East of CR-951 Bridges Reevaluation Study

Collier County Capital Project Planning, Impact Fees & Program Management Division

Bridges #4 – 47th Ave. NE & #12 – 62nd Ave. NE
Neighborhood Information Meeting
September 29, 2020

Collier County

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Presentation Agenda

1. Introductions
2. History & Background
3. Purpose of the Study
4. Study Process
5. Analysis of Bridges # 4 & #12
6. Next Steps & Questions

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1 Introductions

- ✓ **Lorraine Lantz**, AICP, Principal Planner
  Collier County Project Manager
- ✓ **Trinity Scott**, Transportation Planning Manager
  Collier County
- ✓ **Yvonne McClellan**, Sr. Communications Manager
  Quest Corp. of America
- ✓ **Miranda Lansdale**, Sr. Communications Manager
  Quest Corp. of America
- ✓ **Jeff Perry**, AICP, Sr. Transportation Planner
  Stantec Consulting Project Manager

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Questions Session Guidelines

- The Questions Session will follow the formal presentation.
- Attendees can submit questions via the Questions chat box at any time following the start of the presentation, and questions will be answered in the order in which they were received.
- All participants will be muted throughout the presentation, and the project team will read aloud your question prior to providing a response for the benefit of all attendees.
- If you did not have the opportunity to ask a question during the meeting today, you can submit your questions/comments to Lorraine.Lantz@colliercountyfl.gov or call 239-252-5779, and they will be included as part of the public participation process.

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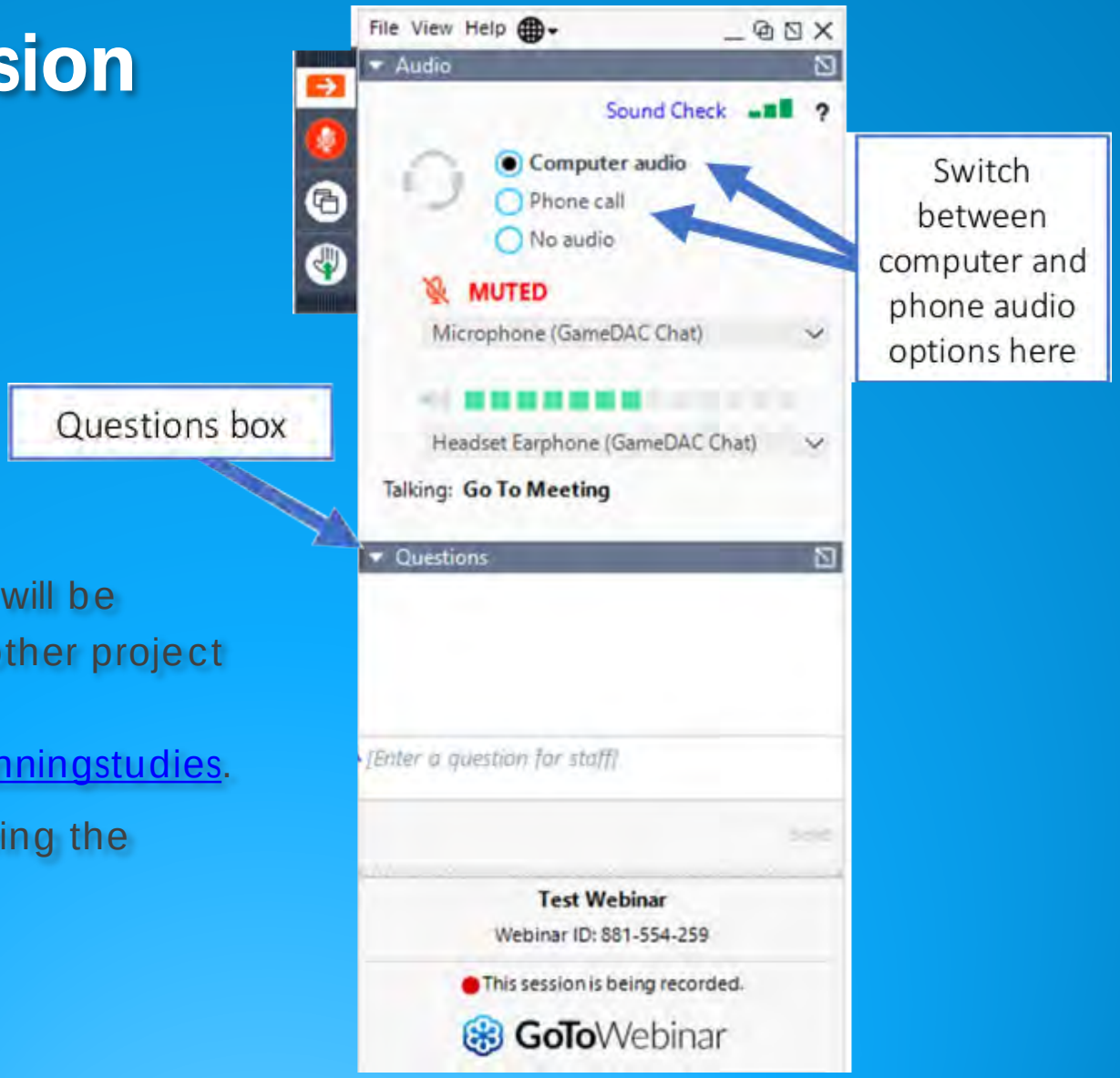
Questions Session Guidelines



- The webinar presentation will be available in PDF format with other project materials at http://colliercountyfl.gov/planningstudies.
- You will remain muted during the meeting.

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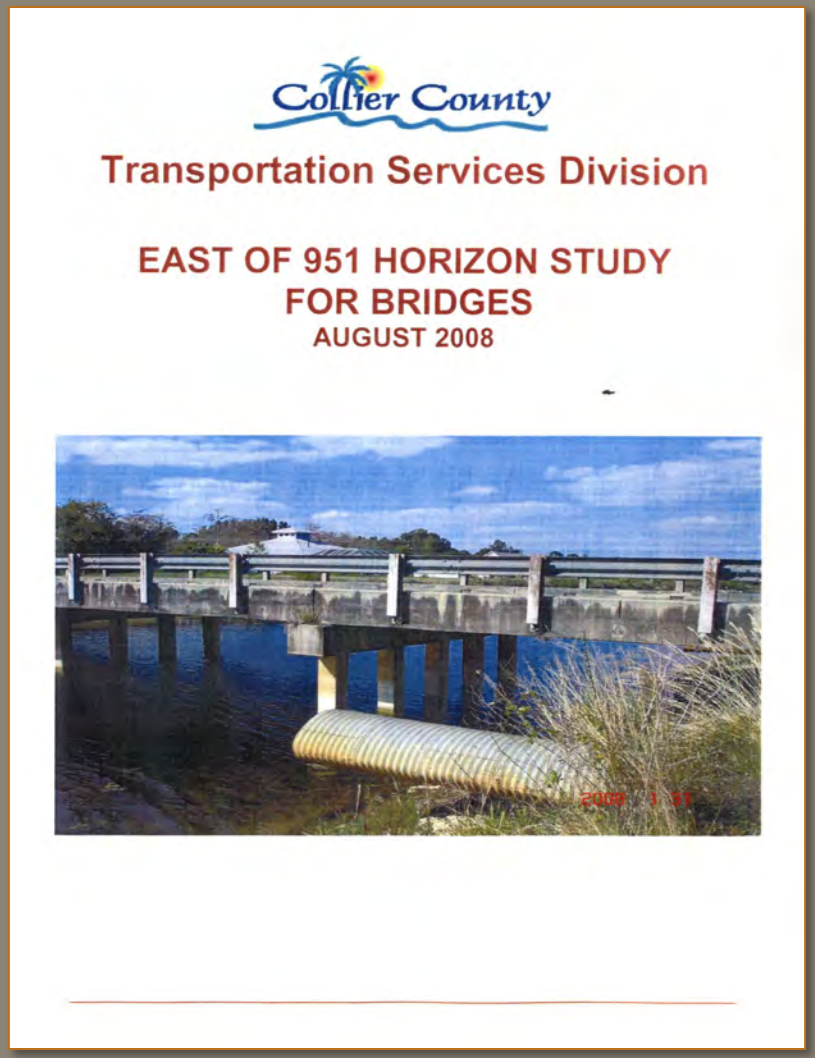
2 History & Background



In August 2008, Collier County completed the East of 951 Horizon Study for Bridges (2008 Study).

We would like to know if you are familiar with that study.

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2 History & Background

The 2008 Study was conducted to evaluate opportunities to construct missing bridge connections in the Golden Gate Estates Area roadway network.

- Within the 85 square miles of eastern Golden Gate Estates there are more than 300 dead-end streets.

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2 History & Background

The 2008 Study considered potential transportation circulation benefits:

- Improving connectivity to collectors and arterials
- Reducing trip length for personal travel
- Improving evacuation routes
- Reducing response times for first responders
- Improving access to schools, libraries, and parks

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2 History & Background

The 2008 Study's stakeholders identified 12 preferred canal-crossing locations.

Due to limited funding, bridges were ranked based on criteria related to emergency response, service efficiency and mobility.

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2 History & Background

2008 Study Bridge Ref. #	Bridge Locations
1	23rd St. SW (south of Golden Gate Blvd.)
2	16th St. NE (north of Golden Gate Blvd.)
3	8th St. NE (north of Golden Gate Blvd.)
4	47th Ave. NE (between Immokalee Rd. & Everglades Blvd.)
5	Wilson Blvd. N (south of 33rd Ave. NE)
6	18th Ave. NE (between Wilson Ave. & 8th St. NE)
7	18th Ave. NE (between 8th St. NE & 16th St. NE)
8	North End of 13th St. NW (north of Golden Gate Blvd.)
9	16th St. SE (south of Golden Gate Blvd.)
10	Wilson Blvd. S (south of Golden Gate Blvd.)
11	10th Ave. SE (between Everglades Blvd. & Desoto Blvd.)
12	62nd Ave. NE (between Everglades Blvd. and 40th St. NE)

Ranked order of 12 bridges from the 2008 Bridge Study

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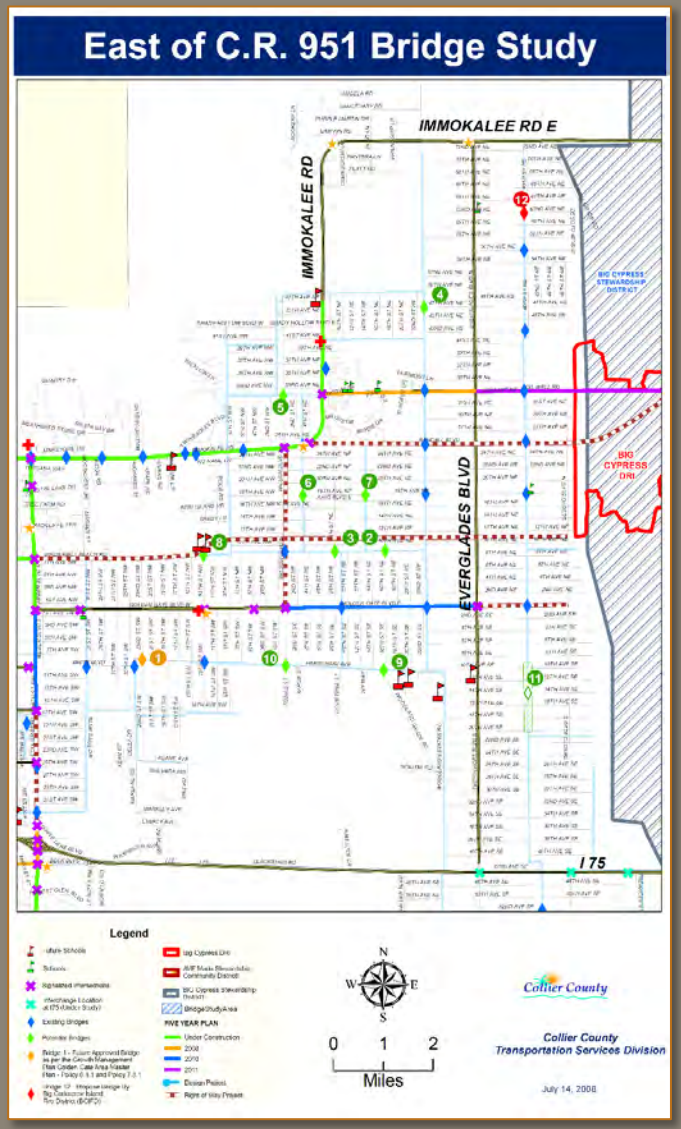
2 History & Background



