Project Description & Scope of Work

- Project Limits from Prima Vista Blvd. to Selvitz Road Roundabout (1.3 miles)
 - Existing 2-lane road w/100-foot Right of Way
 - Existing 6-foot sidewalk on east side only





Project Description & Scope of Work

- Project Goals & Objectives Include:
 - Address mobility needs for all users; Complete streets concept
 - Evaluate & address traffic capacity & safety along corridor
 - Evaluate & address pavement condition (ongoing ۲ maintenance)
- Major Project Tasks:
 - **Data Collection & Evaluation**
 - Survey, geotechnical information, SUE, environmental review
 - Traffic & Safety studies
 - Widening Feasibility Study *Identify / Recommend* alternative to address traffic demand.
 - 2-Lane Divided (raised median / turn lanes)
 - 4-Lane Divided Options
 - **Preliminary & Final Design Documents**





Our Vision: To redevelop the Bayshore Boulevard corridor utilizing practical design solutions - in partnership with the City of Port St. Lucie and the local community.

Existing Level of Service (LOS)

Bayshore Boulevard Corridor Improvements

From Prima Vista to NW Selvitz Road



2024 Existing Intersection Level of Service (LOS)

| Intersection | AM Peak | PM Peak |
|---|---------|---------|
| NW Bayshore Blvd & Prima Vista Blvd | F | F |
| NW Bayshore Blvd & NW Marion Ave | A/D | B/F |
| NW Bayshore Blvd & NW Kilpatrick Ave | B/F | B/F |
| NW Bayshore Blvd & NW Floresta Dr | A/E | A/F |
| NW Bayshore Blvd & NW Selvitz Rd | А | А |

2024 Existing Roadway Level of Service (LOS)

| Deeduueu | From | T - | AM | Peak | PM Peak | | |
|---------------------|------------------|----------------|-------|-------|---------|-------|--|
| Roadway | Roadway From To | | NB/EB | SB/WB | NB/EB | SB/WB | |
| NW Bayshore Blvd | | | | | | | |
| | Prima Vista Blvd | NW Floresta Dr | D | F | Е | E | |
| | NW Floresta Dr | NW Selvitz Rd | D | E | Е | E | |
| | | | | | | | |



Timeframe:

January 2020- October 28, 2024

2 Fatalities

1. Pedestrian Running Across the Road

2. Motorcycle lost control (Off-Road Tires) (No Helmet)

Alcohol Related – Not Significant (1.1%)

| | Number of |
|-------|-----------|
| Year | Crashes |
| 2020 | 68 |
| 2021 | 93 |
| 2022 | 61 |
| 2023 | 118 |
| 2024 | 81 |
| Total | 421 |

| Crash Type | Percent | Average |
|--------------------------|---------|---------|
| Same Direction Sideswipe | 15% | 12.6 |
| Unknown | 2% | 1.4 |
| Rear End | 49% | 41.0 |
| Other | 5% | 3.8 |
| Left Leaving | 1% | 1.2 |
| Left Entering | 1% | 1.0 |
| Opposing Sideswipe | 1% | 0.8 |
| Right Angle | 7% | 6.2 |
| Parked Vehicle | 2% | 2.0 |
| Single Vehicle | 3% | 2.4 |
| Backed Into | 3% | 2.2 |
| Right/Through | 3% | 2.6 |
| Bicycle | 1% | 0.6 |
| Head On | 1% | 1.2 |
| Off Road | 2% | 1.8 |
| Rollover | 1% | 1.0 |
| Right/U-Turn | 0% | 0.2 |
| Left Rear | 1% | 1.2 |
| Pedestrian | 1% | 0.6 |
| Right/Left | 0% | 0.4 |
| Total | 100% | 84.2 |

| CRA | SH CON | DITIONS | |
|-----------------------|--------|------------|-----|
| | | No Injury | 77% |
| | | Injury | 21% |
| Severity | / | Serious | |
| | | Injury | 1% |
| | | Fatality | 0% |
| | Da | aylight | 78% |
| | Dusk/ | Dusk | |
| | Dawn | Dawn | 4% |
| | | Dark - | |
| Lighting | Dark | Lighted | |
| Lighting Condition | | Dark - Not | |
| Condition | | Lighted | |
| | | Dark - | |
| | | Unknown | |
| | | Lighting | 18% |
| | Un | known | 0% |
| | | Dry | 88% |
| Surface Con | dition | Wet | 12% |
| | | Unknown | 0% |
| Peak Tim | es | 12-7 PM | 57% |
| Peak Mor | nth | March | 12% |

