



I-95 OVER LAKE MARION BRIDGE REPLACEMENT

EARLY COORDINATION MEETING
SEPTEMBER 26

Disclaimer

All information provided today is for information only, non-binding, does not constitute legal or other advice, and does not amend or form part of the Final Request for Proposals (RFP).

Purpose

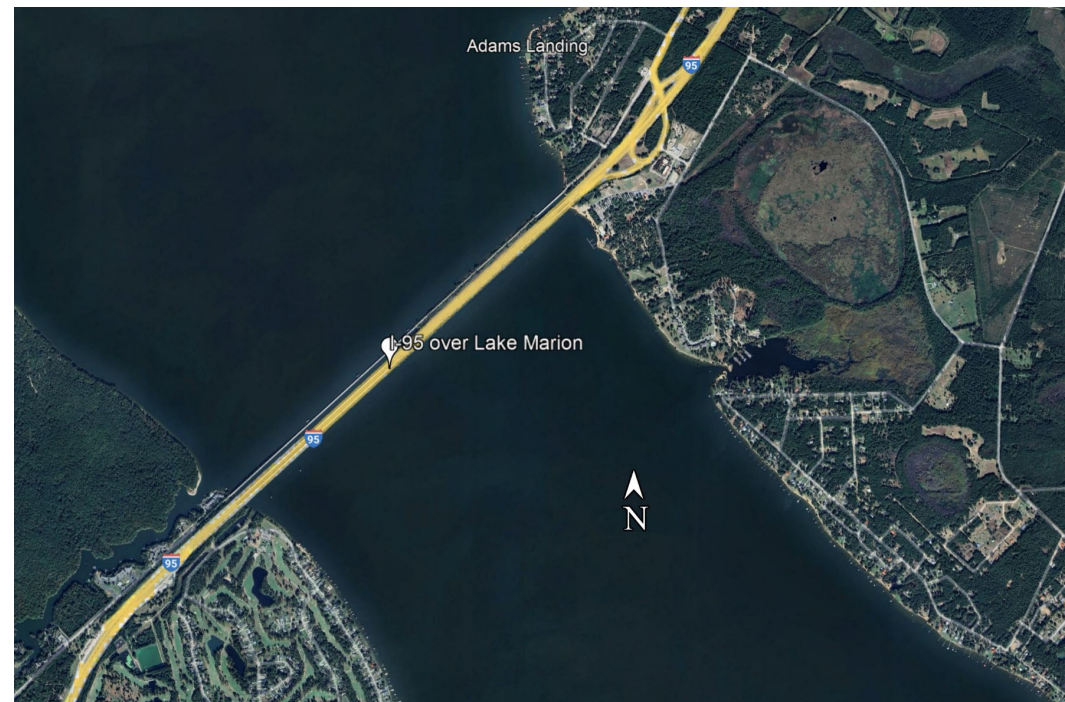
- Provide Information
- Get Feedback & Answer Questions
- Gauge Industry Interest & Competition

