

FROM ALT. US 19/SR 595/BROADWAY TO TAMPA ROAD



PROJECT ADVISORY GROUP (PAG) MTG #3 - ALTERNATIVES



Pinellas County // FPID: 259109-1-12-27 // APRIL 27, 2022

Meeting Agenda

- Project Study Area (Mtg #1)
- Context Classification for SR 580 Corridor (Mtg #2)
- Existing deficiencies (Mtg #2)
- Purpose and Need of the Study (Mtg #2)
- Segments and Intersections identified for improvements (Mtg #2)
- Intersection proposed improvements
- Segment proposed improvements
- Project Schedule/What's next?
- Project Website & How to Submit Comments

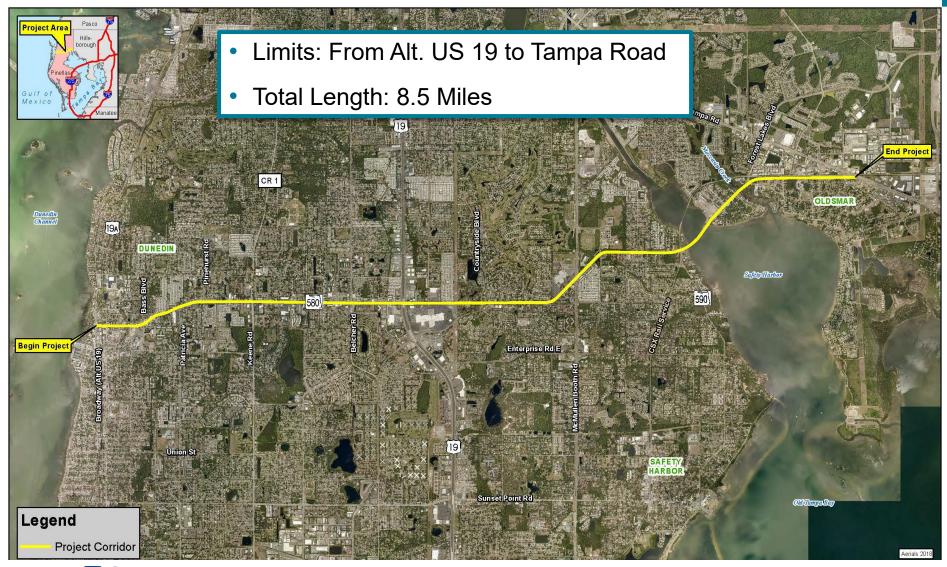






Project Study Area







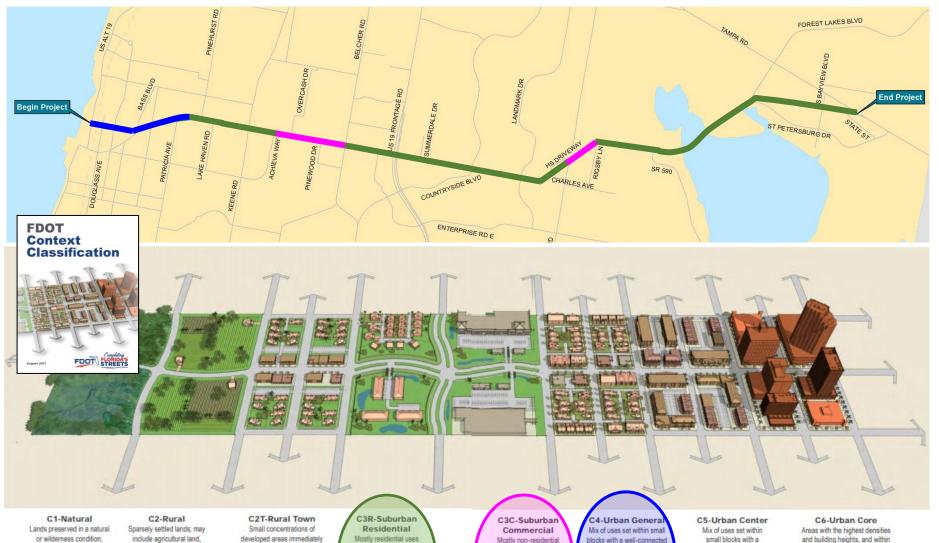


Define the Problem Corridor Existing Conditions Report Define the Corridor Needs 2) Future Conditions Summary **Purpose and Needs Report Define and Select Alternatives** 3) We are **Concept Plans / Exhibits** here **Corridor Alternatives and Strategies Report Alternative Assessment and Evaluation** Alternative and Strategies Summary Corridor Assessment Report 5) Corridor Development Plan **Corridor Development Plan** Package to Assist in Scoping of Next Phase



Ē **Context Classification**





or wilderness condition, including lands unsuitable for settlement due to natural conditions.

include agricultural land, grassland, woodland, and wetlands. natural areas; includes many

surrounded by rural and

historic towns.

within large blocks and a

disconnected or sparse

roadway network.

