

November 2023



Florida Department of Transportation – District One

Technical Scope and LRE

**Technical Scope, Scope Analysis for Social and Environmental
Issues, and Long Range Estimate (LRE) for**

FPID 451026-1-52-01

**SR 45 (US-41) from N. of Magellan Dr. to N. of 63rd Ave W.
Manatee County, Florida**



Candidate Project RRR Scope

To: Lavenia Tolle, PE
 From: Felicia Pannell, PE

November 7, 2023

RE: SR 45 (US-41) from N. of Magellan Dr. to N. of 63rd Ave W. TECHNICAL SCOPE

State Road Number: SR 45
 Section Number: 13010-000
 County: Manatee County
 Project Limits: SR 45 (US-41) from N. of Magellan Dr. to N. of 63rd Ave W.
 Begin MP/End MP: 2.095 to 3.017
 Project Length: 0.922 miles
 FPID No.: 451026-1
 Work Mix: 0012 (Resurfacing)

1. Existing R/W Map Project Numbers:	13010-000_433592-1
2. Old Construction Project Numbers:	195813-2 (2004) RRR MP 2.116 to MP 3.017 196136-1 (1999) Lighting and Sidewalk, MP 0.189 to MP 2.364 429496-1 (2014) Signal Improv MP 2.218 to MP 2.275
3. Proposed projects within the same limits (such as safety, sidewalk or drainage projects):	449653-1 (2026) RRR MP 2.136 to MP 3.007 433592-1 (2024) LAP Sidewalk MP 2.333 to MP 5.246 Permit #2020-A-194-00063 Main Street Driveway/Intersection To meet current standards w/cross access for Banana Factory Restaurant, Marina & Discovery Village
4. Adjacent Projects:	444612-1 (2026); RRR MP 0.000 to MP 2.095 444049-1 (2022) Traffic Ops Improv MP 2.996 to MP 4.399 448390-1 (2025) Safety (Mid-Block Crossing) MP 3.007 to MP 4.277
5. Additional R/W Required?	No
6. Level of Community Awareness Plan:	Level 1
7. Are there any bridges within the limits?	Yes, MP 2.088 to MP 2.116
8. Are there any RR Crossings within the project limits or in the vicinity?	No
9. Are there any Airports within 5-miles?	Yes, Sarasota Bradenton International Airport
10. Storm Water Management Jurisdiction:	Southwest Florida Water Management District
11. AADT:	42,800 AADT (2023); 24 Hour T = 3.6%

12. Are there any old houses or buildings adjacent to the project?	No
13. Number of Existing Utilities:	11 Utilities: Charter – CATV; Comcast – CATV; Crown Castle – Fiber; Florida Power and Light – Electric; Frontier – CATV, Communication Line; Hotwire Communications – CATV, Communication Lines; Manatee County – Traffic Lights, Traffic Signals, Reclaimed water, Sewer, Water; MCI – Communication Lines, Fiber; Teco – Gas; Uniti – Fiber; Zayo Group – Fiber;
14. Any Special MOT concerns?	No
15. Any Construction concerns?	No
16. Posted/Design Speed Limits:	Design Speed = Posted Speed = 40 mph
17. SIS Facility?/Context Classification:	No / C4 (MP 0.000 to MP 2.252) C3C (MP 2.252 to MP 4.256)

The purpose of candidate project scope is to support the development of a long-range estimate (LRE) within the 5-year work program. There are a significant amount of planning assumptions made in order to develop and process the LRE. The district design project manager and engineer are responsible for verifying all items in the scope and shall review the project for conformance with all applicable criteria and standards. The Design Project Manager shall be notified of any proposed deviations from the scope. The Design Project Manager shall coordinate the proposed deviations with the scoping team and the District Roadway Design Engineer for approval.

Project Location Map:



Intent and Nature of Project: This is a Resurfacing, Restoration, and Rehabilitation (RRR) project that is intended to extend the service life of the existing roadway. This project was identified as a result of deficient pavement conditions noted in the 2022 Pavement Condition Survey. Additional improvements to this roadway shall adhere to the standards set forth in the 2023 FDOT Design Manual (FDM).

Project Abstract

Milling and resurfacing SR 45 (US-41) from N. of Magellan Dr. to N. of 63rd Ave W.

Project Description:

- This is a RRR project. Mill and resurface existing roadway mainline, turn lanes, and side street connections.
- Begin the project north of Magellan Drive at SR 45 MP 2.095 then proceed north for 0.922 miles to north of 63rd Ave W at MP 3.017.
- The target speed and context meetings were held on June 24, 2022. The target speed was set to 40 mph and which will reduce the existing posted speeds. The design speed was also reduced to

40 mph. The context meeting requested for the lane widths to be aligned with project 444612 if possible.

- Typical Section Description:
 - SR 45 provides a six-lane urban roadway with three lanes in each direction and a bi-directional turn lane with median islands at various locations. This six-lane typical section consists of one (1) 12-ft lane and two (2) 10-11 ft lanes in each direction with one (1) 10-15 ft two-way turn lane with Type F curb & gutter on the outside. There is 5-6 ft sidewalk on the northbound and southbound side.
 - The existing right of way (ROW) for this section of roadway varies from 118-ft min to 130-ft max.
 - The existing posted speed is 40 mph. The historical design speed is 45 mph but was reduced to 40 mph in target speed meeting.
- This is a potential goes with project for 449653-1 (2022) Safety Median Improvements (MP 2.116 to MP 3.007). This project will construct raised medians & traffic separators.
- Maintenance comments from scope review for design information:
 - Outside South Bound between 6600 Block to 6200 Block we had several sections of road cave in within the last 3 years. All the issues were in lane L-3.
 - The top of the RCP had developed holes/ cave ins in various sizes which ranged from 1' to 3'. We discovered this after dips and depressions opened. We placed the following different size pipe liners at the locations shown in the attachments.
 - 930' of 54"
 - 994' of 48"
 - 32' of 42"
 - The first attachment is for 3 - 54" liners.
 - The second is for 48", 24", and 18".
 - Maintenance has done several milling and resurfacing patches for the most it has held up however it has settled. This was done in the same sections as above.
 - Maintenance have not had any flooding within these limits.
 - Maintenance has received numerous complaints about there not being any sidewalk within these limits all the way to Cortez Rd. I had my inspector gather locations and quantities. I was trying to get approval to make the repairs, there were two issues, limited funds, and ROW. *(This is planned to be constructed under 433592-1 in FY24).*
 - Spreadsheets provided in backup folder to be added to the sharpoint for design.

