



Major Thoroughfares Corridor Plan

Town of Hilton Head Island, SC
Council Briefing - Fall 2024

MTCP
PROJECT TEAM

TOWN STAFF



TOOLE
DESIGN



Kimley»Horn

MTCP **COUNCIL BRIEFING AGENDA**

- **Review Major Thoroughfares Corridor Plan (MTCP) detailed segment recommendations**
 - **William Hilton Parkway Segment 5 - Mathews Drive / Folly Field Road to Shelter Cove Lane**
 - **Sea Pines Circle**
 - **Palmetto Bay Road**
 - **Pope Avenue**
 - **North Forest Beach Drive & South Forest Beach Drive**



OBJECTIVES & GUIDING PRINCIPLES

1

**Improve safety for
all modes of travel**

2

**Reduce conflict points
for all modes of travel**

3

**Increase mobility for all
modes of travel**

4

**Establish a contiguous
corridor aesthetic**

MTCP


DETAILED SEGMENT LOCATIONS

- A*** WHP - 5: Mathews Drive / Folly Field Road to Shelter Cove Lane
- B** Sea Pines Circle
- C*** Palmetto Bay Road
- D** Pope Avenue
- E** Forest Beach Drives

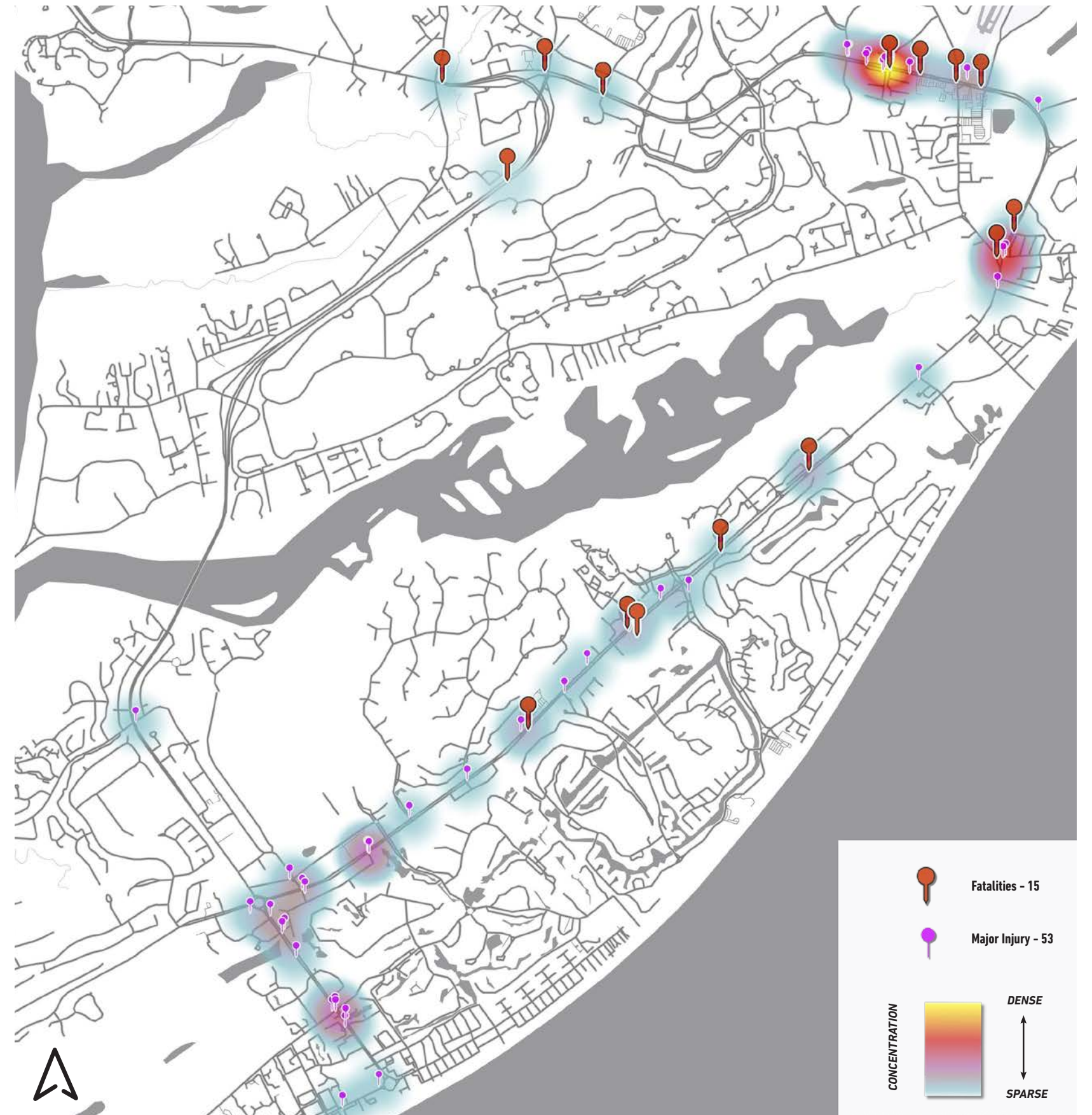


A* Project is located in a high crash area or related to a collision hot spot / fatality

MTCP
PROJECT AREA
CRASH DATA

 **50%** of crashes with bikes or pedestrians resulted in a fatality or major injury according to Beaufort County Sheriff

BICYCLE AND PED CRASHES RESULTING IN FATALITIES AND MAJOR INJURY, 2014-2022



An aerial photograph of a coastal region, likely in the Pacific Northwest, showing a large river delta, extensive wetlands, and a city area. The image is overlaid with a semi-transparent orange filter. The text "NTPCP Segment Recommendations" is written in a white, cursive script across the center of the image.

NTPCP Segment Recommendations

An aerial photograph of a golf course and surrounding area. The image is tinted in a warm, brownish-orange color. In the foreground, there's a large, modern clubhouse with a glass facade and a flat roof. To the right of the clubhouse, there's a residential area with several houses. A road, identified as Folly Field Road, runs diagonally across the middle of the image. The background shows a large body of water, likely a lake or a large pond, with some land areas and trees. The overall scene is a mix of natural and developed land.

WHP-5

Mathews Drive / Folly Field Road to
Shelter Cove Lane

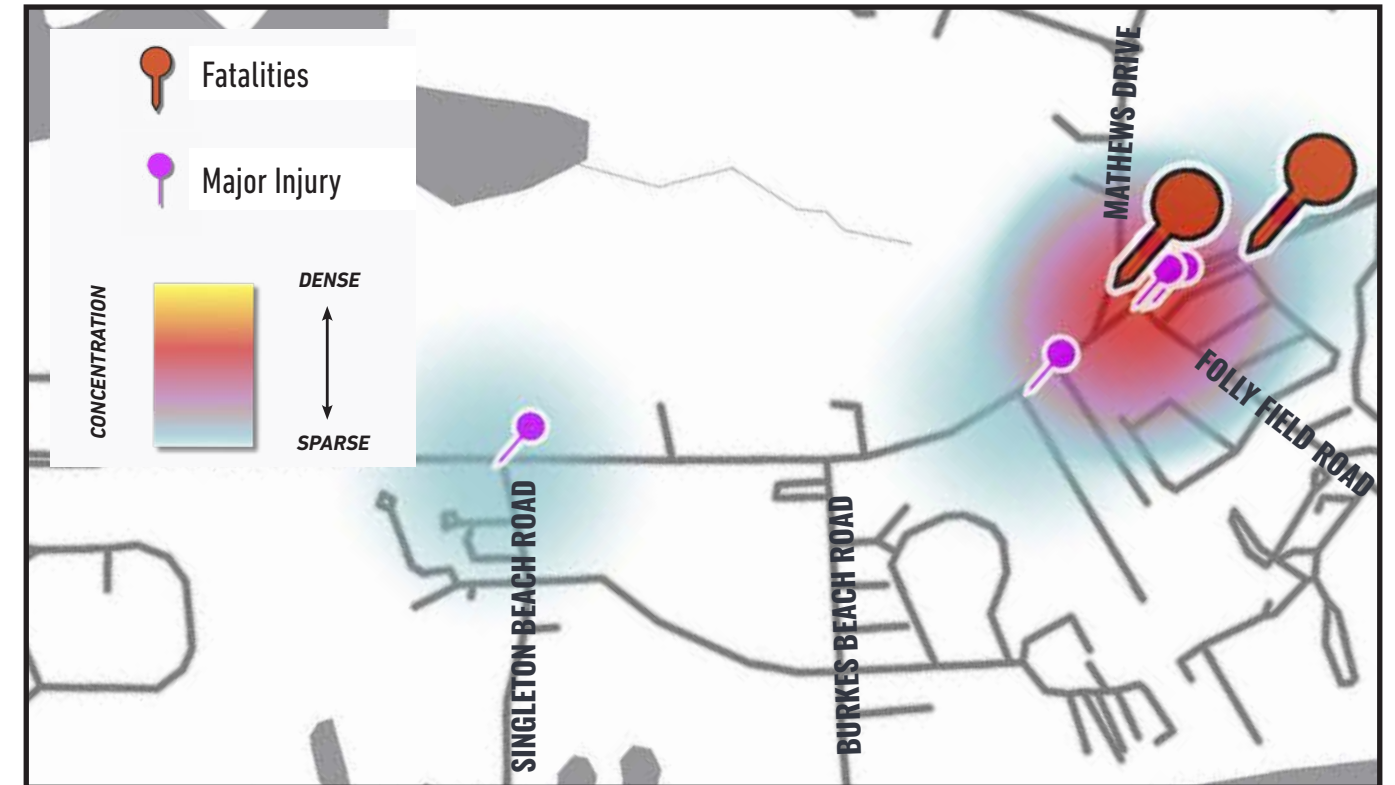
WHP-5 PROJECT LOCATION

William Hilton Parkway Segment 5
Mathews Drive / Folly Field Road to
Shelter Cove Lane



WHP-5 WHAT WE HAVE HEARD

- Inconsistent signalized intersection treatments
- Minimal separation between northern sidewalk and roadway
- Lack of landscaped medians
- Numerous driveways and conflict-prone left turn movements
- Bike and pedestrian crossing conflict points
- Safety must be a priority in the Chaplin historic neighborhood



Bicycle and pedestrian crashes resulting in fatalities and major injury (2014-2022)

WHP-5 EXISTING CONDITIONS

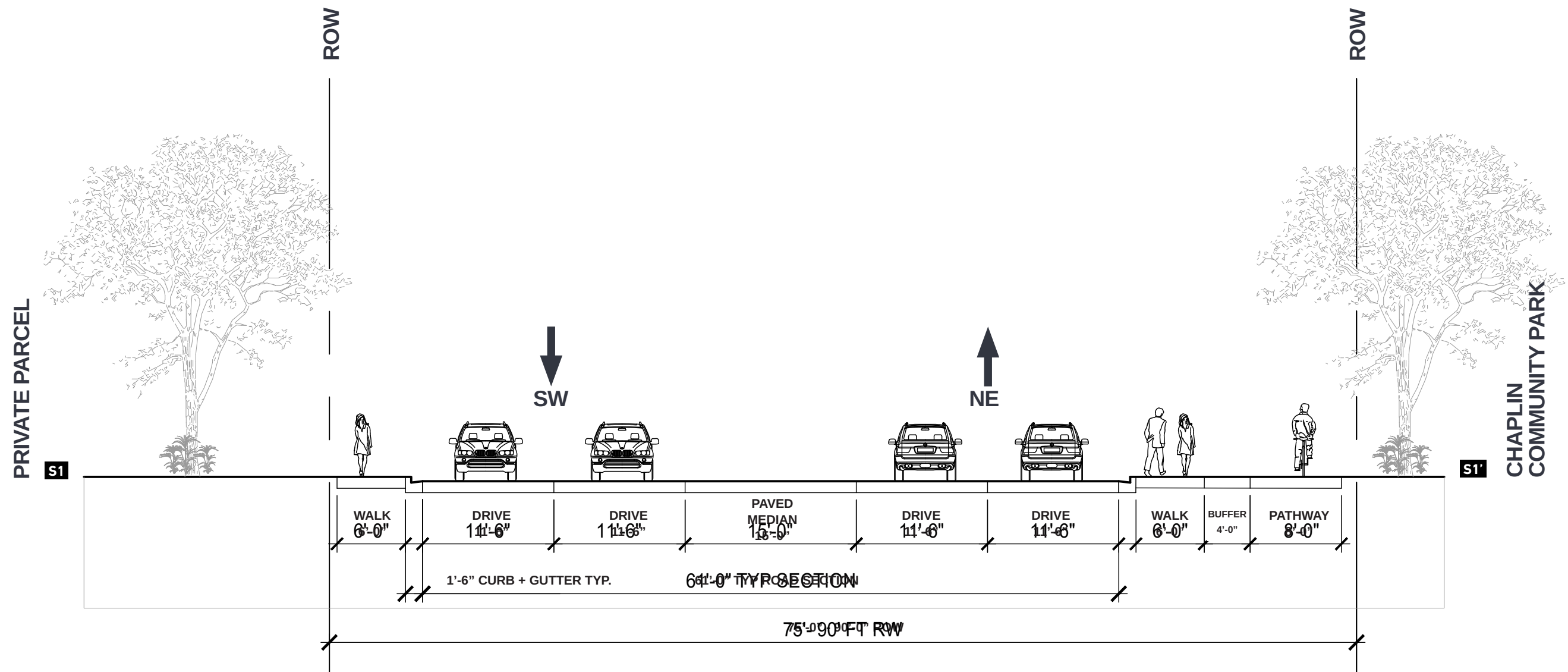


LEGEND

- EXISTING PLANTED MEDIAN
- EXISTING PATHWAY
- EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- EXISTING UNSIGNALIZED INTERSECTION
- EXISTING VEHICULAR ACCESS
- TOWN-OWNED LAND

Plan

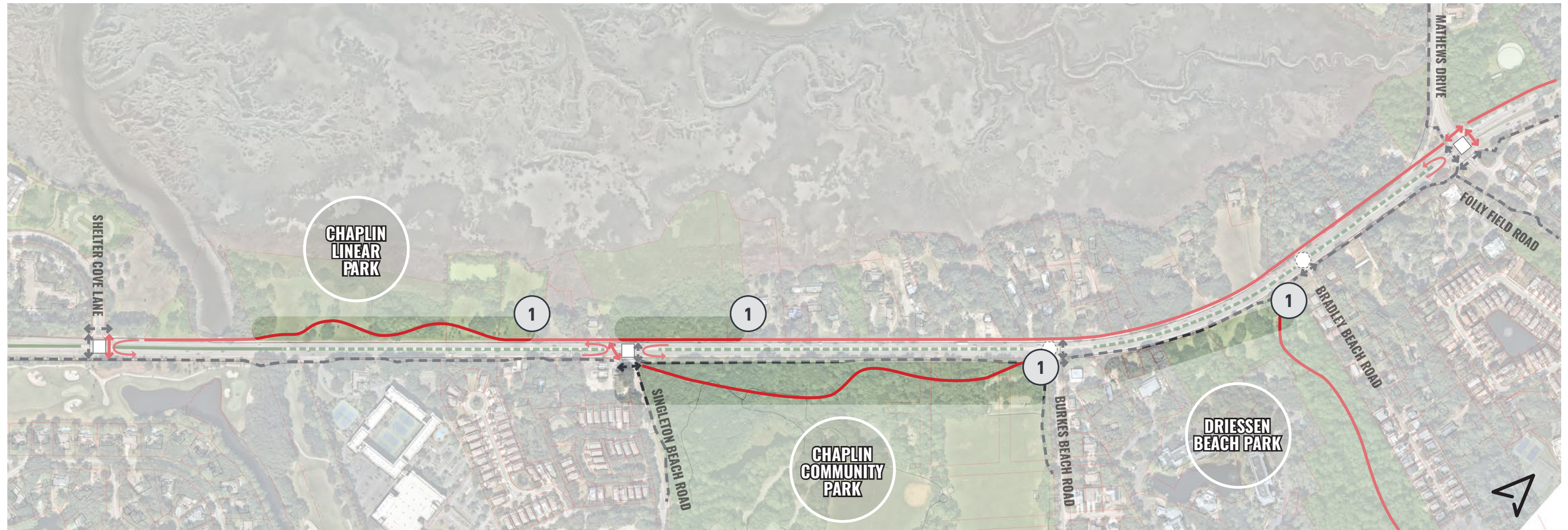
WHP-5 EXISTING CONDITIONS



Roadway Section

Between the Mathews Drive / Folly Field Road to Shelter Cove Lane

WHP-5 ASSESSMENT



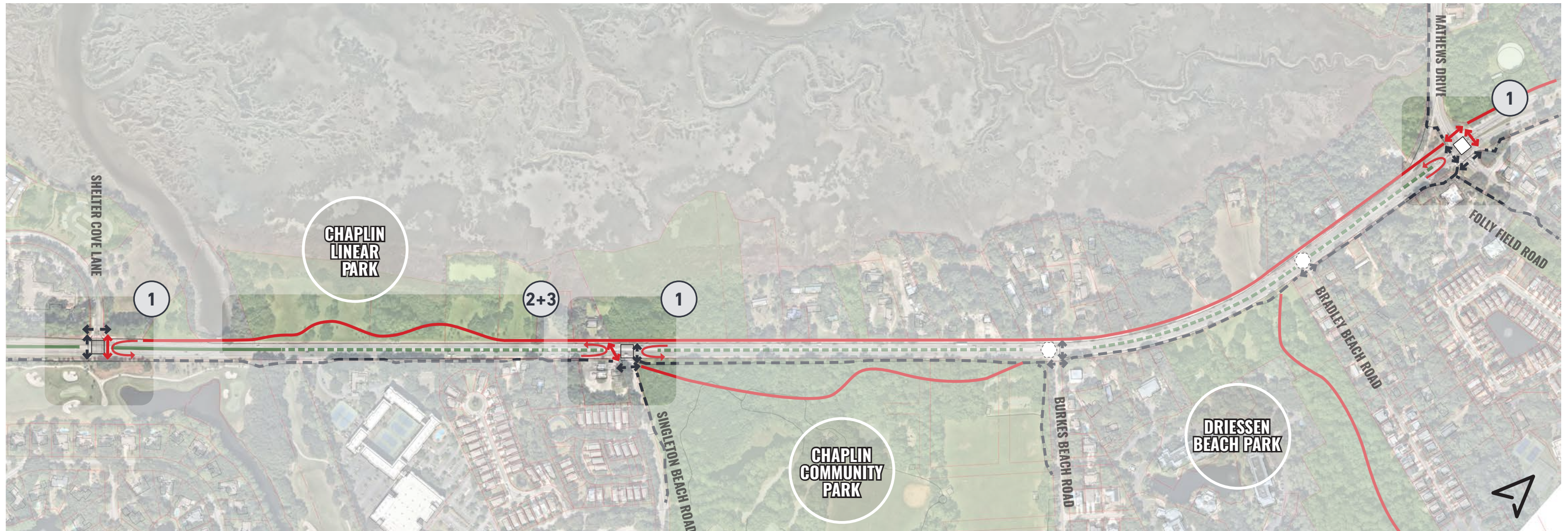
- ① Utilize Town-owned land to achieve an improved roadway alignment in confined right-of-way areas

LEGEND

- EXISTING PLANTED MEDIAN
- EXISTING PATHWAY
- ↔ EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- EXISTING UNSIGNALIZED INTERSECTION
- COORDINATE WITH PROPERTY OWNERS TO CONSOLIDATE DRIVES AND INSTALL PLANTED MEDIAN
- PROPOSED PATHWAY
- ↔ PROPOSED PATHWAY CROSSING
- ↻ PROPOSED U-TURN LOCATION

Talking Point: General Improvements

WHP-5 ASSESSMENT



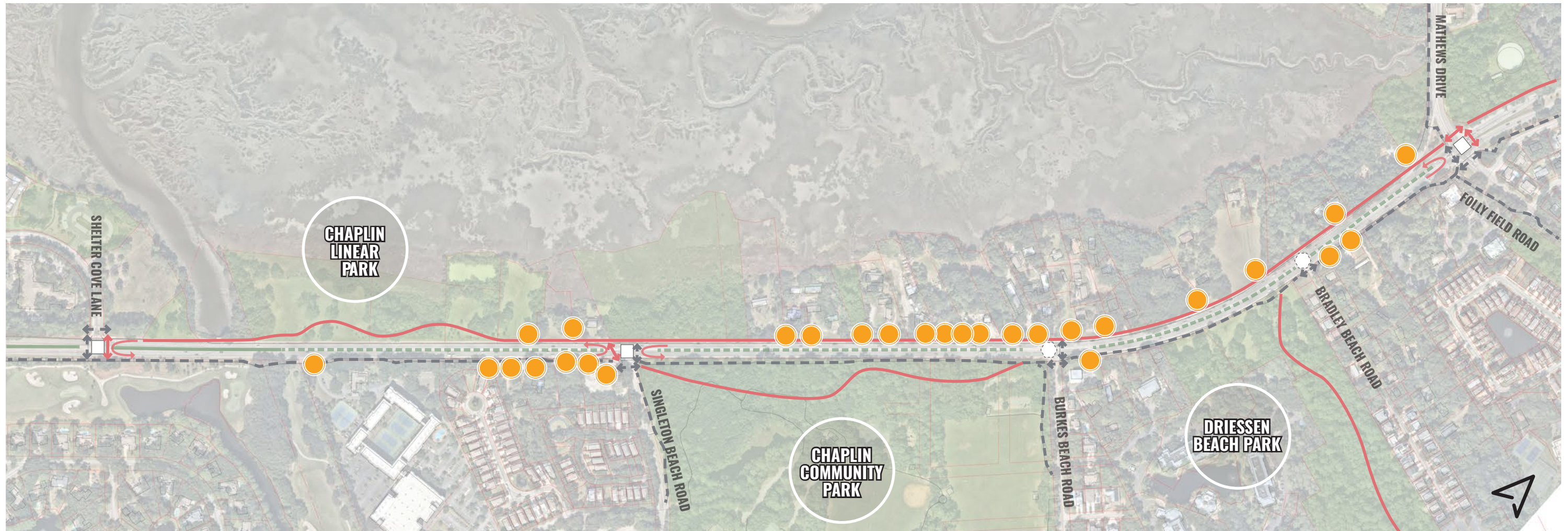
- ① Provide safe pedestrian crossings at all intersection corners
- ② Provide pathway connection on the north side of roadway
- ③ Maximize pedestrian buffers on both sides of roadway utilizing Town-owned property and easements when possible to create meandering, park-like experience

LEGEND

- EXISTING PLANTED MEDIAN
- EXISTING PATHWAY
- ↔ EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- EXISTING UNSIGNALIZED INTERSECTION
- COORDINATE WITH PROPERTY OWNERS TO CONSOLIDATE DRIVES AND INSTALL PLANTED MEDIAN
- PROPOSED PATHWAY
- ↔ PROPOSED PATHWAY CROSSING
- ↻ PROPOSED U-TURN LOCATION

Talking Point: Pedestrian Improvements

WHP-5 ASSESSMENT



- In order to accomplish planted medians, coordination with property owners must take place
- Coordinate with property owners to consider consolidation of redundant drives, reducing number of curb cuts on WHP (29 total drives on WHP; 14 drives recommended for potential consolidation)

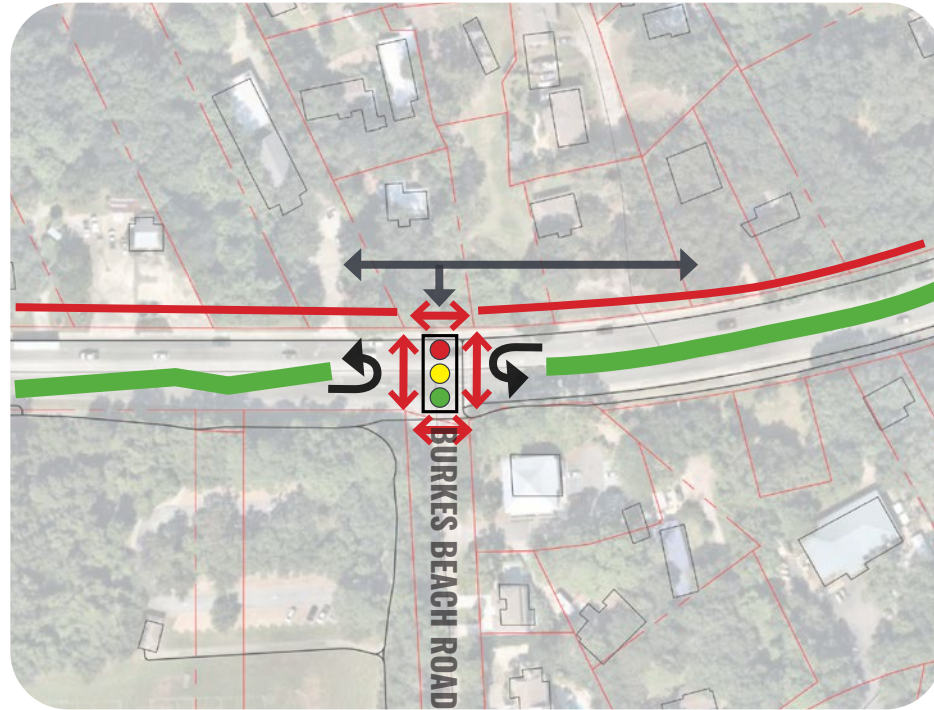
Talking Point: Vehicular Improvements

LEGEND

- EXISTING PLANTED MEDIAN
- - - EXISTING PATHWAY
- ↔ EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- EXISTING UNSIGNALIZED INTERSECTION
- - - COORDINATE WITH PROPERTY OWNERS TO CONSOLIDATE DRIVES AND INSTALL PLANTED MEDIAN
- PROPOSED PATHWAY
- ↔ PROPOSED PATHWAY CROSSING
- ↻ PROPOSED U-TURN LOCATION

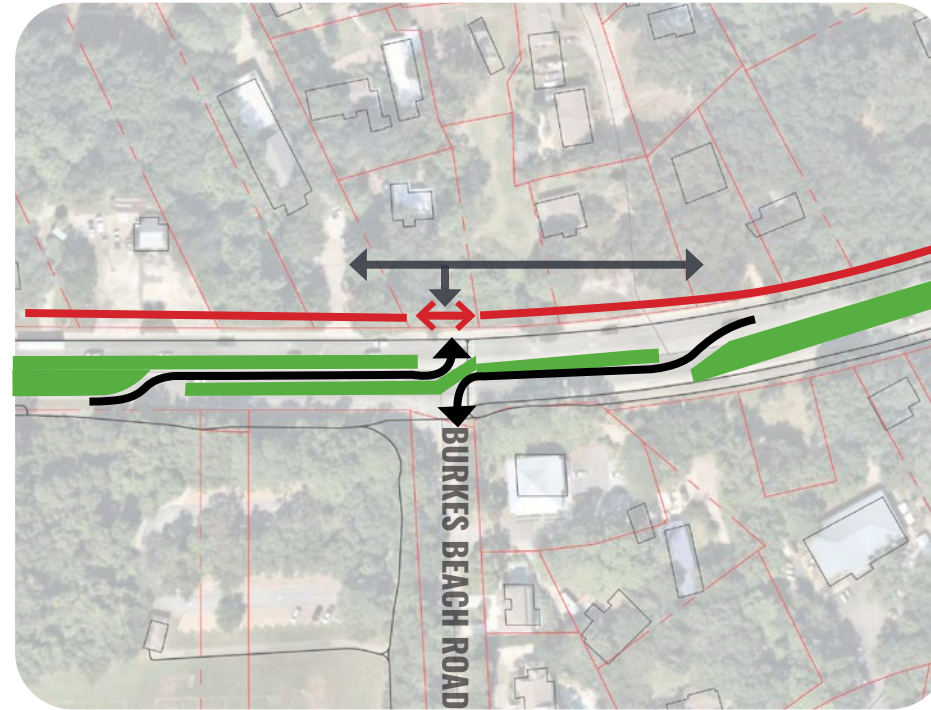
WHP-5 ASSESSMENT

Option 1: Signalized Intersection



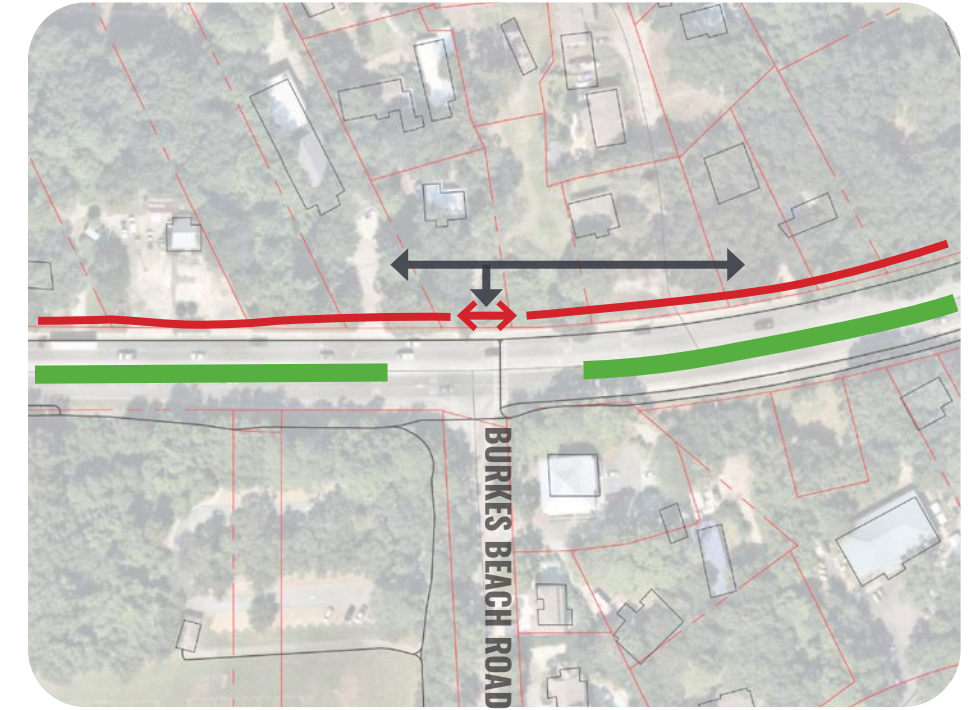
- Signalize intersection
- Provide a safe pedestrian crossing at all corners
- Provide wider roadway section to allow U-turn capability in conjunction with median additions
- Consolidate access drives + connections on adjacent parcels

Option 2: Restricted Movements



- Provide R-CUT intersection. Acquire additional right-of-way as needed to ensure feasibility of configuration
- Remove uncontrolled pedestrian crossing
- Consolidate access drives + connections on adjacent parcels