Mostly non-residential uses with large building footprints and large parking lots within large blocks and a disconnected or sparse roadway network.

blocks with a well-connected roadway network. May extend long distances. The roadway network usually connects to residential neighborhoods mmediately along the corrido behind the uses front the roadway.

small blocks with a well-connected roadway network. Typically concentrated around a few blocks and identified as part of a civic or economic center of a community, town, or city.

and building heights, and within FDOT classified Large Urbanized Areas (population >1,000,000). Many are regional centers and destinations. Buildings have mixed uses, are built up to the roadway, and are within a wellconnected roadway network.

2045 No-Build Level of Service Vehicle







2045 No-Build Level of Service Bicycle and Pedestrian



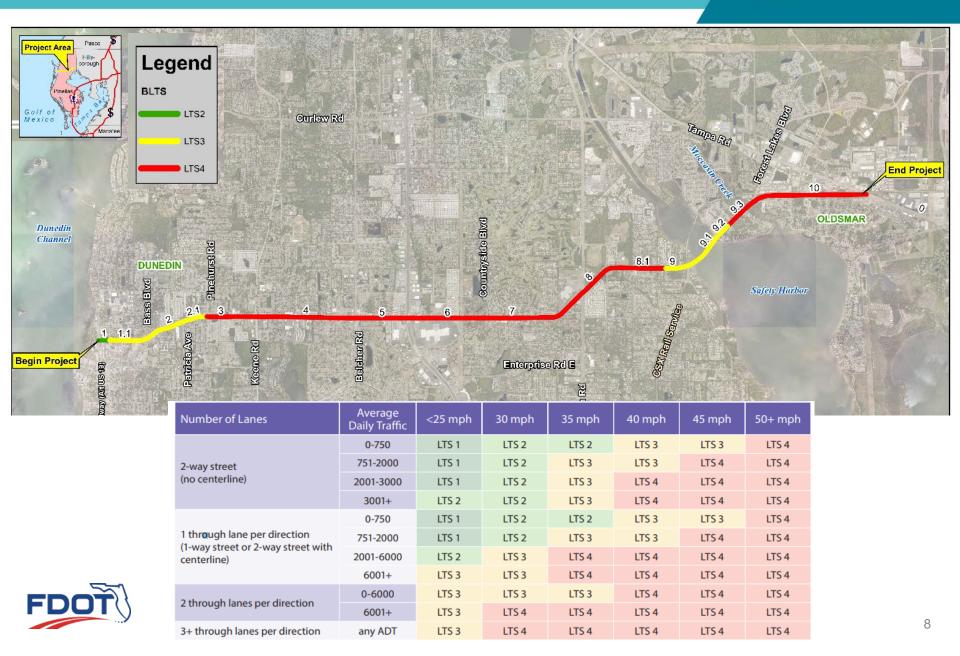






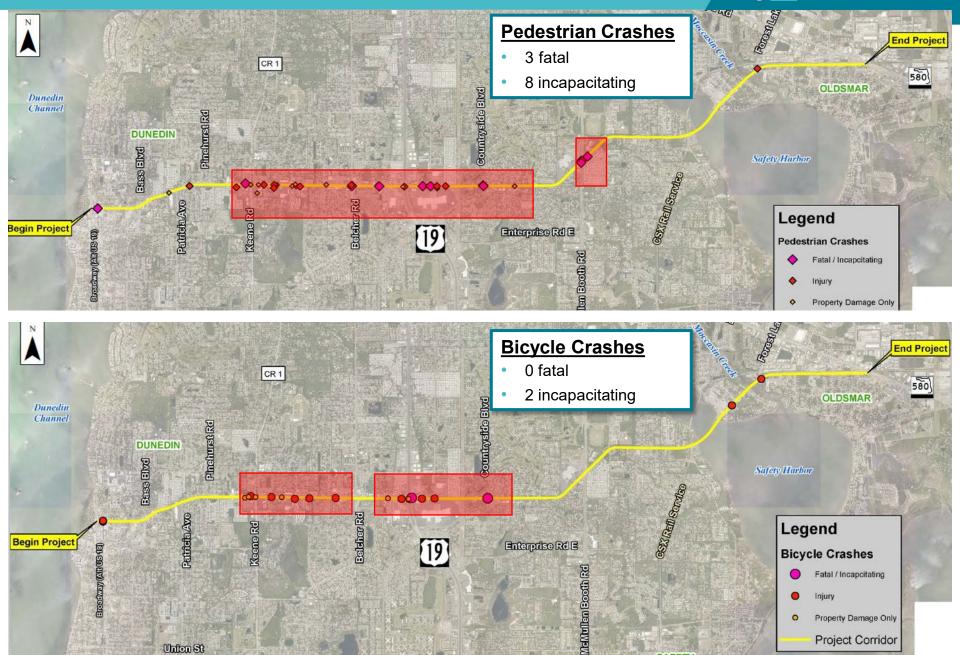
2045 No-Build Level of Traffic Stress





Pedestrian and Bicycle Crashes (2015 – 2019)







Vision for the Corridor

- Improve safety for all users along the corridor
- Develop context sensitive solutions for sustainable improvements that enhance level of service for all users.

Purpose and Need of the Study

- To Address Near-Term <u>Multimodal</u> Transportation Needs Through Context Sensitive Solutions
- To Develop a Long-Term Corridor Vision That Defines the Goals and Objectives and Policy Requirements to Establish a More Walkable Bicycle-Friendly Urban Environment

Overall Goal

Development of context sensitive improvements to help transform SR 580 into a multimodal urban corridor in keeping with the community context it traverses.





