

## Committee-of-the-Whole Agenda

6:30 p.m.

Tuesday, October 8, 2013

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### Mayor's Board Appointments

Mayor's appointment of Dick Potter to the Historic Preservation Advisory Commission to fill the expired term of Tom Bracke to expire April 30, 2016.

### Questions on the Agenda

#### Agenda Items

1. **Water Plant UV Reactor Procurement.** (Greg Swanson, Utilities General Manager)
2. **Water Plant UV Disinfection and Filter Upgrade Project.** (Dave Owens, Water Plant Manager)
3. **Amendment to TIF. 1.** (Ray Forsythe, Planning & Development Director)
4. **Approving the TIF for Riverbend Commons.** (Ray Forsythe, Planning & Development Director)
5. **Designating the TIF for Riverbend Commons.** (Ray Forsythe, Planning & Development Director)
6. **Adopting the TIF for Riverbend Commons.** (Ray Forsythe, Planning & Development Director)
7. **Approving the TIF for the Quad Cities Station.** (Ray Forsythe, Planning & Development Director)
8. **Designating the TIF for the Quad Cities Station.** (Ray Forsythe, Planning & Development Director)
9. **Adopting the TIF for the Quad Cities Station.** (Ray Forsythe, Planning & Development Director)
10. **Other**

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# Explanation

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## 1. Water Plant UV Reactor Procurement. (Greg Swanson, Utilities General Manager)

**Explanation:** City staff is requesting authorization to accept a proposal from Engineered Treatment Systems (ETS) in the amount of \$526,600.00 for eight (8) Model SX-635-16 ultraviolet (UV) reactors, related equipment, spare parts, and technical support services, with an additional \$30,000.00 allocation for six (6) additional UV transmittance monitors, if required. This procurement request represents the culmination of three years of research, assessment, and regulatory interaction with regard to providing 2.5 log cryptosporidium inactivation at the water treatment plant for enhanced public health protection. A concise overview of the procurement path follows.

In September 2010, City Council exercised its home rule powers by granting a variance to the purchasing requirements of the Illinois Municipal Code and Chapter 27, "Purchasing," of the Moline Code of Ordinances, which authorized City staff to obtain written proposals for UV disinfection equipment for the City's UV Project and to select the lowest responsive and responsible proposal for Illinois Environmental Protection Agency (IEPA) review, pre-approval and possible procurement by the City. Council took this action because the IEPA required the City to designate one specific brand and model of UV reactor for cryptosporidium inactivation of Moline's water treatment plant, due to the extremely complex nature of UV reactor validation testing data.

City staff and the project's engineering consultant partner subsequently obtained and reviewed written proposals for a variety of UV disinfection equipment and conducted extensive technical assessment of the associated UV system alternatives. Ultimately, the installation of ETS Model SX-635-16 UV reactors on the filter effluent piping at each of the eight filters was determined to be the most prudent and cost-effective means to provide 2.5 log cryptosporidium inactivation at the Moline water treatment plant. The IEPA has been involved throughout the technical assessment process and recently provided pre-approval of the use of the ETS Model SX-635-16 UV reactors at the Moline water treatment plant.

The 2010 Special Ordinance provided that the proposal for the IEPA pre-approved UV equipment to be incorporated into the City's UV Project construction contract so that the UV equipment contract would be between the Project's general contractor and the UV equipment supplier. However, City staff subsequently determined that it is the best interests of the City to purchase the ETS Model SX-635-16 reactors outright. This procurement approach will provide the City with increased oversight and control during the installation, start-up, and testing of the UV reactors, which is crucial to meeting the compliance deadline. Additionally, this procurement approach will provide the City with five (5) years of maintenance service, technical support and spare parts. Additional documentation attached.

