

**Rantoul Village Board of Trustees  
Regular Study Session  
September 4, 2012**

*Order of Business*

*Board Packet Page(s)*

- 1. Call to Order – Mayor Williams**  
Roll Call
- 2. Public Participation**  
*Citizens wishing to address the Village Board with respect to any pending item of business listed upon the agenda or any matter not appearing on the agenda are asked to complete a public participation form and submit it to the Village Clerk prior to the meeting. Public comments will be limited to three minutes for each speaker.*
- 3. Items from the Mayor**
- 4. Items from Trustees**
- 5. Items from the Clerk**
  - A) Presentation of any Addendum Items for the Agenda
- 6. Items from the Administrator**
- 7. Monthly Department Reports**
- 8. Items for the Consent Agenda**
  - A) Approval of Minutes, Regular Study Session, August 7, 2012
  - B) Approval of Minutes, Regular Board Meeting, August 11, 2012
  - C) Approval of Bills and Monthly Financial Reports
- 11. Items from Public Works**
  - A) Authorize Peak Construction Corporation to perform excavation and rough grading for Innovation Road - \$180,915.00 1-4
  - B) Phosphorus Removal Project Design Engineering - \$428,466.00 5-18
- 12. Items from Police**
  - A) MDC Laptop Purchase Equipment Replacement - \$60,732.36 19-22
  - B) ESDA Director requesting purchase and installation of two All Hazard Warning Sirens - \$42,923.08 23-39
- 13. Items from Counsel**
- 13 Adjournment**

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*Order of Business*

*Board Packet Page(s)*

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*Statement Regarding Compliance with the Americans with Disabilities Act (ADA)*

*The Village of Rantoul wishes to ensure that its programs, services, and activities are accessible to individuals with disabilities. All Village Board meetings are wheelchair accessible. Persons who require an auxiliary aid or service for effective communication, or a modification of policies or procedures to participate in a program, service, or activity of the Village of Rantoul should contact the ADA Coordinator at (217) 892-6821. TTY users should dial 7-1-1 or call the Illinois Relay Center at 1-800-526-0844 (TTY) or 1-800-526-0857 (V). TTY users requiring Spanish language assistance should call 1-800-501-0864 (TTY).*

*We would appreciate advance notice of at least 48 hours for any requests to receive an agenda in an alternate format or other types of auxiliary aids and services.*

**BOARD OF TRUSTEES  
VILLAGE OF RANTOUL**

<b>AGENDA ITEM</b>	<b>PAGE</b> _____ <b>OF</b> _____
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<b>ITEM: Peak Construction Corporation Agreement for the Innovation Road Excavation</b>	<b>DEPARTMENT: Public Works</b>
<b>AGENDA SECTION:</b>	<b>PROJECT AMOUNT: \$180,915.00 - Roadway Excavation</b>
<b>ATTACHMENTS:</b> ( ) RESOLUTION ( X ) OTHER (See Summary Highlights) ( X ) SUPPORTING DOCUMENTS	<b>DATE: August 17, 2012</b>

**SUMMARY HIGHLIGHTS:**


This Agenda Item provides for an agreement with Peak Construction Corporation to perform the mass earth excavation and rough grading for the proposed Innovation Road in the not-to-exceed amount of \$180,915.00. As the development and funding of this roadway and utility infrastructure is the Village's responsibility, utilizing the on-site contractor offers an opportunity for significant Village savings in the amount of \$184,800.00.

Peak Construction Corporation was selected by the Easton Bell Sports Shared Service Center developer as the prime project contractor. This firm will be performing the on-site mass grading and building construction. To take advantage of the economy of scale of the extensive earth work involved on the site, to provide fill-material for the roadway development, and to ensure the development of Innovation Road in the most timely manner, it is recommended to accept the Peak proposal to include the grading of the Innovation right-of-way with the overall site mass grading. Peak Construction has been working with multiple and various local contractors seeking pricing for this earthwork.

To confirm the cost benefit to the Village, Spaceco, Inc. Engineering was tasked to provide cost opinions for the two grading options. Their findings indicate that to perform the excavation and rough grading as a cost component of the roadway would be \$436,149.00, while including this work in the on-site's mass-grading efforts would be a cost of \$251,349.00 (includes the \$180,915.00 to Peak Construction) a difference and savings to the Village of \$184,800.00.

