

REQUEST FOR LEGISLATIVE ACTION

Version 6/10/19

REVISED -- August 31, 2020

Completed by County Counselor's Office:

Res. Ord. No.: 20462

Sponsor(s): Theresa Cass Galvin

Date: July 20, 2020

SUBJECT	<p>Action Requested <input checked="" type="checkbox"/> Resolution <input type="checkbox"/> Ordinance</p> <p>Project/Title: Transferring \$148,118 within the County Improvement Fund for the purpose of designing critical and mandated repairs in the Jackson County Parks System as identified by the Missouri Department of Natural Resources.</p>																				
BUDGET INFORMATION <i>To be completed By Requesting Department and Finance</i>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:70%;">Amount authorized by this legislation this fiscal year:</td> <td style="width:30%; text-align: right;">\$148,118</td> </tr> <tr> <td>Amount previously authorized this fiscal year:</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td>Total amount authorized after this legislative action:</td> <td style="text-align: right;">\$148,118</td> </tr> <tr> <td>Amount budgeted for this item * (including transfers):</td> <td style="text-align: right;">\$148,118</td> </tr> <tr> <td>Source of funding (name of fund) and account code number: FROM:</td> <td style="text-align: right;">FROM ACCT:</td> </tr> <tr> <td style="padding-left: 20px;">County Improvement Fund</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">013-5113-56790 Non-Departmental-Other Contractual Services</td> <td style="text-align: right;">\$148,118</td> </tr> <tr> <td>TO:</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">County Improvement Fund</td> <td style="text-align: right;">TO ACCT:</td> </tr> <tr> <td style="padding-left: 20px;">013-1608-56030 Parks Capital Projects – Arch & Engineering Services</td> <td style="text-align: right;">\$148,118</td> </tr> </table> <p>* If account includes additional funds for other expenses, total budgeted in the account is: \$</p> <p>OTHER FINANCIAL INFORMATION:</p> <p><input type="checkbox"/> No budget impact (no fiscal note required) <input type="checkbox"/> Term and Supply Contract (funds approved in the annual budget); estimated value and use of contract: Department: _____ Estimated Use: _____</p> <p>Prior Year Budget (if applicable): N/A Prior Year Actual Amount Spent (if applicable): N/A</p>	Amount authorized by this legislation this fiscal year:	\$148,118	Amount previously authorized this fiscal year:	\$0	Total amount authorized after this legislative action:	\$148,118	Amount budgeted for this item * (including transfers):	\$148,118	Source of funding (name of fund) and account code number: FROM:	FROM ACCT:	County Improvement Fund		013-5113-56790 Non-Departmental-Other Contractual Services	\$148,118	TO:		County Improvement Fund	TO ACCT:	013-1608-56030 Parks Capital Projects – Arch & Engineering Services	\$148,118
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PRIOR LEGISLATION	<p>Prior ordinances and (date): Prior resolutions and (date):</p>																				
CONTACT INFORMATION	<p>RLA drafted by Troy Schulte, County Administrator at 881-1079</p>																				
REQUEST SUMMARY	<p>This resolution transfers \$148,118 in County Improvement Fund contingency funding to the Parks Department to address critical infrastructure needs as the result of recent inspections of Jackson County parks facilities by the Missouri Department of Natural Resources. Three different projects are funded for design by this resolution for a total of \$148,118. Total preliminary estimated costs for the design and construction of the three projects is estimated at a total of \$750,000. Construction costs for these projects will be incorporated into future County Improvement Fund budgets.</p> <p>Project #1 is to replace the wastewater treatment facility for the Lake Jacomo campground and boat dock. Design costs with County term and supply vendor Olsson Associates is estimated at \$65,691.</p> <p>Project #2 is repairs to the concrete spillway at Prairie Lee Park. Project #3 is repairs to the concrete spillway at Lake Jacomo. Design costs for both spillway projects with County term and supply contractor Olsson Associates is estimated at \$82,427.</p>																				
CLEARANCE																					

	<input type="checkbox"/> Tax Clearance Completed (Purchasing & Department) <input type="checkbox"/> Business License Verified (Purchasing & Department) N/A <input type="checkbox"/> Chapter 6 Compliance - Affirmative Action/Prevailing Wage (County Auditor's Office)
COMPLIANCE	<input type="checkbox"/> MBE Goals <input type="checkbox"/> WBE Goals N/A <input type="checkbox"/> VBE Goals
ATTACHMENTS	
REVIEW	Department Director: <i>Michele Newman</i> Date: August 20, 2020
	Finance (Budget Approval): <i>If applicable</i> APPROVED <small>By Mark Lang at 9:01 am, Aug 27, 2020</small>
	Division Manager: <i>Andy M. Schmitt</i> Date: 8/27/20
	County Counselor's Office: <i>Bryan Combs</i> Date: 8/27/20

Fiscal Information (to be verified by Budget Office in Finance Department)

- This expenditure was included in the annual budget.
- Funds for this were encumbered from the _____ Fund in ____.
- There is a balance otherwise unencumbered to the credit of the appropriation to which the expenditure is chargeable and there is a cash balance otherwise unencumbered in the treasury to the credit of the fund from which payment is to be made each sufficient to provide for the obligation herein authorized.
- Funds sufficient for this expenditure will be/were appropriated by Ordinance # _____
- Funds sufficient for this appropriation are available from the source indicated below.

