

July 5, 2019

Honorable Raymond Rogina  
Mayor of St. Charles  
City of St. Charles  
2 E. Main Street  
St. Charles, Illinois 60174

Re: West Side WRF Phase III Expansion Project  
Professional Services Agreement

Dear Mayor Rogina:

We sincerely appreciate this opportunity to offer our services. Enclosed for your review is the engineering services agreement for the referenced project. Please contact us if there are any questions or changes to the listed scope of services. If you would like to proceed with the contract, please sign and return one copy of the agreement.

Sincerely,

TROTTER & ASSOCIATES, INC.



Robert Scott Trotter, P.E., BCEE  
President

July 1, 2019

Honorable Raymond Rogina  
Mayor of St. Charles  
City of St. Charles  
2 E. Main Street  
St. Charles, Illinois 60174

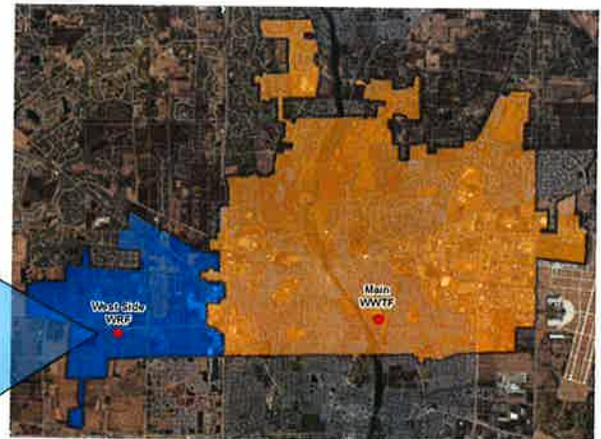
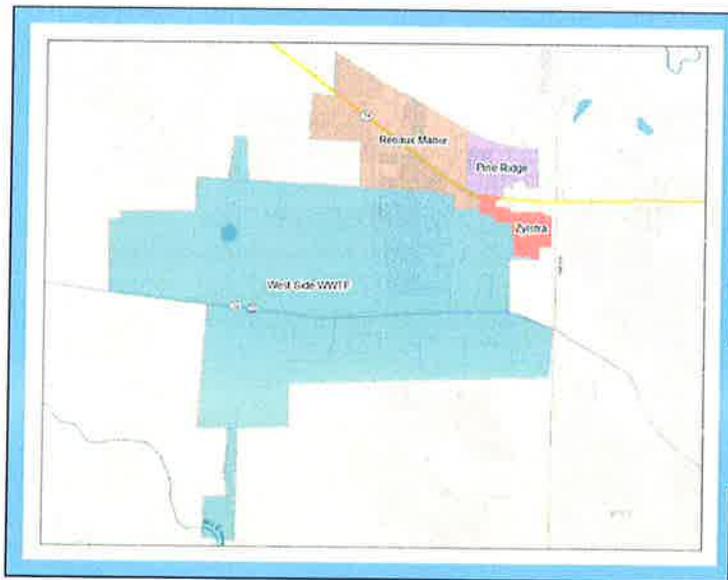
**Re: West Side WRF Phase III Expansion Project**  
Professional Services Letter Agreement and Exhibits

Dear Mayor Rogina,

Trotter and Associates, Inc. (ENGINEER) is pleased to provide professional services to the City of St. Charles, IL (CLIENT) for the West Side Water Reclamation Facility Phase III Expansion Project (hereinafter referred to as the "PROJECT").

### Project Background

In 1989, the City of St. Charles was approached by property owners west of Randall Road requesting annexation and sanitary sewer service. In response, the City investigated several alternatives including the acquisition of the Department of Corrections wastewater treatment facility, which served the Illinois Youth Center and the Illinois Department of Transportation's garage. The treatment facility included a 0.35 MGD Walker-Process package plant (aeration, reaeration, aerobic digestion, and clarifier), a small polishing pond and sludge drying beds. The effluent from the existing plant was tributary to a field tile which daylighted at Mill Creek.



## Project Understanding

The 2015 Facility Plan developed a project scope for the Phase III expansion. At that time, the project included the addition of one raw sewage pump, upgrade of the biological process for expansion and removal of TN and TP, construction of an additional tertiary clarifier or construction of tertiary filters, upgrade of the aerobic digestion process, and the addition of onsite sludge dewatering and 150 days ultimate sludge storage capacity. The estimate for this from the 2008 Facility Plan is shown to the right. Since 2015, the scope has evolved due to the age of the equipment (originally installed in 2000) and changes in operational theory and preferences.

The City has replaced two of the original Wemco 2-speed pre-rotation raw sewage pumps. The City installed two Meyers pumps and replaced the 2-speed starters with variable frequency drives. The Meyers pumps do not have suction bells and therefore are not able to effectively utilize the pre-rotation basins. During discussions, the City noted that it did not have confidence in use of the pre-rotation basins to clean the wet well due to periodic slugs of ragging material which exceeded the pumps capacity. The latest thought process is that the remaining Wemco pump will be replaced, and that the open position will be utilized by a fourth Meyers pump as part of the Phase III project. The two new pumps would be equipped with new variable frequency drives. Consideration of a raw sewage grinder upstream of this pump station will also be considered during design.

The preliminary treatment screening structure was originally designed to handle 6 MGD, which equates to the peak hourly flow expected through Phase IV (1.4 MGD). The 2015 Facility Plan anticipated the installation of a new, identical 6 MGD screen in the bypass channel. However, the existing screen has reached the end of its service life and will require placement during the project as well. Fortunately, the previous design allows for this replacement to occur with minimal interruption.