Map of 12 bridges from the 2008 Bridge Study

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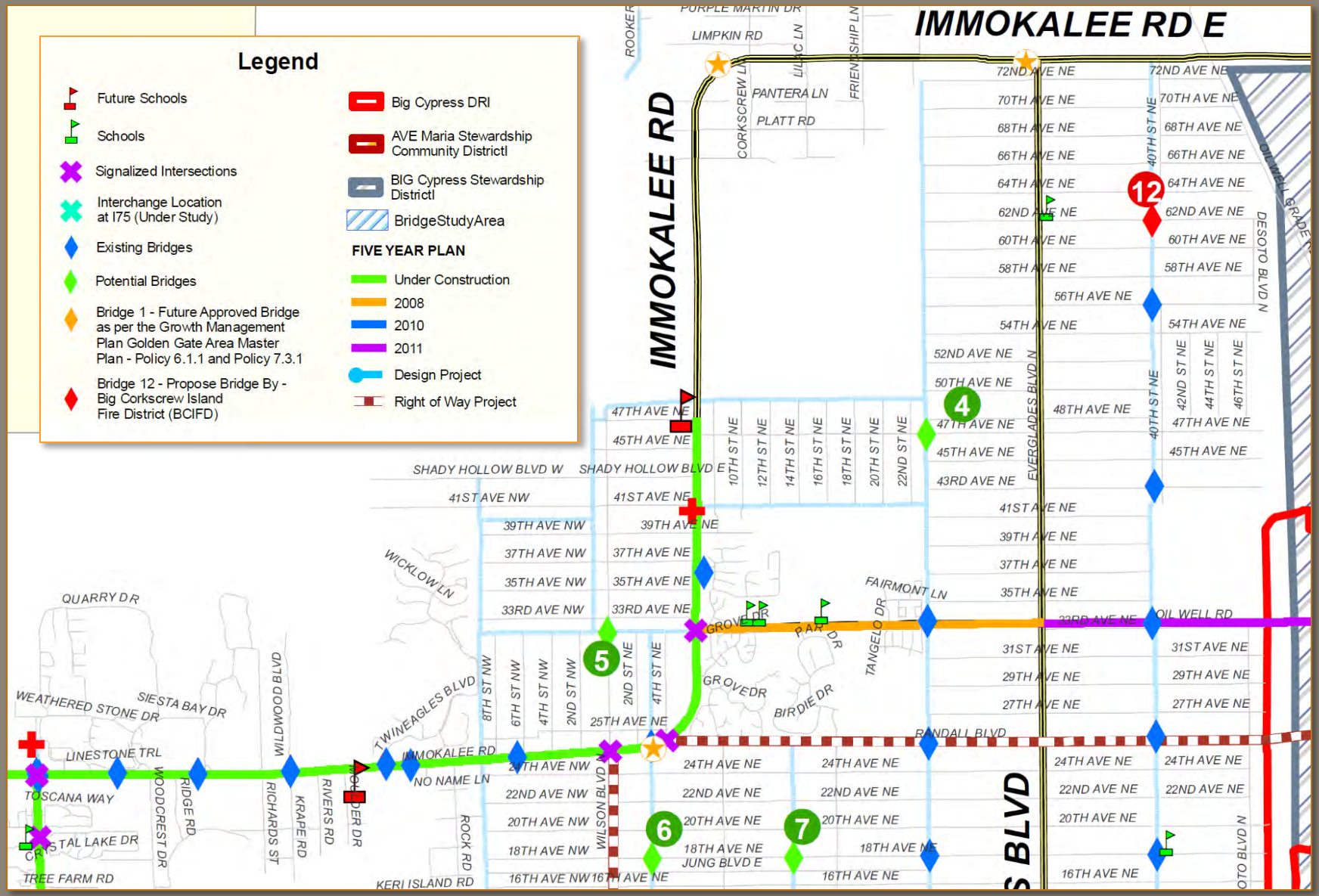

Map of Bridges in the north portion of the Study Area

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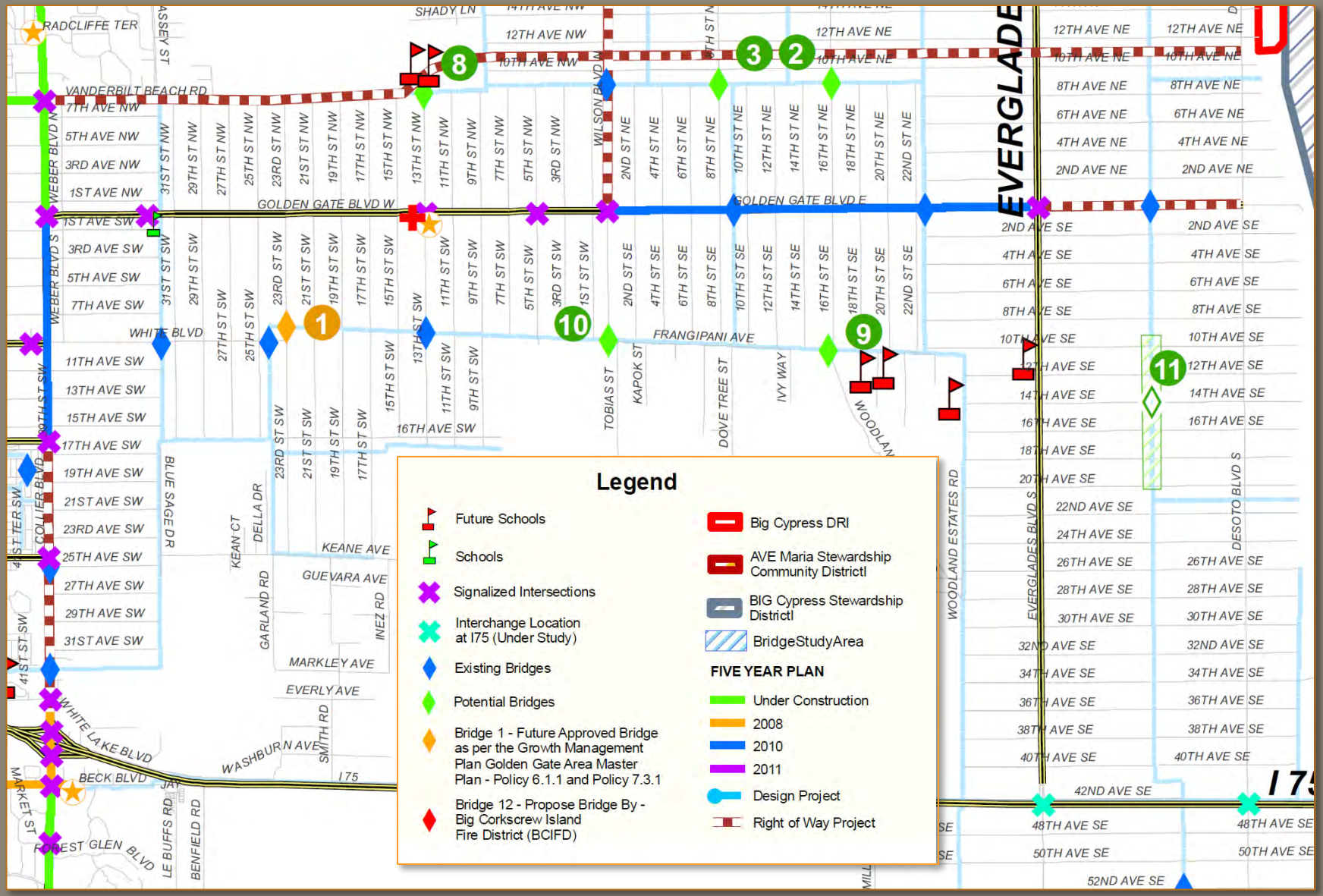

Map of Bridges in the south portion of the Study Area

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2 History & Background

2018 - Collier County voters approved a 1-cent infrastructure surtax that included funding specifically earmarked to construct the bridges within the next 7 years.

We would like to know if you are aware of the Surtax.

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2 History & Background

2019 - Collier County completed construction of Bridge #3 on 8th St. NE with funding from the FDOT.

2019 - Collier County programmed construction of Bridge #2 on 16th St. NE in the 5-Year Work Program with funds from the infrastructure surtax proceeds.

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2 History & Background

The remaining 10 bridges are the subject of this 2020 Reevaluation Study.

Bridge#	Bridge Locations
1	23rd St. SW (south of Golden Gate Blvd.)
4	47th Ave. NE (between Immokalee Rd. & Everglades Blvd.)
5	Wilson Blvd. N (south of 33rd Ave. NE)
6	18th Ave. NE (between Wilson Ave. & 8th St. NE)
7	18th Ave. NE (between 8th St. NE & 16th St. NE)
8	North End of 13th St. NW (north of Golden Gate Blvd.)
9	16th St. SE (south of Golden Gate Blvd.)
10	Wilson Blvd. S (south of Golden Gate Blvd.)
11	10th Ave. SE (between Everglades Blvd. & Desoto Blvd.)
12	62nd Ave. NE (between Everglades Blvd. and 40th St. NE)

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3 Purpose of the Study

The purpose of this 2020 Reevaluation Study is to reconfirm the validity of the remaining 10 recommended bridge locations before moving the bridge projects into production (design, permitting & construction).

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3 Purpose of the Study

This 2020 Reevaluation Study focused on the same important criteria considered in the original 2008 Study.

3 Purpose of the Study

The 2008 Study Criteria Included:

- Improved connectivity to collectors and arterials (route choice)
- Reduced trip length for personal travel
- Improved evacuation routes
- Reduced response times for first responders
- Improved access to schools, libraries, and parks

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3 Purpose of the Study

The Transportation Planning Team interviewed the same agency stakeholders from the 2008 Study:

- Collier County Sheriff's Office (CCSO)
- Emergency Services Division (EMS)
- North Collier Fire Control & Rescue District
- Greater Naples Fire & Rescue District
- Collier County Public School District

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3 Purpose of the Study

All the agencies interviewed reconfirmed the importance of the bridge locations that were recommended in the original 2008 Study.

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3 Purpose of the Study

The Transportation Planning Team also recognized that over time, the ownership of some of the properties along the dead-end roads leading to the new bridges would likely have changed since the 2008 Study.

3 Purpose of the Study

A notice of this meeting was mailed to property owners along the affected roadways, supplemented by door-to-door visits.

We would like to know how you heard about this meeting.