Account Number:	Account Title:	Amount Not to Exceed:

- This award is made on a need basis and does not obligate Jackson County to pay any specific amount. The availability of funds for specific purchases will, of necessity, be determined as each using agency places its order.
- This legislative action does not impact the County financially and does not require Finance/Budget approval.

**Work Order
For Jackson County On-Call Geotechnical Engineering
and Professional Testing Services
RFQ No. 11-18, Resolution No. 19858**

**Wastewater Treatment Plan (WWTP) Modifications and Wastewater
Collection System Investigation for Jacomo Campground**

Upon execution, this Work Order shall become part of the Professional Services Agreement ("Agreement") between the Jackson County, Missouri ("Client") and Olsson, Inc. ("Olsson") dated June 20, 2018 and extended on July 9, 2020. The terms and conditions of the Agreement shall apply to this Work Order.

WITNESSETH, that in accordance of the mutual covenants herein contained, the Client hereby agrees to employ Olsson to perform engineering services hereinafter outlined.

Scope of Work

See "Scope of Services".

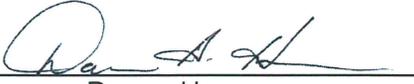
Compensation

See "Exhibits B, C, and D" attached to this Word Order for a breakdown of anticipated labor hours, labor rates, and reimbursable expenses. These exhibits are provided for information purposes only, and do not affect the task order's compensation terms, which are as follows:

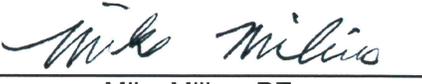
For performance of the Scope of Work, Client shall pay Olsson a **time and expense not to exceed fee of \$65,690.75**. Please reference the Professional Service Agreement, and Request for Proposals Scope of Services, dated June 20, 2018, and extended on July 9, 2020, Section 3.0, paragraphs 3.1 and 3.4, and the Schedule of Reimbursable Fees and Rate Exhibits attached hereto.

Olsson is committed to providing quality service to its clients, commensurate with their wants, needs and desired level of risk. If a portion of this proposal does not meet your needs, or if those needs have changed, Olsson stands ready to consider appropriate modifications, subject to the standards of care to which we adhere as professionals. If you have any questions or concerns regarding this scope of work, please call Mike Milius at 816.442.6013 or at mmilius@olsson.com. Olsson looks forward to hearing from you and working with you and the County on this Project.

OLSSON, INC.

By 
Darren Hennen

Title Vice President

By 
Mike Milius, PE

Title Vice President

JACKSON COUNTY, MISSOURI

By _____

Date _____

Title _____

SCOPE OF SERVICES

This exhibit is hereby attached to and made a part of Contract No.11-18 for Professional Services between Jackson County, Missouri ("Client") and Olsson, Inc. ("Olsson") providing for professional services. Olsson's Scope of Services for the Agreement is indicated below.

PROJECT DESCRIPTION AND LOCATION

Project will be located at: Jacomo Campground, Jackson County, Missouri

Project Description: Wastewater Treatment Plant (WWTP) Modifications and Wastewater Collection System Investigation

SCOPE OF SERVICES

Olsson shall provide the following services (Scope of Services) to Client for the Project:

Part A – WWTP Modifications

Olsson shall provide the following services (Scope of Services) to Client for Part A of the Project:

Phase 100 – Survey

Topographic Survey

Olsson shall provide topographic design survey (CAD file only) for the area outlined in red on the attached Exhibit A. Survey shall depict all observed evidence of substantial improvements, vertical relief of existing contours at two (2)-foot intervals, and location of existing features (pavement, buildings, tree mass lines, storm, sanitary sewer structures, pipe sizes, flow lines, and materials). Utility companies will be contacted through Missouri One-Call system and marked utilities will be included on the topographic survey. Horizontal control will be tied to the Missouri State Plane Coordinate System, NAD 1983 West Zone; and vertical control will be referenced to the North American Vertical Datum, NAVD 88. No boundary or easement information will be provided.

