



Hello and thank you for taking your time to learn about the West Warren Avenue Complete Streets Study presented by the City of Longwood.

Presentation Overview

- Project Location
- Complete Streets Study Process Overview
- Roadway and Traffic Characteristics
- Environmental Resources
- Guiding Principles
- Next Steps and Project Schedule
- How you can get involved



This presentation will cover the project location, an overview of the complete streets study process, a review of the existing roadway characteristics and a look at the existing and future traffic trends. We will discuss the guiding principles for the study. And last, we will review the next steps and project schedule and close with how you can provide input regarding the study.

Title VI

It is the policy of the City of Longwood to ensure compliance with Title VI of the Civil Rights Act of 1964 and all related statutes or regulations in all programs and activities. The City of Longwood does not tolerate discrimination in any of its programs, services or activities. Thus, the City of Longwood will not exclude from participation in, deny the benefits of, or subject to discrimination anyone on the grounds of race, color, national origin, sex, age, disability, religion, income or family status.

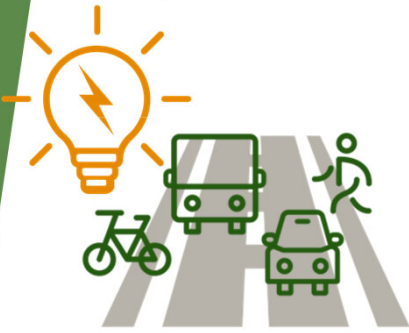
Lee Ricci
Human Resources Director
175 W Warren Avenue
Longwood, FL 32750
Phone: 407-260-3466
Email: lr Ricci@longwoodfl.org



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Project Location

- West Warren Avenue
- From State Road 434 to South Milwee Street
- Length: 0.635 mile



Project Goal

- Our goal is to help re-imagine West Warren Avenue as a multi-modal corridor that functions as a gateway to our Historic District and helps further support the development of our Heritage Village.

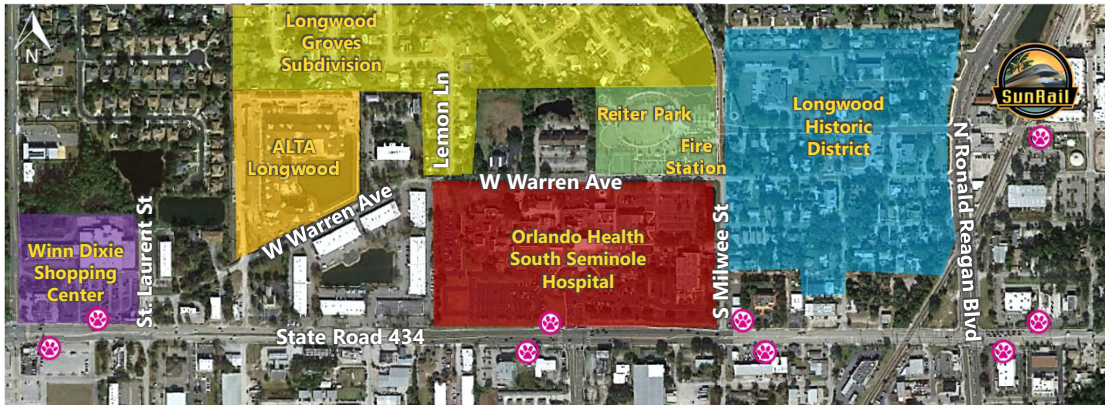


The project is located along West Warren Avenue from State Road 434, including a portion of St. Laurent Street, to South Milwee Street for a total length of 0.635 miles. The goal for the project is to help re-imagine West Warren Avenue as a multi-modal corridor that functions as a gateway to our Historic District and helps further support the development of our Heritage Village.

