

AGREEMENT # 13229 FOR ENGINEERING SERVICES

This AGREEMENT is entered into by and between Lake County (County) and Applied Technologies, 468 Park Avenue, Lake Villa, IL 60046 (hereafter "Engineer").

RECITALS

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

DesPlaines River Water Reclamation Facility Improvements Phase 3,
PW# 2013.034 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 works shall be completed within 270 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 \$ 638,100.

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: Charles DeGrave

County will make Payments to:

Applied Technologies Inc.
468 Park Avenue
Lake Villa, IL 60046

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:

Applied Technologies Inc. .

RuthAnne Hall
Purchasing Agent
Lake County Purchasing

James Smith P.E.,
President

Date: _____

Date: 8/21/13

ATTACHMENT A - SCOPE OF SERVICES
DES PLAINES RIVER WRF IMPROVEMENTS PHASE 3, PW#2013.034
AGREEMENT #13229 – BIOSOLIDS DRYING FACILITIES
LAKE COUNTY PUBLIC WORKS DEPARTMENT

The proposed scope of services for this project includes Project Management and Final Design for the Biosolids Drying Facilities, and includes the following specific tasks:

Project Management

1. Prepare project instructions after the notice to proceed is received from the LCPWD. The project instructions will include the following items:
 - Project team
 - LCPWD contacts
 - Agency contacts
 - Surveying and design standards
 - Schedule
 - Budgets
 - Quality control procedures
2. Develop project goals and objectives by conducting a kick-off meeting with the LCPWD. The meeting will include such items as; review of the recommendations from previous studies, review scope of services and schedule, review the LCPWD's objectives for the project, identify key project personnel, discuss project issues, and a tour of the Des Plains River WRF.
3. Provide design coordination and management of all project team members including subconsultants.
4. Prepare information and attend LCPWD review meetings to address work progress, changes, regulatory and agency updates, schedule, and budget.

Final Design

1. Prepare drawings and specifications for incorporation into Contract Documents. Contract Documents shall be submitted to the LCPWD for review at the 90% completion point. The drawings will show the general scope, extent and character of the work to be furnished and preformed by a Contractor. The specifications will be prepared in conformance with the sixteen-division format of the Construction Specifications Institute.

2. Table 1 presents a preliminary list of drawings that were used to estimate the engineering level of effort and compensation for this project. The design work is based on a single prime construction contract.
3. Prepare for review and approval by the LCPWD, its legal counsel and other advisors, contract agreement forms, general conditions, supplementary conditions, bid forms, invitations to bid and instructions to bidders. All of these documents shall be consistent with the forms and pertinent guide sheets prepared by the Engineers Joint Contract Documents Committee.
4. Furnish 10 copies of the Contract Documents for review and approval by the LCPWD and for obtaining Project approval by government agencies having jurisdiction.
5. Assist the LCPWD in processing the Contract Documents with the appropriate regulatory agencies. The LCPWD shall pay the costs for all permits and inspection fees.
 - IEPA
 - LCSMC
 - Army Corps of Engineers
 - Lake County building permit application
6. Meet with representatives of the LCPWD and appropriate regulatory agencies when requested and necessary for consultation or conferences in regard to design of the Project.
7. Prepare an opinion of probable construction cost at the 90% completion point.
8. Meet with the LCPWD to present a summary of the project and the estimated construction cost at the 90% completion point.

Construction Related Services

Construction related services including contract administration, construction inspection, O&M Manual preparation, and start-up services will be determined following the design services. The scope of services for construction-related services will be incorporated into the Agreement by Addendum.

DES PLAINES RIVER WRF IMPROVEMENTS PHASE 3, PW#2013.034
PROJECT SUMMARY
August 9, 2013 (Revision 05)

AGREEMENT #13229 – BIOSOLIDS DRYING FACILITIES

BIOSOLIDS DRYING FACILITY – Group 60

- New building
- Conveying system from dewatering building
- Receiving station for biosolids from other facilities
- Biosolids drying system
- Conveying to truck loading facility/storage
- Off-gas / dust handling and treatment
- Dried product storage (Group 65)

