

SR 530 (US 192) at Old Town Signalized Pedestrian Crossing

State Road Number: 530
 Section Number: 92090-000
 County: Osceola
 Project Limits: SR 530 (US 192) at the Old Town Entrance
 Begin MP/End MP: 7.178 to 7.289 (Length 0.111 MI)
 FM: 456596-1

1. Existing R/W Map Project Numbers:	9262-150 (1955); MP 6.747 to MP 6.936, 50-ft LT & RT (TYP) 92090-2543 (1996); MP 6.710 to MP 9.234, 100-ft LT & RT			
2. Old Construction Project Numbers:	441021-1 (2022); MP 6.678 to MP 9.652, Mill & Resurface 92090-3543 (1998); MP 6.736 to MP 9.725, Widening & Reconstruction 92090-3530 (1988); MP 6.851 to MP 9.090, Lighting 92090-3537 (1987); MP 6.027 to MP 12.867 WB, Resurfacing 92090-3540 (1987); MP 6.027 to MP 12.867 EB, Resurfacing 92090-3505 (1970); MP 5.787 to MP 12.631, Widening Reconstruction 9204-101 (1948); MP 5.940 to MP 13.180, New Construction			
3. Additional R/W required?	No.			
4. Level of Community Awareness Plan:	CAP Level 3. Proposed new signal.			
5. Agreements required?	☐ No ☒ Yes ☐ Yes, including Local Funds.			
6. Are there any bridges within the limits?	No.			
7. Are there any RR Crossings within the project limits or in the vicinity?	No.			
8. Are there any Airports within 10 nautical miles?	Yes.			
9. Storm Water Management Jurisdiction:	SFWMD.			
10. Is the Project within CCCL (<i>Coastal Construction Control Line</i>)?	No.			
11. Existing Utilities: (per SS1C, As-builts, and Field Markers)	AT&T Florida Bright House Networks LLC dba Charter/Spectrum CenturyLink/Level 3 CenturyLink/Lumen ComCast Communications Duke Energy Florida LLC (Distribution) Duke Energy Florida LLC (Fiber) Duke Energy Florida LLC (Transmission) Florida Gas Transmission (FGT) Smart City Telecommunications TECO Peoples Gas TOHO Water Authority (Topekaliga) – Reclaim/Wastewater Verizon Business/MCI ZAYO Group			
12. Any special MOT concerns?	Provide advance notification of new signal. Consideration should be given to the LYNX 30-minute headway schedule along this corridor.			
13. Any construction concerns?	The Engineer is to honor existing maintenance agreements, coordinating with Osceola County for painted signposts, pedestrian detectors, signal equipment, etc. Signal work and proximity to overhead utilities, including electrical distribution lines.			
14. Posted/Design/Target Speed (mph):	Facility	Design Speed	Posted Speed	Target Speed
	SR 530 (US 192)	50	45	N/A
	Frontage Roads	N/A	N/A	N/A