Surrounding Land Use

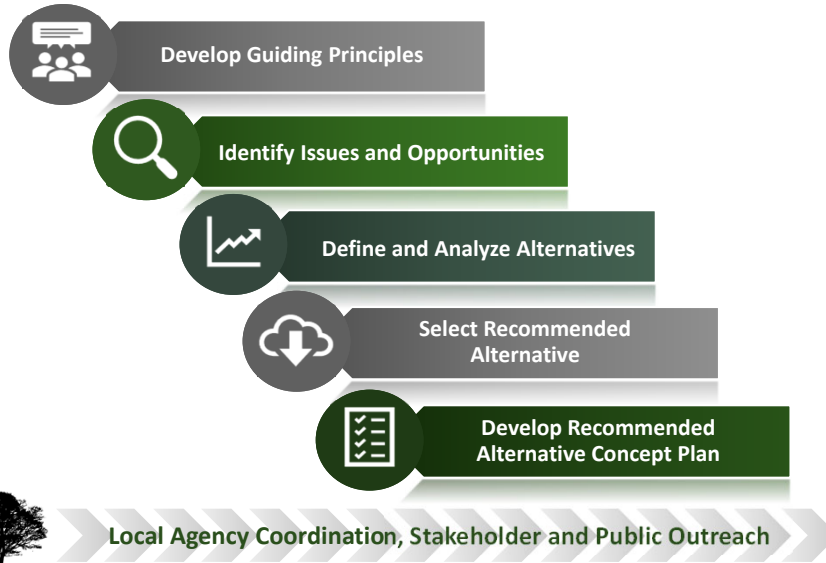


- Heritage Village Urban District
- Entrance to Longwood Historic District
- Reiter Park
- Orlando Health South Seminole Hospital
- Longwood Fire Station #15
- Longwood Groves Subdivision
- Newly constructed Alta Apartments
- Winn Dixie and other successful businesses
- Nearby SunRail Station



The Warren Avenue study corridor is within the Heritage Village Urban District and serves as an entrance to the Longwood Historic District. Land use surrounding the study corridor includes Reiter Park, Orlando Health South Seminole Hospital, Longwood Fire Station #15, Longwood Groves Subdivision, the newly constructed ALTA apartments, Winn Dixie and other successful businesses. The Longwood SunRail station is located approximately one quarter mile from the eastern boundary of the project.

Complete Street Study Process



The Complete Streets Study Process begins with developing guiding principles and identifying issues and opportunities by collecting and analyzing existing conditions along the corridor and through local input. Next, alternatives are defined and analyzed, then shared for additional local input. Finally, recommendations are selected and refined to create a recommended alternative concept plan. Local agency coordination, stakeholder and public outreach remain a constant throughout the entire study process.

Existing Conditions Findings

- Roadway Characteristics
- Operational Analysis
 - Traffic
 - Crash
- Environmental
- Drainage



The existing conditions data collection and analysis was recently completed. The existing conditions report is available for download at the project website.

We will now review a summary of findings from the existing conditions analysis.

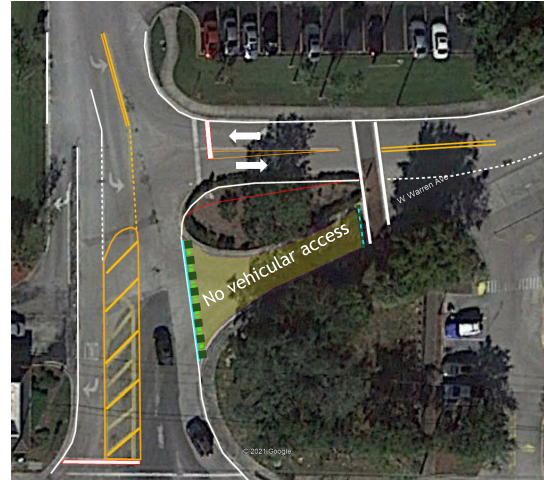
Roadway Characteristics

- ▶ Two lane roadway (one in each direction)
- ▶ Sidewalk along north side
- ▶ On-street parking near Reiter Park
- ▶ No bicycle lanes
- ▶ No LYNX stops
- ▶ Lighting sporadic along south side
- ▶ Right of way 50 to 57 feet wide
 - ▶ Additional 10 feet along ALTA Apartment
- ▶ Recently repaved