<b>GENERAL CONDITIONS</b>	<b>\$682,000</b>
<b>SITWORK</b>	<b>\$642,100</b>
<b>RAW SEWAGE PUMP STATION</b>	<b>\$55,000</b>
<b>HEADWORKS</b>	<b>\$151,000</b>
<b>BIOLOGICAL PROCESS</b>	<b>\$1,758,437</b>
<b>TERTIARY FILTERS/ CHEM FEED</b>	<b>\$2,495,570</b>
<b>RAS PUMP STATION</b>	<b>\$76,000</b>
<b>AEROBIC DIGESTION</b>	<b>\$170,800</b>
<b>SLUDGE HANDLING BUILDING</b>	<b>\$1,415,655</b>
<b>SLUDGE STORAGE BARN</b>	<b>\$989,453</b>
<b>SUBTOTAL CONSTRUCTION</b>	<b>\$8,436,015</b>
<b>CONTINGENCY 20%</b>	<b>\$1,687,203</b>
<b>CONSTRUCTION TOTAL</b>	<b>\$10,123,218</b>
<b>ENGINEERING 14%</b>	<b>\$1,417,251</b>
<b>PROJECT TOTAL</b>	<b>\$11,540,469</b>



City has requested replacement of this system, which was not part of the improvements proposed in the previous Facility Plan.

The Phase II design incorporated chambers to receive RAS from four tertiary clarifiers and a common wet well with pre-rotation basins. Originally Phase III only contemplated improvements for installation of the third RAS pump. Based on our walkthrough and the age of the original equipment, the existing RAS pumps also will require replacement.

The aerobic digestion facility capacity as improved in Phase II has sufficient capacity through Phase IV design flow of 1.4 MGD. The Facility Plan contemplated replacing the blowers and electrical switchgear. However, by the time this project is completed the existing mechanism will be over 20 years old, as well as the pumping system. In addition, the existing building is in poor shape and the drywell may not be compliant with current safety requirements. During conceptual design, the City will consider rehabilitation of this building, or even construction of new facilities to meet the City's long-term objectives.



The 2015 Facility Plan identified the need to provide sludge dewatering and dewatered sludge storage onsite. The original estimate included a simple Sludge Dewatering Building to house sludge dewatering, sludge feed, polymer feed, sludge conveyors, a digested sludge storage tank, and an NPW system. It was anticipated that the proposed Sludge Storage Barn would be constructed immediately adjacent to the Sludge Dewatering Building and that sludge would be conveyed directly to the barn. The estimate for the Barn is based on a pre-engineered building with push walls and an asphalt base. The barn will be used to service both the West Side WRF and the Main WWTF. The City has also expressed interest in including restrooms, future chemical storage and feed systems, and an operations room. The building layout and location will be determined during conceptual design. The City has also incorporated extension of the watermain through the project site and further west through Tri-Com, the shooting range, and the air field.



This project will be funded through IEPA low interest loan program. The 2015 Facility Plan will be updated to include the additional items that have been identified by the City. TAI has prepared this proposal assuming the scope of work is to expand plant capacity to 1.05 MGD. If the City elects to increase the plant capacity to 1.4 MGD, this will require a more extensive antidegradation analysis to address environmental impacts and may be best handled in a phased approach, a revised schedule and an addendum to this agreement.

The IEPA issued the NPDES permit for the expanded plant (1.05 MGD) in 2017. The new permit includes special conditions. The proposed TP effluent limit is 1.0 mg/L and is expected to be reduced to 0.5 mg/L

## Scope of Services

Our services will consist of customary civil engineering and surveying services and related engineering services incidental thereto, described as follows;

### General Tasks

1. Schedule and facilitate a project Kick off Meeting with City staff.
  2. Evaluate and determine the project schedule to meet required EPA timeframe.
  3. Schedule and facilitate a minimum of ten meetings over the proposed design schedule.
  4. Schedule site visits to City facilities.
  5. Review existing City documentation that may be appropriate to project.
  6. Provide monthly status reports on; project progress, tasks accomplished in previous month, action items for upcoming month and project budget.
  7. Provide a Phosphorus Removal Feasibility Study for the WSWRF showing reducing total phosphorus loading to attain an Annual Average Limit of 1.0, 0.5, 0.1 mg/L by October 1, 2019. Prepare and submit a Phosphorus Discharge Optimization Plan for the WSWRF by October 1, 2019.
  8. Provide a Phosphorus Removal Feasibility Study for the MWWTF showing reducing total phosphorus loading to attain an Annual Average Limit of 0.1 mg/L by October 1, 2019. Prepare and submit a Phosphorus Discharge Optimization Plan for the MWWTF by October 1, 2019.
  9. Prepare and submit an Arc Flash study for the existing WSWRF.
  10. Submit draft versions of design at 60%, 95% and final completion.
1. Preliminary Engineering Report
    - a. Prepare a preliminary engineering report including conceptual design calculations consistent with the Illinois EPA Facilities Planning Submittal Checklist for use in Evaluation for Low Interest Loan Funding.
    - b. Conduct a minimum of five meetings with staff (and vendors) to review design and equipment selection
    - c. Conduct site visits as needed for conceptual layouts of facilities with the selected technology.
    - d. Develop conceptual site plan with layout of proposed structures, traffic routing, conceptual piping, and sequence of construction to keep existing system in operation during construction
    - e. Based on the conceptual design, prepare conceptual cost estimate for the proposed improvements.
    - f. Update 2015 Facility Plan to incorporate changes identified from conceptual design including design calcs, cost estimate, etc. and submit to the Illinois EPA
  2. Preparation of IEPA Low Interest Loan Application
    - a. Prepare and Submit Low Interest Loan Pre-Application.
    - b. Develop and submit planning documents as required by the IEPA.
    - c. Complete necessary documents for the IEPA for City's approval and signatures.
    - d. Act as liaison between the IEPA Project Manager and the City to address the IEPA Low Interest Loan package, review comments and correspondence.
    - e. Work with the City to develop the required ordinances/resolutions required for the Low Interest Loan.
    - f. Incorporate IEPA required contract documents into the project specifications.

furnished and performed by the Contractor for the proposed modifications to the existing aeration system and layout. Include the following but is not limited to these drawings.