Project limits:

The proposed limits for this US 41/SR 45 project begin north of Magellan Drive at SR 45 MP 2.095 then proceeds north for 0.922 miles to north of 63rd Ave W at MP 3.017.



Begin Project MP 2.095



End Project MP 3.017

Roadway Scope Items:

- The 2023 FDOT Design Manual (FDM), Florida Department of Transportation (FDOT) FY2022-23 Standard Plans for Road and Bridge Construction (Standard Plans), as well as the 2023 Flexible Pavement Design Manual (FPDM) were used to develop this scope report.
- The existing roadway components include vehicular and pedestrian elements. There are transit elements within the corridor limits.
- A Pavement Condition Assessment had not been completed by the FDOT at the time of this report. The pavement is in fair condition based on available information. It is recommended that flexible pavement be used for rehabilitation.
- The FDOT is to perform the Pavement Coring Report and provide ESAL calculations as well as Resilient Modulus values for further analysis. The project designer will prepare the Pavement Design Package per FPDM. Any pavement design used in this scope evaluates old as-built information and is used for budget purposes only.
- Within the project limits the existing cross slopes along the tangent segments appear to be adequate and consistently 0.02 for the two inside through lanes and 0.03 for the outside through lanes. Design should re-evaluate cross slopes during the plans preparation period to determine if cross slope corrections will be required.

Mainline Milling and Resurfacing:

- For budget purposes, the LRE assumes mainline through lanes and turn lanes throughout the project limits be milled 3 ½" and resurfaced with 2" SP 12.5 (Traffic C, PG 76-22) and 1 ½" FC-12.5 (Traffic C, PG 76-22).

Side street milling and resurfacing:

- For budget purposes, the LRE assumes that the side streets are to be milled 1 ½" and resurfaced with 1 ½" FC-12.5 (Traffic C, PG 76-22). There are eight (8) existing asphalt side streets. In accordance with the FDM Chapter 214 criteria, and the Standard Plans Index 330-001, it is recommended that all side streets be resurfaced to the back of the furthest return, right of way, or existing pavement joint, whichever is greater.

Handrail:

- There are two sections of existing aluminum pipe handrail. For budget purposes, the LRE assumes 20% replacement or repair. Design should evaluate for repairs as needed and is to be constructed in accordance with Standard Plans Index 515-070. The existing aluminum pipe handrail are at the following locations:
 - At the driveway for 1977 N. Tamiami Trail.
 - At the driveway for Marina Exxon Bait & Tackle.

Guardrail:

- There is existing guardrail within the project limits that shall be evaluated for replacement. For budget purposes, the LRE assumes all guardrail will be replaced. All guardrail, end anchorage assemblies, and bridge anchorage assemblies are to be brought into compliance and adhere to the Standard Plans Index 536-001 and 536-002. For budget purposes, listed below are the approximate locations and lengths of guardrail with end treatments to be removed and replaced.
 - +/- MP 2.111 to +/- MP 2.126, northbound, +/- 80 LF
 - +/- MP 2.111 to +/- MP 2.126, southbound, +/- 80 LF

Keyholes Widening:

- There are no right turn lanes requiring keyholes identified within the project limits.

Curb and Gutter:

- US 41/ SR 45 has outside Type F curb and gutter and Type E curb and gutter at several pedestrian islands along the project limits. The damaged curb and gutter should be repaired as needed and is to be constructed in accordance with the Standard Plans Index 520-001. For budget purposes, the LRE assumes 20% of curbs will be repaired/replaced.

Superelevated Curves:

- There one existing horizontal curve at the begin project. The project designer should analyze the curve data e-factor to verify it meets the required criteria per the FDM Chapter 210 criteria, and the American Association of State Highway and Transportation Officials (AASHTO).

Curve No.	PC Milepost	PT Milepost	DS (mph)	Degree of Curvature	Superelevation	
					As-Built	FDM
1 Asbuilts	2.145	2.295	Historical DS 45	3°30'00"	RC	RC

Access Management:

- Determine the disposition of side streets and driveways with access management during the design phase. This scope assumes worst case scenario for the purposes of LRE.

Turnout/Driveway Milling and Resurfacing:

- Asphalt driveways: There are thirty-two (32) existing asphalt driveways within the project limits. For budget purposes, the LRE assumes driveways are to be milled 1 ½" and resurfaced with 1 ½" FC-12.5 (Traffic C, PG 76-22). For driveway turnouts that require replacement, reconstruct with asphalt using minimum of 25-foot (maximum 35-foot) radial connections per the FDM Section 214 and the Standard Plans Index 330-001. For budget purposes, the LRE also assumes 20% of existing driveways / turnouts be repaired/reconstructed with turnout construction and 1 ½" FC-12.5 (Traffic C, PG 76-22).
- Concrete driveways: There are twenty-five (25) concrete driveways within the project limits. For budget purposes, the LRE assumes 20% of driveways be repaired/reconstructed in accordance with the Americans with Disabilities Act (ADA), the FDM Section 214, and the Standard Plans Index 522-003.
- There are no unpaved driveways identified within the project limits.