Phase 200 – Geotechnical/Soil Investigation

Drilling Services Coordination and General Notes

- Olsson shall contact Missouri One-Call to locate underground utilities. Owner must inform Olsson of location of all private utilities and private utility service connections. Cost of locating private utility lines and private service connections is Owner's responsibility. Olsson is not responsible or liable for damage to private utilities or private service connections.
- All boring locations must be readily accessible. Fees resulting from the use of mud-matting or clearing operations to achieve access to boring locations is Owner's responsibility and not included in this Scope of Services. Field work shall not be performed until access to boring locations is satisfactory to Olsson.

- Drilling and cone penetration testing equipment may cause disturbance to natural surroundings, including but not limited to, soil indentations, concrete cracking, and damage to underground sprinkler systems. Olsson shall not be liable or responsible for site disturbance that may occur as a result of bringing equipment on site. Owner accepts full responsibility for site disturbance.
- Traffic control, site clearing, city and/or state right-of-way occupation permitting, street use permitting, et cetera, may be necessary to complete field exploration. These services shall be provided by Others and are not included in this Scope of Services.

Soil Investigation

If the recommended treatment system includes a wastewater lagoon, Olsson shall provide the following field exploration services:

- Soil test borings with a truck-mounted drill rig to complete two soil test borings to a depth of 20 feet each. Soil borings will be advanced to depths proposed, or to refusal, whichever is shallower. Scope of Services is based on a total drilling footage of 40 linear feet.
- Split spoon and thin-walled samples shall be collected from soil test borings
- Obtain groundwater levels in test borings at the time of drilling and upon completion of drilling operations
- Backfill borings with soil cuttings and patch pavements, as required, after obtaining groundwater level readings

If the recommended treatment system includes a subsurface disposal system, Olsson shall provide the following soil investigation services:

- A minimum of four (4) percolation tests shall be performed within the proposed on-site sewage disposal absorption area OR a minimum of one (1) soil morphology test shall be performed within the proposed on-site sewage disposal area. Olsson will be on-site to observe the tests.
- Documentation of test results shall be provided.

Geotechnical Analysis Services

If the recommended treatment system includes a wastewater lagoon, Olsson shall provide the following geotechnical analysis services:

- Perform unconfined compressive strength, moisture content, and in-place unit weight tests on representative portions of selected Shelby tube samples. Moisture content tests will be performed on all samples. Atterberg limits tests will also be performed on representative samples of typical subsurface conditions encountered across this site.
- Geotechnical engineering report will be prepared under the direction of a registered professional engineer, based on field and laboratory program findings. Report will include a boring location plan, computer-generated boring logs, results of the laboratory testing program, and a description of surface and subsurface conditions encountered at Project site. The report will present Olsson's opinions and recommendations regarding the following items:

- Bedrock depth, as applicable to a new wastewater lagoon
- Permeability of the on-site clay soils in accordance with Missouri Department of Natural Resources (MoDNR) regulations
- Additional requirements if permeability tests are insufficient
- Wastewater lagoon appropriateness for Project site

Phase 300 – Facility Plan

Olsson shall perform the following:

- Complete a facility plan for the WWTP modification at the Jacomo Campground. Facility plan, including:
 - Existing conditions and projections
 - Evaluation of three (3) wastewater treatment alternatives
 - Cost estimate
 - Recommended process
- Complete quality control reviews, prior to each interim report submittal; and quality management procedures throughout design development
- Submit a draft improvement option report to Client for review. Olsson shall respond to comments by Client.
- Submit a draft facility plan to MoDNR for approval. Olsson shall respond to comments by MoDNR. Client is responsible for review fees, if required by MoDNR.
- Submit final facility plan to MoDNR for approval. Olsson shall respond to comments by MoDNR. Client is responsible for review fees.

Phase 400 – Design Services

Olsson shall perform the following design services:

- Coordinate with Client and conduct a design phase kick-off meeting and site visit. Olsson shall provide meeting minutes for Client review and reference
- Complete civil engineering design for recommended treatment alternative of the Project site, as stated in facility plan
- Prepare construction documents. Two (2) design submittals (preliminary and final) will be provided for review and comment by Client
- Prepare required technical specifications and front-end documents for Project
- Prepare an opinion of probable construction cost for preliminary and final design submittals
- Perform quality control reviews, prior for each design submittal
- Meet with Client to discuss Project plan and specification development. Olsson shall attend a total of one (1) meeting to discuss the plans and specifications.

Phase 500 – Permitting Assistance

If required by MoDNR, Olsson shall complete and submit to MoDNR the following:

- *An Application for Construction Permit – Wastewater Treatment Facility*
- A copy of the construction plans and technical specifications, in conformance with MoDNR guidelines
- A Summary of Design

- *A Form B – Application for Operating Permit for Domestic Wastewater (≤100,000 gallons per day)*

Olsson shall respond to comments by MoDNR and shall be responsible for review fees associated with the *Application for Construction Permit – Wastewater Treatment Facility* and *Form B – Application for Operating Permit for Domestic Wastewater (≤100,000 gallons per day)*.