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3 Purpose of the Study

This neighborhood presentation is intended to provide the affected landowners with:

- The history & background of the bridges
- The Reevaluation Study findings
- The latest information about the bridge projects
- An opportunity to ask questions and provide comments

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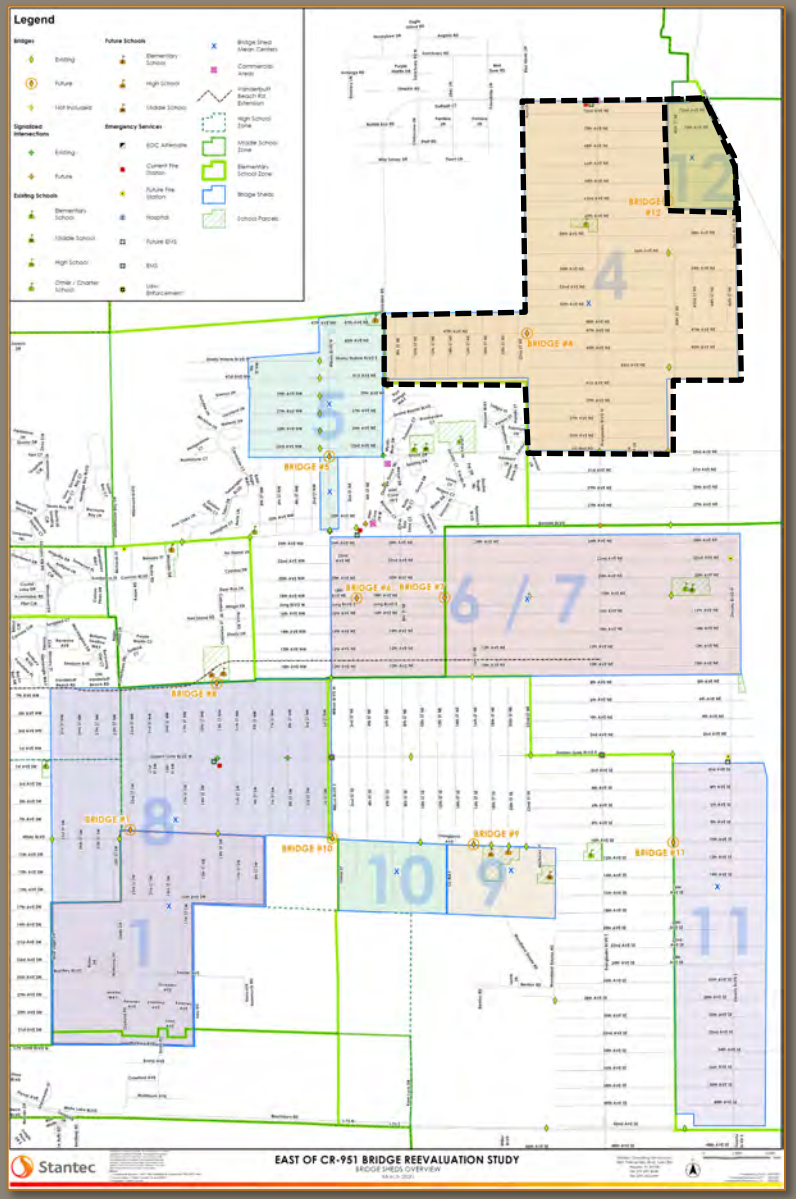
4 Study Process

The study process established nine “Bridge-Sheds” with boundaries that recognized those parcels likely to benefit from a new bridge.



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4 Study Process

Analysts conducted a Geographic Information System (GIS) analysis of each Bridge-Shed to:

- Quantify the number of affected parcels, and
- Measure the benefits derived from a new bridge

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4 Study Process

The GIS analysis quantified the number of existing homes (2019) and the total number of parcels (Build-Out) in each Bridge-Shed.

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4 Study Process

Within each Bridge-Shed, the GIS analysis established and measured representative travel routes for different trip purposes (e.g., route to reach an arterial roadway), with and without a new bridge.

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4 Study Process

For each trip purpose, the GIS analysis quantified the number of homes in 2019 and at Build-Out in each Bridge-Shed that would benefit from the reduced trip length because of the new bridge.

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4 Study Process

The Residential Trip Purposes examined included:

- Travel to reach the arterial network
- Travel to school(s)
- Travel to commercial/retail
- Travel to parks

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4 Study Process

The Agency Trip Purposes examined included:

- Fire Department Response
- Sheriff's Office (CCSO) Response
- Emergency Medical Service Response
- Access to Future Schools

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4 Study Process

The study also included a supplemental Fire District analysis to determine if any parcels currently not within the Insurance Services Office (ISO) 5-mile drive distance from a fire station (Public Protection Classification Score of 3), would be included if a new bridge was constructed.

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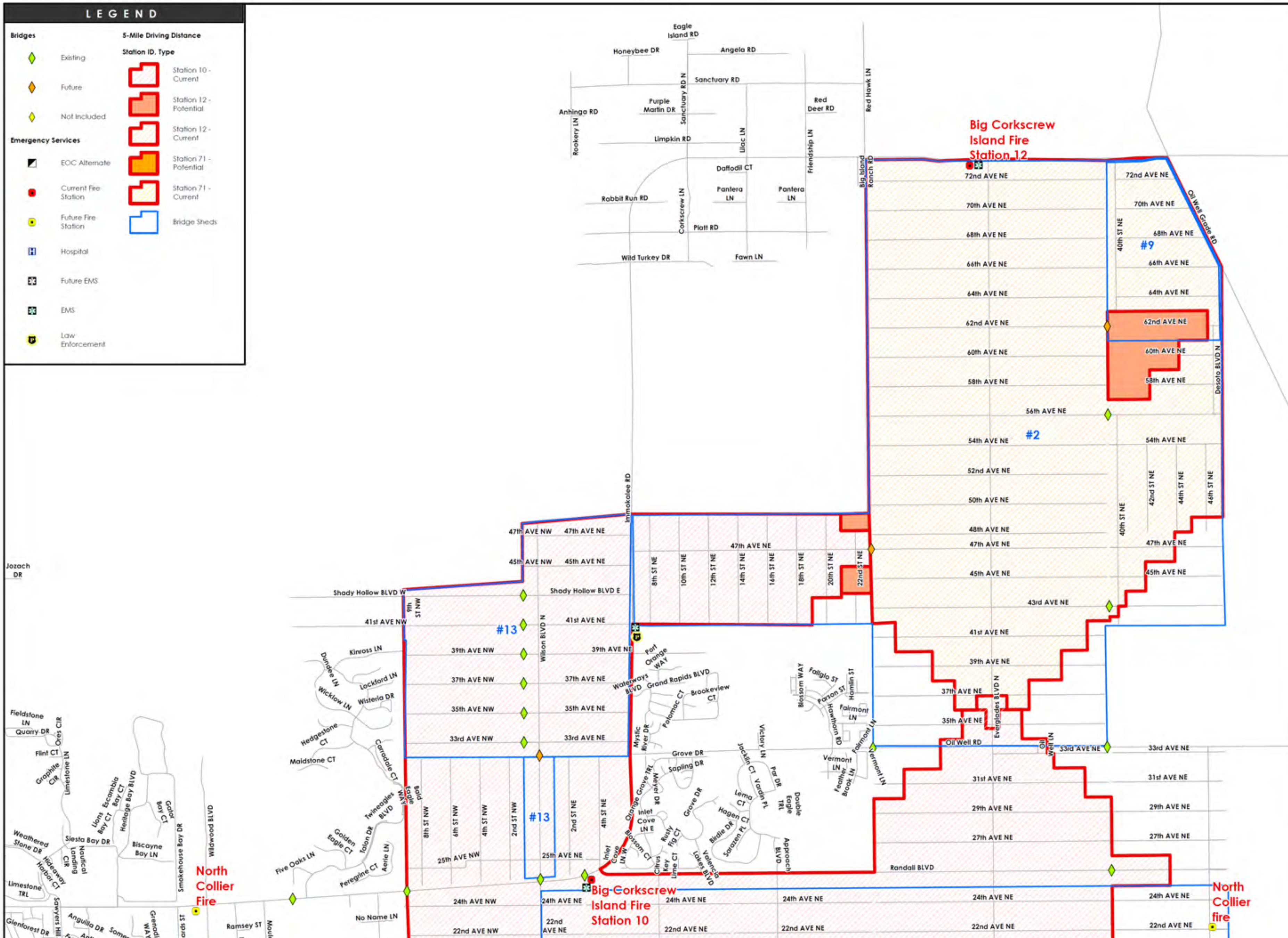
LEGEND
Bridges
Existing
Future
Not Included
Emergency Services
EOC Alternate
Current Fire Station
Future Fire Station
Hospital
Future EMS
EMS
Law Enforcement
5-Mile Driving Distance
Station ID, Type
Station 10 - Current
Station 12 - Potential
Station 12 - Current
Station 71 - Potential
Station 71 - Current
Bridge Sheds
Big Corkscrew Island Fire Station 12
Big Corkscrew Island Fire Station 10
North Collier Fire
North Collier fire
#2
#9
#13
#13
Eagle Island RD
Honeybee DR
Angelo RD
Sanctuary RD
Purple Martin DR
Anhinga RD
Red Deer RD
Red Hawk LN
Limpkin RD
Daffodil CT
Rabbit Run RD
Pantera LN
Piatt RD
Wild Turkey DR
Fawn LN
Big Island Ranch RD
72nd AVE NE
70th AVE NE
68th AVE NE
66th AVE NE
64th AVE NE
62nd AVE NE
60th AVE NE
58th AVE NE
56th AVE NE
54th AVE NE
52nd AVE NE
50th AVE NE
48th AVE NE
47th AVE NE
45th AVE NE
43rd AVE NE
41st AVE NE
39th AVE NE
37th AVE NE
35th AVE NE
Oil Well RD
33rd AVE NE
31st AVE NE
29th AVE NE
27th AVE NE
Randall BLVD
24th AVE NE
22nd AVE NE
Oil Well Grade RD
Desoto BLVD N
40th ST NE
42nd ST NE
44th ST NE
46th ST NE
Everglades BLVD N
Immokalee RD
47th AVE NW
45th AVE NW
Shady Hollow BLVD W
Shady Hollow BLVD E
41st AVE NW
39th AVE NW
37th AVE NW
35th AVE NW
33rd AVE NW
25th AVE NW
24th AVE NW
22nd AVE NW
Wilson BLVD N
Grand Rapids BLVD
Waterways BLVD
Grove DR
Sapling DR
Wildwood BLVD
Five Oaks LN
Peregrine CT
No Name LN
Ramsey ST
Jozach DR

5 Bridge Project Prototype

As mentioned previously, Bridge #3 on 8th St. NE was recently constructed and will serve as the prototypical bridge project for the remaining 10 bridges.

