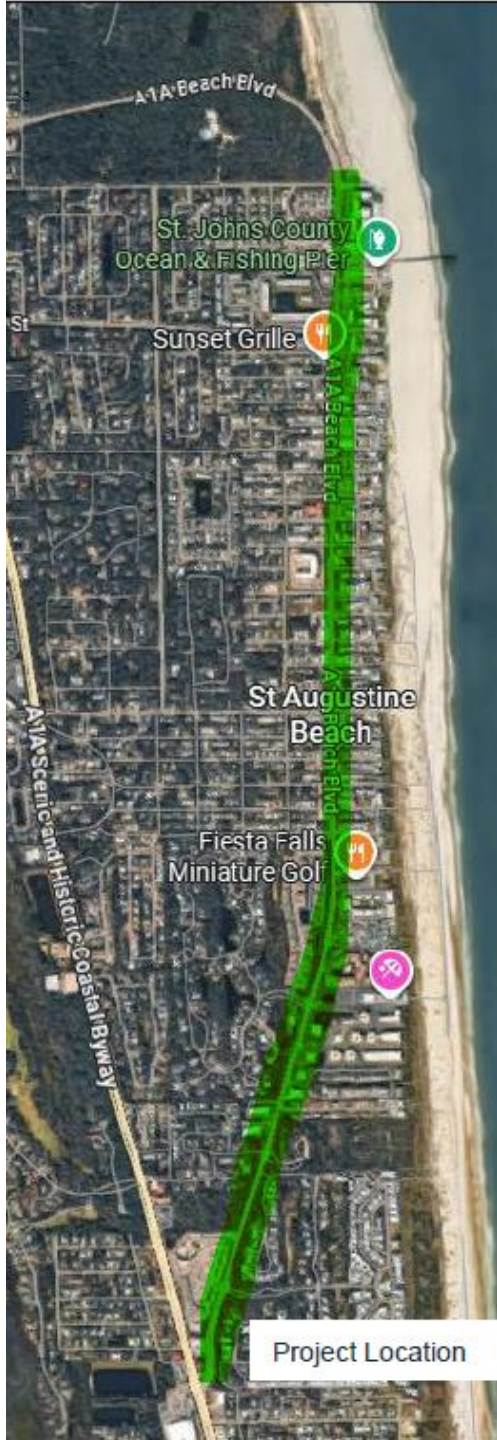
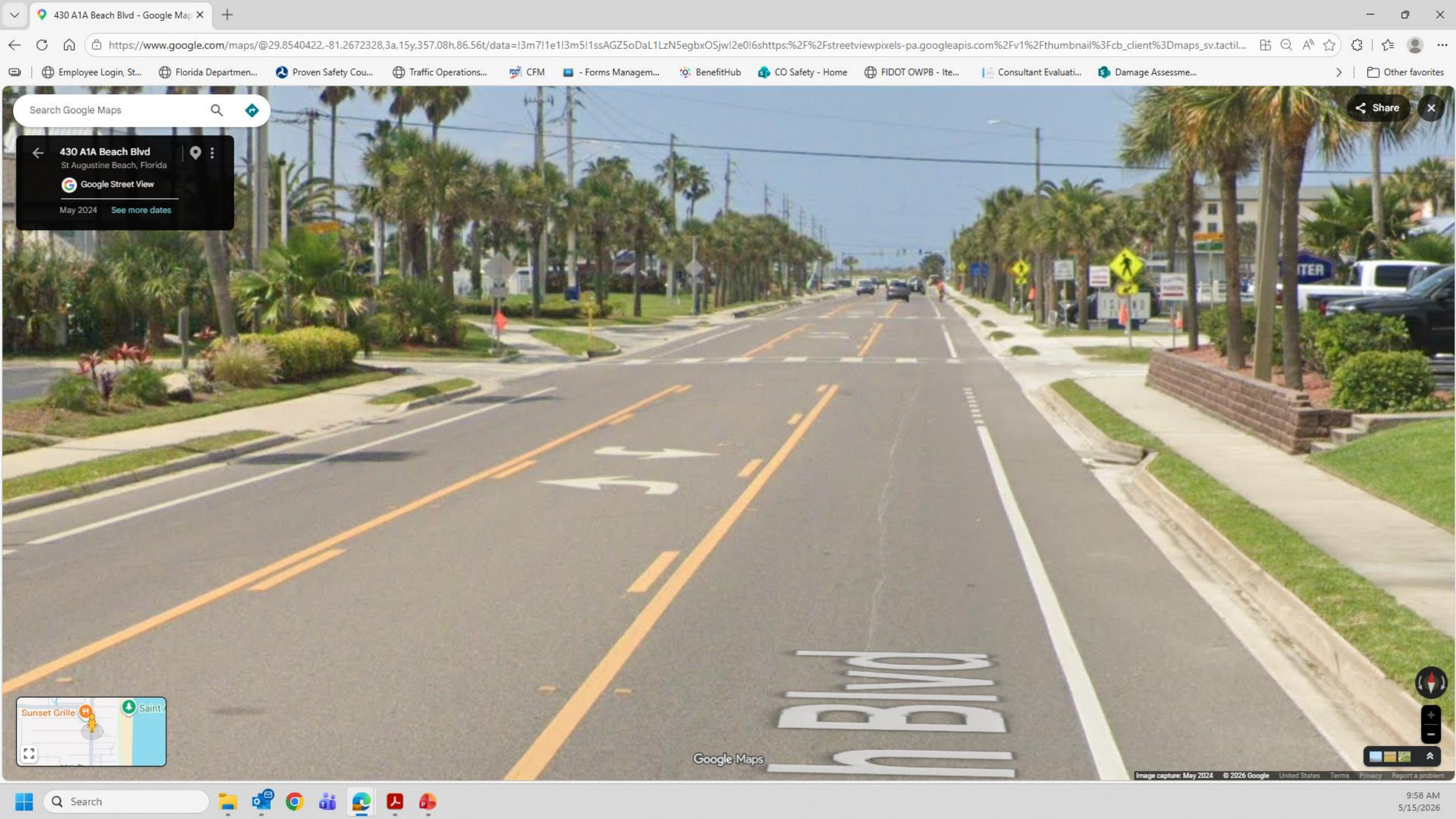


