 and 30 mph

Add Lane Definition

- Slows traffic and increases driver alertness
- Add hardened centerline through curve
- Utilize profiled thermoplastic to define bike lane
- Paint bike lanes green / add conflict paint

Sidewalk Strategies

- Clearly Define Sidewalk
 - Install duratherm treatment between bikeway and sidewalk
 to define space
 - Paint green conflict markings in bike lane
- Construct sidewalk
 - To be completed as properties redevelop
- Reconstruct Bridge with Sidewalk on Both Sides

Update / Install RRFB

- Install double-sided RRFBs on both sides of roadway
- Verify lighting meets current FDM criteria for RRFB crossings

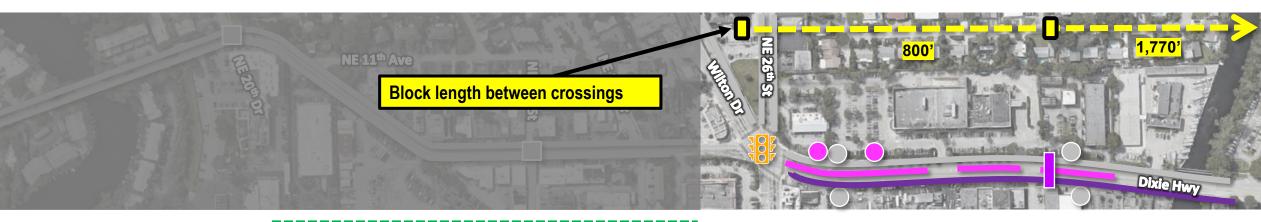
Dixie Hwy: North of 5-Points

Existing/Committed Facilities

Bike Lane

Bus Stop

Summary of Proposed Solutions



Corridor Wide Strategies

Underground Utilities

Limits sidewalk obstructions

Evaluate Lighting at Crossings

Address nighttime crashes & improve pedestrian comfort

Add Wayfinding Signage

 Direct pedestrians to use sidewalk on west side

Traffic Calming Strategies

- Construct Median + Convert to Right in /
- Right Out
 - Slow traffic
 - Direct crossings to desired locations

Add Lane Definition

- Slows traffic and increases driver alertness
- Utilize profiled thermoplastic to define space
- Utilize profiled thermoplastic to define bike lane
- Paint bike lanes green / add conflict paint

New Mid-Block Crossing with PHB

- RRFB if does not meet warrant
- Improves access to bus stops and across Dixie Hwy
- Encourages crossing at designated locations

Long Term Strategies (eastern parcels redevelopment)

- Require parking to be provided on site with designated driveway access
- Construct sidewalk on east side
- Construct sidewalk level separated bike lanes with conflict markings
- Construct new marked crossings with PHBs at additional locations east of the bridge and at main entrance to Publix Shopping center
- Construct Bus Islands
 - Redesign road to 30 MPH design speed and add raised crosswalks

Increase Pedestrian Phase

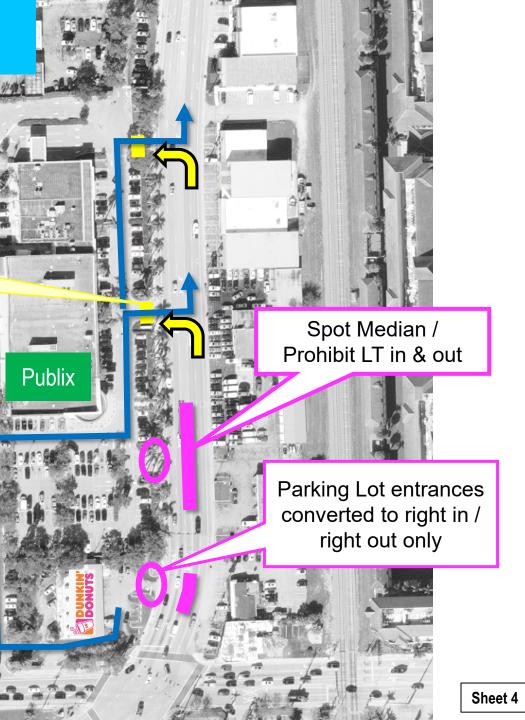
- Allow enough time for average and slower users to cross Dixie Hwy
- 5-Points to be separately designed

