

**NON-CONFIDENTIAL DESIGN-BUILD QUESTIONS
Bridge Package 31**

RFP for Industry Review #2

Date Received: 12/10/2024

Meeting Date: 12/11/2024

						SCDOT	
Question No.	Category	Section	Page / Doc No.	Question/Comment	Discipline	Response	Explanation
1	Attach_A	Exhibit_3		Please clarify Exhibit 3 to clearly state which portions of the Swamp Rabbit Trail can be closed and which portions must remain open. Swamp Rabbit Trail Orange Line needs to be closed for the duration of construction at S-147.	DM	Revision	The existing SRT perpendicular to and crossing S-80 shall remain operational throughout construction. The trail is to be relocated across S-80 to allow for phased construction of the trail to maintain user access. The SRT Orange Loop at the S-147 site will be closed for the duration of construction.
2				Can SCDOT provide SRT pavement design?	DM	Revision	Yes the pavement design for SRT and Meadowbrook Green Trail will be provided. Pavement for the SRT Orange Loop shall match the pavement design for S-147.
3	Attach_A	Exhibit_3		At the S-80 site will the Design Build Team be responsible for Design and Construction of new irrigation systems, lighting and landscaping that are impacted by the relocation of the Swamp Rabbit Trail on the South side of the proposed bridge?	DM	Revision	Coordination is underway with the City of Greenville regarding existing lighting, irrigation and landscaping at the S-80 site. Revision will be made to address these items in the Final RFP.
4	Attach_A	Exhibit_4c		Please provide pavement design for the Swamp Rabbit Trail and Meadowbrook Green Loop at S-80.	DM		Yes the pavement design for SRT and Meadowbrook Green Trail will be provided. Pavement for the SRT Orange Loop shall match the pavement design for S-147.
5				Can SCDOT provide an anticipated schedule for the General Permit approval (i.e. 3 months after ROW submittal), and provide schedule relief if FHWA takes longer to approve?	Environmental		Timeframes generally allotted for obtaining General Permit approvals is 3-4 months. Mitigation costs, if necessary, will be the contractor's responsibility.
6				Is vibration monitoring required for all paving and shoulder work (light earthwork), or just pile driving activities (bridge and retaining walls)?	Geotechnical	No_Revision	Read the Special Provision. Talk to your geotechnical engineer. The Contractor is responsible for any and all claims arising from construction-related earthborne vibrations.
7	PIP	Geotechnical		Will complete GSDRs be provided for all four (4) bridge sites in the Final RFP, and will they include seismic design parameters and Corrosion Series lab test data?	Geotechnical	No_Revision	Yes.
8	Attach_A	Exhibit 4e	157 of 298	If for any reason the "No Impact" criteria cannot be met at S-80 or S-147, will SCDOT allow a change request for cost and schedule post award to perform a LOMR? A 12 month approval for LOMR after completion of construction is anticipated.	Hydrology	No_Revision	Yes.



9	Attach_A	Exhibit 4e		IR RFP #1 Question 18 states that a revision will be made to RFP Exhibit 4e to clarify that the existing culvert to remain in place at S-147 will not need to be modified to address any hydraulic deficiencies. Please confirm that this change is coming in the Final RFP.	Hydrology	No_Revision	Confirmed. This was revised after IR1 NCQ's. Exhibit 4e 2.1.5
10	Attach_A	Exhibit 4e	2.2.1.10	Please modify Exhibit 4e to also include sheet pile walls as allowed by Exhibit 4b.	Hydrology	Revision	Will revise 2.2.1.10 in exhibit 4e
11				There is a soil nail wall beyond the historic property driveway at end of project for S-147. Profile adjustments for a 25 mph vertical sag curve extend into this area. Can SCDOT clarify that teams can leave the existing guardrail and shoulders in this area with essentially an overlay operation on the roadway? Or will the typical section of the roadway be required to the point where the profile is tied to existing?	Roadway	No_Revision	Every effort needs to be made to minimize impacts to the historic property and the MSE wall. Any design that increases impacts will not be acceptable.
12				For the wall referenced above, will the fence need to be replaced atop the barrier if a moment slab barrier is used in lieu of the current guardrail system.	Roadway	No_Revision	SCDOT 's intent is to minimize impacts to the railroad bridge approach and facilities. If the contractor's design impacts these facilities, the facilities shall be modified as necessary to maintain capacity and function.
13				DM 0424 states no vertical sag curves are allowed on cored slab bridges. Based on the construction limits in the conceptual design provided for S-52 it appears that this requirement is being violated. Can this be allowed by the RFP to significantly reduce the required grade change and associated ROW and utility impacts	Roadway	Revision	A 30 mph sag vertical curve will be allowed on the south end of the S-52 bridge to meet this criteria. Exhibit 4a will be updated.
14	Attach_A	Exhibit_4a		For realignment of the Swamp Rabbit Trail/Meadowbrook Green Loop, is the DB Team required to replace existing signs/pedestrian lighting/ITS devices related to the trail with new equipment or is it acceptable to re-locate the existing devices?	Roadway	Revision	Coordination is underway with the City of Greenville regarding existing lighting, irrigation and landscaping at the S-80 site. Revision will be made to address these items in the Final RFP.
15	Attach_A	Exhibit_4a		Is the DB Team required to replace the traffic calming devices at the S-80 bridge?	Roadway	Revision	Coordination is underway with the City of Greenville regarding traffic calming devices at the S-80 site. The intent is for the City to remove the devices in advance of construction and reinstall after bridge construction is complete but prior to opening S-80 to traffic. Revision will be made to address these items in the Final RFP.
16	Attach_A	Exhibit_4a		Is the DB Team required to replace existing aesthetic roadway lighting devices that may be impacted by the bridge replacement at S-80? Please provide specifications.	Roadway	Revision	Coordination is underway with the City of Greenville regarding existing lighting, irrigation and landscaping at the S-80 site. Revision will be made to address these items in the Final RFP.
17	Attach_A	Exhibit_4a		Are there any additional accommodations required to replace the existing Trolley Stop location at the north end of the S-80 bridge?	Roadway	Revision	The scope will be revised to require the existing features to be replaced as part of the project by the Contractor. This will include at a minimum replacement/relocation of the existing signing and replacement of the concrete pad which attaches Meadowbrook Green Loop to S-80.