Part B – Wastewater Collection System Investigation

Olsson shall provide the following services (Scope of Services) to Client for Part B of the Project:

Phase 110 – Existing System Survey / Configuration Map

Survey Services

An on-site meeting is planned at the start of the project to identify the current wastewater collection features.

Olsson shall provide survey for the current wastewater collection system. Survey to include the current visible campsite connections – 12 spots (location and ground elevation), known manholes – 10 spots (location, ground elevations and invert elevations) in the area outlined in red on Exhibit A. Horizontal control will be tied to the Missouri State Plane Coordinate System, NAD 1983 West Zone; and the vertical control will be referenced to the North American Vertical Datum, NAVD 88. No boundary or easement information will be provided. Existing utilities will not be located.

A visual inspection of each manhole will be performed to evaluate flow characteristics through the system.

Existing System Configuration Map

The survey information will be provided to Client in a drawing form for review and comment. One round of comments from Client is planned.

Phase 310 – Collection System Improvement Options Report

Olsson shall perform the following:

- Complete a review of the existing wastewater collection system at the Jacomo Campground. Facility plan, including:
 - Existing conditions and projections
 - Evaluation of three (3) collection system improvement options to address current infiltration issues
 - Cost estimates
 - Recommended improvements
- Complete quality control reviews, prior to each interim report submittal; and quality management procedures throughout design development
- Submit a draft improvement option report to Client for review. Olsson shall respond to comments by Client.

- Attend a meeting to review the draft report with Client to address questions and comments.
- Submit final improvement option report to Client.

EXCLUSIONS

Part A – WWTP Modifications

- Front end specifications and contractual documents
- Construction administration
- Bidding
- Material testing
- Additional meetings

Part B – Wastewater Collection System Investigation

- Collection system improvement design
- Bidding assistance
- Construction administration
- Construction observations services
- Material testing
- Project closeout
- Additional meetings, workshops, and permitting assistance

SCHEDULE

Unless otherwise agreed Olsson expects to perform its services under the agreement as follows:

Part A – WWTP Modifications

Survey, Geotechnical Investigation, and Soils Testing Completion:	Six (6) weeks following receipt of notice to proceed (NTP)
Facility Plan Submittal to Client:	Four (4) weeks following completion of Survey and Geotechnical Investigation
Preliminary Design Submittal to Client:	Four (4) weeks following Facility Plan Submittal approval from MoDNR

Part B – Wastewater Collection System Investigation

Survey / System Configuration Map:	Eight (8) weeks following receipt of NTP
Draft Collection system Improvement Report:	Four (4) weeks following completion of Survey/System Configuration Maps

Should Client request work in addition to the Scope of Services, Olsson shall invoice Client for such additional services (Optional Additional Services) at the standard hourly billing labor rate charged for those employees actually performing the work, plus reimbursable expenses if any. Olsson shall not commence work on Optional Additional Services without Client's prior written approval.

Olsson agrees to provide all of its services in a timely, competent and professional manner, in accordance with applicable standards of care, for projects of similar geographic location, quality and scope.

Attachment A



EXHIBIT B
Schedule of Reimbursable Fees
SUMMARY
ENGINEERING SERVICES

PART A - WASTEWATER TREATMENT PLANT MODIFICATIONS

Phase No.	Task Description	Fee Estimate
100	Survey	\$ 4,447.25
200	Geotechnical/Soil Investigation	\$ 6,107.25
300	Facility Plan	\$ 11,787.25
400	Design Services	\$ 20,894.50
500	Permitting Assistance	\$ 2,780.00
	Subtotal	\$ 46,016.25

PART B - WASTEWATER COLLECTION SYSTEM INVESTIGATION

Phase No.	Task Description	Fee Estimate
110	Existing System Survey/Configuration Map	\$ 7,547.25
310	Collection System Improvement Options Report	\$ 12,127.25
	Subtotal	\$ 19,674.50
TOTAL		\$ 65,690.75

EXHIBIT C
Schedule of Hourly Rates*

Personnel	Total Hr.	2020 \$ Per Hr.	Total Cost
Principal - WTWW	56	\$ 230.00	\$ 12,880.00
Project Engineer - WTWW	272	\$ 145.00	\$ 39,440.00
Administrative Assistant - WTWW	12	\$ 70.00	\$ 840.00
	340		\$ 53,160.00

Special Services not included in above categories will be provided on a special labor rate schedule. Rates subject to change based upon annual updates to Billing Rates.