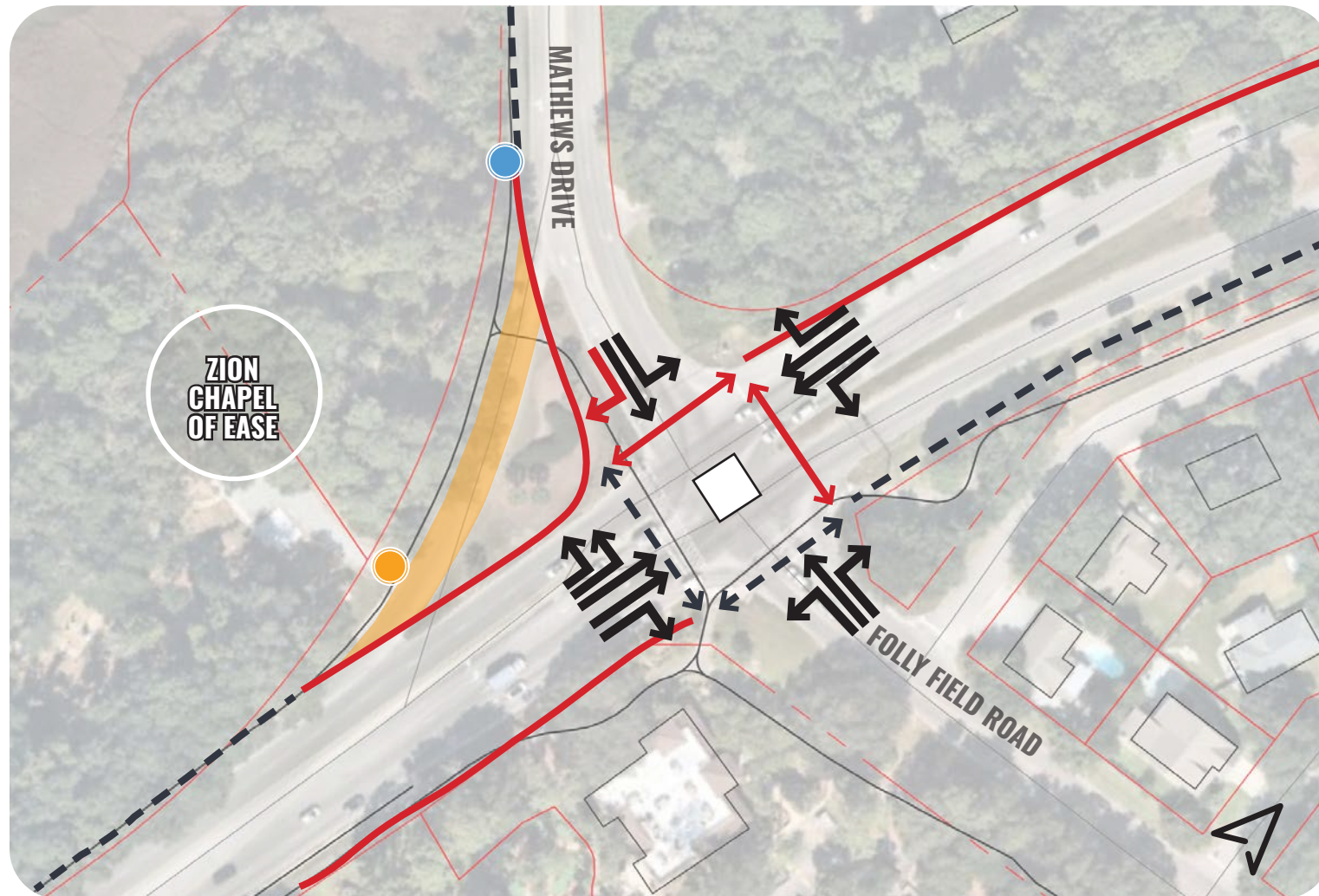
Option 3: Maintain Unsignalized



- Retain existing unsignalized intersection
- Remove uncontrolled crossing
- Consolidate access drives + connections on adjacent parcels

Talking Point: Vehicular Improvements at Burkes Beach Road

WHP-5 ASSESSMENT



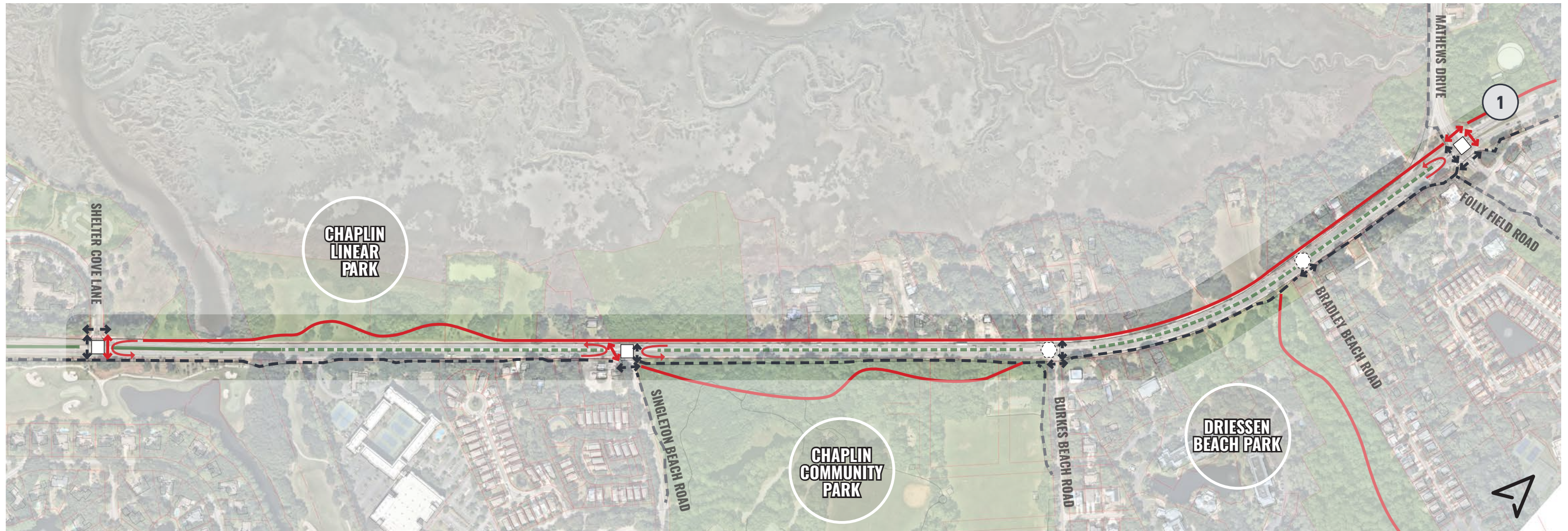
LEGEND

| | | | |
|--|------------------------------------|--|-----------------------------|
| | EXISTING SIGNALIZED INTERSECTION | | PROPOSED VEHICULAR ACCESS |
| | EXISTING PATHWAY | | PROPOSED PATHWAY CONNECTION |
| | EXISTING PATHWAY CROSSING | | PROPOSED PATHWAY CROSSING |
| | EXISTING SLIP LANE (TO BE REMOVED) | | EXISTING TURNING MOVEMENTS |
| | EXISTING VEHICULAR ACCESS | | PROPOSED TURNING MOVEMENTS |

- Eliminate Mathews Drive slip lane onto WHP
- Reconfigure intersection / add additional right turn lane
- Provide crosswalks at all four corners of signalized intersections when possible
- Consider relocating Zion Chapel of Ease access drive

Talking Point: Vehicular Improvements at Mathews Drive

WHP-5 ASSESSMENT



- ① Implement updated William Hilton Parkway section to enhance streetscape functionality, aesthetics, and slow traffic.

LEGEND

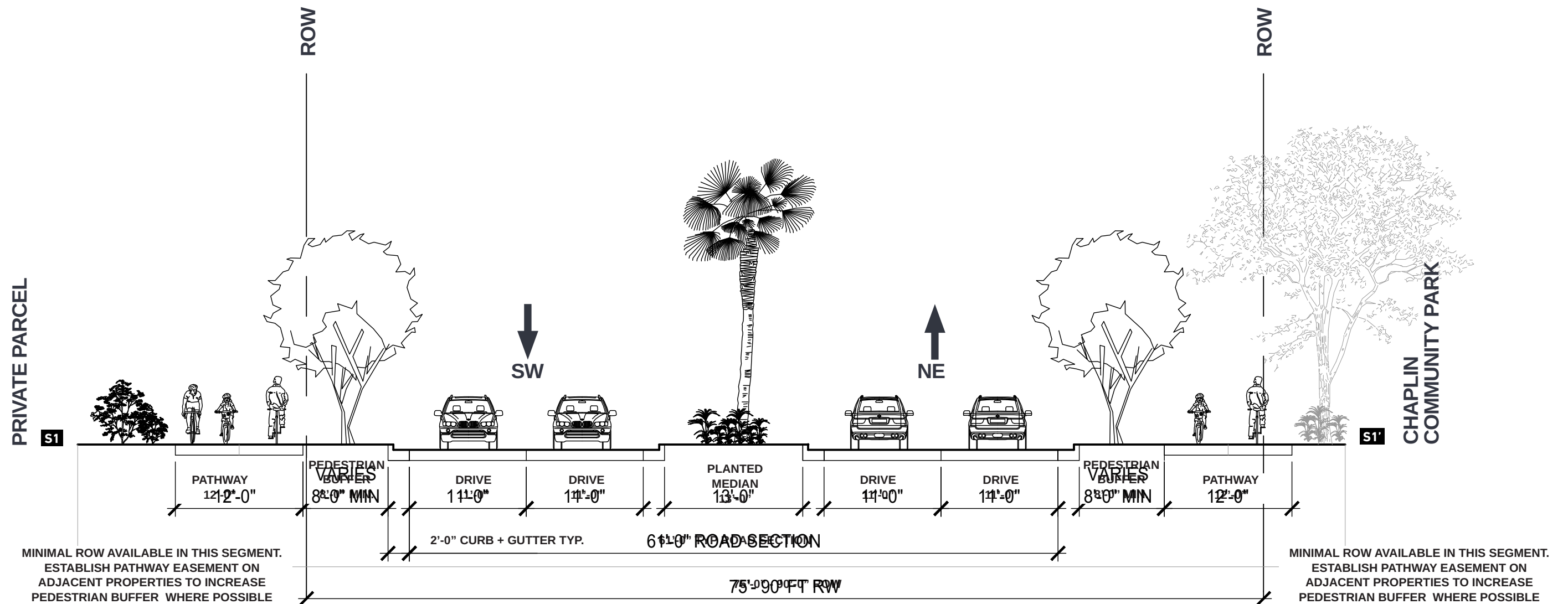
- EXISTING PLANTED MEDIAN
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- PROPOSED PATHWAY
- ↔ PROPOSED PATHWAY CROSSING
- ↻ PROPOSED U-TURN LOCATION

Talking Point: Roadway Layout

WHP-5 ROADWAY SECTION

Speed Limit Considerations

- Existing speed limit: 45 mph
- MTCP speed limit: 35 mph



Option for Discussion

Between the Mathews Drive / Folly Field Road to Shelter Cove Lane

An aerial photograph of a large, multi-lane roundabout in Sea Pines, Florida. The roundabout is surrounded by dense tropical vegetation and palm trees. Several cars are visible traveling around the circular road. The text "Sea Pines Circle" is overlaid in a white, cursive script across the center of the image.

Sea Pines Circle

Sea Pines Circle **PROJECT LOCATION**

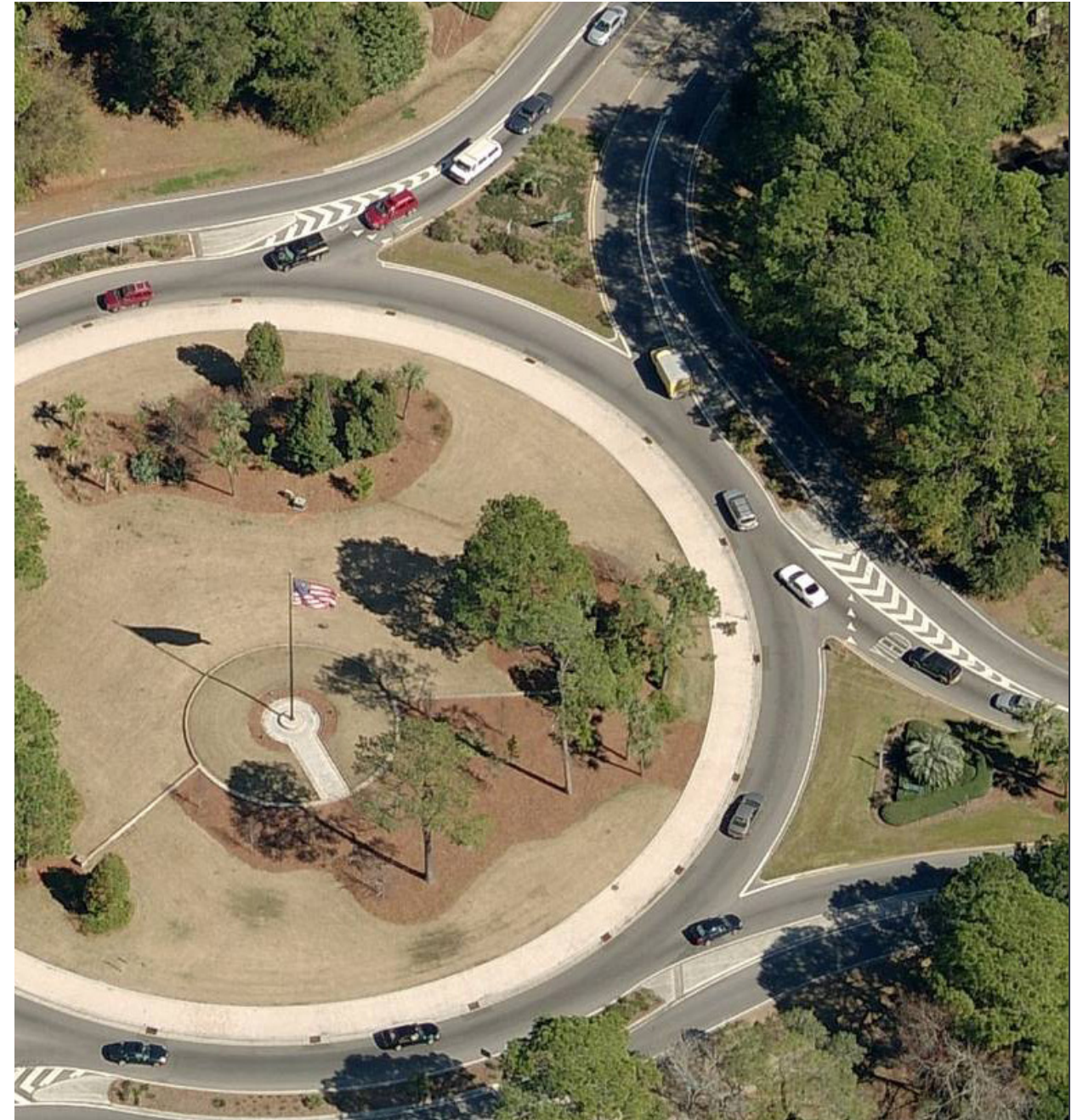
Sea Pines Circle

Intersection of William Hilton Parkway, Pope Avenue, Greenwood Drive, & Palmetto Bay Road



Sea Pines Circle **WHAT WE HAVE HEARD**

- Backups occur at AM, PM, and Mid-day peak hours
- Area experiences high crash volumes
- Asymmetric alignment of approaches causes congestion on Greenwood Drive
- Significant traffic backups exiting Sea Pines
- Vehicles move through the circle at higher speeds
- Many conflict points in approaches to Sea Pines Circle
- Lack of clear signage to indicate circle navigation
- Pedestrian/bicycle safety and interconnectivity needs improvement
- Not enough capacity in the circle



Sea Pines Circle APPROACH TO ANALYSIS

Sea Pines Circle is an iconic intersection in the roadway network for Hilton Head Island. It is synonymous with the island itself. For more than 50 years, the circle has evolved from multi to single lane circulation. With the changes in the roadway network, increases in the year-round population, and further development, the circle has begun to experience impactful delay to the residents, visitors, and businesses dependent on the circle for mobility.

This analysis focuses on the four key elements:

- **Geometric Assessment**
- **Operation Assessment**
- **Alternatives Analysis**
- **Recommendations**



**Hybrid Multilane Roundabout
No Cross Island Parkway**

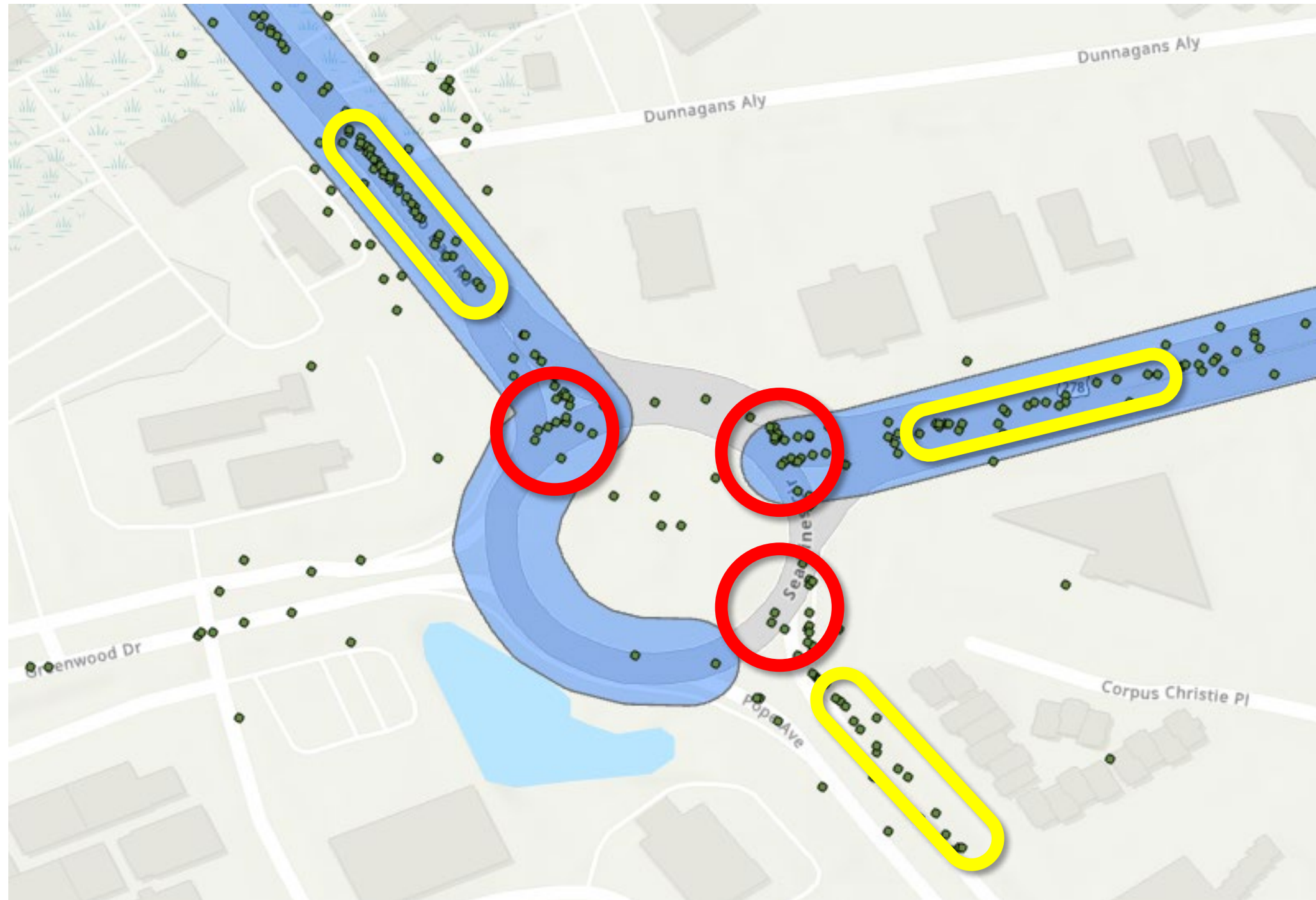


**Single Lane with bypass
lanes Roundabout**



**Single Lane with bypass
lanes Roundabout**

BACKGROUND - CRASH PATTERNS AND TYPE



50 crashes in the influence area of the roundabout

Failure to yield Right of Way is the predominate crash type.

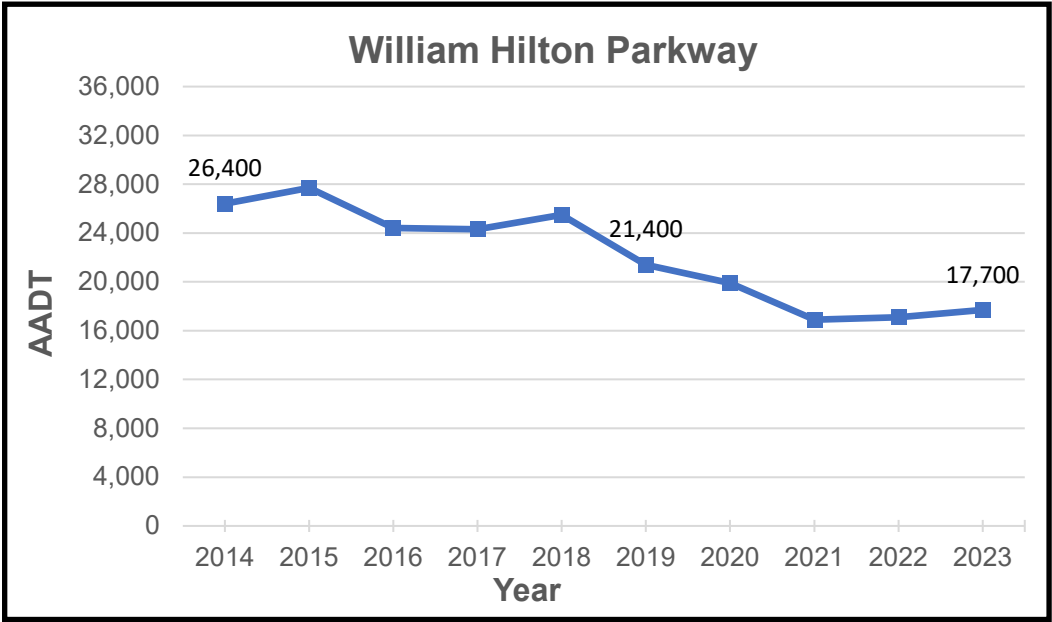
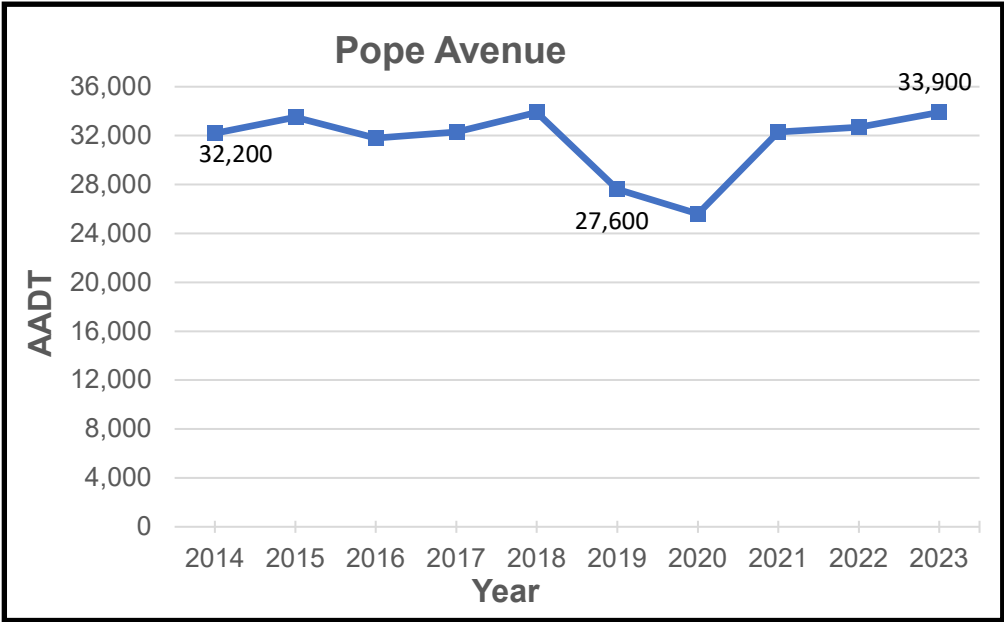
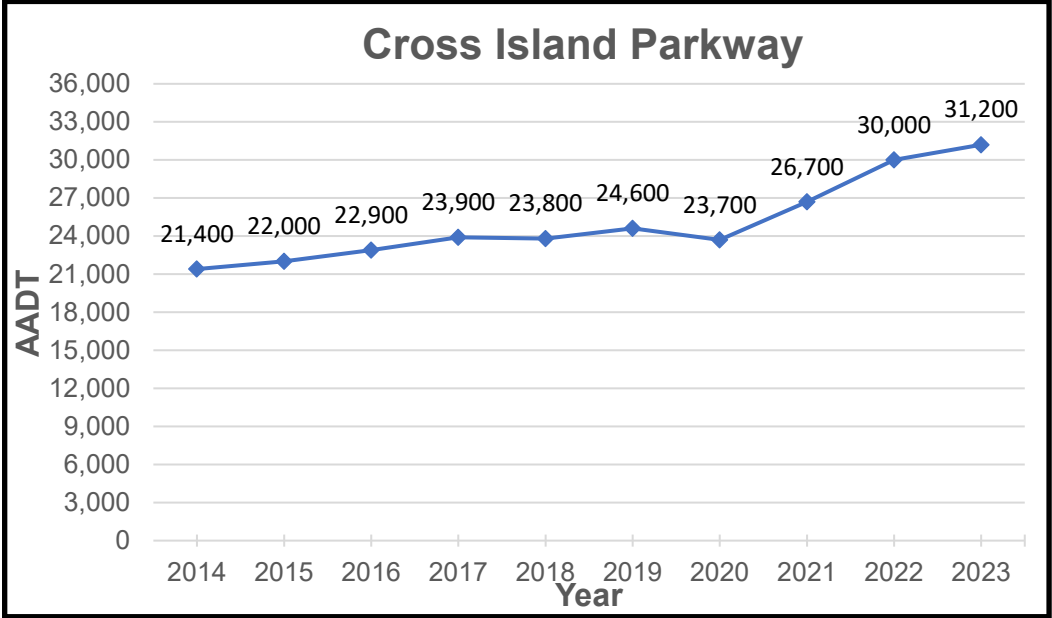
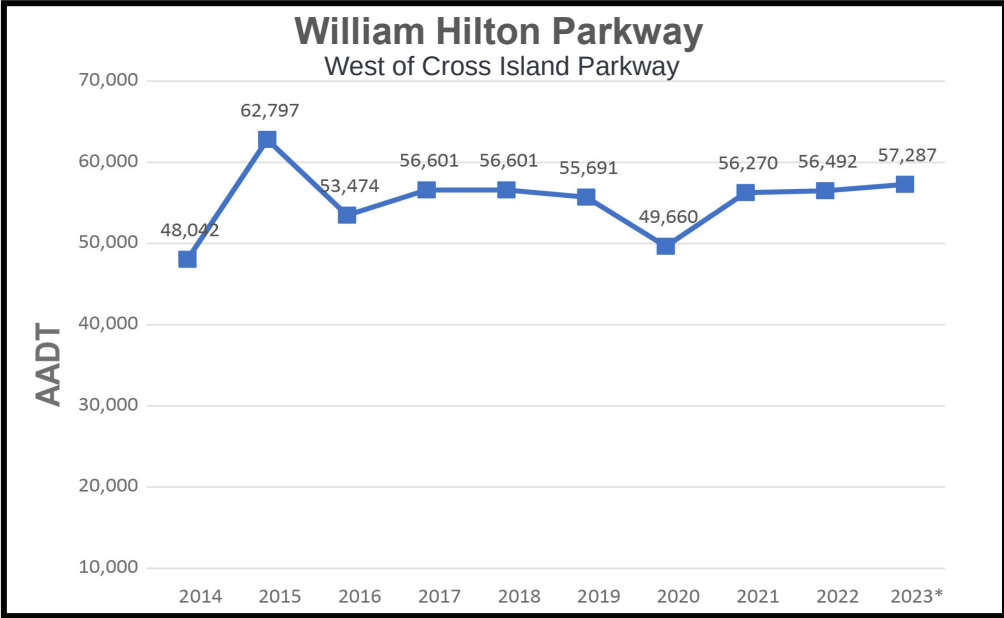


Clustering of crashes at the conflict points of the roundabout

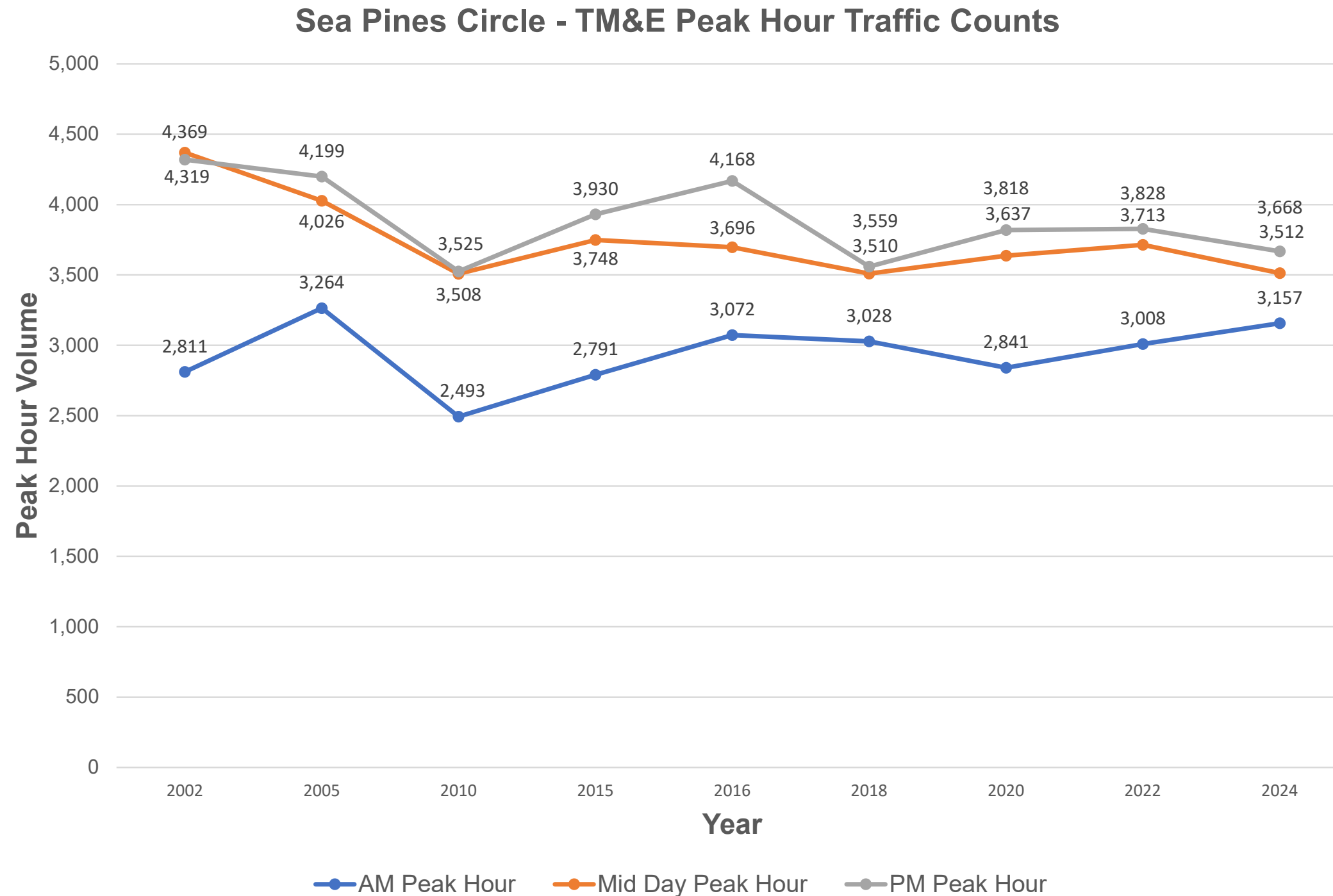


Clustering of crashes at recognition point of lane drop - merging, sideswipe, angle crash types