Beach Blvd Sun Trail



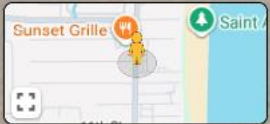
- ✓ **Speed Limit: 30 mph**
- ✓ **Context Classification: potential C2T, C3, and C4**
- ✓ **AADT: 8,000**



Search Google Maps

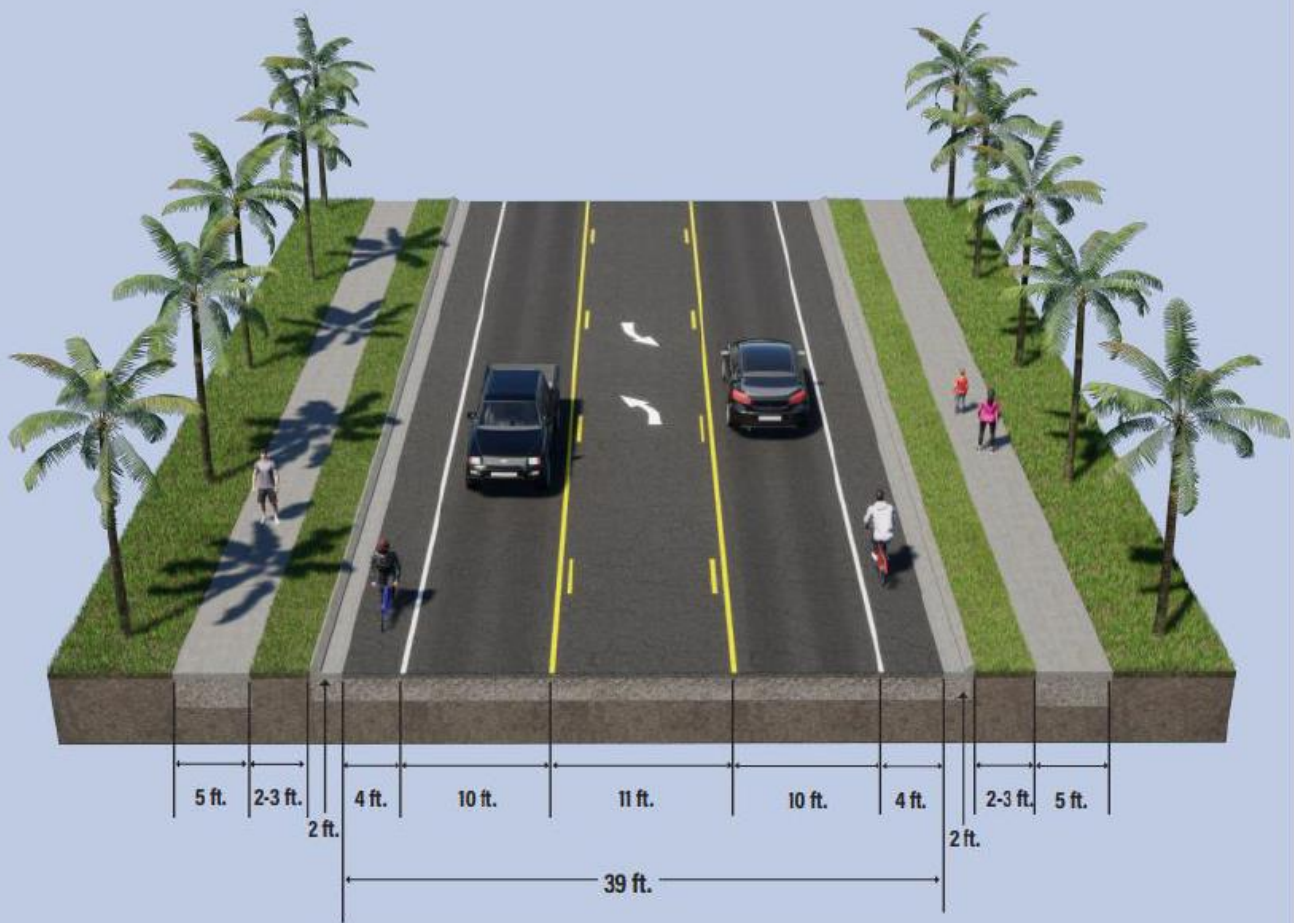
430 A1A Beach Blvd
St Augustine Beach, Florida
Google Street View
May 2024 See more dates