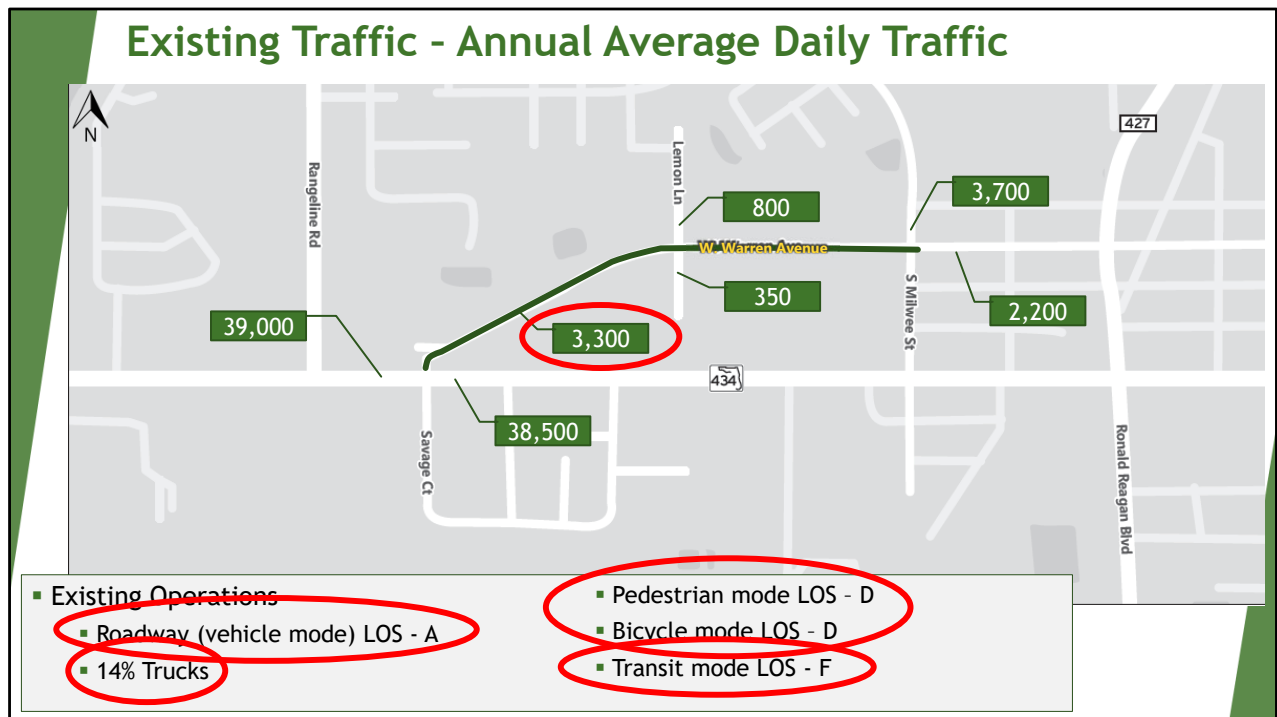
Warren Avenue is a two lane roadway providing one lane in each direction. A continuous sidewalk is provided along the north side of Warren Avenue and on-street parking is present near Reiter Park. There are no bicycle lanes or LYNX bus stops on Warren Avenue. Lighting is sporadic, fixed to utility poles along the south side of Warren Avenue. The right of way along Warren Avenue is approximately 50 to 57 feet wide, with an additional 10 feet along the new ALTA Apartments property, dedicated for complete streets improvements. Warren Avenue was repaved in February of this year by the City of Longwood.

St. Laurent Street Intersection



With the recent repaving project, the City made adjustments to the St. Laurent Street and Warren Avenue intersection. Revisions included moving the location of the northbound St. Laurent Street right turn lane onto Warren Avenue further to the north. This was accomplished by restriping the existing left turn lane from Warren Avenue onto St. Laurent Street to become the new westbound lane and the original turn lane has been blocked off with temporary barriers.

These revisions were made in an effort to reduce safety concerns associated with vehicles turning from SR 434 at high speeds and potentially conflicting with pedestrians crossing over Warren Avenue and vehicles exiting the Wendy's driveway. This change also reduces driver confusion on where to turn onto Warren Avenue and provides a shorter distance for bicycles and pedestrians crossing Warren Avenue at this location. These improvements are temporary and are under review for effectiveness during this study.