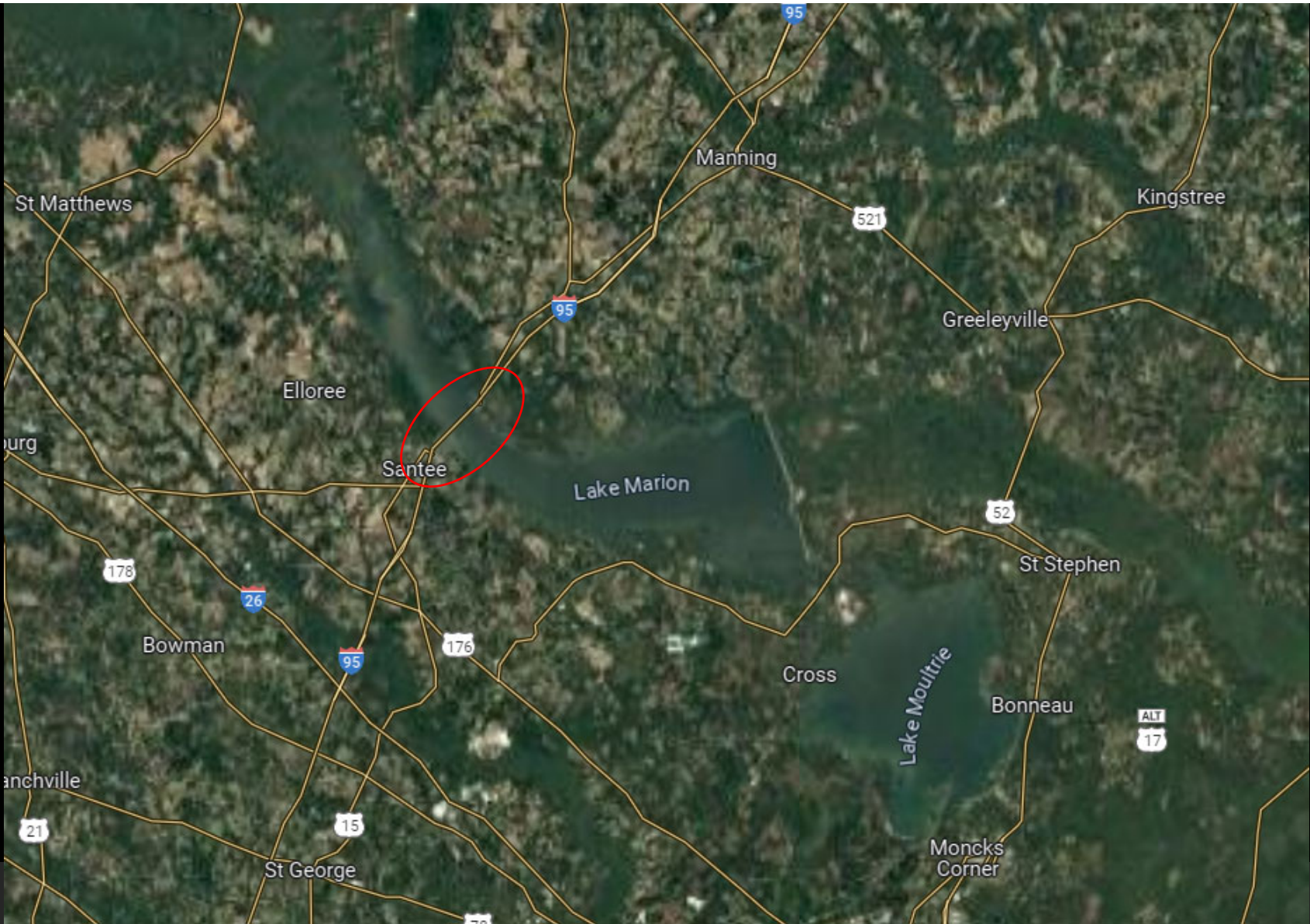
Agenda

- Location/ Overview
- Procurement Type
- Scope of Work
- Schedule
- Q&A

Project Location

Project is located in Clarendon and Orangeburg Counties along Interstate 95 between Exit 98 for Santee, SC, and Exit 102 for North Santee (US15/US301).





Anticipated Procurement Type

- Two Phase Design-Build
- ATC's
- Best Value
- Weighted Criteria Formula

Anticipated Key Individuals

- Project Manager
- Lead Designer
- Structural Engineer
- Construction Manager

Anticipated Scope of Work

- Replace the existing north and southbound 4500' Main I-95 bridges over Lake Marion
- Replace the existing north and southbound 360' Relief I-95 bridges over Lake Marion
- A two-way shared-use pedestrian and bicycle path will also be incorporated into the project, spanning the lake on the western/southbound side of the existing I-95 bridges
- Utility accommodation for a 24" waterline on top of bridge.

Structures – Replace I-95 Bridges

- Removal & disposal of existing dual bridges, at the main lake crossing and at the relief crossing. Removal of Old US 301 Bridge to the west of I-95 bridges (main and relief bridge)
- New Main bridge(s): Provide deck width for three thru-lanes in both directions of I-95. Provide clearances to accommodate future widening to eight-lane section.
- New Relief bridge(s): Provide deck width for four thru-lanes in both direction of I-95 and maintain the current two lanes in each direction at their current horizontal location in the final bridge configuration (to avoid impacting interchange geometry at US 301 interchange).
- NEPA document investigated 3 bridge alignments for the main bridge(s) with no preferred alternate identified (down-the-middle, off-alignment to the west, and off-alignment to the east). All three show staged construction and a single bridge in final configuration.

