

Date: 8/25/2016

Addendum No. 1

Project No. E020083-C

Description: Fawn River Fish Hatchery Dam Removal/Stream Restoration

Location: Fawn River State Fish Hatchery, Orland, Steuben County, Indiana

FOR AGENCY: Department of Natural Resources

The information contained in this Addendum shall become part of the basic plans and specifications the same as if original incorporated therein. The original plans and specifications shall remain in their entirety, except as modified by this Addendum. The items herein shall supersede information in the specifications and on the plans.

ITEM No. 1: Auto-Cad files can be obtained from Stantec . See attached instructions.

ITEM No. 2: August 19, 2016 Pre-bid meeting minutes and sign-in sheet are attached.

ITEM No. 3: Water Management Plan is attached.

ITEM No. 4: Responses to questions attached.

END OF ADDENDUM



August 25, 2016
File: 174334018

Attention: Contractors Bidding on Fawn River Project

To Whom It May Concern,

**Reference: Fawn River Dam Removal and River Restoration Project –
Electronic Document Transfer Agreement**

Stantec Consulting Services, Inc. (Stantec) would like to offer the opportunity to share an electronic AutoCAD Civil 3D file to aid in the development of bid submittals for the Fawn River Dam Removal and River Restoration Project. Stantec requires an Electronic Document Transfer Agreement to be signed before sharing electronic CAD files. The CAD file contains, in model space, project components, basemap, an existing ground surface, and a proposed conditions surface. Upon execution of the transfer agreement, Stantec will share the CAD file with participating contractors.

Please sign the attached form and send to Jarred White (Jarred.White@stantec.com), Cody Fleece (Cody.Fleece@stantec.com) and myself in order for us to share the CAD file via email or FTP site.

Regards,

STANTEC CONSULTING SERVICES, INC.

A handwritten signature in black ink that reads "Scott Peyton".

Scott Peyton, PE
Senior Principal
Phone: (513) 842-8200
Fax: (513) 842-8250
Scott.Peyton@stantec.com

Attachment: Electronic Document Transfer Agreement



Project:	Fawn River Dam Removal and River Restoration	Date:	August 25, 2016
Client:	Indiana Department of Natural Resources	Project No.:	174334018
Location:	Fawn River Fish Hatchery, Orland, Indiana	Page	1 of 1

Company Requesting Files: Indiana Department of Natural Resources
 Description of Files: Electronic AutoCAD Civil 3D file with project components
 Reason for Requesting Files: For sharing with contractors to aid in preparation of bid submittals

1. The requested electronic file(s) (the "Files") remain the property of Stantec.
2. No warranties or guarantees are made that the Files represent or reflect the complete scope of work and/or as-built condition.
3. Stantec assumes no responsibility for data files supplied in electronic format. Such data is being provided as a courtesy only.
4. Company receiving the Files and users thereof accept full responsibility for verifying the accuracy and completeness of the Files and shall indemnify and hold Stantec, its officers, employees, consultants and agents harmless from any claims or damages arising from the use of the Files.
5. The use of Files to alter or revise the scope of work is not permitted unless authorized by change orders.
6. In the event that drawing Files transferred electronically contain electronic copies of permits or professional seals, the Files shall be immediately returned to Stantec and all copies thereof destroyed.
7. No use shall be made of the Files for any purpose other than that for which they were originally intended without the express written consent of Stantec.
8. No retransmission of the Files in any form to any third party is permitted unless authorized in writing by Stantec.

Having read and understood the above, and in consideration of Stantec providing e-copies, the undersigned agrees to be bound by the terms hereof.

Print Name and Title

Signature of Company's Authorized Representative

Date

Signature of Stantec Project Manager Authorizing Release

Date

The above requested files will only be released upon receipt by Stantec of an original of this agreement signed by a duly authorized representative of the company requesting the files. Stantec reserves the right to deny any request for copies of electronic files.