Share

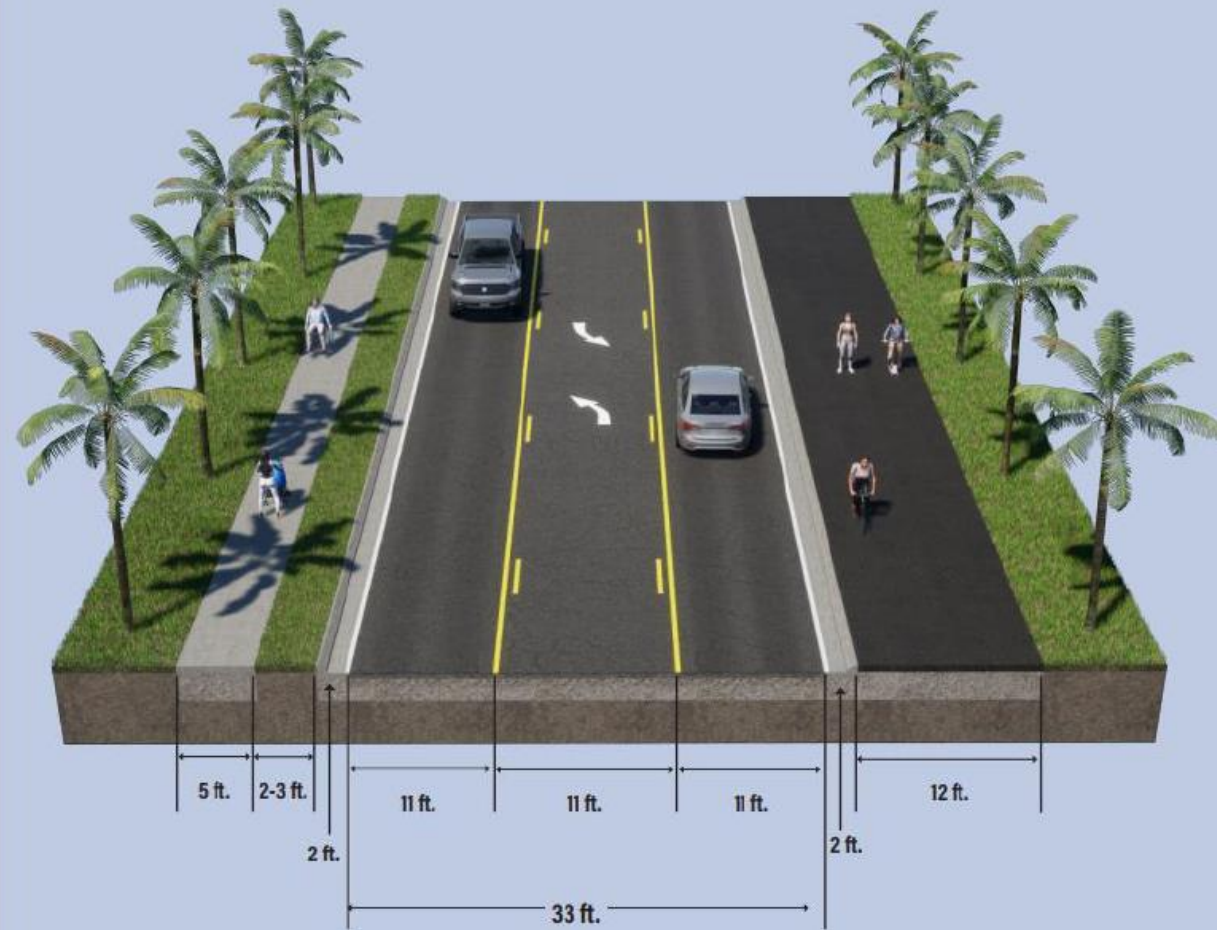


Google Maps

EXISTING



PROPOSED



An **Urban Side Path** is a category of shared use path that may be used in C2T, C4, C5, and C6 context classifications where the design speed of the adjacent roadway is 35 mph or less. In C5 or C6 context classifications, Urban Side Paths placed adjacent to the roadway must be provided with a separate sidewalk to accommodate increased pedestrian demand in these context classifications.

The **Urban Side Path** users and motorists in adjacent travel lanes will be traveling more slowly in C2T, C4, C5, and C6 context classifications, compared to the rural and suburban locations of conventional shared use paths. In addition, because they are associated with curbed roadways, Urban Side Paths will be vertically separated from the roadway, further distinguishing them from conventional shared use paths. The slower travel speeds and vertical separation allow the use of design criteria differing from a standard shared use path. The slower travel speeds are due to speed management concepts inherent to the urban environment (e.g., enclosure, engagement, and deflection). See **FDM 202** for more information on speed management.

224.12 Separation from Roadway

Place as close to the R/W line as possible or outside the clear zone. At a minimum, provide a separation between the shared use path and the roadway. This demonstrates to both path users and motorists that the shared use path is a separate facility. Minimum separation is as follows:

- On flush shoulder roadways with design speed 45 mph or less, the edge of the path is to be at least 5 feet from the edge of the paved shoulder.
- On flush shoulder roadways with design speed 50 mph or greater, the edge of the path is to be at least 5 feet from the shoulder break (see **FDM 210.4**).
- On curbed roadways, the edge of the path is to be at least 5 feet from the face of curb, with consideration of other roadside obstructions (e.g., signs and light poles).

