

## **AGREEMENT 21042 FOR ENGINEERING SERVICES**

This AGREEMENT is entered into by and between Lake County (County) and RHMG Engineers, Inc., 975 Campus Drive, Mundelein, Illinois 60060 (hereafter "Engineer").

### **RECITALS**

WHEREAS, Lake County is seeking an Engineer to provide Engineering services for

PW#2017.010 Vernon Hills Reservoir Expansion at Village of Mundelein  
Decommissioned WRF Site – Final Engineering Design Services as described in  
Attachment A; and

WHEREAS, the Engineer is a professional provider of Engineering services; and

**NOW, THEREFORE, Lake County and the Engineer AGREE AS FOLLOWS:**

#### **SECTION 1. AGREEMENT DOCUMENTS**

This AGREEMENT constitutes the entire agreement between the County and the Engineer.

#### **SECTION 2. SCOPE OF SERVICES**

The Engineer shall provide engineering services described in Attachment A

#### **SECTION 3. DURATION**

The work shall be completed within 315 days after execution of this Agreement.

#### **SECTION 4. INDEMNIFICATION**

The Engineer agrees to indemnify, save harmless and defend the County, their agents, servants, and employees, and each of them against and hold it and them harmless from any and all lawsuits, claims, demands, liabilities, losses and expenses, including court costs and attorney's fees, for or on account of any injury to any person, or any death at any time resulting from such injury, or any damage to property, which may arise or which may be alleged to have arisen out of Engineer's negligent acts in connection with the services covered by this Agreement. The foregoing indemnity shall apply except if such injury, death or damage is caused directly by the willful and wanton conduct of the County, their agents, servants, or employees or any other person indemnified hereunder.

## **SECTION 5. INSURANCE**

The Engineer must obtain, for the Contract term and any extension of it, insurance issued by a company or companies qualified to do business in the State of Illinois and provide the County with evidence of insurance. Insurance in the following types and amounts is necessary:

- **Worker's Compensation Insurance** covering all liability of the Engineer arising under the Worker's Compensation Act and Worker's Occupational Disease Act at statutory limits.
- **Professional Liability** to include, but not be limited to, coverage for Errors and Omissions to respond to claims for loss there from.
  - **General Aggregate Limit**    **\$3,000,000**
  - **Each Occurrence Limit**    **\$1,000,000**
- **Automobile Liability:**
  - **Bodily Injury, Property Damage (Each Occurrence Limit) \$1,000,000**

Engineer agrees that with respect to the above required Automobile Liability insurance, Lake County shall:

- Be named as additional insured by endorsement to the extent of the negligence of the Engineer;
- Be provided with thirty (30) days notice, in writing, of cancellation of material change;
- Be provided with Certificates of Insurance evidencing the above required insurance, prior to commencement of this Contract and thereafter with certificates evidencing renewals or replacements of said policies of insurance at least fifteen (15) days prior to the expiration of cancellation of any such policies. Forward Notices and Certificates of Insurance to: Lake County Central Services, 18 N. County St, Waukegan, IL 60085-4350.

## **SECTION 6. AGREEMENT PRICE**

Lake County will pay to the Engineer the amount not to exceed \$ 224,090.00 .

## **SECTION 7. INVOICES & PAYMENT**

Invoices may be submitted for work performed on a monthly basis based upon the percent of work completed in the amount not-to-exceed in Section 6. Submit invoice(s) detailing the services provided. Payments shall be made in accordance with the Local Government Prompt Payment Act.

Engineer will address Invoices to:

Lake County Department of Public Works  
650 Winchester Road  
Libertyville, IL 60048-1391  
Attn: Ying L. Miao

County will make Payments to:

RHMG Engineers, Inc.  
975 Campus Drive  
Mundelein, IL 60060

**SECTION 8. STATEMENT OF OWNERSHIP**

The drawings, specifications and other documents prepared by the Engineer for this Project are the property of the County, and Engineer may not use the drawings and specifications for any purpose not relating to the Project without the County's consent, except for the Engineer's services related to this Project. All such documents shall be the property of the County who may use them without Engineer's permission for any current or future Lake County project; provided, however, any use except for the specific purpose intended by this Agreement will be at the County's sole risk and without liability or legal exposure to the Engineer.