<b>Staff Recommendation:</b>	Approval
<b>Fiscal Impact:</b>	Funds are budgeted in Account #310-1720-434.08-45.
<b>Public Notice/Recording:</b>	N/A
<b>Goals Impacted:</b>	Upgrade City Infrastructure and Facilities; Desirable Place to Live

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## 2. Water Plant UV Disinfection and Filter Upgrade Project – Engineering Contract Amendment. (Dave Owens, Water Plant Manager)

**Explanation:** Staff is requesting authorization to accept a proposal amending the existing design and construction engineering services contract with Greeley and Hansen LLC to include an additional \$95,000.00 allocation. As Council is aware, the Illinois Environmental Protection Agency (IEPA) ultraviolet (UV) reactor review and preapproval process has been inordinately lengthy and cumbersome. As a result, \$75,000.00 of the original engineering services budget has been expended in these unanticipated IEPA related activities. Additionally, staff has determined that it is prudent and cost-

effective to include filter media replacement in this project. The cost of engineering services associated with the added scope filter media replacement is \$20,000.00.

The IEPA issued preapproval of the selected ETS UV reactors and granted the City a two-year time extension for project completion in September 2013. The revised project schedule is as follows:

- December 2013: Submission of project plans and specifications to IEPA permit section
- March 2014: IEPA construction permit issued and construction contract awarded
- March 2015: Construction completed
- April – July 2015: Operational trial
- August – September 2015: IEPA review of operational trail data
- October 1, 2015: IEPA compliance deadline

Staff is requesting City Council approval of the recommended engineering service contract amendment so that design activities can proceed without delay and the compliance deadline of October 1, 2015 can be met.

**Staff Recommendation:** Approval  
**Fiscal Impact:** Sufficient funds are budgeted in account 310-1720-434.03-22.  
**Public Notice/Recording:** N/A  
**Goals Impacted:** Improved City Infrastructure & Facilities; Desirable Place to Live

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**3. An Ordinance adopting and approving the 2013 Amendment to the City of Moline TIF Redevelopment Project Area No. 1.** (Ray Forsythe, Planning & Development Director)

**Explanation:** In order to facilitate the creation of a new Tax Increment Financing District for both the Riverbend Commons and the Quad Cities Station, the City of Moline must amend TIF #1 to remove the subject properties.

**Staff Recommendation:** Approval  
**Fiscal Impact:** N/A  
**Public Notice/Recording:** File with Rock Island County Clerk  
**Goals Impacted:** Improved City Infrastructure & Facilities; Desirable Place to Live

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**4. An Ordinance approving the Tax Increment Redevelopment Plan and Project for the Riverbend Commons Redevelopment Project Area.** (Ray Forsythe, Planning & Development Director)

**Explanation:** In order to facilitate the creation of a new twelfth TIF for Riverbend Commons, the City of Moline must approve the Redevelopment Plan and Project for the Riverbend Commons Redevelopment Project Area. The Joint Review Board (JRB) met August 29, 2013. The JRB reviewed the eligibility study and redevelopment plan and concluded that the area is blighted and can be considered for TIF designation. The JRB's recommendation to City Council passed unanimously.

**Staff Recommendation:** Approval  
**Fiscal Impact:** The City shall enter into separate performance based development agreements with private developers. Available funds shall primarily be used to reimburse private developers for eligible redevelopment costs allowed under the Act (65 ILCS 5/11-74.4-3) as well as eligible administration and public improvements.  
**Public Notice/Recording:** File with Rock Island County Clerk  
**Goals Impacted:** Financially Strong City & Quality Neighborhoods

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**5. An Ordinance designating the Riverbend Commons Redevelopment Project Area.** (Ray Forsythe, Planning & Development Director)

**Explanation:** One of the responsibilities of City Council with regard to creating a TIF district is to designate the proposed area as the redevelopment project area. The Joint Review Board (JRB) met

August 29, 2013. The JRB reviewed the eligibility study and redevelopment plan and concluded that the area is blighted and can be considered for TIF designation. The JRB's recommendation to City Council passed unanimously.

**Staff Recommendation:** Approval

**Fiscal Impact:** The City shall enter into separate performance based development agreements with private developers. Available funds shall primarily be used to reimburse private developers for eligible redevelopment costs allowed under the Act (65 ILCS 5/11-74.4-3) as well as eligible administration and public improvements.