Multi-Modal transportation Scope Items:

- There are twenty-three (23) ADA ramps that exist along the corridor. For budget purposes. For budget purposes, the LRE assumes replacing all existing detectable warnings. The LRE also assumes 20% of ADA curb ramps to be replaced for repairs as needed and to be designed per the

Standard Plans, Index 522-002.

Sidewalk:

- Existing sidewalk: Based on asbuilts and field investigation, there is a 5 to 6-foot-wide concrete sidewalk on the east and west sides of US 41 with some gaps.
- New sidewalk is being constructed under the LAP project 433592-1 in FY24 for both the east and west sides of the roadway.
- Repair as needed and reconstruct per the Standard Plans Index 522-001.
- There are no marked bicycle facilities within project limits.
- There are ten (10) existing bus stop locations along the project limits.
- Design will need to coordinate with Manatee County Area Transit (MCAT) and the FDOT Transit office in the Multi-Modal Transportation Scope Items section.

Design Variation/Exception:

- Design variations:
 - It's possible a Hardened Centerline FDM 210.3.3 variation may be required at signalized intersections.
 - No bicycle facilities.
 - Two-way left turn lane less than 12' (FDM Table 210.2.1)
- Design exception for bridge shoulder width less than 4-ft. See the Structural Scope section for specific detail.

Drainage Scope Items:

The existing drainage consists of a closed system with curb and gutter conveyance of roadway runoff. The project generally consists of milling and resurfacing and providing keyholes, however, since the current typical has curb and gutter and no bike lanes, no keyholes will be provided. The project has curb inlet tops that will need to be replaced. Some in curb returns that may need to be regraded to get the inlet out of the return. Where applicable, sidewalk ADA issues will be corrected. There are no other apparent drainage issues, however, include a rainy-day visit to determine the drainage facilities are functioning correctly and curb profiles have positive drainage.

- MP 2.63 RT – Replace inlet top



- No end treatment within the project.

Permitting/Environmental Scope Items:

- Coordinate with FDOT for determination of Environmental Permits for review and concurrence during the design process, considering the below descriptions of work and conditions;
 - Conduct an on-site environmental assessment including wetland delineation.
 - Records indicate that rare species or suitable habitat may exist within or near the project limits. For additional information please see the attached Scope Analysis for Social and Environment Issues.
- This project is anticipated to exceed one acre of soil disturbing activities and will require NPDES coverage under the FDEP Generic Permit for Stormwater Discharge from Large and Small Construction Activities.
- This project is anticipated to be exempt from WMD permitting under FAC 62-330.051 (4)(c), as it is limited to pavement resurfacing and safety modifications. A permit exemption request will be needed.

Utility Scope Items:

- Utility coordination will be required to determine if adjustments are necessary to ensure there are no conflicts with the proposed construction.
- SUE at guardrail and multi-post signs as needed. It may also be needed for widening areas, drainage and any foundations.

Signing Scope Items:

- All existing signing should be evaluated for possible replacement to ensure signs meet current design criteria for size, placement, and reflectivity.
- There are no existing two-post sign assemblies, and none are anticipated.
- There are two signalized intersections in the project. Only one of these has an advance street name sign. This is on northbound US 41 approaching the signal at 60th Ave. W./Bay Dr. This sign is mounted to a mast arm assembly and is located too close to the intersection. The mast arm is old and should be replaced. However, this may not be possible due to the very limited right-of-way through the project.



Consideration should be given to installing a second advance street name sign on the north approach to this traffic signal and on both approaches to the second traffic signal (Florida Blvd.) if existing right-of-way permits.

Pavement Marking Scope Items:

- Restripe roadway per current Standard Plans and MUTCD.
- Where required, add guidelines for left turn lanes at signalized intersections as currently shown in FDM Chapter 230, Exhibit 230-8.
- Use special emphasis/preformed thermoplastic for all crosswalks at signalized intersections.
- Use permanent tape for markings on concrete bridge surfaces.
- Replace all markings not otherwise noted in this report with standard thermoplastic.
- Where permitted, ensure double yellow pavement markings for side streets are a minimum 100’ in length at major intersections and 50’ at minor intersections. See index 711-001 of the Standard Plans.

Object Marker and Delineator Scope Items:

- Evaluate the condition of all existing object markers and delineators within the project. Replace if required.

Signalization Scope Items:

Signal scoping items and recommendations are limited to the following:

- Required improvements listed within section 114 of the FDM and RDB 22-01.
- Items specifically recommended by District Safety that advance safety countermeasures.
- Upgrades of existing vehicle detection methods based on current Maintaining Agency requirements.
- Recommended replacement of existing signal structures. Signal structures displaying characteristics that lead to a high probability of replacement. Further analysis may be required.
- Requests from District TSM&O for ITS related improvements or additions. Approval will be based on available funding.

Existing traffic signal related features not meeting this criteria will not be included in the scope.

Existing field conditions described in this report represent the conditions present at the time of scoping. All traffic signal related recommendations listed within this scope shall follow the latest design guidelines as outlined in the FDM, Standard Plans, MUTCD, TEM, MUTS and Structures Design Manual.

The following signalized intersections fall within the limits of the begin and end mile posts and or construction limits for this RRR scope:

Signal Location 1:

SR 45 / US 41 (N Tamiami Trail)
At 69th Ave. / Bay Dr.
MP: 2.252
Sig ID: 393

Signal Location 2:

SR 45 / US 41 (N Tamiami Trail)
At Florida Blvd.
MP: 2.550
Sig ID: 394

Signal location 1:

SR 45 / US 41 (N Tamiami Trail) at 69th Ave. / Bay Dr.