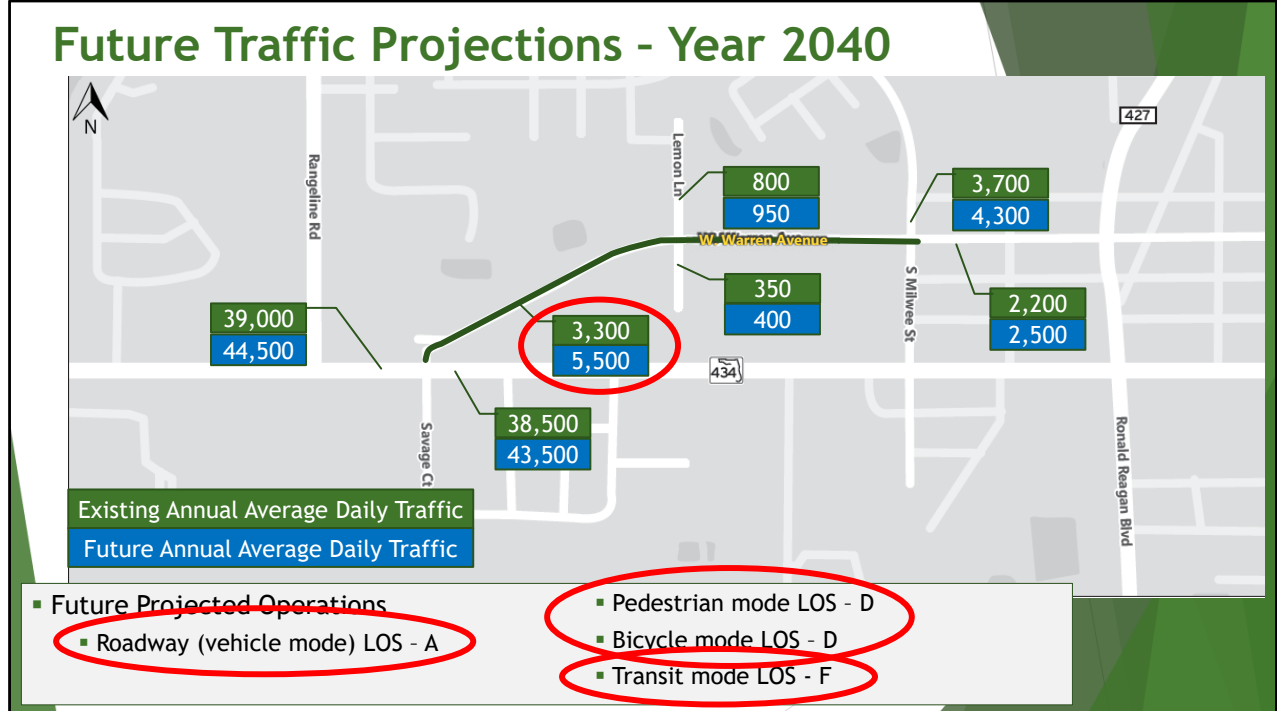


Data was collected to determine the amount of vehicular usage along the corridor and is reported as the annual average daily traffic. For Warren Avenue within the project limits the annual average daily traffic was determined to be 3,300 vehicles with truck traffic accounting for 14%.

Another measure that is used to evaluate traffic conditions is called Level of Service. This is a qualitative measure used to relate the quality of service for a mode of travel. Level of Service, also referred to as LOS, uses letters A through F, with A being the best conditions and F being a failing condition. The existing roadway volume along Warren Avenue is currently operating at Level of Service A which means that there is enough capacity with the existing lanes to provide service for the number of cars and trucks using the roadway.

