## **RFB BID TAB EVALUATION**

Owner: Great Lakes Water Authority (GLWA)

Title: Lake Huron Water Treatment Plant – Low Lift, High Lift, Wash Water Pumping Improvements, Electrical Improvements, and Miscellaneous Chemical Improvements.

|    |  | Arcadis of    | Black & Veatch   | Brown and     |
|----|--|---------------|------------------|---------------|
|    |  | Michigan, LLC | Ltd. of Michigan | Caldwell, LLC |
| #  | Description  | Total Cost    | Total Cost       | Total Cost    |
| 1  | Project Kickoff Meeting  | \$35,878.09   | \$23,266.00      | \$17,424.61   |
| 2  | Project Work Plan  | \$10,150.00   | \$24,492.00      | \$16,523.13   |
| 3  | Work Breakdown Structure   | \$12,178.14   | \$9,597.00       | \$12,615.53   |
| 4  | Preliminary Schedule   | \$21,817.44   | \$5,174.00       | \$8,933.94    |
| 5  | QA/QC Plan   | \$20,268.86   | \$9,652.00       | \$12,601.77   |
| 6  | Document Control Plan  | \$17,095.00   | \$2,738.00       | \$6,995.14    |
| 7  | Cost-loaded Project Schedule (Baseline)  | \$13,838.24   | \$8,795.00       | \$36,545.90   |
| 8  | Monthly Cost-Loaded Project Schedule Updates (QTY 83)  | \$162,310.41  | \$116,666.00     | \$187,281.31  |
| 9  | Other Costs Not Listed (Task 2)  | \$658,408.41  | \$457,491.00     | \$433,239.79  |
| 10 | Condition Assessment – High Lift Pumps 2-9   | \$505,095.67  | \$120,100.00     | \$354,543.34  |
| 11 | Condition Assessment – Low Lift Pumps 1 and 2  | \$188,011.37  | \$87,069.00      | \$460,927.48  |
| 12 | Condition Assessment – Wash Water Pumps 1-4  | \$281,458.25  | \$78,976.00      | \$327,617.48  |
| 13 | Condition Assessment – Phosphoric Acid System  | \$55,111.94   | \$18,577.00      | \$45,618.30   |
| 14 | Condition Assessment Electrical system not specifically already indicated to be demolished               | \$12,587.34   | \$30,841.00      | \$145,574.09  |
| 15 | Technical Memorandum – Control Valve Actuator selection process  | \$40,956.57   | \$41,795.00      | \$37,191.26   |
| 16 | Technical Memorandum - Control Valve Actuator selection process (addendum No. 4)                         | \$31,412.98   | \$55,990.00      | \$4,818.78    |
| 17 | Reference Memorandum – Authorities Having Jurisdiction (AHJs)  | \$22,919.85   | \$12,909.00      | \$14,381.78   |
| 18 | Technical Memorandum – Selection of materials matrix   | \$40,863.30   | \$19,846.00      | \$26,562.77   |
| 19 | Technical memorandum - Station Shutdown Plan during construction   | \$99,560.01   | \$57,582.00      | \$45,995.00   |
| 20 | Technical memorandum – Flushing and Chlorination Plan  | \$35,789.59   | \$17,856.00      | \$26,081.38   |
| 21 | Technical Memorandum – CFD Modeling of High Lift Suction Well (addendum No. 4)                           | \$12,073.83   | \$164,302.00     | \$104,072.38  |
| 22 | Technical Memorandum – Hydraulic Loop for pressure support the wash water system                         | \$31,859.68   | \$21,294.00      | \$33,702.60   |
| 23 | Technical Memorandum – Improvements to minimize operator traffic in switch gear room                     | \$57,410.72   | \$56,473.00      | \$57,865.66   |
| 24 | Geotechnical Investigation Report  | \$37,841.55   | \$164,219.00     | \$44,286.30   |
| 25 | Technical Memorandum – Economic Feasibility of VFDs 2, 8, and 9  | \$31,399.84   | \$37,113.00      | \$40,455.59   |
| 26 | Technical Memorandum Exterior Building Rehabilitation and Site Improvements                              | \$18,920.88   | \$25,974.00      | \$43,888.69   |
| 27 | Technical Memorandum – HVAC and plumbing systems improvements  | \$29,676.18   | \$20,860.00      | \$25,488.41   |
| 28 | Technical Memorandum - Construction and/or Procurement Big Package Optimization                          | \$31,263.01   | \$14,045.00      | \$48,748.92   |
| 29 | Technical Memorandum – Pump Arrangement Recommendation and Boundary Condition Analysis                   | \$61,882.80   | \$63,505.00      | \$47,659.44   |
| 30 | Documentation of inconsistencies between the as-built documentation and the three-dimensional            | \$77,874.34   | \$137,498.00     | \$108,304.06  |
|    | scanning required as part of the preliminary design (Including scans, etc). Delivery of Model of Scanned |               |                  |               |
|    | Spaces   |               |                  |               |
| 31 | Hazardous Materials Testing and Report   | \$61,336.67   | \$19,684.00      | \$35,122.03   |
| 32 | Topographic and Property Survey  | \$106,036.58  | \$154,396.00     | \$214,914.78  |