District Safety recommendations:

- Provide intersection level roadway lighting.

District TSM&O recommendations:

- Upgrade existing controller to NEMA / ATC standard.
- Provide multiple point detection zones for dilemma zone. Replace existing video stop bar detection system with microwave radar per maintaining agency's preference.
- Provide CCTV camera.
- Evaluate intersection timing plan(s) and operations for the implementation of Lead Pedestrian Intervals (LPI).
- Provide Connected Vehicle (CV) roadside unit (RSU).

Additional scoping recommendations:

- None.

Photo, Signal Location 1:



Signal location 2:

SR 45 / US 41 (N Tamiami Trail) at Florida Blvd.

District Safety recommendations:

- None.

District TSM&O recommendations:

- This signal was last updated in 2014 under 429496-1.
- Add yellow retroreflective backplates to signal heads.
- Upgrade existing controller to NEMA / ATC standard.
- Provide multiple point detection zones for dilemma zone. Existing inductive loops will be damaged during milling operations, based on the Maintaining Agency's preferences at the time of this report, it is recommended to replace loops with radar detection.
- For mainline protected / permissive left turns, change 5-section heads to 4-section heads and add an additional 3 section head for the mainline through movements, as necessary.
- Provide Connected Vehicle (CV) roadside unit (RSU).
- Provide internally illuminated street name signs.

Additional scoping recommendations:

- Provide ADA compliant pedestrian facilities. Ensure pedestrian signalization features include visible and audible confirmation indications.

Photo, Signal Location 2:



Lighting Scope Items:

Lighting scoping items and recommendations are limited to the following criteria:

- For new or fully reconstructed signalized intersections that fall within roadway context classifications C3 through C6, lighting shall be provided.
- Existing signalized intersections that have been identified by District Safety as having a history of nighttime pedestrian crashes.
- Corridor or sections of corridor that have been identified by District Safety as having a history of nighttime crashes.
- New or existing mid-block pedestrian crossings.

There is a Manatee County LAP project 433592-4 (letting FY 2024) that will provide corridor and intersection lighting for this project. These improvements should be in place before this project goes to construction.

Geotechnical Scope Items:

- Geotechnical exploration may be needed for any widening areas and any foundations on this project.

Structural Scope Items:

- Per section 261.8 of the FDM, an Ancillary Structures Report shall be provided for all existing overhead and cantilever signs, signal, HMLP lighting and ITS support structures within the project limits.

- Per FDM 260.9, an engineering analysis and report is required to evaluate the structural and functional adequacy of the existing bridge. Coordinate with the District Structures Office to determine the scope of the engineering analysis and report.
- MP 2.088 - Bridge 130082: Five (5) precast prestressed composite concrete bridge deck units simple spans (30'-0" each span) carrying SR 45 (US 41) over Bowlees Creek. The bridge superstructure consists of fourteen (14) 6'-9" wide precast prestressed concrete composite bridge deck units. The bridge carries six (6) 12'-0" wide travel lanes (three (3) in each direction), one (1) 12'-0" wide median turn lane (both directions), a variable width concrete traffic separator, 2'-0" wide outside shoulders, and 6'-0.5" wide raised curbs with 4'-8" wide sidewalks and 1'-3" wide Jersey shape concrete traffic railing barriers along the coping lines. The traffic railing barriers at the approach and trailing ends of the bridge have W-shape guardrails attached to them that extend well beyond the ends of the approach slabs at all four corners of the bridge. The bridge was constructed in 1977, and last load rated in 1992 using Allowable Stress Rating methodology. The posted speed limit at the bridge is 45 mph. As-built plans are available in the project file.
 - Install thrie-beam guardrail transition per Index 536-002, sheet 12 of 28, Scheme I at the northbound and southbound approach barrier ends.
 - Install thrie-beam retrofit per Index 460-470 series in front of the existing wide curb continuous post and beam railing.
 - Install thrie-beam trailing end guardrail transition per Index 536-002, Sheet 26 of 28 at the northbound and southbound trailing barrier ends.
 - Submit a Design Exception for bridge shoulder width criteria per FDOT minimum bridge width criteria (FDM Table 260.9.1) and AASHTO minimum bridge width criteria (FDM Table 122.5.4).

Right-of-Way Scope Items:

- ROW impacts are not expected on this project.

Survey Required:

- Obtain 3D survey prior to beginning design.

Scope Analysis for Social and Environmental Issues
500-foot Project Buffer Area

FPID No:	451026-1	County:	Manatee	City:	Bradenton
Project Limits:	State Road (SR) 45/US 41 from north of Magellan Drive to north of 63 rd Avenue W				
Section:	13010-000	Length of Project:	0.922		
Begin Milepost:	2.095	End Milepost:	3.017		
Scope:	Resurfacing, Restoration, and Rehabilitation (RRR)				
Review Date:	7/1/2022 – B. Feagle	Anticipated NEPA COA:	Type 1 CE		

Elements with Potential Cost/Schedule Impacts

- Permits may be necessary based on the final scope/design plans developed.
- Cultural/historical evaluation and State Historic Preservation Officer (SHPO) coordination will be necessary.
- The Southwest Florida Water Management District (SWFWMD) and US Army Corps of Engineers (USACE) may require mitigation for wetland impacts; the USACE has claimed 404 jurisdiction over some existing waters. Impacts (if any) will be addressed as applicable during the environmental permitting process.
- Project activities must not adversely impact (fill) floodplain storage.
- A Design-phase review of the project area is recommended to determine whether an active bald eagle nest is located within the project area. If an active nest is located within the project area, no activities may take place during nesting season between October 1st to May 15th within the 330-foot or 660-foot nest buffer zones without proper coordination and permits, if necessary.
- Should the project include in-water work or modifications to culverts, drains, inlets, and pipes that are accessible to manatees, the *Standard Manatee Conditions for In-Water Activities* must be followed.
- Level 1 evaluation of potential contamination facilities may be needed in conjunction with project plans development; Level 2 testing may also be required.
- Due to Scenic Highway involvement, coordination must take place with the District Scenic Highway Coordinator.