- i. General Construction Details and Notes
  - ii. Site Civil Drawings showing roadway, storm water management, process piping, underground utilities & site restoration
  - iii. Demolition drawings if needed including plans, sections, details and schedules detailing existing structures and utilities to be removed
  - iv. Architectural drawings including floor plans, roof plans, elevation views, sections, details and schedules for any proposed structures.
  - v. Structural drawings including plans, sections, details and schedules for construction of the foundations and slabs
  - vi. Process drawings including the plans, sections, details and schedules for equipment and process piping
  - vii. Electrical Drawings depicting lighting, controls and power distribution plans, elevations, and schedules
  - viii. Instrumentation drawings depicting the scope and extent of the proposed control system.
  - ix. Project specifications in accordance with the 32/64 Division CSI Format or recommended alternative.
  - x. Develop other documents necessary to bid the project.
- b. Submit final engineering plans and specifications to Illinois EPA for construct and operate permit.
  - c. Prepare an updated opinion of probable cost, based on the Final Engineering Plans.
  - d. Provide 95% complete plans to the City, City's SCADA coordinator and effected agencies for review and approval.
  - e. Make revisions to the plans to incorporate changes required by reviewing agencies.
  - f. Acquire permits through all pertinent jurisdictional agencies.
  - g. Complete 100% drawings to satisfaction of appropriate permitting bodies.
6. Bidding and Negotiating Phase
- a. Assist City in advertising for and obtaining bids or negotiating proposals for the Work.
  - b. Issue Addenda as appropriate to clarify, correct, or change the Bidding Documents.
  - c. Attend the Bid opening, prepare Bid tabulation sheets, and assist the City of St. Charles in evaluating Bids or proposals and in assembling and awarding contracts work.
  - d. Participate in any negotiations or clarification discussion.
  - e. Furnish and supply drawings and project specification copies as required.
7. Construction Phase – 18 months from Notice of Award through Final Completion
- a. Consult with the City and act as the City's representative during execution of construction.
  - b. Provide full-time field engineering services (resident project representative) during the duration of construction activities. RPR services are anticipated to be full-time (40 hours per week) for 16 months, and part time (20 hours per week) for two months. If additional field services are required and authorized by the City Administration, Trotter and Associates shall be compensated for the additional services.

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**Compensation**

A fixed fee amount of \$2,563,800.00 based on the following assumed distribution of compensation:

Design Engineering Phase	
General Tasks	\$187,200
Preliminary Report	\$96,400
IEPA Loan	\$16,500
Preliminary Design Phase	\$128,700
Design Development Phase	\$382,000
Final Design Phase	\$409,500
Design Addendum	\$75,000
<u>Reimbursable Expenses</u>	<u>\$8,500</u>
Design Engineering Subtotal	\$1,303,800
Bidding and Negotiating Phase	\$35,500
Construction Phase	\$1,120,000
Contractor's Completion Documents	\$93,000
<u>Reimbursable Expenses</u>	<u>\$11,500</u>
Construction Engineering Subtotal	\$1,260,000

**Not to Exceed Grand Total: \$2,563,800**

ENGINEER may alter the distribution of compensation between individual phases of the work noted herein to be consistent with services actually rendered, but shall not exceed the total estimated compensation amount unless approved in writing by CLIENT. The total estimated compensation for ENGINEER's services included in the breakdown by phases incorporates all labor, overhead, profit, and ENGINEER's Consultant's charges.

The amounts billed for ENGINEER's services will be based on the cumulative hours charged to the PROJECT during the billing period by each class of ENGINEER's employees times Standard Hourly Rates for each applicable billing class, plus Reimbursable Expenses and ENGINEER's Consultant's charges. The Standard Hourly Rates and Reimbursable Expenses Schedule will be adjusted annually as of January 1<sup>st</sup> to reflect equitable changes in the compensation payable to ENGINEER.

*Design Addendum.* ENGINEER has incorporated a portion of this proposal that will only be billable if approved in writing at the discretion of the CLIENT.

*Subconsultants.* ENGINEER has incorporated subconsulting services for Architectural, Structural, Mechanical, and Fire Protection engineering services into the proposal as a pass-through without mark-up.

*Reimbursable Expenses.* Engineer has incorporated \$20,000 for Reimbursable Expenses, including printing, plotting and shipping required for the completion of the work. Actual expenses will be compensated for based on actual cost as a pass-through without mark-up.

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**Contents of Agreement**

This Letter Agreement and the Exhibits attached hereto and incorporated herein, represent the entire understanding with respect to the Project and may only be modified in writing signed by both parties.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

CLIENT:

Trotter and Associates, Inc.:

\_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

By: ROBERT SCOTT TROTTER

Title: \_\_\_\_\_

Title: PRESIDENT

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

Date Signed: 7-5-19

Address for giving notices:

Address for giving notices:

Designated Representative

Designated Representative

Title:

Title: Project Manager

Phone Number:

Phone Number: 630-587-0470

Facsimile Number:

Facsimile Number: 630-587-0475

E-Mail Address:

E-Mail Address: j.ruth@trotter-inc.com

**ATTACHMENTS:**

EXHIBIT A – STANDARD TERMS AND CONDITIONS

EXHIBIT B – SCHEDULE OF HOURLY RATES AND REIMBURSIBLE EXPENSES

EXHIBIT C – SUPPLEMENTAL GENERAL CONDITIONS

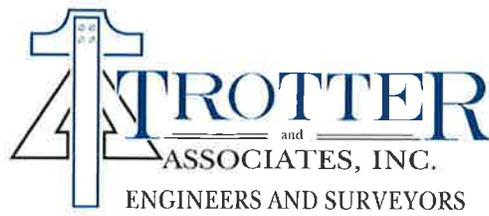
EXHIBIT D – CONTRACT ADDENDUM

EXHIBIT E – UPDATED FACILITY PLAN COST ESTIMATE

EXHIBIT F – MANHOUR ESTIMATE

CLIENT Initial \_\_\_\_\_

TAI Initial \_\_\_\_\_



## EXHIBIT A - STANDARD TERMS AND CONDITIONS

### Table of Contents

ARTICLE 1 - SERVICES OF ENGINEER	1
1.01 Scope	1
ARTICLE 2 - CLIENT'S RESPONSIBILITIES	1
2.01 General	1
ARTICLE 3 - TIMES FOR RENDERING SERVICES	16
3.01 General	16
3.02 Suspension	16
ARTICLE 4 - PAYMENTS TO ENGINEER	17
4.01 Methods of Payment for Services and Reimbursable Expenses of ENGINEER	17
4.02 Other Provisions Concerning Payments	17
ARTICLE 5 - OPINIONS OF COST	17
5.01 Opinions of Probable Construction Cost	17
5.02 Designing to Construction Cost Limit	17
5.03 Opinions of Total Project Costs	17
ARTICLE 6 - GENERAL CONSIDERATIONS	17
6.01 Standards of Performance	17
6.02 Authorized Project Representatives	18
6.03 Design without Construction Phase Services	18
6.04 Use of Documents	18
6.05 Insurance	19
6.06 Termination	20
6.07 Controlling Law	20
6.08 Successors, Assigns, and Beneficiaries	20
6.09 Dispute Resolution	20
6.10 Hazardous Environmental Condition	20
6.11 Allocation of Risks	21
6.12 Notices	21
6.13 Survival	21
6.14 Severability	21
6.15 Waiver	21
6.16 Headings	21
6.16 Definitions	21

### ARTICLE 1 - SERVICES OF ENGINEER

#### 1.01 Scope

- A. ENGINEER shall provide the Professional Services set forth herein and in the Letter Agreement.

- B. Upon this Agreement becoming effective, ENGINEER is authorized to begin Services.

### ARTICLE 2 - CLIENT'S RESPONSIBILITIES

#### 2.01 General

- A. Provide ENGINEER with all criteria and full information as to CLIENT's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility, and expandability, and any budgetary limitations; and furnish copies of all design and construction standards which CLIENT will require to be included in the Drawings and Specifications; and furnish copies of CLIENT's standard forms, conditions, and related documents for ENGINEER to include in the Bidding Documents, when applicable.
- B. Furnish to ENGINEER any other available information pertinent to the Project including reports and data relative to previous designs, or investigation at or adjacent to the Site.
- C. Following ENGINEER's assessment of initially-available Project information and data and upon ENGINEER's request, furnish or otherwise make available such additional Project related information and data as is reasonably required to enable ENGINEER to complete its Basic and Additional Services. Such additional information or data would generally include the following:
1. Property descriptions.
  2. Zoning, deed, and other land use restrictions.
  3. Property, boundary, easement, right-of-way, and other special surveys or data, including establishing relevant reference points.
  4. Explorations and tests of subsurface conditions at or contiguous to the Site, drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site, or hydrographic surveys, with appropriate professional interpretation thereof.
  5. Environmental assessments, audits, investigations and impact statements, and other relevant environmental or cultural studies as to the Project, the Site, and adjacent areas.
  6. Data or consultations as required for the Project but not otherwise identified in the Agreement or the Exhibits thereto.
- D. Give prompt written notice to ENGINEER whenever CLIENT observes or otherwise becomes aware of a Hazardous Environmental Condition or of any other development that affects the scope or time of performance of ENGINEER's services, or any defect or nonconformance in ENGINEER's services or in the work of any Contractor.
- E. Authorize ENGINEER to provide Additional Services as set forth in Exhibit D - Addendum of the Agreement as required.

things, such delay or suspension and reactivation and the fact that the time for performance under this Agreement has been revised.

#### ARTICLE 4 - PAYMENTS TO ENGINEER

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##### 4.01 Methods of Payment for Services and Reimbursable Expenses of ENGINEER

- A. *For Basic Services.* CLIENT shall pay ENGINEER for Basic Services performed or furnished under as outlined in the Letter Agreement
- B. *For Additional Services.* CLIENT shall pay ENGINEER for Additional Services performed or furnished as outlined in Exhibit D.
- C. *For Reimbursable Expenses.* CLIENT shall pay ENGINEER for Reimbursable Expenses incurred by ENGINEER and ENGINEER's Consultants as set forth in Exhibit B.

##### 4.02 Other Provisions Concerning Payments

- A. *Preparation of Invoices.* Invoices will be prepared in accordance with ENGINEER's standard invoicing practices and will be submitted to CLIENT by ENGINEER, unless otherwise agreed.
- B. *Payment of Invoices.* Invoices are due and payable within 30 days of receipt. If CLIENT fails to make any payment due ENGINEER for services and expenses within 30 days after receipt of ENGINEER's invoice therefor, the amounts due ENGINEER will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day. In addition, ENGINEER may, after giving seven days written notice to CLIENT, suspend services under this Agreement until ENGINEER has been paid in full all amounts due for services, expenses, and other related charges. Payments will be credited first to interest and then to principal.
- C. *Disputed Invoices.* In the event of a disputed or contested invoice, only that portion so contested may be withheld from payment, and the undisputed portion will be paid.
- D. *Payments Upon Termination.*
  - 1. In the event of any termination under paragraph 6.06, ENGINEER will be entitled to invoice CLIENT and will be paid in accordance with Exhibit B for all services performed or furnished and all Reimbursable Expenses incurred through the effective date of termination.
  - 2. In the event of termination by CLIENT for convenience or by ENGINEER for cause, ENGINEER, in addition to invoicing for those items identified in subparagraph 4.02.D.1, shall be entitled to invoice CLIENT and shall be paid a reasonable amount for services and expenses directly attributable to termination, both before and after the effective date of termination, such as reassignment of personnel, costs of terminating contracts with ENGINEER's Consultants, and other related close-out costs, using methods and rates for Additional Services as set forth in Exhibit B.
- E. *Records of ENGINEER's Costs.* Records of ENGINEER's costs pertinent to ENGINEER's compensation under this Agreement shall be kept in accordance with generally accepted accounting

practices. To the extent necessary to verify ENGINEER's charges and upon CLIENT's timely request, copies of such records will be made available to CLIENT at cost.