Due to the existing agreements and collaborative efforts of the Village with EBS Shared Service Center development group, it is requested that formal bidding requirements be waived for this component of work.

**RECOMMENDED ACTION:** Authorize the approval of Peak Construction Corporation to perform the excavation and rough grading for Innovation Road in the amount of \$180,915.00.

**DEPARTMENT HEAD APPROVAL:**  
G. Gregory Hazel, P.E. 

**VILLAGE ADMINISTRATOR:** 

**AGENDA PAGE NUMBER:** 

August 13, 2012



Mr. Bruce Sandahl  
Village Administrator  
Village of Rantoul  
333 S. Tanner Street  
Rantoul, IL 61866

Re: Easton Bell Sports Shared Services Center  
Innovation Road Excavation Proposal  
Rantoul IL

Dear Bruce:

Enclosed along with this cover letter is a separate Innovation Road excavation proposal from Peak Construction Corporation to complete this work at the same time the mass grading for the building project and corresponding detention are performed. Greg Hazel requested this be forwarded to you for your review and approval.

In addition, I have included separately solicited excavation proposals for completion of the excavation work at a later time once all of the State of Illinois funding authorization and funding process is completed.

The separate excavation process for excavation cost only resulted in bids ranging from a low amount of \$279,000 to a high of \$692,323.

For the Innovation Road project excavation scope to be incorporated into the EBS mass excavation work scope of the building, we will need to lower the proposed building about 6" to maintain a balance condition and minimize import or export of soil.

As I believe you are aware, Peak has worked diligently with Greg Hazel and the Village of Rantoul to develop and present the preliminary engineering and cost detail corresponding to the State of Illinois eligible partial reimbursement to Rantoul for Rantoul's obligated off-site improvements for the EBS project at the intersection as well as Evans Road and Innovation Road. The biggest obstacle for the entire project corresponds to the ability to meet the required occupancy schedule for EBS, and completing the off-site mass grading simultaneously with our EBS project mass grading versus waiting until spring minimizes risk for everyone.

Peak would like to move immediately ahead with this off-site mass grading with Rantoul's approval, as we believe this is in everyone's best interests in completing the EBS project on-time. In addition, as an additional incentive to incorporate this initial Village of Rantoul excavation work, and as I indicated to Greg Hazel, Peak will waive our typical Peak fees as detailed on our excavation proposal if we can receive approval by the 24<sup>th</sup> of August 2012.

Let me know if you have any questions.

Thanks

Sincerely,

PEAK CONSTRUCTION CORPORATION

A handwritten signature in black ink, appearing to read "Michael P. Sullivan, Jr.", is written over the printed name.

Michael P. Sullivan, Jr.  
Chief Executive Officer

August 13, 2012



Bruce Sandahl  
Village Administrator  
Village of Rantoul  
333 S. Tanner Street  
Rantoul, IL 61866

Re: Easton Bell Sports Shared Services Center  
Innovation Road Excavation Proposal  
Rantoul IL

Dear Mr. Sandahl:

Peak Construction Corporation (Peak) is pleased to present this proposal for mass earth excavation and grading for the proposed Innovation Road

Project Description: mass earth excavation, construction soil erosion, construction staking in conjunction with mass earth excavation, project management and supervision.

**Scope of Base Work:**

- Furnish necessary material and labor in conjunction with proposed mass earth excavation as detailed in drawings prepared by Spaceco Incorporated, Rosemont, Illinois. Drawings dated 7/12/2012 Twenty-three (23) sheets in total as listed in detail within the Drawing Index on sheet C1. Drawings listed were submitted to the village in conjunction with the mass earth grading package for the Easton Bell Shared Services project. The mass earth permit was granted July 25, 2012 having been issued permit #12-0273
- Peak has competitively bid this work with the entire site mass earth work package and can provide an overall savings for the Innovation Road portion. Peak's proposal is contingent to provide this work to coincide with scheduled mass earth for the entire site. For your convenience I have attached copies of the individual proposals from the four most responsive and responsible contractors.