Dixie Hwy: North of 5-Points

Spot Medians at Publix & Dunkin Donuts

Two Parking Lot entrances to continue to allow Left Turns to & from Dixie Hwy

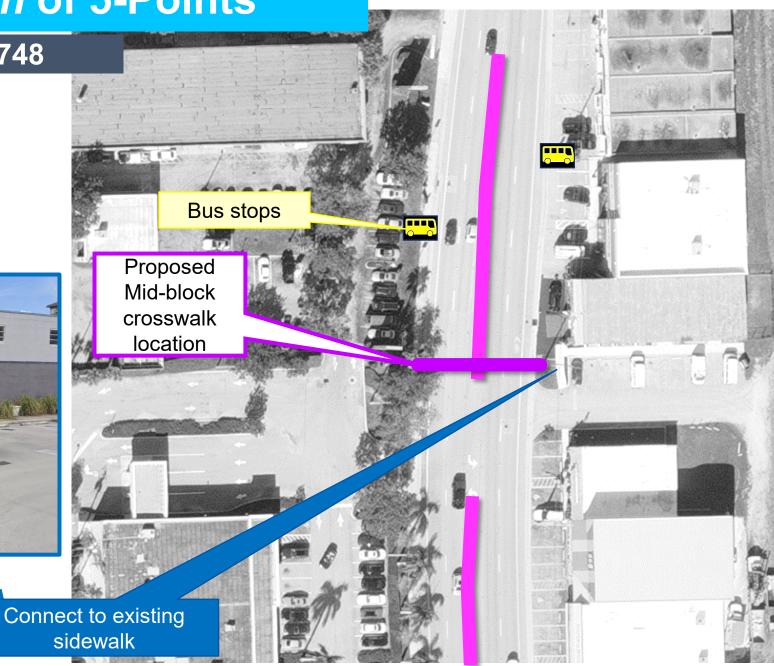
Drivers leaving Dunkin Donuts who want to go NB on Dixie Hwy can drive through parking lot to left turn access openings



Dixie Hwy: North of 5-Points

New Midblock Crossing @ 2748





NE 24 St Route

Proposed Solutions Sheets:

- 1. Goals
- 2. Summary of Proposed Solutions: Route West
- 3. Summary of Proposed Solutions: Route East
- 4. Proposed Improvements at NE 6 Av
- 5. Proposed Improvements at Wilton Dr





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Ne 24 St Route

Goals

- Create cohesive bike / pedestrian route on NE 24 St from Andrews Av to NE 17 Te (connecting via NE 6 Av, Wilton Dr, NE 7 Av, NE 22 Dr, & pedestrian entrance at Union parking lot)
- Provide comfortable, safe, and convenient bike / pedestrian access to Wilton Manors Elementary School, Wilton Drive, and Dixie Hwy
- Reduce crossings at unmarked locations (near / at Wilton Dr)
- ✓ Fill in critical sidewalk gaps
- ✓ Identify bike route
- ✓ Traffic calming on residential streets
- ✓ Reduce crash severity, (near / at Wilton Dr)