Structures – Replace I-95 Bridges

- 14' shared-use path to be carried on the bridge (west side) and separated from traffic with a standard median barrier. Provide a pedestrian railing on the outside of the path.
- Design for 100-year service life (prescriptive concrete cover, galvanized bridge deck rebar, and concrete mix design enhancements) in accordance with AASHTO Guide Spec
- Navigational Clearance requirement: 100' horizontal by 50' vertical (near existing channel)
- Vessel Collision Design: Forces have been determined for the design vessel (120' x 45' barge with tow) and a range of span lengths at the navigational channel in accordance with AASHTO LRFD 9th Edition. Higher force (1250 kips +/-) prescribed for 4 piers at the navigational channel and AASHTO minimum barge (275 kips) for all other bents on the lake.
- 120' minimum span length requirement in the navigation zone (570' each side of channel)

Structures – Replace I-95 Bridges

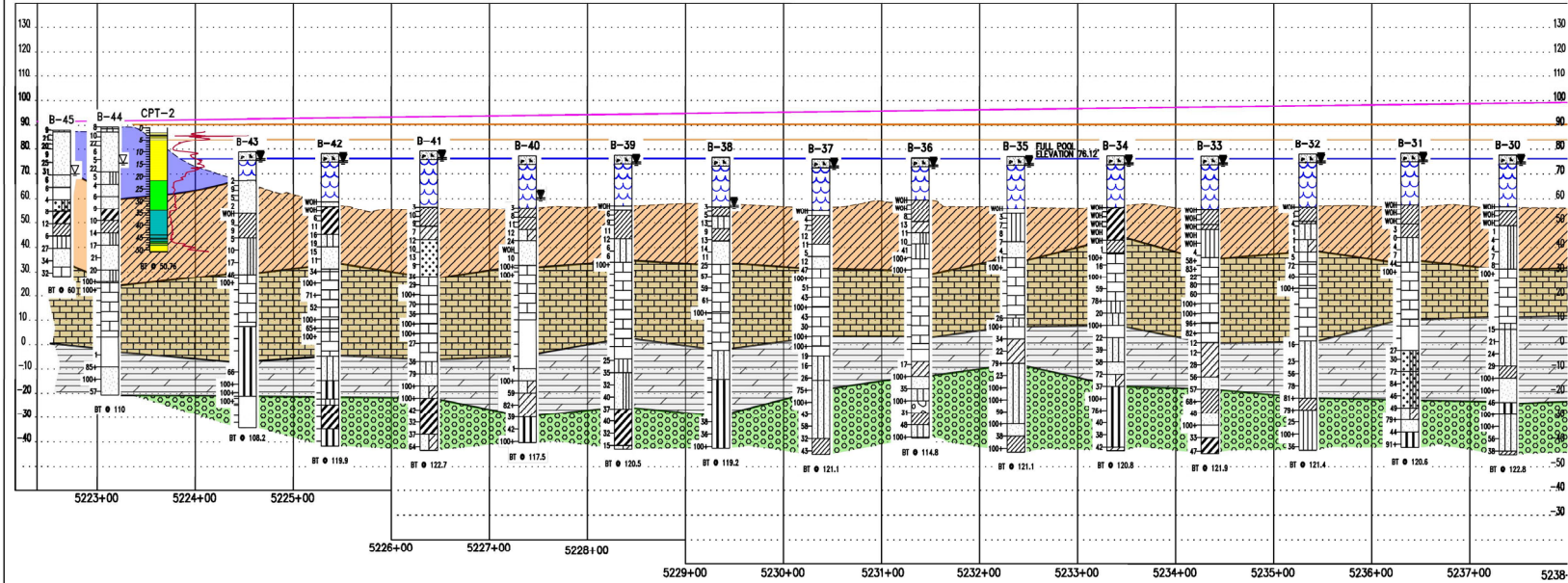
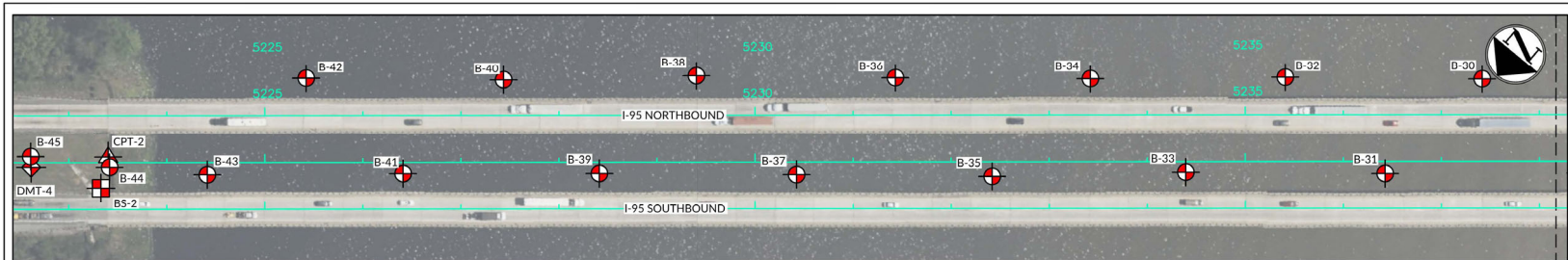
- Independent Peer Review for Complex Bridge Elements (Seismic Design and Vessel Collision Design are qualifying design features)
- Drilled Shafts to be required for interior bent foundations (Risk associated with pile driving in Santee Limestone formation)
- Girder-type superstructures anticipated (both prestressed-concrete and weathering steel plate girders will be allowed by RFP)