- Certain segments and intersections were not evaluated for improvements due to adjacent projects in the area
 - City of Dunedin SR 580 from Alt US 19 to Bass Blvd
 - Pinellas County Forest Lakes Blvd intersection
 - Pinellas County Signalized Duke Energy Trail crossing





	2	045 No-Buil	Concerno/Deficiencies	
Intersection	Ped LOS	Bike LOS	Bike LTS	Concerns/Deficiencies
Alt US 19	С	В	2	Safety
Patricia Ave	D	С	3	Safety
Keene Rd	D	С	4	LOS, Safety
Belcher Rd	D	С	4	LOS, Safety
Enterprise Rd	D	С	4	Safety
US 19 Frontage Rd	D	С	4	LOS, Safety
Countryside Blvd	D	D	4	LOS, Safety
McMullen Booth Rd	D	D	4	LOS, Safety
SR 590/Philippe Parkway	E	С	4	LOS
State St	D	D	4	Public concern
Tampa Rd	D	D	4	Public concern



Intersection Evaluation



- Short Term Improvements
 - Multimodal approach
 - Lost cost solutions that do not require additional right of way
 - For this meeting short term improvements are shown in frames

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Long Term Improvements



- Stage 1 Intersection Control Evaluation was completed for the signalized intersections along the corridor
- CAP-X Stage 1 evaluation results were summarized and evaluated
- Require additional right of way
- For this meeting short term improvements are shown on roll plots





SR 580 at Alt US 19



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Context Classification: C4 – Urban General

Issue: Pedestrian and bicyclist safety

Proposed Improvement

Option 1: *Short term* - Add ground mounted sign R1-5c

Option 2: *Short term* - Add signal mounted electronic sign R1-5c

Improvements will enhance safety for pedestrians and bicyclists

Note: City of Dunedin has a complete streets project along Skinner Blvd and is proposing improvements







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Context Classification: C4 – Urban General

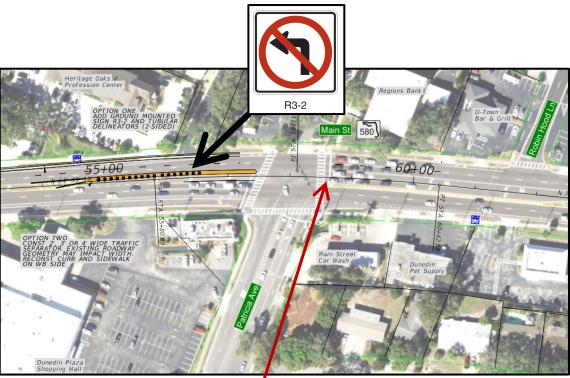
Issues: Westbound vehicles making left turn west of the Patricia Ave intersection into the shopping plaza.

Proposed Improvement

Option 1: *Short term* - Add ground mounted sign R3-2 and tubular delineators (2 sided)

Option 2: *Short term -* Construct a traffic separator

Improvements will enhance safety for pedestrians and bicyclists and reduce left turn crashes for vehicles.



Left turn lanes are 10' wide and don't meet 11' wide criteria but widening would require total reconstruction of curb.





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Context Classification: C3R – Suburban Residential

Issues:

- WB vehicles making a left turn into plaza east of Keene Rd
- Level of service and delay

- Safety

Proposed Improvement

Option 1: *Short term* - Add ground mounted sign R3-2 and tubular delineators (2 sided)

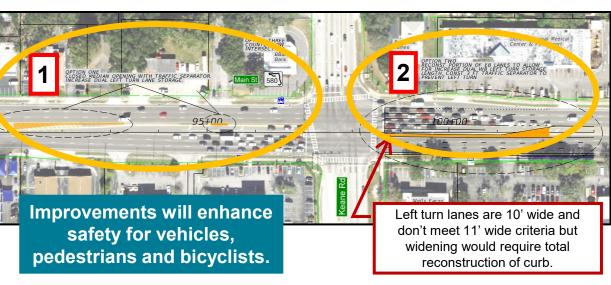
Option 2: Short term - Construct a 3' traffic separator and lengthen WB left turn lanes. Criteria calls for a 4' traffic separator but would require total reconstruction of outside curb.

Option 3: *Short term -* Restripe crosswalks and tighten turn radii on SB to WB right turn and WB to NB right turn

Options 4 & 5 on next slides



Improvements will enhance safety for pedestrians and bicyclists.