NE 24 St Route - West

Summary of Proposed Solutions

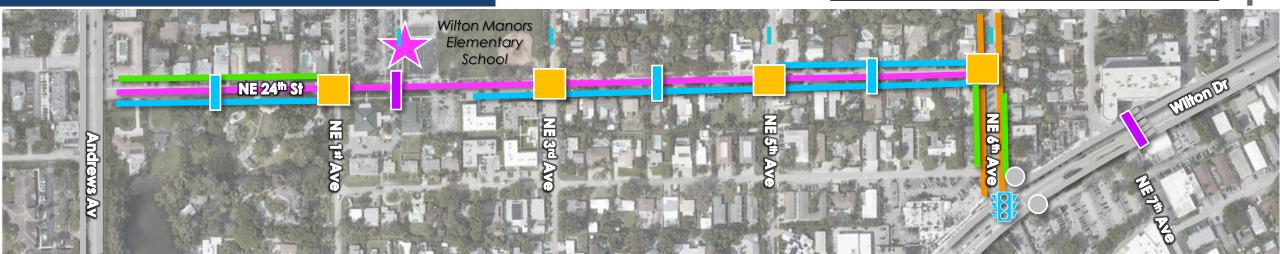
Existing/Committed Facilities

Bike Lane

Mid-Block crossing



Bus Stop



Corridor Wide Strategies

Evaluate Lighting

Address nighttime visibility & improve pedestrian comfort

Narrow Side Street Curb Radii

- Slows drivers
- Limits turning conflicts

Add Wayfinding Signage

Identify best routes to nearby destinations

Mark Crosswalks at Side Street Intersections

- Supports pedestrian crossing
- North / south only at NE 23rd St

Traffic Calming Strategies

- **Construct Raised Intersection**
- Slows traffic & supports pedestrian crossing

Construct Speed Hump/Table*

*ITE Guidelines for the Design and Application of Speed Humps recommends spacing of 260' to 500' to keep 85th percentile operating speed between 25 and 30 mph

Raised Crossing with RRFB

- Proposed enhancement to crossing currently in design
- Slows traffic & supports pedestrian crossing

Ped / Bike Facilities

- **Construct Sidewalk*** *Sidewalk in Lazy Lake requires coordination with City
 - Paint 5' Bike Lane
 - **Clearly Define Sidewalk**
- Install duratherm treatment to define space
 - Shared Lane Markings
- Sign as bike boulevard
- Alerts drivers to presence of people biking
- Provides wayfinding

Add All Pedestrian Phase

- Phase exclusively for pedestrians; all
- directions cross at once
- See intersection slide for additional suggested improvements

Evaluate School Circulation Needs

Sheet 2

NE 24 St Route - East

Summary of Proposed Solutions



ME 17^m Ter ME 17^m Are NE 24 ST NE 19^m Are NE 10^m Are

Corridor Wide Strategies

Evaluate Lighting

Address nighttime visibility & improve pedestrian comfort

Narrow Side Street Curb Radii

- Slows drivers
- Limits turning conflicts

Add Wayfinding Signage

• Identify best routes to nearby destinations

Mark Crosswalks at Side Street Intersections

- Supports pedestrian crossing
- North / south only at NE 23rd St

Traffic Calming Strategies

- Construct Raised Intersection
 - Slows traffic & supports pedestrian crossing

Rebuild Raised Intersection

- Includes RRFB
- See Dixie Hwy Projects
- Construct Speed Hump/Table*

*ITE Guidelines for the Design and Application of Speed Humps recommends spacing of 260' to 500' to keep 85th percentile operating speed between 25 and 30 mph

Raised Crossing

Slows traffic & supports pedestrian crossing

Ped / Bike Facilities

- Construct Sidewalk
- Only on noted side of the street
- Remove on street parking to make space for sidewalk with curb on NE 7 Ave

Shared Lane Markings

- Sign as bike boulevard
- Alerts drivers to presence of people biking
- Provides wayfinding