The Engineer shall retain its copyright and ownership rights in its design, drawing details, specifications, data bases, computer software, and other proprietary property. Intellectual property developed, utilized, or modified in the performance of the services shall remain the property of the Engineer.

**SECTION 9. TERMINATION**

The County reserves the right to terminate this Agreement, or any part of this Agreement, upon thirty(30) days written notice. In case of such termination, the Engineer shall be entitled to receive payment from the County for work completed to date in accordance with terms and conditions of this Agreement. In the event that this Agreement is terminated due to Engineer's default, the County shall be entitled to contract for consulting services elsewhere and charge the Engineer with any or all losses incurred, including attorney's fees and expenses.

**SECTION 10. JURISDICTION, VENUE, CHOICE OF LAW**

This Agreement shall be governed by and construed according to the laws of the State of Illinois. Jurisdiction and venue shall be exclusively found in the 19<sup>th</sup> Judicial Circuit Court, State of Illinois.

**SECTION 11. INDEPENDENT CONTRACTOR**

The Engineer is an independent contractor and no employee or agent of the Engineer shall be deemed for any reason to be an employee or agent of the County.

**SECTION 12. WARRANTS**

The Engineer represents and warrants to the County that none of the work included in this contract will in any way infringe upon the property rights of others. The Engineer shall defend all suits or claims for Engineer's infringement of any patent, copyright or trademark rights and shall hold the County harmless from loss on account thereof.

**SECTION 13. ASSIGNMENT**

Neither the Engineer nor the County shall assign any duties of performance under this Agreement without the express prior written consent of the other.

**SECTION 14. MODIFICATION**

This Agreement may be amended or supplemented only by an instrument in writing executed by the party against whom enforcement is sought.

**SECTION 15. DISPUTE RESOLUTION**

All issues, claims, or disputes arising out of this Agreement shall be resolved in accordance with the Appeals and Remedies Provisions in Article 9 of the Lake County Purchasing Ordinance.

**SECTION 16. NO IMPLIED WAIVERS**

The failure of either party at any time to require performance by the other party of any provision of this Agreement shall not affect in any way the full right to require such performance at any time thereafter. Nor shall the waiver by either party of a breach of any provision of this Agreement be taken or held to be a waiver of the provision itself.

**SECTION 17. SEVERABILITY**

If any part of this Agreement shall be held to be invalid for any reason, the remainder of this Agreement shall be valid to the fullest extent permitted by law.

**SECTION 18. CHANGE IN STATUS**

The Engineer shall notify the County promptly of any change in its status resulting from any of the following: (a) vendor is acquired by another party; (b) vendor becomes insolvent; (c) vendor, voluntary or by operation law, becomes subject to the provisions of any chapter of the Bankruptcy Act; (d) vendor ceases to conduct its operations in normal course of business. The County shall have the option to terminate this Agreement with the Engineer immediately on written notice based on any such change in status.

**SECTION 19. DELIVERABLES**


The Engineer shall provide deliverables as identified in Attachment A.

IN WITNESS HEREOF, the undersigned have caused this Agreement to be executed in their respective names on the dates hereinafter enumerated.

Lake County:

RHMG Engineers, Inc.:

\_\_\_\_\_  
Ruth Ann Hall  
Purchasing Agent  
Lake County Purchasing Division

  
\_\_\_\_\_  
William R. Rickert, P.E., BCEE, CFM  
President

Date: \_\_\_\_\_

Date: 2/10/2021



## Attachment A

975 Campus Drive, Mundelein, IL 60060  
847.362.5959 | Fax 847.362.0864  
[www.rhmg.com](http://www.rhmg.com)

February 5, 2021

Ms. Ying Miao, P.E.  
Principal Engineer  
Lake County Public Works Department  
650 Winchester Road  
Libertyville, IL 60048

Re: Proposal for Professional Engineering Services  
Vernon Hills Water System Reservoir at Mundelein Decommissioned WRF Site

Dear Ms. Miao:

Pursuant to your request, we are pleased to submit this proposal for professional engineering services associated with the design and bidding of proposed 2.0 million gallon ground storage reservoir and pump station to be constructed within the Vernon Hills Water System.

### Background

The Vernon Hills Water System receives Lake Michigan water from CLCJAWA at two receiving stations. A minimum of two days of water storage at average daily demands is recommended for water systems using a Lake Michigan Water supply. Storage within the system is currently comprised of two elevated tanks and four ground storage tanks with a combined total usable storage volume of 2,991,000 gallons.