SR 580 at Keene Road – 2 of 3



Context Classification: C3R – Suburban Residential

Issues:

- WB vehicles making a left turn into plaza east of Keene Rd
- Level of service and delay
- Safety

Option 4: (Long Term) Innovative Intersection

Partial Displaced Left Turn



Impacts to pedestrians and bicyclists:

- Increases pedestrian crossing distances across SR 580 (113 ft and 137 ft)
- Potentially create free-flow right turns (NB to EB and SB to WB)
- Require pedestrians to cross three lanes of traffic (one free-flow lane and two left turn lanes) to access the bus stop
- The option for bicyclists is to make a two-stage left turn is complicated by the opposing left turn lanes



SR 580 at Keene Road – 3 of 3



Context Classification: C3R – Suburban Residential

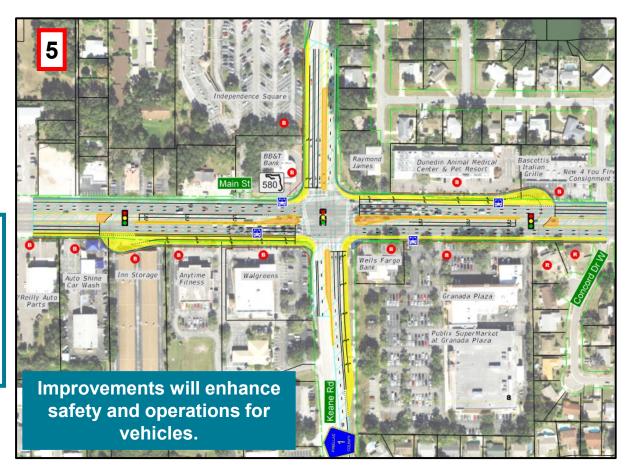
Issues:

- WB vehicles making a left turn into plaza east of Keene Rd
- Level of service and delay
- Safety

Option 5: (Long Term) Innovative Intersection - Median U-Turn Intersection (MUT)

Impacts to pedestrians and bicyclists:

- Increases pedestrian crossing distances across SR 580 (118 ft and 137 ft)
- Creates an additional conflict point for bicyclists at the U-turn location
- Needs to include two-stage left turn boxes for bicyclists





SR 580 at Keene Road – LOS Evaluation



- CAP-X rated partial displaced left turn higher than median U-turn for both AM and PM peak periods based on volume to capacity ratio
- Median U-turn intersection control resulted in higher multimodal score in CAP-X
- Synchro evaluation found both options to operate within target LOS

Intersection Location	AM Delay (veh/sec)	AM LOS	PM Delay (veh/sec)	PM LOS
Keene Rd No-Build (0 parcels impacted)	71.2	E	80.3	F

LOS Results for No-Build (2045)

LOS Results for Option 4 & Option 5 (2045)

Proposed Option	Intersection Name	AM Delay (veh/sec)	AM LOS	PM Delay (veh/sec)	PM LOS
	Central Intersection	25.9	С	24.4	С
Keene Rd	West Left Turn	4.4	А	3.6	А
Option 4 – Partial displaced left turn	North Crossover	10.2	В	10.7	В
(8 parcels impacted)	East Left Turn	4.6	А	5.5	А
	South Crossover	13.1	В	14.5	В
	Central North	8.7	А	8.6	А
Keene Rd	East U-Turn	29.3	С	21.9	С
Option 5 – MUT (13 parcels impacted)	West U-Turn	15.6	В	18.7	В
	Central South	12.7	В	13.1	В



SR 580 at Belcher Road – 1 of 3



Context Classification: C3C – Suburban Commercial

Issue: Level of Service and Delay

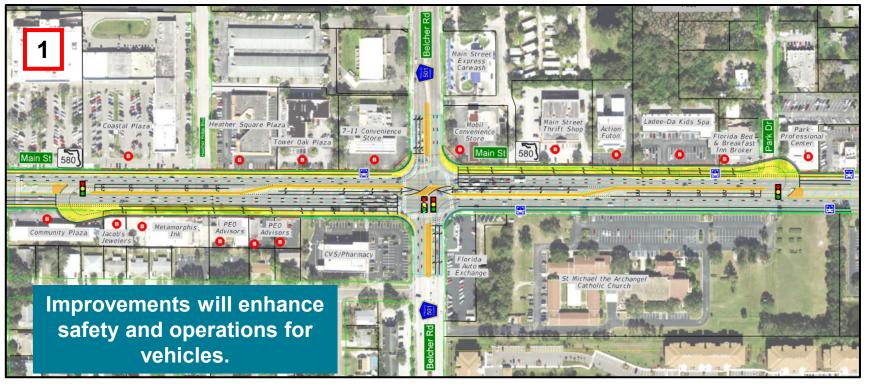
Proposed Improvement

Option 1: (Long Term) Innovative Intersection -Restricted Crossing U-Turn (RCUT)

No short-term improvements were evaluated for this location.

Impacts to pedestrians and bicyclists:

- Increases pedestrian crossing distances across SR 580 (116 ft to 192 ft)
- Removes the option for bicycle two-stage left turns and requires bicyclists to ride 1800 ft out of their way to make a left turn by weaving across three lanes of traffic



SR 580 at Belcher Road – 2 of 3



Context Classification: C3C – Suburban Commercial

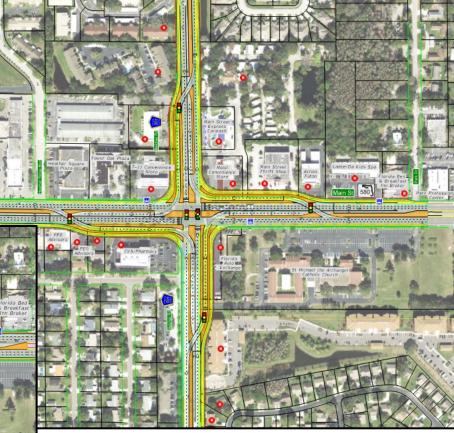
Issue: Level of Service and Delay

Proposed Improvement

Option 2: (Long Term) Innovative Intersection - Full Displaced Left Turn

Option 3: (Long Term) Innovative Intersection - Partial Displaced Left Turn





Improvements will enhance safety and operations for vehicles.