Candidate Safety Project Technical Scope

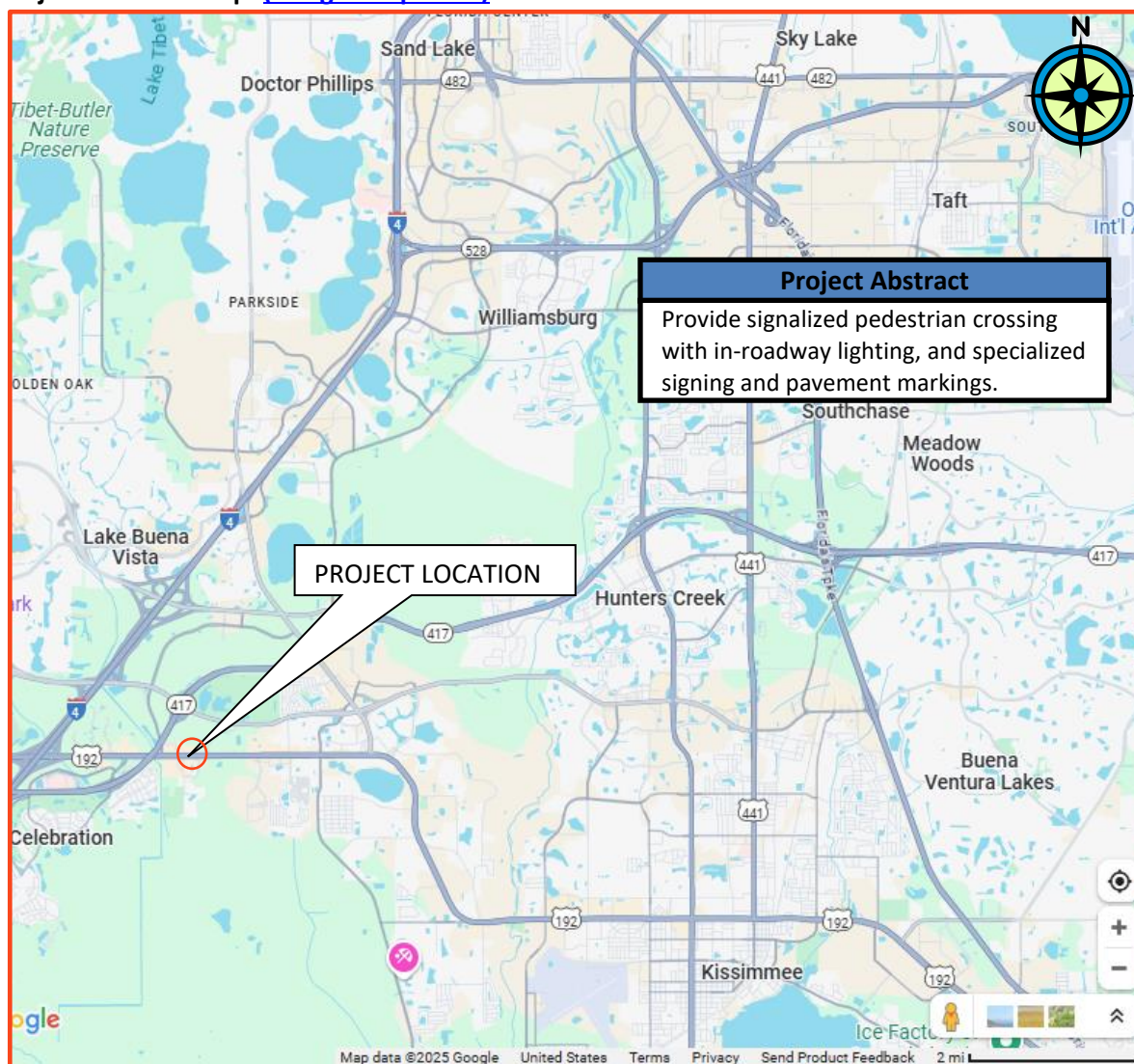
15. Design Criteria and Highway System:	SHS, FDM (2025)		
	Facility	Context Classification	Access Class
	SR 530 (US 192) Frontage Roads	C3C "Suburban Commercial" Local Road	05 N/A
16. Lump Sum or Pay Item?	Pay Item.		
17. Proposed Design Schedule:	18-24 months.		

Local Agency Coordination:

Conduct a Stakeholder meeting during the design phase to confirm the proposed scope remains consistent with the expectations set during scoping, close the loop on what will be included in the project, and learn of any changes that may have occurred since the Scope's development.

The Engineer shall coordinate to obtain an agreement, or modification of an existing agreement, with Osceola County for maintenance related to the proposed improvements, including the proposed signal, signposts, signal cabinets, etc. with reference to paint color if desired, and lighting modifications. The District standard is to provide galvanized structural components.

Project Location Map: [\(Google Maps Link\)](#)



The Engineer is responsible for verifying all items in the proposed scope and shall review the project for conformance with all applicable criteria and standards.

Intent and Nature of Project:

The purpose of the project is to provide a Pedestrian Hybrid Beacon (PHB) at the *Old Town* entrance, in

accordance with FDOT Design Manual requirements. The project is based on a request from the FDOT District 5 Safety Office to implement the recommendations of the *Technical Memorandum*, completed by Faller, Davis, & Associates, Inc. dated February 2025 (Study), which performed a benefit-cost analysis for the installation of a pedestrian hybrid beacon assembly. Proposed improvements are limited to providing the pedestrian crossing and lighting recommended in the Study.