Social and Economic

Land Use

- The five major land uses within the project buffer area include commercial and services, high-density residential, transportation, medium-density residential, and open land.
- No impacts to land use are anticipated as the proposed work is expected to occur within the existing right-of-way.

Social

- The project buffer area has 505 households with a population of 1,355 people.
- The median household income is \$55,491 with 14.91% of the population below poverty level. The median household income of the project area is lower than the median household income for Manatee County (\$59,963).
- The minority population makes up 30.48% of the total population of the area with 281 people claiming a “Hispanic or Latino of Any Race” ethnicity. There is a claimed limited English proficiency (LEP) population of 48 people (3.73%).
- Housing within the project buffer area consist of mobile home (49%), single-family (47%), and multi-family (4%) units that are owner-occupied (66%), vacant (22%), and renter-occupied (12%).
- The social resources that exist within the project buffer area include the Elks Lodge #2734, Suburban Lodge, Realrail, Cedar Hammock Fire Department Station #4, Church of Christ Midway, Whitfield Presbyterian Church, Bayshore Baptist Church, Bayshore Animal Hospital, and Discovery Village at Sarasota Bay.
- No impacts to social/community resources are anticipated as the proposed work is expected to occur within the existing right-of-way.
- Standard Specifications will require maintenance of access to adjacent properties.
- Various buried underground and overhead electric utilities present within/adjacent to the project (utility relocations are possible pending scope development).

Relocation Potential

- Residential land use consists of 31.44 acres of high-density and 14.77 acres of medium-density residential within the project buffer area.
- Commercial and services properties account for 121.23 acres of the project buffer area.
- No impacts to residential or commercial properties are anticipated as the proposed work is expected to occur within the existing right-of-way.

Farmlands

- The project buffer area contains 164.4 acres (76.53%) of farmlands of unique importance.
- No impacts to farmlands are anticipated as the proposed work is expected to occur within the existing right-of-way and the project is located within the Sarasota-Bradenton urbanized area.

Aesthetic Effects

- The project buffer area contains no aesthetic effects.

Economic

- The project buffer area contains 10 Planned Unit Developments (PUD).
- No impacts to economic resources are anticipated as the proposed work is expected to occur within the existing right-of-way.

Mobility

- The project buffer area contains 15 bus transit routes.
- No impacts to mobility resources are anticipated as the proposed work is expected to occur within the existing right-of-way.

Cultural

Historic and Archaeological Sites (note: these are the results of a basic screening)

- No project-specific Cultural Resource Assessment Survey (CRAS) has been completed.
- The project buffer area contains 19 Florida Master Site File (FMSF) historic standing structures: five of which have not been evaluated by SHPO, two that have been determined to have insufficient information, and 12 that have been determined to be ineligible for listing on the National Register of Historic Places (NRHP).
- Three FMSF resource groups are located in the project buffer area, two of which have insufficient information and one that has not been evaluated by SHPO.
- Five FMSF Field Survey Project Boundaries conducted from 1992 to 2017 are located within the project buffer area.
- The project buffer area includes 55 structures built before 1970.
- Although the proposed project will occur within the generally disturbed right-of-way, cultural/historical evaluation and SHPO coordination will be necessary to address the existing historical/cultural resources, any areas outside of the existing right-of-way (if applicable), and other possible resources not able to be identified in the desktop review.
- No impacts to historic and archaeological sites are anticipated as the proposed work is expected to occur within the existing right-of-way.

Recreational and Protected Lands

- The project buffer area contains no recreational and protected lands.

Natural

Wetlands and Surface Waters

- The project buffer area contains estuarine (estuarine and marine deep water) National Wetland Inventory area.
- 4.11 acres (1.9%) of the project buffer area is designated as Coastal Waters of Tampa Bay surface water classification.
- The project buffer area includes 31.64 acres (14.73%) of USACE 404 jurisdiction retained waters – approximate tidal waters.
- 7.2 acres (3.35%) of the project buffer area is designated as Submerged Lands Act property.
- The SWFWMD and USACE may require mitigation for wetland impacts; the USACE has claimed 404 jurisdiction over some existing waters. Wetland-related permits may be necessary. Impacts (if any) will be addressed as applicable during the environmental permitting process.

Water Resources

- The project buffer area contains two US Environmental Protection Agency (EPA) water quality data monitoring stations, five FDEP waters not attaining standards (WNAS), two super act wells, two verified impaired Florida waters, three waterbodies with verified nutrient or dissolved oxygen impairment, and three waterbodies.
- The project buffer area includes interaction with the surficial aquifer system and discharge/less than 1 area of the Floridian Aquifer.
- No impacts to water resources are anticipated as the proposed work is expected to occur within the existing right-of-way.

Floodplains

- The entire project buffer area (100%) is located within the 100-year floodplain.
- Project activities must not adversely impact (fill) floodplain storage.