SR 580 at Belcher Road – 3 of 3



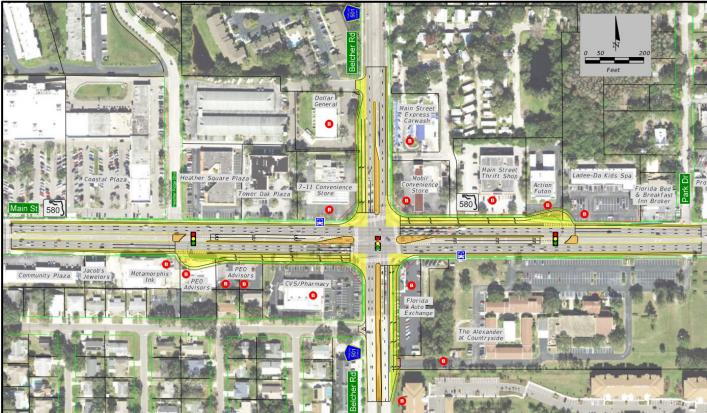
Context Classification: C3C – Suburban Commercial

Issue: Level of Service and Delay

Proposed Improvement

Option 4: (Long Term) Median U-Turn Intersection (MUT)

Improvements will enhance safety and operations for vehicles.







- LOS E is reported for Existing Year (2020) AM and PM Peak Periods
- Due to high AADT on Belcher Rd and SR 580, innovated intersection geometries were evaluated for this intersection
- CAP-X results for the AM peak period
 - 1. Displaced Left Turn
 - 2. Median U-turn (E-W)
 - 3. Partial Displaced Left Turn (E-W)
- CAP-X results for the PM peak period
 - 1. Displaced Left Turn
 - 2. Partial Displaced Left Turn (E-W)
 - 3. Partial Median U-Turn (E-W)



SR 580 at Belcher Road – Synchro LOS Evaluation



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LOS Results for No-Build (2045)

Intersection Location	AM Delay (veh/sec)	AM LOS	PM Delay (veh/sec)	PM LOS
Belcher Rd No-Build (0 parcels impacted)	69.3	Ε	79.0	E

LOS Results for Options 1, 2 & 3 (2045)

Proposed Option	Intersection Name	AM Delay (veh/sec)	AM LOS	PM Delay (veh/sec)	PM LOS
Belcher Rd	West U-Turn	15.2	В	15.1	В
RCUT	Central South	12.0	В	13.3	В
(16 parcels impacted)	Central North	13.3	В	15.7	В
	East U-Turn	11.5	В	21.8	С
	Central Intersection	9.9	A	11.9	В
	South Left Turn	8.9	A	6.2	А
Belcher Rd	West Crossover	10.1	В	7.2	A
Full Displaced Left Turn	North Left Turn	5.7	A	14.1	В
(22 parcels impacted)	East Crossover	10.7	В	8.3	A
	West Left Turn	13.6	В	23.4	С
	North Crossover	12.1	В	11.0	В
	East Left Turn	12.3	В	17.9	В
	South Crossover	20.1	В	26.0	С
	Central Intersection	17.2	В	20.6	С
Belcher Rd	West Left Turn	5.2	A	6.8	A
Partial Displaced Left Turn	North Crossover	11.6	В	11.5	В
(5 parcels impacted)	East Left Turn	4.1	A	3.7	A
	South Crossover	12.3	В	14.5	В
Belcher Rd	Central North	9.6	А	8.7	А
Median U-Turn	East U-Turn	10.1	В	18.3	В
(15 parcels impacted)	West U-Turn	10.2	В	16.3	В
	Central South	9.7	А	10.1	В
	Central North	9.6	А	8.7	А



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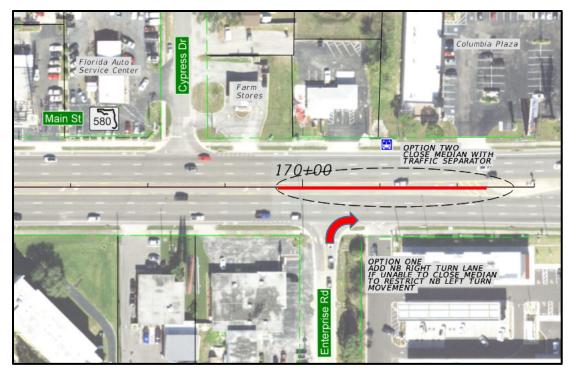
Context Classification: C3R – Suburban Residential

Issue: Vehicles making a northbound left turn from Enterprise Road to SR 580 cause an unsafe condition. Out of 49 intersection crashes in 5 years, 49% were angle or left turn crash types.