**Public Notice/Recording:** File with Rock Island County Clerk

**Goals Impacted:** Financially Strong City & Quality Neighborhoods

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**6. An Ordinance adopting Tax Increment Financing for the Riverbend Commons Redevelopment Project Area.** (Ray Forsythe, Planning & Development Director)

**Explanation:** The final action by City Council is to adopt tax increment financing for the redevelopment project area. The Joint Review Board (JRB) met August 29, 2013. The JRB reviewed the eligibility study and redevelopment plan and concluded that the area is blighted and can be considered for TIF designation. The JRB's recommendation to City Council passed unanimously.

**Staff Recommendation:** Approval

**Fiscal Impact:** The City shall enter into separate performance based development agreements with private developers. Available funds shall primarily be used to reimburse private developers for eligible redevelopment costs allowed under the Act (65 ILCS 5/11-74.4-3) as well as eligible administration and public improvements.

**Public Notice/Recording:** File with Rock Island County Clerk

**Goals Impacted:** Financially Strong City & Quality Neighborhoods

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**7. An Ordinance approving the Tax Increment Redevelopment Plan and Project for the Quad Cities Station Redevelopment Project Area.** (Ray Forsythe, Planning & Development Director)

**Explanation:** The creation of Moline's eleventh Tax Increment Finance (TIF) district is being considered in order to assist the development of the Quad Cities Station Redevelopment Project Area. The Joint Review Board (JRB) met August 29, 2013. The JRB reviewed the eligibility study and redevelopment plan and concluded that the area is blighted and can be considered for TIF designation. The JRB's recommendation to City Council passed unanimously.

**Staff Recommendation:** Approval

**Fiscal Impact:** The City shall enter into separate performance based development agreements with private developers. Available funds shall primarily be used to reimburse private developers for eligible redevelopment costs allowed under the Act (65 ILCS 5/11-74.4-3) as well as eligible administration and public improvements.

**Public Notice/Recording:** File with Rock Island County Clerk

**Goals Impacted:** Financially Strong City & Quality Neighborhoods;

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**8. An Ordinance designating the Quad Cities Station Redevelopment Project Area.** (Ray Forsythe, Planning & Development Director)

**Explanation:** One of the responsibilities of City Council with regard to creating a TIF district is to designate the proposed area as the redevelopment project area. The Joint Review Board (JRB) met August 29, 2013. The JRB reviewed the eligibility study and redevelopment plan and concluded that the area is blighted and can be considered for TIF designation. The JRB's recommendation to City Council passed unanimously.

**Staff Recommendation:** Approval  
**Fiscal Impact:** The City shall enter into separate performance based development agreements with private developers. Available funds shall primarily be used to reimburse private developers for eligible redevelopment costs allowed under the Act (65 ILCS 5/11-74.4-3) as well as eligible administration and public improvements.  
**Public Notice/Recording:** File with Rock Island County Clerk  
**Goals Impacted:** Financially Strong City & Quality Neighborhoods

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**9. An Ordinance adopting Tax Increment Financing for the Quad Cities Station Redevelopment Project Area.** (Ray Forsythe, Planning & Development Director)

**Explanation:** The final action by City Council is to adopt tax increment financing for the redevelopment project area. The Joint Review Board (JRB) met August 29, 2013. The JRB reviewed the eligibility study and redevelopment plan and concluded that the area is blighted and can be considered for TIF designation. The JRB's recommendation to City Council passed unanimously.