EXHIBIT D
Schedule of Reimbursable Expenses

Expenses	Amount		\$ Ea.		Cost
Part A - Wastewater Treatment Plant Modifications					
Travel, Mile (Car)	250	Miles @	0.550		\$137.50
Soil Investigation/Geotech	1	-	\$ 5,500.00		\$5,500.00
Survey	1	-	\$ 3,840.00		\$3,840.00
			Subtotal		\$9,477.50
Part B - Wastewater Collection System Investigation					
Travel, Mile (Car)	100	Miles @	\$ 0.55		\$54.50
Survey	1	-	\$ 3,000.00		\$3,000.00
			Subtotal		\$3,054.50
			Total Expenses		\$12,530.75

Work Order #9
For Jackson County On-Call Geotechnical Engineering
and Professional Testing Services
RFQ No. 11-18, Resolution No. 19858

Spillway Evaluation and Restoration Design for
Lake Jacomo and Prairie Lee Lake
near Blue Springs, MO

Upon execution, this Work Order shall become part of the Professional Services Agreement (Agreement) between the Jackson County Missouri (Client) and Olsson Associates (Olsson) dated June 20, 2018 and extended on July 9, 2020. The terms and conditions of the Agreement shall apply to this Work Order.

WITNESSETH, that in accordance of the mutual covenants herein contained, the Client hereby agrees to employ Olsson to perform engineering services hereinafter outlined.

Scope of Work

See "Exhibit A" attached to this Work Order.

Schedule

Contract Notice-to-Proceed	8/28/2020
Complete Field Inspection	9/18/2020
Submit Inspection Report	10/2/2020
Review Meeting	10/8/2020
Submit Final PS&E (100% unsigned/unsealed)	11/13/2020
Receive Comments	11/27/2020
Submit Final PS&E (100% signed/sealed)	12/18/2020

Compensation

See "Exhibits B, C & D" attached to this Work Order for a breakdown of anticipated labor hours, labor rates, and reimbursable expenses. These exhibits are provided for information purposes only, and do not affect the task order's compensation terms, which are as follows;

For performance of the Scope of Work, Client shall pay Olsson a **Lump Sum Fee of \$82,426.54**. Compensation will be billed at the following intervals: 25% upon submittal of the inspection report, 75% upon submittal of the unsigned/unsealed final PSE and 100% upon submittal of the signed/sealed final PSE.

Olsson is committed to providing quality service to its clients, commensurate with their wants, needs and desired level of risk. If a portion of this proposal does not meet your needs, or if those needs have changed, Olsson stands ready to consider appropriate modifications, subject to the standards of care to which we adhere as professionals. If you have any questions or concerns regarding this scope of work please call Grant Luckenbill at 816.284.9204 or at gluckenbill@olsson.com. We look forward to hearing from you and working with you and your agency on this project.

OLSSON INC.

By Grant Luckenbill ^{8/7/20}
Grant Luckenbill, PE
Title Senior Project Manager

By Reid Catt
Reid Catt, PE
Title Team Leader

Jackson County Missouri

By _____
Title _____

Date _____

EXHIBIT A - SCOPE OF SERVICES

This exhibit is hereby attached to and made a part Professional Services Agreement (Agreement) between the Jackson County Missouri (Client) and Olsson Associates (Olsson) dated June 20, 2018 and extended on July 9, 2020. Olsson's Scope of Services for the Agreement is indicated below.

PROJECT DESCRIPTION AND LOCATION

Project will be located at: Lake Jacomo and Prairie Lee Lake

Project Description: Inspection and Repairs to Ogee Weir and Inclined Spillway

SCOPE OF SERVICES

Services included in this proposal will consist of a field inspection of Lake Jacomo's ogee weir and Prairie Lee Lake's spillway, preparation and submission of the required construction permits with MDNR, and preparation of bid documents for completing structural repairs to the weir and spillway. Olsson will provide performance specifications to establish critical elevations that will be necessary information to the awarded Contractor's temporary dewatering measures for ensuring minimal or no impact to the hydraulic performance of the lakes.

TASK 1: PROJECT MANAGEMENT AND ADMINISTRATION

- Develop and maintain project schedule.
- Coordinate with Client staff and review agencies as needed throughout the project.
- Conduct progress/coordination meeting at conclusion of inspection work.
- Invoicing

TASK 2: SURVEY

- Olsson will utilize an unmanned drone to acquire aerial photogrammetry of each project area. This information will be used to develop a project area base map, delineate limits and confirm elevations of the structures, and establish existing ground contours.

TASK 3: H&H EVALUATION AND PERMITTING

- Complete a desktop review of available dam safety information (hazard class, design elevations etc).
- Obtain FEMA's current effective models for Lake Jacomo and Prairie Lee Lake, evaluate, and determine effects on design storm levels for instituting reasonable temporary dewatering measures required to enable construction of repairs.
- Prepare and submit construction permits to MDNR for the planned repairs on the dam and spillway.
- Prepare and submit a Floodplain Development Permit to the Jackson County Floodplain Administrator documenting a no-rise for permanent construction. Seek approval for a temporary, minor rise in base flood elevations to ensure dewatering efforts can be successfully undertaken in order to complete the repairs.
- Prepare background information and supporting information for a non-notifying 404 permit (NW-3).

