

AGREEMENT FOR ENGINEERING SERVICES

This AGREEMENT is entered into by and between Lake County (County) and Rezek, Henry Meisenheimer and Gende, Inc., 975 Campus Drive, Mundelein, IL 60060 (hereafter "Engineer").

RECITALS

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

Project Name: Vernon Hills NCT WWTP Improvements 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 135 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 or 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 \$158,278

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: Peter Kolb

County will make Payments to:

Rezek, Henry, Meisenheimer and Gende, 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 19th 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:

REZEK, HENRY MEISENHEIMER and GENDE, Inc.

Gary L. Reis .
Lake County Purchasing Agent
Lake County



William R. Rickert, P.E., DEE
President

Date: _____

Date: 11/4/10



Rezek, Henry, Meisenheimer and Gende, Inc.

CONSULTING ENGINEERS

ATTACHMENT A

November 3, 2010

Mr. Chuck DeGrave, P.E.
Principal Engineer
Lake County Public Works Department
650 Winchester Road
Libertyville, IL 60048



Re: Proposal for Engineering Services
NCT WWTP Improvements

Dear Mr. DeGrave:

Pursuant to your request, we are pleased to submit this proposal to perform professional consulting engineering services relative to improvements at the NCT Wastewater Treatment Plant (WWTP).

Background

The planned diversion of flows from the Diamond Sylvan Lake WWTP to the NCT WWTP will result in the NCT WWTP operating closer to its design capacity. This will require placing certain treatment units that have been out of service into service. In addition, the higher flows will exacerbate deficiencies associated with several treatment units. Consequently, LCPWD wishes to undertake an improvement program in order to address these deficiencies. The desired improvements are summarized as follows:

1. **Building 46 - Sludge Control Building** - Waste activated sludge from the new clarifiers is pumped to Building 46 where the WAS discharge from the old clarifiers discharges into this same pipe. There is one WAS flow meter on this common line. It is desired to separately meter the WAS from the old clarifiers and the new clarifiers by reconfiguring the piping and installing a second flow meter.
2. **Building 55 - Filter Building** - Filters Nos. 3 and 4 were installed in the early 1990's, and are exhibiting severe corrosion on the troughs and trough supports. Therefore, it is now necessary to rehabilitate or replace these filters. The existing filters are traveling bridge type filters. LCPWD would like to investigate the feasibility of replacing these units with disk filters.
3. **Building 62 - Chlorine Contact Tank** - There currently are no permanent drain systems in Contact Tanks No. 1 (West) and No. 2 (East). Therefore, when one of the tanks is out of service, groundwater



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collects and stagnates in the tanks. Tank No. 1 has a sump pump with a temporary discharge hose installed at its north end. It is desired to install sumps, pumps and discharge piping in both tanks to facilitate positive drainage.

4. **Building 76 - Sludge Building** - The basement of this building contains Moyno progressive cavity pumps that are used to transfer digested sludge from the old digesters to the new digesters. There is a maze of piping, most of which is a carry-over from the original plant design/operational mode. These pumps and piping currently serve as a bottleneck for sludge transfer operations. Therefore, it is desired to replace the existing pumps and piping with a new three pump system (one standby) that will be capable of transferring the required sludge volumes when the plant is operating at its design capacity.
5. **Battery 71(B) and 75(A) Digesters** - It is envisioned that periodic cleaning of these aerobic digesters will be accomplished using LCPWD's vector truck. In order to accommodate this operation, new driveways adjacent to the digesters, as well as new access holes in the fiberglass covers will be required at strategic locations. Site plan congestion and the need to protect buried piping are two major constraints that must be considered with respect to locating the new driveways and access holes.
6. **Final Clarifiers Nos. 1 and 2** - These clarifiers are currently out of service. They will need to be put back in service prior to accepting the increased flow from the Diamond Sylvan Lake WWTP. Prior to placing these clarifiers into service, the following deficiencies need to be remedied:
 - a. **Troughs** - The existing troughs are inboard troughs of aluminum construction. The troughs are corroded/pitted in areas. In addition when one of the clarifiers was filled last fall, the trough floated and separated from some of the supports. Therefore, the troughs need to be replaced or repaired and re-anchored. Replacement options to be considered should include fiberglass troughs and outboard concrete troughs.
 - b. The center feed walls are corroded and should be sandblasted and painted.



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- c. The scraper mechanisms should be inspected for possible corrosion and to determine whether sandblasting and painting is required.
 - d. The scum beaches should also be inspected, and the slope of the scum drain lines checked for adequacy.
7. **Plant Water System** - Currently, there are two 150 GPM plant water pumps located in the effluent channel of Filters Nos. 1 and 2. These pumps do not have sufficient capacity to support the operation of three sludge presses along with the other plant water demands. It is desired to install two additional pumps in the effluent channel of Filters Nos. 5 and 6. This will provide the necessary additional capacity, and also provide redundancy in the event that Filters Nos. 1 and 2 have to be taken out of service.
8. **Effluent Flume Grate** - The effluent flume and effluent chamber is an open structure located very close to the plant entrance drive. With the adjacent high school, there is a possibility that curious students could wander to this structure. Installation of a bar rack type grate over the top of the effluent flume and chamber is desirable to preclude a student from accidentally falling into this structure and being carried down the effluent sewer.
9. **Air Line Interconnect** - From an operational flexibility perspective, it is desired to interconnect the air lines from the centrifugal blowers serving the aeration tanks with the positive displacement blowers serving the digesters. The proposed means of accomplishing the interconnect currently involves installing a 16-inch ductile iron pipe between the 24-inch air line at the southwest corner of the Battery "A" Digesters with two 10-inch air lines on the northeast side of the Battery "B" Digesters. A 16-inch butterfly valve in a vault would also be provided on the interconnect.