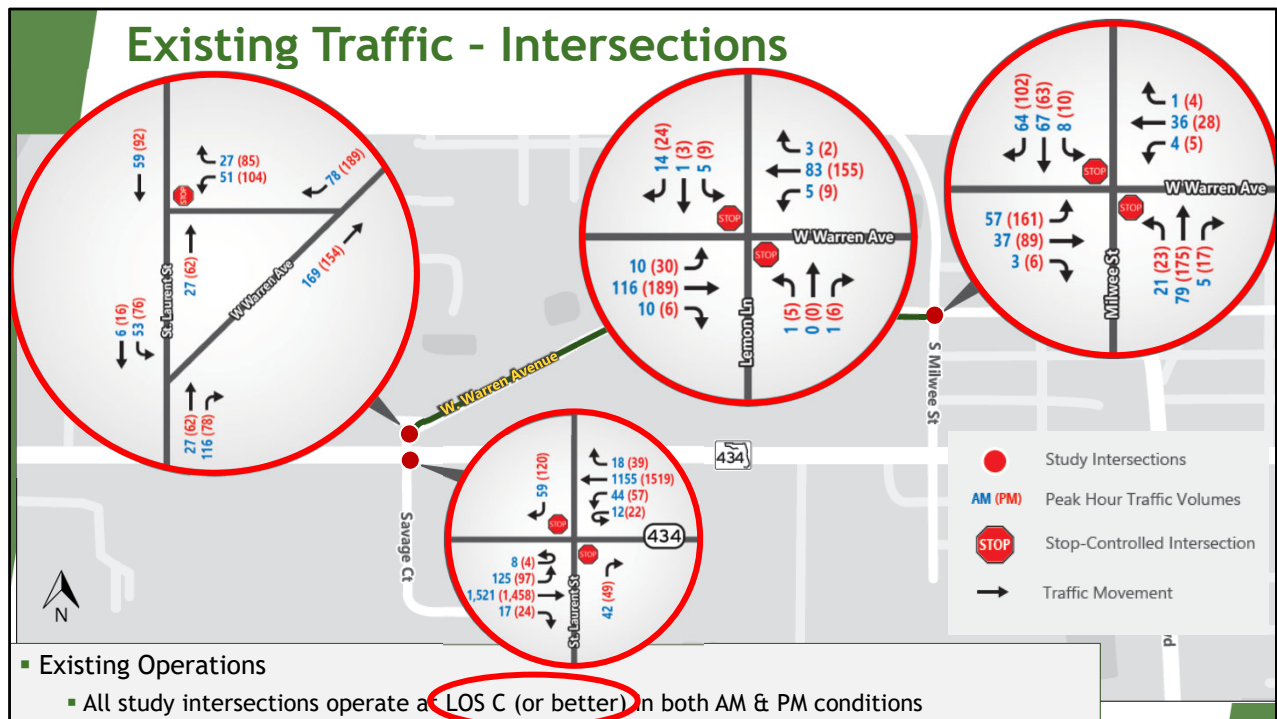
A level of service is also applied to the corridor for bicycles, pedestrians and transit users. Despite the relatively low traffic volume, the lack of sidewalks along on one side of the roadway and the lack of bicycle and transit facilities give the corridor a Level of Service D for both the pedestrian and bicycle modes and a Level of Service F for the transit mode.