Meeting Minutes

Fawn River Pre-Bid Meeting

Fawn River Dam Removal and River Restoration Project

PW Prj. No. E020083-C

Date/Time: August 19, 2016 / 10:30 AM

Location: Fawn River Fish Hatchery; Orland, IN

Attendees: See Attached Sign In Sheet

1) Important Dates / Announcements

- Questions to Owner / Engineer - Tuesday, August 23, 2016 (5pm EST)
- Responses / Addenda Posted - Thursday, August 25, 2016 (5pm EST)
- Project Bid Submittal Date - Thursday, September 1, 2016 (1:31pm EST)
- Construction Completion Date - Friday, June 30, 2017 (5pm EST)

IDNR Website - <http://www.in.gov/dnr/engineer/2908.htm>

NOTE: Drug Free Policy must be submitted with Bid

2) Indoor / Project Overview

- a) Overview of project phasing and plans
 - i) Water diversion involves removal of bypass channel flashboards, installation of straw check, and construction of rock check dam. No heavy machinery is to be used for installation of straw checks near bypass channel outlet.
 - ii) The impounded pond is to be drawn down at a relatively slow rate. Based on normal precipitation, this could take a few weeks. Pumping water into the hatchery cell can be used to assist in drawdown with coordination from IDNR.
 - iii) The dam is to be removed in two stages. The intermediate elevation is described in the plans.
 - iv) The proposed channel banks may be constructed using material from the first stage of dam removal.

- v) The contractor is to work with Hatchery personnel to locate the lines to pump water from the impounded pond area to the designated hatchery cell as shown on plans. Pumping is anticipated to deal with rain events and groundwater inundation.
- vi) Sediment is to be disposed of in the designated sediment disposal area as shown on the plans. Access to sediment disposal area is up to contractor, although coordination with the private land owner is recommended. IDNR owns a portion of the property where access to the disposal area is likely, as shown on the plans.
- vii) Tree removal is not anticipated on this project.

b) Additional Items / Clarifications

- i) A qualified archeologist will be provided by IDNR and shall be present on site during the removal of the dam.
- ii) Lower portion of flashboards on left dam spillway are 8-inches high whereas the higher boards are 6-inches high. Pond drawdown cannot exceed the equivalent of one flashboard per day.
- iii) The Bid Packet is located on the IDNR website with appropriate forms required for bidding. The bid is a lump sum bid.
- iv) All bidders must be pre-qualified with Indiana Department of Administration (IDOA) in the appropriate category prior to the September 1st bid opening. Any subcontractor performing work with a value over \$150,000 must also be prequalified with IDOA prior to the work being performed. No additional formal qualifications are needed.
- v) Necessary federal and state permits are being acquired by IDNR. Anticipated permit issuance is in October. If permitting comments produce necessary changes to plans/specs, changes will be handled with the successful contractor as necessary.
- vi) There are no Liquidated Damages on this job.
- vii) AutoCAD Civil 3D drawing and the Water Management Plan will be made available.

3) Outdoor / Site Walk

- a) Project Area Breakdown

i) Water Diversion Area

- (1) Avoid tree removal for access.
- (2) Construction of the rock check dam may require augmenting with sand bags to reduce seepage through structure.
- (3) Keys for flashboard removal are located in the Hatchery Facilities and will be coordinated with Hatchery personnel.
- (4) The rock check is designed to overtop with flows exceeding the 1-year flood. Pumping water off the work site into the designated hatchery pond may be required in flow events that exceed the height of the check dam. Weather forecasts should be monitored during construction. Most high water events allow reasonable reaction time.

ii) Bypass Channel and Outlet

- (1) Straw check installation and removal can be accessed by walking down the bypass channel where it meanders away from the access road or through the woods.
- (2) A right-of-entry will be acquired by IDNR for the installation and removal of straw checks.

iii) Dam / Primary Work

- (1) Primary access to the dam should be coordinated with IDNR to avoid adverse impacts to the septic leachate field.
- (2) Both spillways are to remain intact upon project completion.
- (3) Temporary culverts may be placed downstream of the left (primary) dam spillway in order to convey flow during construction. The concrete training walls of the spillway cannot be removed. The contractor will need to bridge access to dam by their own means and methods.
- (4) Removal of flashboards should be coordinated with Hatchery personnel for proper methods.

b) General Comments

- i) Access points not shown on plans should be coordinated with IDNR and corresponding land owners. There are 4 total private property owners involved in this project. IDNR will obtain appropriate right-of-entry for construction. All owners have been supportive of this project.