**Staff Recommendation:** Approval  
**Fiscal Impact:** The City shall enter into separate performance based development agreements with private developers. Available funds shall primarily be used to reimburse private developers for eligible redevelopment costs allowed under the Act (65 ILCS 5/11-74.4-3) as well as eligible administration and public improvements.  
**Public Notice/Recording:** File with Rock Island County Clerk  
**Goals Impacted:** Financially Strong City & Quality Neighborhoods

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Engineered Treatment Systems, LLC  
 238 Commercial Dr.  
 P.O. Box 392  
 Beaver Dam, WI 53916 USA  
 Phone 877.885.4628  
 Cell 859.760.7365  
 Fax 920.885.4386

**Date:** September 23, 2013  
**To:** City of Moline, IL  
**Attn:** Greg Swanson  
**Project:** City of Moline, IL UV Disinfection Project

The following is the scope of supply ETS will provide for the City of Moline, IL UV Project.

**UV SYSTEM SCOPE OF SUPPLY**

UV Reactors: Model SX-635-16

Item Number	Description	Quantity
1	SX-635-16 UV reactors manufactured with 316L stainless steel and fitted with 16" ANSI flanges	8
2	Power/control modules with UPS units to keep controls operating. UPS to keep lamp operational is not provided. Back-up copy of control program shall be provided.	8
3	Online transmittance monitors	2
4	Hand held sensor radiometer (for sensor checks)	1
5	All spare parts (lamps, thimbles and seals, wiper rings, and monitor calibrations)	Free of charge for 5 years after startup
6	Consumables/spare parts after initial 5 year period	Discounted 25%
7	Freight to site	Included
8	Startup & operator training of system (1 trip/2 technicians/2 days per trip)	4
9	Plant operating and maintenance training (1 trip/2 days)	1
10	Annual service visit for first five years of operation (1 trip/2 technicians/2 days)	5
11	Work with IEPA, City of Moline, and Greeley and Hansen to gain the necessary approvals in a timely matter and fashion. Work with Greeley and Hansen City of Moline, and system integrator to ensure effective interface between ETS control modules and Plant SCADA system.	As required
12	Free technical support via phone over life of system	Included



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### OPERATING PARAMETERS

The project scope, as listed above, along with the following information is based on the following conditions:

Average number of reactors operating:	6
Average flowrate per reactor:	1.2 MGD
Average transmittance:	80%
Crypto log inactivation:	2.5
ASCF:	10%

### CLOSED VESSEL UV DISINFECTION REACTORS

Each reactor is constructed of 316L stainless steel manufactured with 16" ANSI inlet and outlet flanges. The reactors contain the following components:

- Six medium pressure, high intensity UV lamps installed in quartz sleeves. The quartz sleeves are sealed on the open end via o-rings which allows for waterproof connections between the water and the lamps.
- A motor driven automatic cleaning mechanism that reduces fouling that can occur on the quartz sleeves and the lamp intensity monitor. The cleaning mechanism uses embedded pulse technology which eliminates the need for internal or external limit switches.
- UV lamp intensity monitor which measures the intensity of all lamp outputs.
- A temperature sensor that will shutdown the reactor during periods of no or low flow. Over temperature of an UV reactor can lead to internal damage of components.

### POWER/CONTROL EQUIPMENT

We include one free standing power/control cabinet for each reactor. Each cabinet has a NEMA12 rating, dimensions of 79" high x 48" wide x 20" deep, powers six UV lamps, and monitors the operation of the system. The cabinets are suitable at the planned location on the operating floor of the Moline Filter Plant.

Please note that ETS will only supply equipment and services as listed previously. All other equipment or services either stated or implied are not covered under this scope. The contractor shall provide all valves, flow meters, point-to-point wiring, conduit, piping, bolts, air release valves, videotaping of training, photography, or other equipment and services required to successfully furnish and install an ultraviolet disinfection system per the specifications and drawings.



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**SPARE PARTS**

As stated above, consumable spare parts will be provided for a period of 5 years free of charge (below is estimated quantities that will ship with initial equipment). Any parts not identified below will be provided at 25% discount (along with consumable part replacement after 5 years).

Component	Quantity	Estimated Replacement Interval
UV lamps	130	12,000 hours
Quartz thimbles and seals	48	5 years
Wiper rings	270	Yearly
Monitor recalibration		As required

**TERMS AND CONDITIONS**

Prices quoted are F.O.B. factory (Beaver Dam, WI) with full freight allowed to the nearest accessible point to the jobsite, not unloaded. Prices quoted do not include any sales, use, excise, or similar taxes. ETS standard terms and conditions apply (available upon request).