<b>DESCRIPTION OF WORK</b>	<b>Cost</b>
Erosion Control	\$3,770.00
Erosion Control Maintenance	\$1,000.00
Mass Earth Excavation on site fill and export	\$108,200.00
Top Soil Respread	\$11,700.00
Construction Staking	\$1,950.00
Site Supervision	\$9,600.00
Project Management	\$10,400.00
Testing	\$2,800.00
Insurance	\$1,495.00
Peak Fee	<del>-\$15,000.00</del>
Sub Total:	\$150,915.00
Contingency for additional erosion control maintenance, testing and unsuitable soil-20%	\$30,000.00

\$180,915.00 (One Hundred Eighty Thousand Nine Hundred Fifteen Dollars and no/100)

Bruce Sandahl  
Village Administrator  
Village of Rantoul  
Innovation Road Mass Earth Project  
Page 2

Please acknowledge acceptance and approval by signing and returning a copy of this agreement.

Sincerely,

PEAK CONSTRUCTION CORPORATION



Digitally signed by Dale B Carter  
DN: cn=Dale B Carter, o=Peak Construction  
Corporation, ou,  
email=dcarter@peakconstruction.com, c=US  
Date: 2012.08.13 17:55:12 -05'00'

Dale B. Carter  
Sr. Project Manager

PROPOSAL ACCEPTED AND APPROVED

BY: \_\_\_\_\_  
Accepted and Authorized

DATE:

**BOARD OF TRUSTEES  
VILLAGE OF RANTOUL**

<b>AGENDA ITEM</b>	<b>PAGE <u>  1  </u> OF <u>  3  </u></b>
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<b>ITEM: Phosphorus Removal Project Design Engineering</b>	<b>DEPARTMENT: Public Works</b>
<b>AGENDA SECTION: Wastewater Treatment Plant</b>	<b>AMOUNT: \$428,466</b>
<b>ATTACHMENTS:</b> <input type="checkbox"/> <b>ORDINANCE</b> <input type="checkbox"/> <b>RESOLUTION</b> <input checked="" type="checkbox"/> <b>OTHER (See Summary Highlights)</b> <input checked="" type="checkbox"/> <b>SUPPORTING DOCUMENTS</b>	<b>DATE: August 29, 2012</b>

This agenda item provides for the approval of a contract with Burns and McDonnell in the amount of \$428,466 for design engineering for the Waste Water Treatment Plant Phosphorus Removal Project, improvements to the SCADA system and equipment replacement. This proposed agreement is based on the completion of a nutrient study and the phosphorous removal pilot study for the Village. Work to be performed includes the detailed design, permitting and preparation of bidding documents for the following improvements at the Village’s wastewater treatment plant:

- **Chemical Feed System for Phosphorous Removal**
  - The chemical feed systems will include chemical receiving and storage systems, pumping systems, and controls. The chemical receiving and storage systems will include storage tanks for the metal salts used for phosphorus removal. The design of these facilities will include engineered controls for the safe transfer of the chemicals from trucks to the storage facilities.
  - The pumping systems will include chemical metering pumps that will have independently adjustable delivery rates. Sufficient numbers of pumps will be included to provide the ability to introduce chemicals at multiple locations in the plant as well as providing ample system redundancy.
  - The control systems for this portion of the work will be incorporated into the existing SCADA system and will provide monitoring of the integrity of the storage facilities, and automated controls of the pumping equipment. The control logic will include allow the operator to select from different control strategies in order to adjust to variations in plant conditions.
- **New Primary Anaerobic Digester**
  - The design of the anaerobic digester will provide operational flexibility and a significant increase in digester capacity at the plant. The digester will have the same nominal capacity as the existing digester; (0.54 million gallons). The design of the pumping, piping, and controls will allow for normal operation of the two digesters to be in series, and will also allow for parallel or singular operation of the tanks to accommodate maintenance of the facilities. The piping and pumping facilities will be housed within a building that will be attached to the new digester.