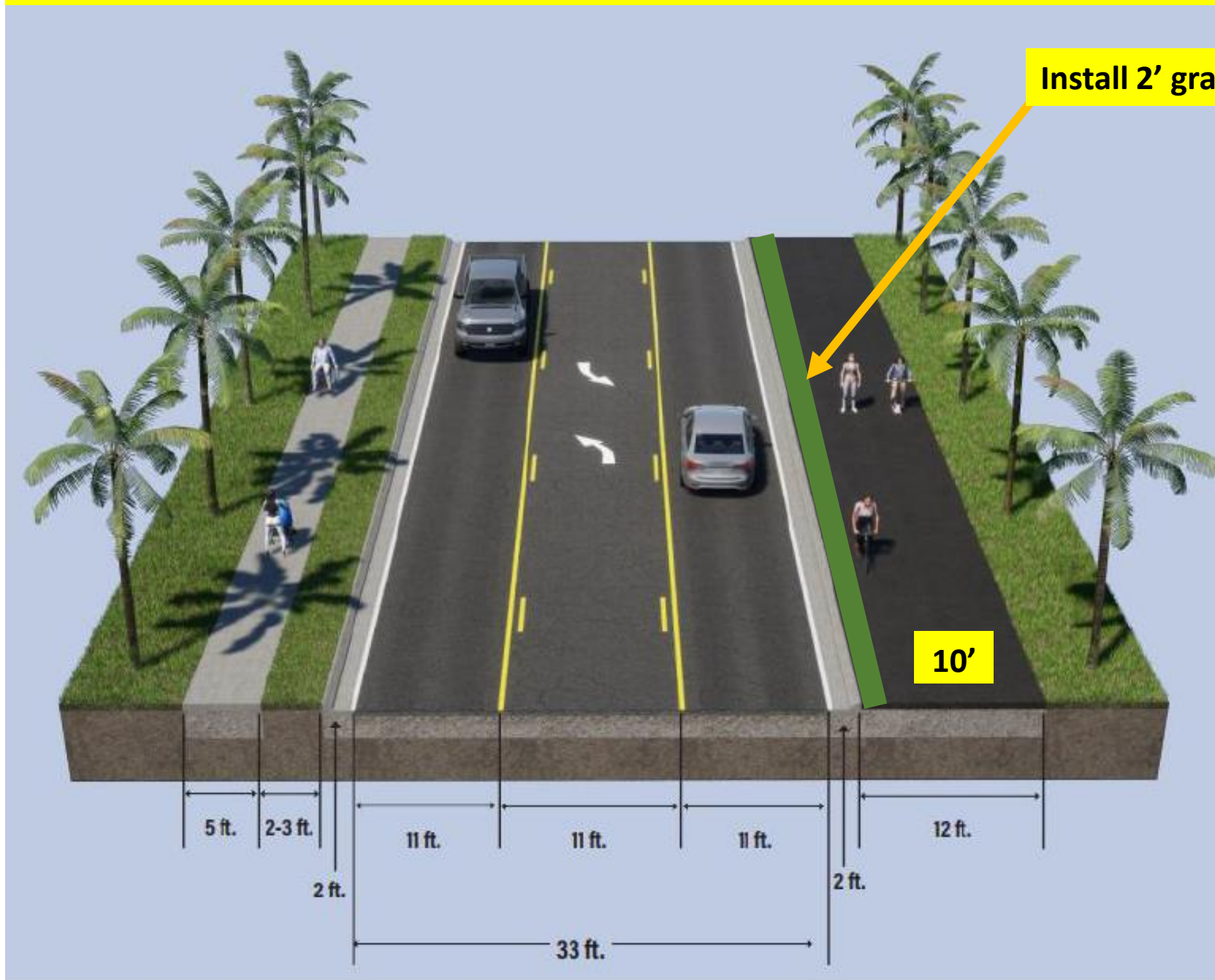
Where the minimum separation cannot be obtained:

- Consider installation of a pedestrian channelization fence at speeds of 45 mph or less to limit incursion of path users onto the roadway.
- Consider installation of a crashworthy barrier at speeds greater than 45 mph to limit incursion of motorists onto the path, although this type of barrier can be used at lower speeds as well.

For Urban Side Paths place as close to the R/W line as possible, but no closer than 2 feet from the back of curb. Do not place Urban Side Paths adjacent to uncurbed roadways.

Commentary: Criteria provided are minimum values only. As motorist speeds increase, the amount of separation between the traveled way and path should also increase to manage the level of traffic stress for path users.

RECOMMENDED



Install 2' grass stripe

10'

5 ft.

2-3 ft.

2 ft.

11 ft.

11 ft.

11 ft.

2 ft.

12 ft.

33 ft.

The appropriate paved width for a two-directional shared use path is dependent upon context classification and the volume and mix of users. Widths range from a minimum of 10 feet to 14 feet, with a standard width of 12 feet. SUN Trail network facilities that are less than 12 feet wide require approval by the Chief Planner. For shared use paths not in the SUN Trail network:

- (1) A 10-foot width may be used where there is limited R/W.
- (2) Short 8-foot wide sections may be used in constrained conditions.

Consider the accommodation of emergency and maintenance vehicles or management of steep grades when selecting the width of the path.

- A summary of the crash data is as follows:

- All Crashes
 - Frequency: 93 total crashes
 - Crash Severity: no fatal crashes, 6 incapacitating injury crashes, 15 injury crashes, 72 PDO crashes
 - Notable Crash Types: Rear End (43), Left-turn (15), Off-road (8), Angle (7), Bike/Ped (10)
- Pedestrian Crashes
 - 1 pedestrian crash, which resulted in an incapacitating injury
- Bicycle Crashes
 - 9 bicycle crashes
 - Crash Severity: 1 incapacitating crash, 6 injury crashes, 2 no injury crashes
 - Location: 7 of 9 bicycle crashes occurred north of 13th street
 - Direction: 4 of 9 bicycle crashes on beach side (east), and 5 on west side
 - Details: 4 of 9 crashes the bicycle user was found at fault