Roadway

- 4-lane Rural Freeway, divided median on bridge approaches.
- 75 mph design speed
- 14' shared use path adjacent to I-95 SB for Palmetto Trail connectivity.
- Design will accommodate the future widening of I-95.
- Pavement design TBD.

Geotechnical

- 48 bridge borings performed at approximately 100 ft. intervals along bridge alignment.
- CPT and DMT soundings performed at bridge ends.
- 10 to 30 feet of soft alluvium overlying dense Santee Limestone formation.
- Rock coring and SPT drilling with split spoon sampling performed within Santee Limestone formation.
- 20 to 40 feet of Santee Limestone overlying Undifferentiated Eocene deposits and Williamsburg formation.
- 144 Unconfined Compressive Strength tests primarily on recovered samples of the Santee Limestone.



LEGEND:

	FILL		SANTEE LIMESTONE
	MARIETTA FORMATION		UNDIFFERENTIATED EOCENE
	ALLUVIUM		WILLIAMSBURG FORMATION (PALEOCENE)

4			
3			
2			
1			
REV.	BY	DATE	DESCRIPTION OF REVISION
TOPG.		DATE	
DWG.	CTC	DATE	8.2.23
RW		DATE	

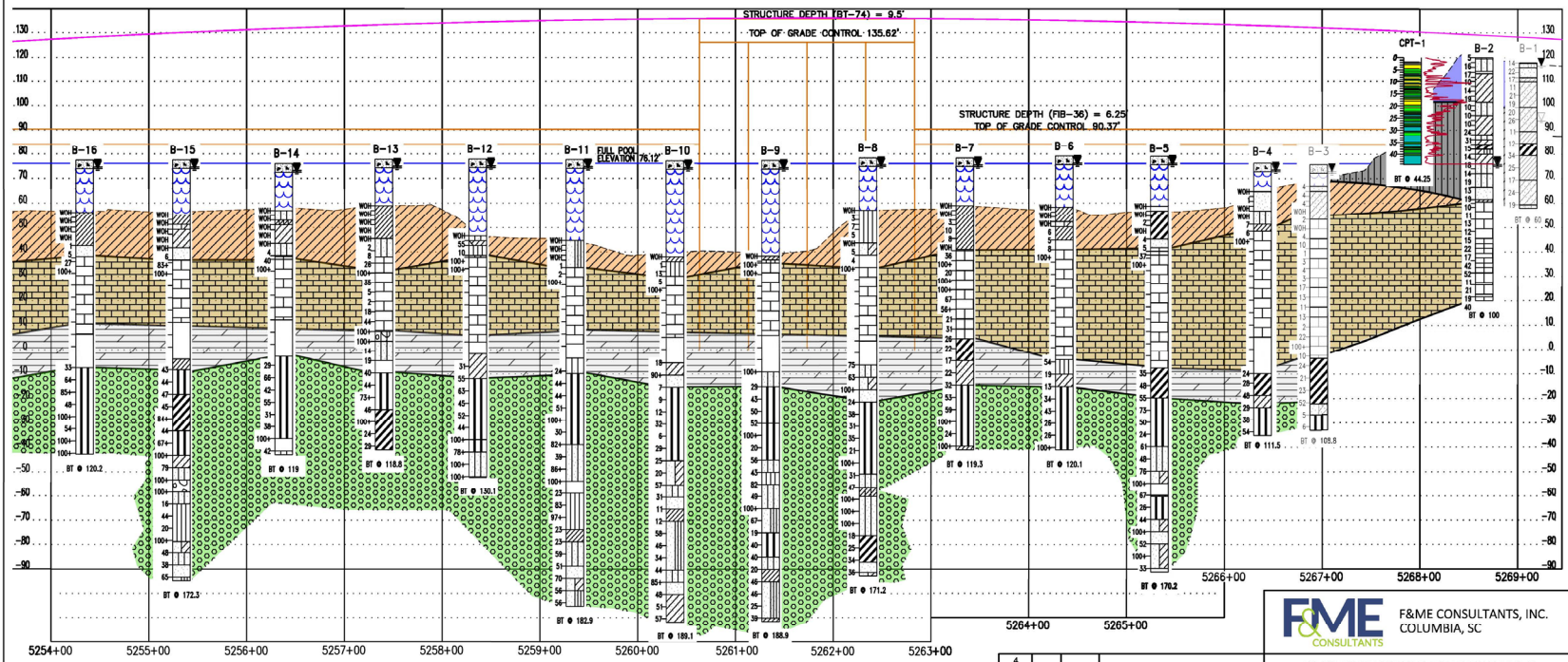
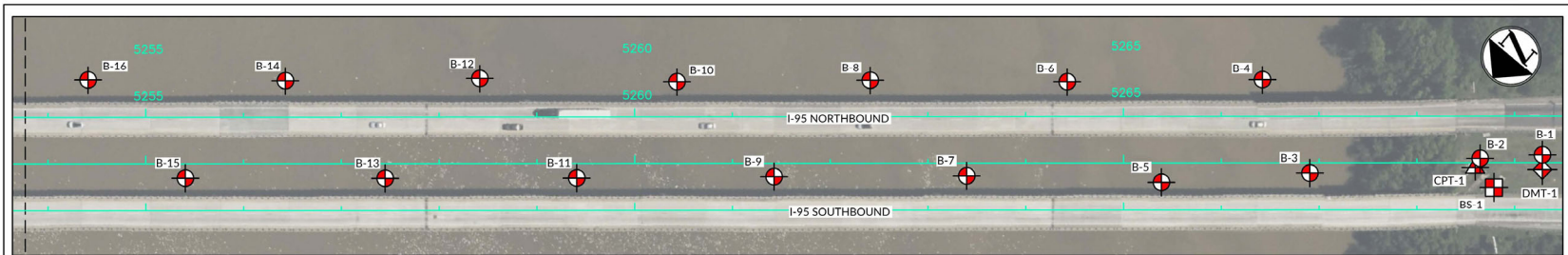
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F&M CONSULTANTS, INC.
 COLUMBIA, SC

I-95 OVER LAKE MARION BRIDGE REPLACEMENTS
 CLARENDON & ORANGEBURG COUNTIES, SOUTH CAROLINA

SUBSURFACE PROFILE - MAIN BRIDGE

SCALE: 1"=100'

FIGURE 2



LEGEND:

- FILL
- SANTEE LIMESTONE
- UNDIFFERENTIATED EOCENE
- MARIETTA FORMATION
- ALLUVIUM
- WILLIAMSBURG FORMATION (PALEOCENE)

4					
3					
2					
1					
REV.	BY	DATE	DESCRIPTION OF REVISION		

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I-95 OVER LAKE MARION BRIDGE REPLACEMENTS
CLARENDON & ORANGEBURG COUNTIES, SOUTH CAROLINA

SUBSURFACE PROFILE - MAIN BRIDGE

SCALE: 1"=100' FIGURE 4

Utilities

- SCDOT has performed preliminary coordination efforts.
- Will provide SUE information through confidential means
- Bridge will accommodate a waterline along the length of the bridge