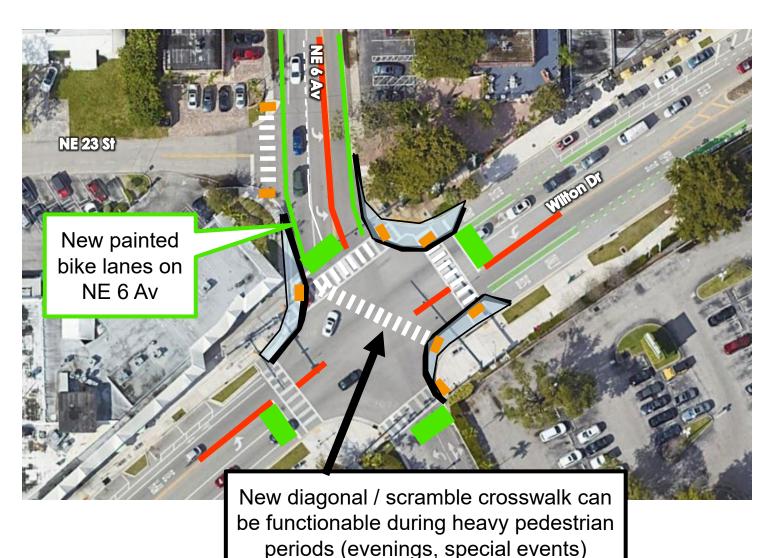
Purchase New Access Easement

 Allows people to walk and bike through property

Sheet 3

NE 24 St Route - West

Improvements at NE 6 Av & Wilton Dr



Addressing Left Turns

Add hardened centerlines to guide and slow left turns

Addressing Right Turns

- Realign intersection
- Install curb extensions and reduce curb radius on SW, NE, and NW corner to slow drivers and prevent drivers from using bus lane as turn lane
- Shift SB bus stop north to provide space for curb extension

Walking Improvements

- Implement all pedestrian phase
- Add in scramble crosswalk across intersection
- Build curb extensions to reduce pedestrian crossing distance
- Evaluate lighting and improve as needed

Biking Improvements

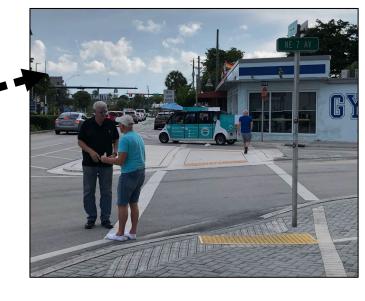
- Add green conflict paint (intersections and driveways)
- Allow bikes to use all pedestrian phase
- Install bike boxes on all legs of intersection or construct protected intersection

NE 24 St Route - West

Improvements at NE 6 Av & Wilton Dr

A72E

Realign northern leg of NE 7 Av to T Intersection; remove center pork chop; Raise new crosswalk



Addressing Right Turns

- Realign northern leg of NE 7th Ave intersection to a T intersection
- Remove porkchop and high speed Right turn lanes

Walking Improvements

- Move proposed crosswalk to pedestrian desire line south of NE 7th Ave
- Convert proposed crosswalk with RRFB and median refuge to raised crosswalk with RRFB and median refuge
- On NE 7 Av north of Wilton Dr, construct raised crosswalk in new T-Intersection
- Build curb extensions to reduce pedestrian crossing distance
- On NE 7 Av south of Wilton Dr, replace on-street parking with sidewalk
- Evaluate lighting and improve as needed

Proposed Mid-block crosswalk location at popular crossing location Replace onstreet parking with sidewalk

Shared lane markings direct bicyclists along NE 24 St Route

Proposed Solutions Sheets:

- 1. Goals
- 2. Summary of Proposed Solutions
- 3. Proposed Improvements at Wilton Dr