**BOARD OF TRUSTEES  
VILLAGE OF RANTOUL**

<b>AGENDA ITEM</b>	<b>PAGE <u>2</u> OF <u>3</u></b>
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<b>ITEM: Phosphorus Removal Project Design Engineering</b>	<b>DEPARTMENT: Public Works</b>
<b>AGENDA SECTION: Wastewater Treatment Plant</b>	<b>AMOUNT: \$428,466</b>
<b>ATTACHMENTS:</b> ( ) ORDINANCE ( ) RESOLUTION ( X ) OTHER (See Summary Highlights) ( X ) SUPPORTING DOCUMENTS	<b>DATE: August 29, 2012</b>
<ul style="list-style-type: none"> <li>• <b>SCADA Modifications</b> <ul style="list-style-type: none"> <li>- <b><u>Main Gate Opening Status:</u></b> The Main Gate throttles the plant influent flow and controls the flow rate into the plant. The design of this portion of the facilities will include facilities to detect the status of this gate and incorporating that information into the SCADA system.</li> <li>- <b><u>Chanute Flow Meter:</u></b> The flow meter from the Chanute area has not registered for years. The design of this work will include specifying a new flow meter and piping modifications to accommodate the meter (if needed) so that the metering function can be returned to the SCADA system.</li> <li>- <b><u>Lagoon Influent Flow Meter:</u></b> The operation of the wet weather pumps does not include the ability to meter flows. This information would be useful to the plant operators to understand mass loadings during the wet weather event, and plan for the reintroduction of the wastewater. The design of the facilities will include a flow meter and the necessary controls to incorporate the data into the SCADA system.</li> <li>- <b><u>Chlorination/Dechlorination Controls:</u></b> The disinfection system automation currently fails on low flows and the system is manually operated based on the operator's opinion of flow rates that are anticipated in the plant. This has led to an increase in chemical usage and associated costs. The design of the improvements will allow for the chemical dosing to relate to influent or effluent flow rates.</li> <li>- <b><u>Sludge Valve Heat Tracing:</u></b> The automatic operation of sludge draw off valves during the winter has been interrupted due to sludge in the piping within exposed structures freezing. This work will include the design of facilities to automatically heat the piping to prevent freezing.</li> <li>- <b><u>Fine Screen Control Modifications:</u></b> The operation of the fine screen includes a requirement that a plant operator reset the controls after an interruption in the electrical feed to the equipment. If the reset button is not pressed then the screen will not operate and plant influent flows can back up into the wet weather pumping facilities. The work included in this item will provide the plan for eliminating this reset requirement.</li> </ul> </li> </ul>	



**BOARD OF TRUSTEES  
VILLAGE OF RANTOUL**

**AGENDA ITEM**

**PAGE 3 OF 3**

<b>ITEM: Phosphorus Removal Project Design Engineering</b>	<b>DEPARTMENT: Public Works</b>
<b>AGENDA SECTION: Wastewater Treatment Plant</b>	<b>AMOUNT: \$428,466</b>
<b>ATTACHMENTS:</b> ( ) ORDINANCE ( ) RESOLUTION ( X ) OTHER (See Summary Highlights) ( X ) SUPPORTING DOCUMENTS	<b>DATE: August 29, 2012</b>

• **Mechanical Equipment Replacement and Upgrades**

- **Primary Sludge Pumps:** The existing primary sludge pumps have reached the end of their useful lives and will be replaced. The design of these facilities will include piping modifications to accommodate new pumps that will have readily available repair parts.
- **Digester Influent Sludge Meter:** Current operations of the sludge management facilities include measuring the movement of the digester cover to monitor the amount of sludge that has been introduced into the tank. This method does not provide sufficiently accurate data to meet current standards. The work included in this task will provide the design of a meter and its interface with the SCADA system to properly record influent data.
- **Traveling Bridge Filters:** The Village has rehabilitated one of its two traveling bridge filter and needs to address the second filter. This portion of the design includes specifying the work to be done to address the second filter.

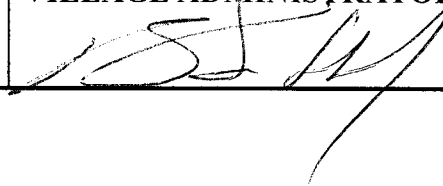
The proposed design fee represents approximately 9.5% of the estimated \$4.5 million construction cost of the project.

**RECOMMENDED ACTION:** Recommend that the Board approve the contract with Burns and McDonnell in the amount of \$428,466 to complete the design phase of the phosphorus removal project.