- Signal Structure Design Calculations and supporting Geotechnical Letter Report were completed for the original prestressed concrete pile strain pole option in place of standard concrete poles. The District Traffic Operations Office has elected to move forward with the design and construction of mast arms.
- The Scope and Concept Plan are provided to convey the general overall intent of the project and to establish the estimated cost for programming. These documents are not intended to serve as detailed design level directives but are to communicate the project's primary objectives as approved by District staff. The Engineer is responsible for developing the final design to implement the recommendations of the Study within the constraints of the project budget while meeting the project's needs.

Project Description:

- The project is located northwestern Osceola County between the Celebration community and the City of Kissimmee.
- SR 530 (US 192) is classified as an urban principal arterial and is a designated evacuation route per the Florida Division of Emergency Management.
- The following project has been identified within the vicinity of this project. The FDOT PM is to confirm and coordinate proposed improvements, status, and project limits prior to advertisement.
 - FPID: 431456-7 SR 400 (I-4) from east of World Drive to east of US 192 (November 2025) and FPID: 431456-3 SR 400 (I-4) from CR 532 to west of World Drive (February 2026), the "I-4 BTU" projects, will utilize extensive detour routes in the area during construction. The FDOT PM is Keith Slater
- Note that all sidewalk and curb ramps within the project limits are constructed with colored concrete and pedestrian features are color coordinated through the corridor.

Typical Sections:

- Per as-built plans, the project includes 1 typical section. No changes are proposed.
 - Six lane divided curb and gutter facility with three 11-ft travel lanes, 7-ft buffered bicycle lane, type F curb and gutter with a variable width grassed utility strip and 10-ft sidewalk per direction, separated by a 30-ft curbed raised median (type E).
- Per 2024 traffic data:

MP	TMS Site No.	AADT	T%
8.967*	920320	39,500	3.8

*Not within the project limits, data provided for traffic characteristics only.

Roadway Scope Items:

- By observation, the pavement is in good condition having been last resurfaced under FPID: 441021-1 in 2022. Prepare one pavement design; 1) milling and resurfacing the friction course for pavement markings only.

Drainage Scope Items:

- Based on field observations the existing drainage system appears to be functioning properly and is to be maintained. No work.

Utility Scope Items:

- Adjust all valve covers, utility pull boxes, utility manholes, etc. to be flush with proposed sidewalk, curb ramps/landings, roadside, and roadway pavement as necessary to complete the proposed improvements.
 - Adjustment and/or relocation of utilities is anticipated.
 - Impacts to any TOHO Water Authority facilities may require a UWHC agreement. The Engineer is to determine the need during design and coordinate efforts with the District if impacts are unavoidable.
- Per the District Utility Office, there are several locations on the corridor where there are pavement failures. Early discussion with TOHO Water Authority about any concerns with their pipelines in the limits

of the project and follow-up with FDOT Maintenance may be warranted.

- Quality Level A “QL A” utility information is anticipated. Construction activities that involve underground work within proximity to noted utilities include pedestrian signal equipment, roadway lighting, and mast arms.
- The Engineer is to confirm utility poles and above ground utility features are shown on all applicable plan sheets for the purpose of utility coordination.
- Any pedestrian signal equipment, roadway lighting, and mast arms must be Vvh’d, completed, and shown in the plans prior to the Phase II plans ERC submittal as directed by the District Utility Office.

Multimodal Scope Items:

- The Engineer shall include a project-specific pedestrian/bicyclist temporary traffic control plan.

Transit:

- LYNX routes 55 & 56 utilize the SR 530 (US 192) corridor. Coordinate temporary and permanent changes that may affect this route or stops.
 - Note the LYNX 30-minute headway schedule on this corridor.

Bicycles:

- The existing 7-ft buffered bicycle lanes serve as the bicycle facility. No changes are proposed.

