



GREAT LAKES DREDGE
& DOCK COMPANY, LLC

2122 YORK ROAD,
OAK BROOK, IL 60523
630.574.3000

February 6, 2018

Ref: R1102/SRM/DSC/SL-032

Via Email: GFoltz@hlcllp.com
Chastain & Associates LLC.
5 North Country Club Road
Decatur, IL 62521

Via Email: MNewell@decaturil.gov
City of Decatur
One Gary K. Anderson Plaza
Decatur, IL 62523

Attention: Mr. Gregg Foltz, P.E.

Attention: Mr. Matthew Newell, P.E.
City Engineer

Reference: Lake Decatur Dredging of Basin 1-4 and
Rehabilitation of Oakley Sediment Basin
City of Decatur Project No. W1314
**Cost Proposal for Berm Modification at the Oakley Sediment Basin due to Insufficient
Contract Design Capacity**

Dear Gregg and Matthew,

Per your request for proposal and as a follow up to our letter R1102/SRM/DSC/SL-031 dated November 17, 2017 and subsequent requests in our weekly meetings by the City of Decatur and Chastain & Associates for Chastain's resolution to the insufficient capacity at the Oakley Sediment Basin ("OSB"), Great Lakes has prepared this proposal for Berm Modification at the Oakley Sediment Basin.

We have broken this Berm Modification proposal into two major components;

- (1) the proposed costs of construction to raise the berm including associated standby due to resulting delay in dredging commencement for the 2018 season; and
- (2) the actual costs that GLDD has incurred to date for delays, suspensions of work, and other expenses directly resulting from the DSC/Changed Condition for the insufficient design capacity issue at the OSB.

BERM MODIFICATION SUMMARY

Because the original Contract design included insufficient containment capacity at the OSB, it is necessary to raise the berms to an appropriate level to contain the remainder of the Contract material to be dredged from Basins 3, 4 and 6 while also maintaining all other Contract conditions including, but not limited to, freeboard at the berms and water quality. Chastain has provided Great Lakes bid documents that include a bid form and drawings for three different berm modification heights: 717.5', 718.5' and 719.5' which will be referred to as the 4', 5' and 6' berm construction.

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This submission includes data that shall not be disclosed outside the City of Decatur or its representatives (hereinafter collectively referred to as "City") and shall not be duplicated, used or disclosed -- in whole or in part -- for any purpose other than to evaluate this submission. This restriction does not limit the City's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in each of the attached pages and in the attached exhibits.

In response to Chastain's and the City's request to solicit bids to raise the OSB berm levels for this proposed Change to the Contract, GLDD solicited bids from six earthwork contractors. The bids requested were based on the bid documents and drawings provided by Chastain & Associates via email on December 13, 2017 and updated on January 2, 2018 via Addendum No. 1. As a result of our solicitation we received three completed quotations and three regrets.

In either Item 1.a. Contract Based Proposal or Item 1.b. Alternate Proposal below, we have assumed that the bid form is all inclusive of the items that will be required by Chastain, the City of Decatur, or regulatory agency for the modification of the berms and GLDD has not allowed for items that are not explicitly set out therein. If GLDD is required to perform any additional work, then that work will be performed on a cost-plus basis via additional modification to the Contract.

1. Berm Construction & Resulting Dredging Delay Standby

a. Contract Based Proposal

Having reviewed the scope of the proposed alteration, we conclude that the additional work to raise the OSB berm levels does not differ materially in kind or nature from work that has already been established in the original Contract. We thus propose that, per Article 104.02 of the IDOT specifications, the applicable Contract prices/units corresponding to those similar work items should be used for this Change. We have provided under Appendix 1 the berm raising bid utilizing the already established unit prices in the original Contract as applicable. For items considered to be materially different from work items that have been previously established, we have utilized the current subcontract quotation from the lowest bidder, Beyers Construction. We have also included GLDD's standby costs during the berm construction period.