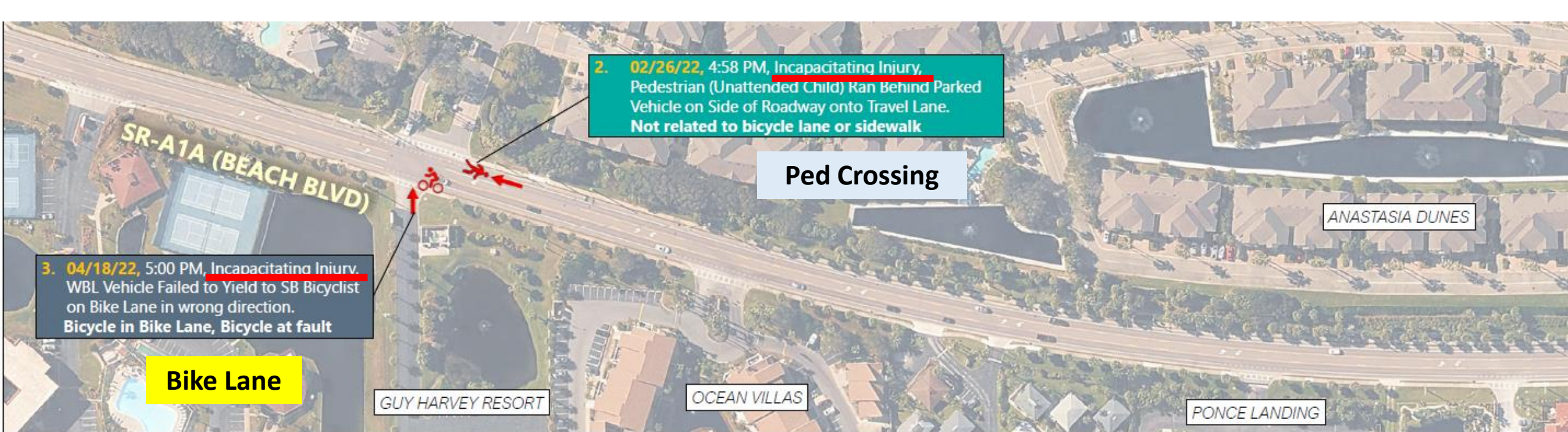
- **Crash Location:** The table below provides location of bicycle at the time of the crash and which party was found to be at fault. There were 4 crashes where the bicycle was on the roadway/bicycle lanes. In 3 of those 4 crashes the bicycle was found at fault for not properly yielding or for traveling in the wrong direction.

Table 1 – Summary of Bicycle Crash Locations

Bicycle on Roadway	
Vehicle at Fault	1
Bicycle at Fault	3
Bicycle on Sidewalk or Crosswalk	
Vehicle at Fault	2
Bicycle at Fault	1
No Fault	2

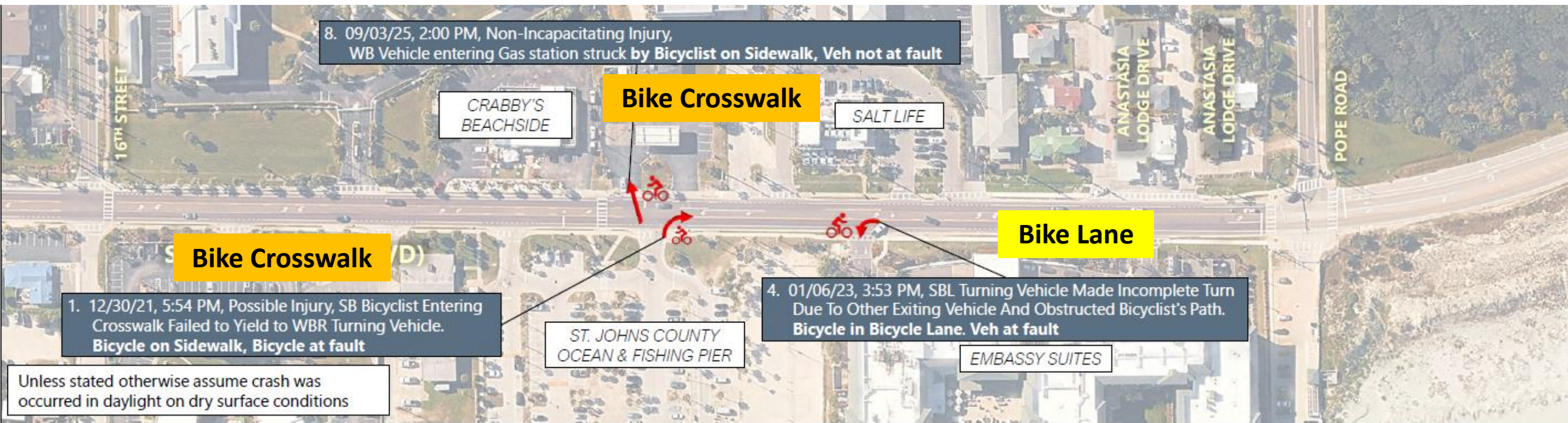


Unless stated otherwise assume crash was occurred in daylight on dry surface conditions





Unless stated otherwise assume crash was occurred in daylight on dry surface conditions



Crash Type	Ped/Bike Related Crashes (Mapped)
Pedestrian	1
Bicyclist	9

- ✓ Lane Width 1' increase (CMF 0.77): 23% all crash reduction
- ✓ Decrease Shoulder Width from 4' to 0' (CMF 1.007): 0.7% all crash increase
 $0.77 \times 1.007 = \text{CMF } 0.81$ (19% Vehicle Crash Reduction)
- ✓ Conversion from traditional bike lane to separated bike lane with vertical element (CMF 0.64): **36% Ped/Bike crash reduction**

- **Bike-Ped Crashes Predicted Crashes**

- Design – Remove traditional bicycle lane and install with vertical separation on SUP
- Crash Modification Factor:- CMF of 0.64
 - Impact: Potential to reduce vehicle-bicycle crashes by 36% crashes.