TABLE 1
PRELIMINARY DRAWING LIST
Des Plaines River WRF Improvements
Lake County Public Works Department

| NO. | DRAWING | SCALE | TITLE |
|-----------------------------|---------|---------|---------------------------------------------|
| GROUP 01 - GENERAL | | | |
| 1 | 01-G-1 | | Title Sheet/Project Location |
| 2 | 01-G-2 | | Index to Drawings |
| 3 | 01-G-3 | | Abbreviations and Detail Legend |
| 4 | 01-G-4 | | Civil Legend |
| 5 | 01-G-5 | | HVAC, Plumbing & Architectural Legend |
| 6 | 01-G-6 | | Mechanical Legend |
| 7 | 01-G-7 | | Electrical Legend |
| 8 | 01-G-8 | | Instrumentation & Control Legend |
| 9 | 01-G-9 | | Instrumentation & Control Legend |
| GROUP 02 - SITE WORK | | | |
| 10 | 02-G-1 | 1"=100' | Overall Site Plan and Index |
| 11 | 02-G-2 | 1"=100' | Facility and Soil Boring Locations |
| 12 | 02-EC-1 | 1"=100' | Overall Site Erosion Control Plan and notes |
| 13 | 02-R-1 | 1"=100' | Overall Site Removal Plan and notes |
| 14 | 02-R-2 | 1"=20' | Removal Plan |
| 15 | 02-R-3 | 1"=20' | Removal Plan |
| 16 | 02-R-4 | 1"=20' | Removal Plan |
| 17 | 02-R-5 | 1"=20' | Removal Plan |
| 18 | 02-R-6 | 1"=20' | Removal Plan |
| 19 | 02-R-7 | 1"=20' | Removal Plan |
| 20 | 02-C-1 | 1"=20' | Civil Site Plan |
| 21 | 02-C-2 | 1"=20' | Civil Site Plan |
| 22 | 02-C-3 | 1"=20' | Civil Site Plan |
| 23 | 02-C-4 | 1"=20' | Civil Site Plan |
| 24 | 02-C-5 | 1"=20' | Civil Site Plan |
| 25 | 02-C-6 | 1"=20' | Civil Site Plan |
| 26 | 02-C-7 | 1"=20' | Civil Site Plan |
| 27 | 02-C-8 | 1"=20' | Civil Site Plan |
| 28 | 02-C-9 | 1"=20' | Civil Site Plan |
| 29 | 02-C-10 | 1"=20' | Civil Site Plan |
| 30 | 02-C-11 | 1"=20' | Civil Site Plan |
| 31 | 02-C-12 | 1"=20' | Civil Site Plan |
| 32 | 02-C-13 | - | Civil Site Details |
| 33 | 02-C-14 | - | Civil Site Details |
| 34 | 02-M-1 | 1"=20' | Yard Piping Plan |
| 35 | 02-M-2 | 1"=20' | Yard Piping Plan |
| 36 | 02-M-3 | 1"=20' | Yard Piping Plan |
| 37 | 02-M-4 | 1"=20' | Yard Piping Plan |
| 38 | 02-M-5 | 1"=20' | Yard Piping Plan |
| 39 | 02-M-6 | 1"=20' | Yard Piping Plan |
| 40 | 02-M-7 | 1"=20' | Yard Piping Plan |
| 41 | 02-M-8 | 1"=20' | Yard Piping Plan |
| 42 | 02-M-9 | 1"=20' | Yard Piping Plan |

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| NO. | DRAWING | SCALE | TITLE |
|---------------------------------------------------------|---------|--------|------------------------------------------|
| 43 | 02-M-10 | 1"=20' | Yard Piping Plan |
| 44 | 02-M-11 | 1"=20' | Yard Piping Plan |
| 45 | 02-M-12 | 1"=20' | Yard Piping Plan |
| 46 | 02-M-13 | - | Yard Piping Details |
| 47 | 02-E-1 | 1"=20' | Electrical Site Plan |
| 48 | 02-E-2 | 1"=20' | Electrical Site Plan |
| 49 | 02-E-3 | 1"=20' | Electrical Site Plan |
| 50 | 02-E-4 | 1"=20' | Electrical Site Plan |
| 51 | 02-E-5 | 1"=20' | Electrical Site Plan |
| 52 | 02-E-6 | 1"=20' | Electrical Site Plan |
| 53 | 02-E-7 | 1"=20' | Electrical Site Plan |
| 54 | 02-E-8 | 1"=20' | Electrical Site Plan |
| 55 | 02-E-9 | 1"=20' | Electrical Site Plan |
| 56 | 02-E-10 | 1"=20' | Electrical Site Plan |
| 57 | 02-E-11 | 1"=20' | Electrical Site Plan |
| 58 | 02-E-12 | 1"=20' | Electrical Site Plan |
| 59 | 02-E-13 | - | Electrical Site One-line Diagram |
| 60 | 02-E-14 | - | Electrical Site Details |
| 61 | 02-E-15 | - | Electrical Site Details |
| GROUP 09 INSTRUMENTATION AND CONTROL | | | |
| 62 | 09-I-1 | | Unit Process Interface |
| 63 | 09-I-2 | | Grit Removal P&ID |
| 64 | 09-I-3 | | Aeration Tanks P&ID |
| 65 | 09-I-4 | | Aeration Tanks P&ID |
| 66 | 09-I-5 | | Emergency Power Generator P&ID |
| 67 | 09-I-6 | | Effluent Filters P&ID |
| 68 | 09-I-7 | | W3 System P&ID |
| 69 | 09-I-8 | | Biosolids Receiving Station P&ID |
| 70 | 09-I-9 | | Biosolids Feed System P&ID |
| 71 | 09-I-10 | | Biosolids Drying P&ID |
| 72 | 09-I-11 | | Dry Product Conveyance P&ID |
| 73 | 09-I-12 | | Dry Product Storage P&ID |
| 74 | 09-I-13 | | Dry Product Truck Loading P&ID |
| 75 | 09-I-14 | | Biosolids Drying Off-gas P&ID |
| 76 | 09-I-15 | | Dechlorination P&ID |
| 77 | 09-I-16 | | Fermenter System P&ID |
| 78 | 09-I-17 | | Biosolids Dewatering P&ID |
| 79 | 09-I-18 | | Miscellaneous Systems P&ID |
| 80 | 09-I-19 | | Miscellaneous Systems P&ID |
| 81 | 09-I-20 | | Control System Network P & ID |
| GROUP 10 - ADMINISTRATION BUILDING MODIFICATIONS | | | |
| 82 | 10-R-1 | 1/4" | Arch/Struct Removal Plan |
| 83 | 10-R-2 | 1/4" | Arch/Struct Removal Sections and Details |
| 84 | 10-R-5 | 1/4" | HVAC Removal Plan and Details |