Future Traffic Projections - Year 2040

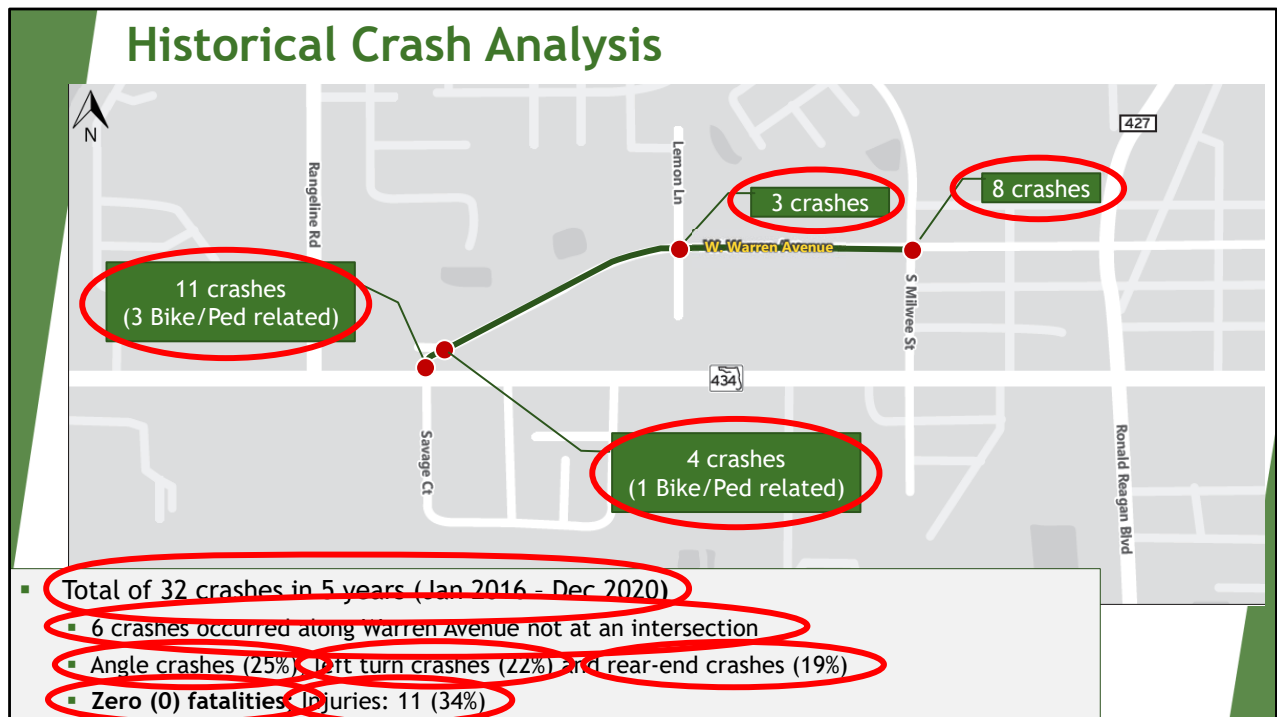


Utilizing future growth projections and traffic models, a long-term growth factor was applied to project the traffic volumes within the study area to a future year of 2040.

The annual average daily traffic along Warren Avenue in the year 2040 is projected to reach 5,500 which would still operate at Level of Service A. With no additional improvements to Warren Avenue, the pedestrian and bicycle modes would remain at Level of Service D and the transit mode would remain at Level of Service F.



Within the study area, an evaluation was conducted of the three non-signalized intersections with Warren Avenue and the St. Laurent Street intersection at State Road 434. The intersections with Warren Avenue include St. Laurent Street, Lemon Lane and Milwée Street. An analysis was conducted to determine the turning movement volumes at each intersection. Each of the four intersections evaluated operate at a Level of Service C or better in both the morning and afternoon peak hour conditions.



Crash data was obtained for the recent five-year period from January 2016 to December 2020. A total of 32 vehicular crashes and four bicycle or pedestrian related crashes occurred along the project corridor during the five-year period.

Eleven of the vehicular crashes occurred at the St. Laurent Street and SR 434 intersection. This number does not include crashes along SR 434 that are unrelated to St. Laurent Street. Three of the bicycle or pedestrian related crashes occurred at the St. Laurent Street and SR 434 intersection in the marked crosswalk on the north leg of the intersection where a bicycle was hit by a southbound vehicle on St. Laurent Street.

Four of the vehicular crashes and one bicycle or pedestrian related crash occurred at the St. Laurent Street and Warren Avenue intersection.

Three vehicular crashes occurred at the Lemon Avenue and Warren Avenue intersection, and eight vehicular crashes occurred at the Milwee Street intersection. An additional six vehicular crashes occurred along Warren Avenue not in an intersection influence area.

Of the 32 total vehicular crashes, angle crashes account for 25%, left turn crashes account for 22%, and rear end crashes account for 19%. Zero crashes resulted in fatalities and 11 crashes resulted in injury.

Existing Conditions - Drainage

- Several permitted stormwater ponds throughout corridor
 - Potential for joint use ponds
- Drainage structures adjacent to roadway
- Sidewalk flooding



A review of the existing drainage conditions found several permitted stormwater ponds throughout the study corridor. As the study progresses, the team will be considering ways to improve drainage along the corridor.

Existing Conditions - Utilities

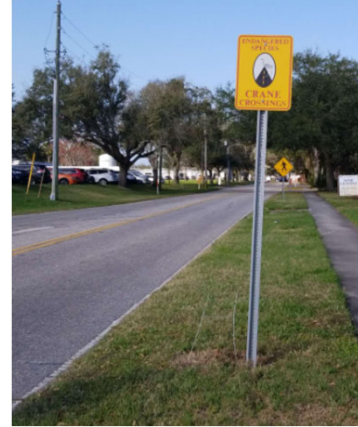
- Multiple utilities along corridor



There are several utilities located along both sides of Warren Avenue including underground and overhead utility lines. Considerations will be made for utilities and potential impacts during the alternative's identification process.