Based on recent studies performed by RHMGE, the reservoir and pump station will be located on 5.45 acre property in the Village of Vernon Hills previously used by the Village of Mundelein for wastewater treatment. The old wastewater treatment plant has since been demolished and removed and Lake County will be purchasing the property from Mundelein for the construction of the new water facilities. The parcel is south of the Greggs Landing North subdivision and adjacent to the maintenance facilities for the White Deer Run Golf Club.

The new 2.0 million gallon reservoir will be a circular prestressed concrete tank with a dome roof. The pump station will be a masonry building with a lower level pump room.

With regards to SCADA, as part of the reservoir and pump station project, all instrumentation devices, sensors and I/O connections will be provided and wired to a new SCADA control panel located in the new pump station. The programming necessary to integrate the new reservoir and pump station into the Vernon Hills Water SCADA System will be performed under a separate SCADA upgrade project.

Since construction will take place in the Village of Vernon Hills, the reservoir and pump station will require a special use permit. This will require concept review and technical review submittals plus presentations to the Planning and Zoning Commission and Village Board.



Ms. Ying Miao, P.E.  
Lake County Public Works  
Re: Proposal for Professional Engineering Services  
Vernon Hills Water System Reservoir  
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## Scope of Services

### 1.0 Preliminary Design Phase

- 1.1. **Project Initiation Meeting with LCPWD Staff (Completed)** - This initial task will consist of a meeting of key RHMG team members and LCPWD staff to discuss project requirements, design criteria, and milestone dates for submittals and review meetings.
- 1.2. **Identify Permit Requirements (Completed)** - In this task all permits required for the project will be identified. It is anticipated that the following permits will be required:
  - IEPA Construction Permit - for reservoir and pump station
  - Village of Vernon Hills - Watershed Development Permit, Site Development Permit and Building Permit.
  - Village of Vernon Hills - Special Use Permit
- 1.3. **Perform Topographic Survey** - Under this task, a detailed field survey of the project site will be performed. 1-foot contour map will be created and all topographic features will be located in the field. The topographic features located will include (but not be limited to) driveways, trees, utility poles, signposts, valve boxes, manholes, catch basins, and culverts.
- 1.4. **Geotechnical Investigation (Completed)** - RHMG's subcontractor, Soil and Material Consultants, Inc. has completed the geotechnical investigations at the site. Seven (7) soil borings were performed at the site and the geotechnical report with the foundation design recommendations will be submitted to LCPWD for review.
- 1.5. **Prepare Preliminary Drawings (30%)** - Preliminary drawings will be prepared to include the following:
  - A site plan showing the general arrangement of the reservoir, pump station, interconnecting piping and access drives.
  - A preliminary layout of the booster pump station showing all major pumps, piping, valves and equipment.
  - Preliminary architectural plan and elevations
- 1.6. **Meet with LCPWD Staff** - The preliminary drawings (30%) will be reviewed with LCPWD staff. Comments from the LCPWD will be incorporated into the final design.



Ms. Ying Miao, P.E.  
Lake County Public Works  
Re: Proposal for Professional Engineering Services  
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**1.7. Local Government Use Approval** - It has been agreed by Lake County and Vernon Hills that the entitlement and permitting authority for the project will be delegated to Vernon Hills. Preliminary discussions with the Village have indicated that this task will take 3 to 4 months to complete. RHMG will assist with the following elements of this process:

**1.7.1. Meeting with Village of Vernon Hills Staff (To be completed 2/11/21)** - A meeting will be held with Vernon Hills Staff to brief them on the project and identify submittal procedures and timelines for project approval by the Village.

**1.7.2. Plat of Survey** - A Plat of Survey will be prepared by a licensed surveyor. The survey will include the legal description of the property and will include the necessary easements for ingress/egress, sewers, watermain and utilities.

**1.7.3. Concept Presentation to Village Board** - Make a concept presentation of the Vernon Hills Village Board. This will include presentation of a site plan, the proposed building plans, landscaping plan and color renderings.