The proposed cost for this basis not including costs incurred to date, which will be added in the totals summarized at the conclusion of this letter, is:

	<u>Berm Construction</u>	<u>Dredging Standby**</u>	<u>Subtotal Cost</u>
4' -	\$2,522,185	\$455,205	\$2,977,390
5' -	\$3,744,582	\$569,007	\$4,313,589
6' -	\$5,005,778	\$694,188	\$5,699,966

** refer to Item 1.c. below for an explanation of the Dredging Standby cost for each Berm Construction scenario above.

GLDD is prepared to perform the work on the above basis per the terms of Contract.

b. Alternate Proposal

Per your request to obtain subcontractor quotations for the Berm Modifications, we solicited prices from six potential subcontractors and received three subcontract quotations for the 4', 5' & 6' berm modifications (included in Appendix 2). As an alternate cost basis and as a comparison to utilizing established rates from the Contract per the IDOT specification, we have separately used the low bid, Beyers' quotation, to calculate the total cost for raising the berms as shown in our Detailed Cost Package in Appendix 3. We have also included in these costs work required to remove and raise the height of interim weir pipes placed within the internal "cross dikes", raise the weir boxes in the polishing pond, and perform a LIDAR survey to allow Chastain to determine the needed berm modification elevation.

Please be advised that there is a great deal of risk associated with both the management and timing of raising the berm, especially with regard to rainy weather which has previously severely hampered and

delayed earth works at the site. If the berm work is delayed due to weather or otherwise, there will be additional standby costs to those estimated which could even lead to an additional dredging season as there is little float left after the berm raising activity. Thus GLDD would only be willing to proceed with this alternate cost basis on a pass through basis, with additional costs above that estimated to be compensable by the City to GLDD, and time extensions granted by the City to GLDD for additional time that may be required.

The proposed cost for this basis not including costs incurred to date, which will be added in the totals summarized at the conclusion of this letter, is:

	Berm Construction*	GLDD Standby**	Subtotal Cost
4' -	\$2,484,203	\$455,205	\$2,939,408
5' -	\$3,269,683	\$569,007	\$3,838,690
6' -	\$3,984,706	\$694,188	\$4,678,894

*includes GLDD Management and Markups

** refer to Item 1.c. below for an explanation of the Dredging Standby cost for each Berm Construction scenario above.

c. Standby During Berm Raising Operations

In an effort to reduce standby time during the berm raising Change, we have discussed with your office and the subcontractors the plan to first construct what is referred to as Cell "D" to allow GLDD to begin dredging once the berms enclosing this cell are complete. The remainder of the berms will then be constructed concurrently during dredging operations, thus mitigating management and standby costs as much as possible. Assuming berm construction can commence on April 1, 2018, then the amount of applicable standby to the berm raising modification is limited to the amount of time anticipated to complete Cell "D". Beyers has estimated Cell D construction time for each berm construction scenario as follows:

4' berm construction = 40 days = \$455,205
 5' berm construction = 50 days = \$569,007
 6' berm construction = 61 days = \$694,188

The detail of the standby cost for each of the durations above are included in the total proposed costs above and further laid out in the Detailed Cost Package in Appendix 3.

2. Additional GLDD Incurred Costs Due to Insufficient Contract Design Capacity at the OSB

The original Contract design of the OSB had insufficient capacity to contain the Contract quantity to be dredged. The OSB design should have included enough capacity to contain (a) the 10,700,000 cubic yards neat Contract dredge quantity, plus (b) the anticipated overdredge quantity, plus (c) capacity allowance for bulking of the material, plus (d) capacity allowance for a clarifying/polishing pond to maintain water quality. The OSB, as designed, fell well short of the capacity needed to even contain the neat Contract design quantity before any consideration of the other additional necessary capacities. As a result, GLDD has incurred additional costs to manage the site as well as incurred standby time.

Based on the survey of the OSB provided by Chastain at the time of bid, the OSB has a maximum capacity of only 8,713,000 cubic yards while maintaining three feet of freeboard as required. This capacity includes the additional capacity GLDD created by removing material from within the OSB to construct the original berms but has not been reduced for the necessary "polishing" pond that is required to allow fines to settle out and

maintain the required water quality for effluent discharging from the OSB. As of November 19, 2017, when GLDD was required to halt operations early during the 2017 dredging season, GLDD had placed approximately 8,772,000 cubic yards of material into the OSB – nearly 70,000 cubic yards more than the OSB's initial design maximum capacity.

The resultant effect on GLDD's operations, up to the end of the 2017 dredging season, is broken down into the four primary events summarized below:

a. Additional dewatering and surveys during the winter 2016/2017 season	\$88,226
b. Additional dewatering and disposal area management during 2017 dredging season	\$528,123
c. Suspension of Work / Standby	\$676,754
d. Early shutdown for the winter 2017/2018 season	<u>\$499,560</u>
Subtotal	\$1,792,663

Items 2.a. – 2.d. below contains further explanation of the four primary events and all of the supporting costs for these four primary events are provided in the Detailed Cost Package in Appendix 4.