- ii) The spillway foundations are not from record drawings and are shown for reference.
- iii) If timing of permit issuance becomes an issue for project deadlines, emergency authorization to proceed may be employed by IDNR. The contract is set for a June 30, 2017 completion date. If permits are not received in a timely manner, IDNR will work with the contractor on a new completion date, as needed.
- iv) The contractor will be responsible to manage flood risk during construction. The ideal scenario would be to get in and out of the site as quickly as possible to avoid high water events.
- v) Questions are to be sent to IDNR and Stantec.

The meeting adjourned at 12:00 PM

The foregoing is considered to be a true and accurate record of items discussed. If discrepancies or inconsistencies are noted, please contact Stantec immediately.



Sign-In Sheet

Fawn River Dam Removal and River Restoration Project
Pre-Bid Construction Meeting

Orland, IN

August 19, 2016

PW Project No. E020083-C

Name:	Company:	Mailing Address:	Phone:	Email:
Scott Peyton	Stantec Consulting	11687 Lebanon Road Sharonville, OH 45241	513-842-8200	Scott.Peyton@stantec.com
Nate Engbrecht	Cardvo	708 Roosevelt Rd. Walkerton, IN	574-586-3400	john.richardson@cardvo.com ← Contact nate.engbrecht@cardvo.com
MICHAEL T. MAWHA	D.N.R.		574-242-2538	mmcnaman@dnr.in.gov
Dale Glick	DNR			
Alexander Engessell	D.N.R. Fawn River			
DENNIS ZIEBELL	LAWREN-FISHER ASSOCIATES	525 W. WASHINGTON AVE. SOUTH BEND, IN 46601	574-234- 3167	dzebell@lawren-fisher.com
JONAHY BALKER				
Tom Meyer	DNR FAWN RIVER		529-6041	TomMeyer@dnr.in.gov



Sign-In Sheet

Fawn River Dam Removal and River Restoration Project
 Pre-Bid Construction Meeting

Orland, IN

August 19, 2016

PW Project No. E020083-C

<u>Name:</u>	<u>Company:</u>	<u>Mailing Address:</u>	<u>Phone:</u>	<u>Email:</u>
Scott Peyton	Stantec Consulting	11687 Lebanon Road Sharonville, OH 45241	513-842-8200	Scott.Peyton@stantec.com
Neil Myers	Williams Creek	619 N. Penn 10732 W. I-75 C Rd Lebanon, IN 46204	317-423-0690	myersn@williams creek.net
Ed Mackowski	EFM Excavation	20932 W. I-75 C Rd Lebanon, IN 46204	574-532-1228	efmexc@earthlink.net
Coby Stanger	SAL ENVIRONMENTAL GROUP	15504 OR 42 COSHEN IN 46528	574-536-5835	CSTANGER@SAL-ENVIRONMENTAL.COM
HEATHER BOBICH	DAYEY RESOURCE GROUP	1826 SUMMERLAKES CT. CARMEL, IN 46032	317 468 8274	HEATHER.BOBICH@DAYEY.COM
DAVID NEUMAN	FLATLAND RESOURCES	PO Box 1293 MUNCIE IN 47308	765-284-2378	dneuman@flatlandresources.com

WATER MANAGEMENT PLAN

A. Background

The Orland Hatchery Dam impounds a portion of Fawn River near Orland, Indiana. The hatchery consists of a small dam, several fish rearing cells near the river, and a bypass channel that was once used to supply water to the cells. It is estimated that the 2 acre impoundment stores approximately 7,500 cubic yards of sediment. If left uncontrolled, approximately 4,000 to 6,000 cubic yards could be exported to downstream reaches during and after the removal of the dam. In order to prevent this, much of the sediment stored in the impoundment will be removed mechanically and transported off site. Active sediment management is often the most expensive element of a dam removal and this project is no exception. Submerged sediments in dam pools are often dredged hydraulically or by mechanical means. Dredging in the wet is expensive because specialized equipment may be necessary (e.g., hydraulic dredges, barges, etc.) material volumes and handling costs are typically greater, and the use of ancillary settling basins, sediment traps, and/or silt curtains is necessary.

