Call 01 Bascule Bridge Rehabilitation on SR 605 over Industrial Waterway (Bridge No. 3.5), known as Federal Aid Project No. BR-9371-01(001) / 107505301 in Harrison County.

Q1. Can MDOT provide the as-built drawings and the original plans for this project?

A1. The bridge plans and as-builts can be downloaded at the following link: https://file-exchange.mdot.state.ms.us/dl/?f=c73ad1347da2b83a1ca094c7bc75e5e0c459578c

Q2. Will the Department allow potential bidders to visit the site prior to submitting a bid for this project?

A2. Yes. To schedule a site visit with the District, please contact Dean Moody, Assistant District Maintenance Engineer, at (228)-832-0682.

Q3. **1.)** Plan sheet 73 of 152 note 19 states demolish existing generator and transfer switch and provide new. Specification page 139 states to re-use existing generator and transfer switch. Are we to provide new or re-use? If they are to be new, provide specifications. **2.)** Auxiliary Electrical Equipment – specifications state to install new traffic signals onto existing bolt pattern while plan sheet 73 of 152 note 20 states to re-use existing traffic signals and to relocate 1 AWS. Which is correct? **3.)** Auxiliary Electrical Equipment – specification page 147 states provide a pedestrian gate where shown on the drawings. Note 15 on plan sheet 73 of 152 does not mention pedestrian gates nor can I find them on the drawings. Are they required and if so provide plan and control integration details?

A3. **1.)** Provide and install a new standby generator, automatic transfer switch, sub-generator fuel storage tank, and day tank per plans. The specifications will be revised and issued in an addendum. **2.)** The plans are correct. Protect, maintain, and integrate into the control/power system the [existing] traffic gates, gongs, traffic signals, and advanced warning flashers. Furnish and install pin type connectors on the traffic gate arms for quick removal. **3.)** Pedestrian gates are not required. **4.)** Spare parts are not required for Traffic gates. Traffic Gate work will be summarized in a forthcoming addendum as “Protect, maintain, and integrate into the control/power system the traffic gates, gongs, traffic signals, and advanced warning flashers. Furnish and install pin type connectors on the traffic gate arms for quick removal.” This is also covered in Electrical Note 15 of the plans on E-03.

Q4. Electrical Service - spec page 135 states replace 5KV aerial rated cables and to replace existing 5KV transformers and provide a new 300KVA 4160V transformer. No location of the existing to be removed or no location is shown on the drawings for the new 300KVA transformer. There isn't a primary switch shown for the MV transformer shown on the one line drawing and the transformer isn't shown either. Please show the location of the MV transformer on the one line and where it will be located physically. Will a 5KV primary switch be required?

A4. A 5KV switch is not required; furthermore, aerial cable and MV transformer replacement are not within the scope of this project. The scope for this project is to provide new upgraded 480VAC/600A service. Refer to Plans E-03 Note 19 and one-line on E-05.

Q5. Electrical Questions: **1.)** For submarine cables 2 & 3, shown on sheet 8260, do these cables require a central empty duct as shown in the detail? If so, what size should it be? **2.)** Is a new ATS required as shown on sheet 8252 and in note 19 on sheet 8203, or is the existing ATS only to be repaired as indicated in specs sheet 140? **3.)** Is the generator to be repaired as shown on spec sheet 139 or replaced as shown in note 19, sheet 8203? **4.)** Are there any specs for the brakes, do not see any in specs. **5.)** What is the depth of the water by the operator's house? **6.)** What is the depth below the mud line that is required for the cable?

A5. **Revised Answer: 1.)** The details do not show a center duct, but space for filler material that the vendor will utilize to ensure the circular compact cable size. This will be determined by the manufacturer. The call outs for the cables identify the proposed fill for the cables. **2.)** Yes, a new ATS is required. ~~A revised specification will be issued in an addendum~~. **3.)** The generator will be replaced. ~~A revised specification will be issued in an addendum~~. **4.)** ~~The revised specification will be issued in an addendum~~, ~~and will have details on the brakes.~~ Brake specifications can be found in 907-859.04 in the proposal. **5.)** Based on the bridge plan and profile dated 7/1998, the depth of the water under the operator's house as measured from MSL to the sloped channel bottom is approximately 6 to 10 feet. **6.)** The cable depth beneath the mudline will be as required by the permit. Refer to note 1 on sheet 8260.