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| NO. | DRAWING | SCALE | TITLE |
|------------------------------------------------------------|---------|-------|----------------------------------------------|
| 85 | 10-R-3 | 1/4" | Electrical Removal Plan and Details |
| 86 | 10-AS-1 | 1/4" | Building Plan |
| 87 | 10-AS-2 | 1/4" | Roof Plan, Sections, Details |
| 88 | 10-AS-3 | 1/4" | Sections, Details |
| 89 | 10-H-1 | 1/4" | HVAC Plan, Sections, Details |
| 90 | 10-E-1 | 1/4" | Lighting Plan |
| 91 | 10-E-2 | 1/4" | Power Plan |
| GROUP 15 - BATTERY A CONTROL BUILDING MODIFICATIONS | | | |
| 92 | 15-R-1 | 1/4" | Arch/Struct Removal Plan |
| 93 | 15-R-2 | 1/4" | Arch/Struct Removal Sections and Details |
| 94 | 15-R-3 | 1/4" | HVAC Removal Plan and Details |
| 95 | 15-R-4 | 1/4" | Electrical Removal Plan and Details |
| 96 | 15-AS-1 | 1/4" | Building Plan |
| 97 | 15-AS-2 | 1/4" | Roof Plan, Sections, Details |
| 98 | 15-AS-3 | 1/4" | Sections, Details |
| 99 | 15-H-1 | 1/4" | HVAC Plan, Sections, Details |
| 100 | 15-P-1 | 1/4" | Plumbing Plan, Sections, Details |
| 101 | 15-E-1 | 1/4" | Lighting Plan |
| 102 | 15-E-2 | 1/4" | Power Plan |
| GROUP 20 - RAW WASTEWATER PUMP STATION | | | |
| 103 | 20-R-1 | 1/4" | Arch/Struct Removal Plans, Sections, Details |
| 104 | 20-R-2 | 1/4" | HVAC Removal Plans, Sections, Details |
| 105 | 20-AS-1 | 1/4" | Roof Plans |
| 106 | 20-AS-2 | 1/4" | Plans, Sections, Details |
| 107 | 20-H-1 | 1/4" | HVAC Plan, Sections, Details |
| 108 | 20-H-2 | 1/4" | Sections and Details |
| 109 | 20-E-1 | 1/4" | Lighting Plan |
| 110 | 20-E-2 | 1/4" | Power Plan |
| GROUP 22 - BATTERY A RAW WASTEWATER PUMP STATION | | | |
| 111 | 22-R-1 | 1/4" | Arch/Struct Removal Plans, Sections, Details |
| 112 | 22-AS-1 | 1/4" | Roof Plans |
| 113 | 22-AS-2 | 1/4" | Plans, Sections, Details |
| 114 | 22-E-1 | 1/4" | Power Plan |
| GROUP 25 - GRIT REMOVAL BUILDING | | | |
| 115 | 25-R-1 | 1/4" | Arch/Struct Removal Plans, Sections, Details |
| 116 | 25-R-2 | 1/4" | Mech Removal Plans, Sections, Details |
| 117 | 25-R-3 | 1/4" | HVAC Removal Plans, Sections, Details |
| 118 | 25-AS-1 | 1/4" | Roof Plans |
| 119 | 25-AS-2 | 1/4" | Plans, Sections, Details |
| 120 | 25-M-1 | 1/4" | Mech Plans, Sections, Details |
| 121 | 25-H-1 | 1/4" | HVAC Plan, Sections, Details |
| 122 | 25-E-1 | 1/4" | Lighting Plan |