For this project, we propose to dewater the sediment in place prior to excavation. This will be accomplished by diverting the flow of the Fawn River through the bypass channel for the duration of the construction activities. Sediments will be excavated after a period of prolonged drying. This water management plan was prepared to establish a protocol and sequence of events for the drawdown. Although this strategy was designed to minimize suspended sediment loadings to the Fawn River, no dam removal can completely eliminate increased concentrations during construction. Thus another objective was to establish adaptive management protocols to identify response thresholds for unacceptably high suspended sediment concentrations during construction. This plan is also intended to serve as a framework for the strategy aimed at reducing the impacts to previously identified wetlands in and immediately adjacent to the impoundment.

B. Drawdown Procedure

This section was prepared to describe factors that should be considered in association with the use of the bypass channel and to describe the sequence of events associated with drawdown of the dam pool. Plans for specific elements are presented in more detail in Appendix C. To allow the flow to enter the bypass channel, flashboards must be removed from the bypass control structure. A coffer dam will be established 20-70 feet downstream of the bypass inlet to divert flow away from the Fawn River. A cobble riffle will be constructed prior to placement of the coffer dam to provide additional grade control.

The bypass channel can reliably convey up to a 1yr flood event. Flows larger than this may overtop the coffer dam and allow flow to return to dewatered reach of the Fawn River. The coffer dam was designed as a relief valve to prevent flooding of areas adjacent to the bypass channel. The coffer dam substrates may be entrained by flows greater than the 1 yr flood event. It is desirable, to the extent practical, to avoid flows that would exceed the capacity of the bypass channel. Therefore, periods of seasonal low flows will be targeted for construction where possible. Mean monthly flows are typically low beginning in July 46 cubic feet per second (cfs) and remain low into the early fall (30 – 36 cfs) (Stantec 2015). This time of year will also allow for the initial growth of herbaceous material in sediment exposed during the impoundment drawdown.

As Phase 2 begins, the impoundment shall be drawn down incrementally such that the pool elevation is lowered no more than six (6) inches in a 24 hour period. This rate of drawdown is intended to protect the integrity of the dam and spillways and to minimize the release of sediment to downstream reaches of the Fawn River. The impoundment will be drawn down by a top release mechanism or suction method (i.e. pumped into a nearby pond) so as to reduce the delivery of sediment to downstream reaches. Lowering of the pool by bottom release is prohibited. The impoundment has an average depth of 2.4 feet and a maximum depth of 5.5 it is anticipated that it will take approximately 14 days to complete the initial drawdown, provided there is no precipitation during this period. Means and methods of this work shall be directed by the contractor and approved by the Engineer.

We anticipate that groundwater and precipitation will contribute standing water in the impoundment. One of the hatchery cells will be used as a settling area for pumped water. The proposed area to dewater ground water influence and storm water from the impoundment is directly south of the impoundment in the center pond of the fish hatchery (Sheet 3 of 11). Water pumped into the cell will have high suspended sediment concentrations.

C. Adaptive Management

These measures are expected to substantially reduce suspended sediment loadings that would have otherwise occurred as part of the Phase 3 dam removal and Phase 4 restoration and enhancement activities. However, not every contingency can be planned for and/or controlled. Potential sediment sources include 1) the former dam pool, 2) the dam, 3) the bypass channel outlet, and 4) the bypass channel itself. Events that may cause sediment delivery to downstream reaches include:

- Prolonged periods (several weeks) of high flow in the bypass channel may cause erosion.
- Seasonal storms may produce discharges that exceed the capacity of the bypass channel thereby restoring some flow to the Fawn River.
- Higher than normal flows in the bypass channel outlet may exacerbate existing erosion in this area.