- **Non Bike-Ped Crash Types Predicted Crashes**

- Design - Increase lane width and reduce shoulder.
- Crash Modification Factor: A combined CMF of $0.77 \times 1.05 = \text{CMF} = 0.81$.
 - Impact: Potential to reduce vehicle crashes by 19%.

Advantage

- ✓ Removal of bike lane from the roadway eliminate conflict between vehicles and bicycles
- ✓ Gives opportunity to add “Stop” or “yield” signs on Ped/Bike approach on SUP
- ✓ Conversion from traditional bike lane to separated bike lane with vertical element (CMF 0.64): 36% Ped/Bike crash reduction

Disadvantage

- ✓ Create more Ped/Bikes crossing Beach Blvd with SUP only on East side
(Sidewalk and Bike lane on West side stays the same, many existing crosswalks along the segment, 30 mph mainline with TWLT lane)
- ✓ Decrease Shoulder Width from 4' to 0' (CMF 1.007): 0.7% all crash increase
(overall safety gets improved by installing the trail)
- ✓ Ped/Bike Crash risk can be higher on crosswalks at side street on East side due to increased ped/bike volume (“Stop” and “Yield” signs will be installed and design considers sight distance)

Black Creek Trail (US 17 and Elbow Rd)

Install "Stop" or "Yield" signs for Trail users

River Christian Church

2386 FL-15
Orange Park, Florida
Google Street View
Feb 2023 See more dates

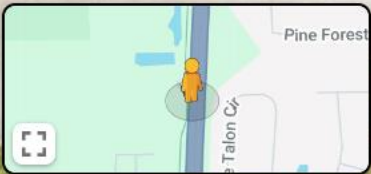


Black Creek Trail (River Christian Church)

Fuller Warren Shared Use Path

← 5900 Hwy 17
Fleming Island, Florida
Google Street View
Feb 2023 See more dates

Install "Stop" or "Yield" signs for Trail users



Google

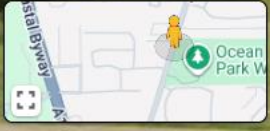
Add light fixtures to all the existing utility poles along the segment

tps:%2F%2Fstreetviewpixels-pa.googl... 田 𐀀 𐀁 𐀂 𐀃 𐀄 𐀅 𐀆 𐀇 𐀈 𐀉 𐀊 𐀋 𐀌 𐀍 𐀎 𐀏 𐀐 𐀑 𐀒 𐀓 𐀔 𐀕 𐀖 𐀗 𐀘 𐀙 𐀚 𐀛 𐀜 𐀝 𐀞 𐀟 𐀠 𐀡 𐀢 𐀣 𐀤 𐀥 𐀦 𐀧 𐀨 𐀩 𐀪 𐀫 𐀬 𐀭 𐀮 𐀯 𐀰 𐀱 𐀲 𐀳 𐀴 𐀵 𐀶 𐀷 𐀸 𐀹 𐀺 𐀻 𐀼 𐀽 𐀾 𐀿 𐀿

Employee Login, St... Florida Departmen... Proven Safety Cou... Traffic Operations... CFM - Forms Managem... BenefitHub CO Safety - Home FIDOT OWPB - Ite... Consultant Evaluati... Damage Assesse...

909 A1A Beach Blvd
St Augustine Beach, Florida
Google Street View
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Share X



Google Maps

Image capture: May 2024 © 2026 Google United States Terms Privacy Report a problem