Traffic Level of Service (LOS)

Bayshore Boulevard Corridor Improvements From Prima Vista to NW Selvitz Road

Speed: At or above speed limit •Density: Very low •Driver Comfort: High freedom to maneuver •**Delay:** None or negligible Speed: High

•Density: Light •Driver Comfort: Slightly limited maneuverability •Delay: Minimal

Speed: Acceptable, but starts to decline •Density: Moderate •Driver Comfort: Maneuverability noticeably limited •Delay: Moderate

Speed: Declining, with frequent slowing •Density: High

•Driver Comfort: Reduced; stressful conditions

•Delay: High, especially at signals

Speed: Low and inconsistent •Density: Very high •Driver Comfort: Poor; constant disruptions •Delay: Very high

Speed: Near-zero •Density: Jammed conditions •Driver Comfort: Very poor; stop-and-go or gridlock •Delay: Extreme





Breakdown Flow





No-Build Scenario

| Intoro | | | AM Peak | | PM Peak | | | |
|--------------------------------------|--------------------------------------|------|---------|------|---------|------|--|--|
| Inters | ection | 2030 | 2040 | 2050 | 2030 | 2040 | | |
| NW Bayshore Blvd | & Prima Vista Blvd | F | F | F | F | F | | |
| NW Bayshore Blvd | & NW Marion Ave | A/D* | A/F* | B/F* | B/F* | B/F* | | |
| NW Bayshore Blvd 8 | NW Bayshore Blvd & NW Kilpatrick Ave | | | B/F* | B/F* | B/F* | | |
| | Stop Controlled | A/F* | A/F* | B/F* | A/F* | B/F* | | |
| NW Bayshore Blvd & NW Floresta Dr | Signalized | - | - | - | - | - | | |
| NW FIOLESCA DI | Roundabout | - | - | - | - | - | | |
| NW Bayshore Blve | d & NW Selvitz Rd | А | А | А | А | А | | |

No-Build Intersection Level of Service (LOS)

* Note: A/C = Major Street Left-Turn LOS/Minor Street Approach LOS

No-Build Roadway Level of Service (LOS)

| | | То | AM Peak | | | | | | PM Peak | | | | | |
|-------------------------|---------------------|----------------|---------|-------|-------|-------|-------|-------|---------|-------|-------|-------|-------|-------|
| Roadway | From | | 2030 | | 2040 | | 2050 | | 2030 | | 2040 | | 2050 | |
| | | | NB/EB | SB/WB | NB/EB | SB/WB | NB/EB | SB/WB | NB/EB | SB/WB | NB/EB | SB/WB | NB/EB | SB/WB |
| NW Bayshore E Blvd M | | | | | | | | | | | | | | |
| | Prima Vista Blvd | NW Floresta Dr | D | F | E | F | E | F | F | F | F | F | E | F |
| | NW Floresta Dr | NW Selvitz Rd | D | F | E | F | E | F | E | F | F | F | E | F |
| | | | | | | | | | | | | | | |





3 - Lane Scenario

| Intern | | | AM Peak | | PM Peak | | | | |
|--------------------------------------|--------------------------------------|------|---------|------|---------|------|--|--|--|
| Inters | ection | 2030 | 2040 | 2050 | 2030 | 2040 | | | |
| NW Bayshore Blvd | & Prima Vista Blvd | Е | F | E | E | E | | | |
| NW Bayshore Blvd | NW Bayshore Blvd & NW Marion Ave | | | B/D* | B/D* | B/D* | | | |
| NW Bayshore Blvd 8 | NW Bayshore Blvd & NW Kilpatrick Ave | | | B/F* | B/E* | B/F* | | | |
| | Stop Controlled | A/D* | A/D* | B/D* | A/D* | B/D* | | | |
| NW Bayshore Blvd & NW Floresta Dr | Signalized | А | В | С | А | В | | | |
| itter interesta bi | Roundabout | В | D F | | В | D | | | |
| NW Bayshore Blve | d & NW Selvitz Rd | А | А | А | А | А | | | |