- F. *Legislative Actions.* In the event of legislative actions after the Effective Date of the Agreement by any level of government that impose taxes, fees, or costs on ENGINEER's services or other costs in connection with this Project or compensation therefore, such new taxes, fees, or costs shall be invoiced to and paid by CLIENT as a Reimbursable Expense to which a Factor of 1.0 shall be applied. Should such taxes, fees, or costs be imposed, they shall be in addition to ENGINEER's estimated total compensation.

#### ARTICLE 5 - OPINIONS OF COST

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##### 5.01 Opinions of Probable Construction Cost

- A. ENGINEER's opinions of probable Construction Cost provided for herein are to be made on the basis of ENGINEER's experience and qualifications and represent ENGINEER's best judgment as an experienced and qualified professional generally familiar with the industry. However, since ENGINEER has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, ENGINEER cannot and does not guarantee that proposals, bids, or actual Construction Cost will not vary from opinions of probable Construction Cost prepared by ENGINEER. If CLIENT wishes greater assurance as to probable Construction Cost, CLIENT shall employ an independent cost estimator.

##### 5.02 Designing to Construction Cost Limit

- A. If a Construction Cost limit is established between CLIENT and ENGINEER, such Construction Cost limit and a statement of ENGINEER's rights and responsibilities with respect thereto will be specifically set forth in Exhibit C - Supplemental General Conditions.

##### 5.03 Opinions of Total Project Costs

- A. ENGINEER assumes no responsibility for the accuracy of opinions of Total Project Costs.

#### ARTICLE 6 - GENERAL CONSIDERATIONS

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##### 6.01 Standards of Performance

- A. The standard of care for all professional engineering and related services performed or furnished by ENGINEER under this Agreement will be the care and skill ordinarily used by members of ENGINEER's profession practicing under similar circumstances at the same time and in the same locality. ENGINEER makes no warranties, express or implied, under this Agreement or otherwise, in connection with ENGINEER's services.
- B. ENGINEER shall be responsible for the technical accuracy of its services and documents resulting therefrom, and CLIENT shall not be responsible for discovering deficiencies therein. ENGINEER shall correct such deficiencies without additional compensation except to the extent such action is directly attributable to deficiencies in CLIENT-furnished information.

after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files. ENGINEER shall not be responsible to maintain documents stored in electronic media format after acceptance by CLIENT.

- E. When transferring documents in electronic media format, ENGINEER makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by ENGINEER at the beginning of this Project.
- F. CLIENT may make and retain copies of Documents for information and reference in connection with use on the Project by CLIENT. Such Documents are not intended or represented to be suitable for reuse by CLIENT or others on extensions of the Project or on any other project. Any such reuse or modification without written verification or adaptation by ENGINEER, as appropriate for the specific purpose intended, will be at CLIENT's sole risk and without liability or legal exposure to ENGINEER or to ENGINEER's Consultants. CLIENT shall indemnify and hold harmless ENGINEER and ENGINEER's Consultants from all claims, damages, losses, and expenses, including attorneys' fees arising out of or resulting therefrom.
- G. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- H. Any verification or adaptation of the Documents for extensions of the Project or for any other project will entitle ENGINEER to further compensation at rates as defined in Exhibit B.

#### 6.05 Insurance

- A. ENGINEER shall procure and maintain insurance as set forth below:
  - 1. Workers Compensation & Employer's Liability
    - a. Each Occurrence: \$1,000,000
  - 2. General Liability
    - a. Each Occurrence: \$1,000,000
    - b. General Aggregate: \$2,000,000
  - 3. Excess or Umbrella Liability
    - a. Each Occurrence: \$5,000,000
    - b. General Aggregate: \$5,000,000
  - 4. Automobile Liability
    - a. Combined Single Limit (Bodily Injury and Property Damage):  
Each Accident \$1,000,000
  - 5. Professional Liability
    - a. Each Occurrence: \$2,000,000
    - b. General Aggregate: \$2,000,000
- B. CLIENT shall cause ENGINEER and ENGINEER's Consultants to be listed as additional insureds on any general liability or property insurance policies carried by CLIENT which are applicable to the Project.
- C. CLIENT shall require Contractor to purchase and maintain general liability and other insurance as specified in the Contract Documents and to cause ENGINEER and ENGINEER's Consultants to be listed as additional insureds with respect to such liability and other insurance purchased and maintained by Contractor for the Project
- D. CLIENT and ENGINEER shall each deliver to the other certificates of insurance evidencing the coverage.
- E. All policies of property insurance shall contain provisions to the effect that ENGINEER's and ENGINEER's Consultants' interests are covered and that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder.
- F. At any time, CLIENT may request that ENGINEER, at CLIENT's sole expense, provide additional insurance coverage, increased limits, or revised deductibles that are more protective. If so requested by CLIENT, with the concurrence of ENGINEER, and if commercially available, ENGINEER shall obtain and shall require ENGINEER's Consultants to obtain such additional insurance coverage, different limits, or revised deductibles for such periods of time as requested by CLIENT.

- E. CLIENT acknowledges that ENGINEER is performing professional services for CLIENT and that ENGINEER is not and shall not be required to become an "arranger," "operator," "generator," or "transporter" of hazardous substances, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1990 (CERCLA), which are or may be encountered at or near the Site in connection with ENGINEER's activities under this Agreement.
- F. If ENGINEER's services under this Agreement cannot be performed because of a Hazardous Environmental Condition, the existence of the condition shall justify ENGINEER's terminating this Agreement for cause on 30 days notice.