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|    |   | Arcadis of                  | Black & Veatch                 | Brown and                   |
|----|---|-----------------------------|--------------------------------|-----------------------------|
| #  | Description   | Michigan, LLC<br>Total Cost | Ltd. of Michigan<br>Total Cost | Caldwell, LLC<br>Total Cost |
| 33 | Arc Flash Study and Short Circuit Preliminary Documents   | \$8,948.69                  | \$22,485.00                    | \$13,494.05                 |
| 34 | Technical Memorandum – Architectural/Civil, structural and site improvements                    | \$23,554.31                 | \$33,408.00                    | \$46,900.23                 |
| 35 | Technical Memorandum – Arcintectural/Civil, structural and site improvements                    | \$10,005.95                 | \$16,361.00                    | \$16,533.14                 |
| 36 | Technical Memorandum – Electrical system improvements   | \$28,182.60                 | \$15,564.00                    | \$40,236.19                 |
| 37 | Technical Memorandum – Instrumentation and control and SCADA/ Ovation improvements including    | \$51,396.46                 | \$28,309.00                    | \$39,493.62                 |
| 37 | flow metering improvements, power metering and new station control strategy                     | \$31,390.40                 | \$20,309.00                    | \$39,493.02                 |
| 38 | Preliminary Basis of Design Report  | \$139,403.69                | \$210,682.00                   | \$74,658.19                 |
| 39 | Comment Resolution Letter   | \$20,524.50                 | \$11,810.00                    | \$9,876.37                  |
| 40 | Final Basis of Design Report  | \$98,628.67                 | \$68,244.00                    | \$9,758.98                  |
| 41 | Final bound basis of design report that provides an executive summary of the project, all final | \$46,816.00                 | \$17,758.00                    | \$16,790.47                 |
| 41 | reference and technical memorandum, comment resolution letters, and any other pertinent         | ψτ0,010.00                  | \$17,730.00                    | φ10,7 70.47                 |
|    | information developed as part of this project.  |                             |                                |                             |
| 42 | Other Costs Not Listed (Task 3)   | \$0                         | \$203,672.00                   | \$290,684.84                |
| 43 | Technical memorandum – Liquidated and Special Damages   | \$20,479.87                 | \$9,860.00                     | \$31,533.92                 |
| 44 | Completed permit applications and issued permits  | \$24,170.08                 | \$13,768.00                    | \$46,435.05                 |
| 45 | 60% Design Package  | \$222,684.08                | \$927,315.00                   | \$578,693.57                |
| 46 | 60% Constructability and buildability review report   | \$22,108.04                 | \$50,300.00                    | \$15,780.50                 |
| 47 | 60% Engineer's opinion of probable cost   | \$72,754.36                 | \$45,898.00                    | \$36,621.15                 |
| 48 | 60% proposed construction schedule  | \$10,639.89                 | \$4,722.00                     | \$24,127.36                 |
| 49 | 60% design review workshop  | \$21,174.38                 | \$55,165.00                    | \$48,681.00                 |
| 50 | Technical Memorandum – Field verification of tie-in points                                      | \$29,104.64                 | \$9,280.00                     | \$42,240.66                 |
| 51 | 90% Design Package  | \$258,854.64                | \$702,272.00                   | \$452,042.50                |
| 52 | 90% Constructability and buildability review report   | \$21,008.79                 | \$26,090.00                    | \$25,062.07                 |
| 53 | 90% Engineer's Opinion of Probable Cost   | \$72,754.36                 | \$36,570.00                    | \$35,487.99                 |
| 54 | 90% Proposed Construction Schedule  | \$9,907.06                  | \$4,722.00                     | \$11,676.60                 |
| 55 | 90% design review workshop  | \$21,374.38                 | \$57,722.00                    | \$16,123.84                 |
| 56 | 60% Asset Change Form   | \$7,283.10                  | \$4,463.00                     | \$1,253.18                  |
| 57 | 90% Asset Change Form   | \$7,283.10                  | \$3,528.00                     | \$3,305.13                  |
| 58 | 100% Design Package   | \$236,001.08                | \$226,396.00                   | \$73,255.14                 |
| 59 | 100% Asset Change Form  | \$7,283.10                  | \$3,528.00                     | \$1,253.18                  |
| 60 | 100% Engineer's Opinion of Probable Cost  | \$73,120.78                 | \$9,878.00                     | \$10,981.76                 |
| 61 | 100% Proposed Construction Schedule   | \$9,907.06                  | \$4,722.00                     | \$3,530.76                  |
| 62 | Presentation to the GLWA Analytical Work Group  | \$19,250.00                 | \$13,437.00                    | \$18,094.41                 |