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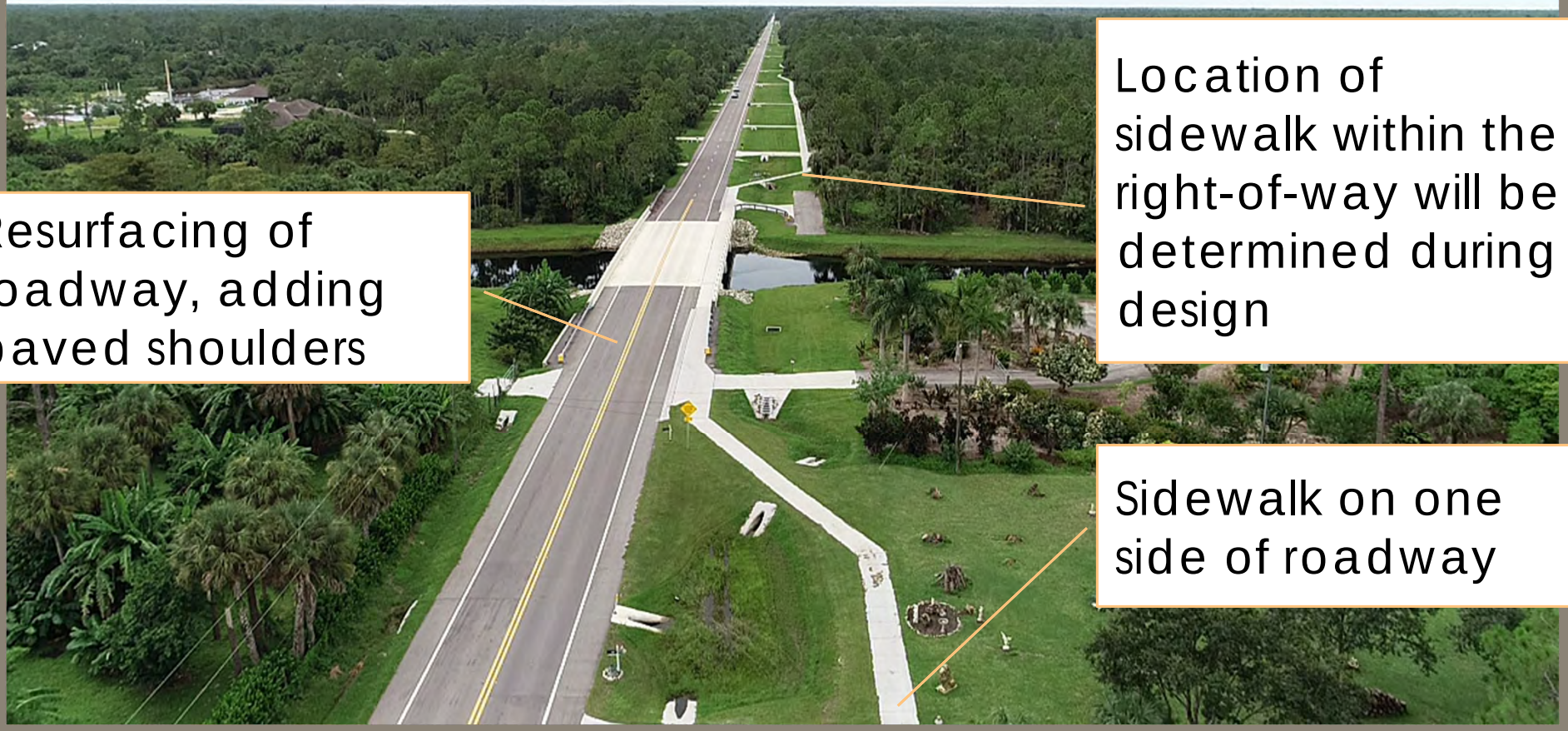
5 Bridge Project Prototype

The new bridge on 8th St. NW is seen as the prototypical bridge project to be constructed at the remaining 10 locations



Resurfacing of roadway, adding paved shoulders

Location of sidewalk within the right-of-way will be determined during design

Sidewalk on one side of roadway

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5 Analysis of Bridge #4

47th Ave. NE

The next set of slides will provide an overview of the analysis of Bridge #4 on 47th Ave. NE, located approximately 2 miles east of Immokalee Road.

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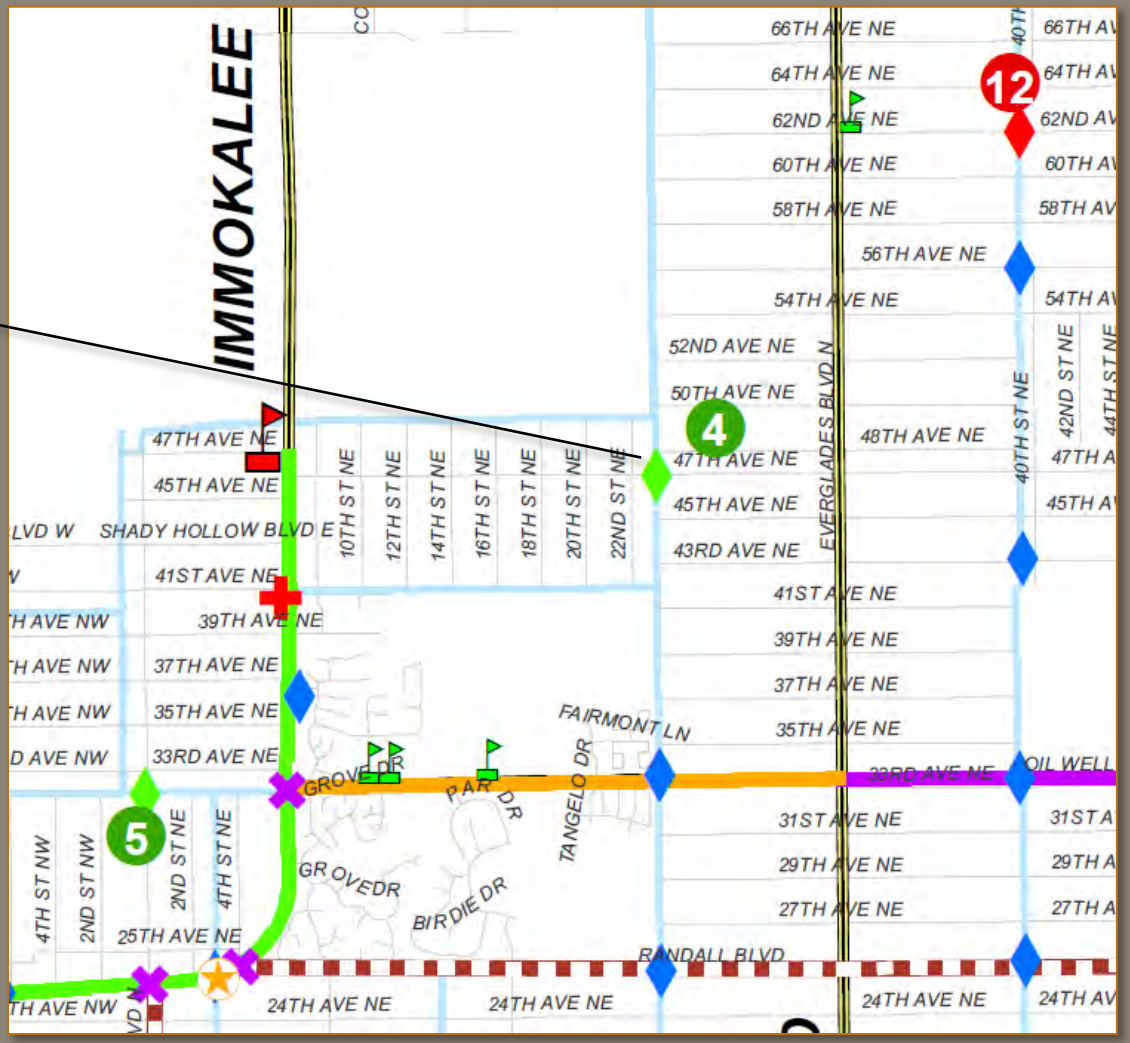
5 Analysis of Bridge #4

47th Ave. NE

Bridge #4 is located on 47th Ave. NE, east of Immokalee Rd. and west of Everglades Blvd.



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5 Analysis of Bridge #4

47th Ave. NE

Location of Bridge #4

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5 Analysis of Bridge #4

47th Ave. NE

Location of Bridge #4: Existing Condition

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5 Analysis of Bridge #4

47th Ave. NE

Location of Bridge #4: Proposed Condition

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5 Analysis of Bridge #4

47th Ave. NE

The Bridge #4 Project Includes the Following Improvements:

- Resurfacing 47th Ave. NE from Immokalee Rd. to Everglades Blvd. (+/- 3.06 miles)
- Adding paved shoulders
- Adding a Sidewalk along one side of roadway from Immokalee Rd. to Everglades Blvd.

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5 Analysis of Bridge #4

47th Ave. NE

Design Considerations Include:

- Intersection improvements (e.g., turn lanes, traffic signal, etc.) at the intersection of Immokalee Rd. & 47th Ave. NE
- Intersection improvements (e.g., turn lanes, traffic signal, etc.) at the intersection of Everglades Blvd. & 47th Ave. NE

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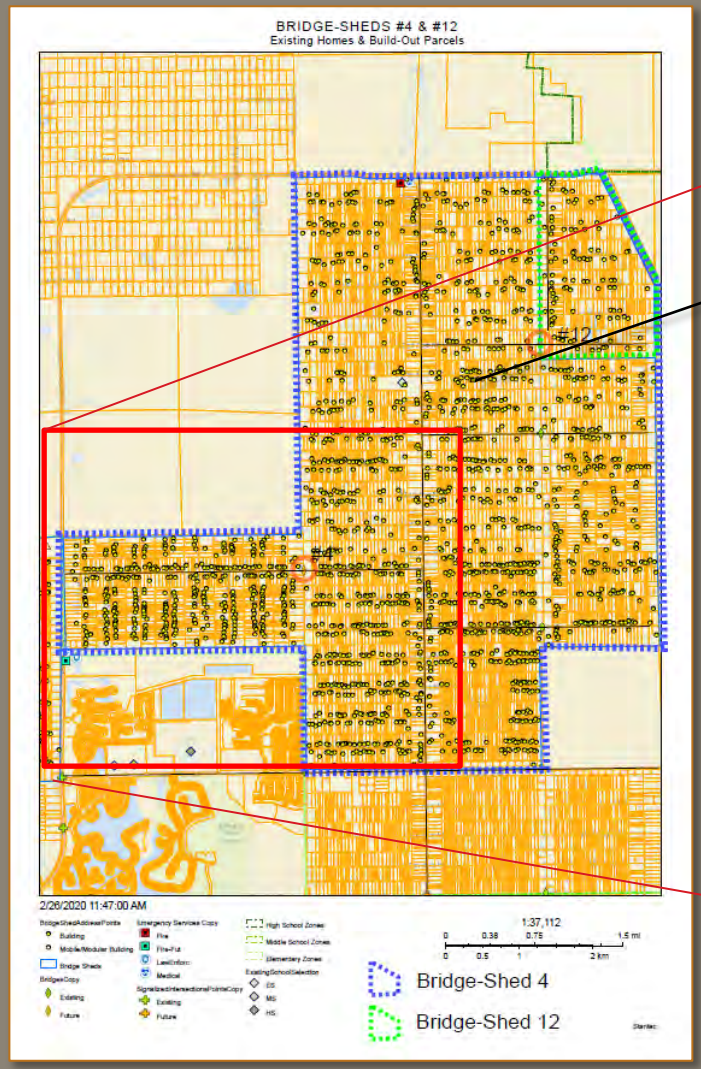
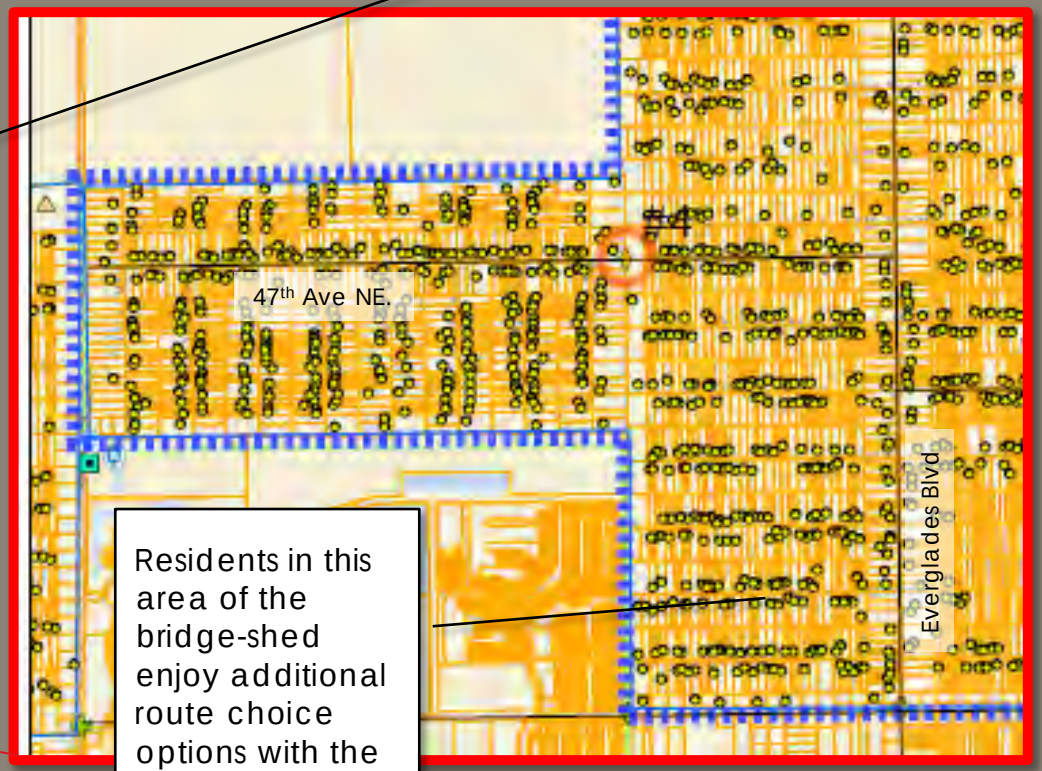
5 Analysis of Bridge #4

47th Ave. NE

The number of existing homes and the total number of parcels that would benefit from a new bridge were quantified.