18	Attach_A	Exhibit_3	1	In the additional questions from Dec 5 Open Forum, SCDOT response indicated that "Trail Closed" or similar signs would be sufficient to close the Swamp Rabbit Trail at the work zone, however, no changes were made in the draft RFP and Exhibit 3 states that "The Swamp Rabbit Trail shall remain open and fully operational throughout the contract." Please clarify in the RFP, can the SRT be closed during construction with or without a signed detour at S-80 and/or S-147?	Roadway	Revision	Language will be clarified.
19	Attach_B	ROW		Has ROW coordination and acquisition begun for S-80 based on the ROW graphic provided in Attachment B and the ROW plans provided in the PIP? If so, please provide an anticipated schedule for acquisitions.	ROW	No_Revision	The right of entry process has started this week. ROW exhibits and plans will be updated as necessary.
20				For the wall referenced above, a moment slab barrier may be constructed on top of the wall to provide the full shoulder width. Will SCDOT assume the risk of the adequacy of the wall as constructed to support the moment slab barrier sitting over the wall?	Structures	No_Revision	Minimal impacts to MSE Wall are expected. Tie-in pavement as necessary and re-set existing guardrail to avoid the need for moment slab barrier at this location (end of project).
21	Attach_A			Will SCDOT consider removing the maximum span length and maximum bridge width requirements to allow more flexibility in the proposed foundation location in order to avoid the existing rubble masonry abutments?	Structures	Revision	Yes, we will coordinate with SCPRT on increasing the maximum to 55-feet at the Jones Gap site. The intent is for the majority of the previous rubble masonry abutment remnants to remain in place, including the visible facing of the structure fronting the river. If a buried / hidden portion of the abutment at the back end needs to be partially removed to facilitate footing construction and it doesn't affect stability of the facing, that would be acceptable.
22	Attach_A	Exhibit_4b		As discussed during the Open Forum Meeting on 12/5/24 please clarify that the culvert at S-147 will not require any structural modifications to accommodate the proposed additional fill and moment barrier slabs.	Structures	Revision	This will be clarified in 4b.
23	Attach_A	Exhibit_4b	135/298	Is there any concern with the use of driven piles at the S-80 site in the vicinity of the 42" water main or will drilled foundations be required to reduce vibration?	Structures	Revision	This will be dependent on coordination with the utility owner post-award. Drilled piles are allowed at the S-80 end bents in the event driving is not allowed and this will be clarified in the RFP.
24	Attach_A	Exhibit_4b	135/298	If drilled foundations are needed at S-80, would micropiles be allowed?	Structures	No_Revision	No, drilled H-piles are preferred to micropiles for lateral resistance at this location, given the hydraulic design variance involved.
25	Attach_A	Exhibit_4b		For the S-52 Bridge, since the bridge will have a concrete overlay on the cored slabs, will SCDOT allow a portion of the sag Vertical Curve to be located on the bridge as long as the low point is off the bridge?	Structures	No_Revision	No. An asphalt overlay is specified at S-52 site. Our conceptual profile, which will be added to PIP, did not include a sag vertical curve on the bridge.
26	Attach_A	Exhibit 7		It is anticipated the MCI/Verizon will be impacted at S-80. Please add this utility owner to the list of utilities present for S-80 in Exhibit 7.	Utilities	Revision	This will be added.
Additional Questions from December 11 Open-Forum							
1				Can dynamic load testing (PDA) be used on production micropiles in lieu of static verification and proof testing?	Geotechnical	No_Revision	No.