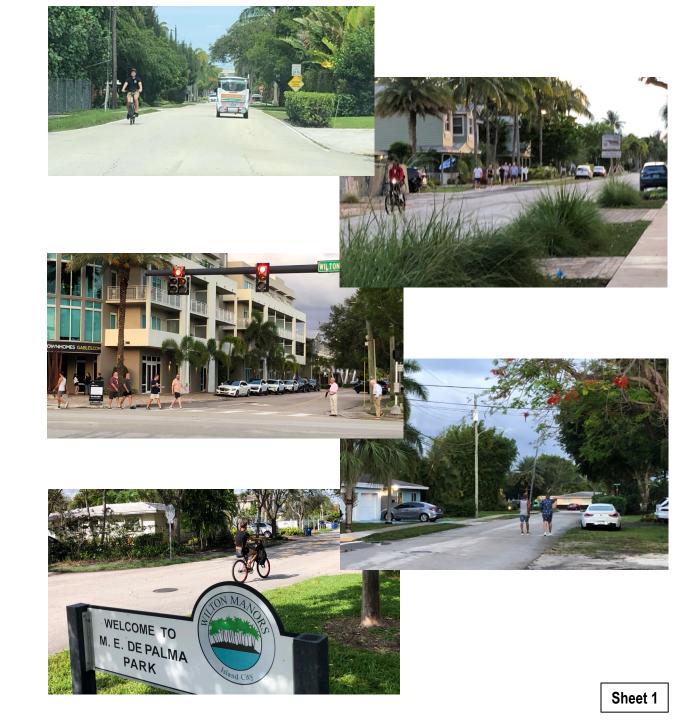




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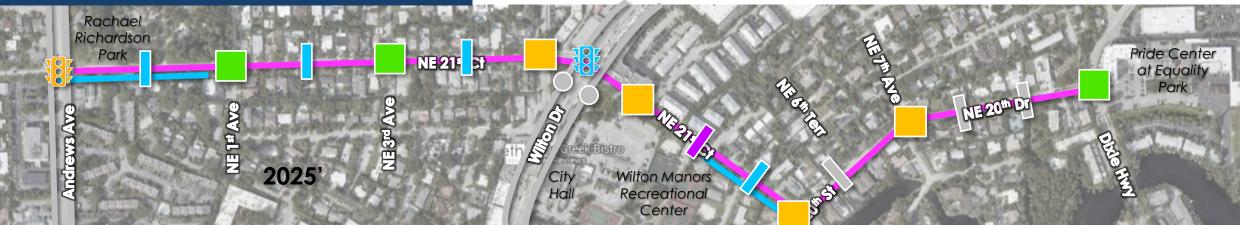
Goals

- Create cohesive bike / pedestrian route on NE 21 Ct from Andrews Av to Dixie Hwy (including NE 20 St)
- Provide comfortable, safe, and convenient bike / pedestrian access to City Hall, Hagen Park, Wilton Drive, Pocket Park and Equality Park
- ✓ Fill in critical sidewalk gaps
- ✓ Identify bike route
- $\checkmark\,$ Traffic calming on residential streets
- Reduce crash severity, especially on Wilton Drive



Summary of Proposed Solutions





Corridor Wide Strategies

Evaluate Lighting

Address nighttime visibility & improve pedestrian comfort

Narrow Side Street Curb Radii

- Slows drivers + Limits turning conflicts Add Wayfinding Signage
- Identify best routes to nearby destinations

Mark Crosswalks at Side Street Intersections

Supports pedestrian crossing

Underground Utilities

Limits sidewalk obstructions

Traffic Calming Strategies

- Construct Raised Intersection
 - Slows traffic & supports pedestrian crossing

Rebuild Raised Intersection

- Include crosswalks and appropriate markings
- Slows traffic & supports pedestrian crossing

Construct Speed Hump/Table*

*ITE Guidelines for the Design and Application of Speed Humps recommends spacing of 260' to 500' to keep 85th percentile operating speed between 25 and 30 mph

Raised Crossing with RRFB

Slows traffic & supports pedestrian crossing

Ped / Bike Facilities Construct Sidewalk

- Only feasible with utility undergrounding
- Widen Existing Sidewalk to 8 ft (where feasible)

FAdd All Pedestrian Phase

- Phase exclusively for pedestrians; all directions cross at once
- See intersection slide for additional suggested improvements

Shared Lane Markings

- Sign as bike boulevard
- Alerts drivers to presence of people biking
- Provides wayfinding

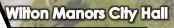
Increase Pedestrian Phase

- Allow enough time for average and slower users to cross Andrews Av
- See Andrews Av for additional suggested improvements Sheet 2

Intersection Improvements at Wilton Dr

New diagonal / scramble crosswalk can be functionable during heavy pedestrian periods (evenings, special events)