Q6. Training, manuals and spare parts - Specification page 188 - Being that the traffic gates are existing, are the requirements to provide a spare traffic gate arm, fiberglass extension and gate operator motor and gearbox applicable?

A6. See Answer #3.

Q7. Is this a "Buy America" project? If so, what is the limits and/or parameters of the domestic requirement?

A7. Yes. Refer to Subsection 700.01 of the 2017 Standard Specifications for Road and Bridge Construction.

Q8. SH E-60 Submarine Cable: **1.)** Are the existing submarine cables in a steel casing? **2.)** What size are the new proposed submarine casing? **3.)** Are the new submarine cables to be put in a steel casing? **4.)** Do the new submarine cables go in the existing trench? **5.)** If new trench is required, does it need to be open cut or directional drilled?

A8. **1.)** No. **2.)** A casing for the submarine cables is not required. **3.)** A casing for the submarine cables is not required. **4.)** They are to be placed in a new trench adjacent to the existing cables. **5.)** The submarine cables are to be placed in an open cut trench in accordance with the permit.

Q9. Is there a specification section for the operator house required repairs, specifically the roof and the glass windows?

A9. Yes, refer to Special Provision 907-258-3.

Q10. Speed Reducers Plan sheets M-03, M-04 & M-05 reference new reducers. Spec section 907-850.03.20 speed reducer recondition (referenced in table on sheet M-05) only references reconditioning. Please advise if the speed reducers are to be reconditioned or new.

A10. The speed reducers are to be new and in accordance with the plans and 907-850.04.

Q11. Sheet M-12 - rear lock assembly - Note 1 identifies replacing the hydraulics with Linear Electric Actuator; however, in the Mechanical spare parts section of the specifications, section 907-850-863.02.2.3 - spare parts for rear locks, it calls for spare hydraulic cylinders, filter elements, hoses, etc. What is required to be provided?

A11. The plans are correct. Refer to 907-850.06 of the proposal for additional requirements.

Q12. **1.)** Center lock assembly M-11 (A) Is the span lock diaphragm being replaced or just modified? (B) The fasteners that attach the bottom & top strike plates are listed as both 7/8" countersunk HS turned bolts and 7/8" countersunk HS bolts. Typically countersunk bolts are not turned bolts. What type of bolts are required for this application? **2.)** Lineal Actuator M-12 (A) what is the travel speed? (B) M-12 note #4 references paint for the tail lock assembly. Does this include the new lineal actuator? (C) M-12 note #8 identifies materials for the trunnion. What trunnions is this referring to? (D) What are the dimensions of the wear plate shims to be replaced?

A12. **1.)** (A) The Contractor shall grind any high spots on either side of the contact area. The diaphragm is to be coplanar with the wear surface as described on Sheet 8111 in the plans. (B) High strength countersunk structural bolts shall be used and in accordance with 907-850.03.1.7. **2.)** (A) A complete stroke shall be achieved in under a time of five (5) seconds. (B) Yes. (C) The 1.5” linkage pins connected to the linear actuator are referred to as trunnions in the original plans. This language was carried over into the current plans. (D) Refer to 907-850.03.1.15.

Q13. In regards to the Brake: The max rating on a 13” can achieved at 550 ft-lbs, but then the operating torque min. for that unit would be 295 ft-lbs. And for the 16” unit it can achieve the max torque of 1000 ft-lbs, but then the operating torque min. would be 550 ft-lbs. This has to do with the spring specifications setting the brake. You cannot back off the spring that far. That is why each particular thruster has a range of torques. What is more important, the running torque or the max torque?

A13. The brake sizes shall be as shown on the plans. The brake settings shall be as follows: Motor Brake = 300 ft-lbs. Machinery Brake = 700 ft-lbs.

Q14. Painting Notes sheet 8004: Note A states "clean prime & paint all structural steel within the bascule and spans." It also states "the contractor is to verify areas to be painted..." which is correct? Is the entire steel structure to be painted or is it to be identified and spot painted? Also what type of paint system is required?