Environmental Resources

- **Wetlands**
 - No natural wetlands within study area
 - Exempt from state and federal wetland permitting and mitigation requirements
- **Floodplains**
 - Majority of corridor is located in Floodplain Zone X
 - It is anticipated the floodplain encroachment can be avoided
- **Threatened and Endangered Species**
 - Wood Stork (Federal threatened species)
 - Sandhill Crane (State threatened species)
 - Everglades Snail Kite (within consultation area)
 - Florida Scrub Jay (within consultation area)
 - Gopher Tortoise (State threatened species)
 - Eastern Indigo Snake



As part of the existing conditions assessment the natural environmental resources were documented along the corridor. It was determined that there are no natural wetlands within the study area and it is anticipated that floodplain encroachment can be avoided.

Onsite stormwater ponds and swales may provide intermittent habitat for wading and colonial birds that may utilize these areas for nesting and foraging. As such, Wood storks, a Federally Threatened species, and the sandhill crane, a State Threatened species may occur along the corridor.

The study area falls within the US Fish and Wildlife Service consultation area for the Everglades snail kite and the Florida scrub-jay however, no habitat is present for these species. Given the high urban density of the surrounding area, they are not anticipated to utilize the study area.

Environmental Resources

- **Cultural Resources**
 - Four historic sites within study area
 - Longwood Historic District
- **Social Resources**
 - Parks - Section 4(f)
 - Reiter Park
 - Heroes Park
- **Contamination Sites**
 - Biomedical, Petroleum Contamination, Storage Tanks
 - Longwood Economic Enhancement Program (LEEP) brownfield area



A review of the cultural, social, and physical environment determined that there are four historic sites within the study area. The project is also adjacent to the Longwood Historic District. Social resources identified in the study area include Reiter Park and Heroes Park.

Sites that have the potential for contamination or are being monitored for biomedical waste, petroleum, or storage tanks were identified. In addition, the majority of the study area is within the Longwood Economic Enhancement Program brownfield area.

Guiding Principles

- What are Guiding Principles?
 - Provide the structure for the examination of multimodal treatment options
 - Provide framework to evaluate various alternatives

The City of Longwood's 2015 Complete Streets Policy provides an instructive framework for this project. It states the City Commission's desire that Longwood be a **livable and walkable** community that is **pedestrian and cyclist friendly**, recognizing the economic value of providing **transportation choices** for residents, businesses, and visitors.

- The City's Complete Streets Policy outlines that ensuring safety and convenience for all users will lead to the following:
 - Improved health
 - Economic growth
 - Public safety
 - Social equality
 - Recreational opportunities



Guiding Principles are the structure for the examination of multimodal treatment options and provide the framework to evaluate various alternatives. The City of Longwood's Complete Street Policy outlines that ensuring safety and convenience for all users will lead to the following: improved health, economic growth, public safety, social equality, and recreational opportunities.

Potential Guiding Principles for West Warren Avenue

- Enhance pedestrian and bicycle safety
- Enhance vehicular safety
- Create a healthy community
- Support economic growth
- Maximize opportunities for all residents to engage in recreation
- Support social equity
- Improve drainage
- Improve aesthetics with streetscaping and public art
- Improve access to transit
- Preserve wildlife
- Enhance connections to Reiter Park and historic district
- Implement innovative transportation solutions
- Support event management and parking



The Warren Avenue Complete Streets Study Team has identified the following guiding principles for your review and input:

- Enhance pedestrian and bicycle safety
- Enhance vehicular safety
- Create a healthy community
- Support economic growth
- Maximize opportunities for all residents to engage in recreation
- Support social equity
- Improve drainage
- Improve aesthetics with streetscaping and public art
- Improve access to transit
- Preserve wildlife
- Enhance connections to Reiter Park and historic district
- Implement innovative transportation solutions
- Support event management and parking

Please take the opportunity to provide your input on the guiding principles on the public workshop comment form.