BACKGROUND - SCDOT HISTORICAL COUNT DATA

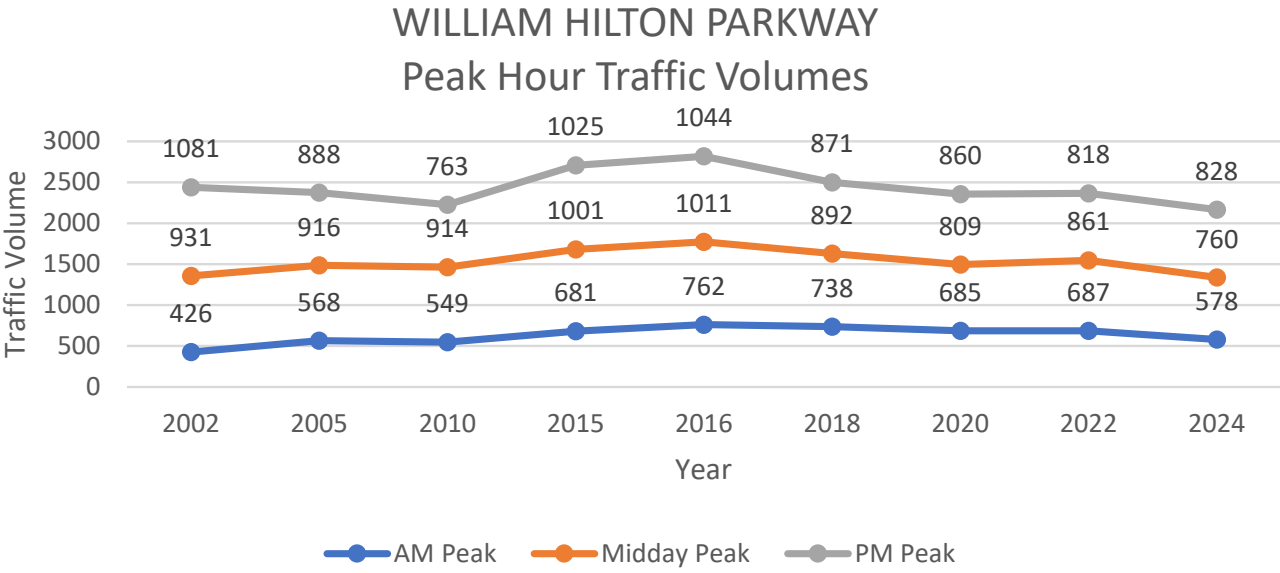
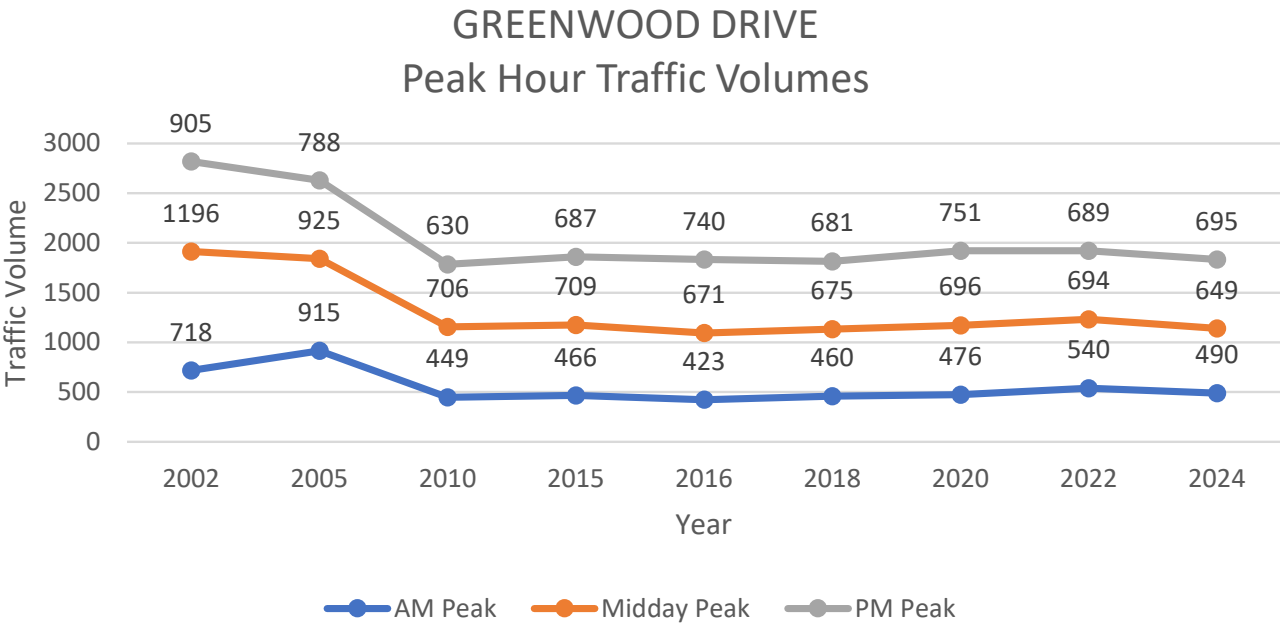
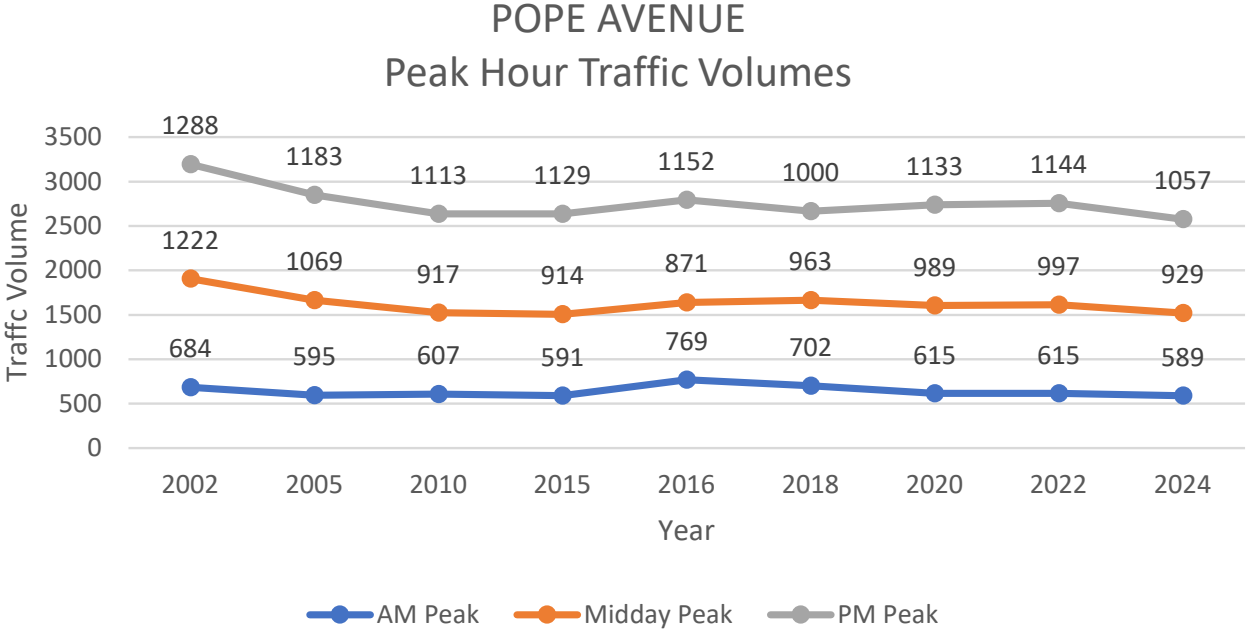
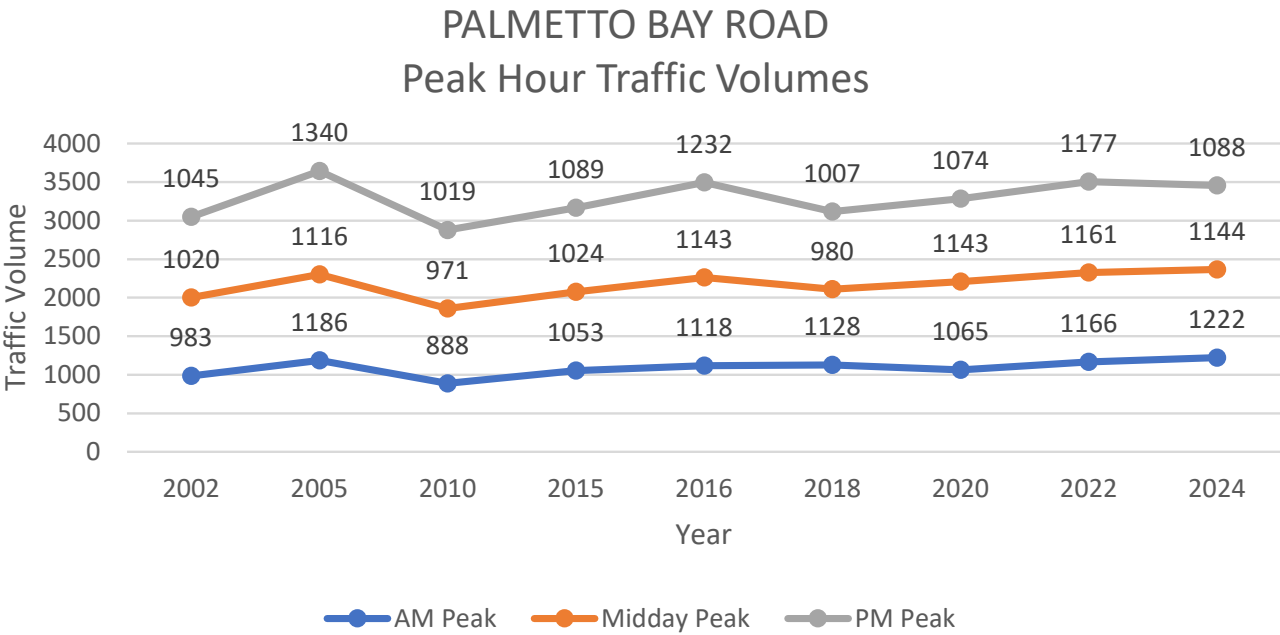


BACKGROUND - PEAK HOUR COUNTS

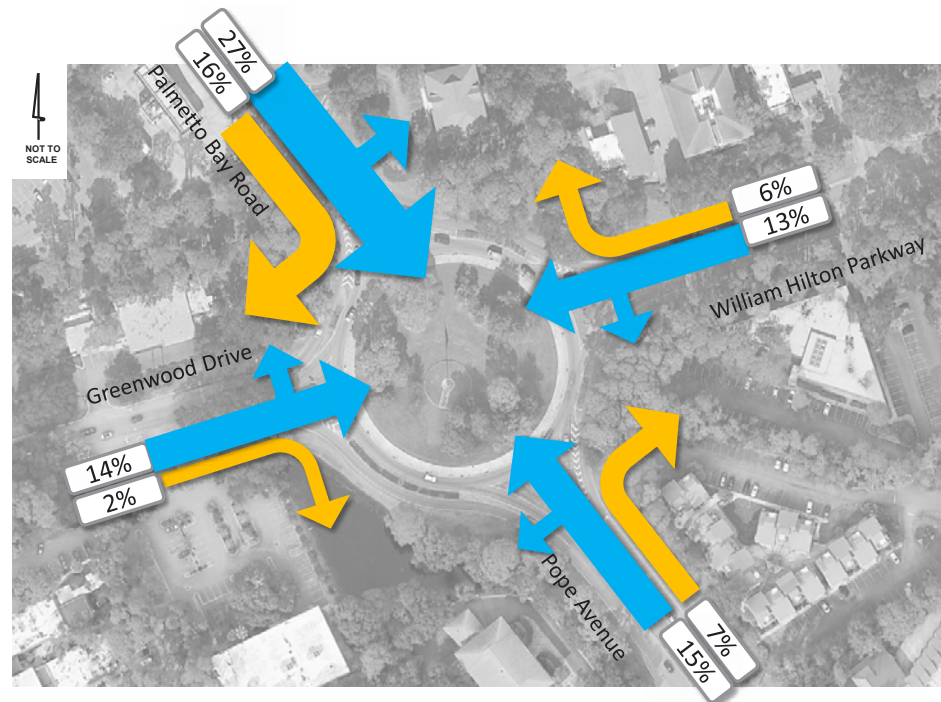


Sea Pines Circle

BACKGROUND - FEEDER ROAD PEAK HOUR COUNTS

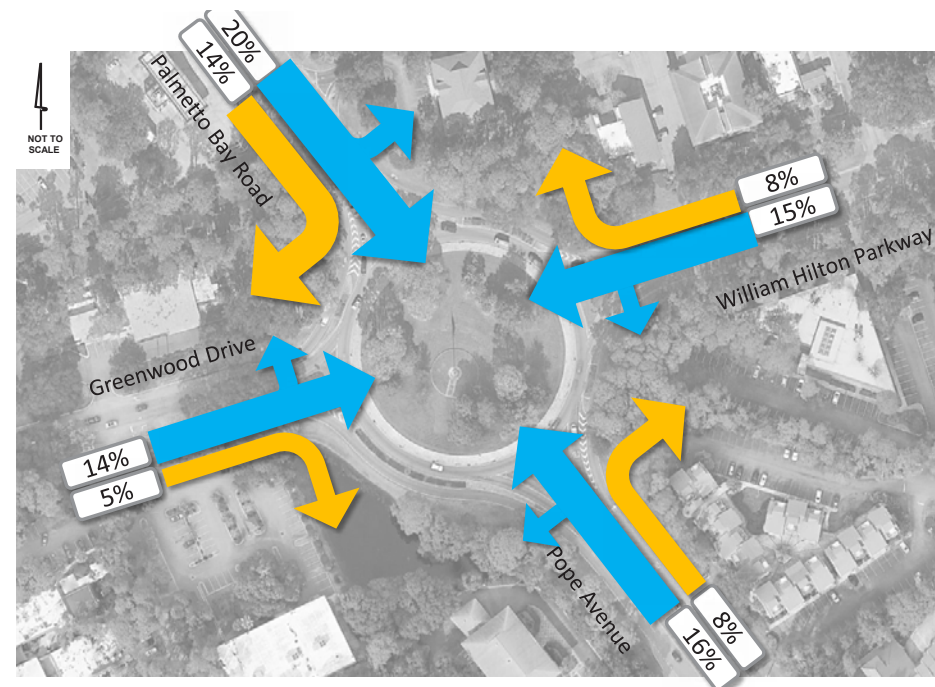


Sea Pines Circle BACKGROUND - 2024 PEAK HOUR COUNTS



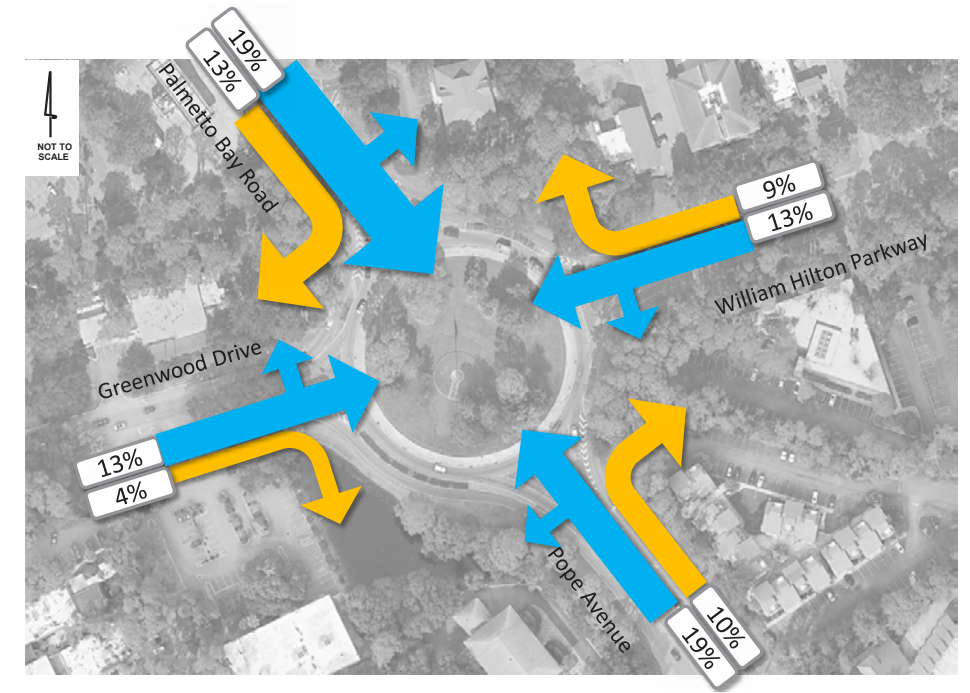
Percentage intersection traffic
by lane movement **AM**

**2,900 movements
in the peak hour**



Percentage intersection traffic
by lane movement **MID-DAY**

**3,519 movements
in the peak hour**

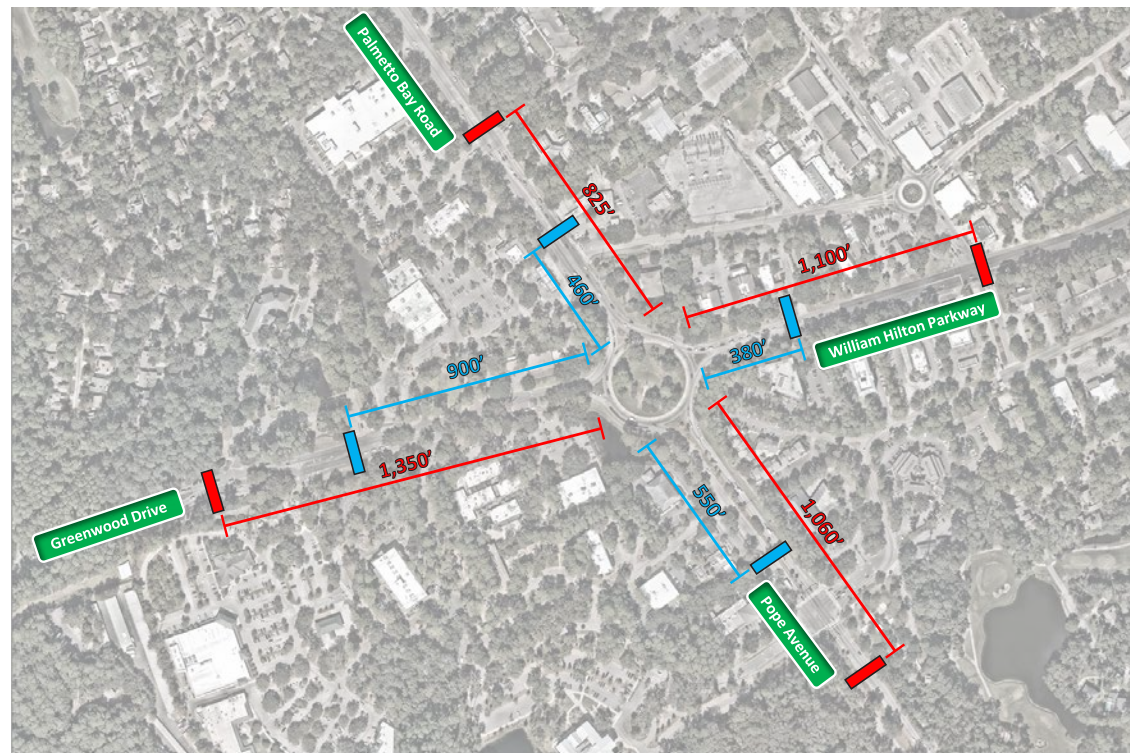


Percentage intersection traffic
by lane movement **PM**

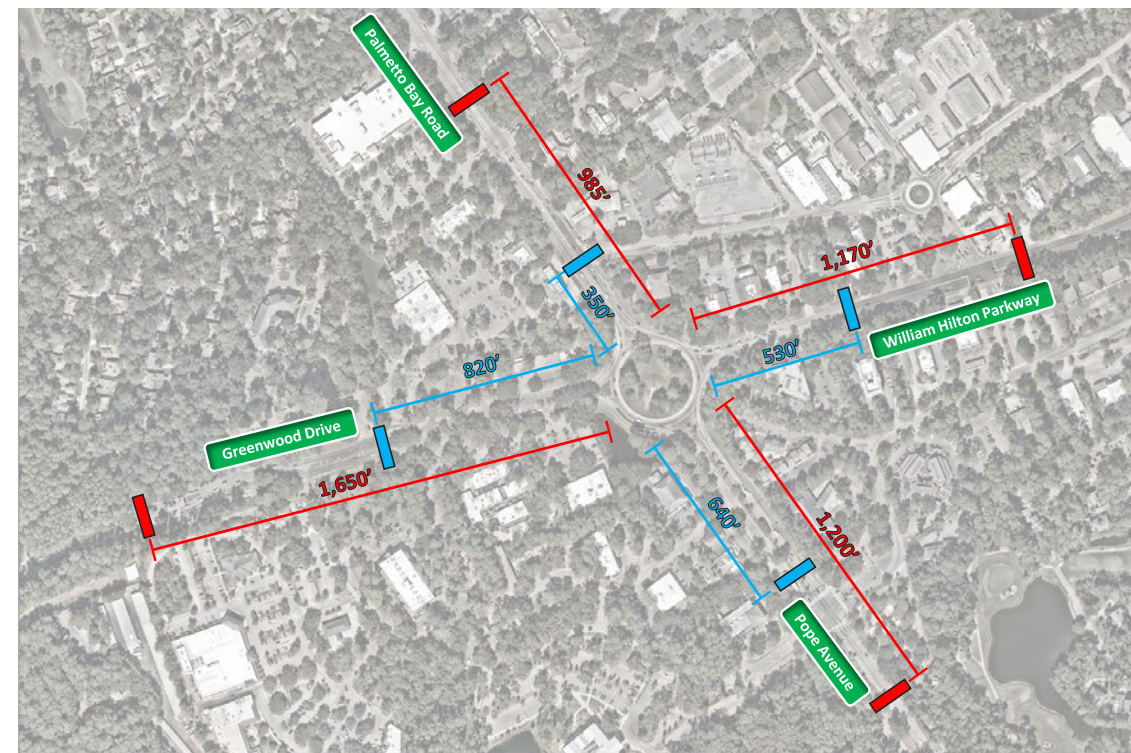
**3,605 movements
in the peak hour**

Sea Pines Circle

EXISTING - QUEUE OBSERVATIONS



MIDDAY



PM

EXISTING CIRCLE FINDINGS AND OBSERVATIONS

- Traffic volumes are reaching a saturation point where failure will continue to occur on a more frequent basis
- While crashes are present, they do not rise to the level of other locations on the island
- Geometrics of Sea Pines Circle are unique reflecting the design language from its construction time
- The Cross Island Parkway has changed how traffic approaches and interacts within Sea Pines Circle
- There is a high demand for left and through movements on all approaches to the circle
- The SB right from Palmetto Bay Road to Greenwood Drive is comparable to the through movements on Palmetto Bay Road and Pope Avenue in the peak hours and overall daily volume
- Guide signage approaching the circle is present on all approaches, with three providing significant advance warning of the laneage at the circle
- Drivers are attempting to “queue jump” by using the right-turn only lane up to the divergent point at the circle or diverting around the circle
- There is more demand (traffic wanting to move through the circle) than what the circle can process in a given 60-minute period or peak hour
- Through movements from Palmetto Bay Road and Pope Avenue control or limit the gaps from Greenwood Drive and William Hilton Parkway



Tools and Mechanisms

SEA PINE CIRCLE VEHICULAR IMPROVEMENTS

Short Term

- What are the things that could be done today to improve operations of the existing circle?
- What begins to build a foundation for longer term investments at the circle?

Speed Tables

- Implemented in the approach to the circle

Change in road surface

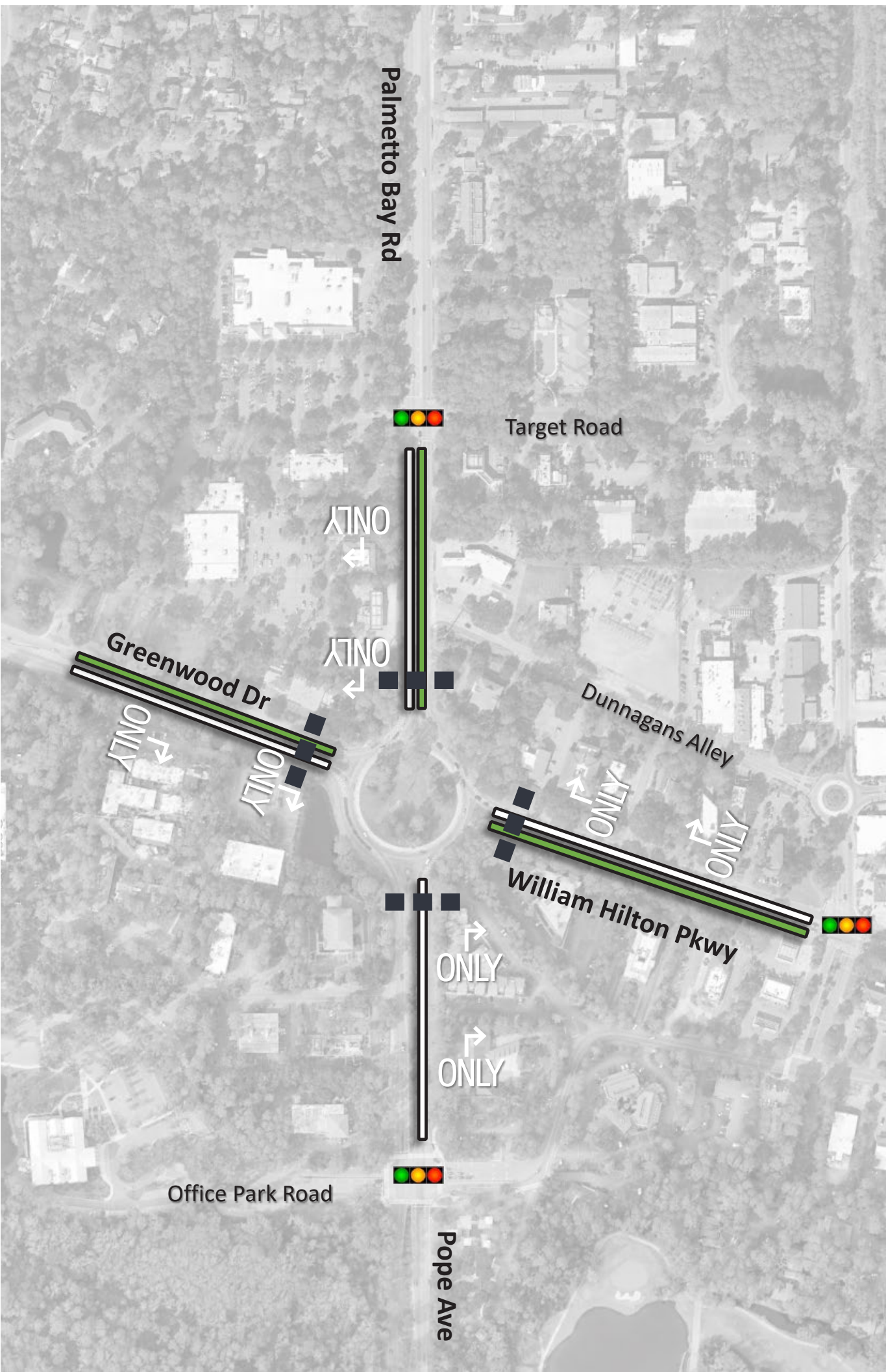
- Rumble strips in combination with speed tables

Metering access to the circle

- Implemented at existing adjacent signals

Sea Pines Circle

VEHICULAR IMPROVEMENTS: SHORT TERM



Install a 6-inch solid white line extending from the gore point to the adjacent signal or major intersection on all approaches

Install curved stem lane markings for both approach lanes per the MUTCD

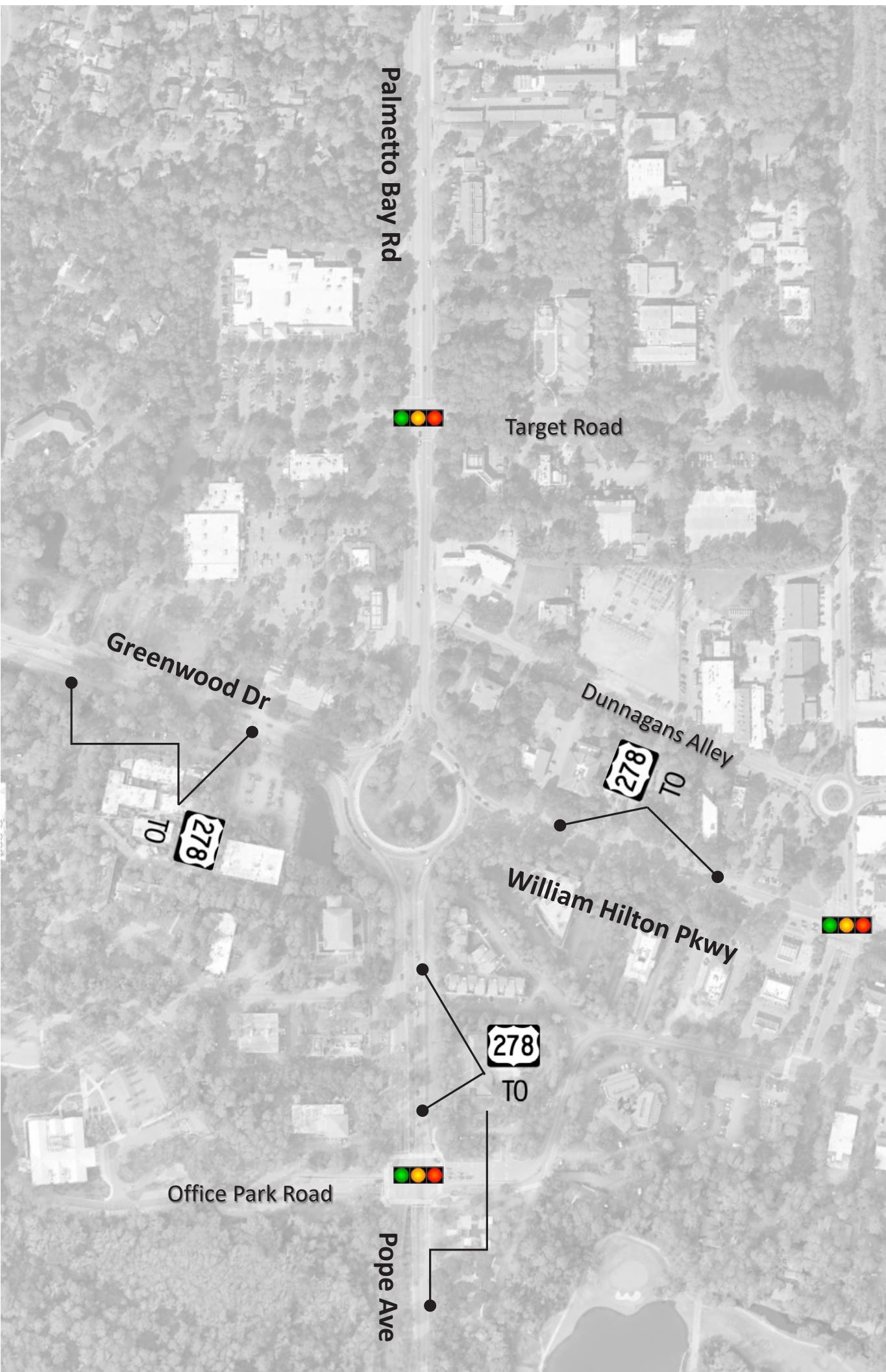
Install additional “ONLY” markings on the approaches to the circle

Extend medians outward from Sea Pines Circle

Install speed tables

Metering at adjacent signals

VEHICULAR IMPROVEMENTS: SHORT TERM



Install supplemental shield pavement markings on William Hilton Parkway, Greenwood Drive, and Pope Avenue approaches as appropriate

SEA PINE CIRCLE VEHICULAR IMPROVEMENTS

Long Term

- What options do we have to address growing congestion?
- What trade-offs do we need to consider for an enhanced circle? – circle size, number of lanes, access
- What are the impacts to each of these alternatives and do they align with the communities needs?