A14. All structural steel within the bascule spans shall be painted. The Contractor shall verify other steel elements in addition to the structural steel that require new paint. Paint system will be in accordance with Special Provision 907-845-2.

Q15. Mechanical Sheets: Sheet M-02 lists the "Bearing C to remain" Sheet M-03 lists the "New Spherical Bearing C see sheet 8108" Which is correct?

A15. Bearing B is to remain as shown on Sheet 8103.

Q16. **1.)** Spec sheet 135 calls for 400A service switch; drwg 8205 indicates 500A. **2.)** Drwg 8205/8207: are the existing wiring for the traffic gates to be reused or is it just the conduit to be reused with new wiring? **3.)** Drwg 8213: are the disconnect switches for these traffic gates to be reused or should they be replaced? **4.)** Drwg 8260: how many sub cable supports (WT18) will be required on each side? What exactly are the other support components that are attached to the WT18 member that the cables pass thru? **5.)** Drwg 8258: is the new PNL-CB panel shown the same as the NLP? If not, what is the new PNL-CB?

A16. **1.)** The switch is to be 500A. **2.)** The existing conduit and wiring is to be integrated with the new controls as per Note 20 on Sheet 8203. **3.)** They are to be reused. **4.)** A minimum of one support at the submarine terminal cabinet on each side as shown on E-60 in the plans. The supports on the WT18 are for the outer wire armor to be clamped between the rings to allow for terminations in the panel. Additional supports will depend upon the Contractor drilling and routing once outside the towers. **5.)** Yes, the new PNL-CB is the new lighting panel.

Q17. Spec sheet 135, section 907-854-01-1 calls for contractor to remove existing service to the bridge and the existing transformers. It also requires furnishing new 5KV service along with a new meter and 3-3000KVA transformers. This is not shown on the plans and seems to be work that should be provided by the utility company. Location of service and transformers is not shown. Please advise what is required for the electrical service work.

A17. This is to be disregarded and is not within the scope of this project.

Q18. What type lighting fixture is to be used for the warning lights? It is not identified on the plans.

A18. The existing advanced warning lights will be integrated into the new control system. The north approach pedestal-mounted advance warning beacon shall be relocated. Refer to Sheet 8203 (E-03), Note 20.

Q19. Mechanical sheet M-05: Coupler mark "C4" has a nominal bore of 8.66", the housing dimensions on the drawings will be too small for this bore size. Please advise.

A19. Refer to the Bearing D Detail shown on Sheet Number 8108.

Q20. Mechanical Questions: **1.)** What is the actuator speed? **2.)** Housing of trunnion pins a) Width of actuator housing? b) How are the trunnion pins kept in the scissor mechanism? **3.)** Clevis trunnion pins a) What is the distance between scissors for the rod clevis to fit? b) How are the trunnion pins kept in the scissor mechanism? **4.)** Confirm the actuator is supported entirely by the trunnion pins on the actuator housing and rod end clevis.

A20. **1.)** Refer to Sheet Number 8112 showing that the actuator speed shall be 3.75 in/s. **2.)** (a) Refer to Sheet Number 8112, section A-A. This view provides a distance between scissors as 3-3/16". This was based on information available in the as-built drawings. All critical dimensions should be field verified by the Contractor. (b) Refer to Sheet Number 8112 showing the actuator is supported entirely by the trunnion pins on the actuator housing and rod end clevis. **3.)** (a) Refer to Sheet Number 8112 showing section A-A. This view provides a distance between scissors as 3-3/16". This was based on information available in the as-built drawings. All critical dimensions should be field verified by the Contractor. (b) See answer 2(b) above. **4.)** See answer 2(b) above.

Q21. Can the actuator be attached to the exterior of the linkage as opposed to the interior as shown in the drawings? This would alleviate the concern of trying to fit an actuator housing in the limited space between the linkages.

A21. As shown on Sheet 8112, under “ELEVATION OF REAR LOCK AT FASCIA GIRDERS”, refer to the note that states exterior trunnion mount is acceptable for size constraints.

Q22. Sheet GN-1 (traffic gate configuration during NB/ SB lane closures) - Does this note apply to each individual quadrant to allow for the required work, per quadrant, which would equate to 2 60-day lane closures per side? The 4 quadrants will be worked on independently of one another.

A22. See addendum.