Guiding Principles

- How might these Guiding Principles impact this project?

Example:

Maximize opportunities for all residents to engage in recreation

- Incorporating mile markers and signage along the corridor can encourage residents to walk/bike to access Reiter Park's recreational facilities



How might these Guiding Principles impact the West Warren Avenue Complete Streets Project?

Let's look at some examples.

The Guiding Principle to “maximize opportunities for all residents to engage in recreation” could lead to the recommendation to incorporate mile markers and other signage along the corridor to encourage residents to walk or bike to access the recreational facilities at Reiter Park.

Guiding Principles

- How might these Guiding Principles impact this project?

Example:

Enhance pedestrian and bicycle safety

Example:

Implement innovative transportation solutions

- Recommend intersection and crosswalk treatments that support slower speeds and communicate safety messages



In this example, intersection and crosswalk treatments that support slower speeds and communicate safety messages would support both principles to enhance bike/ped safety and implement innovative transportation solutions

Guiding Principles

- How might these Guiding Principles impact this project?

Example:

Improve aesthetics with streetscaping and public art

- Incorporate spaces for artwork to create an art walk



The Guiding Principle to “improve aesthetics with streetscaping and public art” could lead to the recommendation to create an art walk along the corridor.

Guiding Principles

- How might these Guiding Principles impact this project?

Example:

Improve drainage

- Include Low Impact Development Stormwater techniques, like Reiter Park



In this example, low impact development stormwater techniques would support the guiding principle to improve drainage. Examples of low impact development stormwater already exist at Reiter park as pictured on the right of this slide.

Project Schedule



Existing Conditions Assessment
Nov 2020 - June 2021

Public Workshop #1 - Anticipate May 2021



Define and Select Alternatives
June 2021 - December 2021

Public Workshop #2 - Anticipate Nov 2021
City Commission Meeting #1 - Anticipate
Dec 6, 2021



Corridor Plan and Concept
December 2021 - June 2022

City Commission Meeting #2 - Anticipate
late March 2022



Following this public workshop, the information received during the public comment period will be reviewed and included in the existing conditions assessment and the guiding principles will be finalized. Next, the study team will define alternatives and present to the public for input at the second public workshop anticipated to be held in November of this year. The study is anticipated to be completed in June of 2022.

How You Can Get Involved

- Mail your comments to:
Shad Smith, P.E.
174 West Church Avenue
Longwood, FL 32750
- Email your comments to:
westwarren@longwoodfl.org
- Submit your comments on website:
warrenavestudy.com

Submit comments by May 14, 2021

Comment Sheet
West Warren Avenue Complete Streets Study
From State Road 434 to Midway Street
Longwood, Florida
Public Workshop #1
Tuesday, May 4, 2021

Please Print Clearly

Name: _____ Date: _____

Address: _____

Email Address: _____

Guiding Principles: Please add a checkmark next to the guiding principles you support for the West Warren Avenue Complete Streets Study:

- ☐ Enhance pedestrian and bicycle safety
- ☐ Enhance vehicular safety
- ☐ Create a healthy community
- ☐ Support economic growth
- ☐ Maximize opportunities for all residents to engage in recreation
- ☐ Improve drainage
- ☐ Improve aesthetics with streetscaping and public art
- ☐ Improve access to transit
- ☐ Enhance connections to Reiter Park and historic district
- ☐ Innovative transportation solutions
- ☐ Event management and parking

Additional suggested guiding principles:

Provide comments about the West Warren Avenue Complete Streets Study here:

Please complete the comment sheet, fold, tape (do not staple), add first class postage and mail OR email to westwarren@longwoodfl.org, no later than May 14, 2021.

****WEBSITE VIDEO**** There are several ways that you can get involved and provide feedback on this study. You can download the comment form from the project website at warrenavestudy.com and mail or email your comments to the project manager, Shad Smith at westwarren@longwoodfl.org, that's W E S T W A R R E N at L o n g w o o d F L dot O R G. You can also submit your comment on the project website. While comments are welcomed throughout the study process, to have your comment part of the public workshop #1 summary, please submit your comments by May 14, 2021.

We encourage you to continue to visit the project website for updates regarding the status of this study.

THANK YOU

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Thank you for attending this public workshop.