Visual inspections of the impoundment, spillway, and the bypass channel shall be conducted during the initial drawdown and throughout the impoundment restoration process as well as when flows are restored to the Fawn River. Inspection of the bypass channel shall be conducted to assess bank stability within the bypass channel. Baseline conditions upstream and downstream of the project will be observed documented and used to assess departure from desired conditions during and after construction. Excessive erosion and/or turbidity will be reported immediately to the Engineer and owner; work stoppage may be required for implementation of corrective actions. If high flows are encountered, a work stoppage may be required and all equipment must be removed from the floodplain for the duration of the high flow event. Instances of instability are not anticipated and will be addressed on an as-needed basis. Corrective measures could include the use of bioengineering techniques, placement of fill, and/or grading.

Water Management Plan

It is anticipated that most sediment delivery sources can be addressed with targeted plantings and/or erosion control blankets. If minimalistic approaches are unsuccessful and erosion is excessive, engineered solutions may be necessary which have been outlined in Phase 5 of the project. These could include cobble and boulder riffles, installation of a toewood, along with channel plugs to prevent the creation of a meandering oxbow within the bypass channel. Live stakes, preferred vegetation seed mix, temporary cover crop, and straw mulch will be placed to help stabilize newly exposed shoreline.

Fawn River Dam Removal and River Restoration Project

Questions from Contractors

	No.	Question	Response
Raised during Pre-Bid Meeting	1	Is the contractor responsible for replacing straw checks if they are damaged due to flooding around the bypass channel outlet?	The contractor is responsible for maintaining the straw checks during construction.
	2	Is the water management plan, referenced on the plans, located in the specs?	The water management plan referenced in the plans is not located in the specifications. The water management plan is included in the addenda.
	3	Was the dam itself to be removed at a rate of 6-inches in elevation per day? Distinguished between water draw down and physical dam removal.	No, the dam is to be removed in two stages. Refer to sheet 5 for the General Construction Narrative. The pond drawdown is to be accomplished by using the left (south) spillway and is not to exceed approximately 6-inches (ons flashboard) per day.
	4	Is the sediment disposal area located on land owned by IDNR?	The sediment disposal area is mostly owned by a private land owner. Only a small portion is owned by IDNR - see property lines shown on the plans.
	5	If some bids have much lower excavation quantity estimates, will their bid price be adjusted to reflect a 'corrected' excavation quantity in an effort to produce an 'apples to apples' comparison?	The project is a lump sum bid.
	6	Is there enough tree removal needed on site to supply the necessary logs for construction of the toe wood?	No, there is minimal on-site tree removal for this project.
	7	Is the contractor to bare damage expenses during a flood occurrence beyond the 1-year flood?	The contractor is responsible for managing site conditions and flood preparedness as necessary. Any event above the 1% annual chance flood can be considered an "Act of God" and IDNR will negotiate appropriate action with the Contractor.
	8	What is the resulting slope of the channel profile through the dam?	Refer to the profile on sheet 5 of the plans.
Submitted Later by Contractors	9	Is the "select backfill" material shown on sheet 10 plan view (detail 1/10) the same as the "select riffle material"? If not, what is the composition of this material?	Yes. The select backfill material shown on the log vane detail is to have the same composition as the select riffle material described in the notes of detail 4/9.
	10	Will there be any required substrate fill between cobble riffles or between the cobble riffle and the boulder riffle other than the 40' length of cobblestone toe at Station 36+50?	Imported substrate fill will not be required between the riffles. In-situ material will be used in these areas as directed by the Engineer.
	11	Regarding compaction of the substrate, various notes and the specifications refer to the use of a "smooth drum vibrating compactor", "plate compactor", "jumping jack compactor", and using a "tracked excavator, dozer, or similar equipment". Do you have a preference on this site knowing the composition of the material specified, or does the contractor need to have all of these potential compaction devices at their disposal on site?	These references are recommendations. Means and methods for achieving proper compaction are to be determined by the contractor.
	12	Because the details of the wood toe are not to scale please provide the number (or at least an approximate number) of footer logs and root wad logs that will be needed for this structure?	The number of logs and rootwads for the toe wood structure will be determined by the contractor based on the size of trees harvested.
	13	How many appropriately sized logs will be available on site to utilize in the wood toe and log vane structure?	No on-site logs will be available. See Question 6.
	14	Because the detail of the boulder riffle is not to scale could you please provide the number of 3' x 3' x 2.5' boulders necessary for the entire structure? At a minimum could you please provide the width of the inner berm and bankfull bench at the boulder riffle (no scale given on the details for this structure)?	Proposed bankfull and inner berm dimensions for the riffles are provided on section C-C' on sheet 7 of the plans.
	15	Please clarify where erosion control blankets (ECB) are required or provide an estimate of the total square yards needed on site. Various notes (see upper left hand corner of sheet 9) and the specifications refer to "all slopes 2:1 or steeper, "all slopes steeper than 4:1", and "slopes which exceed 5H:1V shall receive 2 rolls ECB on each bank".	The intent of the plans was to provide for one run (one roll thickness) of ECB to be installed on each bank of the restored channel within the former impoundment (upstream limit Station 27+00). Some areas may require two widths depending on contractor operations and construction techniques.
	16	Please clarify the dimensions on Sheet 9 [detail 1/7(sic)] Section B-B'. Should 6' be 6"? Is trenching required on both the stream edge of the ECB and the top edge of the ECB per this detail or only along the top edge of the ECB per the specifications? Should the 600g/m3 coir fiber blanket on the plan view note of the same detail be 700g/m3?	Dimensions are shown correctly on Section B-B'. ECB shall be 600 g/m3 coir blanket and shall overlap on both the stream edge and top edge, per the plans.