#### 6.11 Allocation of Risks

##### A. Indemnification

1. To the fullest extent permitted by law, ENGINEER shall indemnify and hold harmless CLIENT, CLIENT's officers, directors, partners, and employees from and against any and all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused solely by the negligent acts or omissions of ENGINEER or ENGINEER's officers, directors, partners, employees, and ENGINEER's Consultants in the performance and furnishing of ENGINEER's services under this Agreement.
2. To the fullest extent permitted by law, CLIENT shall indemnify and hold harmless ENGINEER, ENGINEER's officers, directors, partners, employees, and ENGINEER's Consultants from and against any and all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused solely by the negligent acts or omissions of CLIENT or CLIENT's officers, directors, partners, employees, and CLIENT's consultants with respect to this Agreement or the Project.
3. To the fullest extent permitted by law, ENGINEER's total liability to CLIENT and anyone claiming by, through, or under CLIENT for any cost, loss, or damages caused in part by the negligence of ENGINEER and in part by the negligence of CLIENT or any other negligent entity or individual, shall not exceed the percentage share that ENGINEER's negligence bears to the total negligence of CLIENT, ENGINEER, and all other negligent entities and individuals.
4. In addition to the indemnity provided under paragraph 6.11.A.2 of this Agreement, and to the fullest extent permitted by law, CLIENT shall indemnify and hold harmless ENGINEER and its officers, directors, partners, employees, and ENGINEER's Consultants from and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused by, arising out of or resulting from a Hazardous Environmental Condition, provided that (i) any such cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than completed Work), including the loss of use resulting therefrom, and (ii) nothing in this paragraph 6.11.A.4. shall

obligate CLIENT to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence or willful misconduct.

5. The indemnification provision of paragraph 6.11.A.1 is subject to and limited by the provisions agreed to by CLIENT and ENGINEER in Exhibit C, "Supplemental Conditions," if any.

#### 6.12 Notices

- A. Any notice required under this Agreement will be in writing, addressed to the appropriate party at its address on the signature page and given personally, or by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.

#### 6.13 Survival

- A. All express representations, indemnifications, or limitations of liability included in this Agreement will survive its completion or termination for any reason.

#### 6.14 Severability

- A. Any provision or part of the Agreement held to be void or unenforceable under any Laws or Regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon CLIENT and ENGINEER, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

#### 6.15 Waiver

- A. Non-enforcement of any provision by either party shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.

#### 6.16 Headings

- A. The headings used in this Agreement are for general reference only and do not have special significance.

#### 6.16 Definitions

- A. Defined terms will be in accordance with EJCDC No. 1910-1 (1996 Edition)

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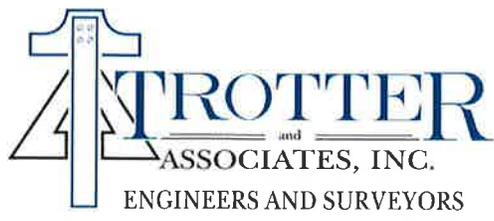
Item No.	Description	Quantity	Unit	Unit Price	Extension	Ad'd'l Scope Extension
<b>TERTIARY FILTERS/ CHEM FEED (continued)</b>						
	Electrical				\$0	
	Power Distribution Sections	6	Lump Sum	\$12,000.00	\$72,000	
	Auto Valves	32	Lump Sum	\$1,000.00	\$32,000	
	Blowers	2	Lump Sum	\$1,200.00	\$2,400	
	Compressor	1	Lump Sum	\$1,000.00	\$1,000	
	Lighting	16	Each	\$500.00	\$8,000	
	Instrumentation & Control				\$0	
	PLC & Programming	1	Lump Sum	\$40,000.00	\$40,000	
<b>FILTERS/ CHEM FEED/ RE-AERATION</b>					<b>\$2,495,570</b>	<b>\$0</b>
<b>UV DISINFECTION</b>						
	Demo UV Equipment	1	Lump Sum	\$12,000		\$12,000
	UV Equipment	1	Lump Sum	\$250,000		\$250,000
	Installation	1	Lump Sum	\$40,000		\$40,000
	Electrical (Equipment and Labor)	1	Lot	\$20,000		\$20,000
	NPW System	1	Lump Sum	\$40,000		\$40,000
	NPW Installation	1	Lump Sum	\$10,000		\$10,000
	NPW Filtration System (Location TBD)	1	Lump Sum	\$55,000		\$55,000
	Hydropneumatic Tank (Location TBD)	1	Lump Sum	\$15,000		\$15,000
	New Enclosure	1	Lump Sum	\$180,000		\$180,000
<b>UV DISINFECTION</b>					<b>\$0</b>	<b>\$622,000</b>
<b>RAS PUMP STATION</b>						
	Immersible Pumps	0			\$0	
	Electrical	1.00	Lump Sum	\$28,000.00	\$56,000	
	PLC & Programming	1	Lump Sum	\$15,000.00	\$15,000	
				\$5,000.00	\$5,000	
<b>RAS PUMP STATION</b>					<b>\$76,000</b>	<b>\$0</b>
<b>AEROBIC DIGESTION</b>						
	8" Air Piping	160	Lin. Ft.	\$180	\$28,800.00	
	8" Butterfly Valves	4	Each	\$500	\$2,000.00	
	PD Blowers	3	Each	\$28,000	\$84,000.00	
	Install PD Blowers	3	Each	\$12,000	\$36,000.00	
	Electrical (Equipment and Labor)	1	Lot	\$20,000	\$20,000.00	
	Recycle Pumps	2	Each	\$15,000		\$30,000.00
	Building Rehab	1	Lump Sum	\$100,000.00		\$100,000
<b>AEROBIC DIGESTION</b>					<b>\$170,800</b>	<b>\$130,000</b>
<b>SLUDGE HANDLING BUILDING</b>						
	Excavation	978	Cu. Yds.	\$16.00	\$15,644	
	Holding Tank Concrete Walls	154	Cu. Yds.	\$625.00	\$96,296	
	Holding Tank Concrete Slabs	80	Cu. Yds	\$525.00	\$42,000	
	Concrete Walls	60	Cu. Yds.	\$625.00	\$37,778	
	Concrete Slabs	222	Cu. Yds	\$525.00	\$116,667	
	Pre-Cast Slabs	74	Cu. Yds.	\$400.00	\$29,630	
	Architectural					
	Brick/ Block	3,264.00	Sq. Ft.	\$20.00	\$65,280	
	Interior Block	1,440.00	Sq. Ft	\$16.00	\$23,040	
	Manufactured Stone	100.00	Sq. Ft.	\$30.00	\$3,000	
	Louvers	300.00	Sq. Ft.	\$50.00	\$15,000	
	Doors Roll	1	Each	\$12,000.00	\$12,000	
	Exterior Double Door	1.00	Each	\$6,000.00	\$6,000	
	Exterior Aluminum Doors	1.00	Each	\$3,000.00	\$3,000	
	Interior Single Door	3.00	Each	\$3,000.00	\$9,000	
	Lintels & Sills	200.00	Lin. Ft.	\$20.00	\$4,000	
	Liquid Water Repellent	3,264.00	Sq. Ft.	\$1.25	\$4,080	
	Under Slab Vapor Barrier	2,000.00	Sq. Ft.	\$0.22	\$440	
	Aluminum Facia	3,240.00	Lin. Ft.	\$5.00	\$16,200	