Requested payment terms are as follows:

- 10% upon IEPA approval of validation documents and system performance
- 20% upon IEPA approval of specifications and plans
- 55% upon delivery of equipment
- 15% upon equipment startup – assuming four start up trips (2 systems per trip). 3.75% per start up.

Prices quoted are firm for the anticipated project schedule..

Submittals can be made within 4 to 8 weeks after receipt of an approved order. Delivery can be made 12 to 16 weeks after final approval of submittals. Submittal and shipment schedules may be adjusted at time of order placement, depending upon existing order backlog.

The price for the equipment, consumables, and service  
as described above is: **\$526,600.00**

The price for 6 additional transmittance monitors: **\$30,000.00**



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We would appreciate receiving written notification of acceptance of this proposal immediately subsequent to approval by the Moline City Council.

Should questions arise with this scope of supply, please do not hesitate to let me know.

Sincerely,  
Patrick Bollman, P.E.  
Municipal Operations Manager

cc. Jon McClean, Engineered Treatment Systems  
Jim Mallery, Engineered Treatment Systems  
John Duschene, Gasvoda & Associates  
John Greaney, Gasvoda & Associates

- **Warranty information.**

ETS standard warranty is included below, however all items are negotiable and open for discussion.

**Product Warranty – Terms and Conditions**

**1. Product**

**Duration**

The product (excluding consumables) is guaranteed for a period of one year after commencement of operation not to exceed 18 months from arrival of equipment on site. Use of non ETS components invalidates any and all warranties.

**Replacement of components under warranty**

The manufacturer will supply replacement components to the same specification of the original component, delivered by carrier free of charge to the equipment site. The manufacturer reserves the right to request that items claimed as faulty under warranty are returned freight paid to the factory for inspection. Should the user unreasonably fail to return the defective item then the manufacturer reserves the right to charge for any items claimed under warranty.

**Manufacturer repair under warranty**

The manufacturer will carry out repairs under warranty under the following provisions:  
The manufacturer will carry out a full repair and retest of the equipment if required in the factory. In such circumstances all components and factory labor would be free of charge, as would any return freight. The user would be expected to return the unit for repair to the factory in the same condition as it is at the time of the claim. The manufacturer can carry out repairs to the unit on site. Under such circumstances all site labor will be free of charge but the manufacturer reserves the right to charge for all travel time and travel expenses.

**2. Consumables**

**Definition**

Consumables are normally defined as all components having a limited life e.g. UV lamps, quartz sleeves and seals, and wiper rings.

**Replacement of components under warranty**

The warranty period for consumables is dependent on the use and type. Users should consult on the consumables warranty for each installed system. The General Warranty is:

**UV lamps –**

Engineered Treatment Systems (ETS), LLC supplies the most advanced and reliable UV lamps currently available for commercial use. They are developed from rigorous research programs, using the finest materials available, and carefully matched to a power supply. Occasionally lamps can fail prematurely. We operate a fully traceable supply process, and so it is important that we are informed of lamp failures. In the event of lamp failure, you will be asked a number of questions to help us to determine why the lamp failed. Your statutory rights are not affected by this document. The warranty we offer is outlined below.

**Continuous Operation (24 hours per day)**

Medium pressure lamps installed in systems are guaranteed to operate for a minimum of 2,000 hours. Should a lamp(s) not meet the guarantee it shall be replaced free of charge. Any claim on this warranty will require return of the lamp to ETS for inspection and approval, according to the General conditions below and must include lamp installation date, failure date, and hours of operation from system hours counter. Replacements will be charged pro rata up to 8,000 hours of operation (provided the system is designed to operate with power levels), on the following basis:

Duty Hours	% list price replacement
0 – 2,000	Free of Charge
2,001 – 3,999	25%
4,000 – 5,999	50%
6,000 – 7,999	75%
8,000+	100%

**Intermittent Operation (up to 6 switching cycles per day)**

Medium pressure lamps installed in systems are guaranteed to operate for a minimum of 1,000 hours. Should a lamp(s) not meet the guarantee it shall be replaced free of charge. Any claim on this warranty will require the return of the lamp to ETS for inspection and approval, according to the General conditions below and must include lamp installation date, failure date, and hours of operation from system hours counter.