Alternative 1a – 2x2 Multilane Mainline

- Add additional through lanes on Pope Avenue and Palmetto Bay Road
- No Bypass lanes
- Maintain current circle size (approx.)

Alternative 1b – Full Dual Lane

- Adds SB bypass lane to Alt 1a

Alternative 2a – Dual Lane with Directed Rights

- Adjust geometry of Sea Pines Circle to reflect modern roundabout guidance
- Adds two yielding rights and one bypass right lane to Alt 2

Alternative 2b – Delineated RAB

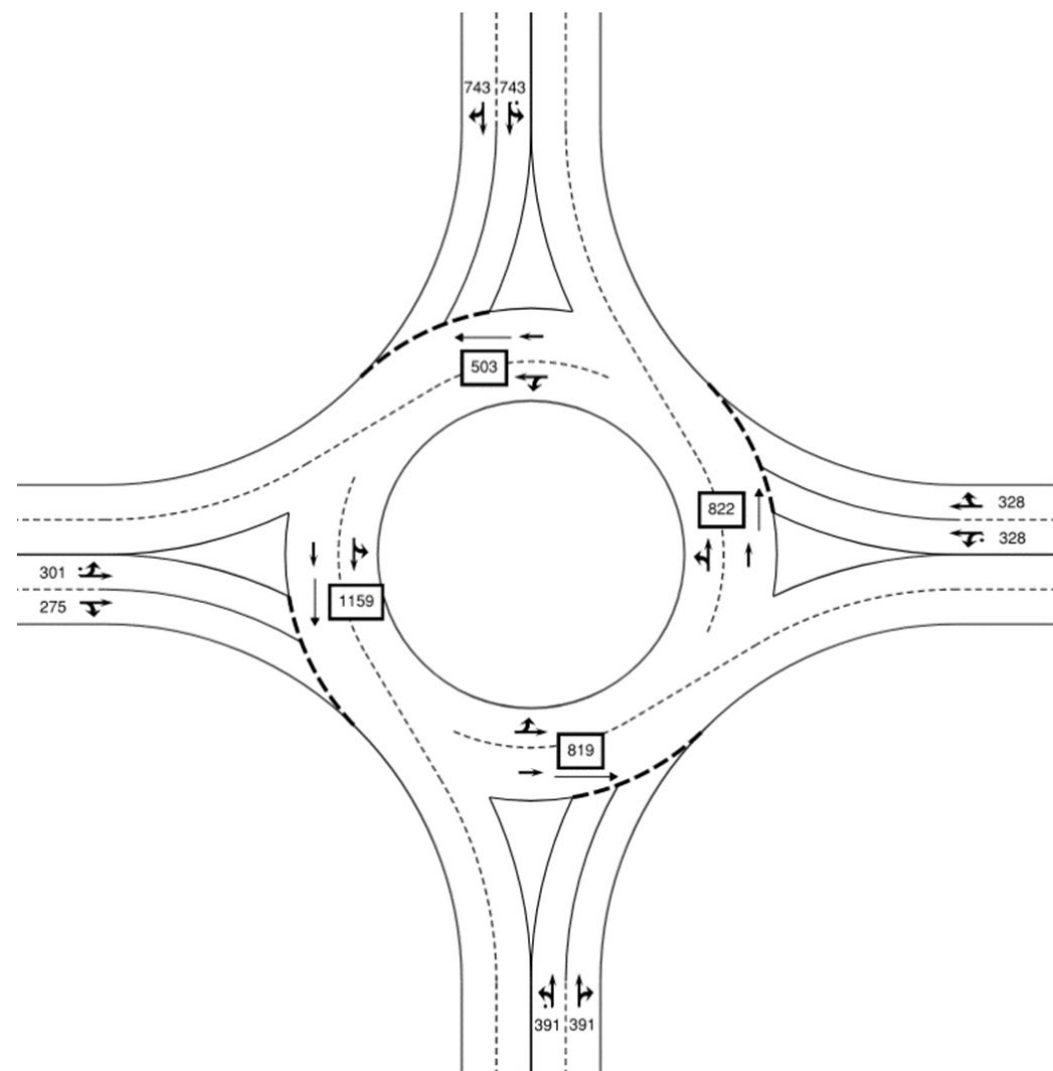
- Adds a dedicated left-turn lane to each approach
- Maintains a single through lane
- Maintains bypass right on all approaches

Other Options Considered:

- Signal
- Separated Roundabout
- Complete the quadrant

Sea Pines Circle

OPERATIONAL ANALYSIS ALTERNATIVE 1A - 2039



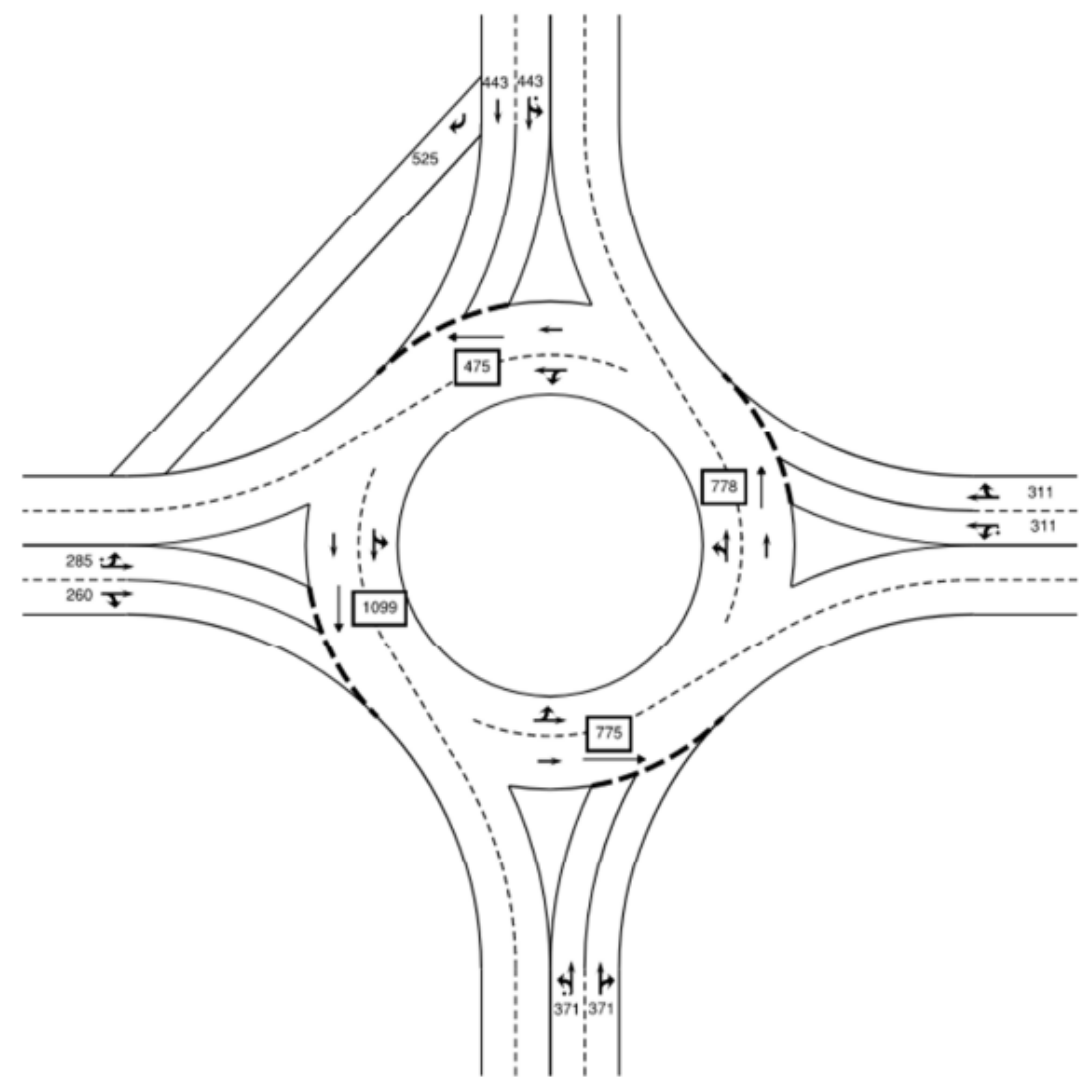
| AM | | | | | | | | | |
|-----------------------|----------|-------------|-----------------|-----------|-----------|-----|------------------------|------------------|---------------------------|
| | Set ID | Queue (Veh) | 95% Queue (Veh) | Delay (s) | V/C Ratio | LOS | Intersection Delay (s) | Intersection LOS | Network Residual Capacity |
| 2x2 - Proposed - 2039 | | | | | | | | | |
| Leg WB | A2 D4 | 1.1 | 1.7 | 5.46 | 0.52 | A | 41.60 | E | -7 % [Leg SB] |
| Leg SB | | 43.4 | 115.9 | 89.45 | 1.03 | F | | | |
| Leg EB | | 1.1 | 2.3 | 6.51 | 0.53 | A | | | |
| Leg NB | | 1.6 | 1.9 | 6.78 | 0.62 | A | | | |

| MD | | | | | | | | | |
|-----------------------|----------|-------------|-----------------|-----------|-----------|-----|------------------------|------------------|---------------------------|
| | Set ID | Queue (Veh) | 95% Queue (Veh) | Delay (s) | V/C Ratio | LOS | Intersection Delay (s) | Intersection LOS | Network Residual Capacity |
| 2x2 - Proposed - 2039 | | | | | | | | | |
| Leg WB | A2 D5 | 4.1 | 19.8 | 14.71 | 0.81 | B | 53.86 | F | -10 % [Leg SB] |
| Leg SB | | 64.5 | 133.2 | 132.44 | 1.07 | F | | | |
| Leg EB | | 2.1 | 3.7 | 9.07 | 0.68 | A | | | |
| Leg NB | | 3.5 | 14.6 | 11.70 | 0.78 | B | | | |

| PM | | | | | | | | | |
|-----------------------|----------|-------------|-----------------|-----------|-----------|-----|------------------------|------------------|---------------------------|
| | Set ID | Queue (Veh) | 95% Queue (Veh) | Delay (s) | V/C Ratio | LOS | Intersection Delay (s) | Intersection LOS | Network Residual Capacity |
| 2x2 - Proposed - 2039 | | | | | | | | | |
| Leg WB | A2 D6 | 6.6 | 35.5 | 25.13 | 0.88 | D | 39.37 | E | -4 % [Leg SB] |
| Leg SB | | 26.4 | 96.3 | 62.66 | 1.00 | F | | | |
| Leg EB | | 1.8 | 2.2 | 8.44 | 0.65 | A | | | |
| Leg NB | | 14.6 | 72.4 | 42.33 | 0.96 | E | | | |

Sea Pines Circle

OPERATIONAL ANALYSIS ALTERNATIVE 1B - 2039

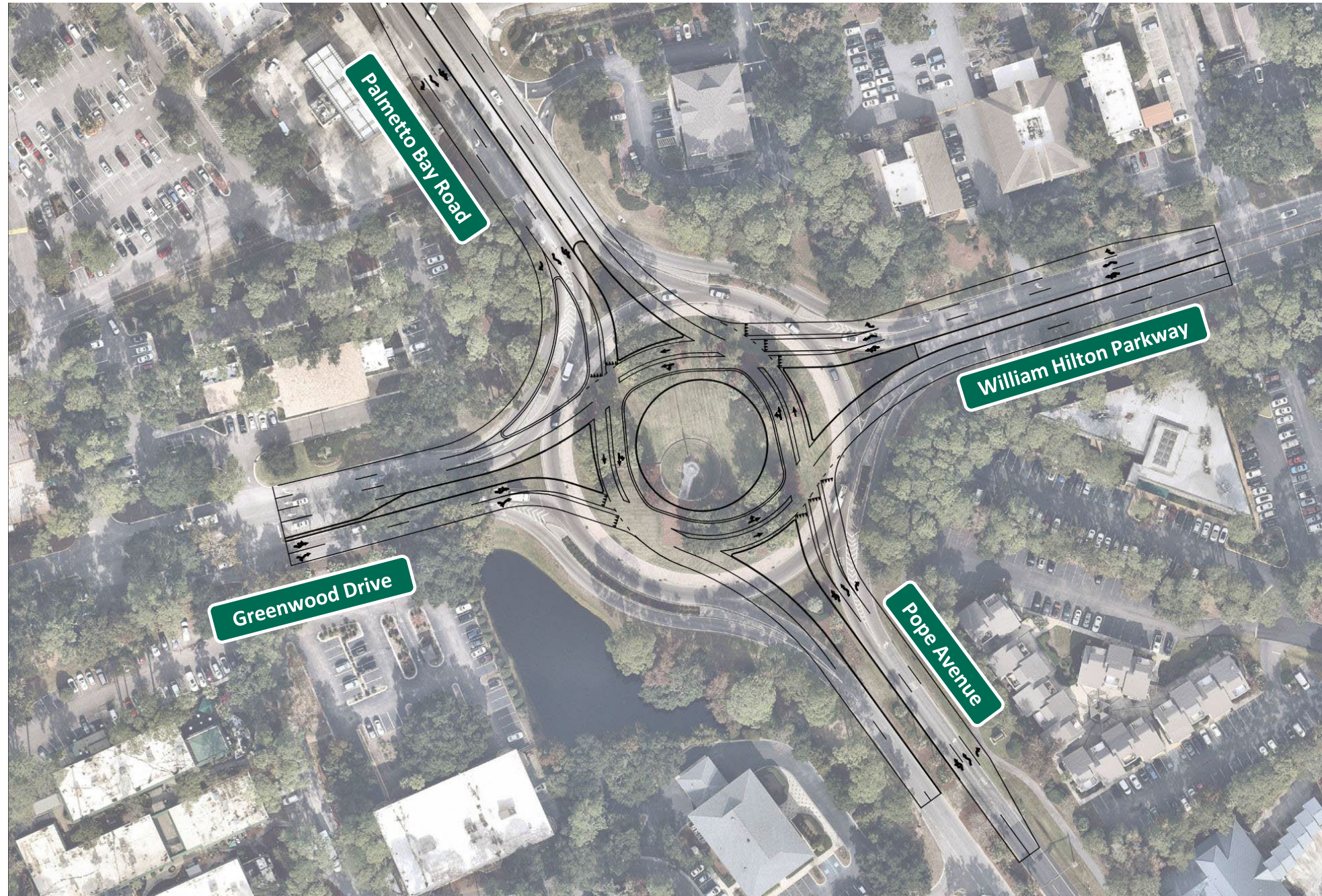


| AM | | | | | | | | | |
|------------------------------------|----------|-------------|-----------------|-----------|-----------|-----|------------------------|------------------|---------------------------|
| | Set ID | Queue (Veh) | 95% Queue (Veh) | Delay (s) | V/C Ratio | LOS | Intersection Delay (s) | Intersection LOS | Network Residual Capacity |
| 2x2 - Proposed w/ SB Bypass - 2039 | | | | | | | | | |
| Leg WB | A4 D4 | 1.1 | 1.7 | 5.46 | 0.52 | A | 6.42 | A | 32 % [Leg EB] |
| Leg SB | | 1.8 | 2.8 | 6.44 | 0.65 | A | | | |
| Leg EB | | 1.2 | 2.4 | 6.80 | 0.55 | A | | | |
| Leg NB | | 1.6 | 1.9 | 6.88 | 0.62 | A | | | |

| MD | | | | | | | | | |
|------------------------------------|----------|-------------|-----------------|-----------|-----------|-----|------------------------|------------------|---------------------------|
| | Set ID | Queue (Veh) | 95% Queue (Veh) | Delay (s) | V/C Ratio | LOS | Intersection Delay (s) | Intersection LOS | Network Residual Capacity |
| 2x2 - Proposed w/ SB Bypass - 2039 | | | | | | | | | |
| Leg WB | A4 D5 | 4.1 | 19.8 | 14.72 | 0.81 | B | 10.43 | B | 9 % [Leg WB] |
| Leg SB | | 1.7 | 2.2 | 6.62 | 0.63 | A | | | |
| Leg EB | | 2.3 | 5.9 | 10.03 | 0.70 | B | | | |
| Leg NB | | 3.6 | 15.8 | 12.15 | 0.79 | B | | | |

| PM | | | | | | | | | |
|------------------------------------|----------|-------------|-----------------|-----------|-----------|-----|------------------------|------------------|---------------------------|
| | Set ID | Queue (Veh) | 95% Queue (Veh) | Delay (s) | V/C Ratio | LOS | Intersection Delay (s) | Intersection LOS | Network Residual Capacity |
| 2x2 - Proposed w/ SB Bypass - 2039 | | | | | | | | | |
| Leg WB | A4 D6 | 6.6 | 35.5 | 25.10 | 0.88 | D | 21.43 | C | -2 % [Leg NB] |
| Leg SB | | 1.6 | 1.9 | 6.10 | 0.61 | A | | | |
| Leg EB | | 1.9 | 2.7 | 8.67 | 0.66 | A | | | |
| Leg NB | | 15.2 | 74.0 | 43.96 | 0.96 | E | | | |

Sea Pines Circle ALTERNATIVE 2A



Overview

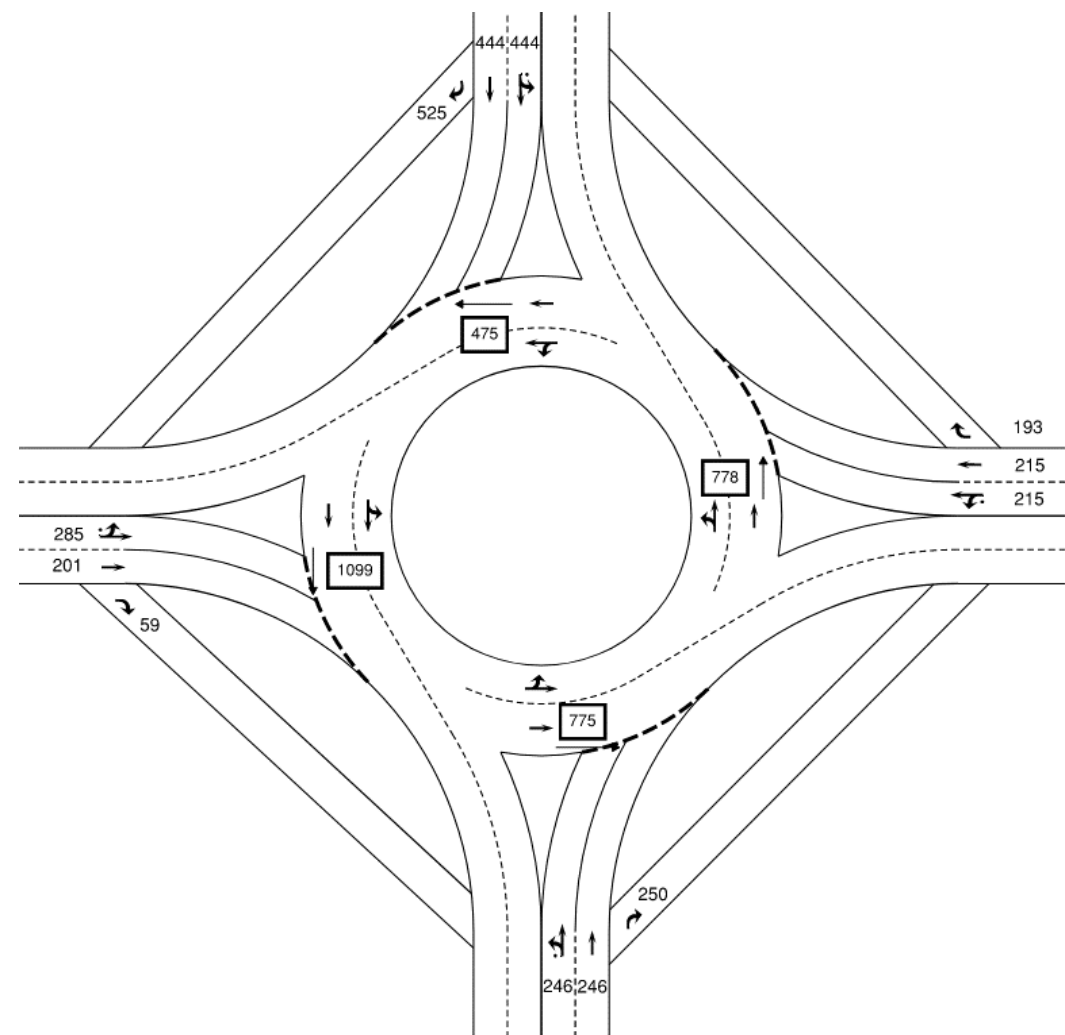
- Modern RAB configuration
- Uses spiral to move left turning traffic to the outside of the circle as they exit
- Accommodates yielding right movements on WHP and Pope
- Buffers provide additional separation between vehicles
- Free -flowing right from Palmetto Bay to Greenwood

Considerations

- Creates larger conflict area on two approaches
- Contracts circle by 120 feet
- Buffers are painted but can be raised for additional guidance
- Requires no new right of way

Sea Pines Circle

OPERATIONAL ANALYSIS ALTERNATIVE 2A - 2039

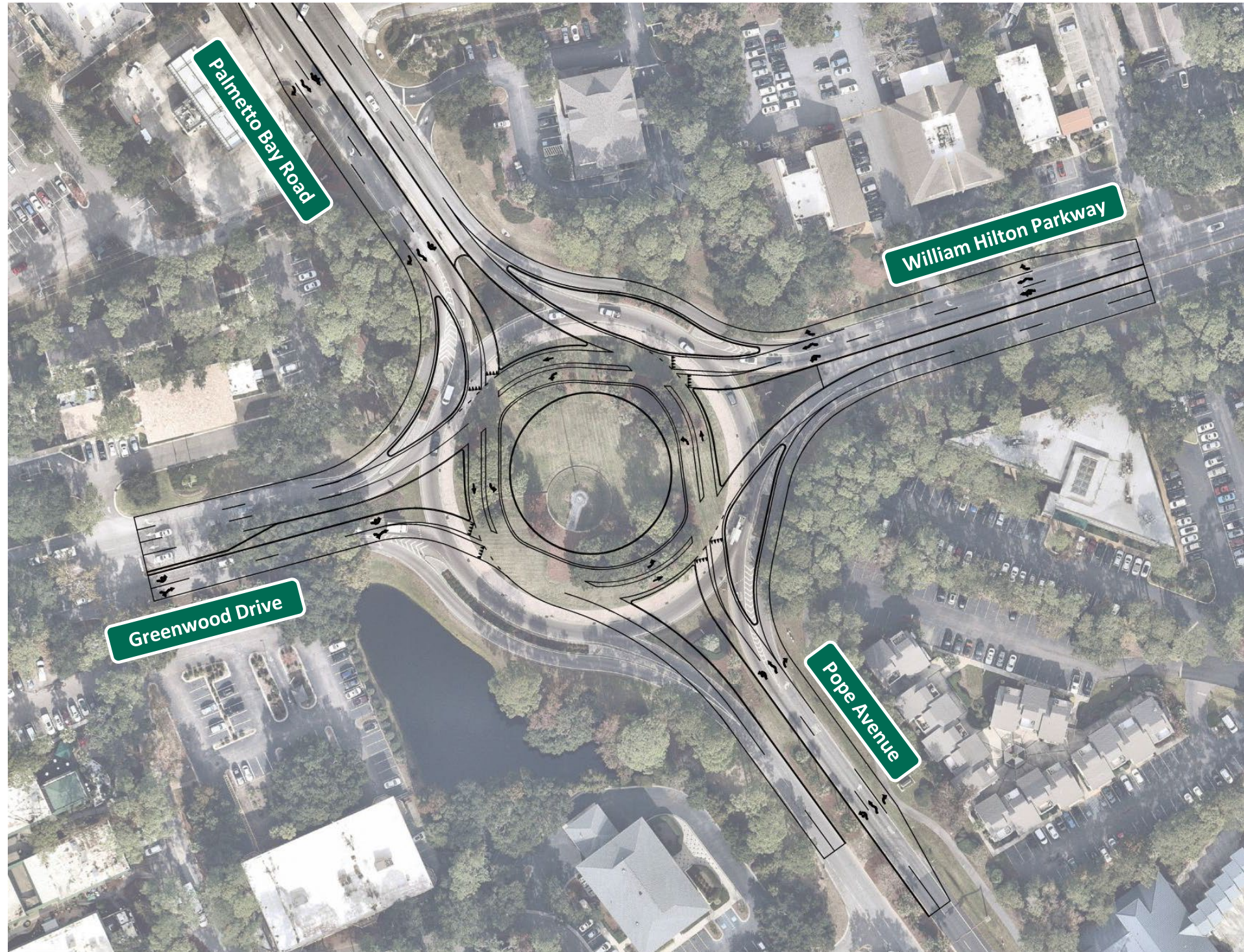


| AM | | | | | | | | | |
|---------------------------------|----------|-------------|-----------------|-----------|-----------|-----|------------------------|------------------|---------------------------|
| | Set ID | Queue (Veh) | 95% Queue (Veh) | Delay (s) | V/C Ratio | LOS | Intersection Delay (s) | Intersection LOS | Network Residual Capacity |
| 2x2 w/ Bypass - Proposed - 2039 | | | | | | | | | |
| Leg WB | A3 D4 | 0.6 | 2.6 | 4.08 | 0.36 | A | 5.48 | A | 35 % [Leg SB] |
| Leg SB | | 1.8 | 2.8 | 6.44 | 0.65 | A | | | |
| Leg EB | | 0.9 | 2.9 | 6.01 | 0.49 | A | | | |
| Leg NB | | 0.7 | 2.9 | 4.43 | 0.41 | A | | | |

| MD | | | | | | | | | |
|---------------------------------|----------|-------------|-----------------|-----------|-----------|-----|------------------------|------------------|---------------------------|
| | Set ID | Queue (Veh) | 95% Queue (Veh) | Delay (s) | V/C Ratio | LOS | Intersection Delay (s) | Intersection LOS | Network Residual Capacity |
| 2x2 w/ Bypass - Proposed - 2039 | | | | | | | | | |
| Leg WB | A3 D5 | 1.1 | 2.2 | 5.81 | 0.51 | A | 6.07 | A | 33 % [Leg SB] |
| Leg SB | | 1.7 | 2.2 | 6.62 | 0.63 | A | | | |
| Leg EB | | 1.1 | 2.5 | 6.31 | 0.52 | A | | | |
| Leg NB | | 1.1 | 1.8 | 5.35 | 0.52 | A | | | |

| PM | | | | | | | | | |
|---------------------------------|----------|-------------|-----------------|-----------|-----------|-----|------------------------|------------------|---------------------------|
| | Set ID | Queue (Veh) | 95% Queue (Veh) | Delay (s) | V/C Ratio | LOS | Intersection Delay (s) | Intersection LOS | Network Residual Capacity |
| 2x2 w/ Bypass - Proposed - 2039 | | | | | | | | | |
| Leg WB | A3 D6 | 1.0 | 2.8 | 6.45 | 0.51 | A | 6.41 | A | 31 % [Leg NB] |
| Leg SB | | 1.6 | 1.9 | 6.12 | 0.61 | A | | | |
| Leg EB | | 1.0 | 2.5 | 5.99 | 0.50 | A | | | |
| Leg NB | | 1.6 | 1.9 | 6.98 | 0.62 | A | | | |

Sea Pines Circle ALTERNATIVE 2B



Overview

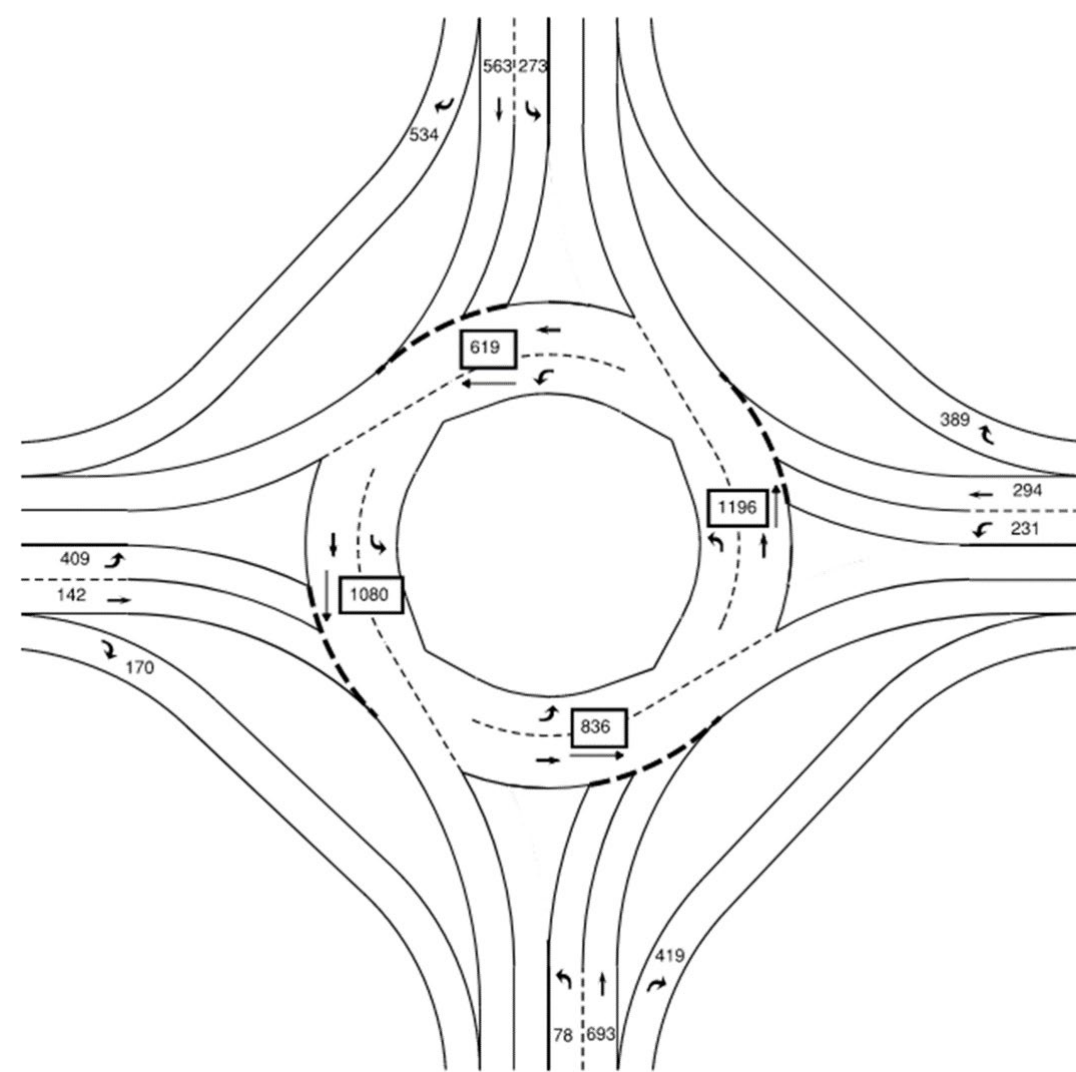
- Modern RAB configuration
- Uses spiral to move left turning traffic to the outside of the circle as they exit
- Accommodates yielding right movements on WHP and Pope
- Buffers provide additional separation between vehicles
- Free-flowing right from Palmetto Bay to Greenwood