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Lake County Public Works Department

| NO. | DRAWING | SCALE | TITLE |
|-----------------------------------------------|---------|-------|----------------------------------------------|
| 123 | 25-E-2 | 1/4" | Power Plan |
| GROUP 30 - AERATION TANK MODIFICATIONS | | | |
| 124 | 30-R-1 | 1/8" | Mech Removal Plan |
| 125 | 30-R-2 | 1/8" | Mech Removal Sections, Details |
| 126 | 30-S-1 | 1/8" | Plans |
| 127 | 30-S-2 | 1/8" | Sections and Details |
| 128 | 30-M-1 | 1/8" | Lower Plan |
| 129 | 30-M-2 | 1/8" | Upper Plan |
| 130 | 30-M-3 | 1/4" | Sections and Details |
| 131 | 30-E-1 | 1/8" | Plans and Details |
| GROUP 35 - BLOWER BUILDING | | | |
| 132 | 35-R-1 | 1/4" | Arch/Struct Removal Plans, Sections, Details |
| 133 | 35-R-2 | 1/4" | HVAC Removal Plans, Sections, Details |
| 134 | 35-AS-1 | 1/4" | Roof Plans |
| 135 | 35-AS-2 | 1/4" | Plans, Sections, Details |
| 136 | 35-H-1 | 1/4" | HVAC Plan, Sections, Details |
| 137 | 35-H-2 | 1/4" | Sections and Details |
| 138 | 35-E-1 | 1/4" | Lighting Plan |
| 139 | 35-E-2 | 1/4" | Power Plan |
| GROUP 38 - EMERGENCY POWER GENERATOR | | | |
| 140 | 38-SM-1 | 1/4" | Plan, Sections |
| 141 | 38-SM-2 | 1/4" | Details |
| 142 | 38-E-1 | - | One Line Diagram |
| 143 | 38-E-2 | 1/4" | Plans, Details |
| GROUP 45 - RAS/WAS BUILDING | | | |
| 144 | 45-R-1 | 1/4" | Arch/Struct Removal Plans, Sections, Details |
| 145 | 45-R-2 | 1/4" | HVAC Removal Plans, Sections, Details |
| 146 | 45-AS-1 | 1/4" | Roof Plans |
| 147 | 45-AS-2 | 1/4" | Plans, Sections, Details |
| 148 | 45-H-1 | 1/4" | HVAC Plan, Sections, Details |
| 149 | 45-H-2 | 1/4" | Sections and Details |
| 150 | 45-E-1 | 1/4" | Lighting Plan |
| 151 | 45-E-2 | 1/4" | Power Plan |
| GROUP 50 - BATTERY B FILTER BUILDING | | | |
| 152 | 50-R-1 | 1/4" | Arch/Struct Removal Plans, Sections, Details |
| 153 | 50-R-2 | 1/4" | Mech Removal Plans, Sections, Details |
| 154 | 50-AS-1 | 1/4" | Roof Plans |
| 155 | 50-AS-2 | 1/4" | Plans, Sections, Details |
| 156 | 50-M-1 | 1/4" | Mech Plans |
| 157 | 50-M-2 | 1/4" | Mech Sections, Details |
| 158 | 50-M-3 | 1/4" | Mech Sections, Details |