Proposed Improvement

Option 1 : *Short term -* Add northbound right turn lane if unable to close SR 580 median to restrict northbound left turn movement

Option 2: *Short term -* Close median opening with traffic separator



Improvements will enhance access management and improve safety for vehicles.





LOS Results for No-Build (2045)

Intersection Location	AM Delay (veh/sec)	AM LOS	PM Delay (veh/sec)	PM LOS
Enterprise Rd No-Build	222.2	E	22.9	C
	222.2	F	22.9	C
(0 parcels impacted)				

LOS Results for Build Option (2045)

Proposed Option	AM Delay (veh/sec)	AM LOS	PM Delay (veh/sec)	PM LOS
Enterprise Rd				
Add NB right turn lane	220.5	F	24.9	E
(0 parcels impacted)				

Minor street is stop sign controlled, adding an exclusive right turn lane allows for the right turning vehicles their own queue to make the movement.



SR 580 at US 19 Frontage Road



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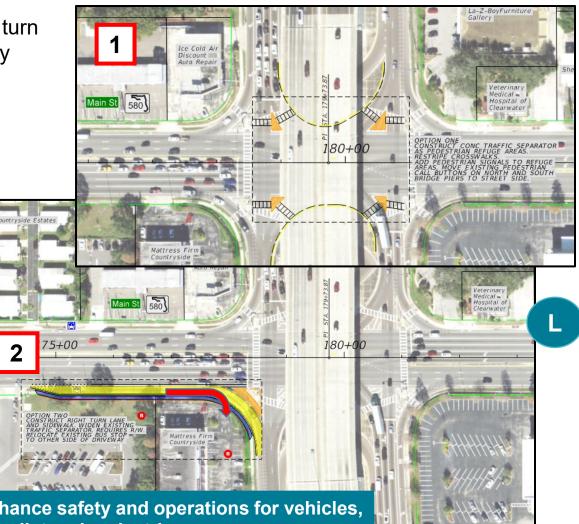
Context Classification: C3R – Suburban Residential

Issues: Level of service, delay (right turn storage) and pedestrian/bicycle safety

Proposed Improvement

Option 1 : *Short term* - Relocate push buttons to south side of bridge columns and add pebble/cobble type treatment for walking path. Option for gore striping to be constructed as a truck apron to further reduce motor vehicle turning speeds. Option to move utility box for unobstructed sight lines

Option 2: *Long term* - Add eastbound right turn lane.





Improvements will enhance safety and operations for vehicles, bicyclist and pedestrians.

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LOS Results for No-Build (2045)

Intersection Location	AM Delay (veh/sec)	AM LOS	PM Delay (veh/sec)	PM LOS
US 19 Interchange No-Build	206.7	F	133.7	F
(0 parcels impacted)				

LOS Results for Build Option (2045)

Intersection Location	AM Delay (veh/sec)	AM LOS	PM Delay (veh/sec)	PM LOS
US 19 Interchange				
Add EB right turn lane	163.3	F	133.7	F
(2 parcels impacted)				

No difference in the PM peak period for the overall intersection delay. The Eastbound approach (PM Peak Period) goes from 113 seconds of delay in the No Build to 77.6 seconds with the addition of an exclusive right turn lane.



SR 580 at Countryside Blvd



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Context Classification: C3R – Suburban Residential

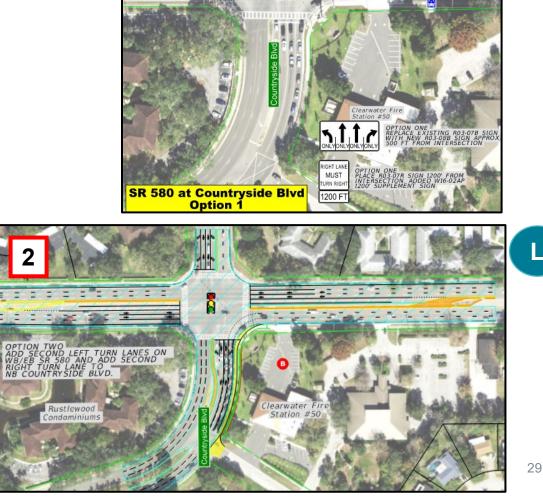
Issue: Level of service and delay

Proposed Improvement

Option 1: Short term - Add new signs to south approach of the intersection.

Option 2: Mid-term - Add second left turn lane to eastbound and westbound approaches and add a second right turn lane to northbound Countryside Blvd

> Improvements will enhance vehicle safety.



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LOS Results for No-Build (2045)

Intersection Location	AM Delay (veh/sec)	AM LOS	PM Delay (veh/sec)	PM LOS
Countryside Blvd No-Build	78.7	Ε	84.6	F

LOS Results for Build Option (2045)

Intersection Location	AM Delay (veh/sec)	AM LOS	PM Delay (veh/sec)	PM LOS
Countryside Blvd Add Turn Lane	49.1	D	45.9	D

Overall intersection delay decreases with the addition of a turn lane.



SR 580 at SR 590/Philippe Parkway

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Context Classification: C3R – Suburban Residential

Issue: Level of service and delay. Long queues for the westbound left turn

Proposed Improvement

Option 1: *Short term* – Construct 2nd westbound left turn and widen south approach to accommodate turning traffic

Improvements will provide additional storage for vehicles.