Considerations

- Reduces conflict area size between movements
- Operates at lower LOS than Alt 3
- Contracts circle by 120 feet
- Buffers are painted but can be raised for additional guidance
- Requires no new right of way

Sea Pines Circle

OPERATIONAL ANALYSIS ALTERNATIVE 2B - 2039



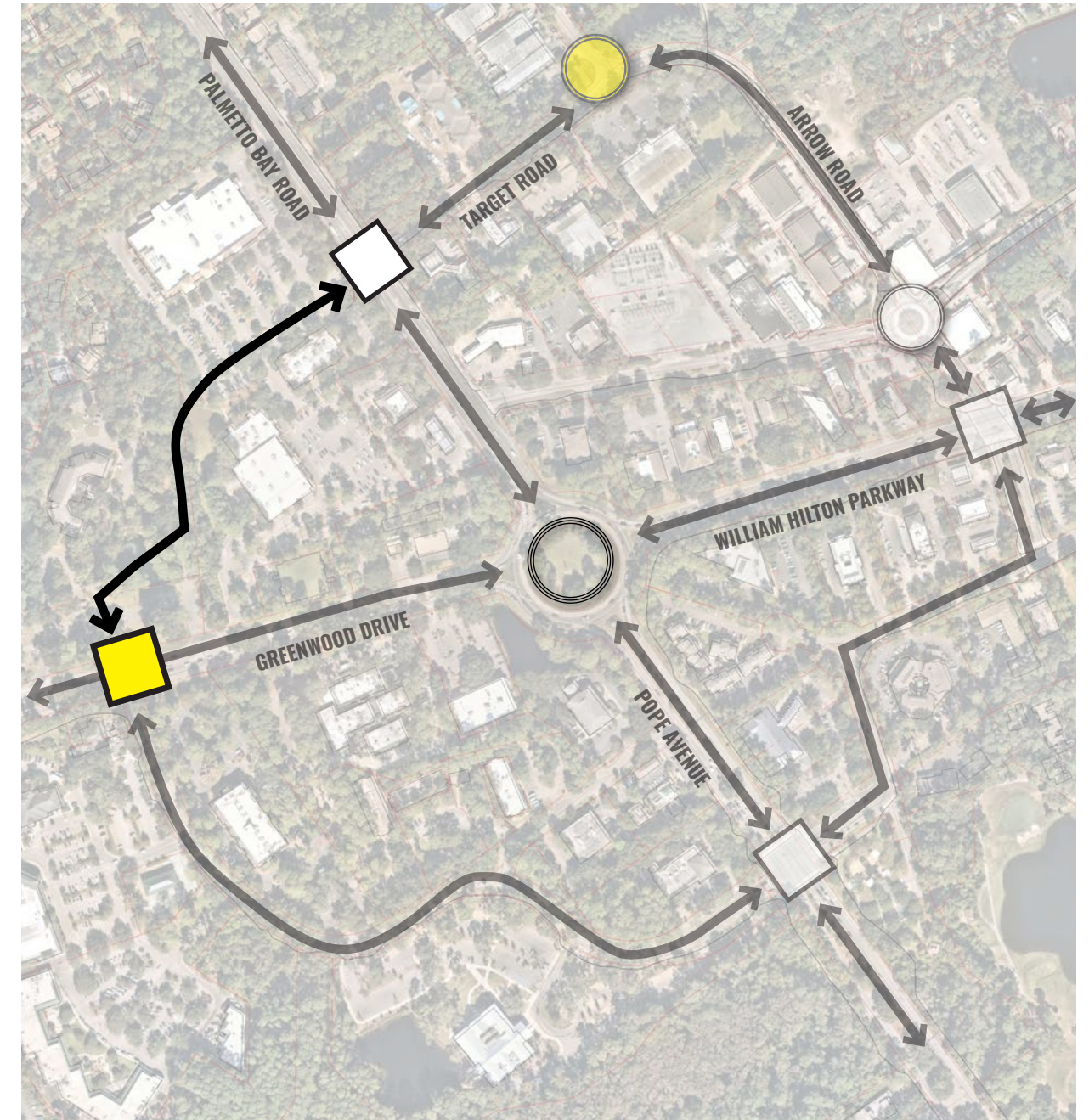
| AM | | | | | | | | | |
|---------------------------------------|--------|-------------|-----------------|-----------|-----------|-----|------------------------|------------------|---------------------------|
| | Set ID | Queue (Veh) | 95% Queue (Veh) | Delay (s) | V/C Ratio | LOS | Intersection Delay (s) | Intersection LOS | Network Residual Capacity |
| 2x2 w/ Bypass & Exclusive Left - 2029 | | | | | | | | | |
| Leg WB | A4 D1 | | 5.3 | 7.91 | 0.42 | A | 15.13 | C | 7 % [Leg NB] |
| Leg SB | | | 17.5 | 12.86 | 0.83 | B | | | |
| Leg EB | | | 8.4 | 19.86 | 0.65 | C | | | |
| Leg NB | | | 14.2 | 22.08 | 0.85 | C | | | |

| MD | | | | | | | | | |
|---------------------------------------|--------|-------------|-----------------|-----------|-----------|-----|------------------------|------------------|---------------------------|
| | Set ID | Queue (Veh) | 95% Queue (Veh) | Delay (s) | V/C Ratio | LOS | Intersection Delay (s) | Intersection LOS | Network Residual Capacity |
| 2x2 w/ Bypass & Exclusive Left - 2029 | | | | | | | | | |
| Leg WB | A4 D2 | | 12.4 | 12.81 | 0.67 | B | 22.19 | C | -1 % [Leg NB] |
| Leg SB | | | 24.2 | 20.06 | 0.93 | C | | | |
| Leg EB | | | 11.5 | 17.48 | 0.69 | C | | | |
| Leg NB | | | 23.8 | 37.71 | 1.01 | E | | | |

| PM | | | | | | | | | |
|---------------------------------------|--------|-------------|-----------------|-----------|-----------|-----|------------------------|------------------|---------------------------|
| | Set ID | Queue (Veh) | 95% Queue (Veh) | Delay (s) | V/C Ratio | LOS | Intersection Delay (s) | Intersection LOS | Network Residual Capacity |
| 2x2 w/ Bypass & Exclusive Left - 2029 | | | | | | | | | |
| Leg WB | A4 D3 | | 16.3 | 16.53 | 0.77 | C | 37.92 | E | -13 % [Leg NB] |
| Leg SB | | | 17.6 | 13.57 | 0.83 | B | | | |
| Leg EB | | | 12.8 | 23.74 | 0.83 | C | | | |
| Leg NB | | | 44.7 | 90.96 | 1.26 | F | | | |

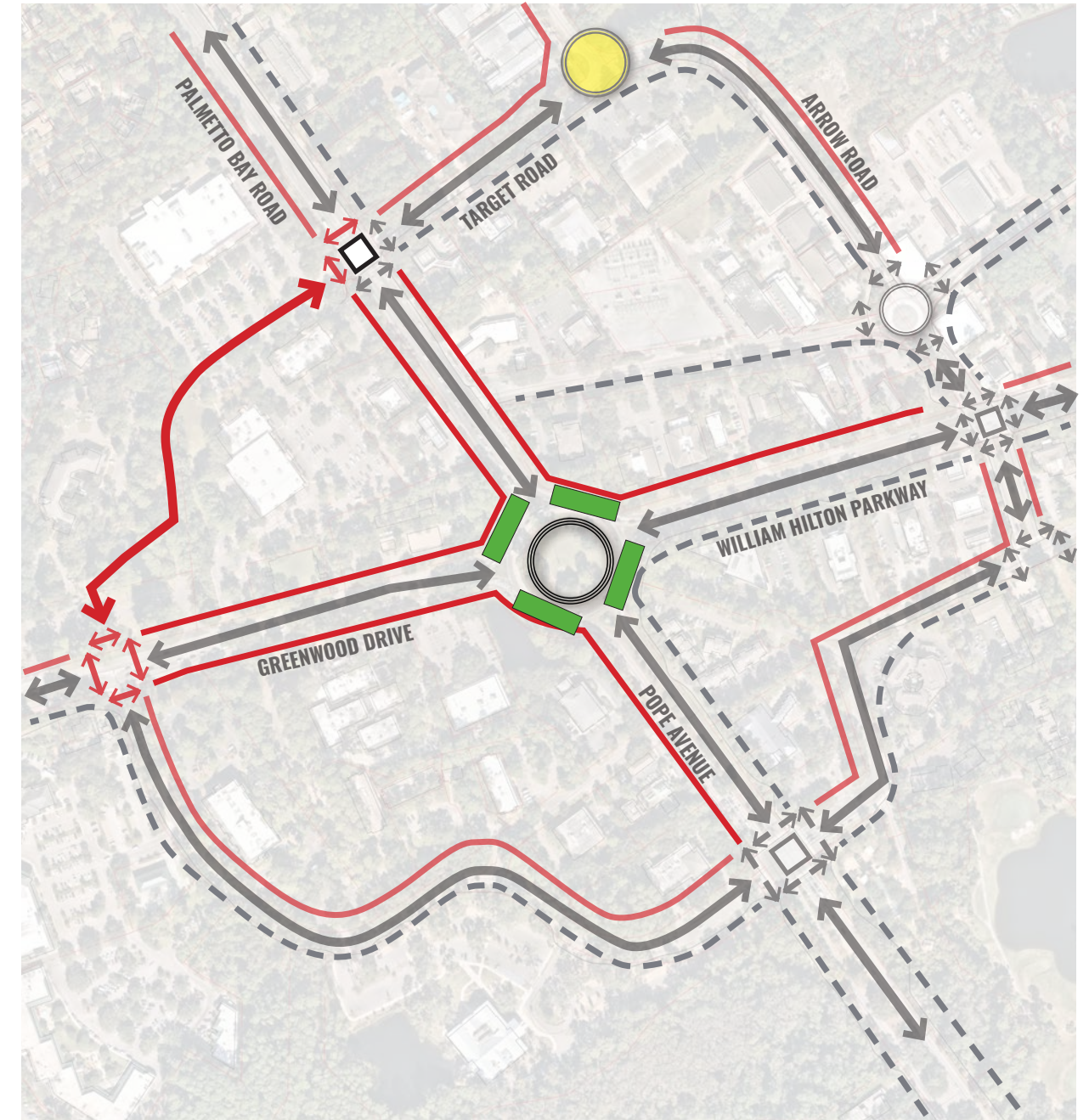
Sea Pines Circle **OTHER OPTIONS CONSIDERED**

- Consider the completion of the quadrant network around Sea Pines Circle by connecting Palmetto Bay Road to Greenwood Drive in order to benefit a greater vehicular and pedestrian connectivity and ease congestion at Sea Pines Circle
- Consider a signalized intersection at Greenwood Drive and a new connecting street to provide positive intersection control, ease congestion at Sea Pines Circle, and benefit safe pathway crossing conditions



PEDESTRIAN IMPROVEMENTS: LONG TERM

- Provide new pathway connections on perimeter of Sea Pines Circle that connect to signalized crossings, prohibiting any other crossings
- Complete the pedestrian quadrant network around Sea Pines Circle by establishing pathways along new and existing connections
- Install and maximize pedestrian buffer between the roadway and the new / existing pathway on perimeter Sea Pines Circle to deter pathway users from crossing into the circle



Sea Pines Circle **SUMMARY / NEXT STEPS**

General

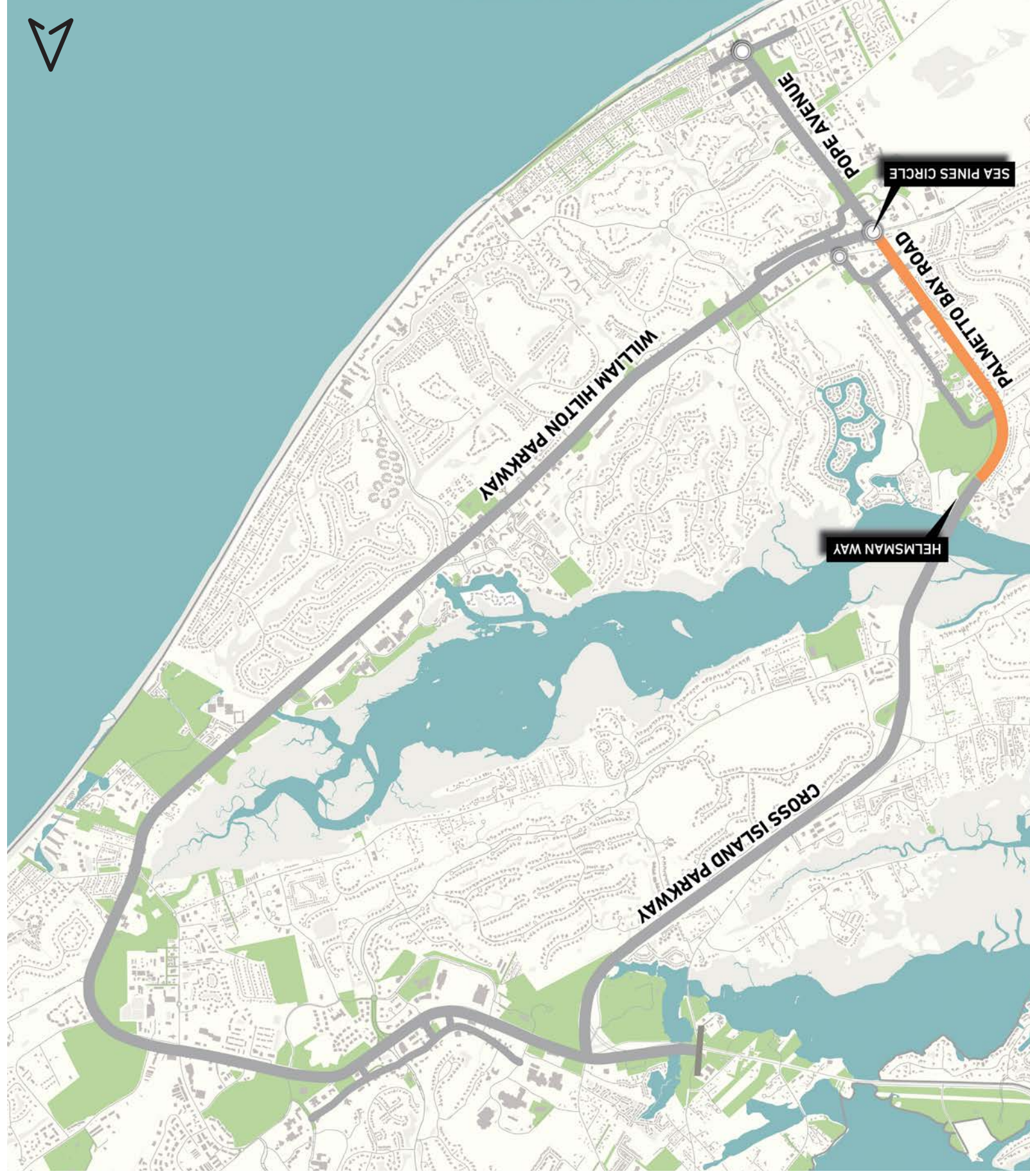
- Direction on short-term options
 - Pedestrian improvements
 - Vehicular Improvements
- Direction on long-term options



Palmetto Bay Road

Palmetto Bay Road
PROJECT LOCATION

Palmetto Bay Road
Between Helmsman Way and Sea Pines Circle

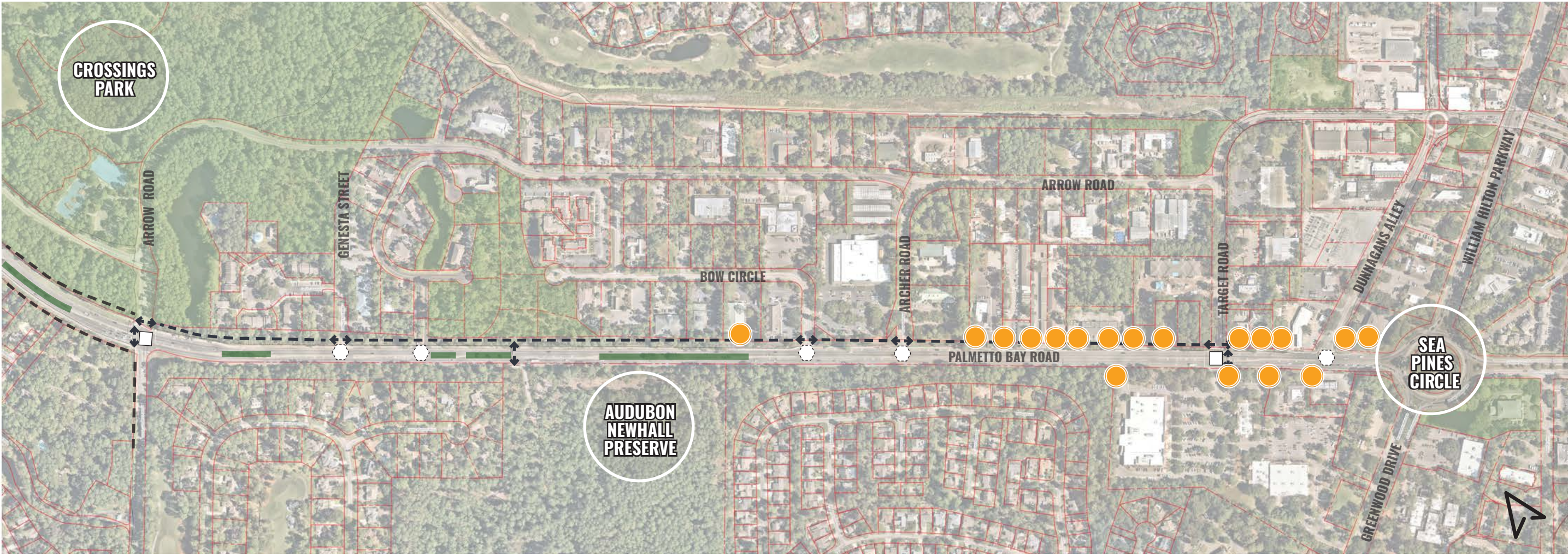


Palmetto Bay Road **WHAT WE HAVE HEARD**

- **Current design leads to high speed roadway similar to Cross Island Parkway**
- **Minimal pedestrian buffer make pathways uncomfortable**
- **Lack of landscaped medians**
- **Numerous driveways and unsignalized intersections create conflict points**
- **Limited bike and pedestrian crossings**



Palmetto Bay Road
EXISTING CONDITIONS

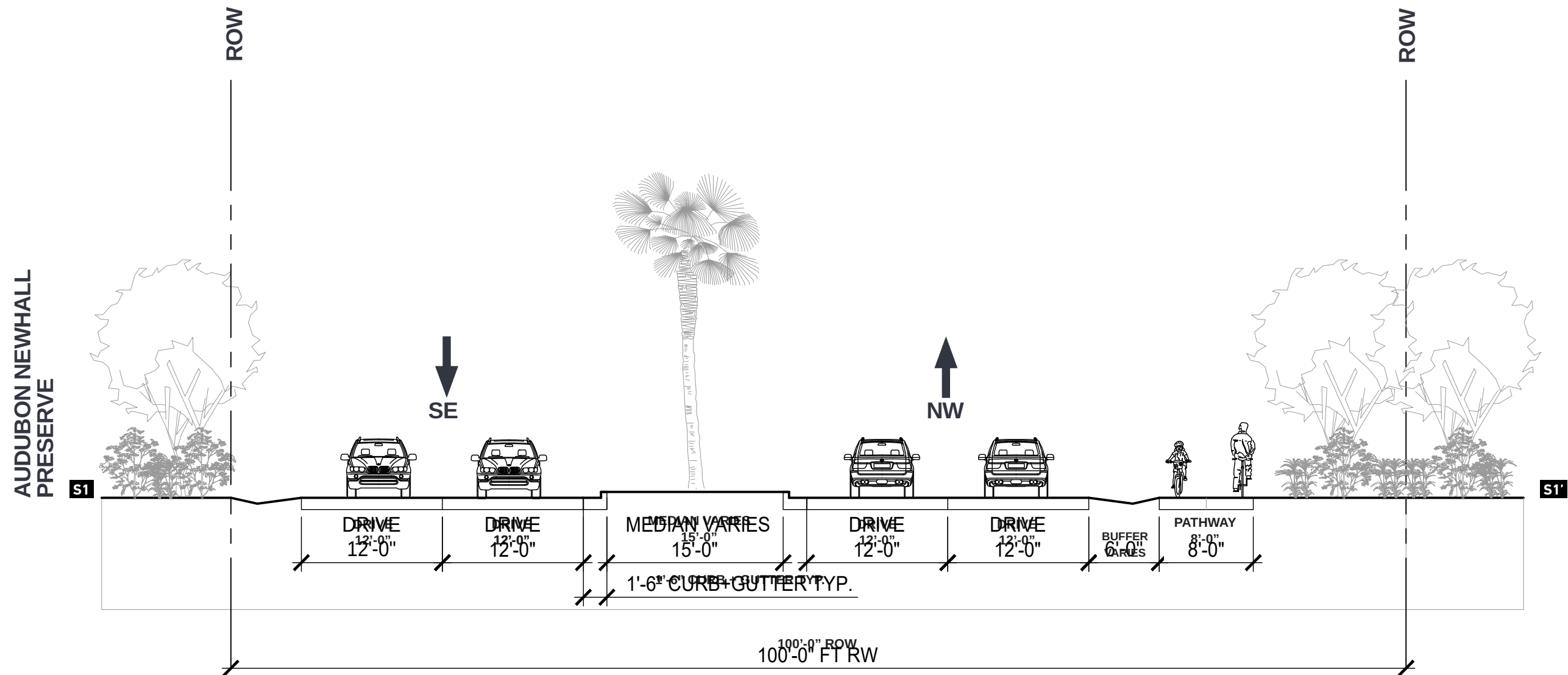


LEGEND

- EXISTING PLANTED MEDIAN
- EXISTING PATHWAY
- EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- EXISTING UNSIGNALIZED INTERSECTION
- EXISTING VEHICULAR ACCESS
- TOWN-OWNED LAND

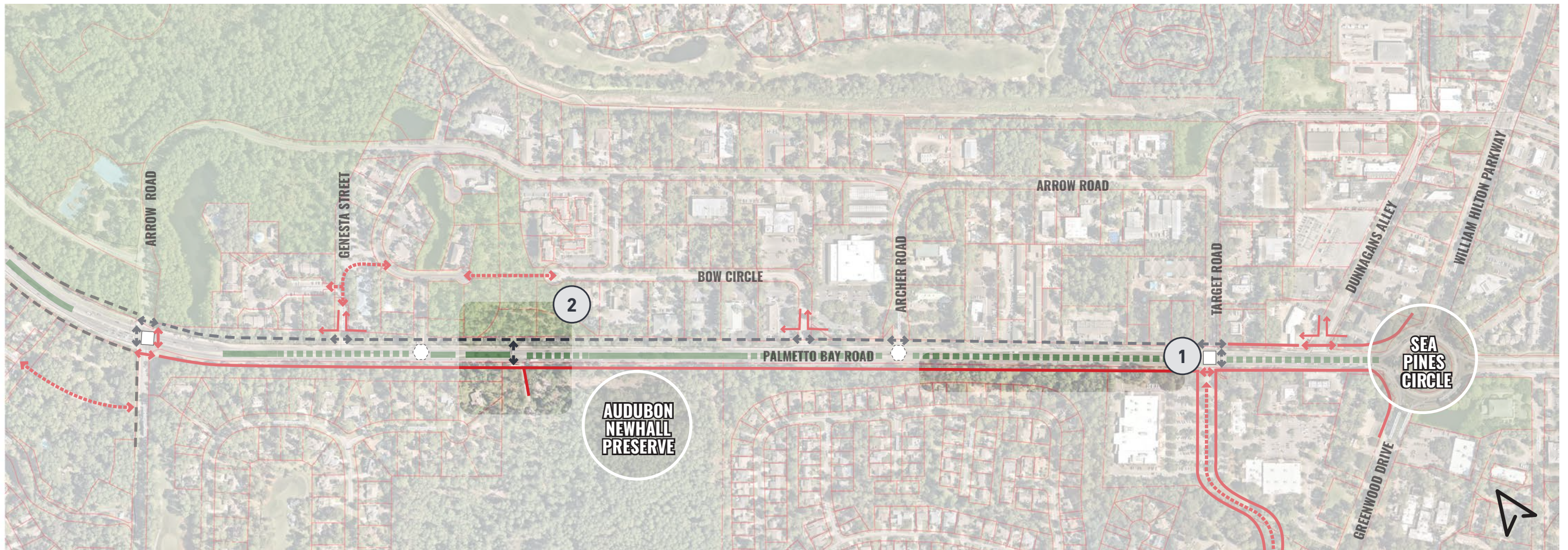
Plan

Palmetto Bay Road
EXISTING CONDITIONS



Roadway Section
Between the Cross Island Parkway and Sea Pines Circle

Palmetto Bay Road ASSESSMENT



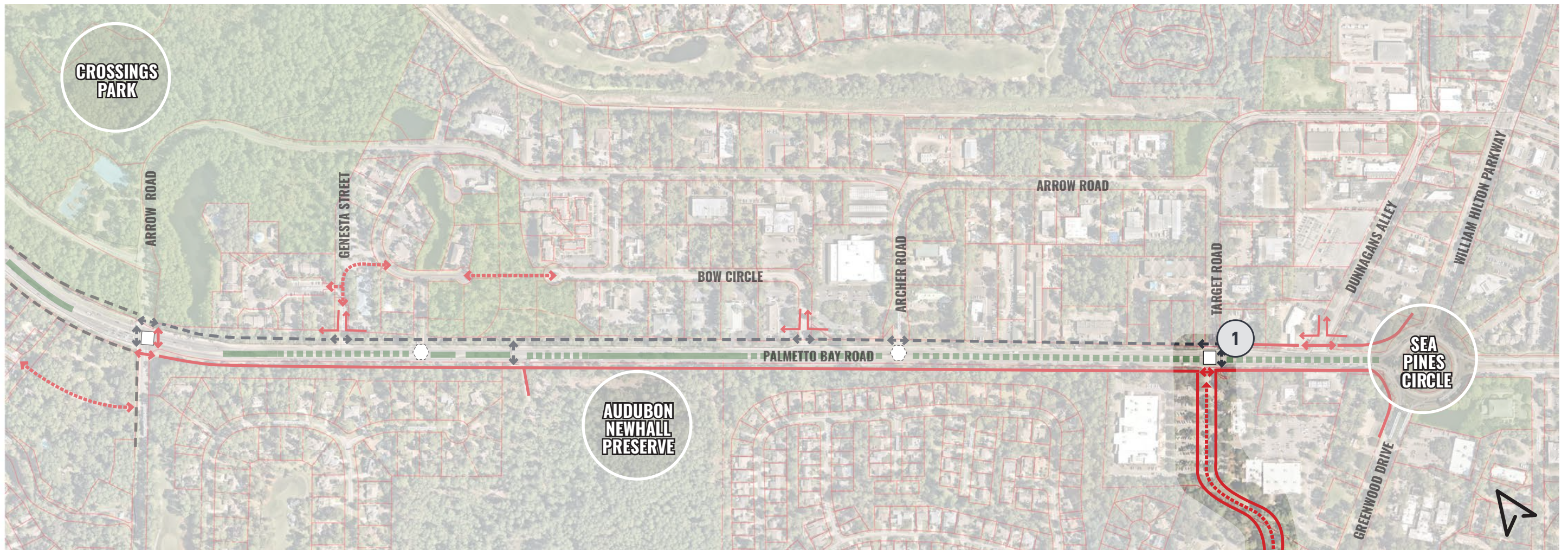
- ① Install pathway on south side of Palmetto Bay Road and missing gaps on north side to improve connectivity
- ② Remove dangerous mid-block crossing at Audubon Newhall Preserve

LEGEND

- EXISTING PLANTED MEDIAN
- EXISTING PATHWAY
- ↔ EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- EXISTING UNSIGNALIZED INTERSECTION
- COORDINATE WITH PROPERTY OWNERS TO CONSOLIDATE DRIVES AND INSTALL PLANTED MEDIAN
- PROPOSED PATHWAY
- ↔ PROPOSED PATHWAY CROSSING
- ↔ PROPOSED DRIVE CONNECTION

Talking Point: Pathways / Crossings

Palmetto Bay Road ASSESSMENT



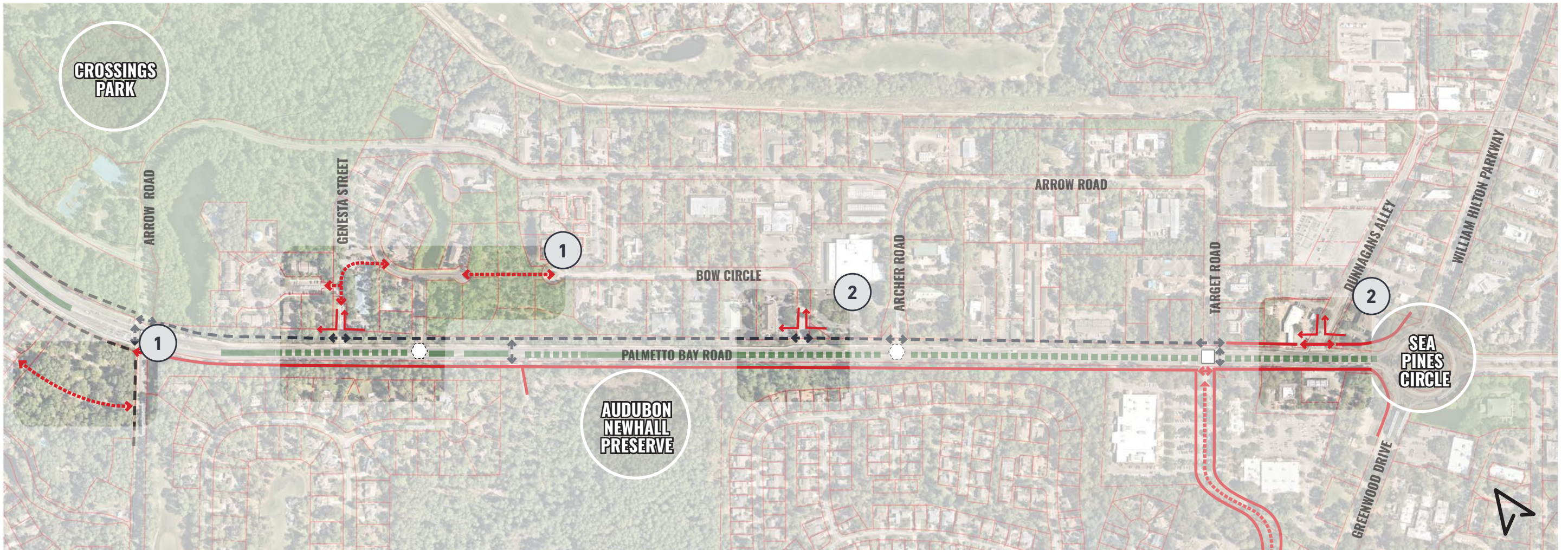
- ① Consider connection to Greenwood Drive to facilitate regional multimodal connectivity in conjunction with Sea Pines Circle improvements