2				Confirm that the results from the 2-Dimensional model should be used for estimating scour along the proposed wall for S-147. Preliminary analysis for this site is resulting in scour depths below the channel of approximately 15 feet utilizing section 4.3.4 of the HEC-23 guidance.	Hydrology	No_Revision	RFP states 2D should be used to design retaining wall countermeasures that will be allowed in question 3 response.
3				Can riprap scour countermeasures be implemented to eliminate scour along the proposed wall for S-147 using guidance within the HEC-23 manual?	Hydrology	Revision	Yes. Exhibits 4b and 4e will be revised.
4				If scour countermeasures are not allowed to eliminate scour along the wall at S-147, can the SCDOT provide a scour elevation for all teams to design the wall for tech and cost proposal basis?	Hydrology	No_Revision	No scour elevation will be provided by SCDOT for wall design.
5				The prescribed bridge length for S-52 along with the proposed roadway profile adjustments will result in the spill thru abutments reducing the effective cross sectional area of the crossing by 20%. This will result in a rise to Motlow Creek for the 100-year storm event. Should the length of S-52 be increased to approximately 70 feet to ensure no rise to Motlow Creek? Additionally please note that the increase in bridge length could be minimized if a sag curve is allowed on the bridge.	Hydrology	Revision	Criteria will be revised in exhibit 4b to allow structure length of 70 feet to ensure no impact design can be met.
6				It appears the existing bridge at Jones Gap had an approximate structure depth of 18". Any increase to the structure depth for the proposed bridge would most likely result in an increase to the water surface elevations due to the overtopping occurring at this structure. Will Greenville County allow a variance for this site since the rise would be limited to a few hundred feet upstream of the bridge? The increase would not impact any structures and would be well contained within the park property.	Hydrology	No_Revision	See section 5.2 of Exhibit 9. Teams should contact local floodplain manager for hydraulic criteria approval. Contact SCPRT for approved possible grade increase due to structural depth change.
7	PIP			The reverse crown superelevation will transition after the horizontal curve at the end of the project and may impact the westbound lane further than the eastbound lane adjacent to the retaining wall in question. Is it appropriate to complete the superelevation transition without impacting the eastbound lane (or simply a mill & fill).	Roadway	No_Revision	Yes, mill & fill eastbound along the existing MSE Wall for the S-147 site only.
8	PIP			Can the taper from existing to proposed section be performed inside the project limits in lieu of transitioning beyond the point where the profile ties to existing?	Roadway	No_Revision	Yes, for the S-147 site only at the end of the project to avoid impacts to the historical property.
9	Attach_B	Roadway		Will SCDOT be purchasing the required ROW for the Swamp Rabbit Trail Relocation at S-80? The conceptual plans provided show a portion of the trail outside of the proposed ROW shown in the "S-80 over Reedy_RW_Graphic"	ROW	No_Revision	SCDOT will handle all ROW acquisitions necessary for the project.
10	PIP			The profile appears to have a low point approximately 13 ft from the end of bridge on the bridge deck. We can provide a deck drain at the low point, but request clarification that a low point on the bridge is acceptable.	Structures	No_Revision	The conceptual profile provided is for information only and is a high level concept not to be relied upon for all design requirements of this project. The conceptual profile was not adjusted to fit the revised proposed conceptual bridge location. Low points on cored slab bridges are not acceptable. Follow the RFP requirements.



11	PIP			The proposed profile may require the low chord of the new S-147 bridge to be below the existing low chord. Is this acceptable considering the roadway overtops and we are improving the hydraulic opening by lengthening the bridge? We anticipate the need for a CLMR regardless due to the moment slab barriers being installed.	Structures	No_Revision	The conceptual profile provided is for information only and is a high level concept not to be relied upon for all design requirements of this project. The conceptual profile and conceptual bridge location were not coordinated well enough. Low chord shall be at or above existing per RFP requirements. "No Impact" certification is also required. Post award, if moment slab barriers are preventing achievement of a no-impact certification, other design solutions will be investigated to achieve a no-impact and meet schedule goals.
12				Based on a preliminary wall calculated scour depth of 15 feet below the channel along with the shallow rockat S-147, the RFP prescribed wall types do not appear feasible to construct. Please provide additional wall options that are feasible based on the scour and site conditions.	Structures	Revision	A requirement for riprap scour countermeasures along the wall is being added to eliminate depth of wall being controlled by a calculated scour depth.

