

Illinois Department of Natural Resources

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<http://dnr.state.il.us>

Pat Quinn, Governor
Marc Miller, Director

February 25, 2014

SUBJECT: Stratton Lock & Dam – Lock & Gate Structure Improvements
McHenry County
Contract No. FR435
Item No. 1W, February 28, 2014 Letting
Addendum A

NOTICE TO PROSPECTIVE BIDDERS

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

1. Revised sheet 28 of the plans. This was done to add a timber material specification for the treated timber bumpers.
2. Revised sheet 100 of the plans. This was done to revise the location of the stop log post mounting plate in the Gate 1 bay.
3. Revised sheet 101 of the plans. This was done to revise the location of the stop log post in the Gate 1 bay.
4. Revised sheet 102 of the plans. This was done to revise the location of the stop log post in the Gate 1 bay.
5. Revised sheet 164 of the plans. This was done to add a timber material specification for the treated timber bumpers.
6. Revised page 112 (Cofferdams) of the special provisions. Prohibits the use of earthen cofferdams per the permit requirements.
7. Revised pages 256 and 257 (Hydraulic Piping, Ball Valves and Winch Equipment) of the special provisions. Revised the minimum pressure rating for fittings and ball valves to 3750 psig in I. A. 2. and II. A. 1. of the Material Requirements section. Also changed 200 psi to 2000 psi in III. C. 1. and added a missing line of text in III. C. 6. of the same section.

Prime contractors must utilize the enclosed material when preparing their bid.

In addition to the above revisions/additions, below please find a list of questions (in normal type) which have been received from prospective bidders along with the corresponding responses (in italics) from the IDNR.


1. Sheets 131 and 196 in the plans show soil boring logs. Can you provide the location map for the borings? *See sheets 81 and 149. On sheet 149 the label B-1 refers to B13-1; B-2 refers to B13-2; etc. corresponding to the labels on sheet 196.*
2. Page 256 in the Special Provisions, specifies a minimum working pressure rating of 3000 psig for fittings and valves. Sheet number 16 in the Plans, under "Pipe Material Schedule" specifies a minimum working pressure rating of 3750 psig for fittings and valves. Please clarify. *The special provision has been revised and now agrees with sheet number 16 in the plans. See item number 7 above.*
3. Can you provide copies of referenced permits? *The Illinois Environmental Protection Agency, and the McHenry – Lake County Soil & Water Conservation District permits and/or sign-offs for this project, including their special conditions concerning work on this project, have been provided in the Construction Procedures special provision on pages numbered 19-48 (102-131 of 760 pdf). The Storm Water Pollution Prevention Plan has been included in the Erosion Control System special provision on pages numbered 192-203 (275-286 of 760 pdf). The IDNR/Office of Water Resources and the U.S. Army Corp of Engineers (USACOE) permits have not yet been received but are forthcoming. The Contractor can assume in preparing his/her bid that these two permits contain no special conditions more stringent than those included elsewhere in the plans and specifications. See Page 88 of 760 in the Notice to Bidders; the IDNR and USACOE permits will be provided when they have been fully executed by IDNR and UASCOE.*
4. Under which pay item does the Bulkhead Gate fall under? *The bulkhead steel is included in Furnishing & Erecting Structural Steel.*
5. Will manufacturer of structural steel, miscellaneous steel and handrail be required to have AISC certification? *Refer to Article 106.08 of the Standard Specifications. AISC certification under Category SBr(Simple Steel Bridges) and the Bridge and Highway Metal Component Manufacturers program are required.*
6. Do the existing islands, which will function as levees during the construction of the gate structure, contain a clay core? Does IL DNR have any information on potential seepage rates through these islands when cofferdam is dewatered for construction? *We do not think that the islands were constructed with a clay core. IDNR does not have seepage rates available.*
7. Specification for cofferdams mentions potentially utilizing earth-rock cofferdams. Does IL DNR have any analysis showing earthen cofferdam is feasible? It appears groundwater seepage under a clay earthen cofferdam could potentially wash away the cofferdam structure. Please provide any information available on seepage rates. *An earthen cofferdam is not allowed per the EPA and McHenry - Lake County SWCD Permit Requirements for In-Stream Construction Activities item number 2. "Water shall be isolated from in-stream work area using a cofferdam constructed of non-erodible materials (steel sheets, aqua barriers, rip rap and geotextile fabric, etc.) Earthen cofferdams are not permissible." See attached revised Special Provision. No information on seepage rates is available.*
8. Can you provide the minimum or maximum volume of water flow to be maintained during phased channel work for the Gate construction? *The minimum flow could be 0 cfs when all the flow will be moving thru the Obermeyer hinged crest gate during low flows. The maximum flow could be 3400 cfs at an elevation of 739.1 (NVGD 1929); this flow would occur at the 100-year frequency event.*
9. Please confirm no hazardous or special waste material is identified for the excavation of this project. If there is, will IDNR accept generator status of any found pre-existing hazardous or special waste material? *No hazardous or special waste was identified in*

the subsurface exploration. IDNR will accept generator status of any found pre-existing hazardous or special waste that is specified or approved to be removed.