Protected Species and Habitat

- The project is located within the US Fish and Wildlife Service (USFWS) consultation areas for the west Indian manatee, piping plover, and Florida scrub-jay.
- Bald eagle nest MN061, currently listed as occupied, is located approximately 215 feet west of US 41 (27.423244, -82.576299). A Design-phase review of the project area is recommended to determine whether an active bald eagle nest is located within the project area. If an active nest is located within the project area, no activities may take place during nesting season between October 1st to May 15th within the 330-foot or 660-foot nest buffer zones without proper coordination and permits, if necessary.
- Bowless Creek is designated as a slow speed (all year) manatee protection zone. Should the project include in-water work or modifications to culverts, drains, inlets, and pipes that are accessible to manatees, the *Standard Manatee Conditions for In-Water Activities* must be followed.
- The project is located within the 15-mile core foraging area (CFA) of the Ayers Point wood stork colony. No wetland impacts anticipated.
- The project is located within the Sarasota Bay Ecosystem Management Area (EMA).
- The project is located within the rare black bear range.
- The desktop review identified minimal potential habitat for the piping plover or scrub-jay. Surveys for this species is not expected at this time.
- Species review is expected to be low (bald eagle).
- Adverse impacts to listed/protected species are not anticipated.

Coastal and Marine

- The project buffer area contains three environmentally sensitive shorelines including scrub-shrub wetlands and sheltered solid man-made structures, and four marinas.
- No impacts to coastal and marine resources are anticipated as the proposed work is expected to occur within the existing right-of-way.

Physical

Noise

- The project buffer area contains no noise resources.

Air Quality

- This portion of Manatee County has not been designated as nonattainment or maintenance for ozone, carbon monoxide (CO), particulate matter (PM), or any of the National Ambient Air Quality Standards (NAAQS) in accordance with the Clean Air Act.

Contamination

- The project buffer area contains seven biomedical waste facilities, one dry cleaning program site, two FDEP Environmental Restoration Integrated Cleanup (ERIC) sites, two FDEP National Pollutant Discharge Elimination System (NPDES) stormwater facilities and activities, one FDEP STORET station, seven hazardous waste facilities, one NPDES stormwater permit, one onsite sewage facility, 13 petroleum contamination monitoring sites, 24 storage tank contamination monitoring (STCM) facilities, 16 super act risk sources, 15 NPDES, and eight EPA Resource Conservation and Recovery Act (RCRA) regulated facilities.
- Level 1 evaluation of potential contamination facilities may be needed in conjunction with project plans development; Level 2 testing may also be required.

Infrastructure

- The project buffer area contains an aviation transportation facility, a public water supply plant, one bridge (#130082), 70 Federal Aviation Administration (FAA) obstructions, and four wireless antenna structures.
- No impacts to infrastructure are anticipated as the proposed work is expected to occur within the existing right-of-way.

Navigation

- The project buffer area contains no navigation resources.

Special Designations

- The portion of Tamiami Trail involved in this project was designated as a FDOT Scenic Highway on December 19, 2003. Due to Scenic Highway involvement, coordination must take place with the District Scenic Highway Coordinator.
- No impacts to special designation resources are anticipated as the proposed work is expected to occur within the existing right-of-way.

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 451026-1-52-01

Letting Date: 07/2026

Description: SR 45 (US 41) FROM N OF MAGELLAN DR TO N OF 63RD AVE W

District: 01 County: 13 MANATEE Market Area: 10 Units: English

Contract Class: 1 Lump Sum Project: N Design/Build: N Project Length: 0.922 MI

Project Manager: JMK-

Version 8 Project Grand Total**\$3,579,849.45**

Description: Copy V7 - removed sidewalk improvements since they will be done under 433952. Remove all lighting since it will be constructed with 433592-4 11/8/23

Sequence: 1 MIS - Miscellaneous Construction

Net Length: 0.922 MI
4,868 LF

Description: M&R (includes loops)

ROADWAY COMPONENT**X-Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING Comment: widening	0.13	AC	\$96,846.08	\$12,589.99
110-4-10	REMOVAL OF EXIST CONC Comment: 20% sidewalk, curb replace	1,298.18	SY	\$32.42	\$42,087.00
286-1	TURNOUT CONSTRUCT/DRIVEWAY BASE- OPTION Comment: 20%	1,804.80	SY	\$40.00	\$72,192.00
327-70-2	MILLING EXIST ASPH PAVT,3 1/2" AVG DEPTH Comment: main, side, twlt	47,058.88	SY	\$3.88	\$182,588.45
327-70-6	MILLING EXIST ASPH PAVT,1 1/2" AVG DEPTH Comment: driveway	11,624.00	SY	\$4.83	\$56,143.92
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C Comment: main, twlt	5,176.48	TN	\$162.02	\$838,693.29
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22 Comment: side, drive	958.98	TN	\$185.31	\$177,708.58
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	3,882.36	TN	\$180.52	\$700,843.63
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,947.26	LF	\$34.76	\$67,686.76
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" Comment: 20%	1,298.18	SY	\$83.12	\$107,904.72
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	160.00	LF	\$29.06	\$4,649.60
536-73	GUARDRAIL REMOVAL	160.00	LF	\$3.64	\$582.40
536-85-20	GUARDRAIL END TREAT- TRAILING ANCHORAGE	1.00	EA	\$1,770.93	\$1,770.93
536-85-24	GUARDRAIL END TREATMENT- PARA APP TERM	1.00	EA	\$3,623.27	\$3,623.27
570-1-2	PERFORMANCE TURF, SOD	3,390.56	SY	\$7.28	\$24,683.28