LEGEND

- EXISTING PLANTED MEDIAN
- - - EXISTING PATHWAY
- ↔ EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- EXISTING UNSIGNALIZED INTERSECTION
- - - COORDINATE WITH PROPERTY OWNERS TO CONSOLIDATE DRIVES AND INSTALL PLANTED MEDIAN
- PROPOSED PATHWAY
- ↔ PROPOSED PATHWAY CROSSING
- ↔ PROPOSED DRIVE CONNECTION

Talking Point: Intersection Safety

Palmetto Bay Road ASSESSMENT

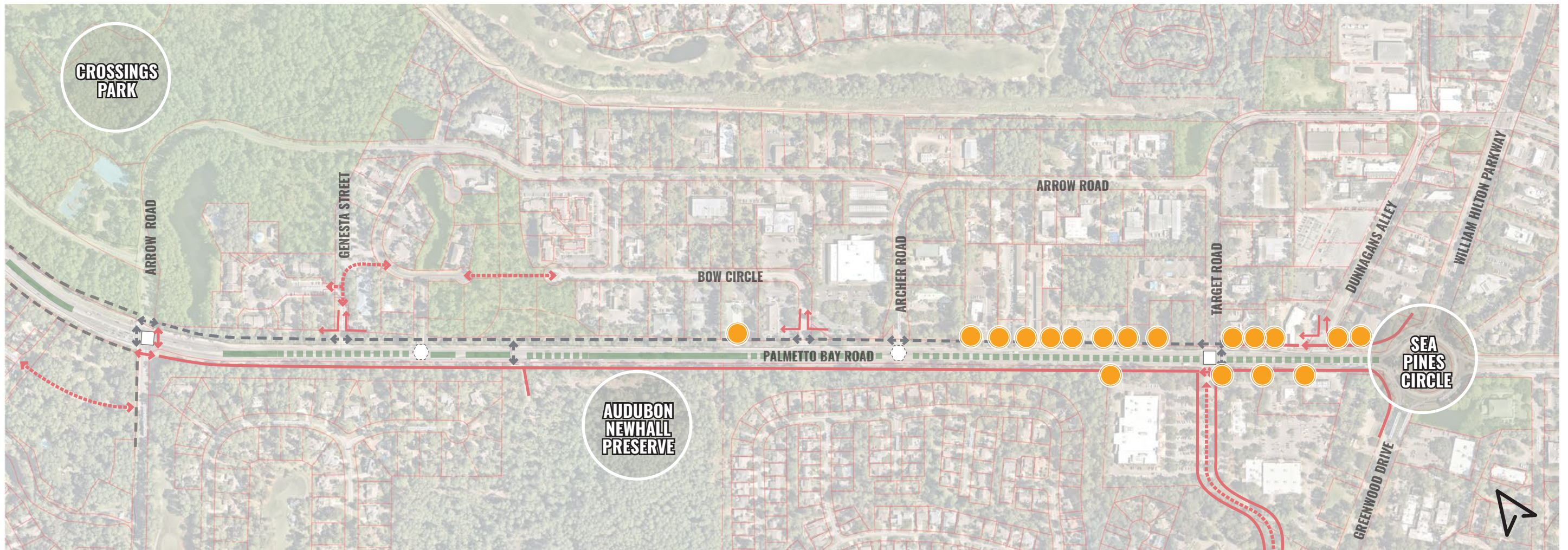


- 1 Coordinate with property owners to consider interconnecting parcels to improve connectivity
- 2 Close median cuts and provide planted median to improve roadway safety where possible

Talking Point: Drive Access and Connectivity

- ## LEGEND
- | | |
|---|--|
|  | EXISTING PLANTED MEDIAN |
|  | EXISTING PATHWAY |
|  | EXISTING PATHWAY CROSSING |
|  | EXISTING SIGNALIZED INTERSECTION |
|  | EXISTING UNSIGNALIZED INTERSECTION |
|  | COORDINATE WITH PROPERTY OWNERS TO CONSOLIDATE DRIVES AND INSTALL PLANTED MEDIAN |
|  | PROPOSED PATHWAY |
|  | PROPOSED PATHWAY CROSSING |
|  | PROPOSED DRIVE CONNECTION |

Palmetto Bay Road ASSESSMENT



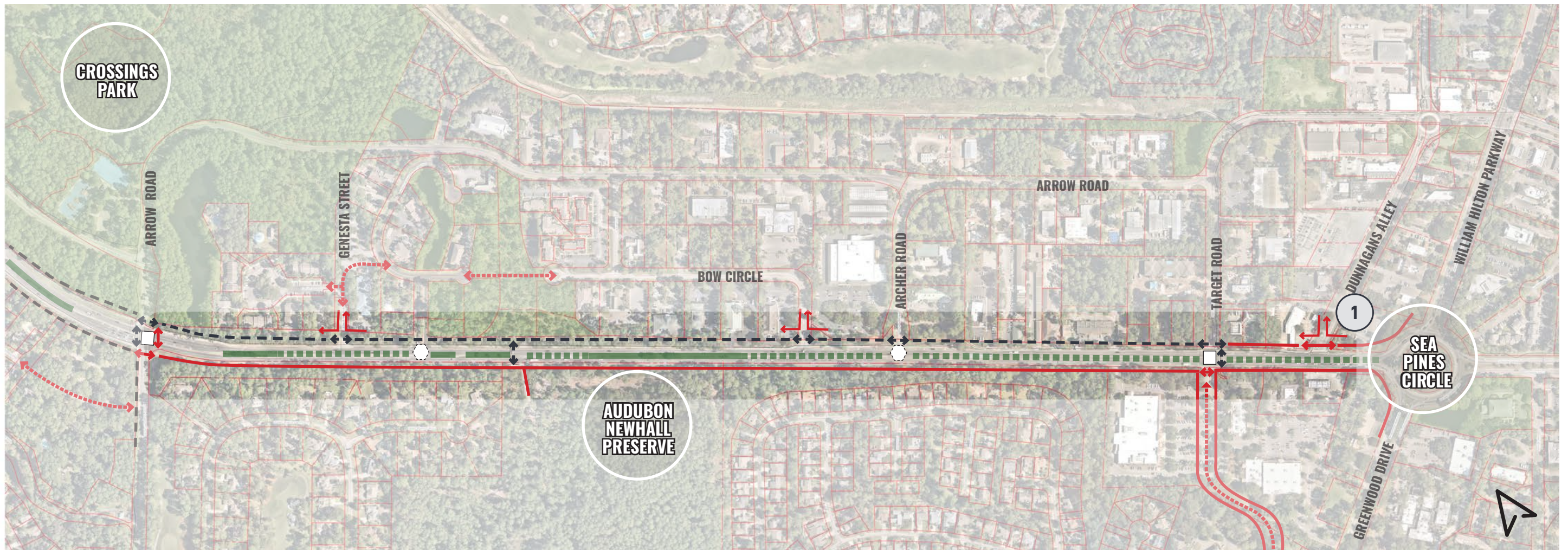
- Coordinate with property owners to consider consolidation of redundant drives, reducing number of curb cuts on Palmetto Parkway. (18 total drives on PBR; 5 drives and turning movements recommended for potential consolidation)

LEGEND

- EXISTING PLANTED MEDIAN
- - - EXISTING PATHWAY
- ↔ EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- EXISTING UNSIGNALIZED INTERSECTION
- - - COORDINATE WITH PROPERTY OWNERS TO CONSOLIDATE DRIVES AND INSTALL PLANTED MEDIAN
- PROPOSED PATHWAY
- ↔ PROPOSED PATHWAY CROSSING
- ↔ PROPOSED DRIVE CONNECTION
- EXISTING VEHICULAR ACCESS

Talking Point: Drive Access and Connectivity

Palmetto Bay Road ASSESSMENT



- 1 Implement updated Palmetto Bay Road section to enhance streetscape functionality, aesthetics, and slow traffic

LEGEND

- EXISTING PLANTED MEDIAN
- - - EXISTING PATHWAY
- ↔ EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- EXISTING UNSIGNALIZED INTERSECTION
- COORDINATE WITH PROPERTY OWNERS TO CONSOLIDATE DRIVES AND INSTALL PLANTED MEDIAN
- PROPOSED PATHWAY
- ↔ PROPOSED PATHWAY CROSSING
- ↔ PROPOSED DRIVE CONNECTION

Talking Point: Roadway Layout

Palmetto Bay Road ROADWAY SECTION

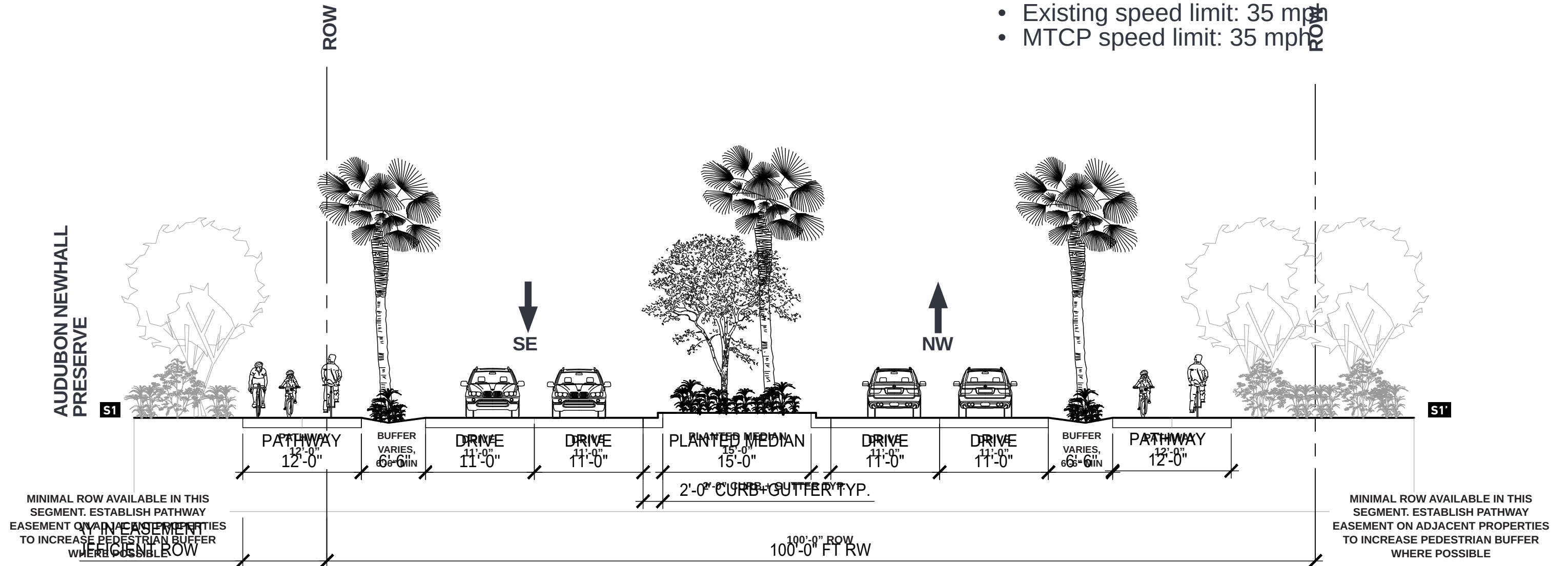
Speed Limit Considerations

Arrow Road / Point Comfort to Archer Road

- Existing speed limit: 45 mph
- MTCP speed limit: 35 mph

Archer Road to Sea Pines Circle

- Existing speed limit: 35 mph
- MTCP speed limit: 35 mph



Option for Consideration

Between the Cross Island Parkway and Sea Pines Circle



Pope Avenue

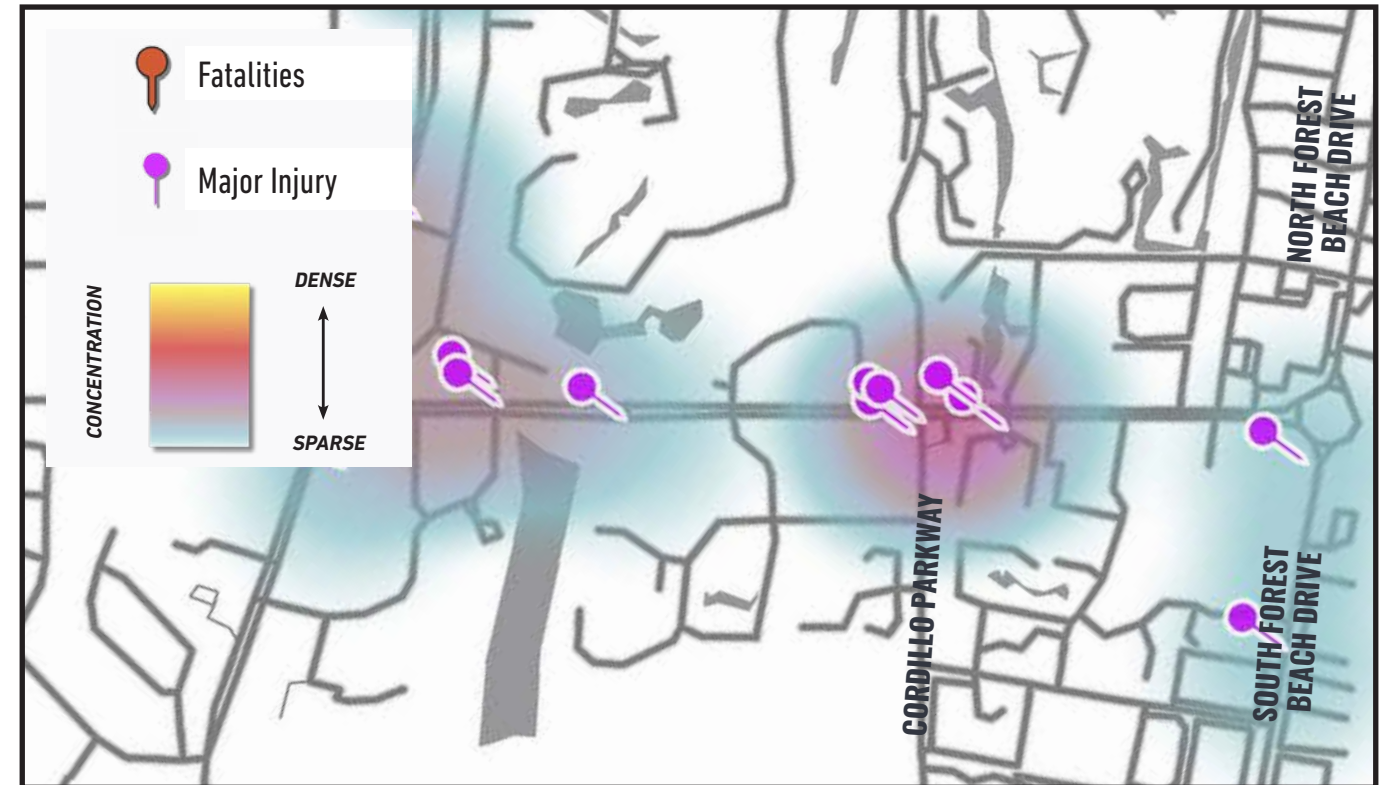
Pope Avenue
PROJECT LOCATION

Pope Avenue
Between Sea Pines Circle and Coligny Circle



WHAT WE HAVE HEARD

- Inconsistent signalized intersection treatment
- Sea Pines Circle to Cordillo Parkway section is efficient
- Cordillo Parkway to Coligny Circle should prioritize non-motorized travel
- High volume of bike and pedestrian crossings introduces significant conflict points
- Congestion at Lagoon Road intersection



Bicycle and pedestrian crashes resulting in fatalities and major injury (2014-2022)

Pope Avenue: Sea Pines Circle to Cordillo Parkway

EXISTING CONDITIONS

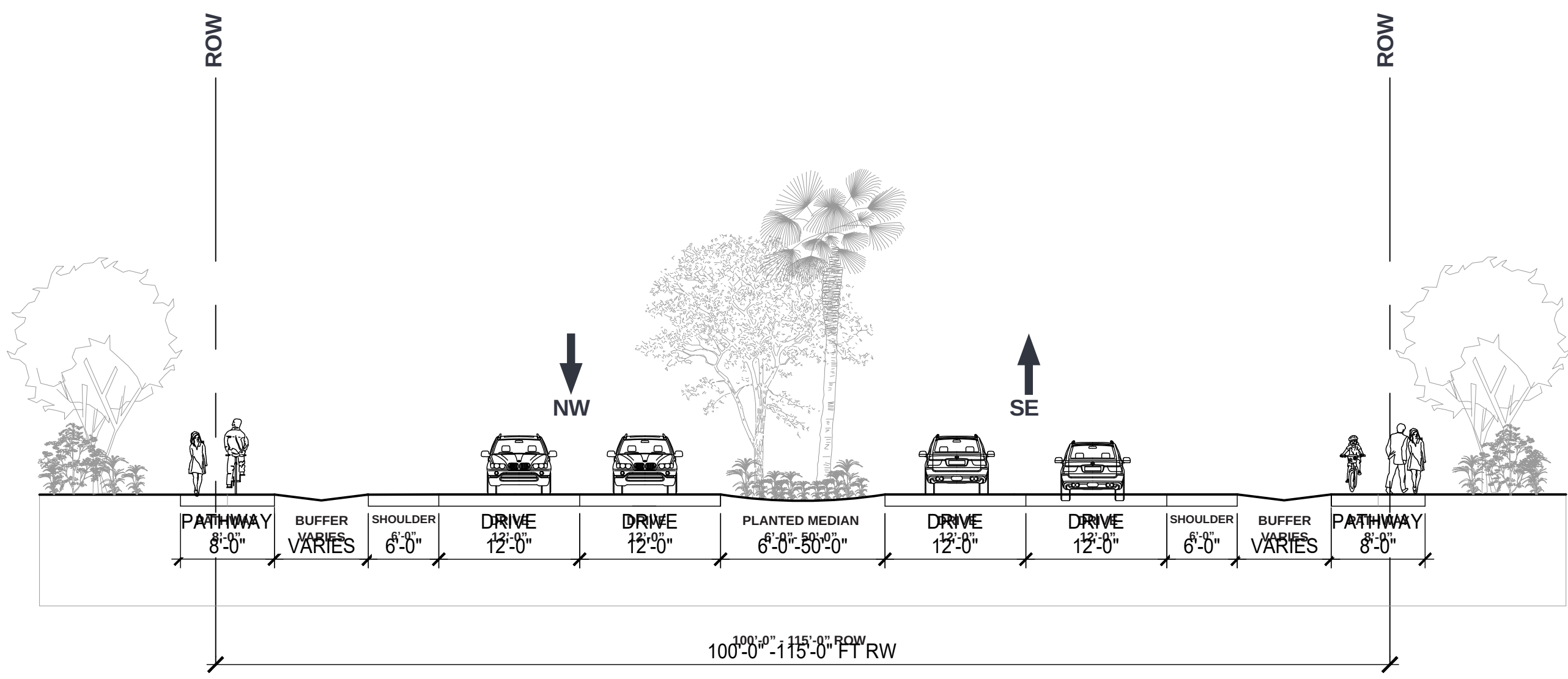


LEGEND

- EXISTING PLANTED MEDIAN
- EXISTING PATHWAY
- EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- EXISTING UNSIGNALIZED INTERSECTION
- EXISTING VEHICULAR ACCESS
- TOWN-OWNED LAND

Pope Avenue: Sea Pines Circle to Cordillo Parkway

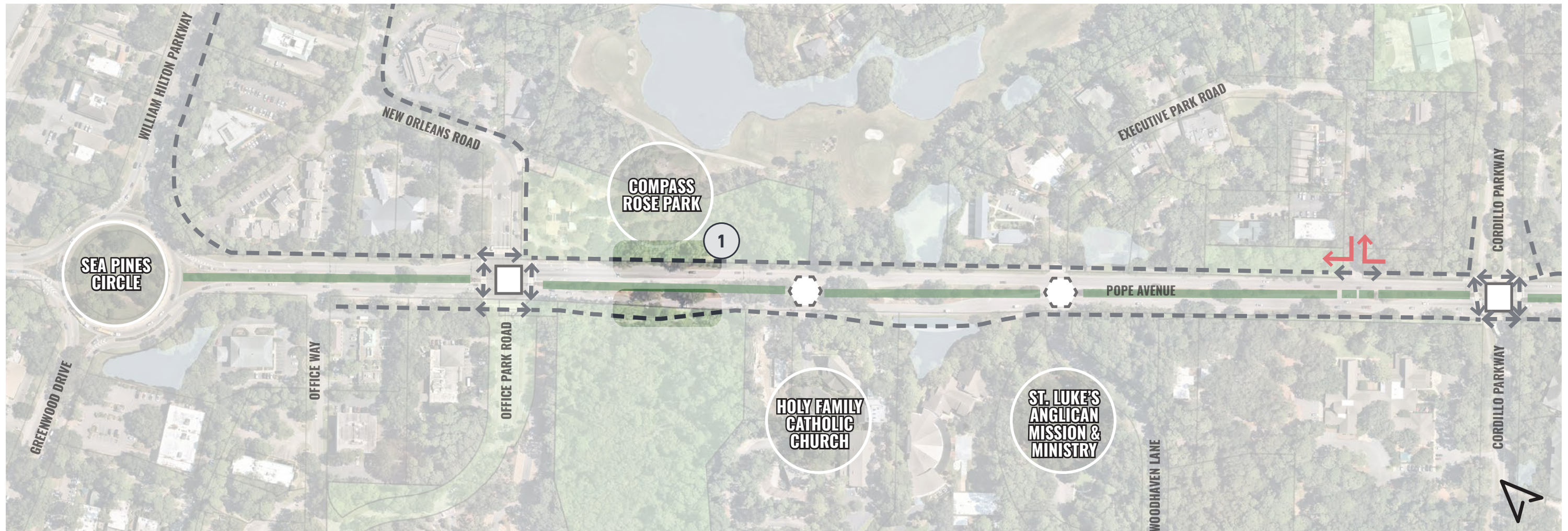
EXISTING CONDITIONS



Roadway Section

Pope Avenue: Sea Pines Circle to Cordillo Parkway

ASSESSMENT



- ① Widen existing pathways to 12'-0" on both sides of Pope Avenue

Talking Point: Pathways / Crossings

LEGEND

- EXISTING PLANTED MEDIAN
- EXISTING PATHWAY
- ↔ EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- EXISTING UNSIGNALIZED INTERSECTION
- COORDINATE WITH PROPERTY OWNERS TO CONSOLIDATE DRIVES AND INSTALL PLANTED MEDIAN
- PROPOSED PATHWAY
- ↔ PROPOSED PATHWAY CROSSING
- ↕ PROPOSED TURNING MOVEMENT ADJUSTMENT

Pope Avenue: Sea Pines Circle to Cordillo Parkway

ASSESSMENT



- Coordinate with property owners to consider consolidation of redundant drives, reducing number of curb cuts on Pope Avenue between Sea Pines Circle and Cordillo Parkway. (3 total drives on Pope; 1 drives and turning movements recommended for potential consolidation)

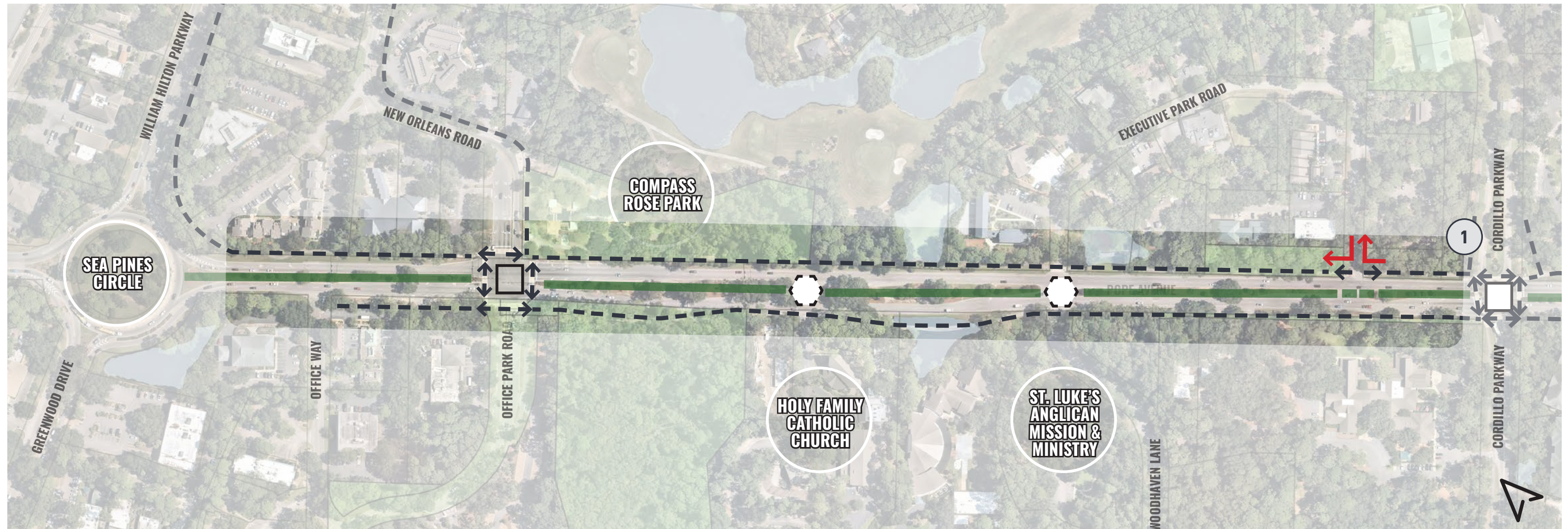
Talking Point: Drive Access and Connectivity

LEGEND

- EXISTING PLANTED MEDIAN
- - - EXISTING PATHWAY
- ↔ EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- ⬢ EXISTING UNSIGNALIZED INTERSECTION
- COORDINATE WITH PROPERTY OWNERS TO CONSOLIDATE DRIVES AND INSTALL PLANTED MEDIAN
- PROPOSED PATHWAY
- ↔ PROPOSED PATHWAY CROSSING
- ↕ PROPOSED TURNING MOVEMENT ADJUSTMENT
- EXISTING VEHICULAR ACCESS

Pope Avenue: Sea Pines Circle to Cordillo Parkway

ASSESSMENT



- 1 Implement updated section between Sea Pines Circle and Cordillo Parkway to enhance streetscape functionality, aesthetics, and to slow traffic. Updates include reduced lane width, shoulder removal and expanded pathways

LEGEND

- EXISTING PLANTED MEDIAN
- EXISTING PATHWAY
- ↔ EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- EXISTING UNSIGNALIZED INTERSECTION
- COORDINATE WITH PROPERTY OWNERS TO CONSOLIDATE DRIVES AND INSTALL PLANTED MEDIAN
- PROPOSED PATHWAY
- ↔ PROPOSED PATHWAY CROSSING
- ↗↖ PROPOSED TURNING MOVEMENT ADJUSTMENT