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Context Classification: C3R – Suburban Residential

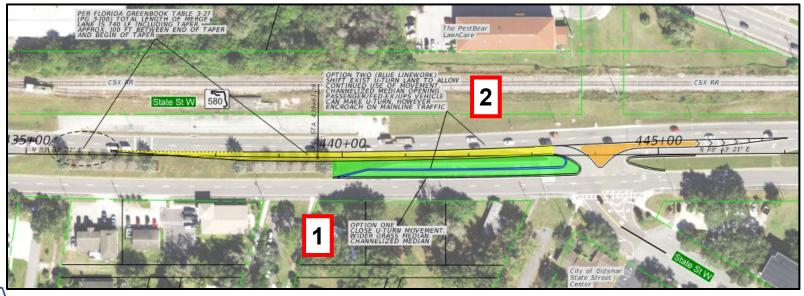
Issue: Level of service and delay

Proposed Improvement

Option 1: *Short term -* Close eastbound U-turn movement, widen grass median and channelize median

Option 2: *Short term -* Shift U-turn lane to allow continued use of movement, channelized median opening

Improvements will enhance access management and improve safety for vehicles.







LOS Results for No-Build (2045)

Intersection Location	AM Delay (veh/sec)	AM LOS	PM Delay (veh/sec)	PM LOS
State St No-Build	1.8	А	2.6	А

LOS Results for Build Option (2045)

Intersection Location	AM Delay (veh/sec)	AM LOS	PM Delay (veh/sec)	PM LOS
State St Close U-Turn	2.0	А	4.4	А

Overall intersection LOS remains LOS A with build improvement, but delay increases due to removal of u-turn movement.



SR 580 at Tampa Road



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Context Classification: C3R – Suburban Residential

Issue: Safety

Proposed Improvement

Option 1: *Short term* - Additional overhead signing on Tampa Road south of SR 580









Segn	nents	2045 No-Build		Concorne/Deficiencies		
From	То	Ped LOS	Bike LOS	Bike LTS	Concerns/Deficiencies	
Bass Blvd	Belcher Rd	С	С	3	Bike & ped safety	
Bass Blvd	New York Ave	С	С	3	Safety/Access Management	
Robin Hood Ln	Emerson Dr	D	С	3		
Emerson Dr	Pinehurst Rd	С	С	3		
Pinehurst Rd	Lake Haven Rd	С	С	4		
Friendly Ln	Keene Rd	С	С	4		
Achieva Way	Overcash Dr	D	С	4		
Overcash Dr	Pinewood Dr	D	С	4		
Belcher Rd	Enterprise Rd	D	С	4		
Enterprise Rd	US 19	D	С	4		
US 19	Summerdale Dr	D	С	4		
Summerdale Dr	2 nd Street	D	С	4		
2 nd Street	Duke Energy Trail	D	С	4		
Duke Energy Trail	Countryside Blvd	D	С	4		
Bayview Blvd	Tampa Road	D	D	4	Gap in sidewalk, bike lanes	
Countryside Blvd	Bay Hills Rd	D	D	4	Gap in bike lanes	
St. Clair Ave	Tampa Rd	E	D	4	Gap in bike lanes	

No capacity improvements were considered for this study.



Shared Use Path - SR 580 from Bass Blvd to Belcher Rd



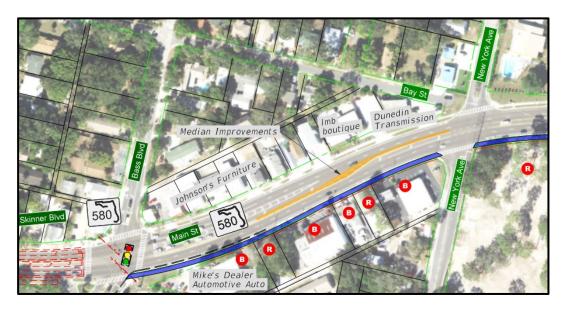
Context Classification: C3R – Suburban Residential, C3C – Suburban Commercial, C4 – Urban General

Issue: Bicyclist and pedestrian safety

Proposed Improvement

Option 1 : *Long term* - Construct a 10' shared use path along the south side of SR 580

Improvements will enhance safety for pedestrians and bicyclists.







SR 580 from Countryside Drive to Bay Hills Road



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Context Classification: C3R – Suburban Residential

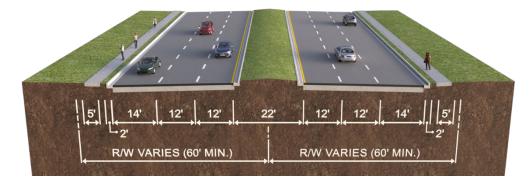
Issue: Deficiency - no existing bike lanes

Proposed Improvement

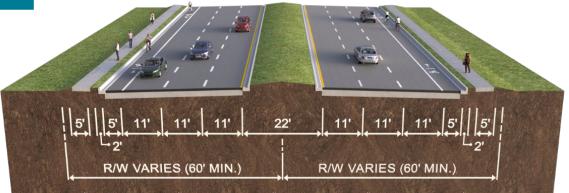
Option 1: *Short term* - Narrow travel lanes to provide 5' bike lanes in both directions

Improvements will enhance safety for pedestrians and bicyclists and provides vehicle speed management.