**1.7.4. A Special Use Permit** - A Special Use Permit will be required for this project. The project site is Zoned R-1 and public infrastructure facilities are an allowed special use within this district. The special Use Permit Process is detailed on the Village's website, and includes the following major elements:

- Submit Special Use Permit Application
- Staff Review
- Planning & Zoning Commission Hearing/Public Hearing
- Village Board Approval

**1.8. Coordination, Administration & Stakeholders Involvement** - RHMG will provide the required project coordination, administration and stakeholder involvement.

## **2.0 Final Design Phase**

**2.1. Final Design and Prepare Plans** - Final design will be performed and plans prepared for the following elements of the project:

- Civil/Sitework
- Landscaping



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Lake County Public Works  
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- Structural
- Mechanical
- Electrical/Controls
- Architectural

The plans will illustrate all details necessary for permitting, bidding and construction of the project.

- 2.2. Project Specifications** - Technical specifications will be written for all equipment items, materials of construction and workmanship. In addition, the front-end bidding and contract documents will be prepared utilizing the latest version of the EJCDC General Conditions with corresponding special provisions provided by LCPWD.
- 2.3. LCPWD Review** - Sets of design documents, plans and specifications will be submitted to LCPWD for review at the 60% and 90% completion level.
- 2.4. Perform Quality Control Review of Design** - As a final quality control measure, a final in-house review of the complete design will be performed by experienced senior level staff. The final review will address such issues as coordination between plans and specifications, coordination between drawings, design details, and constructability.
- 2.5. Review Design with LCPWD and Finalize Documents** - A formal review meeting will be scheduled with appropriate LCPWD staff members to review and discuss the 90% completion submittal. Review comments from LCPWD will be addressed and incorporated into the final plans and specifications. Deliverables will include:
  - Topographic data
  - Geotechnical engineering report
  - Plat of Survey
  - Digital copy of plans in PDF and CAD formats
  - Three bound copies of plans
  - Three bound copies of specifications
- 2.6. Prepare Opinion of Probable Construction Cost** - After the completion of the final plans and specifications, a final cost estimate will be prepared. This cost estimate will be based on detailed quantity take-offs for all materials and equipment, together with quotes from manufacturers/suppliers and recent project bid prices.





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Lake County Public Works  
Re: Proposal for Professional Engineering Services  
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- 2.7. **Permit Applications** - All necessary forms, schedules, and documentation required to secure the required construction permits or regulatory approvals for the project will be prepared. Requirements of the applicable permitting agencies will be incorporated into the project documents. A construction permit will be required from the Illinois EPA Division of Public Water Supplies. A Watershed Development Permit, Site Development Permit and Building Permit will be required from the Village of Vernon Hills.
- 2.8. **Coordination, Administration and Stakeholder Involvement** - RHMG will provide the required project coordination, administration and stakeholder involvement. Monthly status reports will be submitted to LCPWD on the first Monday of each month.
- 3.0 **Bidding Services**
  - 3.1. **Bidder Inquiries/Addenda** - RHMG will field inquiries from prospective bidders and prepare addenda where required to make any necessary clarifications to the contract plans and specifications. It is assumed that the County Purchasing Department will distribute the bidding documents and addenda to the bidders.
  - 3.2. **Pre-Bid Conference** - It is recommended that a pre-bid conference be conducted at the site in order to give the contractors an opportunity to inspect the site and existing facilities. RHMG will participate in this conference and prepare minutes of the meeting for incorporation into an addendum.
  - 3.3. **Bid Review** - RHMG will assist the County with the review of bids and will provide a bid award recommendation to LCPWD.

**Engineering Fee and Schedule**

RHMG proposes to perform the above services on an hourly rate basis using the rates included in the attached Exhibit A, with a not-to-exceed fee limit of \$224,090. A detailed hour estimate illustrating the basis of the proposed fee limit is included as Exhibit B.

Preliminary Design	\$45,622
Final Design	\$149,152
Bidding	\$18,816
Expenses	
RHMG	\$7,000
Soil Borings	Completed
Landscape Architect	\$3,500
<b>Total</b>	<b>\$224,090</b>



Ms. Ying Miao, P.E.  
Lake County Public Works  
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Exhibit C presents a project schedule for the preliminary design, final design and bidding phases. Based on the allowances for the Village special use permit and permitting, a total duration of ten and a half months is anticipated for these project phases.

We appreciate this opportunity to be of continuing service to the Lake County Public Works Department. If you have any questions or comments, please contact me at our Mundelein office.