TASK 4: FIELD INSPECTIONS, TESTING, AND REPORT

- Olsson will review the existing plans and photographs provided.
- Lake Jacomo
 - Conduct a visual and sounding inspection on the dry-side of the ogee weir and tabulate areas of deterioration that require repair.
 - Conduct a visual and tactile underwater inspection on the wet-side of the ogee weir and tabulate areas of deterioration that require repair. Olsson will utilize one of our senior construction inspection staff members (whom is an experienced diver), and a subconsultant to ensure a safety diver is provided.
 - It is understood from the County that the water is shallow (4-5 feet) deep immediately in front of the ogee weir. Olsson will utilize a boat and/or the diver to assist with probing the bottom of the channel for a distance extending approximately 30 feet in front of the weir over its length. The intent is to obtain a rough underwater surface profile for confirming the shallow depth. This information will be valuable to potential bidders. If the channel depth is beyond means of physical probing (>10 feet), then a bathymetric survey may be recommended (additional service).
 - Olsson will collect eight concrete core samples from the downstream face of the ogee weir. The cores will be utilized for inspecting the apparent quality of the concrete, tested for uniaxial compressive strength, and aid our investigation for predicting the remaining durability of the concrete. This information will be utilized during the design process to also aid in predicting the extent of removals and validate adequacy of repair methods.
- Prairie Lee Lake
 - Utilize a boat in the lower discharge channel to obtain access to the spillway apron. Olsson will then conduct a visual and sounding inspection to all accessible areas of the principle inclined spillway, lower apron, chute walls, and inclined chute slabs. The soundings will be limited to areas only accessible via direct reach from the spillway's apron and step ladder. The focus of this inspection is quantify deteriorated concrete areas for formed and unformed repair areas and obtain adequate information to enable design of repairs to the five (5) vertical construction joints that have separated and began seeping water on the principle inclined spillway.
 - Olsson will collect four concrete core samples from the downstream face of the inclined spillway near dilapidated portions of the construction joints and four concrete core samples from other areas in the spillway apron or retaining walls. The cores will be utilized for inspecting the apparent quality of the concrete, tested for uniaxial compressive strength, and aid our investigation for estimating the remaining durability of the concrete. This information will be utilized during the design process to also aid in predicting the extent of removals and validate adequacy of possible repair methods.
 - It is anticipated that additional inspection holes will be obtained during construction, after the Contractor de-waters the spillway and erects scaffolding for completion of the repairs. Completing these inspection holes will be part of the Contractor's work under the Construction Contract. The Engineer or designated inspection personnel will assist the Client with visually inspecting and probing the sub-grade through these inspection holes. (Assuming ~8 total manhours over two site-visits)

Olsson will prepare an inspection report that summarizes the findings from our field investigations. The physical condition of the ogee weir, chute spillway and material strengths from core samples will be inventoried and documented with photographs from the inspections. The report will include recommendations for repairs and present the estimated construction costs.

TASK 5: DESIGN OF REPAIRS AND PREPARATION OF CONSTRUCTION PLANS & SPECIFICATIONS, ESTIMATES

Olsson will provide structural design and prepare construction plans, technical specifications, and cost estimates for repairs to the ogee weir (Lake Jacomo) and spillway (Prairie Lee Lake). Plan details generated will illustrate the location of each project, approximate access areas, general notes and specifications, the extents of repair areas, extents and method for concrete removals, surface preparation, bonding agents, concrete and reinforcing requirements, and bid item quantities.

- Construction bid documents for Prairie Lee will be setup with a base bid and an add alternate set of work and quantities. The base bid will cover the repair of the principle inclined spillway and the add alternate will cover the repairs to the rest of the chute spillway, upper and lower aprons, chute walls, and inclined slabs.
- It is assumed that the structure will be evaluated and designed utilizing the latest ACI 318 Design Specifications available at the time of commencing the design. Olsson will utilize APWA specifications and draft supplemental Job Special Provisions (included either on the plans or in the technical specifications) to specify the material and installation requirements for completing the repairs.
- Olsson will develop a performance specification for dewatering each work area. The specification will outline the location, elevations, maximum limits (if any), and Contractor's responsibilities under the Contract.