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|----------------------------------------------|---------|-------|----------------------------------------------|
| 159 | 50-H-1 | 1/4" | HVAC Plan, Sections, Details |
| 160 | 50-E-1 | 1/4" | Lighting Plan |
| 161 | 50-E-2 | 1/4" | Power Plan |
| GROUP 55 - BATTERY A FILTER BUILDING | | | |
| 162 | 55-R-1 | 1/4" | Arch/Struct Removal Plans, Sections, Details |
| 163 | 55-AS-1 | 1/4" | Roof Plans |
| 164 | 55-AS-2 | 1/4" | Plans, Sections, Details |
| GROUP 60 - BIOSOLIDS DRYING BUILDING | | | |
| 165 | 60-AS-1 | 1/8" | Elevations and Roof Drainage Plan |
| 166 | 60-S-1 | 1/4" | Foundation Plan |
| 167 | 60-S-2 | 1/4" | Ground Floor Plan |
| 168 | 60-S-3 | 1/4" | Upper Floor Plan |
| 169 | 60-S-4 | 1/4" | Roof Framing Plan |
| 170 | 60-AS-5 | 1/4" | Sections |
| 171 | 60-AS-6 | 1/4" | Sections and Details |
| 172 | 60-M-1 | 1/4" | Lower Level Plan |
| 173 | 60-M-2 | 1/4" | Ground Floor Plan |
| 174 | 60-M-3 | 1/4" | Upper Floor Plan |
| 175 | 60-M-4 | 1/4" | Sections, Details |
| 176 | 60-M-5 | 1/4" | Sections, Details |
| 177 | 60-P-1 | 1/4" | Lower Level Plan |
| 178 | 60-P-2 | 1/4" | Ground Floor Plan |
| 179 | 60-P-3 | 1/4" | Upper Floor Plan |
| 180 | 60-P-4 | - | Riser Diagrams |
| 181 | 60-H-1 | 1/4" | Lower Level Plan |
| 182 | 60-H-2 | 1/4" | Ground Floor Plan |
| 183 | 60-H-3 | 1/4" | Upper Floor Plan |
| 184 | 60-H-4 | 1/4" | Sections, Details |
| 185 | 60-E-1 | - | One Line Diagrams |
| 186 | 60-E-2 | - | Control Diagrams |
| 187 | 60-E-3 | 1/4" | Lower Level Power Plan |
| 188 | 60-E-4 | 1/4" | Lower Level Lighting Plan |
| 189 | 60-E-5 | 1/4" | Ground Floor Power Plan |
| 190 | 60-E-6 | 1/4" | Ground Floor Lighting Plan |
| 191 | 60-E-7 | 1/4" | Upper Floor Power Plan |
| 192 | 60-E-8 | 1/4" | Upper Floor Lighting Plan |
| GROUP 65 - BIOSOLIDS STORAGE BUILDING | | | |
| 193 | 65-AS-1 | 1/8" | Elevations and Roof Drainage Plan |
| 194 | 65-AS-2 | 1/4" | Foundation/Floor Plans & Details |
| 195 | 65-AS-3 | 1/4" | Roof Framing Plan |
| 196 | 65-AS-4 | 1/4" | Building Sections and Details |
| 197 | 65-AS-5 | 1/4" | Details |
| 198 | 65-M-1 | 1/4" | Mech/Plumbing/HVAC Plan |

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|----------------------------------------------------------|---------|-------|----------------------------------------------|
| 199 | 65-E-1 | 1/4" | Power & Lighting Plan |
| GROUP 75 - DECHLORINATION BUILDING | | | |
| 200 | 75-R-1 | 1/4" | Arch/Struct Removal Plans, Sections, Details |
| 201 | 75-R-2 | 1/4" | Mech Removal Plans, Sections, Details |
| 202 | 75-AS-1 | 1/4" | Roof Plans |
| 203 | 75-AS-2 | 1/4" | Plans, Sections, Details |
| 204 | 75-M-1 | 1/4" | Mech Plans, Sections, Details |
| 205 | 75-E-1 | 1/4" | Lighting Plan |
| 206 | 75-E-2 | 1/4" | Power Plan |
| GROUP 80 - AEROBIC DIGESTERS & SLUDGE STORAGE | | | |
| 207 | 80-R-1 | 1/4" | Arch/Struct Removal Plans, Sections, Details |
| 208 | 80-R-2 | 1/8" | Mech Removal Plan |
| 209 | 80-R-3 | 1/8" | Mech Removal Sections, Details |
| 210 | 80-R-4 | 1/4" | HVAC Removal Plans, Sections, Details |
| 211 | 80-AS-1 | 1/4" | Roof Plans |
| 212 | 80-S-1 | 1/8" | Plans and Details |
| 213 | 80-S-2 | 1/8" | Sections and Details |
| 214 | 80-M-1 | 1/8" | Lower Plan |
| 215 | 80-M-2 | 1/8" | Upper Plan |
| 216 | 80-M-3 | 1/4" | Sections and Details |
| 217 | 80-H-1 | 1/4" | HVAC Plan, Sections, Details |
| 218 | 80-E-1 | 1/8" | Plans and Details |
| GROUP 90 - SLUDGE DEWATERING BUILDING | | | |
| 219 | 90-R-1 | 1/4" | Arch/Struct Removal Plans, Sections, Details |
| 220 | 90-R-2 | 1/4" | Mech Removal Plans, Sections, Details |
| 221 | 90-R-3 | 1/4" | HVAC Removal Plans, Sections, Details |
| 222 | 90-AS-1 | 1/4" | Roof Plans |
| 223 | 90-AS-2 | 1/4" | Plans, Sections, Details |
| 224 | 90-M-1 | 1/4" | Mech Plans, Sections, Details |
| 225 | 90-H-1 | 1/4" | HVAC Plan, Sections, Details |
| 226 | 90-E-1 | 1/4" | Lighting Plan |
| 227 | 90-E-2 | 1/4" | Power Plan |
| GROUP 93 - INFLUENT JUNCTION BOX | | | |
| 228 | 93-R-1 | 1/4" | Struct/Mech Removal Plan |
| 229 | 93-R-2 | 1/4" | Struct/Mech Removal Sections, Details |
| 230 | 93-SM-1 | 1/4" | Plans |
| 231 | 93-SM-2 | 1/4" | Sections and Details |
| GROUP 99 SCHEDULES/STANDARD DETAILS | | | |
| 232 | 99-A-1 | | Door Schedules |
| 233 | 99-A-2 | | Window and Finish Schedules |
| 234 | 99-M-1 | | Mechanical Pipe Schedule |