Sincerely yours,

RHMG ENGINEERS, INC.

A handwritten signature in black ink, appearing to read "William R. Rickert", with a long horizontal line extending to the right.

William R. Rickert, P.E., BCEE, CFM  
President

Attachments

## Exhibit A

### Billing Rates

<b>Classification</b>	<b>Billing Rate</b>
Senior Principal	\$180.00
Principal/Project Manager	\$157.00
Senior Project Engineer	\$150.00
Senior Designer	\$147.00
Project Engineer	\$122.00
Junior Engineer	\$108.00
Structural Engineer	\$157.00
Architect	\$124.00
Electrical Engineer	\$151.00
Field Engineer	\$128.00
Field Representative	\$108.00
Senior Drafter/Technician	\$96.00
Drafter/Technician	\$90.00
Junior Drafter/Technician	\$71.00
Clerical	\$69.00

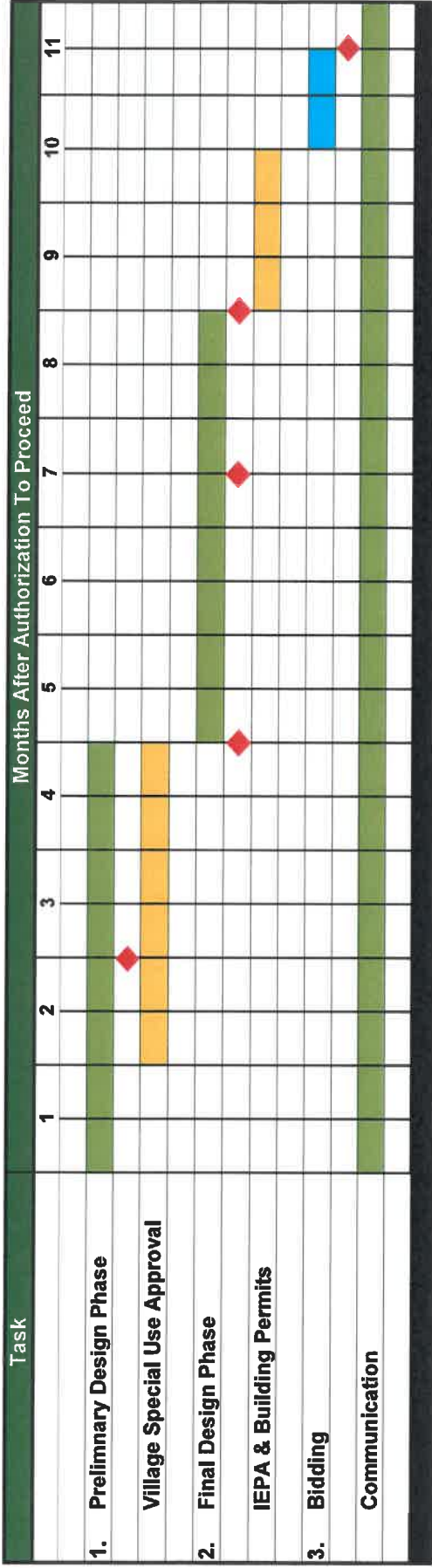


**Exhibit B  
Hour and Fee Estimates  
Lake County Public Works Department  
Vernon Hills Reservoir and Booster Pump Station (Hundelein WWTP Site)**