A Street

1st Street

2nd Street

3rd Street

Jack's

**Some side streets like these
may need to keep access
(need to check)**

A1A Beach Blvd

A Street

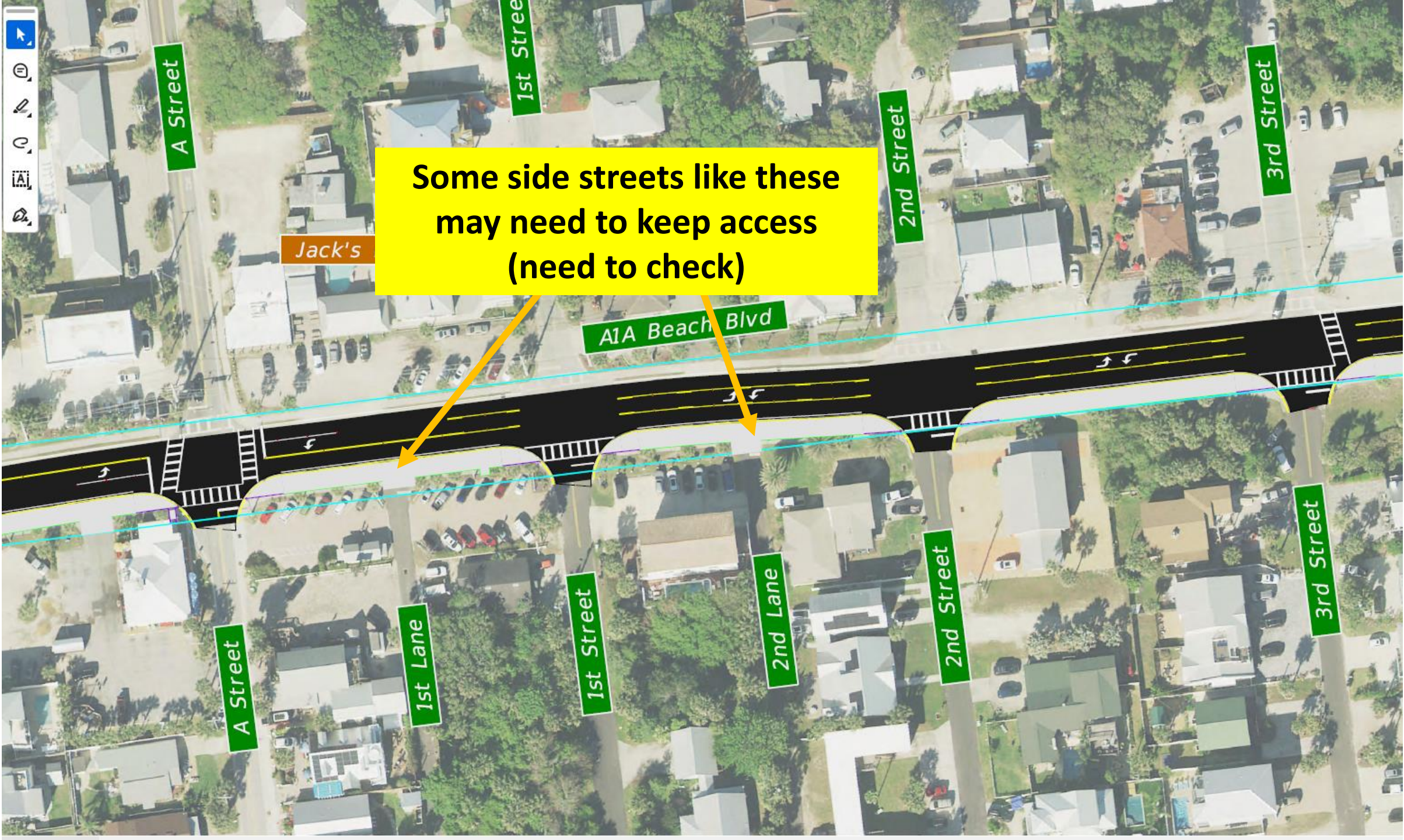
1st Lane

1st Street

2nd Lane

2nd Street

3rd Street



Install concrete median wherever access is not interrupted

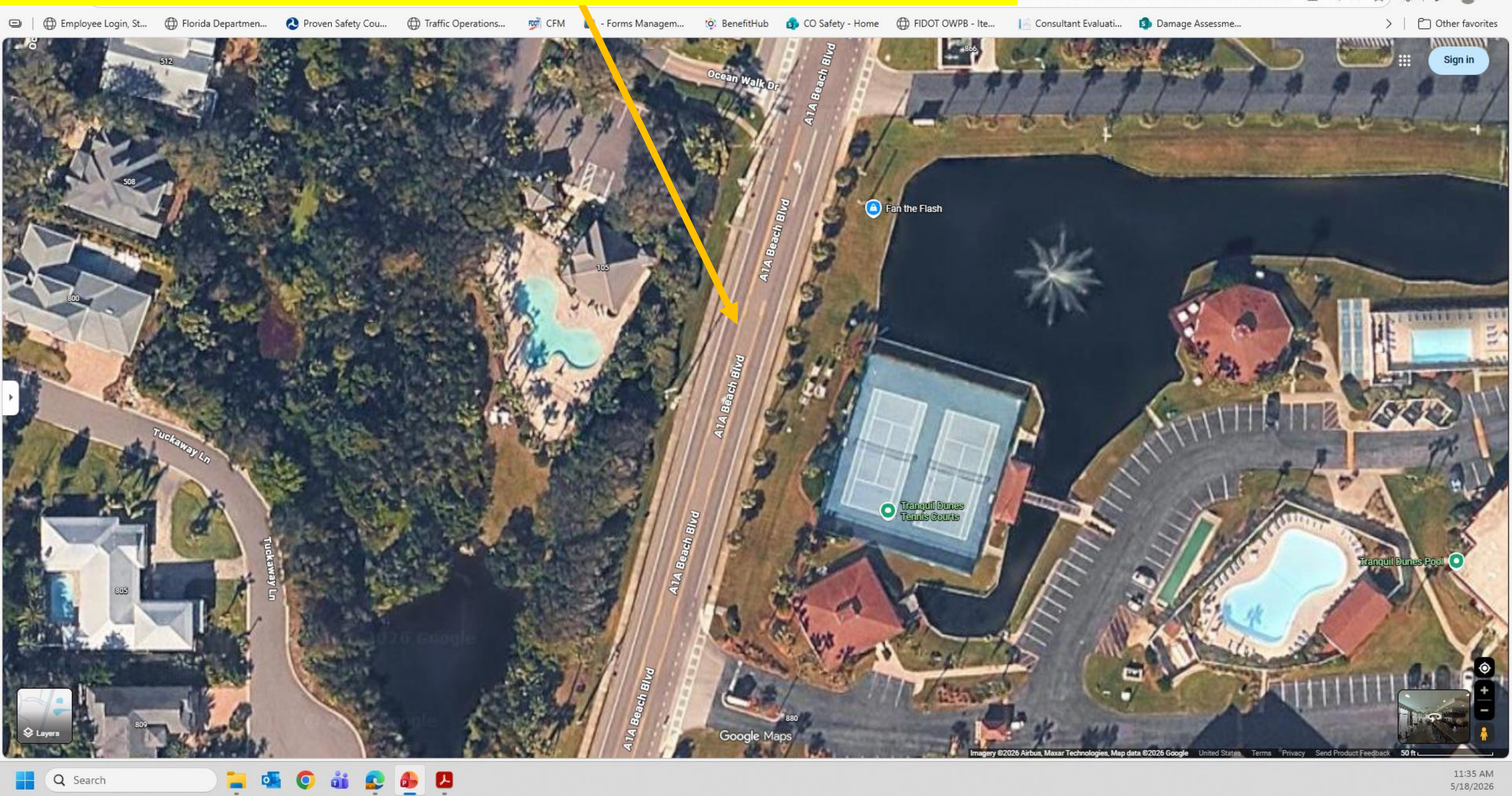


Table 15. Shared-use path service volume look-up table, typical mode split.

		Trail Width (feet)						
		8	10	12	14	16	18	20
Level of Service	A	24	24	24	24	70	102	125
	B	49	49	110	147	191	213	229
	C	49	97	198	226	282	300	315
	D	109	155	267	290	362	379	392
	E	167	212	328	349	436	452	464
	F	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table shows maximum trail volume (one direction per hour) in each LOS category

1 ft = 0.3 m

Table Assumptions

Mode split is 55% adult bicyclists, 20% pedestrians, 10% runners, 10% in-line skaters, and 5% child bicyclists.

An equal number of trail users travel in each direction (the model uses a 50%/50% directional split).

Trail volume represents the actual number of users counted in the field (the model adjusts this volume based on a peak hour factor of 0.85).

Trail has a centerline.

Table 16. Shared-use path service volume look-up table, high bicycle mode split.

		Trail Width (feet)						
		8	10	12	14	16	18	20
Level of Service	A	40	40	40	40	123	182	224
	B	81	81	185	246	348	388	419
	C	81	162	330	376	519	554	581
	D	184	267	446	487	671	703	728
	E	289	373	551	590	812	842	866
	F	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table shows maximum trail volume (one direction per hour) in each LOS category

1 ft = 0.3 m

Table Assumptions

Mode split is 75% adult bicyclists, 7.5% pedestrians, 7.5% runners, 5% in-line skaters, and 5% child bicyclists.

An equal number of trail users travel in each direction (the model uses a 50%/50% directional split).

Trail volume represents the actual number of users counted in the field (the model adjusts this volume based on a peak hour factor of 0.85).

Trail has a centerline.

Table 17. Shared-use path service volume look-up table, high pedestrian mode split.

		Trail Width (feet)						
		8	10	12	14	16	18	20
Level of Service	A	13	13	13	13	35	51	62
	B	26	26	57	77	95	105	114
	C	26	52	105	120	140	149	156
	D	58	82	143	156	179	187	194
	E	87	110	177	189	215	223	229
	F	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table shows maximum trail volume (one direction per hour) in each LOS category