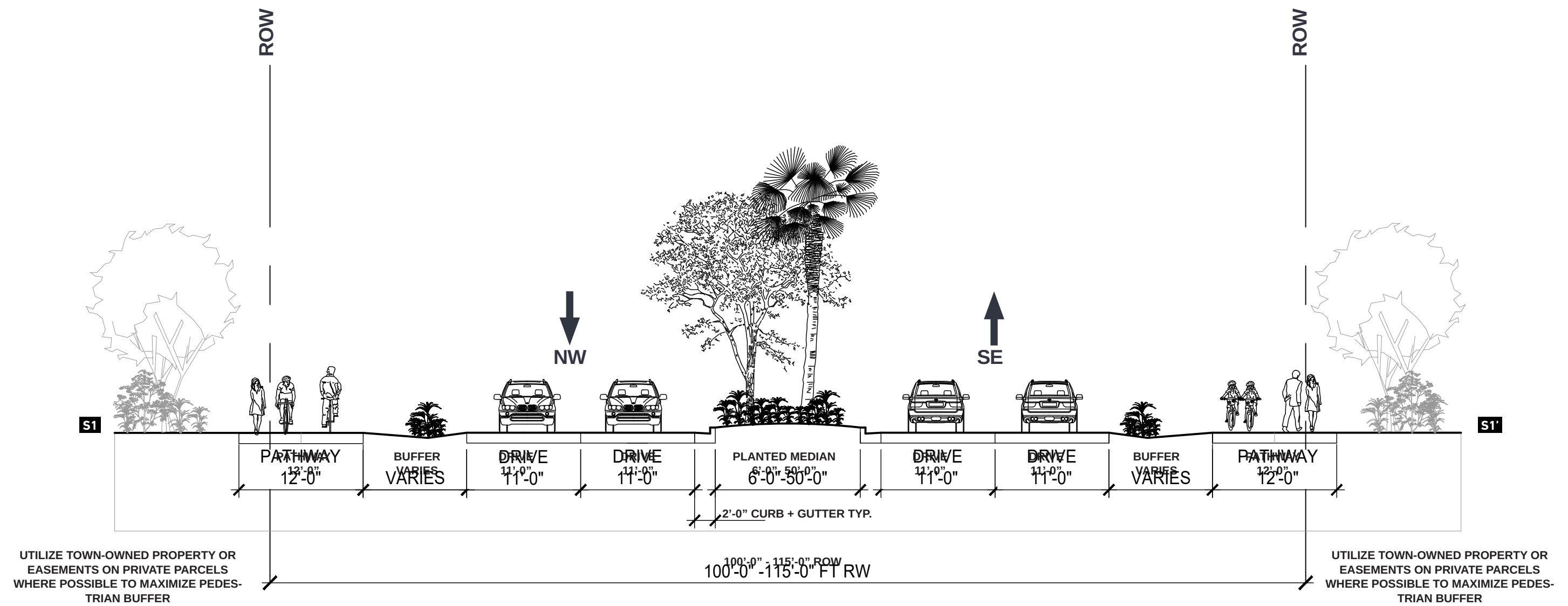
Talking Point: Roadway Layout

Pope Avenue: Sea Pines Circle to Cordillo Parkway

ROADWAY SECTION

Speed Limit Considerations

- Existing speed limit: 35 mph
- MTCP speed limit: 35 mph



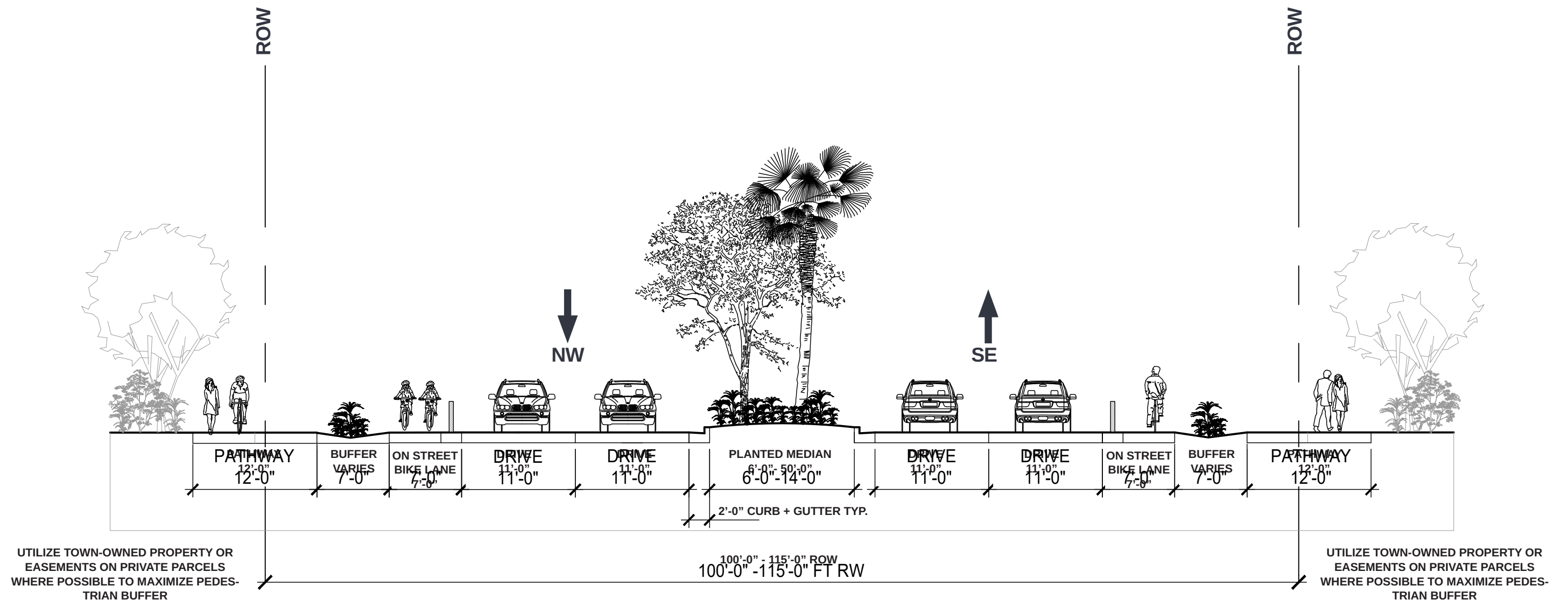
Option for Consideration

Pope Avenue: Sea Pines Circle to Cordillo Parkway

ROADWAY SECTION

On Street Bike Lane Considerations

- Existing speed limit: 35 mph
- MTCP speed limit: 35 mph
- Traffic volume: +/- 33,900 AADT
- Increased easement / ROW acquisition required or reduction in planted median width



Option for Consideration (On Street Bike Lanes)

Pope Avenue: Cordillo Parkway to Coligny Circle

EXISTING CONDITIONS



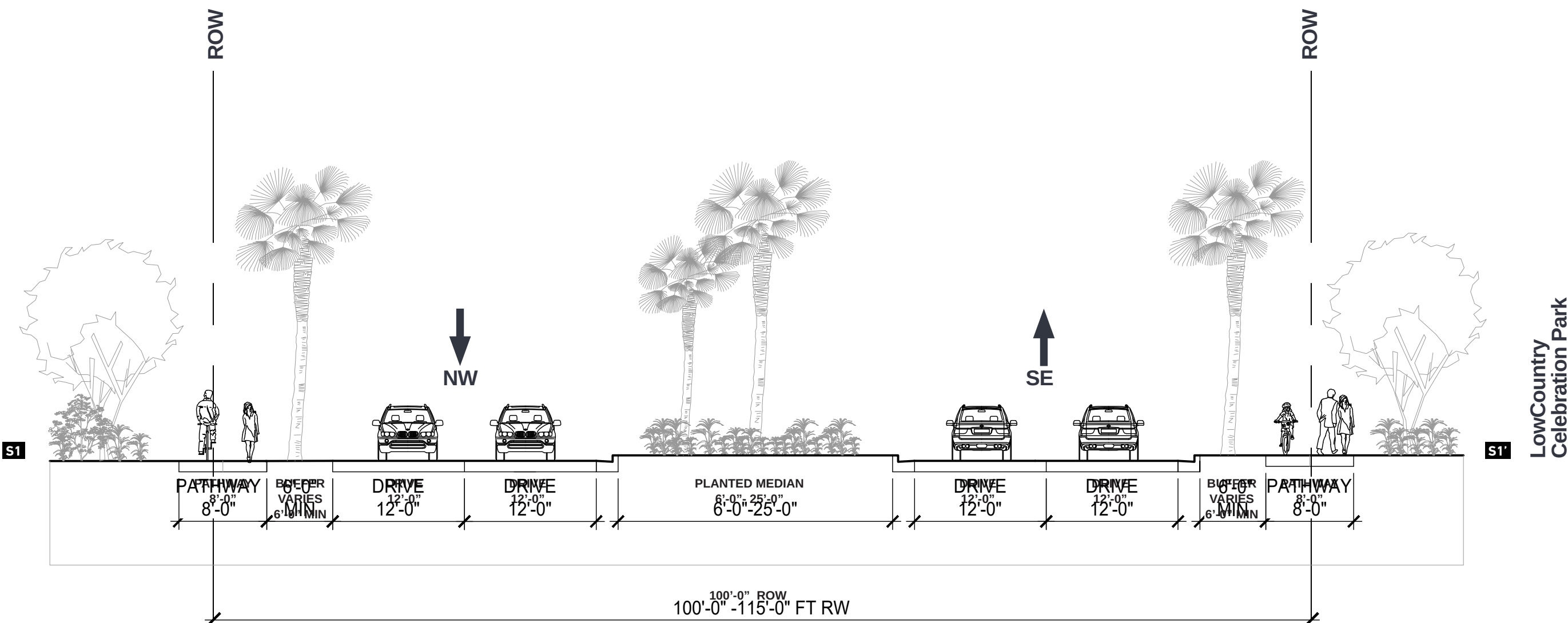
LEGEND

- EXISTING PLANTED MEDIAN
- EXISTING PATHWAY
- EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- EXISTING UNSIGNALIZED INTERSECTION
- EXISTING VEHICULAR ACCESS
- TOWN-OWNED LAND

Plan

Pope Avenue: Cordillo Parkway to Coligny Circle

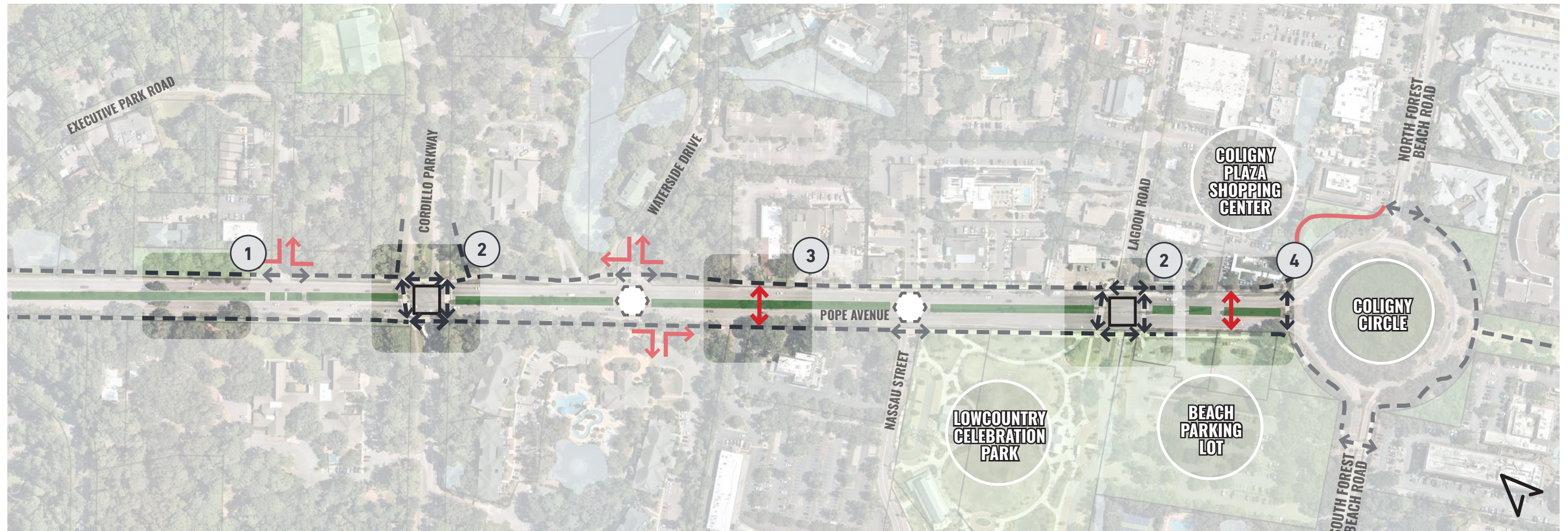
EXISTING CONDITIONS



Roadway Section

Pope Avenue: Cordillo Parkway to Coligny Circle

ASSESSMENT



- ① Widen existing pathways to 16'-0" on both sides of Pope Avenue
- ② Provide tabled intersections to slow vehicular traffic and improve streetscape character
- ③ Implement RRFB crossing in-conjunction with future Town-owned property
- ④ Implement shifted RRFB crossing at unsignalized crossing

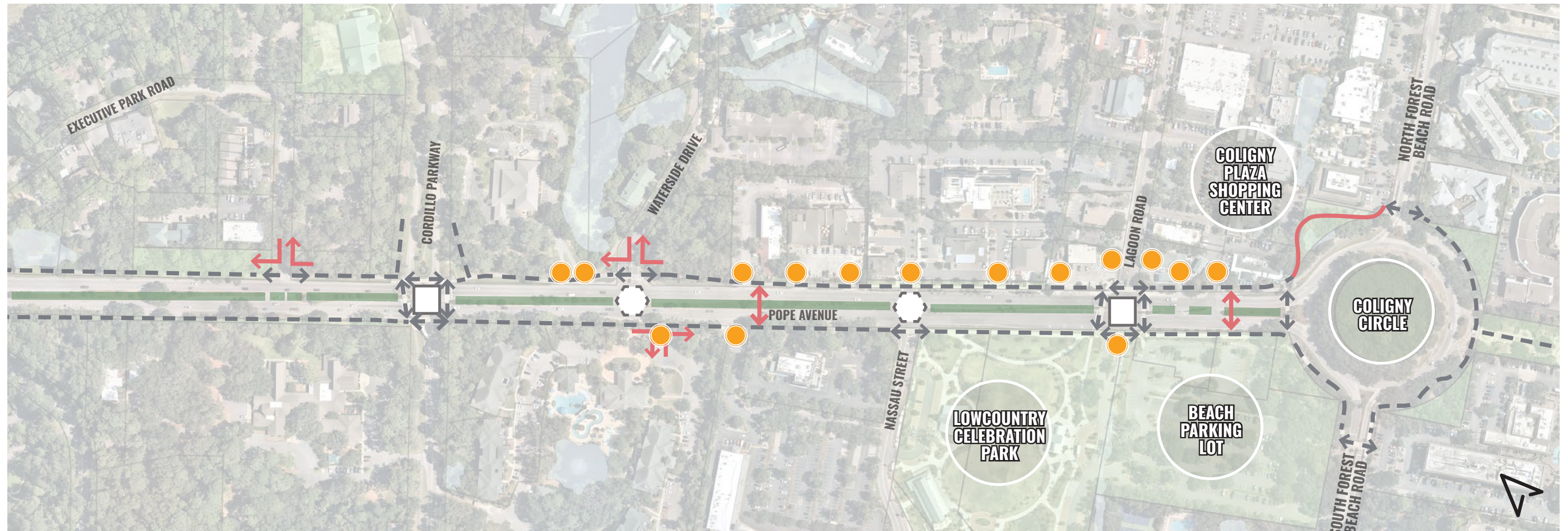
LEGEND

- EXISTING PLANTED MEDIAN
- EXISTING PATHWAY
- ↔ EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- EXISTING UNSIGNALIZED INTERSECTION
- COORDINATE WITH PROPERTY OWNERS TO CONSOLIDATE DRIVES AND INSTALL PLANTED MEDIAN
- PROPOSED PATHWAY
- ↔ PROPOSED PATHWAY CROSSING
- ↗↖ PROPOSED TURNING MOVEMENT ADJUSTMENT

Talking Point: Pathways / Crossings

Pope Avenue: Cordillo Parkway to Coligny Circle

ASSESSMENT



- Coordinate with property owners to consider consolidation of redundant drives, reducing number of curb cuts on Pope Avenue between Cordillo Parkway and Coligny Circle. **(16 total drives on Pope; 5 drives and turning movements recommended for potential consolidation)**

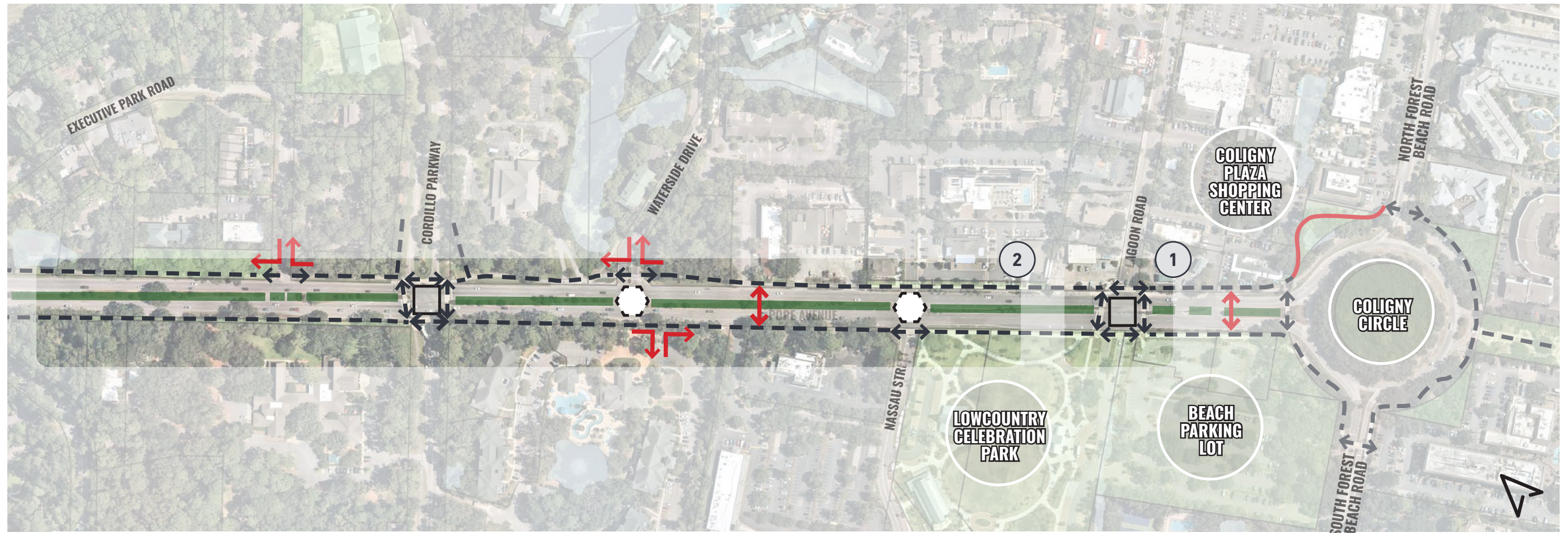
LEGEND

- EXISTING PLANTED MEDIAN
- EXISTING PATHWAY
- EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- EXISTING UNSIGNALIZED INTERSECTION
- COORDINATE WITH PROPERTY OWNERS TO CONSOLIDATE DRIVES AND INSTALL PLANTED MEDIAN
- PROPOSED PATHWAY
- PROPOSED PATHWAY CROSSING
- PROPOSED TURNING MOVEMENT ADJUSTMENT
- EXISTING VEHICULAR ACCESS

Talking Point: Drive Access and Connectivity

Pope Avenue: Cordillo Parkway to Coligny Circle

ASSESSMENT



- 1 Pursue strategies to increase capacity for both bike/ped crossings and vehicular turning movements at Lagoon Road including but not limited to:
 - Pedestrian-only signal
 - Timing
 - Queuing length and reallocation
 - Removal of on street parking and
 - Restricting movements

- 2 Implement updated section between Cordillo Parkway and Coligny Circle to enhance streetscape functionality, aesthetics, and to slow traffic. Updates include On Street parking, site furnishings, and pathway lighting

LEGEND

- EXISTING PLANTED MEDIAN
- EXISTING PATHWAY
- ↔ EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- EXISTING UNSIGNALIZED INTERSECTION
- COORDINATE WITH PROPERTY OWNERS TO CONSOLIDATE DRIVES AND INSTALL PLANTED MEDIAN
- PROPOSED PATHWAY
- ↔ PROPOSED PATHWAY CROSSING
- ↗↖ PROPOSED TURNING MOVEMENT ADJUSTMENT

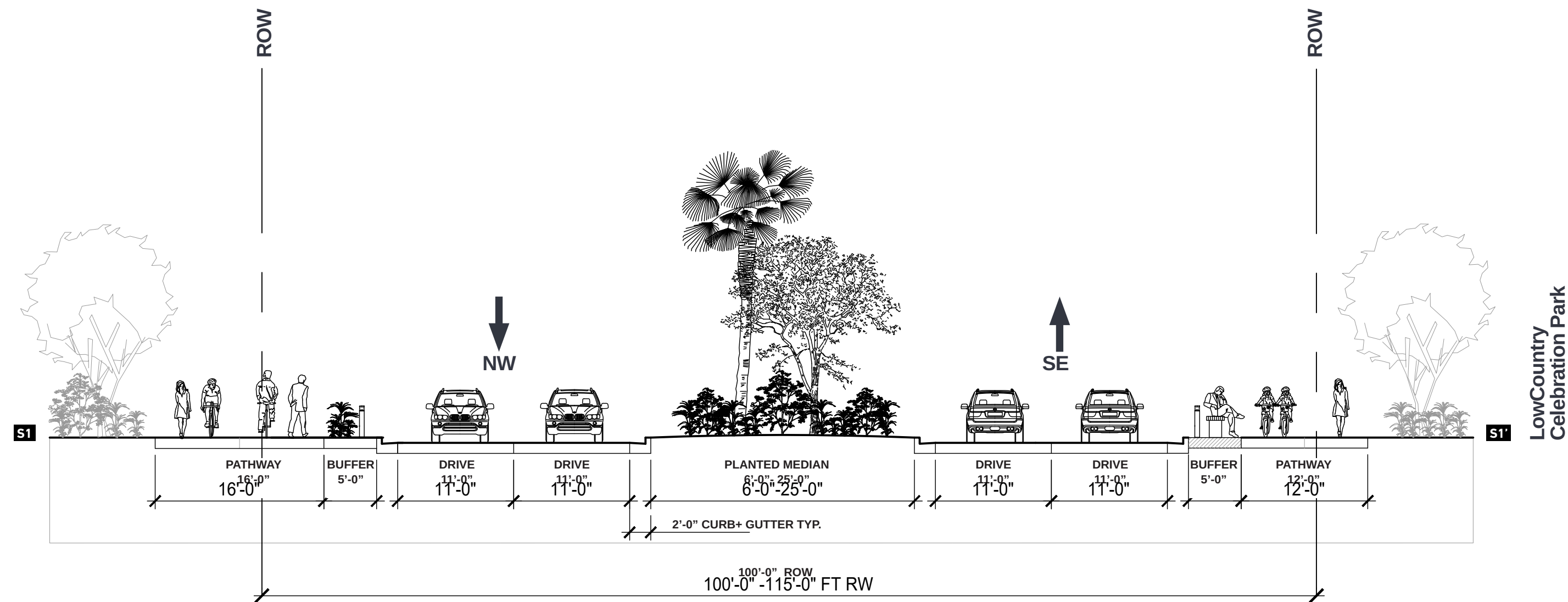
Talking Point: Roadway Layout

Pope Avenue: Cordillo Parkway to Coligny Circle

ROADWAY SECTION

Speed Limit Considerations

- Existing speed limit: 30 mph
- MTCP speed limit: 25 mph



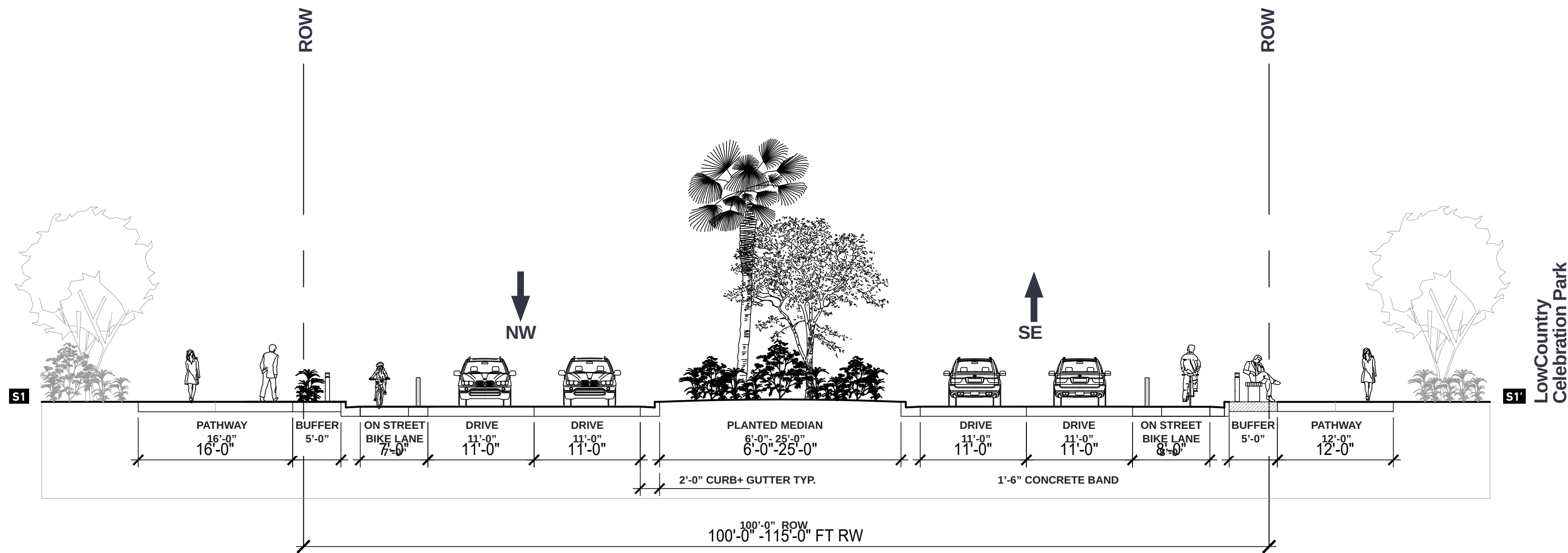
Option for Consideration

Pope Avenue: Cordillo Parkway to Coligny Circle

ROADWAY SECTION

On Street Bike Lane Considerations

- Existing speed limit: 30 mph
- MTCP speed limit: 25 mph
- Traffic volume: +/- 24,500 AADT
- Increased easement / ROW acquisition required or reduction in planted median width



Option for Consideration (On Street Bike Lanes)

Between Coligny Circle and Cordillo Parkway



North & South Forest Beach Drive

North & South Forest Beach Drive **PROJECT LOCATION**

South Forest Beach Drive
Between Coligny Circle and Deallyon Avenue

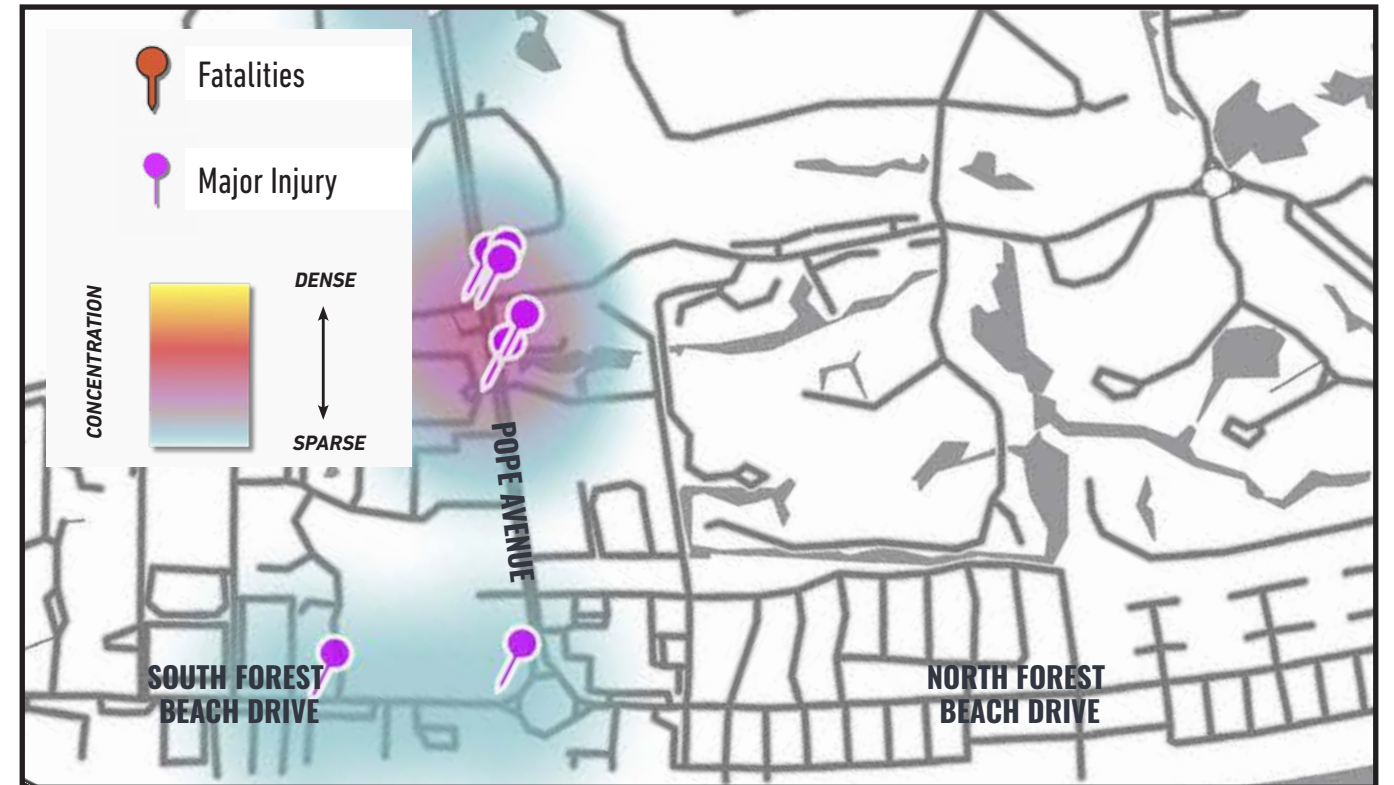
North Forest Beach Drive
Between Coligny Circle and Avocet Road



North & South Forest Beach Drive

WHAT WE HAVE HEARD

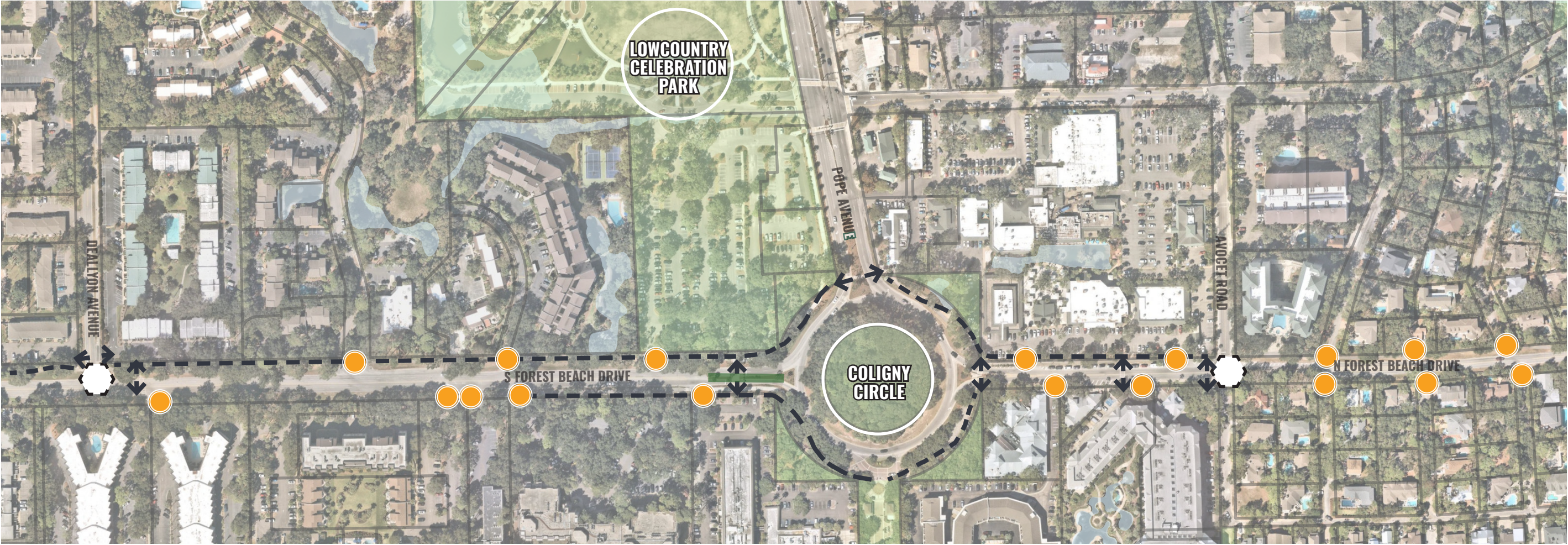
- Unsignalized pedestrian crossings
- Wide crossing distance on South Forest Beach Drive
- Lack of beach-side pathway
- High volume bike and pedestrian crossings
- Bike and pedestrian conflict points



Bicycle and pedestrian crashes resulting in fatalities and major injury (2014-2022)