**DEPARTMENT HEAD APPROVAL:**

G. Gregory Hazel, P.E.

**VILLAGE ADMINISTRATOR:**



**AGENDA PAGE NUMBER:**



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August 28, 2012

Mr. Pete Passarelli  
Assistant Director of Public Works  
Village of Rantoul  
333 South Tanner  
Rantoul, IL 61866

Re: Wastewater Treatment Plant Improvements

Dear Mr. Passarelli:

Burns and McDonnell is pleased to provide this proposal for the engineering services associated with design of improvements to the Village of Rantoul's (Village) wastewater treatment plant. This proposal is based on Burns & McDonnell's understanding of the Village's wastewater treatment plant as a result of completing a nutrient study, providing permit and industrial wastewater pretreatment support and performing a phosphorous removal pilot study for the Village. Work to be performed includes the detailed design, permitting and preparation of bidding documents for the following improvements at the Village's wastewater treatment plant:

• **Chemical Feed System for Phosphorous Removal**

- The chemical feed systems will include chemical receiving and storage systems, pumping systems and controls. The chemical receiving and storage systems will include storage tanks for the metal salts used for phosphorus removal. The design of these facilities will include engineered controls for the safe transfer of the chemicals from trucks to the storage facilities.
- The pumping systems will include chemical metering pumps that will have independently adjustable delivery rates. Sufficient numbers of pumps will be included to provide the ability to introduce chemicals at multiple locations in the plant as well as providing ample system redundancy.
- The control systems for this portion of the work will be incorporated into the existing SCADA system and will provide monitoring of the integrity of the storage facilities, and automated controls of the pumping equipment. The control logic will include allow the operator to select from different control strategies in order to adjust to variations in plant conditions.

• **New Primary Anaerobic Digester**

- The design of the anaerobic digester will provide operational flexibility and a significant increase in digester capacity at the plant. The digester will have the same nominal capacity as the existing digester (0.54 million gallons). The design of the pumping, piping, and controls will allow for normal operation of the two digesters to be in series, and will also allow for parallel or singular operation of the tanks to accommodate maintenance of the facilities. The piping and pumping facilities will be housed within a building that will be attached to the new digester.

• **SCADA Modifications**

- **Main Gate Opening Status:** The Main Gate throttles the plant influent flow and controls the flow rate into the plant. The design of this portion of the facilities will include facilities to detect the status of this gate and incorporating that information into the SCADA system.



Mr. Pete Passarelli  
Assistant Director of Public Works  
Village of Rantoul  
Proposal for Wastewater Treatment Plant Improvements  
Page 2

- **Chanute Flow Meter:** The flow meter from the Chanute area has not registered for years. The design of this work will include specifying a new flow meter and piping modifications to accommodate the meter (if needed) so that the metering function can be returned to the SCADA system.
  - **Lagoon Influent Flow Meter:** The operation of the wet weather pumps does not include the ability to meter flows. This information would be useful to the plant operators to understand mass loadings during the wet weather event, and plan for the reintroduction of the wastewater. The design of the facilities will include a flow meter and the necessary controls to incorporate the data into the SCADA system.
  - **Chlorination/Dechlorination Controls:** The disinfection system automation currently fails on low flows and the system is manually operated based on the operator's opinion of flow rates that are anticipated in the plant. This has led to an increase in chemical usage and associated costs. The design of the improvements will allow for the chemical dosing to relate to influent or effluent flow rates.
  - **Sludge Valve Heat Tracing:** The automatic operation of sludge draw off valves during the winter has been interrupted due to sludge in the piping within exposed structures freezing. This work will include the design of facilities to automatically heat the piping to prevent freezing.
  - **Fine Screen Control Modifications:** The operation of the fine screen includes a requirement that a plant operator reset the controls after an interruption in the electrical feed to the equipment. If the reset button is not pressed then the screen will not operate and plant influent flows can back up into the wet weather pumping facilities. The work included in this item will provide the plan for eliminating this reset requirement.
- **Mechanical Equipment Replacement and Upgrades**
    - **Primary Sludge Pumps:** The existing primary sludge pumps have reached the end of their useful lives and will be replaced. The design of these facilities will include piping modifications to accommodate new pumps that will have readily available repair parts.
    - **Digester Influent Sludge Meter:** Current operations of the sludge management facilities include measuring the movement of the digester cover to monitor the amount of sludge that has been introduced into the tank. This method does not provide sufficiently accurate data to meet current standards. The work included in this task will provide the design of a meter and its interface with the SCADA system to properly record influent data.
    - **Traveling Bridge Filters:** The Village has rehabilitated one of its two traveling bridge filter and needs to address the second filter. This portion of the design includes specifying the work to be done to address the second filter.
  - **Final Effluent Weir Cover Modifications**
    - Algae growths in the final clarifiers contribute to effluent suspended solids. The Village has installed trough washing equipment with limited success in controlling the growth. This design



Mr. Pete Passarelli  
 Assistant Director of Public Works  
 Village of Rantoul  
 Proposal for Wastewater Treatment Plant Improvements  
 Page 3

task will include the design of facilities to prevent sunlight from getting to the troughs which will prevent the growth.