Residents in this area of the bridge-shed enjoy additional route choice options with the new bridge, but no reduction in trip length

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5 Analysis of Bridge #4

23rd St. SW, North of White Blvd.

Importance of study criteria

- Improved connectivity to collectors and arterials (route choice)
- Reduced trip length for personal travel
- Improved evacuation routes (route choice)
- Reduced response times for first responders
- Improved access to schools, libraries, and parks

We would like to know which of the criteria are important to you.

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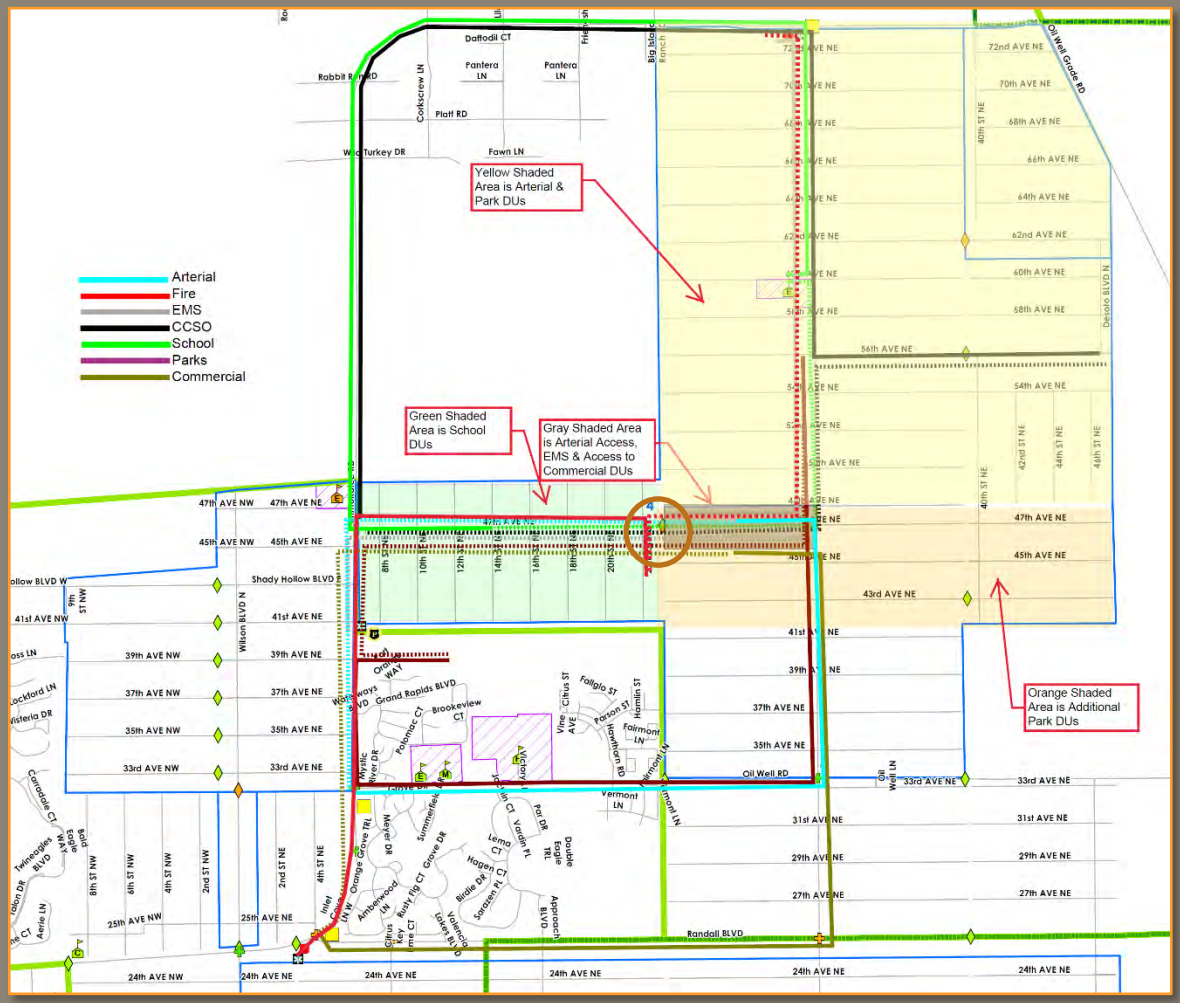
5 Analysis of Bridge #4

47th Ave. NE



Dwelling units (DUs) within each bridge-shed that would benefit from a new bridge were identified and trip lengths for those applicable purposes were measured with and without the bridge.

Solid lines illustrate the existing routes, and dashed lines illustrate the "with a new bridge" trip routes.

Analysis of Bridge #4: Trip Length With & Without Bridge

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5 Analysis of Bridge #4

47th Ave. NE

The trip length and housing unit data was put into a worksheet to quantify the benefits realized with a new bridge.

2019													NOTES
		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip	Trips per Day	VMT[1] Saved per day	Gallons Saved per day @ 30 mpg	Gallons Saved per Home per Day	Days per Year	Gallons Saved per Home per Year	VMT[1] Saved per Home per day	
Reduces Travel Distance/Time to Reach Arterial Network	Yes	50	5.3	4.3	1.0	4	200	7	0.13	300	40.0	4.0	Residents off 47th Ave. NE between bridge and Everglades Blvd.
Reduces Travel Distance/Time to Reach Schools	Yes	414 57	9.0	4.0	5.0	4	1133	38	0.66	180	119.3	19.9	Only Residents with school-age children off 47th west of bridge
Reduces Travel Distance/Time to Commercial/Retail	Yes	50	6.6	5.4	1.2	2	115	4	0.08	90	6.9	2.3	Residents off 47th Ave. NE between bridge and Everglades Blvd.
Reduces Travel Distance/Time to Reach Parks	Yes	1369	7.4	5.7	1.7	2	4655	155	0.11	24	2.7	3.4	All residents east of bridge and north of 43rd Ave. NE
Increases Resident's Route Choice Options; Improves Evacuation Access	Yes	2142											
		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip								
Reduces Travel Distance/Response Time For Fire First Responders	Yes	16	5.1	4.9	0.2	4% Reduction in Response Time							
Response Time (minutes) at 30 MPH			10.2	9.8	0.4								
Reduces Travel Distance/Response Time For CCSO First Responders	Yes	2142	10.3	6.1	4.2	Up to a Reduction of 41% in Response Time							
Response Time (minutes) at 45 MPH			13.7	8.1	5.6								
Reduces Travel Distance/Response Time For EMS First Responders	Yes	50	4.4	2.7	1.8	40% Reduction in Response Time							
Response Time (minutes) at 35 MPH			7.6	4.5	3.0								
Reduces Travel Distance to Fire Station to Improves ISO Public Protection Classification Score	Yes	16	5.2	5.0	Bridge makes a different station closer								
Improves School Bus Route Operations	Yes	*May improve circulation options for bus routes to existing and future school(s); may improve bus utilization, reduce fuel consumption and associated operating costs.*											

[1] *VMT = Vehicle Miles Traveled*

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5 Analysis of Bridge #4

47th Ave. NE

This bridge-shed worksheet quantifies the applicable benefits for **existing** residents with a new bridge

2019													
		DUs	Distance (miles)			Trips per Day	VMT[1] Saved per day	Gallons Saved per day @ 30 mpg	Gallons Saved per Home per Day	Days per Year	Gallons Saved per Home per Year	VMT[1] Saved per Home per day	
			W/O Bridge	W/ Bridge	Saved per Trip								
Reduces Travel Distance/Time to Reach Arterial Network	Yes	50	5.3	4.3	1.0	4	200	7	0.13	300	40.0	4.0	Residents off 47th Ave. NE between bridge and Everglades Blvd.
Reduces Travel Distance/Time to Reach Schools	Yes	414 57	9.0	4.0	5.0	4	1133	38	0.66	180	119.3	19.9	Only Residents with school-age children off 47th west of bridge
Reduces Travel Distance/Time to Commercial/Retail	Yes	50	6.6	5.4	1.2	2	115	4	0.08	90	6.9	2.3	Residents off 47th Ave. NE between bridge and Everglades Blvd.
Reduces Travel Distance/Time to Reach Parks	Yes	1369	7.4	5.7	1.7	2	4655	155	0.11	24	2.7	3.4	All residents east of bridge and north of 43rd Ave. NE
Increases Resident's Route Choice Options; Improves Evacuation Access	Yes	2142											

		DUs	Distance (miles)			
			W/O Bridge	W/ Bridge	Saved per Trip	
Reduces Travel Distance/Response Time For Fire First Responders	Yes	16	5.1	4.9	0.2	4% Reduction in Response Time
Response Time (minutes) at 30 MPH			10.2	9.8	0.4	
Reduces Travel Distance/Response Time For CCSO First Responders	Yes	2142	10.3	6.1	4.2	Up to 41% a Reduction of in Response Time
Response Time (minutes) at 45 MPH			13.7	8.1	5.6	
Reduces Travel Distance/Response Time For EMS First Responders	Yes	50	4.4	2.7	1.8	40% Reduction in Response Time
Response Time (minutes) at 35 MPH			7.6	4.5	3.0	
Reduces Travel Distance to Fire Station to Improves ISO Public Protection Classification Score	Yes	16	5.2	5.0	Bridge makes a different station closer	
Improves School Bus Route Operations	Yes	*May improve circulation options for bus routes to existing and future school(s); may improve bus utilization, reduce fuel consumption and associated operating costs.*				

[1] *VMT = Vehicle Miles Traveled*

5 Analysis of Bridge #4

47th Ave. NE

This portion of the bridge-shed worksheet quantifies the potential benefits to residents

2019													NOTES
		DUs	Distance (miles)			Trips per Day	VMT[1] Saved per day	Gallons Saved per day @ 30 mpg	Gallons Saved per Home per Day	Days per Year	Gallons Saved per Home per Year	VMT[1] Saved per Home per day	
			W/O Bridge	W/ Bridge	Saved per Trip								
Reduces Travel Distance/Time to Reach Arterial Network	Yes	50	5.3	4.3	1.0	4	200	7	0.13	300	40.0	4.0	Residents off 47th Ave. NE between bridge and Everglades Blvd.
Reduces Travel Distance/Time to Reach Schools	Yes	414 57	9.0	4.0	5.0	4	1133	38	0.66	180	119.3	19.9	Only Residents with school-age children off 47th west of bridge
Reduces Travel Distance/Time to Commercial/Retail	Yes	50	6.6	5.4	1.2	2	115	4	0.08	90	6.9	2.3	Residents off 47th Ave. NE between bridge and Everglades Blvd.
Reduces Travel Distance/Time to Reach Parks	Yes	1369	7.4	5.7	1.7	2	4655	155	0.11	24	2.7	3.4	All residents east of bridge and north of 43rd Ave. NE
Increases Resident's Route Choice Options; Improves Evacuation Access	Yes	2142											