TABLE 1
PRELIMINARY DRAWING LIST
Des Plaines River WRF Improvements
Lake County Public Works Department

| NO. | DRAWING | SCALE | TITLE |
|------------|-----------------------|-------|--------------------------------------------|
| 235 | 99-M-2 | | Mechanical Gate Schedule |
| 236 | 99-H-1 | | Ventilation and HVAC Equipment Schedules |
| 237 | 99-H-2 | | Louver and HVAC Equipment Schedules |
| 238 | 99-P-1 | | Plumbing Fixture Schedule |
| 239 | 99-E-1 | | Light Fixture Schedule |
| 240 | 99-D-1 | | Civil Standard Details |
| 241 | 99-D-2 | | Civil Standard Details |
| 242 | 99-D-3 | | Civil Standard Details |
| 243 | 99-D-4 | | Architectural/Structural Standard Details |
| 244 | 99-D-5 | | Architectural/Structural Standard Details |
| 245 | 99-D-6 | | Architectural/Structural Standard Details |
| 246 | 99-D-7 | | Architectural/Structural Standard Details |
| 247 | 99-D-8 | | Architectural/Structural Standard Details |
| 248 | 99-D-9 | | Architectural/Structural Standard Details |
| 249 | 99-D-10 | | Architectural/Structural Standard Details |
| 250 | 99-D-11 | | Architectural/Structural Standard Details |
| 251 | 99-D-12 | | Architectural/Structural Standard Details |
| 252 | 99-D-13 | | Instrumentation & Control Standard Details |
| 253 | 99-D-14 | | Instrumentation & Control Standard Details |
| 254 | 99-D-13 | | HVAC Standard Details |
| 255 | 99-D-14 | | Mechanical Standard Details |
| 256 | 99-D-15 | | Mechanical Standard Details |
| 257 | 99-D-16 | | Mechanical Standard Details |
| 258 | 99-D-16 | | Mechanical Standard Details |
| 259 | 99-D-16 | | Mechanical Standard Details |
| 260 | 99-D-17 | | Electrical Standard Details |
| 261 | 99-D-18 | | Electrical Standard Details |
| 262 | 99-D-18 | | Electrical Standard Details |
| 262 | Total Drawings | | |

Legend

- A Architectural
- C Civil
- E Electrical
- G General
- H HVAC
- I Instrumentation & Control
- M Mechanical (Process)
- P Plumbing
- S Structural

SUMMARY OF ENGINEERING DESIGN FEES
Des Plaines River WRF Improvements
Lake County PWD

| | Totals | Contract Phase 2B | Contract Phase 3 |
|-----------------------------------------|---------------------|------------------------------|-----------------------------|
| Project Management | \$ 65,700 | \$49,300 | \$16,400 |
| Preliminary Design | \$ 311,900 | \$311,900 | |
| Final Design | \$ 1,042,300 | \$420,600 | \$621,700 |
| Total Design (Plans and Specifications) | <u>\$ 1,419,900</u> | | |
| Construction Cost | \$ 22,707,000 | | |
| Total Design (% of Construction) | 6.3% | | |
| IEPA Allowable Design Fee | | | |
| Percent of Construction | 7.0% | | |
| Allowable Design Fee | \$ 1,589,000 | | |
| Additional Services | | | |
| Wetlands Study | \$25,000 | \$25,000 | |
| Floodplain/stormwater Study | \$20,000 | \$20,000 | |
| Soils Exploration Report | \$7,500 | \$7,500 | |
| Value Engineering | \$15,000 | \$15,000 | |
| Bidding Services | \$27,500 | \$27,500 | |
| Loan Program Administration | \$12,000 | \$12,000 | |
| Pilot Test Dryer Rental | \$15,000 | \$15,000 | |
| Total Not to Exceed Budget | \$1,541,900 | \$903,800 | \$638,100 |