Pedestrians:

- There are existing 10-ft sidewalks on SR 530 and an off-site connection in the SE quadrant. No changes are proposed.
- Provide appropriate crossing treatment. The Engineer is responsible for evaluating and documenting existing pedestrian features within the project intersection to ensure compliance with criteria and standards.
 - Provide PHB at the intersection.
 - Provide a pedestrian way through the existing median.
 - Existing curb ramps in all 4 quadrants were recently reconstructed under FPID: 441021-1 and are to remain, with the exception of the curb ramp in the SE quadrant.
 - Note that existing sidewalk and curb ramps are colored concrete. Proposed or reconstructed sidewalk is to match.
- Design to reconstruct the existing curb ramp within the SE quadrant due to anticipated light pole foundation removal.

Permitting Scope Items:

- Coordinate with FDOT, submitting a permit determination letter to the Environmental Permits Office, Attention District Five Permits Coordinator, for review and concurrence during the design process, considering the below descriptions of work and conditions.
 - This project is not anticipated to exceed one acre of soil disturbing activities and will not require NPDES coverage under the FDEP Generic Permit for Stormwater Discharge from Large and Small Construction Activities.

Environmental Scope Items:

- Complete an environmental assessment:
 - A protected species assessment is required for the project. The level of assessment should be commensurate with the scope of work. The assessment should focus on species applicable to the project area with consideration given to consultation areas, habitats, and known occurrence data.
 - A contamination assessment is required for the project. The level of documentation required will be dependent on the contamination sites in the area, scope of work proposed, and previous assessments conducted. Coordinate with the District Contamination Impact Coordinator to determine project needs.
- A Cultural Resources Assessment is required and is to be conducted by Cultural Resources Professionals as outlined in 36 CFR Part 61 and set forth in the Professional Qualifications Standards section of the Secretary of the Interior’s Standard and Guidelines for Archaeology and Historic Preservation.

Structural Scope Items:

- A structural design and analysis will be required for the proposed mast arm assemblies. Standard mast arm assemblies with non-standard single shaft foundations are anticipated due to the poor soil conditions identified in the Geotechnical Letter Report.
 - Design is to consider the future conversion of the signal from a pedestrian crossing to a fully signalized intersection. 2 single arm mast arm assemblies are anticipated for the pedestrian crossing proposed under this project, and 2 additional mast arms are expected for the potential future conversion. Design for this project includes the 2 pedestrian crossing signal arms only.

Traffic Operations (Includes Signing, Signals, ITS) Scope Items:

Signing and Pavement Markings

- Signing and pavement markings shall be completed for the project limits. Inventory all signing including evaluation for compliance with all applicable criteria and coordinate with the District Design Office for any changes to existing signing. Any existing signs that conflict with the proposed signs or pavement markings, and non-compliant signs or pavement markings, are to be addressed in the plans.
 - Provide appropriate signing to accompany the proposed crosswalk and pedestrian signal.
 - Provide advance preformed thermoplastic pedestrian crossing warning pavement marking symbols on the east and westbound approaches. Per the FDOT TEM, DTOE approval is required.
 - Existing crosswalk markings are worn and are to be refreshed.

Signals

- All features added or modified should be designed "Accessible Pedestrian Signal Ready" to permit future upgrades without reconstructing curb ramps or relocating pedestrian poles to meet spacing requirements.
- Complete analysis and plan detailing for the construction of the PHB.
 - Design mast arm signal structures to accommodate pedestrian hybrid beacon assemblies with a potential for future signalized left turn lanes.
 - Design to include communication back to the RTMC/Maintaining Agency's central software for remote monitoring and viewing of the CCTV.
 - Provide retroreflective backplates, all signal heads.
 - Provide CCTV video camera mounted to northwest mast arm pole.
 - Provide separate UPS and controller assemblies.
 - Coordinate with the utility provider to ensure a power source is available and adequate for the proposed signal work.
 - Provide 4 APS ready pedestrian assemblies.
 - Due to the proximity of adjacent signalized intersections; Holiday Trail (MP 7.110) 625-ft to the west and Seralago Blvd (MP 7.480) 1,300-ft to the east, it is recommended that the Engineer and FDOT coordinate with the maintaining agency to optimize signal timing and improve traffic progression between intersections.
 - Westbound traffic stopped at the Holiday Trail signal was observed to queue beyond the proposed pedestrian crossing location during off-peak hours. Consideration should be given to provide a means of alerting drivers to avoid blocking the crosswalk.
 - Provide In-Roadway Warning Lights (IRWL's/ "flashing crosswalks") in the proposed crossing. This system shall be tied to the activation of the signal.
 - A Request to Experiment (RTE) approval from FHWA is required to install IRWL's with the PHB.
 - Pole locations have not been cleared and are shown to convey intent. The Engineer is to determine the final location.
 - Design is to consider the future conversion of the signal from a pedestrian crossing to a fully signalized intersection.