Item No.	Description	Quantity	Unit	Unit Price	Extension	Add'l Scope Extension
<b>BIOLOGICAL PROCESS (continued)</b>						
	2nd Stage Aerobic Basins				\$0	
	8" Exterior Header	24	Lin. Ft.	\$180.00	\$4,320	
	8" Butterfly Aeration System	2	Each	\$1,250.00	\$2,500	
	Aeration Installation	3	Lump Sum	\$7,500.00	\$22,500	
	Mud Valves	3	Lump Sum	\$7,500.00	\$22,500	
	8" Drain Line	1	Each	\$1,250.00	\$1,250	
	D.O. Probes	8	Lin. Ft.	\$80.00	\$640	
	Electrical	3	Each	\$3,500.00	\$10,500	
	Centrifugal Blowers	2	Each	\$1,700.00	\$3,400	
	PD Blowers	3	Each	\$4,500.00	\$13,500	
	Mixers	9	Each	\$6,500.00	\$58,500	
	Recycle Pumps	3	Each	\$6,500.00	\$19,500	
	MCC Sections	6	Each	\$12,000.00	\$72,000	
	Conduit & Wire	2000	Each	\$30.00	\$60,000	
	Instrumentation & Control	0			\$0	
	D.O. Probes	12	Each	\$3,000.00	\$36,000	
	ORP Probes	6	Each	\$10,000.00		\$60,000
	Phosphax	1	Each	\$21,000.00		\$21,000
	Filtrax	1	Each	\$12,000.00		\$12,000
	Solitax	1	Each	\$12,000.00		\$12,000
	Nitritax	1	Each	\$18,000.00		\$18,000
	Controllers	11	Each	\$10,000.00		\$110,000
	Primary Element Installation	1	Lump Sum	\$117,000.00		\$117,000
	Magnetic Flow Meters	3	Each	\$8,000.00		\$24,000
	PLC & Programming	1	Lump Sum	\$40,000.00	\$40,000	
	Level Transducer	3	Each	\$1,500.00	\$4,500	
<b>BIOLOGICAL PROCESS</b>					<b>\$1,758,437</b>	<b>\$409,000</b>
<b>TERTIARY CLARIFIERS</b>						
	Clarifier Drive	2	Each	\$30,000.00		\$60,000
	Installation	2	Each	\$10,000.00		\$20,000
	Handrail and Grating Removal	2	Each	\$5,000.00		\$10,000
	Handrail and Grating Replacement	2	Each	\$10,000.00		\$20,000
	Safety Ring and Ladder for Launders	2	Each	\$15,000.00		\$30,000
	Electrical	1	Lump Sum	\$45,000.00		\$45,000
<b>TERTIARY CLARIFIERS</b>					<b>\$0</b>	<b>\$185,000</b>
<b>TERTIARY FILTERS/ CHEM FEED</b>						
	Excavation	2244	Cu.Yds.	\$16.00	\$35,900	
	Concrete				\$0	
	Building slabs	197	Cu.Yds.	\$400.00	\$78,844	
	Building Walls	133	Cu.Yds.	\$625.00	\$83,333	
	Tank Slab	80	Cu.Yds.	\$525.00	\$42,000	
	Tank Walls	154	Cu.Yds.	\$625.00	\$96,250	
	Pre-Cast Slabs	197	Cu.Yds.	\$400.00	\$78,800	
	Architectural				\$0	
	Brick/ Block	7,200.00	Sq.Ft.	\$20.00	\$144,000	
	Interior Block	1,952.00	Sq Ft	\$16.00	\$31,232	
	Architectural Pre-cast Concrete	200.00	Sq.Ft.	\$60.00	\$12,000	
	Manufactured Stone	200.00	Sq.Ft.	\$30.00	\$6,000	
	Louvers	200.00	Sq. Ft.	\$50.00	\$10,000	
	Exterior Double Door	3.00	Each	\$6,000.00	\$18,000	
	Interior Single Door	1.00	Each	\$3,200.00	\$3,200	
	Lintels & Sills	40.00	Lin.Ft.	\$20.00	\$800	
	Liquid Water Replent	7,200.00	Sq.Ft.	\$1.25	\$9,000	