3-Lane Intersection Level of Service (LOS)

* Note: A/C = Major Street Left-Turn LOS/Minor Street Approach LOS

3-Lane Roadway Level of Service (LOS)

| | From | То | AM Peak | | | | | | PM Peak | | | | | |
|---------------------|---------------------|----------------|---------|-------|-------|-------|-------|-------|---------|-------|-------|-------|-------|-------|
| Roadway | | | 2030 | | 2040 | | 2050 | | 2030 | | 2040 | | 2050 | |
| | | | NB/EB | SB/WB | NB/EB | SB/WB | NB/EB | SB/WB | NB/EB | SB/WB | NB/EB | SB/WB | NB/EB | SB/WB |
| | | | | | | | | | | | | | | |
| NW Bayshore Blvd | Prima Vista Blvd | NW Floresta Dr | D | E | D | F | E | F | E | E | E | F | E | F |
| | NW Floresta Dr | NW Selvitz Rd | D | E | D | F | D | F | D | E | E | E | D | F |
| | | | | | | | | | | | | | | |





4 - Lane Scenario

| Interes | | | AM Peak | | PM Peak | | | | |
|--------------------------------------|--------------------------------------|------|---------|------|---------|------|--|--|--|
| Inters | ection | 2030 | 2040 | 2050 | 2030 | 2040 | | | |
| NW Bayshore Blvd | & Prima Vista Blvd | E | E | Е | Е | Е | | | |
| NW Bayshore Blvd | & NW Marion Ave | A/B* | A/B* | A/B* | A/B* | A/B* | | | |
| NW Bayshore Blvd 8 | NW Bayshore Blvd & NW Kilpatrick Ave | | | D/E* | B/D* | B/E* | | | |
| | Stop Controlled | B/C* | B/C* | B/E* | B/C* | B/D* | | | |
| NW Bayshore Blvd & NW Floresta Dr | Signalized | А | А | А | А | А | | | |
| NW HOICSta DI | Roundabout | А | А | А | А | А | | | |
| NW Bayshore Blve | d & NW Selvitz Rd | А | А | С | А | А | | | |

4-Lane Intersection Level of Service (LOS)

* Note: A/C = Major Street Left-Turn LOS/Minor Street Approach LOS

4-Lane Roadway Level of Service (LOS)

| Roadway From | | AM Peak | | | | | | PM Peak | | | | | | |
|--------------|---------------------|----------------|-------|-------|-------|-------|-------|---------|-------|-------|-------|-------|-------|-------|
| | From | То | 2030 | | 2040 | | 2050 | | 2030 | | 20 | 40 | 2050 | |
| | | | NB/EB | SB/WB | NB/EB | SB/WB | NB/EB | SB/WB | NB/EB | SB/WB | NB/EB | SB/WB | NB/EB | SB/WB |
| | | | | | | | | | | | | | | |
| NW Bayshore | Prima Vista Blvd | NW Floresta Dr | С | С | С | D | С | D | С | С | С | D | С | D |
| Blvd | Blvd NW Floresta Dr | NW Selvitz Rd | С | С | С | С | С | D | С | С | С | С | С | D |
| | | | | | | | | | | | | | | |





Volume vs. Capacity Summary

From Prima Vista to NW Selvitz Road





SB

NB

2030 PM





Option 1 4-Lane Typical Section Alternative

Bayshore Boulevard Corridor Improvements

From Prima Vista to NW Selvitz Road





Option 2 4-Lane Typical Section Alternative

From Prima Vista to NW Selvitz Road





Option 3 2-Lane Divided Typical Section Alternative

From Prima Vista to NW Selvitz Road





4-Lane Typical Section (Options 1 & 2):

- Addresses the multi-modal needs identified for the corridor.
- Provides an adequate Level Of Service (LOS C/D) for year 2050 traffic projections.

3-Lane Typical Section (Option 3):

- Addresses the multi-modal needs identified for the corridor.
- Traffic Level Of Service begins failing (LOS F) in 2040, both on corridor & at side street intersections.



Next Steps:

- **Public Meeting (April 29th)**
 - **Present Alternatives**
 - Solicit Public Comment
- **City Council Meeting**
- **Complete Feasibility Study w/Recommended** Alternative
- Preliminary & Final Design Plans