Scope of Services

Our proposed scope of services for this assignment includes:

1. Preliminary Design

- 1.1. **Review As-Built Drawings** - As part of this initial task, RHMG will review the NCT WWTP As-Built Drawings from both 1989 and 2003



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with respect to the desired improvements. This review will generate a list of questions and items requiring further field clarification.

- 1.2. **Site Visit and Meeting with LCPWD Staff** - This task will involve a site visit and meeting with key LCPWD operations and engineering staff. The purpose of this site visit and meeting will be to obtain answers and field clarification to the questions and items identified in Task No. 1.1.
 - 1.3. **Evaluate Alternatives and Identify Recommended Improvements** - Alternatives will be identified and evaluated, as appropriate, for each of the desired improvements. Descriptions, and where appropriate, preliminary sketches of the recommended improvements will be prepared.
 - 1.4. **Prepare Preliminary Cost Estimates** - Preliminary cost estimates will be prepared for each of the recommended improvements.
 - 1.5. **Present Preliminary Engineering Findings** - The findings, recommendations and estimated costs generated during the preliminary engineering phase will be presented to LCPWD via emails and memos.
 - 1.6. **Review Meeting with LCPWD Staff** - A formal review meeting will be held with appropriate LCPWD staff to review and discuss the findings of the preliminary engineering phase in more detail and to agree on the final project scope.
2. **Final Design Phase**
- 2.1. **Prepare Plans** - Plans illustrating structural details, equipment layouts, piping configurations, electrical and controls modifications, and all details necessary for bidding and construction will be prepared in Microstation CAD format.
 - 2.2. **Write Specifications** - Technical specifications will be written for all equipment items and materials of construction. In addition, the front-end bidding and contract documents will be prepared utilizing LCPWD's latest standard front-end documents.
 - 2.3. **LCPWD Review** - Sets of design documents will be submitted to the LCPWD for review at the 90% completion level.



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- 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, missing details, constructability, and potential for construction claims.
- 2.5. **Discuss 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. A plans-in-hand walk through will also be conducted with LCPWD staff as part of the 90% review meeting. Review comments from the LCPWD will, then be addressed and incorporated into the final plans and 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.
- 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. Followup assistance necessary for the LCPWD to obtain the required permits will also be provided. Permits which may be required include:

Illinois EPA - Depending on the final project scope, a construction permit may be required from the Illinois EPA Division of Water Pollution Control.

Village of Vernon Hills Permit - A Village of Vernon Hills building permit may also be required, but this permit will probably have to be applied for by the Contractor. RHMG will provide coordination as required.

3. Bidding Phase Services

- 3.1. **Bidder Inquiries and Addenda** - RHMG will field inquiries from prospective bidders and prepare addenda where required to make any



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necessary clarifications to the contract plans and specifications. It is assumed that the County Purchasing Department will distribute addenda to the bidders.

- 3.2. **Pre-Bid Meeting** - RHMG will participate in the pre-bid meeting for the project including preparing the meeting agenda, chairing/ conducting the meeting, and preparing minutes of the meeting.

4. **Construction Phase Services**

- 4.1 **Preconstruction Conference** - RHMG will conduct a pre-construction conference with Contractor, LCPWD, utility company representatives, and other applicable parties.
- 4.2 **Shop Drawing Review** - RHMG will review shop drawings, which the Contractor is required to submit, for conformance with the contract documents.
- 4.3 **General Consultation** - RHMG will provide general consultation during construction including addressing requests for information (RFI's), attending meetings as requested, etc.
- 4.5 **Record Drawings** - RHMG will prepare a set of record drawings incorporating those changes made during construction based on marked up prints furnished by the contractor and LCPWD's project inspector. Two electronic copies will be furnished to LCPWD, one in ArcGIS or CAD and the second in PDF format.

Proposed Fees

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 \$158,278. A detailed manpower estimate illustrating the basis of the proposed fee limit is included as Exhibit B.

Schedule

We are prepared to commence work immediately upon receipt of written authorization. Unless we are delayed by circumstances beyond our control, the preliminary design phase will be completed within 45 calendar days and the final design will be completed within 135 calendar days. The bidding phase services will extend from



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the advertisement for bids through the contract award. The construction phase will be completed within 60 days after completion of the construction contract.

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.

Sincerely yours,

REZEK, HENRY, MEISENHEIMER AND GENDE, INC.

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

WRR/amd

Enclosures



EXHIBIT A
BILLING RATES

Classification	Average Hourly Billing Rate
Project Manager	\$155.76
Senior Designer	\$131.16
Senior Project Engineer	\$129.84
Project Engineer	\$93.16
Structural Engineer	\$124.80
Architect	\$106.60
Electrical Engineer	\$108.33
Senior Drafter/Technician	\$86.64
Drafter/Technician	\$81.32
Junior Drafter/Technician	\$58.29
Clerical	\$61.33