710-11-190	PAINTED PAVT MARK,STD,WHITE, ISLA NOSE	20.00 SF	\$2.35	\$47.00
710-11-290	PAINTED PAVT MARK,STD,YELLOW,ISLAND NOSE	210.00 SF	\$3.52	\$739.20
710-90	PAINTED PAVEMENT MARKINGS, FINAL SURFACE	1.00 LS	\$9,577.55	\$9,577.55
711-11-123	THERMOPLASTIC, STD, WHITE, SOLID, 12"	830.00 LF	\$3.46	\$2,871.80
711-11-124	THERMOPLASTIC, STD, WHITE, SOLID, 18"	30.00 LF	\$5.01	\$150.30
711-11-125	THERMOPLASTIC, STD, WHITE, SOLID, 24"	375.00 LF	\$6.49	\$2,433.75
711-11-141	THERMOPLASTIC, STD, WHITE, DOT GUIDE, 6"	0.26 GM	\$2,500.42	\$650.11
711-11-170	THERMOPLASTIC, STD, WHITE, ARROW	40.00 EA	\$61.42	\$2,456.80
711-11-224	THERMOPLASTIC, STD, YELLOW, SOLID, 18"	260.00 LF	\$4.84	\$1,258.40
711-11-241	THERMOPLASTIC,STD,YELLOW,DOT / GUIDE, 6"	0.18 GM	\$2,459.23	\$442.66
711-14-123	THERMOPLASTIC, PREFORM, WHITE, SOLID,12"	1,200.00 LF	\$6.57	\$7,884.00
711-14-125	THERMOPLASTIC, PREFORM, WHITE, SOLID,24"	1,040.00 LF	\$15.10	\$15,704.00
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	2.02 GM	\$4,728.31	\$9,551.19
711-16-102	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 8"	0.01 GM	\$6,200.44	\$62.00
711-16-131	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 6"	3.46 GM	\$1,202.74	\$4,161.48
711-16-201	THERMOPLASTIC, STD- OTH,YELLOW, SOLID, 6"	1.74 GM	\$4,705.52	\$8,187.60
711-16-231	THERMOPLASTIC, STD-OTH, YELLOW, SKIP, 6"	1.12 GM	\$1,198.67	\$1,342.51
713-103-101	PERMANENT TAPE, WHITE,SOLID,6" CONC BR	0.06 GM	\$42,643.83	\$2,558.63
713-103-131	PERMANENT TAPE, WHITE,SKIP/D,6" FOR CONC	0.11 GM	\$10,752.80	\$1,182.81
713-103-201	PERMANENT TAPE, YELLOW,SOLID,6" CONC BR	0.06 GM	\$42,643.83	\$2,558.63
713-103-331	PERMANENT TAPE, BLACK,SKIP/D,6" FOR CONC	0.11 GM	\$10,521.98	\$1,157.42
Roadway Component Total				\$2,368,725.66

SHOULDER COMPONENT

User Input Data

Description		Value		
X-Items				
Pay item	Description	Quantity	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	9,736.00	LF \$2.71	\$26,384.56
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA \$3,016.20	\$6,032.40
107-1	LITTER REMOVAL	9.83	AC \$51.21	\$503.39
107-2	MOWING	9.83	AC \$98.80	\$971.20
520-1-7	CONCRETE CURB & GUTTER, TYPE E	80.00	LF \$52.52	\$4,201.60

527-2	DETECTABLE WARNINGS	1,280.00 SF	\$29.97	\$38,361.60
Shoulder Component Total				\$76,454.75

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
425-15-51	INLET TOP, REPLACE, CURB INLET	6.00 EA	\$6,120.00	\$36,720.00
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	40.00 LF	\$486.93	\$19,477.20
Drainage Component Total				\$56,197.20

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	22.00 AS	\$470.22	\$10,344.84
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	5.00 AS	\$1,505.13	\$7,525.65
700-1-60	SINGLE POST SIGN, REMOVE	21.00 AS	\$35.71	\$749.91
700-3-201	SIGN PANEL, F&I OM, UP TO 12 SF Comment: signal	2.00 EA	\$754.36	\$1,508.72
700-3-601	SIGN PANEL, REMOVE, UP TO 12 SF Comment: signal	3.00 EA	\$71.02	\$213.06
700-5-22	INTERNAL ILLUM SIGN, F&I OM, 12-18 SF Comment: signal	4.00 EA	\$4,415.51	\$17,662.04
705-10-1	OBJECT MARKER, TYPE 1	7.00 EA	\$204.97	\$1,434.79
705-11-1	DELINEATOR, FLEXIBLE TUBULAR	4.00 EA	\$77.95	\$311.80
706-1-3	RAISED PAVMT MARK, TYPE B	1,000.00 EA	\$3.87	\$3,870.00
Signing Component Total				\$43,620.81

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	Miscellaneous
Multiplier	1
Description	SR 45/US 41 at 69th Ave./Bay Dr.

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
611-1-1	ITSFM SUBSURFACE DOCUMENTATION- PROJ LEN	0.92 MI	\$1,718.30	\$1,580.84
611-2-1	ITSFM LOCATION DOCUMENTATION- INTERS	1.00 EA	\$1,535.64	\$1,535.64
630-2-11	CONDUIT, F& I, OPEN TRENCH	60.00 LF	\$13.44	\$806.40
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	380.00 LF	\$29.09	\$11,054.20
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	\$10,739.63	\$10,739.63
632-7-6	SIGNAL CABLE, REMOVE- INTERSECTION	1.00 PI	\$807.88	\$807.88

635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	4.00 EA	\$963.35	\$3,853.40
650-1-16	VEH TRAF SIGNAL,F&I ALUMINUM, 4 S 1 W	1.00 AS	\$1,783.70	\$1,783.70
660-3-11	VEHICLE DETECTION SYSTEM-MICRO,F&I, CAB	1.00 EA	\$8,198.38	\$8,198.38
660-3-12	VEHICLE DETECTION SYSTEM-MICRO,F&I, ABO	6.00 EA	\$9,844.92	\$59,069.52
660-4-60	VEHICLE DETECTION SYSTEM-VIDEO, REMOVE	4.00 EA	\$563.74	\$2,254.96

Signalization 2

Description	Value
Type	Miscellaneous
Multiplier	1
Description	SR 45/US 41 at 69th Ave./Bay Dr.