Item No.	Description	Quantity	Unit	Unit Price	Extension	Add'l Scope Extension
<b>GENERAL CONDITIONS</b>						
	Dumpsters	12	Each	\$ 500.00	\$ 6,000.00	
	Job Trailer	12	Mo.	\$ 1,200.00	\$ 14,400.00	
	Eng Trailer	12	Mo.	\$ 1,200.00	\$ 14,400.00	
	Supervision & Surveying	12	Mo.	\$ 12,800.00	\$ 153,600.00	
	Phone	16	Mo.	\$ 100.00	\$ 1,600.00	
	Record Drawing	1	Each	\$ 12,000.00	\$ 12,000.00	
	Bonds & Insurance	1	Each	\$ 80,000.00	\$ 80,000.00	\$ 30,000.00
	Overhead & Profit	1	Each	\$ 400,000.00	\$ 400,000.00	\$ 300,000.00
<b>TOTAL GENERAL CONDITIONS</b>					<b>\$ 682,000.00</b>	<b>\$ 330,000.00</b>
<b>SITework</b>						
	Top Soil Re-spread	1600	Cu. Yd.	\$10.00	\$16,000	
	Seeding	1	Acre	\$3,200.00	\$3,200	
	Erosion Control	1	Lump Sum	\$10,000.00	\$10,000	
	Sidewalk	1500	Sq. Ft.	\$7.00	\$10,500	
	Paving (Full Depth)	2,000	Sq Yd	\$20.00	\$40,000	
	Stone Subgrade	2,000	Sq Yd	\$13.00	\$26,000	
	Geotextile Fabric	2,000	Sq Yd	\$2.00	\$4,000	
	Piping				\$0	
	2" Natural Gas	420	Lin.Ft.	\$20.00	\$8,400	
	3" Methanol Raceway	200	Lin.Ft.	\$30.00	\$6,000	
	3" Ferric Raceway	200	Lin.Ft.	\$30.00	\$6,000	
	4" DIP NPW	90	Lin.Ft.	\$40.00	\$3,600	
	6" DIP Digested Sludge	700	Lin.Ft.	\$60.00	\$42,000	
	8" DIP RAS	400	Lin.Ft.	\$80.00	\$32,000	
	8" DIP Sewer	200	Lin.Ft.	\$80.00	\$16,000	
	8" DIP Drain	310	Lin.Ft.	\$80.00	\$24,800	
	12" Conc Storm	40	Lin.Ft.	\$120.00	\$4,800	
	15" Conc Storm	40	Lin. Ft.	\$150.00	\$6,000	
	16" DIP Effluent	80	Lin. Ft.	\$160.00	\$12,800	
	Fittings	10000	Lb.	\$8.00	\$80,000	
	12" DIP Water Main	1000	Lin. Ft.	\$120.00		\$120,000
	12" Gate Valve and Vault	1	Each	\$3,500.00		\$4,375
	Fire Hydrants, Lead, Isolation Valve	3	Each	\$3,500.00		\$10,500
	Jack and Bore Under Rt. 38	0	Lin. Ft.	\$300.00		\$0
	Utility bedding material/aggregate	2000	Cu. Yd	\$30.00	\$60,000	
	Backfill for utilities	1000	Cu. Yd	\$30.00	\$30,000	
	Electrical	1	LumpSum	\$200,000.00	\$200,000	
<b>Site Work</b>					<b>\$642,100</b>	<b>\$134,875</b>
<b>RAW SEWAGE PUMP STATION</b>						
	Pump	1	Lump Sum	\$38,000.00	\$38,000	
	Additional Pump	1	Lump Sum	\$38,000.00		\$38,000
	Electrical	1	Lump Sum	\$12,000.00	\$12,000	
	Variable Frequency Drives	2	Each	\$20,000.00		\$40,000
	PLC & Programming	1	Lump Sum	\$5,000.00	\$5,000	
<b>RAW SEWAGE PUMP STATION</b>					<b>\$55,000</b>	<b>\$78,000</b>
<b>HEADWORKS</b>						
	Screen & Panel	1	Lump Sum	\$117,000.00	\$117,000	
	Replacement Screen & Panel	1	Lump Sum	\$117,000.00		\$117,000
	Screen Installation	1	Lump Sum	\$17,000.00	\$17,000	
	Replacement Screen Installation	1	Lump Sum	\$17,000.00		\$17,000
	Electrical	1	Lump Sum	\$12,000.00	\$12,000	
	PLC & Programming	1	Lump Sum	\$5,000.00	\$5,000	
<b>HEADWORKS</b>					<b>\$151,000</b>	<b>\$134,000</b>

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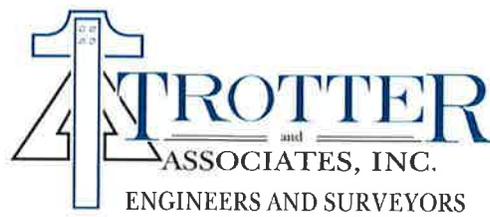
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E. Certification Regarding Debarment, Suspension and Other Responsibility Matters

The Engineer certifies to the best of its knowledge and belief that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency;
2. Have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
3. Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (2) of this certification; and
4. Have not within a three year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

The Engineer understands that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition under 18 USC Sec. 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

- F. If any legal action or other proceeding is brought for the breach of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees and other costs incurred in bringing such action or proceeding, in addition to any other relief to which such party may be entitled.

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EXHIBIT F  
MANHOURL ESTIMATE

	Principal Eng.	Engineer VI	Engineer V Electrical	Engineer V Process	Engineer V Civil	Engineer IV	Engineer III	Engineer II	Engineer I	Senior Technician	Technician IV	Technician III	GIS Specialist I	Clerical Level II	PLS	Survey Crew Chief	Department Director		
General Tasks	70	194	0	246	0	8	348	0	346	0	0	0	0	0	0	0	0	40	1242
Preliminary Report	52	0	0	110	0	24	194	0	168	0	106	0	36	0	0	0	0	0	690
EPA Loan	2	0	0	4	0	96	12	0	0	0	0	0	0	0	0	0	0	0	114
Preliminary Design Phase	36	0	0	68	0	0	124	0	116	16	352	0	0	76	22	120	0	0	930
Design Development Phase	110	26	94	376	64	0	570	32	100	44	406	40	0	0	0	0	0	0	1862
Final Design Phase	80	25	204	234	56	24	338	60	232	8	530	88	0	0	0	0	0	0	1879
Design Addendum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reimbursables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bidding and Negotiating Phase	8	0	12	34	16	0	64	0	28	8	32	0	0	0	0	0	0	0	202
Construction Phase	116	28	62	1078	0	0	1505	3506	0	8	0	88	0	0	8	20	18	0	6437
Contractor's Completion Documents	90	0	8	88	0	0	172	0	192	4	0	80	0	0	0	0	0	0	624
Reimbursables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	554	263	380	2238	136	152	3327	3598	1182	88	1426	296	36	76	30	140	58	0	