



November 2, 2011

RE: Sawyer County
Round Lake Dam Removal and Carlson
Road Bridge Replacement
SEH No. P-SAWLW 112064

Mr. Bruce Paulsen
Board Member
Sawyer County
10610 Main Street
Hayward, WI 54843

Dear Mr. Paulsen:

Short Elliott Hendrickson Inc. (SEH) is pleased to provide the Sawyer County Board of Supervisors with our proposal for professional engineering services for the Round Lake Dam Removal and Carlson Road Bridge Replacement.

Scope of Work

Task 1. Round Lake Dam Abandonment.

SEH will coordinate with Sawyer County staff and the Wisconsin Department of Natural Resources to develop plans and specifications for removal and disposal of the existing Round Lake Dam. We assume that the County will designate a disposal site for the materials removed from the existing dam which will be shown on the developed dam removal plans. Based on our discussions with the Wisconsin DNR, it will be desirable to separate the dam removal plans from the bridge replacement project to facilitate review of the dam abandonment permit. We have structured our proposal such that Task 1 consists of the items related to abandonment and removal of the dam and Task 2 is related to design and installation of the Carlson Road replacement structure.

SubTask 1a. Dam Removal Plans. For the development of this proposal, we have estimated four plan sheets necessary for the dam removal plans. These plans consist of a title sheet, general plan with erosion control, dam removal plan, and detail sheet, suitable for permitting and competitive bidding of the project.

SubTask 1b. Project Manual and Specifications. SEH will develop a project manual with technical specifications related to the removal of the existing dam structure, which we assume will be incorporated into the Task 2 project manual should the County decide to competitively bid the project.

SubTask 1c. Permitting. SEH will complete and submit the "Application for a Permit to Abandon a Dam" to the Wisconsin Department of Natural Resources. In addition to the estimated time to complete the permit application, we have also assumed 16 hours of Staff Engineer time will be necessary to address Wisconsin DNR comments related to the permit application.

The existing Round Lake Dam structure is considered a small dam and according to Wisconsin Administrative Code NR 150 abandonment is considered a Type III action. A type III action normally does not have the potential to cause significant environmental affects and therefore typically does not

require an Environmental Assessment to be completed. Based on discussions with Frank Dallam at the Wisconsin DNR, removal of the dam may be somewhat controversial and may be contested, it still may be necessary to complete an Environmental Assessment as part of the abandonment permitting process.

Since the level of efforts associated with permitting for dam removals can be an uncertain process, we have provided an assumed level of effort to obtain the necessary permits for this project. We will inform the County as soon as possible if the level of effort required is going to exceed that provided and will provide with a revised proposal to complete the requested services prior to exceeding the level of effort budgeted.

SubTask 1d. Bidding Services (if necessary)

If the county decides to advertise the project for competitive bidding instead of constructing the project with county forces, SEH will perform bidding services to assist in awarding the construction contract to a construction firm. SEH will utilize the QuestCDN system for the electronic bidding documents and advertise the project in the Construction Bulletin or similar periodical, and in the local newspaper. SEH will field inquiries from Contractors for contract interpretation during bidding and will prepare and distribute addenda to the construction documents as necessary. SEH will review bids for accuracy and to ensure bids are responsive and prepare a bid tab for review by the County. SEH will make contract award recommendation to the County and assist with preparation of an award letter to the selected construction contractor. For the purposes of this proposal, we have assumed that the dam removal portion of the project will be advertised and bid under the same contract as the bridge replacement project.

SubTask 1e. Construction Services (if necessary)

For this subtask, we have also assumed that the dam removal portion of the project will be constructed under the same project as the bridge replacement project. SEH will facilitate a preconstruction meeting at the site prior to the start of removal, which will be attended by the SEH hydraulic engineer and Resident Project Representative. SEH will perform construction observation services on a part-time basis for an average of approximately 30 hours per week for an estimated 1 week for removal of the dam and 3 week total construction period including installation of the proposed crossing.

In addition to the construction observation, SEH will review and process the Contractor pay request. SEH will perform a substantial completion review at which a punch list of items to complete and/or correct will be developed and follow up with a final inspection before project acceptance.

SubTask 1f. Project Meetings

The number of meetings required for the dam removal project may vary significantly dependent on the level of involvement required in obtaining the permit for dam abandonment. For the purposes of this proposal, we have assumed two 3-hour meetings will be held in Hayward and attended by the SEH Project Manager and/or hydraulic engineer. If requested, SEH can provide the county with an estimated fee to attend meetings in addition to those assumed in this scope of work.

Task 2. Carlson Road Bridge Replacement.

SEH completed an evaluation of the Round Lake outlet alternatives in December, 2010. This analysis resulted in the recommendation of replacing the existing dam structure with a 12-foot wide by 7-foot high precast box culvert with invert matching the natural channel.