Existing Typical Section



Proposed Typical Section





SR 580 Bridge over Old Tampa Bay



Context Classification: C3R – Suburban Residential

Issue:

- Blind driveway heading eastbound
- Pedestrian/Bicycle Safety

Proposed Improvement

Option 1: *Short term* - Add bridge mounted warning signs for approaching blind driveway

Option 2: *Long term* - Reconfigure typical section on bridge to provide barrier separated shared use path

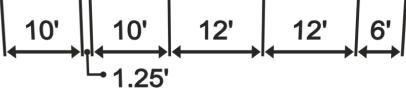
Typical section changes:

- Minor bridge widening to the outside
- Attach railing to the outside of the bridge

Improvements will enhance safety for pedestrians and bicyclists







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SR 580 from St. Clair Ave to Tampa Road



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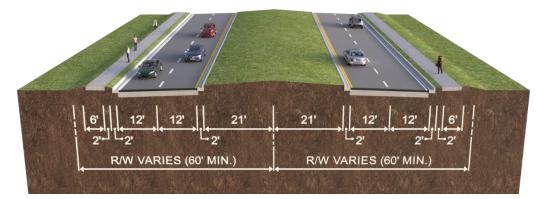
Context Classification: C3R – Suburban Residential

Issue: Deficiency - no existing bike lanes

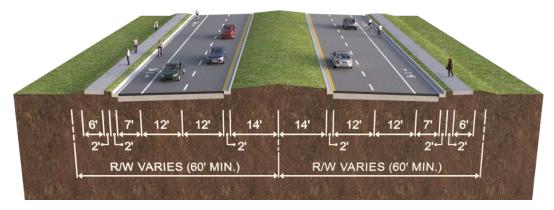
Proposed Improvement

Option 1: *Short term* - Widen towards the inside to provide buffered bike lanes in both directions

Improvements will enhance safety for pedestrians and bicyclists and provides speed management with a narrow median. **Existing Typical Section**



Proposed Typical Section





Median Improvements – Corridor-Wide



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Context Classification: C3R – Suburban Residential, C3C – Suburban Commercial, C4 – Urban General

Issue: Safety and access management

Proposed Improvement

Option 1: *Mid-term* - Construct raised medians throughout the SR 580 Corridor

Improvements will enhance access management.







Raised Mid-block Crossings



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Context Classification: C3R – Suburban Residential, C3C – Suburban

Commercial, C4 – Urban General

Issue: Safety for bicyclists and pedestrians

Proposed Improvement

Option 1: *Short term* - Construct raised medians throughout the SR 580 Corridor. Mid-block crossing warrant studies would need to be completed.







Improvements will enhance safety for pedestrians.

Recommended PD&E Studies



Countryside

High School

Context Classification: C3R – Suburban Residential, C3C – Suburban Commercial, C4 – Urban General

Issue: Complex traffic issues

PD&E Study Areas

- 1. McMullen Booth Road and SR 580 Intersection
- 2. SR 580 from west of Enterprise Drive to east of Countryside Drive





Next Steps



- Refine Alternatives based on PAG feedback
- Alternatives Assessment and Evaluation
 - Evaluate alternatives
- Corridor Alternatives and Strategies Report
- Corridor Development and Implementation Plan
 - Prioritize alternatives
 - Identify possible funding
 - Document stakeholder coordination history

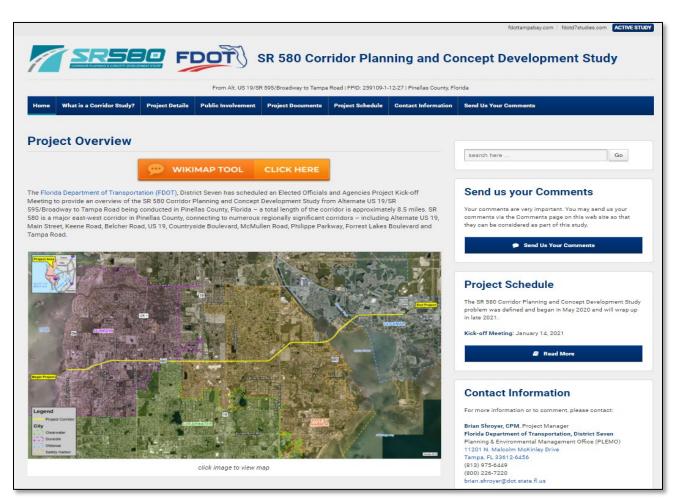


Project Website



Provide comments on the Project Website by <u>May 11th</u>

https://www.fdotd7studies.com/projects/sr580-corridor/





SR 580 Corridor Study



Thank You!

Thank You!

Questions?

Brian Shroyer, CPM Multimodal Project Manager 813-975-6449

Brian.Shroyer@dot.state.fl.us

Remember to be Alert Today, Alive Tomorrow. Safety doesn't happen by accident.