The number of homes or dwelling units (DUs) that would benefit for a particular trip purpose

The trip length without and with the new bridge and the savings

Number of trips per day (per DU) times trip length equals Vehicle Miles of Travel (VMT)

The number of gallons of fuel saved with a new bridge

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5 Analysis of Bridge #4

47th Ave. NE

This portion of the bridge-shed worksheet quantifies the potential benefits to public agencies

The applicable First Responder trip purpose and the number of homes to benefit from a faster response time

The trip length without and with the new bridge and the savings

Potential average reduction in response time for the agency to reach a home with the new bridge in place

The potential benefit to the Fire ISO rating

		DUs	Distance (miles) W/O Bridge	W/ Bridge	Saved per Trip	
Reduces Travel Distance/Response Time For Fire First Responders	Yes	16	5.1	4.9	0.2	4% Reduction in Response Time
Response Time (minutes) at 30 MPH			10.2	9.8	0.4	
Reduces Travel Distance/Response Time For CCSO First Responders	Yes	2142	10.3	6.1	4.2	Up to a Reduction of 41% in Response Time
Response Time (minutes) at 45 MPH			13.7	8.1	5.6	
Reduces Travel Distance/Response Time For EMS First Responders	Yes	50	4.4	2.7	1.8	40% Reduction in Response Time
Response Time (minutes) at 35 MPH			7.6	4.5	3.0	
Reduces Travel Distance to Fire Station to Improves ISO Public Protection Classification Score	Yes	16	5.2	5.0	Bridge makes a different station closer	
Improves School Bus Route Operations	Yes	*May improve circulation options for bus routes to existing and future school(s); may improve bus utilization, reduce fuel consumption and associated operating costs.*				

[1] *VMT = Vehicle Miles Traveled*

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5 Analysis of Bridge #4

47th Ave. NE

This bridge-shed worksheet quantifies the applicable benefits for all **future** residents with a new bridge

Build-Out													
		DUs	Distance (miles)			Trips per Day	VMT[1] Saved per day	Gallons Saved per day @ 30 mpg	Savings per Home per Day	Days per Year	Savings per Home per Year	VMT[1] Saved per Home per day	
			W/O Bridge	W/ Bridge	Saved per Trip								
Reduces Travel Distance/Time to Reach Arterial Network	Yes	90	5.3	4.3	1.0	4	360	12	0.13	300	40.0	4.0	Residents off 47th Ave. NE between bridge and Everglades Blvd.
Reduces Travel Distance/Time to Reach Schools (E)	Yes	636 87	9.0	4.0	5.0	4	1730	58	0.66	180	119.3	19.9	Only Residents with school-age children off 47th west of bridge
Reduces Travel Distance/Time to Commercial/Retail	Yes	90	6.6	5.4	1.2	2	207	7	0.08	90	6.9	2.3	Residents off 47th Ave. NE between bridge and Everglades Blvd.
Reduces Travel Distance/Time to Reach Parks	Yes	3436	7.4	5.7	1.7	2	11682	389	0.11	24	2.7	3.4	All residents east of bridge and north of 43rd Ave. NE
Increases Resident's Route Choice Options; Improves Evacuation Access	Yes	5012											

		DUs	Distance (miles)			
			W/O Bridge	W/ Bridge	Saved per Trip	
Reduces Travel Distance/Response Time For Fire First Responders	Yes	28	5.1	4.9	0.2	4% Reduction in Response Time
Response Time (minutes) at 30 MPH			10.2	9.8	0.4	
Reduces Travel Distance/Response Time For CCSO First Responders	Yes	5012	10.3	6.1	4.2	Up to a Reduction of 41% in Response Time
Response Time (minutes) at 45 MPH			13.7	8.1	5.6	
Reduces Travel Distance/Response Time For EMS First Responders	Yes	90	4.4	2.7	1.8	40% Reduction in Response Time
Response Time (minutes) at 35 MPH			7.6	4.5	3.0	
Reduces Travel Distance to Fire Station to Improves ISO Public Protection Classification Score	Yes	28	5.2	5.0	Bridge makes a different fire station closer to homes west of canal/bridge.	
Improves School Bus Route Operations	Yes	*May improve circulation options for bus routes to existing and future school(s); may improve bus utilization, reduce fuel consumption and associated operating costs.*				

[1] *VMT = Vehicle Miles Traveled*

5 Analysis of Bridge #4

47th Ave. NE

Potential Benefits Include:

- Increase in route choice options for public agencies, and 2,142 current residences (5,012 at buildout)
- Shorter trip lengths for some residents
- Shorter trip lengths for some CCSO responses

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5 Analysis of Bridge #4

47th Ave. NE

Potential Benefits Include:

- Reduction in travel distance to arterial network for 50 homes on 47th Ave. NE east of the bridge (90 at build-out)
- Reduction in travel distance to commercial area for 50 homes on 47th Ave. NE east of the bridge (90 at build-out)

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5 Analysis of Bridge #4

47th Ave. NE

Potential Benefits Include:

- Residents could benefit from up to a 41% decrease in response time (up to 5.6 minutes) for CCSO vehicles.
- Route choice is improved CCSO, Fire & EMS first responders.
  - 40% reduction in response time to area residences due to station locations.
  - 16 (28 at B/O) additional homes meet ISO 3 Rating

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5 Analysis of Bridge #12

62nd Ave. NE

The next set of slides will provide an overview of the analysis of #12 on 62nd Ave. NE, located approximately 1 miles east Everglades Blvd.

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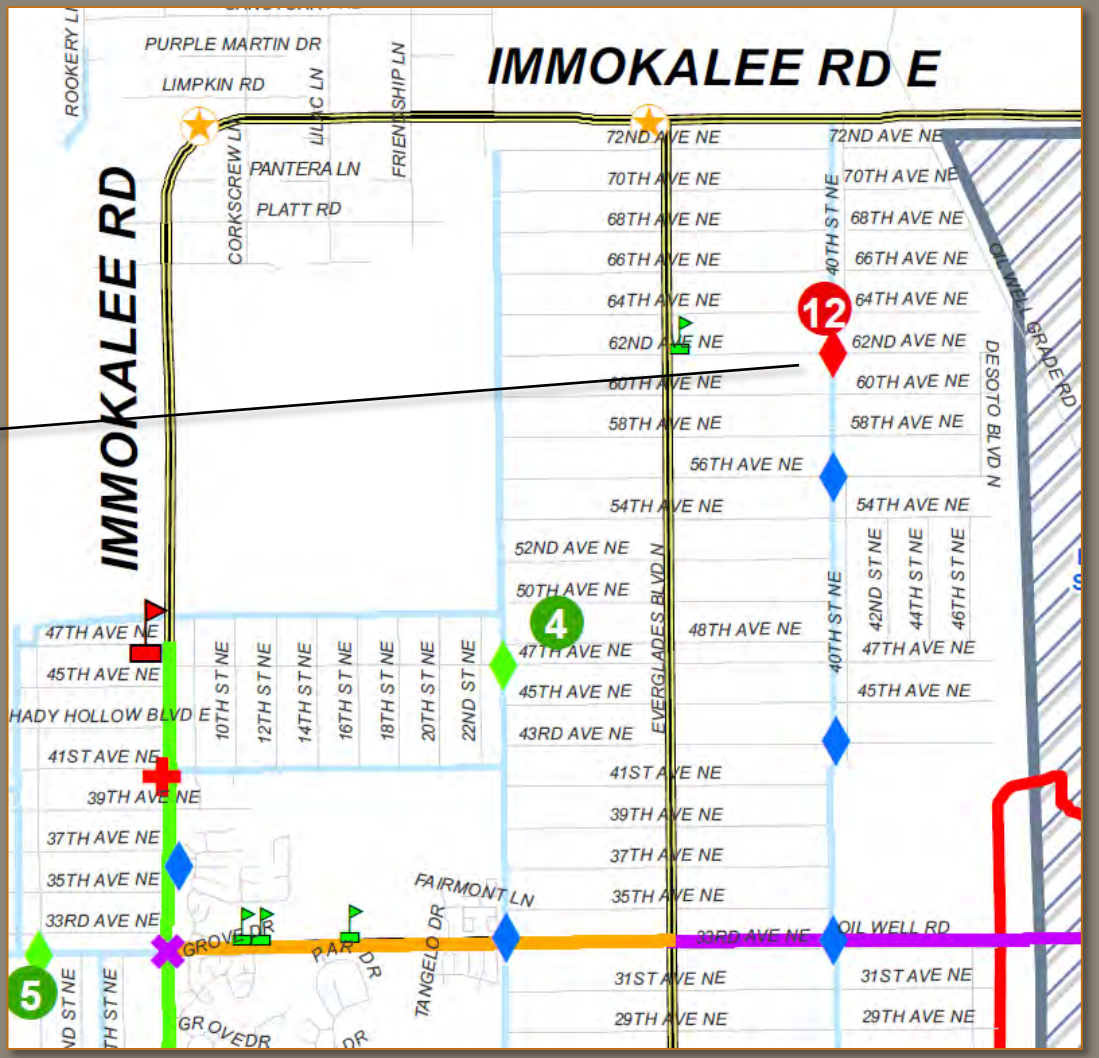
5 Analysis of Bridge #12

62nd Ave. NE

Bridge #12 is located on 62nd Ave. NE, 1 mile east of Everglades Blvd.