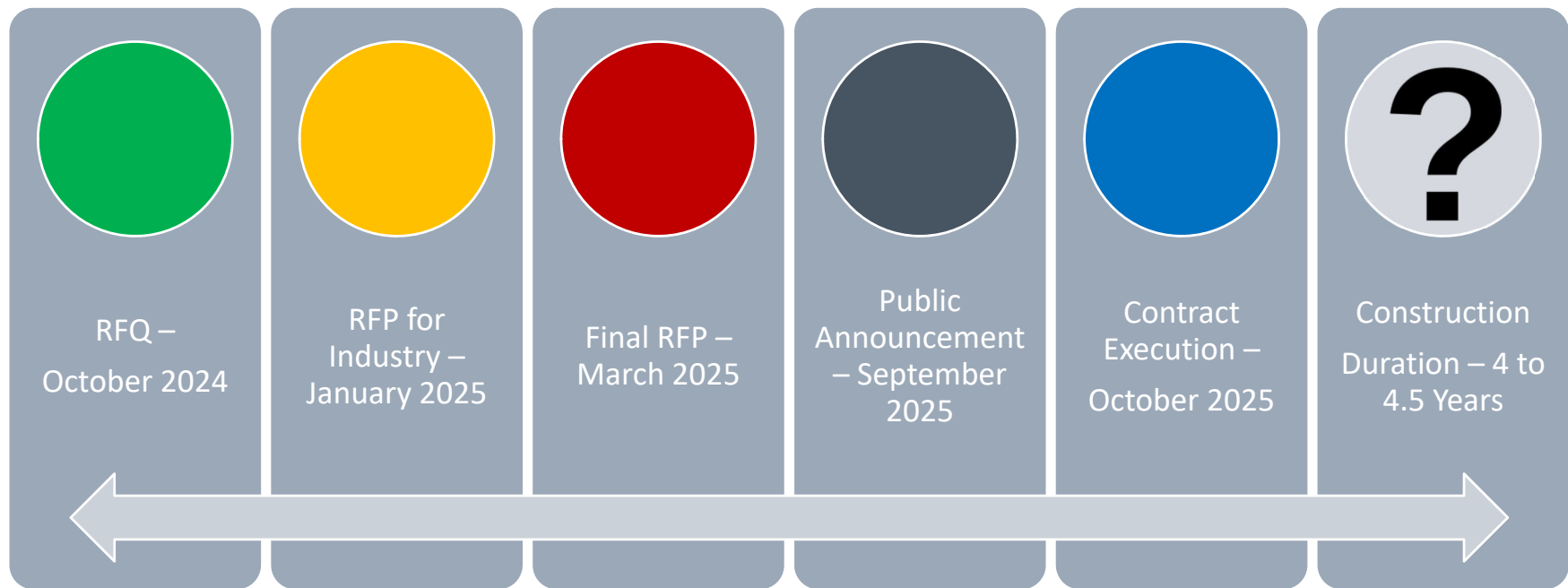
Traffic

- Published lane closure restrictions available on SCDOT's public website.
- All traffic count information collected by SCDOT will be provided.
- Primary objective is to maintain two through lanes in each direction at all times.

Environmental

- A Non-Programmatic Categorical Exclusion NEPA document is complete and will be provided.
- Public engagement provided through stakeholder email, postcards, and SCDOT website.
 - <https://i-95-over-lake-marion-scdot.hub.arcgis.com/>
- A Section 404 SCDOT General Permit or Individual Permit is expected. Contractor responsible for obtaining permit.
 - Anticipate impacts to wetlands/open waters.
- US Coast Guard (USCG) permit required and will be CONTRACTOR'S responsibility.
- Contractor responsible for mitigation. Per USACE RIBITS, credits are currently available in the primary service area, Griffins Creek (wetland and stream), Tri-County Tract (wetland and stream), and SCP Mossy Bend (wetland).
- Federally endangered shortnose sturgeon present in Lake Marion year-round.
 - Coordination complete with National Marine Fisheries (NMFS) and summary included in the RFP.
- No other major impacts to environmental resources expected.
- FERC coordination with Santee Cooper completed by SCDOT.

Anticipated Project Schedule



Project Budget

- \$350 to \$400 Million

Anticipated Project Information

- Survey
- Hazardous Materials Surveys
- Hydrology Report
- Structures
 - SI&A sheets
- Preliminary Utility Report
- Environmental
 - JD and line work for wetlands
 - NEPA document
- Geotech Report

Questions / Discussion

Feedback

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