**Level of Effort and Fee**

The proposed level of effort and fee for the Project, including expenses, is presented the following table.

**Wastewater Treatment Plant Improvements  
 Village of Rantoul**

Item Description	Estimated Hours	Task Total
1 Project Management, Meetings and Quality Assurance	664	\$134,672
2 Chemical Feed System for Phosphorous Removal	248	\$35,374
3 New Primary Anaerobic Digester	1,548	\$225,906
4 SCADA Modifications	116	\$14,538
5 Mechanical Equipment Replacement and Upgrades	105	\$14,526
6 Final Weir Cover Modifications	26	\$3,450
<b>Total</b>	<b>2,707</b>	<b>\$428,466</b>

**PROJECT SCOPE DETAIL**

Our project approach consists of providing the Village of Rantoul with a constructible, costs-effective, and reliable project meeting the operational requirements of the Village. The scope of work for the project is based on the following tasks and is presented in the following paragraphs:

**Task 1- Preliminary Design:** Task 1 will include review of available data, field investigation and survey necessary for the completion of the siting of the new primary digester and chemical feed system. It will also include review of available data, survey and field investigation as needed for the SCADA modifications, mechanical equipment replacement and upgrades and final weir cover modifications.

As part of this task, a Basis of Design Document will be developed that will present plant data, design criteria and initial sizing calculations used in developing the preliminary design. The preliminary design will include the development of base sheets using field data, preparation of preliminary project drawings



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Mr. Pete Passarelli  
Assistant Director of Public Works  
Village of Rantoul  
Proposal for Wastewater Treatment Plant Improvements  
Page 4

and specifications (30% level), meetings with Village staff to present the Basis of Design and the preliminary drawings and specifications.

- **Project Kick-off Meeting:** Prior to performing any work on this task, Burns & McDonnell will request and coordinate a project kick-off meeting. The purpose of the meeting will include:
  - Introduction of Project Team personnel and the establishment of lines of communication.
  - Acquisition of existing information including previous reports, plant drawings and specifications, and relevant site information. Burns & McDonnell will submit request for information (RFI) list of items to the Village a minimum of five working days prior to the kick-off meeting. Based on our existing work with the Village we believe that we have a significant amount of this information.
  - Presentations of a work plan for completion of the design the project. The work plan will include project design schedule milestones, design criteria and a checklist of design data and information needed to complete the project. The work plan will be reviewed and refined with the Village at the meeting. The work plan is a dynamic document that will be updated on a bi-weekly basis. It will ultimately be developed into the Basis of Design and associated technical design memorandum required for the project.

It is proposed that the project kick-off meeting be held within two weeks of receipt of notice to proceed on the project from the Village.

- **Siting Evaluation:** Within approximately two weeks of the project kick-off meeting, Burns & McDonnell will complete an evaluation of the siting location for the new primary anaerobic digester and chemical treatment system. The evaluation will be based on criteria established during the project kick-off meeting. It will include a recommendation for review and acceptance of the proposed location of the new primary anaerobic digester and chemical treatment system. Burns & McDonnell will present the routing evaluation to the Village at the Rantoul wastewater treatment plant. A site walk of the proposed locations for the digester and chemical feed system will be included.
  - Based on our current work with the Village we believe that the new primary anaerobic digester will be located almost directly east of the existing digester and north of the trickling filters in a relatively open area at the plant.
  - It is anticipated that the new chemical feed building will be located in or near the existing sludge dewatering building.
- **Process Flow Diagram:** Within approximately one week of the final selection of the location of the new anaerobic digester and chemical feed system by the Village, Burns & McDonnell will submit a process flow diagram that shows the location of existing and proposed processes at the wastewater treatment plant. Topographic survey will be performed with one-foot contours.
- **Review of Geotechnical Information:** Burns & McDonnell will review available geotechnical information and make recommendations for acquisition of additional information if necessary. For



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Mr. Pete Passarelli  
Assistant Director of Public Works  
Village of Rantoul  
Proposal for Wastewater Treatment Plant Improvements  
Page 5

purposes of this proposal we have assumed that one subsurface boring will be required to confirm soil structural parameters needed for the design of the foundation for the new primary anaerobic digester. Burns & McDonnell will develop a sketch of where the boring would be taken, stake the boring locations at the project site, and provide a summary of the geotechnical parameters to be analyzed for the project. As part of the design we will subcontract directly with a geotechnical firm.