NE 21st Ct



Curb extension limits use of Bus Lane for right turns

Addressing Left Turns

Add hardened centerlines to guide and slow left turns

Addressing Right Turns

- Install curb extensions and reduce curb radius on NW and SE corners to slow drivers and prevent drivers from using bus lane as turn lane
- Realign NE 21 Ct western approach to a right angle

Walking Improvements

- Implement all pedestrian phase
- Add in scramble crosswalk across intersection
- Build curb extensions to reduce pedestrian crossing distance
- Widen sidewalk on north side of western leg of NE 21 Ct
- New raised intersection with pedestrian crossing at driveway entrance to City Hall parking lot
- Evaluate lighting and improve as needed

Biking Improvements

- Allow bikes to use all pedestrian phase
- Install bike boxes on all legs of intersection or construct protected intersection

Construct a raised intersection at driveway entrance to Parking Lot, a frequent crossing location



Proposed Solutions Sheets:

- 1. Goals
- 2. Summary of Proposed Solutions: With Sidewalk
- 3. Summary of Proposed Solutions: Without Sidewalk





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Goals

- ✓ Traffic calming
- Create a cohesive bike / pedestrian route in the neighborhood east of Powerline Rd, west of Andrews Av, and south of NW 29 St
- ✓ Create an extension of the NE 24 St or NE 21 Ct Route
- Provide comfortable, safe, and convenient bike / pedestrian access to Mickel Park
- ✓ Identify bike route



Summary of Proposed Solutions

- Route has not been identified
- Solutions are based on existing conditions throughout neighborhood



Andrews/Av

Sheet 2

Corridor Wide Strategies

Evaluate Lighting

Address nighttime visibility & improve pedestrian comfort

Option 1: Sidewalks

Narrow Side Street Curb Radii

- Slows drivers
- Limits turning conflicts

Add Wayfinding Signage

 Identify best routes to nearby destinations

Mark Crosswalks at Side Streets

Increases visibility and driver alertness

Sidewalk Strategies

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Texas St

Colosi

- Construct 6' Sidewalk
- Only on noted side of the street
- Where feasible, construct a 5' landscaped buffer between the sidewalk and the road

Clearly Define Sidewalk

Where back out parking exists, Install duratherm treatment to define space

Construct Speed Hump/Table*

*ITE Guidelines for the Design and Application of Speed Humps recommends spacing of 260' to 500' to keep 85th percentile operating speed between 25 and 30 mph

AV BAN

Construct Raised Intersection or Mini Roundabout

- Mini roundabout preferable where sufficient space exists
- Intersection can be both raised and with roundabout

Paint Shared Lane Markings

- Sign as bike boulevard
- Alerts drivers to presence of people biking
- Provides wayfinding for people biking

Recommend to define the sidewalks west of Andrews Av (abutting back-out parking)



Summary of Proposed Solutions

- · Route has not been identified
- Solutions are based on existing conditions throughout neighborhood



Quick build Speed Option 2: No Sidewalks Tables can be installed in the near term Andrews Av Texas St AV BAN ටලටොහි Colosi More speed humps are recommended when no sidewalk exists **Temporary "Shared** Road" signage can be Construct Speed Hump/Table* **Corridor Wide Strategies Sidewalk Strategies** installed *ITE Guidelines for the Design and Application Evaluate Lighting **Clearly Define Existing** of Speed Humps recommends spacing of 260' Address nighttime visibility & improve Sidewalk to 500' to keep 85th percentile operating edestrian comfort Where back out parking exists, speed between 25 and 30 mph Narrow Side Street Curb Radii Install duratherm treatment to GO SLOW **Construct Raised** Slows drivers define space Intersection or Mini Limits turning conflicts HARED **Require new development to** STREET Roundabout Add Wayfinding Signage construct 6' sidewalks Mini roundabout preferable Identify best routes to nearby destinations where sufficient space exists Add Shared Road Signage Intersection can be both raised **Paint Shared Lane Markings** Increases visibility and driver alertness and with roundabout Alerts drivers to presence of people Mark Crosswalks at Side Streets biking Sheet 3 Increases visibility and driver alertness

Provides wayfinding for people biking