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
611-2-1	ITSFM LOCATION DOCUMENTATION- INTERS	1.00	EA	\$1,535.64	\$1,535.64
630-2-11	CONDUIT, F& I, OPEN TRENCH	100.00	LF	\$13.44	\$1,344.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	360.00	LF	\$29.09	\$10,472.40
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$10,739.63	\$10,739.63
632-7-6	SIGNAL CABLE, REMOVE- INTERSECTION	1.00	PI	\$807.88	\$807.88
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	8.00	EA	\$963.35	\$7,706.80
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	8.00	EA	\$1,749.48	\$13,995.84
646-1-60	ALUMINUM SIGNALS POLE, REMOVE	2.00	EA	\$270.59	\$541.18
650-1-16	VEH TRAF SIGNAL,F&I ALUMINUM, 4 S 1 W	1.00	AS	\$1,783.70	\$1,783.70
650-2-109	VEHIC SIGNAL AUX, REP/RETR F&I, FLEX BAC	9.00	EA	\$813.79	\$7,324.11
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	\$741.76	\$5,934.08
660-3-11	VEHICLE DETECTION SYSTEM-MICRO,F&I, CAB	1.00	EA	\$8,198.38	\$8,198.38
660-3-12	VEHICLE DETECTION SYSTEM-MICRO,F&I, ABO	6.00	EA	\$9,844.92	\$59,069.52
660-4-60	VEHICLE DETECTION SYSTEM-VIDEO, REMOVE	4.00	EA	\$563.74	\$2,254.96
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	\$315.35	\$2,522.80
Signalizations Component Total					\$235,915.47

Sequence 1 Total **\$2,780,913.89**

Sequence: 2 MIS - Miscellaneous Construction

Net Length: 0.922 MI
4,868 LF

Description: TSM&O

SIGNALIZATIONS COMPONENT

Signalization 3

Description	Value
Type	Miscellaneous
Multiplier	1
Description	TSM&O

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	50.00	LF	\$13.44	\$672.00
671-2-11	TRAFFIC CONTROLLER, F&I, NEMA	2.00	EA	\$8,282.00	\$16,564.00
671-2-60	TRAFFIC CONTROLLER, REMOVE	2.00	EA	\$279.19	\$558.38
682-1-133	ITS CCTV CAMERA, F&I, DOME ENCL-NP.	1.00	EA	\$7,335.32	\$7,335.32

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
920-681-100	CONNECTED VEHICLE ROAD SIDE UNIT	2.00	EA	\$25,000.00	\$50,000.00

Signalizations Component Total \$75,129.70

Sequence 2 Total \$75,129.70

Sequence: 3 MIS - Miscellaneous Construction

Net Length: 0.922 MI
4,868 LF

Description: Signing (overhead)

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-204	SIGN PANEL, F&I OM, 31-50 SF	1.00	EA	\$3,126.42	\$3,126.42
700-3-604	SIGN PANEL, REMOVE, 31-50 SF	1.00	EA	\$223.01	\$223.01
700-4-111	OH STATIC SIGN STR, F&I, C UP TO 20 FT	1.00	EA	\$80,125.47	\$80,125.47
Signing Component Total					\$83,474.90

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	Miscellaneous
Multiplier	1
Description	SIGNING

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
649-26-5	STEEL MAST ARM ASSEMBLY, REMOVE	1.00	EA	\$15,000.00	\$15,000.00
Signalizations Component Total					\$15,000.00

Sequence 3 Total

\$98,474.90

Sequence: 4 MIS - Miscellaneous Construction

Net Length: 0.922 MI
4,868 LF

Description: Bridge (structures)

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
536-8-122	GUARDRA CONN TO RIGID BA, F&I, APP E3 Comment: structures	2.00	EA	\$4,951.40	\$9,902.80
536-8-123	APPROACH TRANS CONN TO RIGID BA, F&I, ET Comment: structures	2.00	EA	\$3,079.69	\$6,159.38
Roadway Component Total					\$16,062.18

BRIDGES COMPONENT

Bridge 130082

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Type	Misc/Rehab
Structure No.	130082
Description	

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
460-71-1	METAL TRAF RAILING, THRIE BEAM RETROFIT Comment: structures	300.00	LF	\$262.12	\$78,636.00
Bridge 130082 Total					\$78,636.00
Bridges Component Total					\$78,636.00

Sequence 4 Total **\$94,698.18**

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 451026-1-52-01

Letting Date: 07/2026

Description: SR 45 (US 41) FROM N OF MAGELLAN DR TO N OF 63RD AVE W

District: 01 **County:** 13 MANATEE **Market Area:** 10 **Units:** English

Contract Class: 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 0.922 MI

Project Manager: JMK-

Version 8 Project Grand Total **\$3,579,849.45**

Description: Copy V7 - removed sidewalk improvements since they will be done under 433952. Remove all lighting since it will be constructed with 433592-4 11/8/23

Project Sequences Subtotal **\$3,049,216.67**

102-1	Maintenance of Traffic	5.00 %	\$152,460.83
101-1	Mobilization	5.00 %	\$160,083.88

Project Sequences Total **\$3,361,761.38**

Project Unknowns	5.00 %	\$168,088.07
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$50,000.00	\$50,000.00

Project Non-Bid Subtotal **\$50,000.00**

Version 8 Project Grand Total **\$3,579,849.45**