SubTask 2a. Channel Thalweg Profile Survey

To ensure the proposed structure invert will be set at the elevation of the "natural" channel so as to not be considered a "dam" SEH will perform a long profile survey of the channel from approximately 700 feet upstream of the existing dam downstream to the outlet into Osprey Lake and the from the outlet of Osprey Lake to County Trunk Highway NN, for a total length of survey of approximately 8,300 feet. SEH will tie the survey in to the original datum/benchmark at the dam. Subsequent to completion of the survey, SEH will coordinate with the Wisconsin DNR in establishing the proposed invert elevation of the Carlson Road replacement structure.

Sub Task 2b. Bridge Replacement Design and Plan Production

This is work above the work required for the removal plan.

Sub Task 2c. Project Manual, Specifications, Bidding Services (if necessary)

This is for the bidding documents. If the Sawyer County Highway Department can construct the project, this task is not necessary.

Sub Task 2d. Permitting

This work is for the permitting from the Wisconsin Department of Natural Resources and the U.S. Army Corps of Engineers for construction of the structure replacement.

Sub Task 2e. Easements

We assume that the dam is on county-owned land. The road to the dam is on private land. We will provide documents for an access easement to the dam assuming that there are only 3 parcels to cross. We have provided a range of costs depending on the complexity encountered.

SubTask 2f. Construction Services (if necessary)

SubTask 2g. Project Meetings

I have included one meeting for the project and one Pre-Construction meeting. If the county constructs the project or some of the meetings in Task 1 can be held concurrently, some of the meeting time can be deducted.

Schedule

We are available to begin work as soon as a contract is approved and the overall project schedule will be largely dictated on the level of effort associated with the dam abandonment permitting process. We would recommend moving forward with the channel survey as soon as possible, with the goal of completing the survey work prior to significant snowfall depths.

Key Project Team Members

The project team we have assembled for this project consists of three key project staff supported by project engineers and administrative staff. Qualifications and roles of key members of the project team are summarized below.

Dan Gustafson, PE – Project Manager, Client Service Manager

Dan's role will be to manage the project and be responsible for the design and plans and specifications production associated with the Carlson Road replacement structure. Dan is currently working with the County Highway Department to replace the structure on CTH T. He also has worked with the County

Mr. Bruce Paulsen
November 2, 2011
Page 4

Highway Department on many other bridge replacement and highway projects, including the CTH EE Resurfacing Project completed with ARRA funds.

Brad Woznak, PE, CFM – Project Manager, Lead Hydraulic Engineer

Brad's role will be responsible for the dam abandonment and removal tasks of the project along with ensuring the Carlson Road replacement structure is consistent with the hydrologic and hydraulic modeling previously completed on the Carlson Road/Round Lake Dam. He has extensive experience with HEC-1 and HEC-RAS modeling for watershed, riverine and floodplain modeling. Brad has been with SEH since 1997 and has been involved with a wide variety of stream and floodplain modeling, dam construction, and evaluation and design projects as a hydraulic engineer and project manager.

Estimated Fee

SEH will perform the work outlined herein for the Round Lake Dam Removal and Carlson Road Bridge Replacement based on an hourly basis with an estimated fee as shown below. Compensation will be based on the hourly cost of personnel plus reimbursable expenses, including mileage, hotel, meals, reproductions, and equipment. The fee listed below is based on an estimated number of hours needed to complete the tasks. Since the exact level of effort is not known at this time, the final cost could be more or less than the estimated fee listed.

Task 1 – Round Lake Dam Removal

<u>Task</u>	<u>Estimated Hours</u>	<u>Fee</u>
Task 1a. Dam Removal Plans	27	\$ 2,570
Task 1b. Project Manual and Specifications	10	\$ 1,135
Task 1c. Permitting	23	\$ 2,340
Task 1d. Bidding Services (if necessary)	8	\$ 1,000
Task 1e. Construction Services (if necessary)	33	\$ 3,530
Task 1f. Project Meetings	22	\$ 3,090
Total	123	\$ 12,900

Task 2 – Carlson Road Bridge Replacement

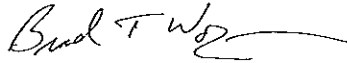
<u>Task</u>	<u>Estimated Hours</u>	<u>Fee</u>
Task 2a. Channel Thalweg Profile And Structure Survey	63	\$ 6325
Task 2b. Bridge Replacement Design and Plan Production	42	\$ 3955
Task 2c. Project Manual, Specifications, & Bidding (if necessary)	20	\$ 2100
Task 2d. Permitting	11	\$ 1500
Task 2e. Easement Document (if necessary)	4-20	\$ 420 – \$2100
Task 2f. Construction Services (if necessary)	33	\$ 3530
Task 2g. Project Meetings	10	\$ 1600
Total	X	\$ 19,430- 21,110

Mr. Bruce Paulsen
November 2, 2011
Page 6

Thank you for the opportunity to provide professional services to Sawyer County. We are available to discuss this proposed scope of work at your earliest convenience. We look forward to working with you on this project. If you have any questions or need additional information please contact Brad Woznak at 651.490.2125 or Dan Gustafson at 715.720.6267.

✓ Sincerely,

SHORT ELLIOTT HENDRICKSON INC.



Brad Woznak, PE, CFM
Senior Professional Engineer



Dan Gustafson, PE
Client Service Manager

btw

c: Kris Mayberry – Sawyer County Clerk
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