10. Item 59300100 Controlled low strength material is vague in the pay limits. CLSM is used for several pipe backfills, electrical backfills, sidewalk bedding and filling the vault sections on the gates. Please clarify the pay limits of CLSM. In addition, will all trench backfill items such as detail 4 on sheet 90 be included in the cost of the diversion pipe? Also is the CLSM under the sidewalk on sheet 41 detail 4 included in the CLSM pay item? *CLSM limits are as follows: Under the sidewalk that is on top of the decommissioned west monolith per detail 4/41 on sheet 41, and filling the vault sections on the gates. CLSM for the HDPE pipe bedding and haunching is paid for under the pipe pay item. CLSM for electrical backfills shall be paid for under the respective electrical lump sum pay items.*
11. Can you provide an anticipated award and notice to proceed date. Given there is only a finish date given and no working days it is difficult to estimate this job to a schedule. *IDNR anticipates an award and notice to proceed approximately 8 weeks after the letting date.*
12. Can you please specify height restrictions for structures that may go across the active lock channel during navigation season? *Section 3720.10 of title 17 of the Ill. Adm. Code states "the minimum horizontal clearance for bridges hereafter constructed over the Fox River between Algonquin Dam and the southern (downstream) right-of-way limit of route 173 shall be 100 feet, and the minimum vertical clearance for such bridges shall be 15 feet, above normal pool level.*
13. Can a temporary center pier be installed in the lock channel for the duration of the project? If so what would be the maximum length and width of such pier affecting the channel? *A temporary pier constructed in the lock channel will require a separate permit obtained by the Contractor.*
14. Can the active lock channel be reduced in width or modified in any way during the active navigation season. If so, what would be the minimum channel width that would need to be maintained during this season? *Any reduction in the width of the lock channel will require a separate permit obtained by the Contractor. Other admin rules may also apply, i.e.: Regulation of Public Waters (3704), Regulation of Construction Within Floodplains (3706), Floodway Construction in Northeastern Illinois (3708).*
15. How will spoils removed from the river be classified? Will this material be considered special non hazardous and need to be manifested or clean construction waste? *See response to Item #9 above.*
16. Sheet No. 164 identifies the lock bumper timbers as "Red Oak Treated per Specifications". However, this specification cannot be located in the bid documents or standard specifications. Please provide timber and treatment specifications for the lock bumper timbers. *The Bid Item is 50700105 - Treated Timbers. See Section 507 of the Standard Specifications for treatment specifications. See attached revised plan sheets numbered 28 and 164 for timber specification.*
17. Can the letting date be extended beyond February 28, 2014? *The letting date cannot be extended beyond February 28, 2014.*
18. Provide the names of the gate manufacturers / suppliers that you have contacted during the design phase. *Various manufacturers were consulted, including: SteelFab; Carboline, Rodney Hunt, and Tnemec.*
19. Will we be paid for stored materials? *Refer to Section 109 of the Standard Specifications.*
20. How is filling metal shell piles paid for? *Refer to Section 512.04 of the Standard Specifications.*

21. Is there a weight limit for crossing over the high-pressure gas line on the entrance road to the site? *Refer to utility note on plan sheet 25. Protection of utilities is the responsibility of the Contractor. Per plan sheet 24, the Contractor is to call JULIE for location services. It would be advised that the Contractor should call the Natural Gas Pipeline Co. and NICOR to inquire about weight limits.*

Sincerely,

A handwritten signature in cursive script that reads "Ted M. Montrey".

Ted M. Montrey, P.E., S.E.
Chief, Design Section

cc: Arlan R. Juhl by e-mail

TMM:GMS

Attachment

COFFERDAMS

REPLACE ARTICLE 502.06 WITH THE FOLLOWING:

- A. **502.06 Cofferdams.** The work shall include design and construction of cofferdam(s) as required for temporary excavation, groundwater control, dewatering, and construction of structures without in any way jeopardizing or compromising the integrity or safety of the existing lock, gate structure, hinged-crest gate, fixed crest dam, dam, and other project features, or new project structures. Such structures may include:
1. Location 1 - Proposed Intake Structure
 2. Location 2 - Proposed Lock Repair - Upstream
 3. Location 3 - Proposed Lock Extension - Downstream
 4. Location 4 - Proposed Gate Structure – Phase 1
 5. Location 5 - Proposed Gate Structure – Phase 2
- B. Cofferdam shall be defined as a temporary structure, consisting of engineered components, designed to isolate the work area from water to enable construction under dry conditions based on location, height, and size limitations as shown on the contract plans and as specified below. Cofferdams may consist of, but are not limited to: concrete gravity structures; rock cofferdams; sheet pile cellular cofferdams; or sheet pile walls. Water shall be isolated from in-stream work area using a cofferdam constructed of non-erodible materials (steel sheets, aqua barriers, rip rap and geotextile fabric, etc.) Earthen cofferdams are not permissible. When cofferdams are not specified in the contract documents and conditions are encountered where the excavation for the structure cannot be kept free of water for prosecuting the work by pumping and/or diverting water, the Contractor, with the written permission of the Engineer, will be permitted to construct a cofferdam.
- C. The Contractor shall submit a cofferdam work plan for each cofferdam to the Engineer for approval prior to the start of construction. Cofferdams shall not be installed or removed without the Engineer's approval. Work shall not be performed in flowing water except for the installation and removal of the cofferdam. The cofferdam work plan shall address the following:
- I. Cofferdam Work Plan
- A. The Contractor shall submit a cofferdam work plan which describes the cofferdam system; safety requirements; addresses the proposed methods of construction and removal; construction sequencing, schedule and phasing; instrumentation and monitoring; temporary excavation and ground support; groundwater and surface water control; dewatering and re-watering methods; erosion and sediment control measures; disposal of excavated material; effluent water control measures; backfilling; the best management practices to prevent reintroduction of excavated material into the aquatic environment; and other relevant data needed to assess the completeness of the cofferdam work plan. The design and method of construction shall provide, within the measurement limits specified in Article 502.12, necessary clearance for forms, inspection of exterior of the forms, pumping, and protection of fresh concrete from water.
- B. The cofferdam work plan shall describe the methods for temporary excavation, including temporary slopes, and any shoring and sheeting of excavations. Drawings shall include, temporary slopes, shoring and sheeting material sizes and types, arrangement of members including any anchorage, location of shoring and sheeting and excavation of soils, and

HYDRAULIC PIPING, BALL VALVES AND WINCH EQUIPMENT

GENERAL

- I. Provision Includes:
 - A. Stainless Steel Pipe and Fittings
 - B. Valves
 - C. Winches and their Hydraulic Power Units (HPU-2)
 - D. Hydraulic Hose
- II. Submittals
 - A. Ball Valves and Winch Equipment
 - 1. Manufacturers Product Data
 - 2. Operation & Maintenance Manuals and Installation Instructions
 - B. Pipe and Pipe Fittings and Hydraulic Hose
 - 1. Manufacturers Product Data

MATERIAL REQUIREMENTS

- I. Stainless Steel Pipe (Tubing)
 - A. Piping, fittings, and accessories:
 - 1. Piping: ASTM A-213 or 269, Type 316 stainless steel. Seamless tubing with a working pressure rating of 3750 psig or higher.
 - 2. Fittings: Compression type, 316 stainless steel with at least 3750 psig working pressure rating, compatible with tubing.
 - 3. Hangers and Support: Stainless Steel, 316.
- II. Valves
 - A. Ball Valves
 - 1. Ball valves shall be not less than 3,750 psig (WOG), all 316 stainless steel construction, Lubetal and/or TFE seats, lever handle, compression and compatible with project tubing, resilient seat and packing suitable for hydraulic fluid and temperature range of -40 to 200 F or broader. Valves for 1/2" tubing shall have at least 0.406" port and valves for 3/4" tubing shall have at least 0.472 port.
 - a. Manufacturers and models:
 - 1) Swagelok AFS series or equal

III. Winch Equipment

A. Hydraulic Control Valves

1. Four-way double acting rated at least 3000 psig with pressure relief set at 1500 psig.
2. Open center, 6 GPM, 3/8" NPTF port sizes.
3. Solid casting, ground and chromed spool fitted to the body.
4. Acceptable manufacturer and model to match others already in use at project:
 - a. Williams Machine & Tool 230HXSR.

B. Hydraulic Power Unit (Tag HPU-2)

1. Portable steel frame package on 6" rubber coated casters.
2. Single phase 230 volt 5 hp motor, 15 gallon tank and 230 volt 1 phase control box.
3. Complete with 3/4" high pressure 2 wire (100R2) by 10 ft. long hose assemblies with male pipe on one end and female on other, driplless quick connects.
4. Acceptable manufacturer and model to match others already in use at project:
 - a. Allied Power Products, Inc., Beaverton, OR, Model HPU5E.

C. Winch

1. Pulling capacity 35,000 lbs., 2000 psi at 30 GPM.
2. Redundant braking systems; spring-applied.
3. Integral air-shift disengagement for free spool operation.
4. Three layer 3/4" rope capacity of at least 113 ft.
5. Each with 7/8"x 25 ft. long 6 x19 stainless steel wire rope and stainless steel thimble eye.
6. Each with 3/8" high pressure 2 wire (100R2) hydraulic supply hose with male pipe one end and #10 SAE o-ring male the other end, and 1/2" medium pressure 1 wire (100R1) hydraulic return hose with 3/8" male pipe one end and #10 JIC female other end, both 5' long.
7. Acceptable manufacturer and model to match others already in use at project:
 - a. TWG Tulsa 3541RL.

IV. Hydraulic Hose

- A. Hose shall be designed for hydraulic service in industrial jobs.
- B. Interior shall be oil resistant nitrile.
- C. Cover shall be oil and weather resistant neoprene.
- D. Hose shall have alternating spiral layers of high tensile steel wire reinforcement.
- E. Temperature range shall include -40 to 250F.
- F. Provide hose with brass or stainless steel end fittings/couplings.