Table 1-1
Phasing and Implementation Schedule
Des Plaines River Water Reclamation Facility

| | |
|-------------------------------------------------------|----------------|
| Facilities Planning | |
| Submit IEPA Loan Pre-Application | March 2013 |
| Submit Facilities Plan Amendment to IEPA | July 2013 |
| IEPA Approval of Facilities Plan | September 2013 |
| Phase IIB - Design and Construction | |
| Begin Phase IIB Design | September 2013 |
| Submit Phase IIB Plans and Specifications to the IEPA | March 2014 |
| Submit IEPA Loan Application | March 2014 |
| IEPA Approval of Phase IIB Plans and Specifications | June 2014 |
| Bidding and Award of Phase IIB Contract | August 2014 |
| IEPA Loan Approval | September 2014 |
| Begin Phase IIB Construction | November 2014 |
| Complete Phase IIB Substantial Completion | November 2016 |
| Phase IIB Notice of Operational Compliance | June 2017 |
| Phase III - Design and Construction | |
| Submit IEPA Loan Pre-Application | March 2013 |
| Begin Phase III Design | December 2013 |
| Submit Phase III Plans and Specifications to the IEPA | March 2014 |
| Submit IEPA Loan Application | March 2014 |
| IEPA Approval of Phase III Plans and Specifications | June 2014 |
| Bidding and Award of Phase III Contract | August 2014 |
| IEPA Loan Approval | September 2014 |
| Begin Phase III Construction | November 2014 |
| Complete Phase III Construction/Startup | November 2016 |

Table 1-1 - Continued
Phasing and Implementation Schedule
Des Plaines River Water Reclamation Facility

| | |
|------------------------------------------------------|-------------------|
| Phase IV - Design and Construction | |
| Submit IEPA Loan Pre-Application | March 2013 |
| Begin Phase IV Design | November 2013 |
| Submit Phase IV Plans and Specifications to the IEPA | March 2014 |
| Submit IEPA Loan Application | March 2014 |
| IEPA Approval of Phase IV Plans and Specifications | June 2014 |
| Bidding and Award of Phase IV Contract | August 2014 |
| IEAP Loan Approval | September 2014 |
| Begin Phase IV Construction | November 2014 |
| Complete Phase IV Construction/Startup | November 2016 |
| Phase V - Design and Construction | |
| Estimated Design and Construction Period | 2029 through 2032 |

DES PLAINES RIVER WRF IMPROVEMENTS PHASE 3
LAKE COUNTY DEPT OF PUBLIC WORKS
DESIGN ENGINEERING LEVEL OF EFFORT AND COSTS
August 21, 2013