- Utility Coordination: We will work with the Village and request maps of existing utilities located on and in the vicinity of the project site. This information will be reviewed for potential conflicts and mitigation measures, if needed, will be presented to the Village. Based on the location of the site and preliminary investigation, we do not anticipate any significant utility conflicts.
- Preparation of Preliminary Project Plans: We will complete preliminary project plans. Project plans (drawings) will be developed in AutoCad format or another electronic format acceptable to the Village. Project specifications will be developed MSWord or another commercially available software package acceptable to the Village. The plans will be submitted to the Village for review and comment. These plans will include preliminary general, civil, mechanical, electrical and structural plans as required for the project. Burns & McDonnell will coordinate and participate in one meeting with the Village at the wastewater treatment plant to review the preliminary plans. Written responses to each comment received from the Village will be submitted in a disposition of comments document.
- The information obtained during completion of this task will be compiled into an overall Basis of Design Document, serving as the basis for proceeding with the development of construction bid documents.

**Task 2 - Design and Preparation of Construction Bid Documents:** Upon receipt and disposition of comments on the preliminary design documents, Burns and McDonnell will proceed with the development of Construction Bid Documents. This task will include:

- Acquisition and completion of additional data required to complete the design plans and specifications.
- Development of intermediate design documents including drawings and specifications for bidding. These documents will be developed taking into consideration Village procurement requirements, general conditions, bid documents, insurance requirements, performance bonds, etc. Burns & McDonnell make an intermediate submittal for review by the Village when the plans and specifications are at approximately a 60% level of completion. Burns & McDonnell will coordinate and participate in one meeting with the Village at the wastewater treatment plant to review the intermediate plans and specifications. Written responses to each comment received from the Village will be submitted in a disposition of comments document.
- Development of pre-final design documents including drawings and specifications for bidding. These documents will be developed after receiving Village comments on the intermediate design documents. Burns & McDonnell make a pre-final submittal for review by the Village when the plans and specifications are at approximately a 95% level of completion. Prior to this submittal Burns & McDonnell will have completed its six step quality assurance review. Burns & McDonnell will



Mr. Pete Passarelli  
Assistant Director of Public Works  
Village of Rantoul  
Proposal for Wastewater Treatment Plant Improvements  
Page 6

coordinate and participate in one meeting with the Village at the wastewater treatment plant to present the pre-final plans and specifications. Written responses to each comment received from the Village will be submitted in a disposition of comments document.

- Development of final design documents including drawings and specifications for bidding. These documents will be developed after receiving Village comments on the pre-final design documents. Burns & McDonnell will coordinate and participate in one meeting with the Village at the wastewater treatment plant to present the final plans and specifications.

**Task 3 - Prepare an Opinion of Probable Construction Costs for Proposed Work included in the Final Design Documents:** Burns & McDonnell will submit an Engineer's Opinion of Probable Construction Cost with each design submittal included in Task 1 and Task 2. The cost will be submitted in a format acceptable to the Village that is determined as part of the work performed in Task 1.

**Task 4 - Assist the Village with Permit Applications:** Burns & McDonnell will assist the Village in the preparation of permit applications to the Illinois Environmental Protection Agency and any other governmental agencies having a regulatory interest in the project, and provide all other services to secure permit approval. As part of the applications we will submit complete sets of the Final Design Drawings and Specifications as required.

**Task 5 - Provide Twenty-Five (25) sets of Final Bid Documents:** We will provide twenty-five sets of Final Bid Documents which will include bid forms, notices for bidders and final drawings and specifications to the Village for bidding purposes. If requested, we can assist the Village in developing web based procurement and/or electronic bid documents. We have experience in providing bidding support on projects in excess of \$100,000,000.00 using these bidding methods.

**Task 6 - Assist the Village with the Bidding Phase:** Burns & McDonnell will provide bidding assistance to the Village including receiving bidder questions and requests for clarification, responding to questions in writing and preparation of addenda as necessary. Burns & McDonnell will coordinate and participate in a pre-bid meeting. The pre-bid meeting will be held at the Village wastewater treatment plant.