Although we believe the below are representative of all of the costs incurred to date as a result of the insufficient design capacity issues at the OSB, we reserve our right to include any additional cost found or incurred until a final settlement of these matters is agreed.

a. Additional Dewatering Efforts and Survey During 2016/2017 Winter Shutdown

Between December 19, 2016 and March 31, 2017, GLDD attempted to remove existing water from the interior of the OSB and consolidate as much material as possible in anticipation of a LIDAR survey to be performed by Chastain prior to startup on April 1, 2017. This survey was required to assess the remaining capacity remaining in the OSB.

Chastain was notified that we would be resuming dredging operations on April 1, 2017, and that the LIDAR survey of the OSB would need to be completed prior as our dredging would reintroduce water to the interior of the OSB. April 1 arrived and passed without Chastain performing the survey.

Chastain's failure to perform the LIDAR survey prior to the start of the 2017 dredging season and thereafter pressured us to perform a survey of our own to prove that there was indeed a capacity issue with the OSB.

GLDD Cost - \$88,226

b. Additional Dewatering & Disposal Area Management Efforts During 2017 Dredging Season

As the OSB neared design capacity at the end of 2017, the works required additional equipment and labor resources to dewater and manage the OSB including mobilization and operation of a marsh buggy and additional night fillman.

GLDD Cost - \$528,123

c. Shutdown/Standby for Modification to Polishing Pond

By August of 2017, the overall OSB capacity shortfall was confirmed by the GLDD survey. Thus GLDD attempted to at least partially mitigate the design error by constructing a cross dike in the interior of the Polishing Pond which to provide additional disposal capacity for the 2017 season. We requested and received two bids from subcontractors to build the dike.

GLDD had to suspend dredging during this mitigation attempt from October 10, 2017 to October 30, 2017. The attempted modifications to the polishing were ultimately unsuccessful due to rains and water levels making it impossible to build the cross dike during October and forward. Thus GLDD experienced three weeks additional shut down than had we been able to dredge into the OSB with sufficient design capacity.

GLDD Cost - \$676,754

d. Early Shutdown to 2017/2018 Winter Season

Due to the insufficient design capacity of the OSB and the continued concerns from the City of Decatur and Chastain in regard to maintaining three feet of freeboard at the exterior berms, it was determined that the OSB had reached capacity on or about November 19, 2017, as communicated to Chastain and the City via our letter R1102/SRM/DSC/SL-031 dated November 17, 2017. Thus GLDD incurred additional shutdown costs from November 19th, 2017, until our planned winter shutdown date of December 23rd, 2017.

GLDD Cost - \$499,560

TOTAL COST FOR BERM MODIFICATION SUMMARY

As detailed above and in the attached appendices, our total cost proposal for the Berm Modification at the Oakley Sediment Basin due to Insufficient Contract Design Capacity is as follows.

Contract Based Proposal (Per Contract using IDOT Specification):

	<u>Berm Construction</u>	<u>GLDD Standby</u>	<u>GLDD Incurred Cost</u>	<u>Total Cost</u>
4' -	\$2,522,185	\$455,205	\$1,792,663	\$4,770,053
5' -	\$3,744,582	\$569,007	\$1,792,663	\$6,106,252
6' -	\$5,005,778	\$694,188	\$1,792,663	\$7,492,629

Alternate Proposal:

	<u>Berm Construction*</u>	<u>GLDD Standby</u>	<u>GLDD Incurred Cost</u>	<u>Total Cost</u>
4' -	\$2,484,203	\$455,205	\$1,792,663	\$4,732,071
5' -	\$3,269,683	\$569,007	\$1,792,663	\$5,631,353
6' -	\$3,984,706	\$694,188	\$1,792,663	\$6,471,557

*includes GLDD Management and Markups

Again, our Contract Based Proposal is a fixed proposal per the terms of the Contract and the IDOT specifications. Our Alternate Proposal would be structured as a pass through of actual costs incurred.

CONFIDENTIAL INFORMATION

Use or disclosure of data contained on this sheet is subject to the restrictions on the title page of this submission.

I suggest we meet at your earliest convenience to discuss the details of this package and a path forward to agreeing on the berm modifications, time is of the essence.

Please feel free to contact me if there are any questions or clarifications.

Sincerely,

GREAT LAKES DREDGE & DOCK COMPANY, LLC



Samuel R. Morrison
Vice President

Cc: City of Decatur Tim Gleason
City of Decatur Keith Alexander
GLDD Jared LeFranc
GLDD Steve Lane