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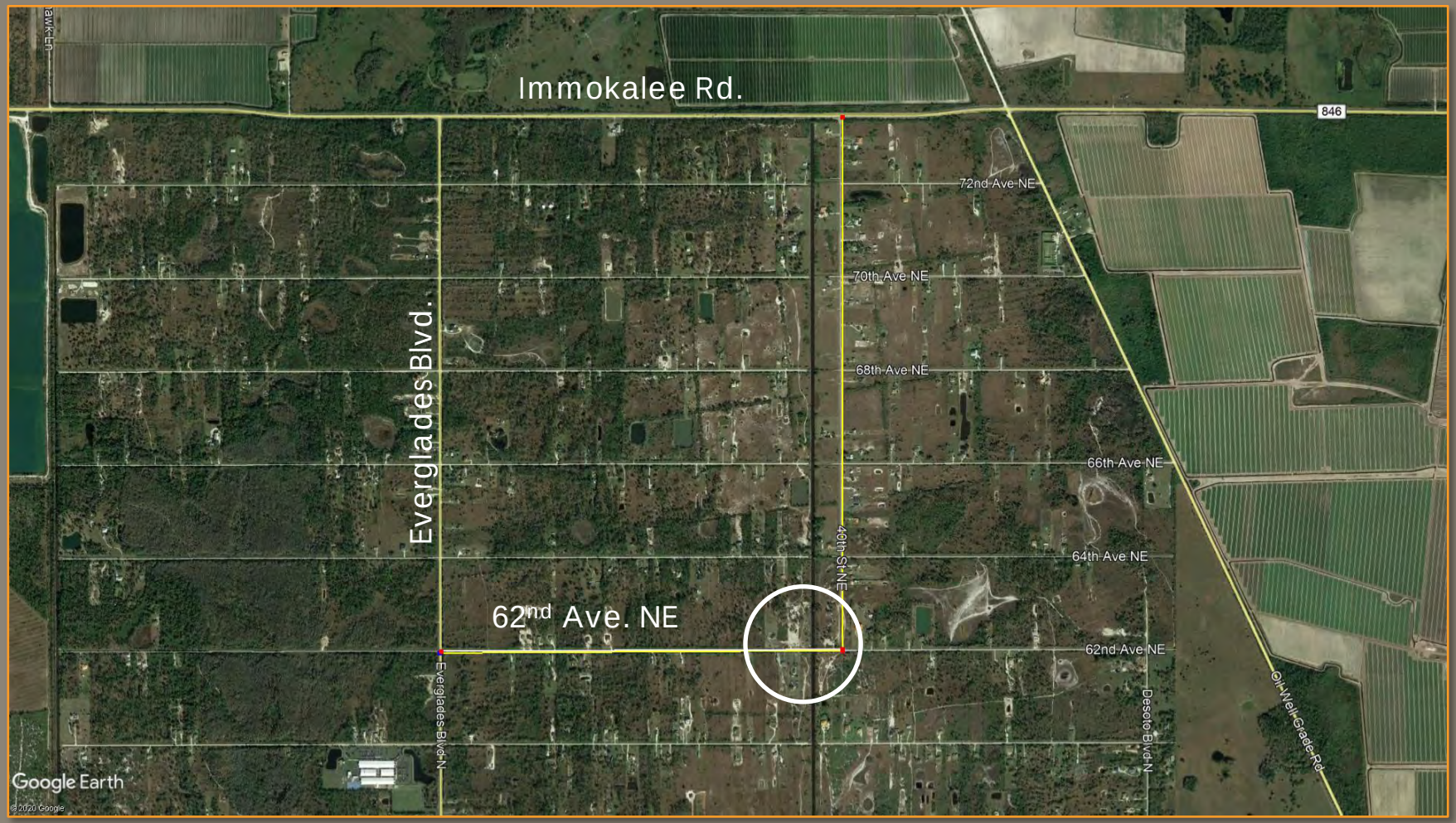
5 Analysis of Bridge #12

62nd Ave. NE



Location of Bridge #12

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5 Analysis of Bridge #12

62nd Ave. NE

Location of Bridge #12: Existing Condition

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5 Analysis of Bridge #12

62nd Ave. NE

Location of Bridge #12: Proposed Condition

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5 Analysis of Bridge #12

62nd Ave. NE

The Bridge #12 Project Includes the Following Improvements:

- Extending 40th St. NE southward 660 feet
- Resurfacing 62nd Ave. NE from Everglades Blvd. 40th St. NE (+/- 1.1 miles)
- Adding paved shoulders
- Adding a Sidewalk along one side of roadway from Everglades Blvd. to 40th St. NE

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5 Analysis of Bridge #12

62nd Ave. NE

Design Considerations Include:

- Intersection improvements (e.g., turn lanes, etc.) at the intersection of Everglades Blvd. and 62nd Ave. NE.

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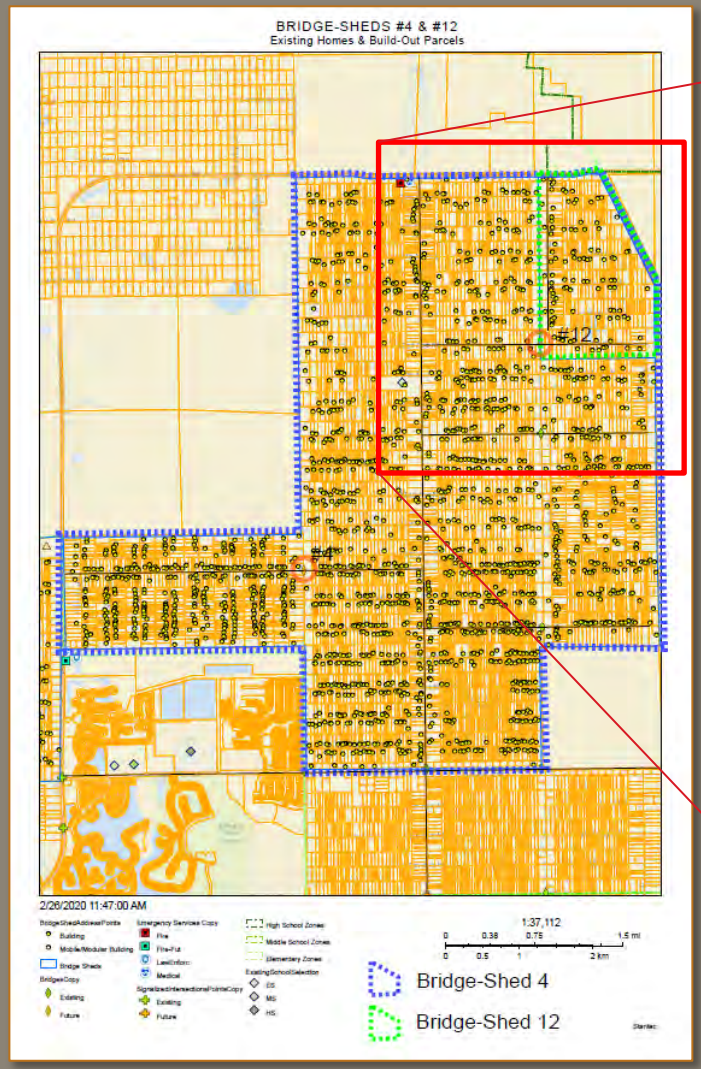
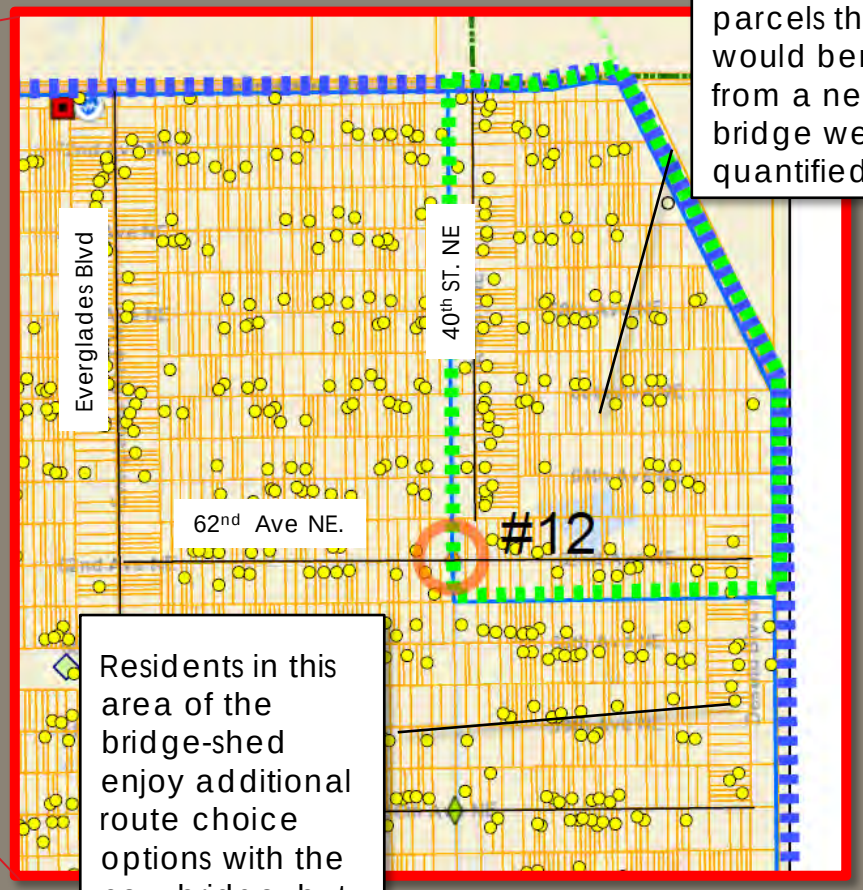
5 Analysis of Bridge #12

62nd Ave. NE





The number of existing homes and the total number of parcels that would benefit from a new bridge were quantified.

Residents in this area of the bridge-shed enjoy additional route choice options with the new bridge, but no reduction in trip length

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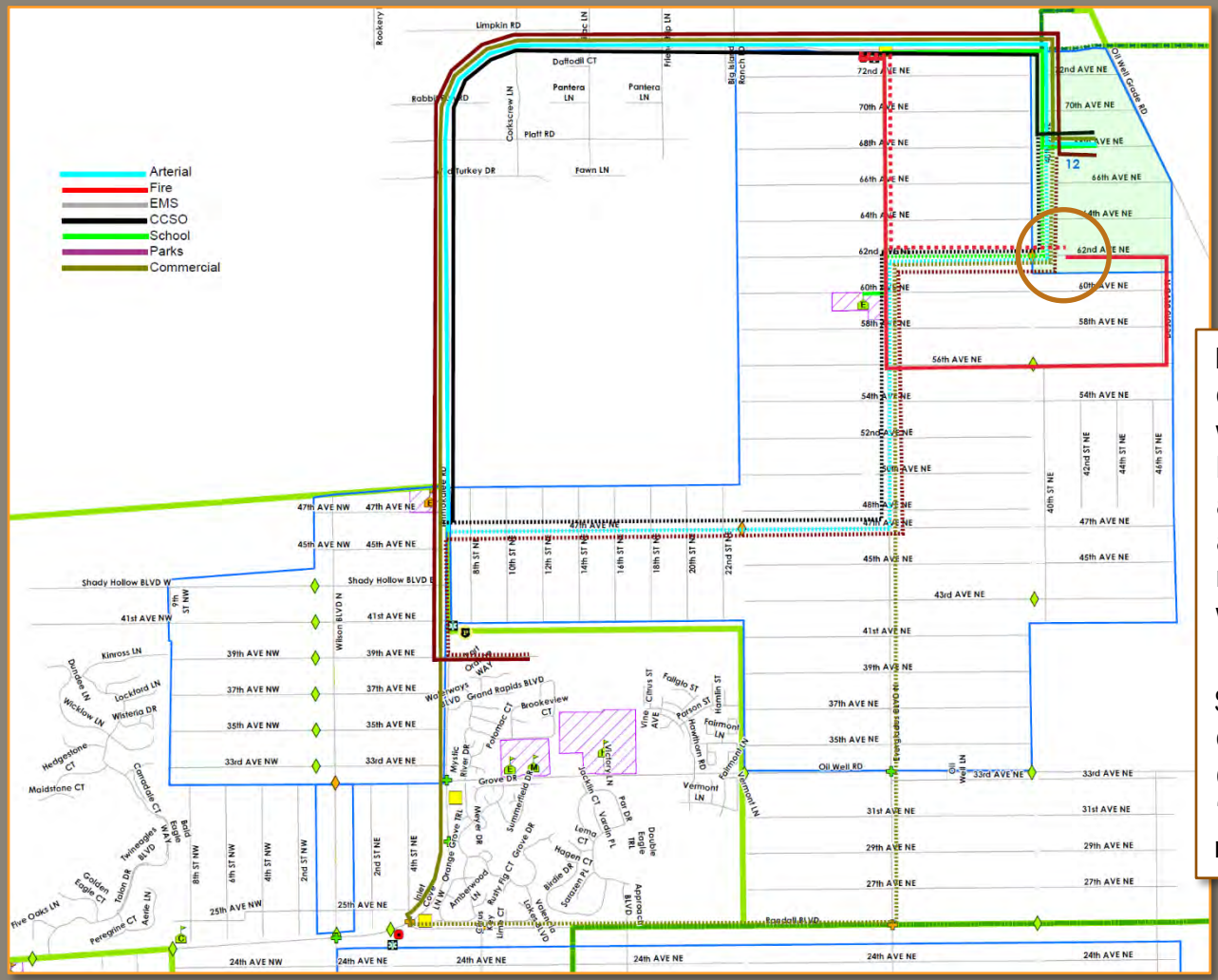
5 Analysis of Bridge #12

62nd Ave. NE



Dwelling units (DUs) within each bridge-shed that would benefit from a new bridge were identified and trip lengths for those applicable purposes were measured with and without the bridge.