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|    |  | Arcadis of     | Black & Veatch   | Brown and      |
|----|--|----------------|------------------|----------------|
|    |  | Michigan, LLC  | Ltd. of Michigan | Caldwell, LLC  |
| #  | Description  | Total Cost     | Total Cost       | Total Cost     |
| 63 | Packaging of Final project report that provides an executive summary of the project, the final technical | \$39,484.03    | \$8,484.00       | \$15,124.98    |
|    | memoranda, comment resolution letters, biddability/constructability reviews report, and any other        |                |                  |                |
|    | pertinent information developed as part of this project.   |                |                  |                |
| 64 | Development of Bid Package 1 for demolition of phosphoric acid-free process-water system                 | \$67,490.01    | \$5,796.00       | \$17,909.56    |
| 65 | Development of Bid Package 2 for other relatively small CIP Project                                      | \$67,490.01    | \$5,796.00       | \$15,348.27    |
| 66 | Development of Bid Package 3   | \$126,972.07   | \$13,369.00      | \$24,917.32    |
| 67 | Development of Bid Package 4   | \$126,972.07   | \$13,369.00      | \$24,917.32    |
| 68 | Development of Bid Package 5   | \$126,972.07   | \$13,369.00      | \$24,917.32    |
| 69 | Efforts associated with acquiring energy provider incentives for improved energy efficiency if available | \$31,329.41    | \$36,557.00      | \$56,367.49    |
|    | (Added through Addendum 4)   |                |                  |                |
| 70 | Other items not specifically itemized (task 4)   | \$0            | \$69,755.00      | \$0            |
| 71 | Pre-bid Meetings & Tours   | \$54,934.25    | \$56,740.00      | \$11,294.28    |
| 72 | Pre-bid meetings summary notes   | \$23,246.80    | \$25,407.00      | \$11,294.28    |
| 73 | Bid evaluations, and recommendation letters  | \$104,923.35   | \$13,290.00      | \$7,527.78     |
| 74 | Pre-award meetings, evaluations, and recommendation letters  | \$33,789.60    | \$34,668.00      | \$18,823.80    |
| 75 | Four sets of complete executed contracts, with one set of 22" by 34" and 11 by 27" drawings each         | \$11,774.50    | \$42,643.00      | \$15,094.66    |
| 76 | Eight sets of each conformed contract documents with corrections clearly annotated                       | \$48,439.60    | \$110,911.00     | \$24,155.82    |
| 77 | Other Costs Not Listed (Task 5)  | \$0            | \$290,366.00     | \$0            |
| 78 | Construction Administration for Bid Package 1 for demolition of phosphoric acid-free process-water       | \$349,804.50   | \$143,041.00     | \$32,500.00    |
|    | system   |                |                  |                |
| 79 | Construction Administration for Bid Package 2 for unspecified small CIP Project                          | \$365,081.63   | \$325,250.00     | \$105,854.52   |
| 80 | Construction Administration for Project 3  | \$349,804.50   | \$692,709.00     | \$92,316.25    |
| 81 | Construction Administration for Project 4  | \$244,948.51   | \$692,709.00     | \$167,966.50   |
| 82 | Construction Administration for Project 5  | \$200,425.34   | \$692,709.00     | \$167,966.50   |
| 83 | Other items not specifically itemized (Task 6)   | \$0            | \$0              | \$167,966.50   |
| 84 | Resident Project Representation  | \$1,488,245.00 | \$2,504,455.00   | \$1,393,652.35 |
| 85 | System O&M Manual Updating, SOPs and Training  | \$420,739.02   | \$435,184.00     | \$163,328.03   |
| 86 | Provisional Allowance  | \$700,000.00   | \$700,000.00     | \$700,000.00   |
|    | Total Cost (Not to Exceed)   | \$9,400,757.47 | \$11,843,281.00  | \$8,319,830.99 |



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