Intelligent Transportation Systems (ITS)

- Proposed signal is to be consistent with the ITS Master Plan. The Engineer;
 - Shall follow the Risk Assessment protocol, including Checklist and Systems Engineering analysis.

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- Shall design the signals to be smart signal compatible with the Districtwide ATSPM database and future compatibility for CV, including enhanced detection.
- Shall designate fiber in the plans, determine any conflicts and resolve.
- Additional ITS guidance can be found here:
[https://www.cflsmartroads.com/projects/technical_docs.html#\(Designers\)](https://www.cflsmartroads.com/projects/technical_docs.html#(Designers))

Lighting Scope Items:

- Provide supplemental pedestrian lighting at the proposed mid-block crosswalk. Adjustment or relocation of the existing lighting is anticipated. Coordinate an agreement modification, if necessary, with the maintaining agency.

Landscaping Scope Items:

- No work.

Survey Scope Items:

Design Survey

- Provide 3D Topographic Survey for the areas and locations of proposed improvements. Total survey area will be determined by the Engineer based on their needs for design.
 - Survey should include all above ground surface features, including, but not limited to valve covers, overhead utilities, meter boxes, manholes, etc.
 - Obtain overhead line heights for the Engineer to evaluate mast arm clearances.
 - Include items identified by the environmental assessment.
 - Survey files are available from the completed FPID: 441021-1 resurfacing project and may be used to supplement or augment survey needs.
- Provide quality level "A" (QL A) Sub-surface Utility Engineering (SUE) and survey thereof for the areas and locations of proposed improvements. Total SUE limits will be determined by the Engineer based on the limits of disturbance.
 - Include utility designation.
 - Vvh's are anticipated. Coordinate with the Engineer for anticipated number of Vvh's required for the project.

Right of Way Mapping

- Establish the existing Right of Way for the areas and locations of proposed improvements based upon the best available evidence. The level of effort for this task is to be based on the proposed design and nature of the corridor.
- Establish a computed survey baseline (baselines if needed) and provide to the Engineer for their plans. Stationing should be adjusted to be different than any historic alignment, as it should not be misconstrued as a retracement of the existing alignment.

Office of Right of Way Scope Items:

- No work.

Geotechnical and Pavement Scope Items:

- Perform and obtain the necessary geotechnical information as directed by the Geotechnical Office.
 - Soil boring(s) for the proposed mast arms, if necessary, to supplement the signed and sealed FPID: 439885-1 Geotechnical Letter Report for Strain Poles.
 - Poor soil conditions were noted in the Report.

Design Documentation:

The design documentation items noted below are necessary to implement the proposed improvements. The Engineer is responsible for verifying all items in the proposed Scope and design conform with all applicable criteria and standards, including the identification of any required Memoranda, Variations and Exceptions.

- Design Variation Memorandum
 - Access Management – Per FDM Table 201.4.2 the allowable distance between signals on an Access Class 05 roadway is 2,640-ft for speeds greater than 45 mph. The signalized intersection at Holiday Trail is approximately 600-ft west.

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- Design Variation
 - None.
- Design Exception
 - None.

Additional Items Considered During Scoping:

- During Scoping, the District Traffic Operations Office noted that due to very poor soil conditions, the mast arm option was necessary over the strain pole configuration recommended in the Study.
- Existing lane widths are 11-ft and per FDM Table 210.2.1 note 5, on RRR projects, may remain on divided multilane roadways with C3 context classifications and Ds = 50 mph.
- During TRM discussions, a two dual mast arm configuration to fully signalize the intersection in the future was considered and to furnish, but not install, the side street approach arms. Due to uncertainties, this alternative was not elected to move forward and is no longer open for consideration.