EXCLUSIONS:

Threatened and Endangered Species Evaluations, Parkland Permitting, Easements/RW, Design of Fencing, Design of temporary access roads/ditches/erosion control, Geotechnical Investigation, Global Stability Analyses, Design of temporary shoring, Design of Scaffolding, Structural design of dewatering measures such as cofferdams, Utility Locates, Life Cycle Cost Analyses, Construction Inspection (beyond the limited efforts stated above), Construction Material Testing Services, Shop Drawing Review, and Assistance during construction answering questions and requests for information are not included in this scope of services.

It is understood that should assistance with excluded tasks be desired, they will be addressed at the conclusion of the Design Engineering Services with a supplementary agreement.

ASSUMPTIONS/UNDERSTANDINGS

Under 1 acre of land disturbance will occur such that a SWPPP will not be required.

No hard shot topographic survey will be completed. Aerial imagery from the drone will be used as a background for indicating the approximate location and pathway for contractor's access areas and areas of tree clearing. All access areas required for construction will be confined to Jackson County's property. Structural layouts will be prepared by referring to elements from the photogrammetry, as-built construction drawings, and supplemented with field measurements.

It is assumed that any tree clearing that may be necessary to gain access for the Contractor will be completed during the winter months (outside of the summer roosting season for possibly endangered bats) by either the County or the Contractor. Should this understanding of this element of the work change, then the County will ensure that proper inspection and documentation of potential bat habitat and any environmental permitting that may be necessary to complete the contractor's work will be done by County staff members or by supplemental agreement.

MDNR has indicated that both spillways meet the state's freeboard and capacity requirements so there is no need to prepare a full H&H analysis and report so long as the spillway geometry, elevations and length remain the same. Design of repairs undertaken on this project will conform to these criteria.

Olsson assumes no liability or offers any implied warranty or responsibility associated with the integrity and safe performance of other parts of the structures that are not explicitly identified to be within the scope of this investigation. Based on the information provided by the Client, the repairs to these structures are anticipated to be maintenance-level repairs. As such, the focus of these investigations will be limited and will be based on the underlying assumption that the structures are stable and their overall structural integrity is performing as originally intended.

CLIENT PROVIDED INFORMATION

- Available water and sewer locations, size, and materials, if available.
- Record drawings for structures/as-builts/inspection reports.
- Right of entry to perform field work
- County will be responsible for any fees associated with permits
- County will submit application to Corp for 404 permit (if necessary).
- County Standard Specifications that wish to be included in the technical specifications be made available in electronic format (Word Format preferred)
- County will prepare bid book front end documents and advertise the project.

DELIVERABLES

- Inspection Report and Repair Recommendations/Prelim Cost Estimate
 - Electronic (PDF) deliverable (entire report & appendixes)
 - Three, bound hard copies.
- Final Design (100% unsigned/unsealed) – for client review/approval
 - Electronic (PDF) deliverables (cost estimate, tech specs & plans)
 - Three, bound hard copies of the plans (11" x 17")
- Final Design (100% signed/sealed) – for bid
 - Electronic (PDF) deliverables (cost estimate, specs & plans)
 - Three, bound hard copies of the plans (11" x 17")
 - Word Documents (if available) of technical specs
 - Drawing design files in CAD
 - Hydraulic model(s)

Should Client request work in addition to the Scope of Services, Olsson shall invoice Client for such additional services (Optional Additional Services) at the standard hourly billing labor rate charged for those employees actually performing the work, plus reimbursable expenses if any. Olsson shall not commence work on Optional Additional Services without Client's prior written approval.

Olsson agrees to provide all of its services in a timely, competent and professional manner, in accordance with applicable standards of care, for projects of similar geographic location, quality and scope.

EXHIBIT B
Schedule of Reimbursable Fees

SUMMARY
ENGINEERING SERVICES

Task No.	Task Description	Fee Estimate
1	Project Management & Administration	\$3,696.00
2	Survey	\$6,708.04
3	H&H Evaluation and Permitting	\$9,968.00
4	Field Inspections, Testing and Report	\$22,256.00
5	Design of Repairs & Preparation of PSE	\$33,856.00
-	Reimbursable Expenses	\$5,942.50
	Subtotal	\$82,426.54
	TOTAL	\$82,426.54