| NO. | TASK/ACTIVITY | PRINCIPAL QUALITY CONTROL | PROJECT MANAGER | SENIOR PROCESS ENGINEER | PROCESS ENGINEER | ELECTRICAL ENGINEER | STRUCTURAL ENGINEER | I & C ENGINEER | ARCHITECT | MECHANICAL ENGINEER | TECH | CLERICAL | LABOR HOURS | LABOR COST | EXPENSES | TOTAL COST | BASIS OF ESTIMATE |
|-----|----------------------------------------------------------------------|---------------------------------|--------------------|-------------------------------|---------------------|------------------------|------------------------|-------------------|-----------|------------------------|------------|-----------|----------------|------------|-----------|------------|-------------------|
| | PROJECT MANAGEMENT | | | | | | | | | | | | | | | | |
| 1 | Prepare project instructions | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 2 | Prepare for and conduct the project kick-off meeting | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 3 | Design coordination and management | 12 | 24 | | | | | | | | | | 36 | \$ 5,664 | \$ 283 | \$ 5,947 | |
| 4 | Prepare for and attend LCPWD review meetings | 8 | 56 | | | | | | | | | | 64 | \$ 10,016 | \$ 437 | \$ 10,453 | |
| | TOTAL | 20 | 80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | \$ 15,680 | \$ 720 | \$ 16,400 | |
| | PRELIMINARY DESIGN | | | | | | | | | | | | | | | | |
| 1 | Coordinate and furnish surveying services | | | | | | | | | | | | 0 | \$ - | | \$ - | |
| 2 | Coordinate and furnish wetlands delineations and reports | | | | | | | | | | | | 0 | \$ - | | \$ - | |
| 3 | Floodplain boundaries and stormwater management | | | | | | | | | | | | 0 | \$ - | | \$ - | |
| 4 | Coordinate and furnish geotechnical services | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 5 | Evaluate existing physical conditions | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 6 | IEPA approval of the biosolids drying system | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 7 | Plant visits regarding EBNR and biosolids drying | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 8 | Manage on-site biosolids drying pilot test | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 9 | Prepare preliminary design memos | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 10 | Review meetings for the preliminary design memos | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 11 | Prepare an opinion of probable construction costs | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 12 | Prepare a draft preliminary design report | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 13 | Review meeting for the draft preliminary design report | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 14 | Finalized and distribute the preliminary design report | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| | TOTAL | | | | | | | | | | | | - | \$ - | \$ - | \$ - | |
| | VALUE ENGINEERING | | | | | | | | | | | | | | | | |
| 1 | Assist LCPWD in selecting a VE team | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 2 | Schedule VE activity | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 3 | Present design information to VE team | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 4 | Respond to requests for information from the VE team | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 5 | Assist LCPWD in establishing a VE review team | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 6 | Attend report of VE team to VE review team | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 7 | Implement VE review team decisions | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| | TOTAL | | | | | | | | | | | | - | \$ - | \$ - | \$ - | |
| | FINAL DESIGN PHASE | | | | | | | | | | | | | | | | |
| 1 | Prepare drawings and specifications | | | 286 | 538 | 909 | 536 | 154 | 344 | 358 | 2165 | 240 | 5530 | \$ 574,582 | \$ 29,646 | \$ 604,228 | |
| 2 | Prepare contract forms | | 24 | | | | | | | | | | 24 | \$ 3,744 | \$ 187 | \$ 3,931 | |
| 3 | Furnish copies of documents for LCPWD review and approval | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 4 | Assist LCPWD in approvals from regulatory agencies | 6 | 10 | | | | | | | | | | 16 | \$ 2,520 | \$ 126 | \$ 2,646 | |
| 5 | Prepare for and attend meetings with agencies | 6 | 10 | | | | | | | | | | 16 | \$ 2,520 | \$ 126 | \$ 2,646 | |
| 6 | Prepare an opinion of probable construction costs | | 6 | 14 | 28 | | | | | | | | 48 | \$ 5,500 | \$ 275 | \$ 5,775 | |
| 7 | Review meeting with LCPWD | 4 | 6 | 6 | | | | | | | | | 16 | \$ 2,356 | \$ 118 | \$ 2,474 | |
| | TOTAL | 16 | 56 | 306 | 566 | 909 | 536 | 154 | 344 | 358 | 2165 | 240 | 5,650 | \$ 591,222 | \$ 30,478 | \$ 621,700 | |
| | WATER POLLUTION CONTROL LOAN PROGRAM ADMINISTRATION | | | | | | | | | | | | | | | | |
| 1 | Assist LCPWD in pre-application | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 2 | Assist LCPWD in completing the loan application | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 3 | Submit Facilities Plan and checklist to IEPA | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 4 | Submit plans, specifications, and related documentation to the IEPA | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 5 | Assist LCPWD in executing the application form and related documents | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 6 | Assist LCPWD in executing the financial information checklist, etc. | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 7 | Assist LCPWD in submitting legal agreements as needed | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 8 | Assist LCPWD in submitting Contractor Bids and related documents | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 9 | Answer questions from bond counsel | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 10 | Coordinate monthly disbursement request and close-out documentation | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| | TOTAL | | | | | | | | | | | | - | \$ - | \$ - | \$ - | |
| | BIDDING SERVICES | | | | | | | | | | | | | | | | |
| 1 | Assist LCPWD in obtaining construction bids | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 2 | Answer bidder questions and issue addenda | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 3 | Evaluate bids and prepare recommendation for award | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| 4 | Contract award by LCPWDD | | | | | | | | | | | | 0 | \$ - | \$ - | \$ - | |
| | TOTAL | | | | | | | | | | | | - | \$ - | \$ - | \$ - | |
| | LABOR HOURS | 36 | 136 | 306 | 566 | 909 | 536 | 154 | 344 | 358 | 2165 | 240 | 5,750 | | | | |
| | 2013 - 2014 Average Rates | \$ 160 | \$ 156 | \$ 130 | \$ 98 | \$ 138 | \$ 100 | \$ 105 | \$ 118 | \$ 108 | \$ 90 | \$ 64 | | | | | |
| | TOTAL COST | \$ 5,760 | \$ 21,216 | \$ 39,780 | \$ 55,468 | \$ 125,442 | \$ 53,600 | \$ 16,170 | \$ 40,592 | \$ 38,664 | \$ 194,850 | \$ 15,360 | | \$ 606,902 | \$ 31,198 | \$ 638,100 | |