Arc Tube operations will be guaranteed against failure under the following conditions: maximum number of cycles per day 6 x On/Off. Replacement will be charged pro rata on the following basis

Duty Hours	% list price replacement
0 – 1,000	Free of Charge
1,001 – 2,999	50%
3,000 – 3,999	75%
4,000+	100%

Customers with more than 6 switching cycles per day will have a 1,000 hour lamp warranty.

**General**

Exemptions from the warranty are as follows: breakage in transit, physical breakage, connection breakage, connection to an incorrect power supply, or the use within the system of any counterfeit parts. Additional exemptions: lamp failure due to overheating, lack of water, or minimal flowrates while system is operating. There will be times when the system(s) will be designed to operate outside of the normal lamp warranty. When this occurs, a site specific lamp warranty will be provided. System must be operating according to ETS Installation and Operating Instructions. Lamp installation to commence within 2 years of supply.

- Quartz sleeves 3 years
- Quartz sleeve seals 3 years
- Wiper rings 1 year

**Replacement of consumables under warranty**

The manufacturer will supply replacement consumables to the same specification of the original component. The manufacturer reserves the right to request that items claimed as faulty under warranty are returned to the factory for inspection. Should the user unreasonably fail to return the defective item then the manufacturer reserves the right to charge for any items claimed under warranty. Where consumables have run to more than 50% of their rated life then a pro rata credit is normally issued.

**Manufacturer repair under warranty**

The user normally carries out consumable replacement. Should the manufacturer be requested to replace on site then all charges will be to the users account.

**3. Force Majeure**

ETS shall not be liable for any warranty claims resulting in whole or in part from Acts of God, severe conditions, improper installation/operation or circumstances beyond their control.



**GREELEY AND HANSEN**

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September 27, 2013

Mr. Dave Owens  
City of Moline  
Water Plant Manager  
Water Treatment Plant  
30 -18<sup>th</sup> Street  
Moline, Illinois 61265

Subject: UV Disinfection Facilities and Filter Effluent Piping Upgrade Project  
Request for Contract Amendment

Dear Mr. Owens:

Based on the recent approval of proposed ETS UV reactors by the Illinois Environmental Protection Agency, the City has requested that Greeley and Hansen proceed with design of the UV facilities. The City has also requested that we include design and construction services for replacement of the filter media in all eight water treatment plant filters as an expedient means of accomplishing this needed work.

As discussed with you, amendment to our contract is needed at this time for the following:

- To restore contract design budget that has been utilized in the preparation of data, meetings and other discussions with IEPA in achieving project approval for design. \$75,000 of contract design budget was utilized for these purposes.
- To provide budget for the addition of engineering design and construction services required for the replacement of filter media. It is estimated that the needed services relating to replacement of the filter media can be accomplished for \$20,000.

Based on the progressive project schedule going forward, we will proceed with needed engineering services at this time. To complete the originally contemplated UV disinfection facilities and filter effluent piping upgrade efforts as originally contemplated, and to provide for the addition of services relating to the replacement of the existing filter media with new filter media it is estimated that additional budget in the amount of \$95,000 will be required.

We request that our contract be amended by the \$95,000 amount at this time.

We would be pleased to discuss our request with you further at your convenience. Please let us know if you have questions or require any additional data.

Yours very truly,

Greeley and Hansen LLC

Paul J. Vogel, P.E.  
*Executive Vice President*

c: *Greg Swanson, Utilities General Manager, Sewer Division – City of Moline*  
*Steve Wall, Project Mmanager – Greeley and Hansen*