EXHIBIT B (Continued)
Schedule of Reimbursable Fees

Task No.	Description of Work Items / Tasks	SenStEng	Proj Eng	Assis Eng	SrTech	DesignTech	Proj Scien	Technician	Surveyor	Inspector	Survey Tech	Admin	Total Manhours	Total Labor Fee	Total Fee (A+B+C)
1	Project Management & Administration														
	Project Management	8											8	\$1,280	\$1,280.00
	Client and Agency Coordination	8											8	\$1,280	\$1,280.00
	Invoicing											8		\$544	\$544.00
	Review Meetings (1)	2	2										4	\$592	\$592.00
1	Project Management & Administration	18	2	0	0	0	0	0	0	0	0	8	28	\$3,696	\$3,696.00
2	Survey														
	Acquire Field Data with Drone								16				16	\$1,308	\$1,308.04
	Project Base Mapping									60			60	\$5,400	\$5,400.00
2	Survey	0	0	0	0	0	0	0	16	0	60	0	76	\$6,708	\$6,708.04
3	H&H Evaluation and Permitting														
	Desktop Review	2	4										6	\$864	\$864.00
	Obtain Model and Evaluate Dewatering Capabilities	4	40		8								52	\$6,784	\$6,784.00
	Permitting (MDNR/Documentation of NW3)	4				16							20	\$2,320	\$2,320.00
3	H&H Evaluation and Permitting	10	44	0	0	8	16	0	0	0	0	0	78	\$9,968	\$9,968.00
4	Field Inspections, Testing and Report														
	Review existing plan information	2	4										6	\$864	\$864.00
	Labor for Core Sampling, Cataloging and Testing	8	8					16					24	\$2,048	\$2,048.00
	Lake Jacomo - Dry Inspection	8	8										16	\$2,368	\$2,368.00
	Lake Jacomo - Underwater Inspection								16				16	\$1,536	\$1,536.00
	Prairie Lee Lake - Spillway Inspection	16	16										32	\$4,736	\$4,736.00
	Evaluate Condition and preliminarily design repairs	2	8										10	\$1,408	\$1,408.00
	Prepare Cost Estimates for Repairs	2	8	8									18	\$2,088	\$2,088.00
	Prepare Inspection Report & Photo Log	8	4	40		8							60	\$5,928	\$5,928.00
	Construction Visit - Assit with Probing and Evaluation of Spillway	8											8	\$1,280	\$1,280.00
4	Field Inspections, Testing and Report	46	56	48	0	8	0	16	0	16	0	0	190	\$22,256	\$22,256.00
5	Design of Repairs & Preparation of PSE														
	Design Repairs to Ogee Weir	2	16										18	\$2,496	\$2,496.00
	Design Repairs to Construction Joints on Spillway	2	16										18	\$2,496	\$2,496.00
	Prepare and Submit Construction Plans	4	40		40	160							244	\$24,160	\$24,160.00
	Prepare and Submit Technical Specifications	1	8										9	\$1,248	\$1,248.00
	Prepare and Submit JSP for Dewatering	2											2	\$320	\$320.00
	Prepare and Submit Engineer's Cost Estimate	2	8										10	\$1,408	\$1,408.00
	QA/QC Reviews	4	8										12	\$1,728	\$1,728.00
5	Design of Repairs & Preparation of PSE	17	96	0	40	160	0	0	0	0	0	0	313	\$33,856	\$33,856.00
	Total Manhours Project (Olsson)	91	198	48	40	176	16	16	16	16	60	8	685	\$76,484.04	\$76,484.04

EXHIBIT C
Schedule of Hourly Rates

Personnel		Total Hr.	2020 \$ Per Hr.	Total Cost
Senior Structural Engineer	SenStrEng	91	\$160.00	\$14,560
Project Engineer	Proj Eng	198	\$136.00	\$26,928
Assistant Engineer	Assis Eng	48	\$85.00	\$4,080
Senior Technician	SrTech	40	\$100.00	\$4,000
Design Technician	DesignTech	176	\$88.00	\$15,488
Project Scientist	Proj Scien	16	\$105.00	\$1,680
Technician	Technician	16	\$60.00	\$960
Surveyor	Surveyor	16	\$81.75	\$1,308
Inspector	Inspector	16	\$96.00	\$1,536
Survey Cad Tech	Survey Tech	60	\$90.00	\$5,400
Administrative Assistant	Admin	8	\$68.00	\$544
	-			
	-	685		\$76,484

Special Services not included in above categories will be provided on a special labor rate schedule. Rates subject to change based upon annual updates to Billing Rates.

EXHIBIT D
Schedule of Reimbursable Expenses

Expenses	Amount		\$ Ea.		Cost
Design Phase					
Mileage	400	Miles @	0.545		\$218.00
Plotting/Printing	100	Plots @	0.25		\$25.00
Drone	2	Days @	250.00		\$500.00
Coring Equipment	2	Days @	125.00		\$250.00
Compressive Strength Test - Cores	16	Each @	45.00		\$720.00
Boat	2	Days @	50.00		\$100.00
Safety Diver - Subconsultant	1	Lump Sum @	3800.00		\$3,800.00
Diving Equipment (O2, Camera)	1	Each @	250.00		\$250.00
Postage	1	Each @	25.00		\$25.00
			Subtotal		\$5,888.00
Construction Phase					
Mileage	100	Miles @	0.545		\$54.50
			Subtotal		\$54.50
			Total Expenses		\$5,942.50