Solid lines illustrate the existing routes, and dashed lines illustrate the "with a new bridge" trip routes.

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5 Analysis of Bridge #12

62nd Ave. NE

The trip length and housing unit data was put into a worksheet to quantify the benefits realized with a new bridge.

2019													NOTES
		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip	Trips per Day	VMT[1] Saved per day	Gallons Saved per day @ 30 mpg	Gallons Saved per Home per Day	Days per Year	Gallons Saved per Home per Year	VMT[1] Saved per Home per day	
Reduces Travel Distance/Time to Reach Arterial Network	Yes	104	8.5	6.8	1.7	4	695	23	0.22	300	66.8	6.7	Access provided directly to Everglades Blvd.
Reduces Travel Distance/Time to Reach Schools (E)	Yes	104 14	4.2	2.3	1.9	4	104	3	0.25	180	44.6	7.4	
Reduces Travel Distance/Time to Commercial/Retail	Yes	104	11.2	9.8	1.4	2	297	10	0.10	90	8.6	2.9	
Reduces Travel Distance/Time to Reach Parks	Yes	104	9.9	8.3	1.7	2	347	12	0.11	24	2.7	3.3	
Increases Resident's Route Choice Options; Improves Evacuation Access	Yes	104											
		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip								
Reduces Travel Distance/Response Time For Fire First Responders	Yes	53	5.8	2.7	3.1	54%	Reduction in Response Time						
Response Time (minutes) at 30 MPH			11.6	5.3	6.3								
Reduces Travel Distance/Response Time For CCSO First Responders	Yes	104	8.5	6.8	1.7	Up to 20%	a Reduction of in Response Time						
Response Time (minutes) at 45 MPH			11.3	9.0	2.3								
Reduces Travel Distance/Response Time For EMS First Responders	No				0.0	No	Reduction in Response Time						
Response Time (minutes) at 35 MPH			0.0	0.0	0.0								
Reduces Travel Distance to Fire Station to Improves ISO Public Protection Classification Score	Yes	43	5.9	2.6	Bridge reduces the travel distance to less than five miles. Distance measured is the greatest reduction for new homes within 5 miles.								
Improves School Bus Route Operations	Yes	*May improve circulation options for bus routes to existing and future school(s); may improve bus utilization, reduce fuel consumption and associated operating costs.*											

[1] VMT = Vehicle Miles Traveled

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5 Analysis of Bridge #12

62nd Ave. NE

This bridge-shed worksheet quantifies the applicable benefits for **existing** residents with a new bridge

2019													
		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip	Trips per Day	VMT[1] Saved per day	Gallons Saved per day @ 30 mpg	Gallons Saved per Home per Day	Days per Year	Gallons Saved per Home per Year	VMT[1] Saved per Home per day	
Reduces Travel Distance/Time to Reach Arterial Network	Yes	104	8.5	6.8	1.7	4	695	23	0.22	300	66.8	6.7	Access provided directly to Everglades Blvd.
Reduces Travel Distance/Time to Reach Schools (E)	Yes	104 14	4.2	2.3	1.9	4	104	3	0.25	180	44.6	7.4	
Reduces Travel Distance/Time to Commercial/Retail	Yes	104	11.2	9.8	1.4	2	297	10	0.10	90	8.6	2.9	
Reduces Travel Distance/Time to Reach Parks	Yes	104	9.9	8.3	1.7	2	347	12	0.11	24	2.7	3.3	
Increases Resident's Route Choice Options; Improves Evacuation Access	Yes	104											

		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip	
Reduces Travel Distance/Response Time For Fire First Responders	Yes	53	5.8	2.7	3.1	54% Reduction in Response Time
Response Time (minutes) at 30 MPH			11.6	5.3	6.3	
Reduces Travel Distance/Response Time For CCSO First Responders	Yes	104	8.5	6.8	1.7	Up to 20% a Reduction of in Response Time
Response Time (minutes) at 45 MPH			11.3	9.0	2.3	
Reduces Travel Distance/Response Time For EMS First Responders	No				0.0	No Reduction in Response Time
Response Time (minutes) at 35 MPH			0.0	0.0	0.0	
Reduces Travel Distance to Fire Station to Improves ISO Public Protection Classification Score	Yes	43	5.9	2.6	Bridge reduces the travel distance to less than five miles. Distance measured is the greatest reduction for new homes within 5 miles.	
Improves School Bus Route Operations	Yes	*May improve circulation options for bus routes to existing and future school(s); may improve bus utilization, reduce fuel consumption and associated operating costs.*				

[1] *VMT = Vehicle Miles Traveled*

5 Analysis of Bridge #12

62nd Ave. NE

This portion of the bridge-shed worksheet quantifies the potential benefits to residents

2019													NOTES
		DUs	Distance (miles)			Trips per Day	VMT[1] Saved per day	Gallons Saved per day @ 30 mpg	Gallons Saved per Home per Day	Days per Year	Gallons Saved per Home per Year	VMT[1] Saved per Home per day	
			W/O Bridge	W/ Bridge	Saved per Trip								
Reduces Travel Distance/Time to Reach Arterial Network	Yes	104	8.5	6.8	1.7	4	695	23	0.22	300	66.8	6.7	Access provided directly to Everglades Blvd.
Reduces Travel Distance/Time to Reach Schools (E)	Yes	104 14	4.2	2.3	1.9	4	104	3	0.25	180	44.6	7.4	
Reduces Travel Distance/Time to Commercial/Retail	Yes	104	11.2	9.8	1.4	2	297	10	0.10	90	8.6	2.9	
Reduces Travel Distance/Time to Reach Parks	Yes	104	9.9	8.3	1.7	2	347	12	0.11	24	2.7	3.3	
Increases Resident's Route Choice Options; Improves Evacuation Access	Yes	104											

The number of homes or dwelling units (DUs) that would benefit for a particular trip purpose

The trip length without and with the new bridge and the savings

Number of trips per day (per DU) times trip length equals Vehicle Miles of Travel (VMT)

The number of gallons of fuel saved with a new bridge

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5 Analysis of Bridge #12

62nd Ave. NE

This portion of the bridge-shed worksheet quantifies the potential benefits to public agencies

The applicable First Responder trip purpose and the number of homes to benefit from a faster response time

The trip length without and with the new bridge and the savings

Potential average reduction in response time for the agency to reach a home with the new bridge in place

The potential benefit to the Fire ISO rating

		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip	
Reduces Travel Distance/Response Time For Fire First Responders	Yes	53	5.8	2.7	3.1	54% Reduction in Response Time
~~Response Time (minutes) at 30 MPH~~			~~11.6~~	~~5.3~~	~~6.3~~	
Reduces Travel Distance/Response Time For CCSO First Responders	Yes	104	8.5	6.8	1.7	Up to a Reduction of 20% in Response Time
Response Time (minutes) at 45 MPH			11.3	9.0	2.3	
Reduces Travel Distance/Response Time For EMS First Responders	No				0.0	No Reduction in Response Time
Response Time (minutes) at 35 MPH			0.0	0.0	0.0	
Reduces Travel Distance to Fire Station to Improves ISO Public Protection Classification Score	Yes	43	5.9	2.6	Bridge reduces the travel distance to less than five miles. Distance measured is the greatest reduction for new homes within 5 miles.	
Improves School Bus Route Operations	Yes	*May improve circulation options for bus routes to existing and future school(s); may improve bus utilization, reduce fuel consumption and associated operating costs.*				

[1] *VMT = Vehicle Miles Traveled*

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5 Analysis of Bridge #12

62nd Ave. NE

This bridge-shed worksheet quantifies the applicable benefits for all **future** residents with a new bridge

Build-Out													
		DUs	Distance (miles)			Trips per Day	VMT[1] Saved per day	Gallons Saved per day @ 30 mpg	Savings per Home per Day	Days per Year	Savings per Home per Year	VMT[1] Saved per Home per day	
			W/O Bridge	W/ Bridge	Saved per Trip								
Reduces Travel Distance/Time to Reach Arterial Network	Yes	391	8.5	6.8	1.7	4	2,612	87	0.22	300	66.8	6.7	Access provided directly to Everglades Blvd.
Reduces Travel Distance/Time to Reach Schools (E)	Yes	391 53	4.2	2.3	1.9	4	394	13	0.25	180	44.6	7.4	
Reduces Travel Distance/Time to Commercial/Retail	Yes	391	11.2	9.8	1.4	2	1118	37	0.10	90	8.6	2.9	
Reduces Travel Distance/Time to Reach Parks	Yes	391	9.9	8.3	1.7	2	1306	44	0.11	24	2.7	3.3	
Increases Resident's Route Choice Options; Improves Evacuation Access	Yes	391											

		DUs	Distance (miles)				
			W/O Bridge	W/ Bridge	Saved per Trip		
Reduces Travel Distance/Response Time For Fire First Responders	Yes	177	5.8	2.7	3.1	54%	Reduction in Response Time
Response Time (minutes) at 30 MPH			11.6	5.3	6.3		
Reduces Travel Distance/Response Time For CCSO First Responders	Yes	391	8.5	6.8	1.7	Up to 20%	a Reduction of in Response Time
Response Time (minutes) at 45 MPH			11.3	9.0	2.3		
Reduces Travel Distance/Response Time For EMS First Responders	No		0.0	0.0	0.0	No	Reduction in Response Time
Response Time (minutes) at 35 MPH			0.0	0.0	0.0		
Reduces Travel Distance to Fire Station to Improves ISO Public Protection Classification Score	Yes	139	5.9	2.6	Bridge reduces the travel distance to less than five miles. Distance measured is the greatest reduction for new homes within 5 miles.		
Improves School Bus Route Operations	Yes	*May improve circulation options for bus routes to existing and future school(s); may improve bus utilization, reduce fuel consumption and associated operating costs.*					

[1] *VMT = Vehicle Miles Traveled*

5 Analysis of Bridge #12

62nd Ave. NE

Potential Benefits Include:

- Increase in route choice options for public agencies, and 104 current residences (391 at buildout)
- Shorter trip lengths for some residents
- Shorter trip lengths for some CCSO responses

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5 Analysis of Bridge #12

62nd Ave. NE

Potential Benefits Include:

- Reduction in travel distance to arterial network for 104 homes (391 at build-out)
- Reduction in travel distance to commercial area for 104 homes (391 at build-out)

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5 Analysis of Bridge #12

62nd Ave. NE

Potential Benefits Include:

- Residents could benefit from up to a 20% decrease in response time (up to 2.3 minutes) for CCSO vehicles.
- Route choice is improved CCSO, Fire & EMS first responders.
  - Reduction in response time to some residences
  - 43 (139 at B/O) additional homes meet ISO 3 Rating

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6 Next Steps

- ✓ Public Outreach to Other Affected Neighborhoods
- ✓ Presentation to the BCC tentatively for December 8, 2020
- ✓ Programming & Production to Complete the Bridges by 2027

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6 Questions?

- ✓ Send Written Comments to Lorraine Lantz, AICP:
  - Lorraine.Lantz@colliercountyfl.gov
  - Collier County Transportation Planning
    2685 S. Horseshoe Drive, Suite 103
    Naples, FL 34104
  - 239.252.5779

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6 Questions?

- ✓ Visit the Project Website described below and in the notice for this meeting to download project materials, back-up materials, meeting presentations, etc.

http://colliercountyfl.gov/planningstudies

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