Preliminary Design Phase	HOURS										Fee per Task		
	Principal/ Proj. Manager	Senior Proj. Engineer	Electrical Engineer	Structural Engineer	Architect	Project Engineer	Mechanical Engineer	Senior Drafter	Surveyor	Clerical		Hours per Task	
1.1 Project Initiation Meeting (Completed)													
1.2 Identify Permit Requirements (Completed)													
1.3 Topographic Survey		2				16						\$ -	
1.4 Geotechnical Investigation Coordination (Completed)								8			26	\$ 3,020	
1.5 Prepare Preliminary Drawings	16	40	8	8	24	16	4	130			248	\$ 28,288	
1.6 Meet with LCPWD Staff	2	2			2						6	\$ 309	
1.7 Local Government Use Approval												\$ -	
1.7.1 Meeting with Vernon Hills (To be Completed 2/11)												\$ -	
1.7.2 Plat of Survey	2				4			12		2	24	\$ 3,080	
1.7.3 Concept Presentation to Village of Vernon Hills Board	4				4			16		4	28	\$ 3,028	
1.7.4 Special Use Permit	8				8					4	20	\$ 2,708	
1.8 Coordination, Project Management & Administration	20										20	\$ 3,600	
<b>Total Hours</b>	<b>52</b>	<b>44</b>	<b>8</b>	<b>8</b>	<b>38</b>	<b>32</b>	<b>4</b>	<b>168</b>	<b>8</b>	<b>10</b>	<b>370</b>		
Billing Rate \$	180.00	150.00	151.00	157.00	124.00	122.00	129.00	96.00	180.00	69.00			
Labor Cost \$	9,360	6,600	1,208	1,256	4,712	3,904	516	15,936	1,440	690		\$ 45,622	
<b>Fee for Preliminary Design Phase \$45,622</b>													
<b>Final Design Phase</b>													
	Principal/ Proj. Manager	Senior Proj. Engineer	Electrical Engineer	Structural Engineer	Architect	Project Engineer	Mechanical Engineer	Senior Drafter	Surveyor	Clerical	Hours per Task	Fee per Task	
2.1 Final Design & Prepare Plans	32	140	60	80	158	80	28	238			816	\$ 104,102	
2.2 Prepare Specifications	8	40	16	16	20	20	8				148	\$ 18,912	
2.3 Review Meeting with LCPWD	4	4			4						12	\$ 1,816	
2.4 In-House QC Review	16										18	\$ 2,060	
2.5 Finalize Plans & Specifications	8	24	6	4	8	8		24		4	88	\$ 11,122	
2.6 Prepare Opinion of Probable Construction Cost	1	6	4	8	8					2	29	\$ 4,232	
2.7 Permitting	2	6									10	\$ 1,388	
2.8 Coordination, Project Management & Administration	20										20	\$ 3,600	
<b>Total Hours</b>	<b>81</b>	<b>222</b>	<b>86</b>	<b>108</b>	<b>188</b>	<b>112</b>	<b>36</b>	<b>262</b>	<b>0</b>	<b>22</b>	<b>1137</b>		
Billing Rate \$	180.00	150.00	151.00	157.00	124.00	122.00	129.00	96.00	180.00	69.00			
Labor Cost \$	16,380	33,300	12,966	16,956	24,552	13,664	4,644	25,152	-	1,518		\$ 149,152	
<b>Fee for Final Design Phase \$149,152</b>													
<b>Bidding Services</b>													
	Principal/ Proj. Manager	Senior Proj. Engineer	Electrical Engineer	Structural Engineer	Architect	Project Engineer	Mechanical Engineer	Senior Drafter	Surveyor	Clerical	Hours per Task	Fee per Task	
3.1 Bidder Inquiries/Attendas	10	32	12	8	16	24	4	6			120	\$ 16,224	
3.2 Pre-Bid Conferences		6				6					12	\$ 1,582	
3.3 Bid Review	2	4									6	\$ 960	
<b>Total Hours</b>	<b>12</b>	<b>42</b>	<b>12</b>	<b>8</b>	<b>16</b>	<b>30</b>	<b>4</b>	<b>6</b>	<b>0</b>	<b>8</b>	<b>138</b>		
Billing Rate \$	180.00	150.00	151.00	157.00	124.00	122.00	129.00	96.00	180.00	69.00			
Labor Cost \$	2,160	6,300	1,812	1,256	1,984	3,660	516	576	-	552		\$ 18,816	
<b>Fee for Loan Application \$18,816</b>													
<b>Direct Expenses</b>													
											<b>Total Labor Fee</b>		\$213,980
<b>RHMG - Reproductions, travel, rental equipment, etc.</b>													
<b>Soil &amp; Material Consultants - Geotechnical Investigations (Completed)</b>													
<b>Landscaping Architect - Pamela Self</b>													
											<b>Total Project Fee Labor and Expenses</b>		\$224,090
													\$ 7,000
													\$ 3,500



**EXHIBIT C**  
**PROJECT SCHEDULE**  
**VERNON HILLS WATER SYSTEM RESERVOIR**  
**LAKE COUNTY PUBLIC WORKS DEPARTMENT**



◆ Indicates Formal Review Session with LCPWD