17	There are no boulders shown on the details for the log vane (in contrast to other Stantec design plans for this structure) – was this intentional or will boulders be required for this structure?	The log vane shall be constructed per the plans.
18	Notes 9, 10, and 11 on Sheet 11 adjacent to the boulder riffle detail refer to a "mini-vane". This term was not found on any of the drawings or within the specifications. Can we assume this is another name for a portion of the boulder riffle shown in the detail?	Yes.
19	If there are other conflicts between the specifications and the drawings which takes primacy?	The information shown on the plans will take precedence.
20	What is the stream/river channel type that this project was designed to? Meaning, was there analysis completed to understand Fawn River upstream and downstream of the project site to ensure that the structures and new alignment proposed will work with the existing channel type to ensure success?	An assessment of Fawn River was performed.
21	What is the proposed bankfull width of the new channel? Or will this information be in the AutoCAD file?	See response to question 14.
22	With the proposed riffles, were they designed to the D50 of the channel?	Riffle substrate composition is described in the notes of detail 4/9.
23	Will there be an inspector on site to ensure that the contractor is carrying out the construction per the plans?	Construction oversight will be provided by IDNR and the Engineer for certain activities.
24	With the straw bale checks, it was mentioned that if they fail, the contractor would be responsible for repairs. If, however, they are installed per the plans and details, and okayed by the inspector and they fail (for whatever reason), would this still be on the contractor to fix on their own dollar? It seems as if the plans and details were followed, then the contractor should get reimbursed to fix it should they fail.	See response to question 1. If the straw bales are installed and fail at no fault of the Contractor, IDNR will work with the Contractor on an appropriate resolution.
25	On sheet 5, there is a note saying that the "off channel wetland area is to remain." How will lowering the channel affect these wetland areas/or is this addressed in the permit? Also, the sections through this wetland area (C & D) show us planting new seeds, type 2. Are we to remove the existing vegetation (cattails, etc) before planting the seed mix?	Wetland impacts are being handled by IDNR with appropriate regulatory agencies. Overseeding the existing area is expected. No grading and/or vegetation removal is anticipated.