**Task 7 - Assist the Village with Bid Review:** We will assist the Village in reviewing bids and make recommendations concerning the award of contracts. This task will include the development and review of bid tabs, completeness of bid submittals, and reference checks as requested by the Village. We will assist the Village in preparation of conforming copies of contracts.

**Task 8 - Construction Services:** Construction services are not included in this proposal.

## SCHEDULE

We can begin work on this project immediately. We anticipate that the work will be completed within twelve (12) months of receipt of notice to proceed. The proposed schedule for the project is presented in Attachment A.



Mr. Pete Passarelli  
Assistant Director of Public Works  
Village of Rantoul  
Proposal for Wastewater Treatment Plant Improvements  
Page 7

**COMPENSATION**

This project will be completed on a time and materials not-to-exceed basis. The fee for engineering services including expenses is:

**Four Hundred Twenty-Eight Thousand, Four Hundred and Sixty-Six Dollars: \$428,466.00**

This amount will not be exceeded without prior written consent by the Village of Rantoul. Burns & McDonnell's proposed fee structure is included as Attachment B to this proposal.

**GENERAL CONSIDERATIONS**

If this proposal is satisfactory, please sign and date this document and return one signed copy to us to effect an Agreement. The attached Terms and Conditions for Professional Services are incorporated in and made a part of the Agreement.

Please feel free to contact me at (630) 688-0124 if you have any questions regarding this letter. We look forward to a continued professional relationship with the Village of Rantoul in 2012 and beyond.

Sincerely,

Randy Patchett, PE  
Regional Water Practice Manager

Larry Milner, PE  
Vice President

Accepted for the Village of Rantoul

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)







Village of Rantoul  
 Wastewater Treatment Plant Improvements  
 Attachment B - Estimated Fees for Design Engineering  
 August, 2012



Task Description	Principal (17)	Associate (16)	Associate (15)	Structural Associate (14)	Senior Electrical Engineer (13)	Senior Process Engineer (13)	HVAC Engineer (12)	Senior Structural Engineer (12)	Electrical Detailer (11)	Staff Surveyor (11)	Staff CAD/GIS (10)	Project Engineer (9)	Project Engineer (8)	Clerical (7)	Expenses	Task Total
Chemical Feed Systems for Phosphorus Removal		8		40	20	48	20		24	8	48		32		\$100.00	\$35,374.00
Anaerobic Digester		16		300	140	200	40	320	126	16	200		190		\$200.00	\$225,906.00
SCADA Modifications																
Main Gate Opening Status					4	2			8	1			8			\$2,228.00
Chanute Flow meter					4	2			4	1	8					\$2,408.00
Lagoon Influent Flow Meter					8	2			8	1	8					\$3,100.00
Chlorination / Dechlorination Controls					16	2			8	1						\$3,404.00
Sludge Valve Heat Tracing					8	2										\$1,870.00
Fine Screen Control Modifications					8				2							\$1,528.00
Mechanical Equipment Replacement and Upgrade																
Primary Sludge Pumps					16	24		4	8	1			20			\$10,052.00
Digester Influent Sludge Meter					2	8			6		8					\$2,948.00
Traveling Bridge Filters						8										\$1,526.00
Final Clarifier Effluent Weir Covers						4				2	4		16			\$3,450.00
Project Management and Quality Assurance																
Meetings		108		48	48	180	18								\$3,600.00	\$76,344.00
Quality Control		52														\$10,550.00
Project Management		130														\$26,150.00
Printing						8								60	\$13,500.00	\$19,526.00
Project Website and Document Sharing												12			\$500.00	\$2,102.00
Total hours	0	314	0	388	274	490	78	324	194	31	276	12	266	60		
Hourly Billing Rate	\$207.00	\$200.00	\$195.00	\$185.00	\$172.00	\$172.00	\$161.00	\$161.00	\$150.00	\$150.00	\$134.00	\$121.00	\$111.00	\$75.00		
Subtotals	\$0.00	\$62,800.00	\$0.00	\$71,780.00	\$47,128.00	\$84,280.00	\$12,558.00	\$52,164.00	\$29,100.00	\$4,650.00	\$36,984.00	\$1,452.00	\$29,526.00	\$4,500.00	\$17,900.00	\$428,466.00

Total Hours	2707
Total Fee	\$428,466.00

Rate Sheet: BMR1012A