North & South Forest Beach Drive

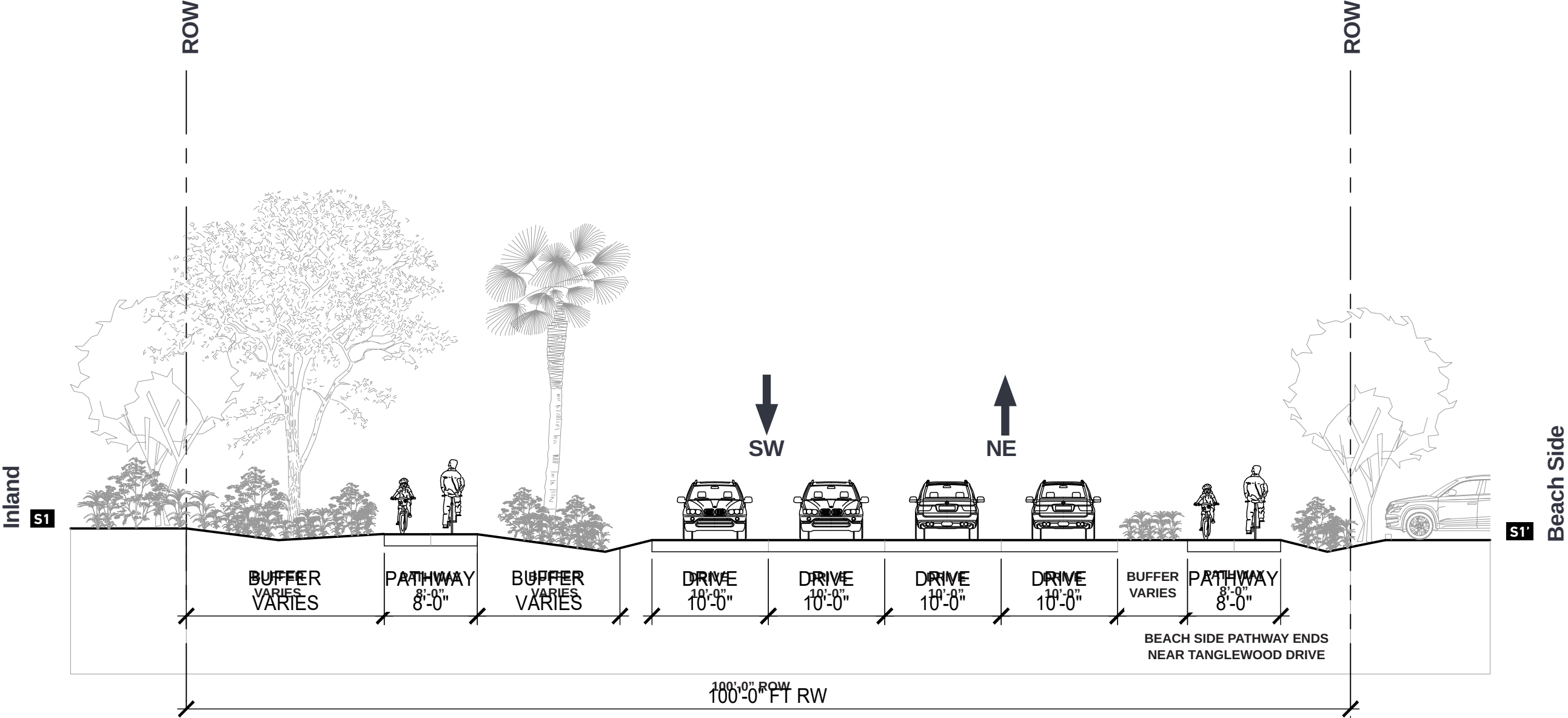
EXISTING CONDITIONS



- LEGEND**
- EXISTING PLANTED MEDIAN
 - EXISTING PATHWAY
 - EXISTING PATHWAY CROSSING
 - EXISTING SIGNALIZED INTERSECTION
 - EXISTING UNSIGNALIZED INTERSECTION
 - EXISTING VEHICULAR ACCESS
 - TOWN-OWNED LAND

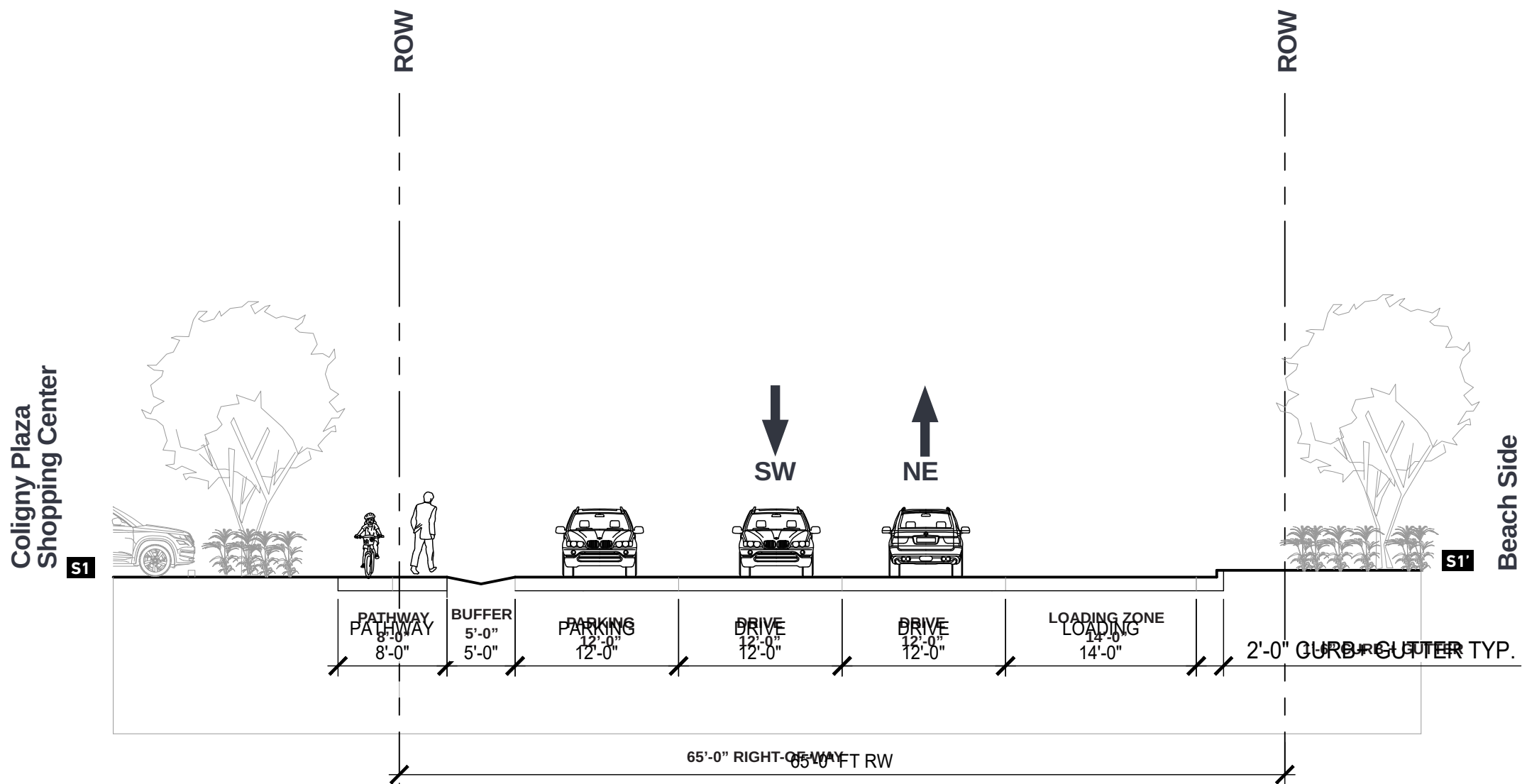
Plan

South Forest Beach Drive
EXISTING CONDITIONS



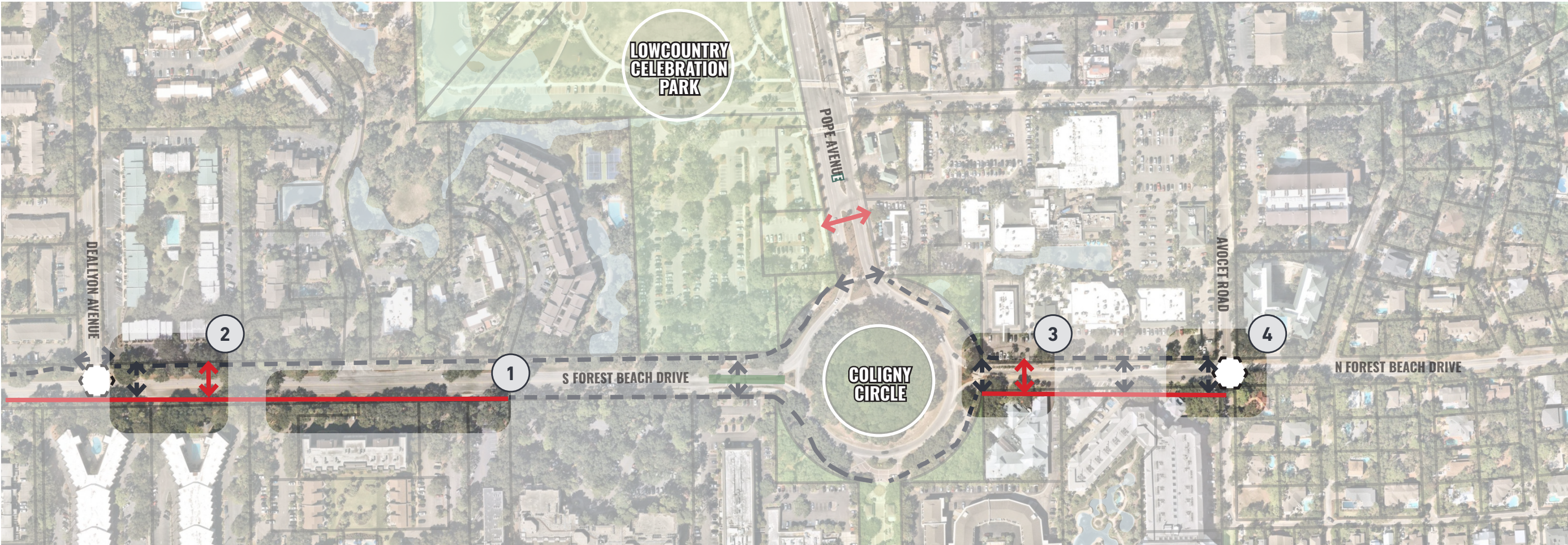
Roadway Section
Between Coligny Circle and Deallyon Avenue

North Forest Beach Drive
EXISTING CONDITIONS



Roadway Section
Between Coligny Circle and Avocet Road

North & South Forest Beach Drive ASSESSMENT



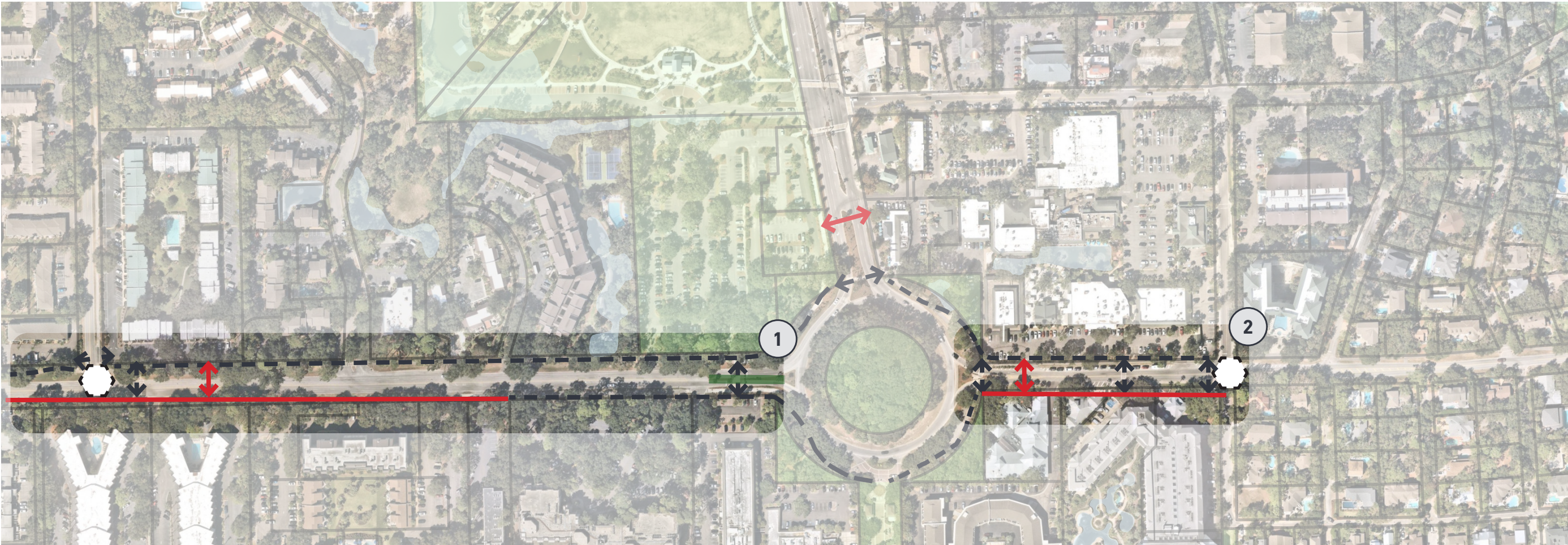
- 1 Provide new pathway connections along beach-side of North and South Forest Beach Drive
- 2 Provide RRFB at new location, 100' from Deallyon intersection.
- 3 Remove existing uncontrolled crossing across from Frosty's Closet and install HAWK signal further north
- 4 Provide RRFB and raised crossing at Avocet intersection. Stop sign may be considered in the future to manage traffic and pedestrian crossings

LEGEND

- EXISTING PLANTED MEDIAN
- EXISTING PATHWAY
- EXISTING PATHWAY CROSSING
- EXISTING SIGNALIZED INTERSECTION
- EXISTING UNSIGNALIZED INTERSECTION
- COORDINATE WITH PROPERTY OWNERS TO CONSOLIDATE DRIVES AND INSTALL PLANTED MEDIAN
- PROPOSED PATHWAY
- PROPOSED PATHWAY CROSSING
- PROPOSED TURNING MOVEMENT ADJUSTMENT

Talking Point: Pathways / Crossings

North & South Forest Beach Drive ASSESSMENT



- 1 Implement new roadway section on South Forest Beach Drive from Deallyon Avenue to Coligny Circle. Consider future implementation south, to Elderberry Lane with pathway extensions to Cordillo Parkway
- 2 Implement new roadway section on North Forest Beach Drive from Coligny Circle to Avocet Road.

LEGEND

EXISTING PLANTED MEDIAN

EXISTING PATHWAY

EXISTING PATHWAY CROSSING

EXISTING SIGNALIZED INTERSECTION

EXISTING UNSIGNALIZED INTERSECTION

COORDINATE WITH PROPERTY OWNERS TO CONSOLIDATE DRIVES AND INSTALL PLANTED MEDIAN

PROPOSED PATHWAY

PROPOSED PATHWAY CROSSING

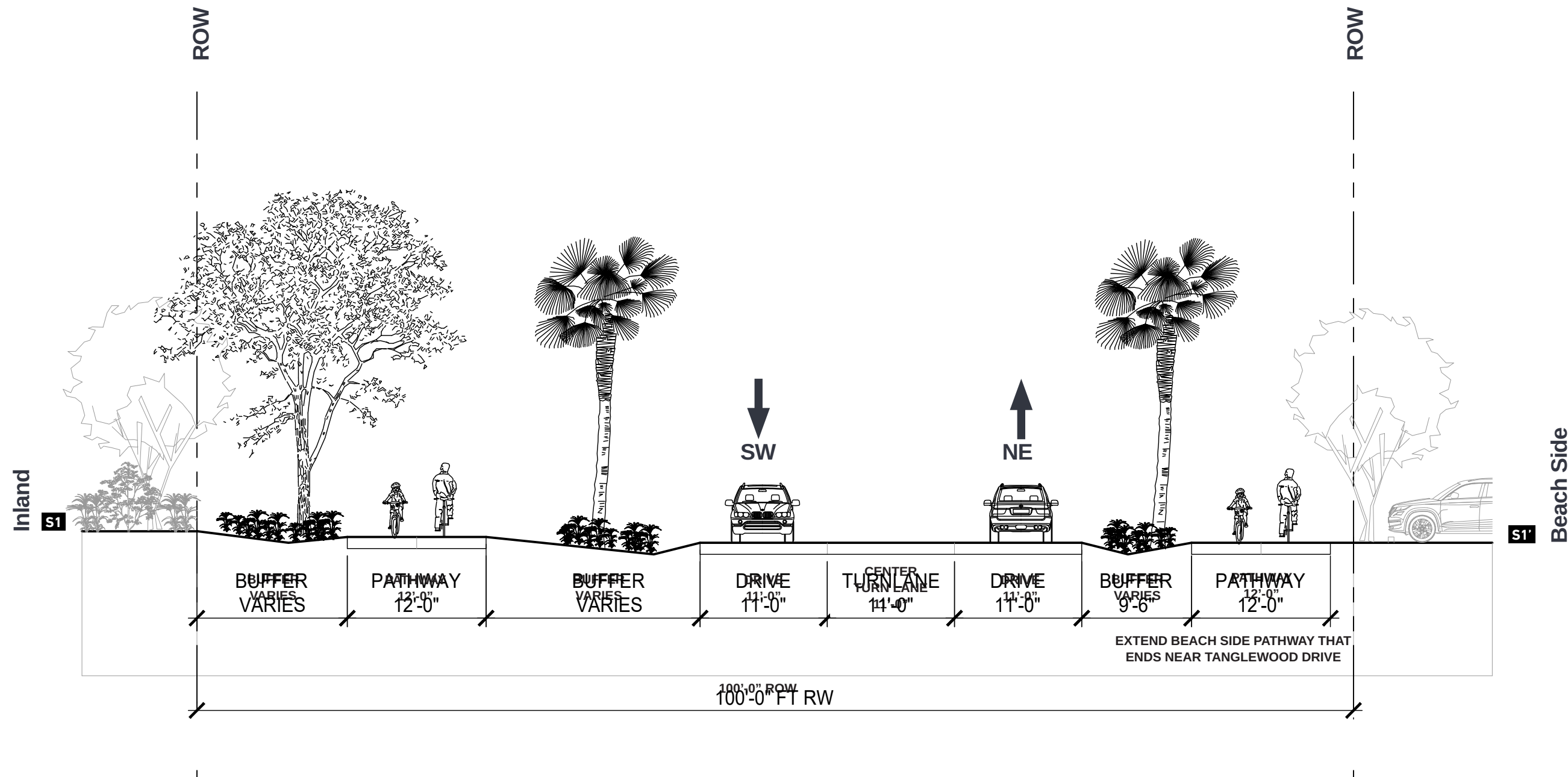
PROPOSED TURNING MOVEMENT ADJUSTMENT

Talking Point: Roadway Layout

South Forest Beach Drive
ROADWAY SECTION

Speed Limit Considerations

- Existing speed limit: 30 mph
- MTCP speed limit: 25 mph

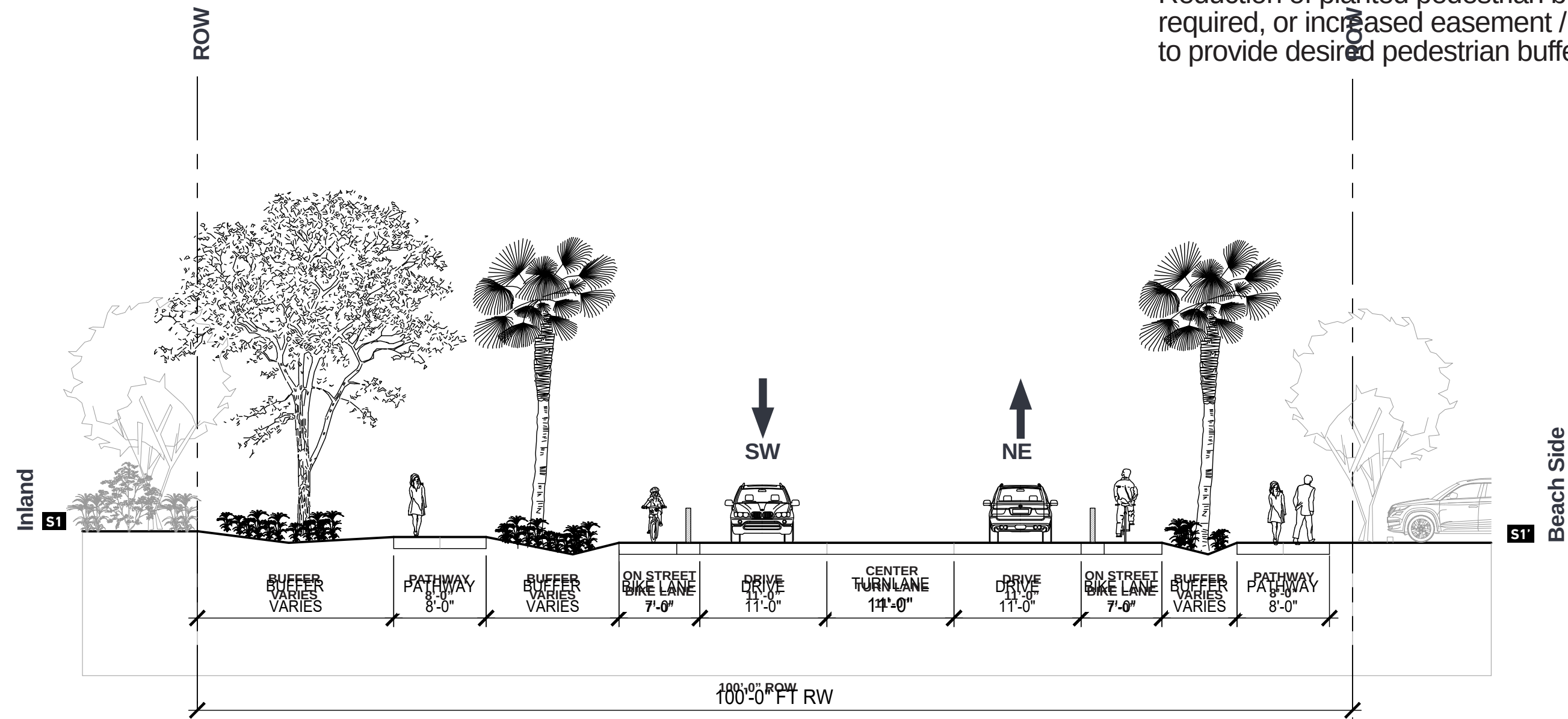


Option for Consideration
Between Coligny Circle and Deallyon Avenue

South Forest Beach Drive
ROADWAY SECTION

On Street Bike Lane Considerations

- Existing speed limit: 30 mph
- MTCP speed limit: 25 mph
- Traffic volume: +/- 6,600 AADT
- Reduction of planted pedestrian buffer required, or increased easement / ROW to provide desired pedestrian buffer

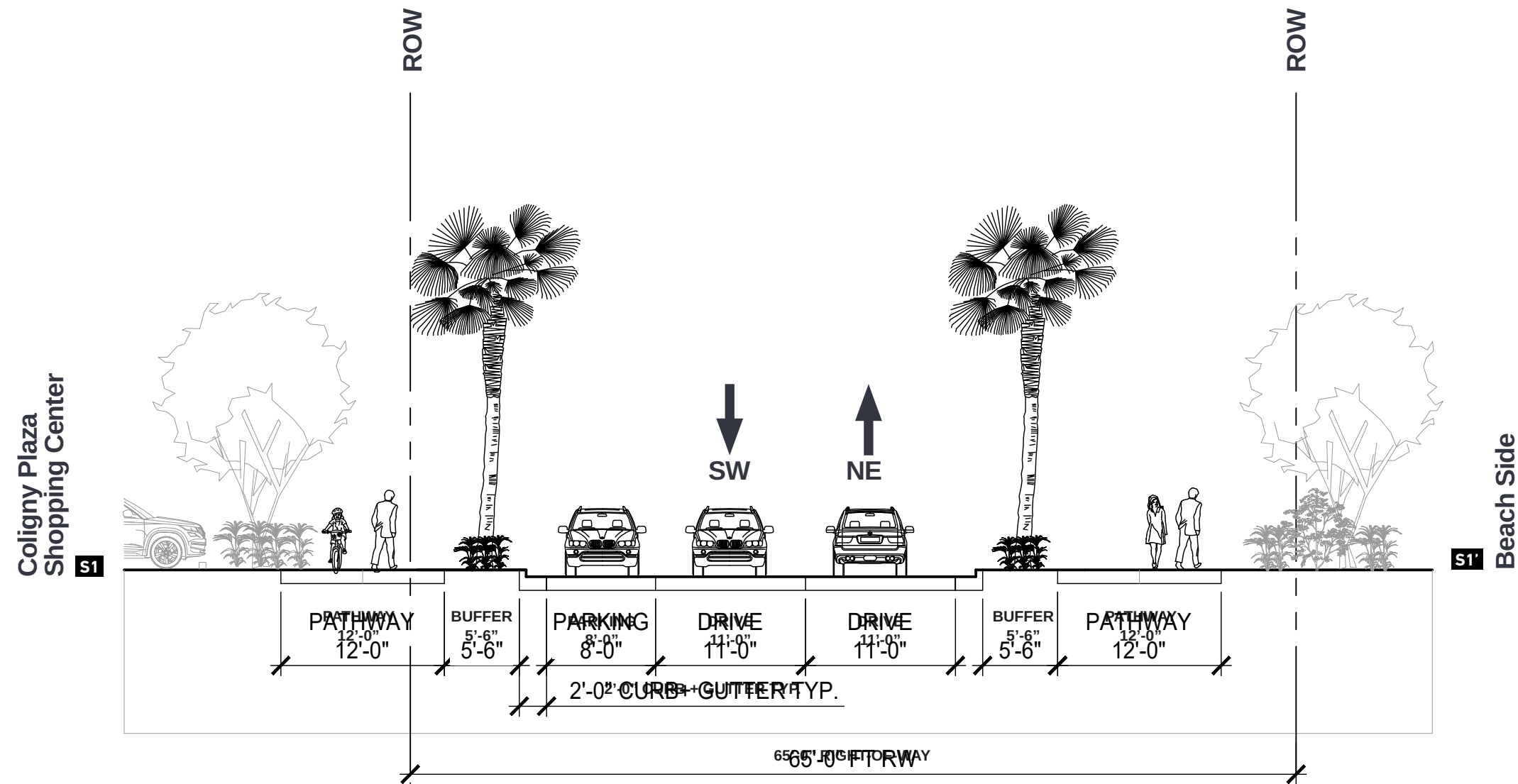


Option for Consideration (On Street Bike Lanes)
Between Coligny Circle and Deallyon Avenue

North Forest Beach Drive
ROADWAY SECTION

Speed Limit Considerations

- Existing speed limit: 30 mph
- MTCP speed limit: 25 mph

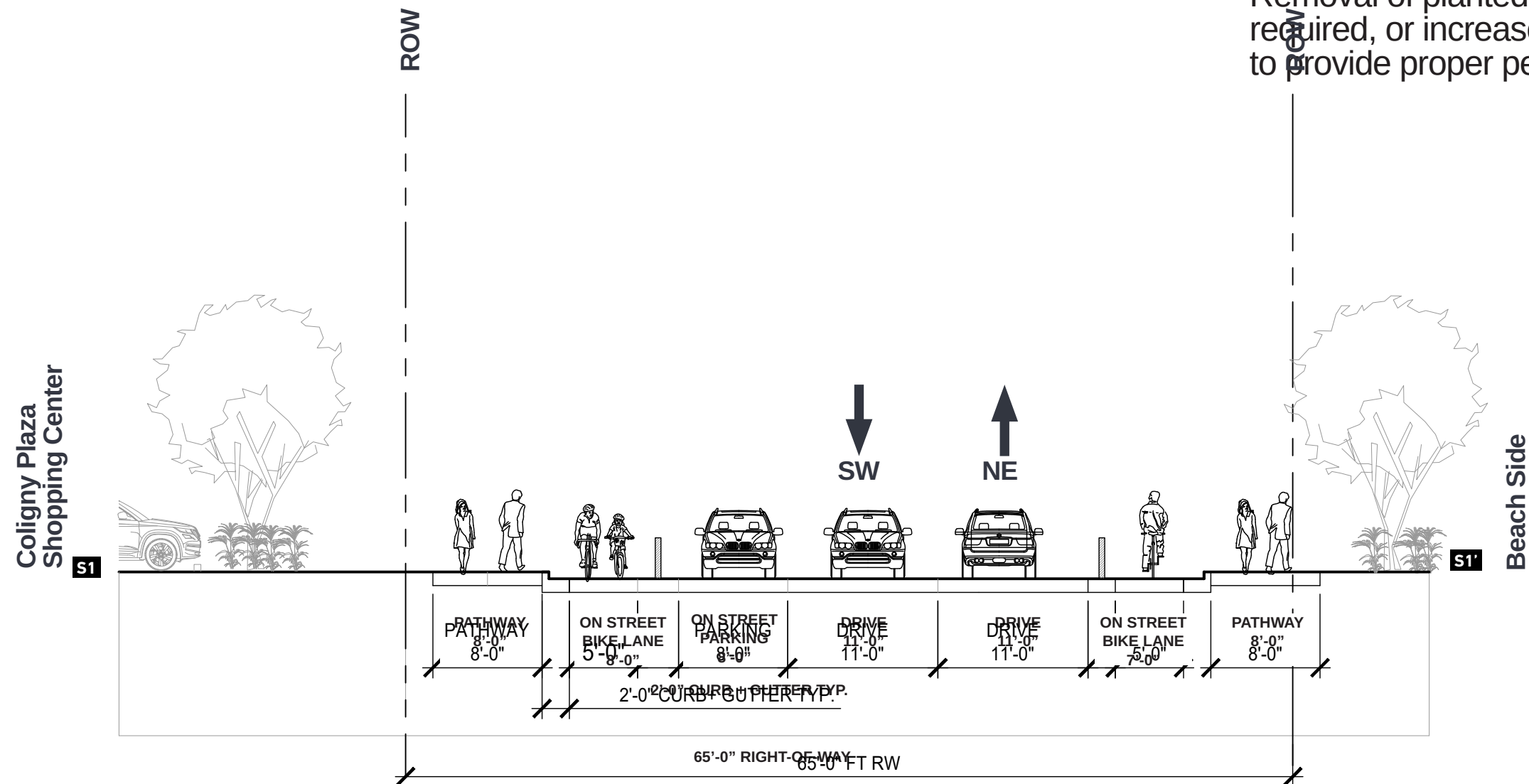


Option for Consideration
Between Coligny Circle and Avocet Road

North Forest Beach Drive ROADWAY SECTION

On Street Bike Lane Considerations

- Existing speed limit: 30 mph
- MTCP speed limit: 25 mph
- Traffic volume: +/- 3,200 AADT
- Removal of planted pedestrian buffer required, or increased easement / ROW to provide proper pedestrian buffer



Option for Consideration (On Street Bike Lanes)

Between Coligny Circle and Avocet Road

An aerial photograph of a coastal town. A wide river flows from the top left towards the center, then turns right. The town is densely packed with buildings and greenery, situated between the river and a sandy beach. The beach runs along the bottom right edge of the frame, meeting the ocean. The text "Thank You" is written in a white, cursive script across the middle of the image.

Thank You