1 ft = 0.3 m

Table Assumptions

Mode split is 25% adult bicyclists, 50% pedestrians, 15% runners, 7.5% in-line skaters, and 2.5% child bicyclists.

An equal number of trail users travel in each direction (the model uses a 50%/50% directional split).

Trail volume represents the actual number of users counted in the field (the model adjusts this volume based on a peak hour factor of 0.85).

Trail has a centerline.

Table 5-1: Shared-use Path Widths for Anticipated Peak Hour Volumes

Minimum (ft)	SUPLOS "C" Peak Hour Volumes at Preferable Width	Constrained (ft)	SUPLOS "D" Peak Hour Volumes at Minimum Width
11	150 - 300	8	50
12 - 15	300 - 500	11	400
16 - ≥ 20	500 - ≥ 600	15	600

◆ AI Overview

Trail width is determined by user volume and the mix of pedestrians and bicyclists. For a standard shared-use path with two-way traffic and mixed ped/bike use, the absolute minimum width is 10 ft (3 m). For higher usage and better comfort, widths range from 12 to 14 ft (3.7 to 4.3 m). [Seattle Streets Illustrated \(.gov\) +2](#)

Volume and Width Guidelines

- **Low Volume (≤ 50 total users per peak hour):** Minimum width of 8 ft (2.4 m) is sometimes allowed for short local connectors, but 10 ft (3.0 m) is the standard minimum for two-way paths.
- **Medium Volume (≤ 300 users per peak hour or high mixed use):** 12 ft (3.7 m). This prevents conflicts between fast-moving bicyclists and slower pedestrians.
- **High Volume (> 300 users per peak hour):** 12 to 15 ft (3.7 to 4.5 m) are recommended. [City of Wilsonville Oregon \(.gov\) +4](#)

Additional Design Considerations

- **Pedestrian Share:** If peds make up 30% or more of total pathway volume in peak hours, widths should be increased to a minimum of 12 ft to prevent weaving and crowding.
- **Separation:** Consider adding soft-surface side-paths for pedestrians, equestrians, or runners if space permits, allocating 5 ft for peds alongside the hard-surfaced bike lane.
- **Clearance:** A 2 ft to 3 ft graded shoulder/shy zone should be provided on both sides of the path, free of vertical obstructions like signs and trees. [NACTO +3](#)

For detailed Level of Service (LOS) calculations and engineering breakdowns, you can use the Federal Highway Administration's [Shared-Use Path Level of Service Calculator](#). Detailed dimensional guidelines can also be found in the National Association of City Transportation Officials (NACTO) [Urban Bikeway Design Guide](#). [🔗](#)

END